



SUBMITTAL DATA

SIGLER COMMERCIAL HVAC DIVISION
Office Location: 3636 S. East Avenue, Fresno, CA 93725
Phone: (559) 365-9581
Contractor Sales Engineer: Andrew Arballo

See mark-ups below for items to be "Furnished as Corrected".

Make sure strip heaters are revised as noted.

PROJECT: BCSD HVAC Equipment and Exhaust Fans #23-06-01

MECHANICAL ENGINEER: N/A
MECHANICAL CONTRACTOR: N/A
ATTENTION: David West

We are pleased to submit the following equipment for your approval on the above project:

Table with 5 columns: Mark For, Qty, Model Number, Description, Page Number. Contains equipment specifications for heat pumps, heat strips, actuators, and roof curbs. Includes handwritten red annotations and a large red slash across the middle section.

HP-3	17	50FCQM07A2A6-0A0A0	6 Ton Heat Pump Rooftop Packaged Unit 460-3-60 <ul style="list-style-type: none"> • 6 Tons (07) • 460/3/60 • Single circuit, two stage cooling • Standard Packaging • Dir Drive-EcoBlue-Med Static • Al/Cu - Al/Cu • Electro-Mechanical Ctl • Factory Start-Up with 1st Year Labor Warranty 	44	Provide 5.5 kW strip heater per schedule
HP-3	17		Time Guard II (Field Installed)	44	
HP-3	17		10.6 kW Electric Heat Strip (Field Installed)	44	
HP-3	17		Down Discharge Belimo Actuator Only with Modulating Power Exhaust 460-3 (Field Installed) (Requires Separate Power Connection)	52	
HP-3	17		14" Tall Pitched Welded Roof Curb (Field Installed) (Contractor to Verify Prior to Order)	56	
HP-4	2	50GCQJ04A2A6-0A0A0	3 Ton Heat Pump Rooftop Packaged Unit 460-3-60 <ul style="list-style-type: none"> • 3 Tons • 460-3-60 • Two-Stage Cooling single circuit (SEER) • Direct drive, EcoBlue, medium static fan • Al/Cu cond. coil - Al/Cu evap coil • Electro-Mechanical Ctl • Factory Start-Up with 1st Year Labor Warranty 	60	Provide 5.5 kW strip heater per schedule
HP-4	2		Time Guard II (Field Installed)	60	
HP-4	2		10.6 kW Electric Heat Strip (Field Installed)	60	
HP-4	2		Down Discharge Belimo Actuator Only with Modulating Power Exhaust 460-3 (Field Installed) (Requires Separate Power Connection)	67	
HP-4	2		14" Tall Pitched Welded Roof Curb (Field Installed) (Contractor to Verify Prior to Order)	71	
HP-4A	12	50GCQJ04J2M6-0A0A0	3 Ton Heat Pump Rooftop Packaged Unit 460-3-60 <ul style="list-style-type: none"> • Two-Stage Cooling single circuit (SEER) • 460-3-60 • 3 Tons • Condensate overflow switch • Direct drive, EcoBlue, medium static fan • Al/Cu cond. coil - Al/Cu evap coil w/Hail Guards • Electro-Mechanical Ctl • Hinged access panels • Ion Generator • Factory Start-Up with 1st Year Labor Warranty 	75	
HP-4A	12		Time Guard II (Field Installed)	75	
HP-4A	12		Fan/Filter Status Switch (Field Installed)	75	
HP-4A	12		Phase Monitor Control (Field Installed)	75	
HP-4A	12		5.5 kW Electric Heat Strip (Field Installed)	75	
HP-4A	12		Hinged Access Door (Field Installed)	75	
HP-4A	12		Down Discharge Belimo Actuator Only Economizer (Field Installed)	83	
HP-4A	12		14" Tall Pitched Welded Roof Curb (Field Installed) (Contractor to Verify Prior to Order)	85	
HP-5	3	50VT-K30---3	2.5 Ton Heat Pump Rooftop Packaged Unit 208/230-1-60 <ul style="list-style-type: none"> • 208/230-1-60V • 2 -1/2 Tons • Standard Heat • Factory Start-Up with 1st Year Labor Warranty 	89	Provide 3.8 kW strip heater per schedule
HP-5	3		Time Guard II (Field Installed)	89	
HP-5	3		5.4 kW Electric Heat Strip (Field Installed)	89	
HP-5	3		2 Position Motorized Outside Air Hood (Field Installed)	94	
HP-5	3		14" Tall Pitched Welded Roof Curb (Field Installed) (Contractor to Verify Prior to Order)	95	
HP-6	2	50FCQM14A2A6-0A0A0	12.5 Ton Heat Pump Rooftop Packaged Unit 460-3-60 <ul style="list-style-type: none"> • 12.5 Tons • 460-3-60 • Single circuit, two stage cooling • Standard Packaging • Direct drive, EcoBlue, medium static fan • Al/Cu cond. coil - Al/Cu evap coil 	99	

			<ul style="list-style-type: none"> • Electro-Mechanical Ctl • Factory Start-Up with 1st Year Labor Warranty 	
HP-6	4		Time Guard II (Field Installed)	99
HP-6	2		13.8 kW Electric Heat Strip (Field Installed)	99
HP-6	2		Single Point Kit (Field Installed)	99
HP-6	2		Down Discharge Belimo Actuator Only Economizer with Modulating Power Exhaust 460-3 (Field Installed) (Requires Separate Power Connection)	105
HP-6	2		14" Tall Pitched Welded Roof Curb (Field Installed) (Contractor to Verify Prior to Order)	109
HP-7	72	50GCQJ05J2M6-0A3A0	4 Ton Heat Pump Rooftop Packaged Unit 460-3-60 <ul style="list-style-type: none"> • Two-Stage Cooling single circuit (SEER) • 460-3-60 • 4 Tons • Condensate overflow switch • Direct drive, EcoBlue, medium static fan • Al/Cu cond. coil - Al/Cu evap coil w/Hail Guards • Electro-Mechanical Ctl • Hinged Access panels • Ion Generator • Factory Start-Up with 1st Year Labor Warranty 	114
HP-7	72		Time Guard II (Field Installed)	114
HP-7	72		Fan/Filter Status Switch (Field Installed)	114
HP-7	72		Phase Monitor Control (Field Installed)	114
HP-7	72		5.5 kW Electric Heat Strip (Field Installed)	114
HP-7	72		Hinged Access Door (Field Installed)	114
HP-7	72		Down Discharge Belimo Actuator Only Economizer (Field Installed)	122
HP-7	72		14" Tall Pitched Welded Roof Curb (Field Installed) (Contractor to Verify Prior to Order)	124
HP-8	1	38MARBQ12AA3	1 Ton Heat Pump Condenser 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	144
HP-8	1	40MBCQ12---3	1 Ton 4-Way Cassette Indoor Unit 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	147
HP-8	1		Cassette Grille (Field Installed)	147
HP-8	1		24V Interface Kit (Field Installed)	149
HP-9	1	38MARBQ12AA3	1 Ton Heat Pump Condenser 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	153
HP-9	1	40MAH012XA3	1 Ton High Wall Indoor Unit 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	155
HP-9	1		24V Interface Kit (Field Installed)	157
HP-9	1		Gobi Condensate Pump (Field Installed)	161
HP-10	4	38MARBQ18AA3	1.5 Ton Heat Pump Condenser 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	164
HP-10	4	40MBCQ18---3	1.5 Ton 4-Way Cassette Indoor Unit 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	167
HP-10	4		Cassette Grille (Field Installed)	167
HP-10	4		24V Interface Kit (Field Installed)	169
HP-11	1	38VMB036HDS3-1	3 Ton Heat Pump VRF Condenser 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	173
HP-11	1		Y-Joint (Field Installed)	173
HP-11	2	40VMC012A--3	1 Ton 4-Way Cassette Indoor Unit 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	175
HP-11	2		Cassette Grille (Field Installed)	175
HP-11	2		24V Interface Kit (Field Installed)	179
HP-12	1	38MBRCQ36AA3	3 Ton Heat Pump Condenser 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	180
HP-12	1	40MBFQ36---3	3 Ton Underceiling Indoor Unit 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	183
HP-12	1		24V Interface Kit (Field Installed)	185
HP-12	1		Gobi Condensate Pump (Field Installed)	189
HP-13	3	38MARBQ12AA3	1 Ton Heat Pump Condenser 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	192
HP-13	3	40MBDQ12---3	1 Ton Ducted Indoor Unit 208/230-1-60 <ul style="list-style-type: none"> • Factory Start-Up with 1st Year Labor Warranty 	195
HP-13	3		24V Interface Kit (Field Installed)	199

NOTE: A COPY OF THIS SUBMITTAL MUST BE RETURNED MARKED "APPROVED" OR "APPROVED AS NOTED" PRIOR TO OUR ENTERING FACTORY ORDER.

CUSTOMER WILL NEED TO VERIFY ALL VOLTAGES PRIOR TO BEING ORDERED

APPROVED BY: _____

DATE: _____

Sigler, Inc.

August 10, 2023

Prepared By: Andrew Arballo

Unit Report For HP-1

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Unit Parameters

Unit Model:.....**50GCQJ06A2A6-0A0A0**
 Unit Size:.....**06 (5 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:.....**Two Stage Cooling Models**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**3' 5.375"**
Total Operating Weight:.....606 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**4**
 Return Air Filter Size:.....**16 x 16 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Direct Drive - EcoBlue - Medium Static
 A/Cu - A/Cu
 Base controls set up for field installed air management device
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (STD.)
 3-Year SystemVu controller

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50GCQJ06A2A6-0A0A0	Rooftop Unit	1
	Base Unit	
	Direct Drive - EcoBlue - Medium Static	
	None	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	1
CRHEATER335A00	Electric Heater	1

Performance Summary For HP-1

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

Part Number:50GCQJ06A2A6-0A0A0

ARI SEER:..... 17.00
ARI SEER2:..... 16.00
Application EER (Rooftop Unit only):..... 11.49

Base Unit Dimensions

Unit Length:..... 74.4 in
Unit Width:..... 46.6 in
Unit Height:..... 41.4 in

Operating Weight

Base Unit Weight:..... 596 lb

Accessories

Electric Heater:..... 10 lb

Total Operating Weight:..... 606 lb

Unit

Unit Voltage-Phase-Hertz:..... 460-3-60
Air Discharge:..... Vertical
Fan Drive Type:..... Vane Axial
Actual Airflow:..... 1800 CFM
Site Altitude:..... 0 ft

Cooling Performance

Condenser Entering Air DB:..... 95.0 F
Evaporator Entering Air DB:..... 80.0 F
Evaporator Entering Air WB:..... 67.0 F
Entering Air Enthalpy:..... 31.44 BTU/lb
Evaporator Leaving Air DB:..... 57.2 F
Evaporator Leaving Air WB:..... 56.4 F
Evaporator Leaving Air Enthalpy:..... 24.01 BTU/lb
Unit Discharge Air DB:..... 58.1 F
Unit Discharge Air WB:..... 56.8 F
Unit Discharge Air Enthalpy:..... 24.25 BTU/lb
Gross Cooling Capacity:..... 60.14 MBH
Net Cooling Capacity:..... 58.23 MBH
Gross Sensible Capacity:..... 44.41 MBH
Net Sensible Capacity:..... 42.50 MBH
Compressor Power Input:..... 4.21 kW
Coil Bypass Factor:..... 0.013

Heating Performance

Outdoor Ambient Temperature:..... 47.0 F
Entering Air Indoor Coil DB:..... 70.0 F
Leaving Air Indoor Coil DB:..... 98.2 F
Total Heating Capacity:..... 54.86 MBH
Integrated Heating Capacity:..... 54.86 MBH
Heating Power Input:..... 3.59 kW
High Temperature COP:..... 3.80
Low Temperature COP:..... 2.70
HSPF:..... 8.9
High Temperature COP2:..... 3.70
Low Temperature COP2:..... 2.60
HSPF2:..... 7.5
Electric Heating Capacity:..... 10.60 kW
Unit Leaving Air Temp:..... 116.8 F

Supply Fan

External Static Pressure:..... 0.60 in wg

Performance Summary For HP-1

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Options / Accessories Static Pressure

Electric Heaters:.....	0.21	in wg
Application External Static (ESP + Unit Opts/Acc.):.....	0.81	in wg
Fan RPM:.....	1833	
Fan Power:.....	0.66	BHP
NOTE:.....	Selected IFM RPM Range: 1228 - 2390	

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range:.....	414 - 506
Compressor #1 RLA:.....	8
Compressor #1 LRA:.....	55
Actual Electric Heater kW:.....	10.6
Electric Heater FLA:.....	13.8
Indoor Fan Motor Type:.....	MED
Indoor Fan Motor FLA (Total):.....	1.9
Power Supply MCA:.....	30
Power Supply MOCP (Fuse or HACR):.....	30
Disconnect Size FLA:.....	28
Disconnect Size LRA:.....	73
Electrical Convenience Outlet:.....	None
Outdoor Fan [Qty / FLA (ea)]:.....	1 / 0.8
Electric Heater Part Number:.....	335A
Electric Heater Number of Stages:.....	1

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

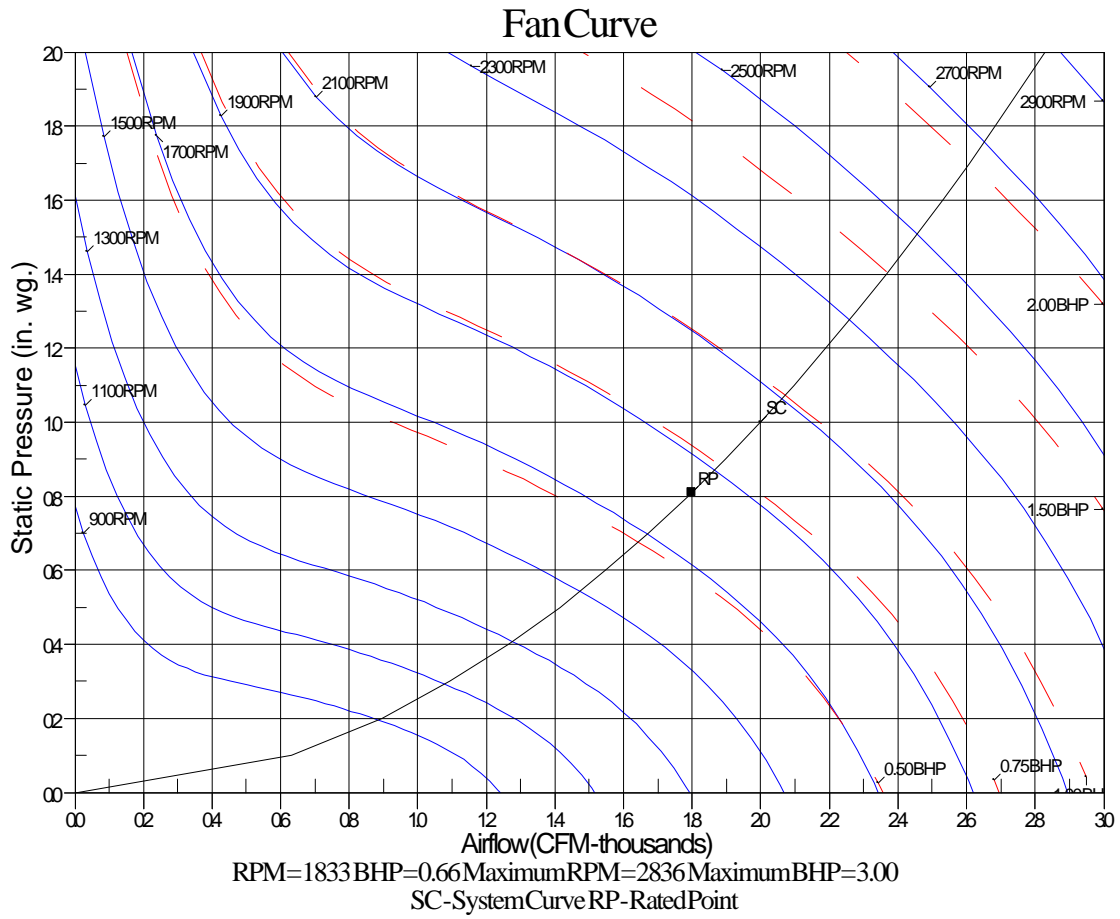
Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	90.7	89.7	NA
125 Hz	81.4	77.3	NA
250 Hz	75.4	71.3	NA
500 Hz	71.5	63.6	NA
1000 Hz	67.8	66.1	NA
2000 Hz	64.6	56.7	NA
4000 Hz	62.1	50.9	NA
8000 Hz	59.0	44.5	NA

Performance Summary For HP-1

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM



Certified Drawing for HP-1

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

- NOTES:
1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN () ARE IN MILLIMETERS.
 2. CENTER OF GRAVITY
 3. DIRECTION OF AIR FLOW
 4. ALL VIEW DRAWN USING 3RD ANGLE

UNIT	J	K
50GCO+04	33 3/8 [847]	18 5/8 [472]
50GCO+05	41 3/8 [1061]	18 5/8 [472]
50GCO+06	41 3/8 [1051]	18 5/8 [472]



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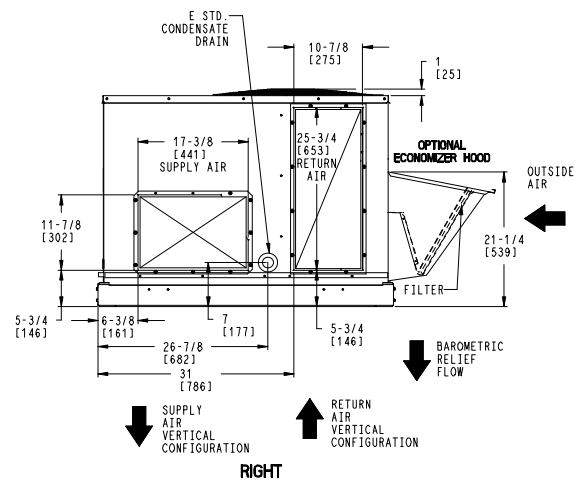
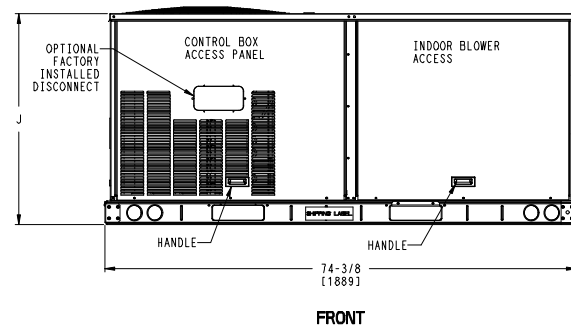
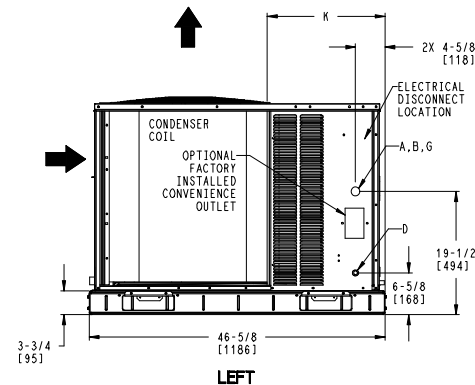
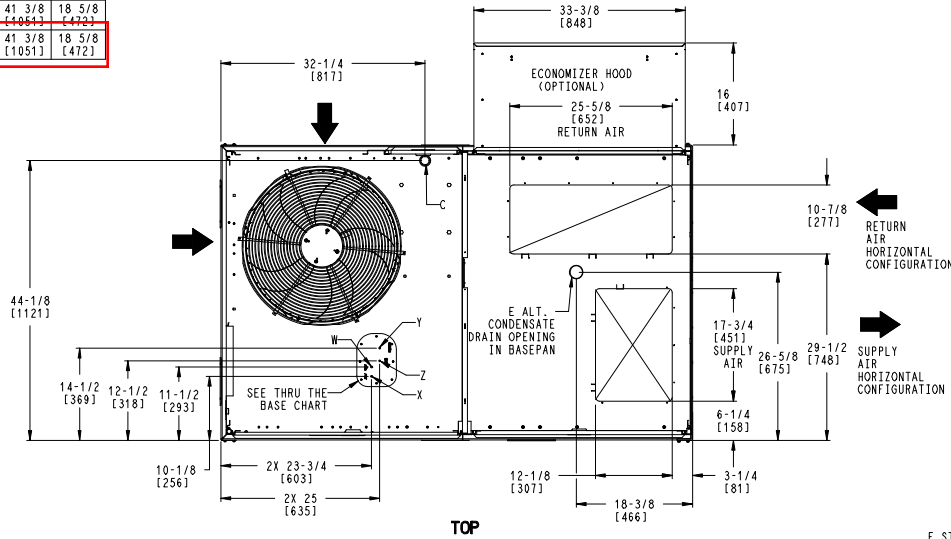
CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW008A00, 009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	115V	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y *	3/4"	POWER	1 1/8" [28.6]
Z **	(009A00) 1/2" FPT	GAS	1 1/8" [28.6]

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	1 OF 3	08/15/19	-			-

Certified Drawing for HP-1

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

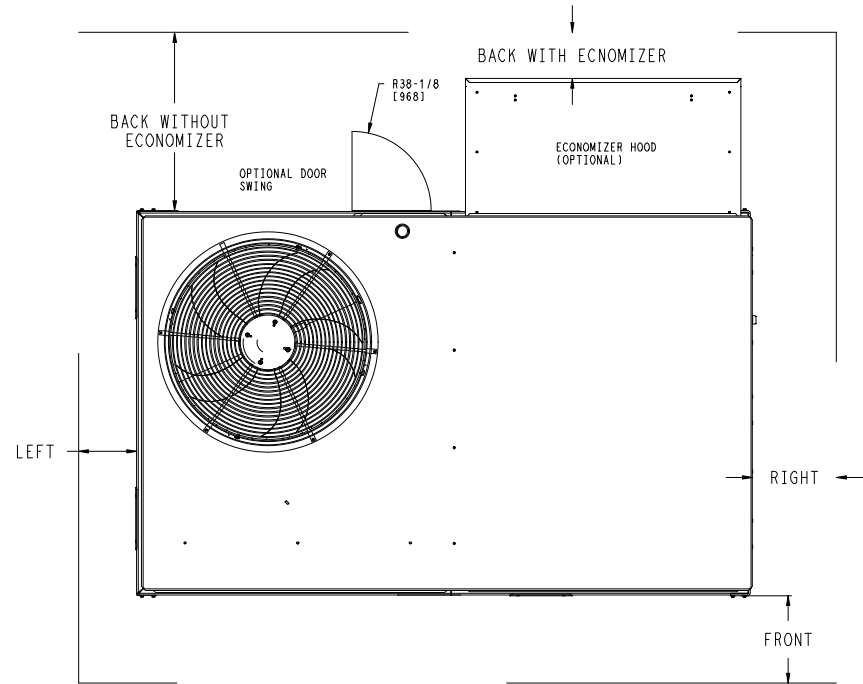
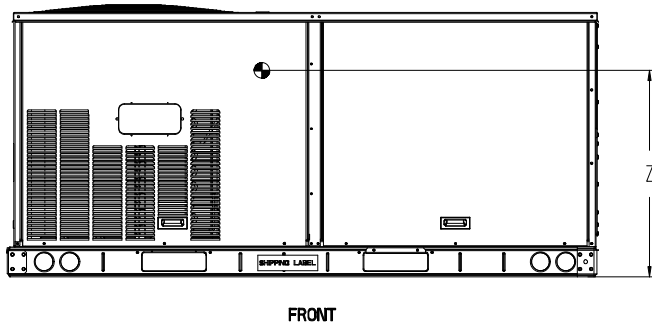
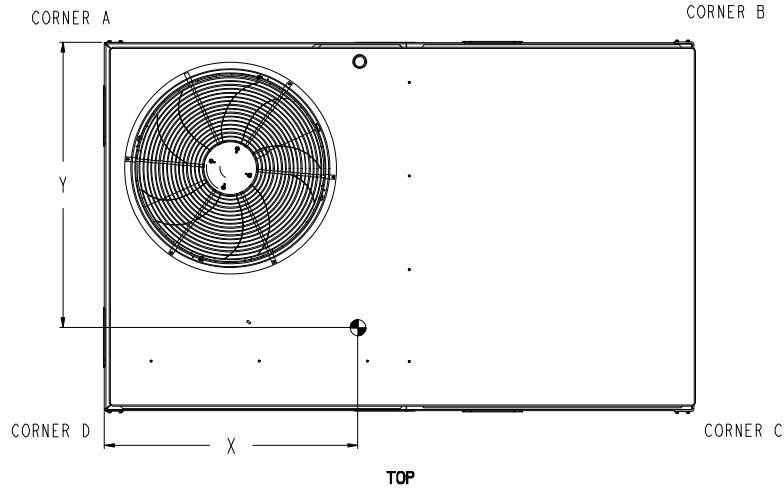
UNIT	STD. UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.			HEIGHT
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z	
50GCO*04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]	
50GCO*05	590	268	162	73	147	67	134	61	148	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	
50GCO*06	596	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	

* - STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.



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NOTE:

- FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH CONDUCTIVE BARRIER	SERVICE WITH NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

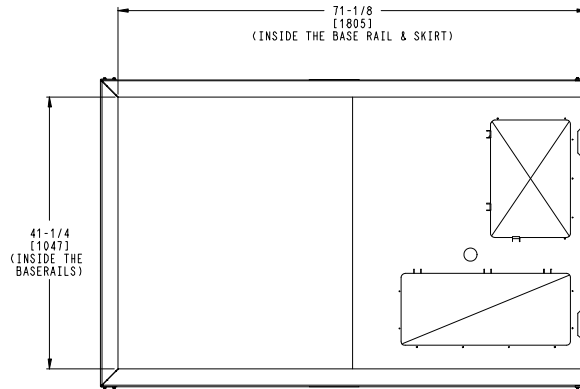
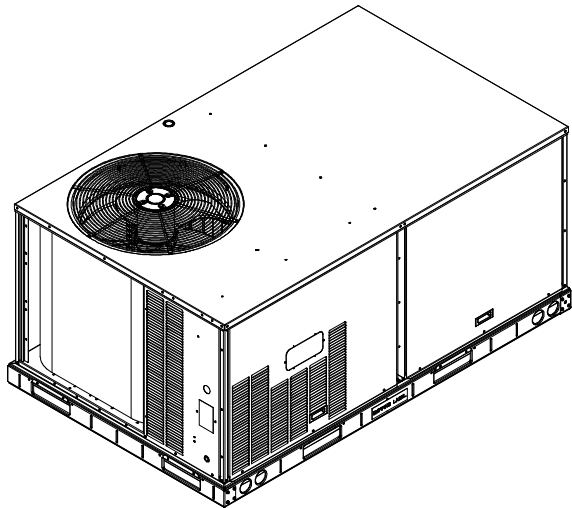
ITC CLASSIFICATION U.S. ECCN:NSR	SHEET 2 OF 3	DATE 08/15/19	SUPERCEDES -	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV -
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Certified Drawing for HP-1

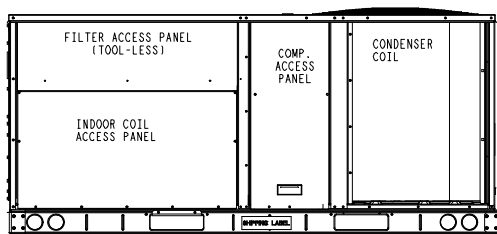
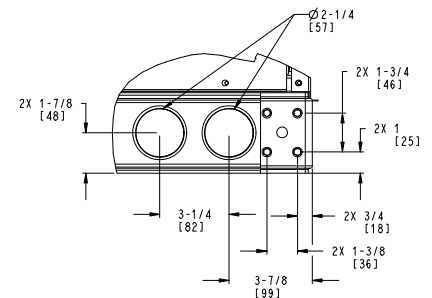
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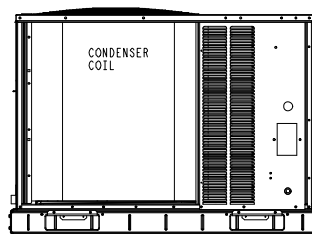
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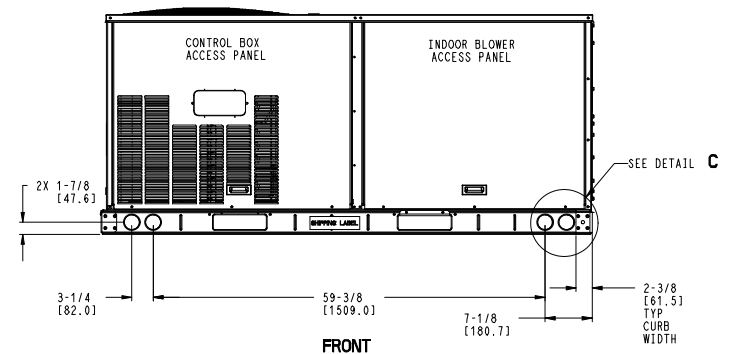
INSIDE BASERAIL DIMENSIONS
BOTTOM



BACK



LEFT



FRONT

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCQ 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN: NSR	3 OF 3	08/15/19	-			-



Date:
1/13/2022

Weights:
191lbs/86.64kg

Units:
48JC D05

Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

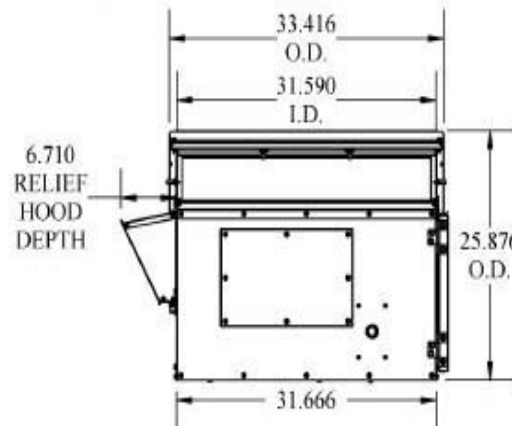
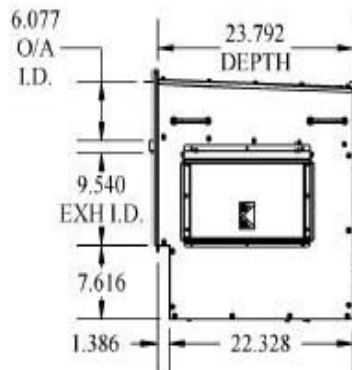
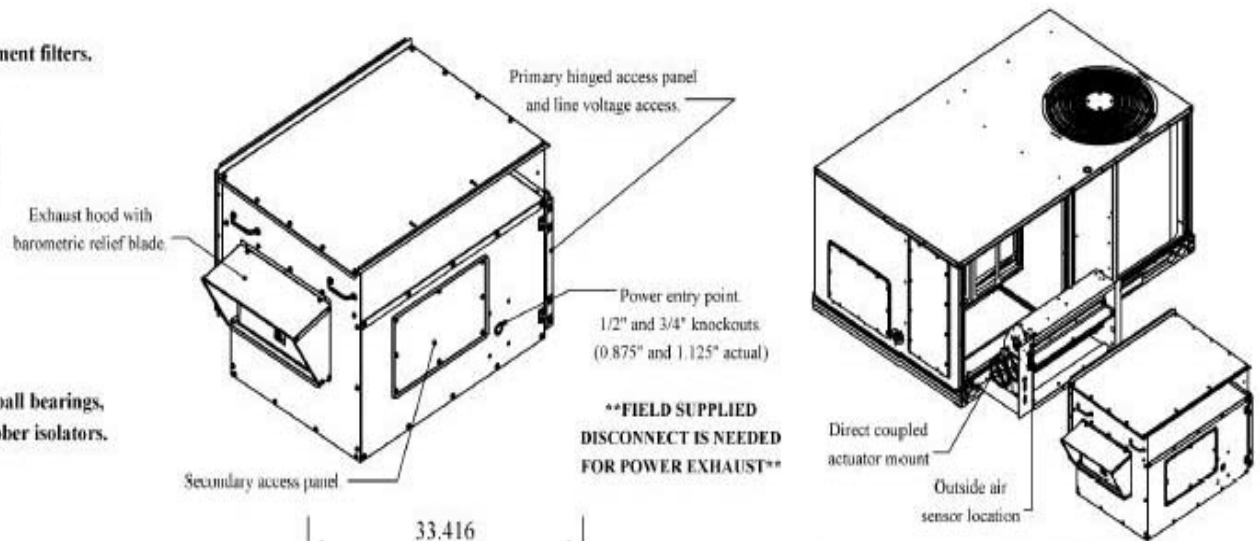
Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

FEATURES:

- Includes ECD-SRT12CB series economizer.
- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrainment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 1 - ECD-SRT1CA-HDOOR
 - MMC P/# for Chassis 2 - ECD-SRT2CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class 1A & AMCA certified.
- Relief blades are AMCA certified.
- Uses filter rack with unit.
- Field supplied and installed disconnect is required.
- Blower is forward curved, double inlet, with pre-lubricated ball bearings, have a dynamically balanced wheel, and are mounted on rubber isolators.
- Thermally protected motors.
- Adjustable motor pulleys
- See page 2 for PE performance and electrical data.



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MicroMetl

Date:
1/13/2022

Weights:
191lbs/86.64kg

Units:
48JC D05

Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

Compliant Economizer:

1. **Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements. 5 Year Warranty for parts and components only.
2. **ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
3. **IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
4. **AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- Includes **ECD-SRT12CA Series Economizer**. See economizer submittal for economizer details.
- Designed specifically for vertical discharge applications. Easy to install. Easy to service.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided.
- All harnesses and plugs needed are provided.
- Uses standard filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

1. Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
2. Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
3. ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

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**MicroMetl**Date:
1/13/2022Weights:
191lbs/86.64kgUnits:
48JC D05Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

- 1/2HP Power Exhaust Configurations and Electrical Data

Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
1VH	208-230/240	1	Constant Volume	0.5	4.1-4.3	5.1-5.4	9.2-9.7	N/A
2VH	208-230/240	3	Constant Volume	0.5	2.3-2.2	2.9-2.8	5.2-5.0	N/A
1LH or 1TH	208-230/240	1	Modulating	0.5	5.7*	7.1	12.8	10 Amp
2LH or 2TH	208-230/240	3	Modulating	0.5	3.9*	4.9	8.8	10 Amp
4VH	460/480	3	Constant Volume	0.5	1.1	1.4	2.5	N/A
4LH or 4TH	460/480	3	Modulating	0.5	1.5*	1.9	3.4	10 Amp

- 1HP Power Exhaust Configurations and Electrical Data

Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
2V1	208-230/240	3	Constant Volume	1.0	3.8-3.6	4.8-4.5	8.6-8.1	N/A
1L1	208-230/240	1	Modulating	1.0	10.0*	12.5	22.5	20 Amp
2L1 or 2T1	208-230/240	3	Modulating	1.0	6.4*	8.0	14.4	12 Amp
4V1	460/480	3	Constant Volume	1.0	1.9	2.4	4.3	N/A
4L1 or 4T1	460/480	3	Modulating	1.0	2.8*	3.5	6.3	10 Amp

*VFD Input Current

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**MicroMetl**Date:
1/13/2022Weights:
191lbs/86.64kgUnits:
48JC D05Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

****Data provided by blower manufacturer****

"1/2 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2200	0.1	712	dBA	76	74	71	69	68	65	61	58	62
2075	.25	760		78	76	74	71	70	68	64	61	64
2025	.3	781		78	76	75	72	71	69	64	61	65
1950	.4	821		81	78	76	73	71	69	65	62	66
1850	.5	864		83	80	77	74	72	69	66	63	67
1775	.6	908		84	82	79	76	74	72	68	65	68
1650	.75	974		86	83	82	78	76	76	70	67	71

"1 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2900	0.1	840	dBA	82	79	76	73	71	68	65	62	66
2825	.25	875		83	80	78	74	73	70	67	64	67
2800	.3	886		83	81	78	75	73	71	67	64	68
2725	.4	909		84	81	79	76	74	73	68	65	69
2675	.5	935		85	82	80	77	75	74	69	66	70
2625	.6	967		86	83	82	78	76	75	70	67	71
2525	.75	1011		87	85	83	79	77	76	71	68	72

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FOR: GROUP A

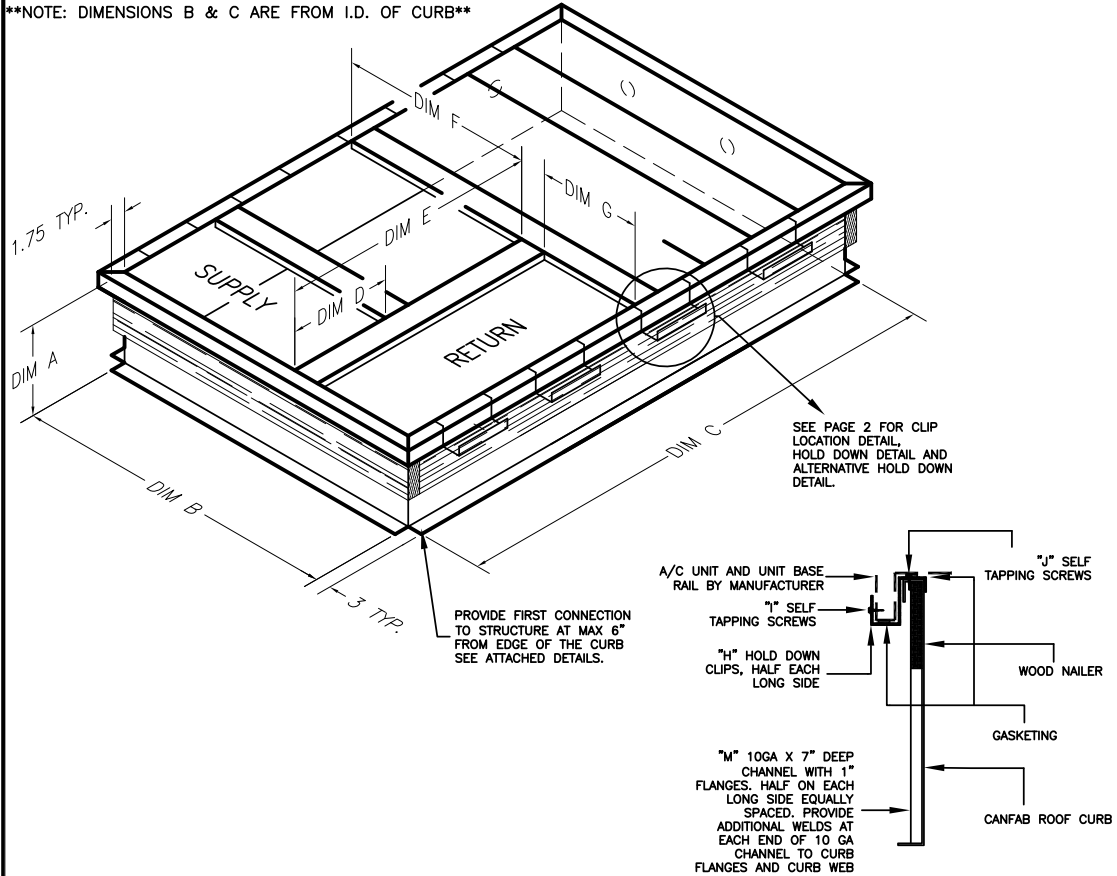
CARRIER 3 - 6-1/2 TONS

48/50HC/GC 04-06, 50HCQ 04-06, 50 KCQ 04-06, 48/50LC 04-06, 48/50TC/FC 04-07, 50TCQ 04-07, 48/50KC/FC 04-06

PART NO: 1005-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	37.1875"	67.375"	14.1875"	32.1875"	20.25"	13.875"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:

INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

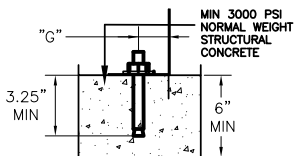
CURB CONSTRUCTION

1) WELDED
2) BOLTED
3) FINGERLOCK
-ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION

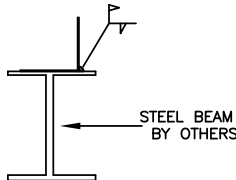
"A" GAUGE GALVANIZED STEEL CURB
-SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
-SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
- ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3

ATTACHMENT TO STRUCTURAL CONCRETE



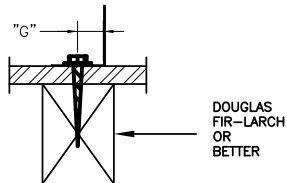
"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
"C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
NOTE:
-MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
-STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
-BOLTS SHALL BE EQUALLY SPACED

ATTACHMENT TO STRUCTURAL STEEL



1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
NOTE:
-PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
-PROVIDE WELDS ON ALL SIDES

ATTACHMENT TO WOOD



"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
"F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
NOTE:
-SCREWS SHALL BE EQUALLY SPACED.

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022



3/22/2019

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 3.12.19

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 1 OF 3



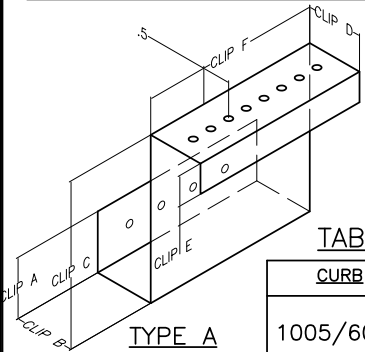
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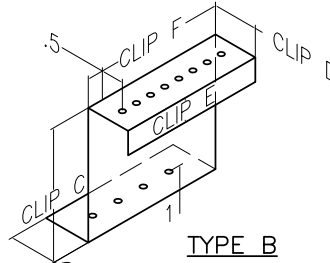
FOR: GROUP A

PART NO:

HOLD DOWN DETAIL



TYPE A



TYPE B

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1005/6059	1909-SHD8-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3003	3901-SHD8-12	12 GA	1.0	4.81	3.875	2.125	1.0	9.0	N/A	A
4027	4905-SHD8-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B
6037	6907-SHD8-12	12 GA	2.0	2.0	3.25	1.875	1.0	9.0	N/A	A
4047	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022

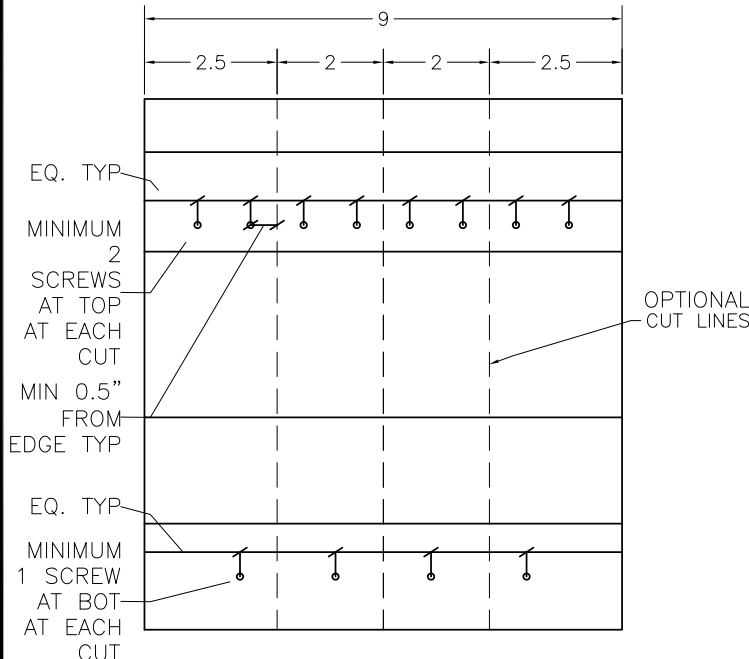


01/13/2021

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:

- SEE TABLE 2 FOR CLIP LOCATION
- ONLY 4047 HAS CLIPS ON THE SHORT SIDE

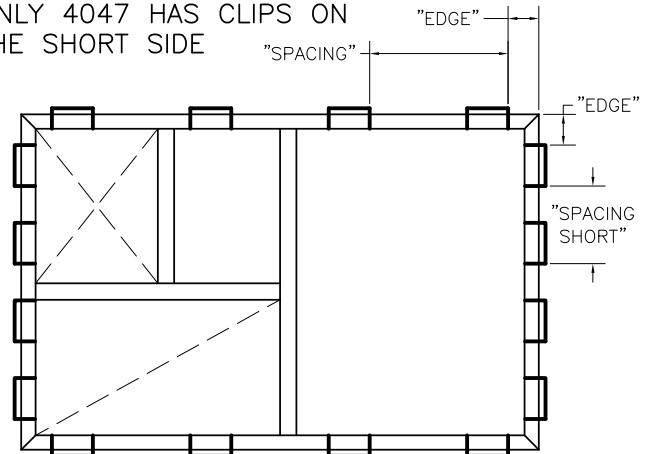


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1005/6059	7.75	15.46	N/A
3003	7.75	19.00	N/A
4027	7.75	18.33	N/A
6037	7.75	13.58	N/A
4047	7.75	15.5	10.8125

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 2 OF 3



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FOR: GROUP A

PART NO: 4047-CB

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

RELATED_CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1005	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 110	74.375	46.75	41.375	MAX 900	34.625	22.5	20.25
			11	127							
			14	144							
			18	166							
			24	262							
			MAX 36	MAX 354							
3003	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 82	82.25	44.875	32.625	MAX 900	38.6	18.75	HUNIT/2
			11	99							
			14	115							
			18	137							
			24	225							
			MAX 36	MAX 316							
4027	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 91	83.25	45	43.375	MAX 1316	47	22	HUNIT/2
			11	109							
			14	127							
			18	151							
			24	238							
			MAX 36	MAX 355							
4047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 101	73.75	45.25	44.875	MAX 712	42	26.5	HUNIT/2
			11	119							
			14	137							
			18	151							
			24	187							
			MAX 36	MAX 250							
6037	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 111	69.875	44.25	40.875	MAX 1202	44	22	HUNIT/2
			11	124							
			14	141							
			18	162							
			24	256							
			MAX 36	MAX 345							
6059	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 112	76.841	47.934	42.004	MAX 869	42	29	HUNIT/2
			11	129							
			14	146							
			18	169							
			24	265							
			MAX 36	MAX 358							

STRUCTURAL REVIEW BY:



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Job No.: 19022



12/19/2019

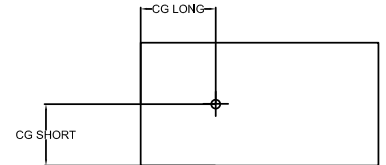


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	24"
E	SCREWS	16	18	20	22
F	SCREWS	8	8	10	12
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	8 (4 ON EACH LONG SIDE) TYPICAL. 12 (4 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	6 (3 ON EACH LONG SIDE) TYPICAL. 10 (3 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/18/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 3 OF 3



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

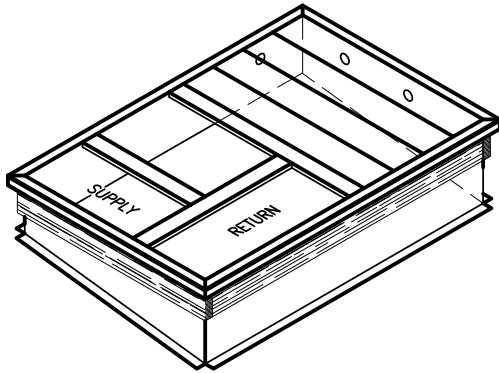
PART NO:

PITCHED ROOF CURB

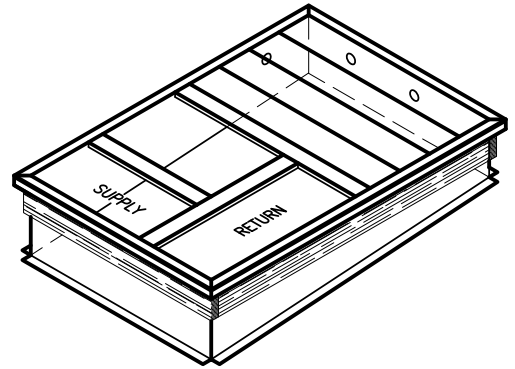
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

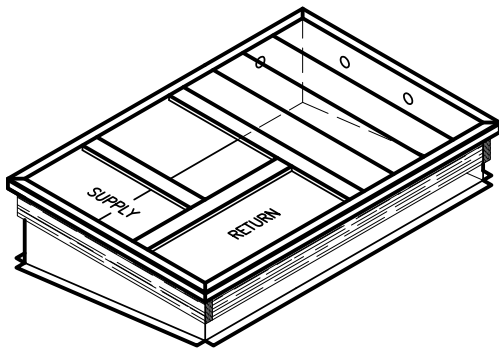
(A)



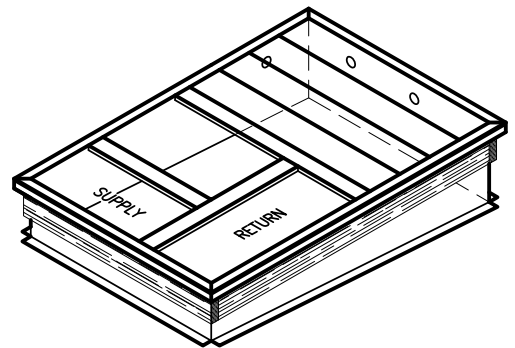
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-1A

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Unit Parameters

Unit Model:.....**50GCQJ06J2M6-0A3A0**
 Unit Size:.....**06 (5 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:.....**Two Stage Cooling Models**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**3' 5.375"**
Total Operating Weight:.....633 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**4**
 Return Air Filter Size:.....**16 x 16 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Condensate Overflow Switch
 Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu - Louvered Hail Guards
 Base controls set up for field installed air management device
 Hinged Access Panels
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (STD.)
 3-Year SystemVu controller

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50GCQJ06J2M6-0A3A0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	Direct Drive - EcoBlue - Medium Static	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels	
	None	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	1
CRSTATUS001A00	Fan/Filter Status Switch	1
CRPHASE3001A02	Phase Monitor Control	1
CRHEATER333A00	Electric Heater	1
CRPECONV003A00	Hinged Panel Sealing Angle Kit	1

Performance Summary For HP-1A

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Part Number:50GCQJ06J2M6-0A3A0

ARI SEER:	17.00
ARI SEER2:	16.00
Application EER (Rooftop Unit only):	11.00

Base Unit Dimensions

Unit Length:	74.4	in
Unit Width:	46.6	in
Unit Height:	41.4	in

Operating Weight

Base Unit Weight:	596	lb
Condensate Overflow Switch:	5	lb
Al/Cu - Al/Cu - Louvered Hail Guards:	17	lb
Hinged Access Panels:	5	lb

Accessories

Electric Heater:	10	lb
------------------	----	----

Total Operating Weight:	633	lb
-------------------------	-----	----

Unit

Unit Voltage-Phase-Hertz:	460-3-60	
Air Discharge:	Vertical	
Fan Drive Type:	Vane Axial	
Actual Airflow:	2000	CFM
Site Altitude:	0	ft

Cooling Performance

Condenser Entering Air DB:	95.0	F
Evaporator Entering Air DB:	80.0	F
Evaporator Entering Air WB:	67.0	F
Entering Air Enthalpy:	31.44	BTU/lb
Evaporator Leaving Air DB:	58.1	F
Evaporator Leaving Air WB:	57.4	F
Evaporator Leaving Air Enthalpy:	24.62	BTU/lb
Unit Discharge Air DB:	59.3	F
Unit Discharge Air WB:	57.8	F
Unit Discharge Air Enthalpy:	24.92	BTU/lb
Gross Cooling Capacity:	61.35	MBH
Net Cooling Capacity:	58.65	MBH
Gross Sensible Capacity:	47.33	MBH
Net Sensible Capacity:	44.63	MBH
Compressor Power Input:	4.24	kW
Coil Bypass Factor:	0.015	

Heating Performance

Outdoor Ambient Temperature:	47.0	F
Entering Air Indoor Coil DB:	70.0	F
Leaving Air Indoor Coil DB:	95.9	F
Total Heating Capacity:	55.90	MBH
Integrated Heating Capacity:	55.90	MBH
Heating Power Input:	3.45	kW
High Temperature COP:	3.80	
Low Temperature COP:	2.70	
HSPF:	8.9	
High Temperature COP2:	3.70	
Low Temperature COP2:	2.60	
HSPF2:	7.5	
Electric Heating Capacity:	5.50	kW
Unit Leaving Air Temp:	104.6	F

Performance Summary For HP-1A

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Supply Fan

External Static Pressure:.....	0.80	in wg
Options / Accessories Static Pressure		
Electric Heaters:.....	0.23	in wg
Application External Static (ESP + Unit Opts/Acc.):.....	1.03	in wg
Fan RPM:.....	2055	
Fan Power:.....	0.93	BHP
NOTE:.....	Selected IFM RPM Range: 1228 - 2390	

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range:.....	414 - 506
Compressor #1 RLA:.....	8
Compressor #1 LRA:.....	55
Actual Electric Heater kW:.....	5.5
Electric Heater FLA:.....	7.2
Indoor Fan Motor Type:.....	MED
Indoor Fan Motor FLA (Total):.....	1.9
Power Supply MCA:.....	22
Power Supply MOCP (Fuse or HACR):.....	25
Disconnect Size FLA:.....	21
Disconnect Size LRA:.....	66
Electrical Convenience Outlet:.....	None
Outdoor Fan [Qty / FLA (ea)]:.....	1 / 0.8
Electric Heater Part Number:.....	333A
Electric Heater Number of Stages:.....	1

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

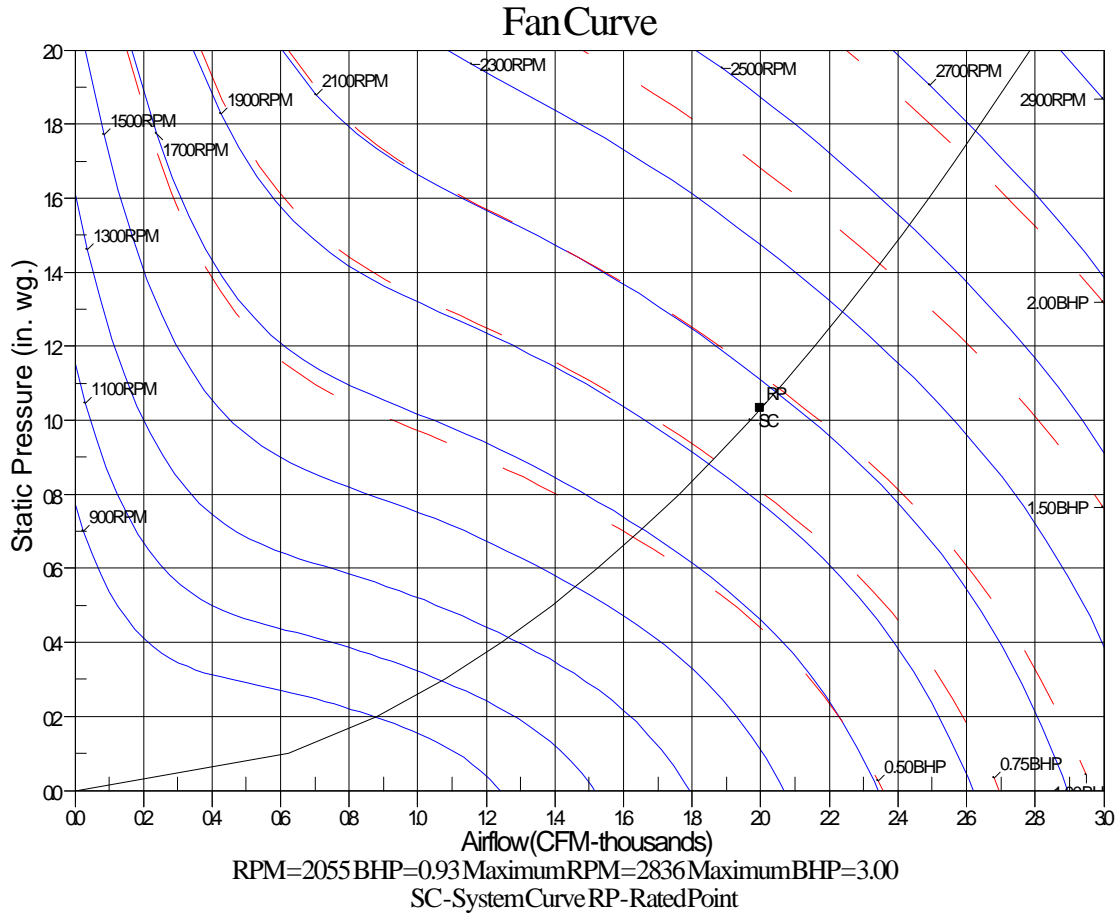
Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	92.6	90.9	NA
125 Hz	83.8	79.9	NA
250 Hz	77.8	72.6	NA
500 Hz	74.1	66.7	NA
1000 Hz	70.9	68.7	NA
2000 Hz	68.0	59.5	NA
4000 Hz	64.5	53.4	NA
8000 Hz	60.5	47.0	NA

Performance Summary For HP-1A

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM



Certified Drawing for HP-1A

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

- NOTES:
1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN () ARE IN MILLIMETERS.
 2. CENTER OF GRAVITY
 3. DIRECTION OF AIR FLOW
 4. ALL VIEW DRAWN USING 3RD ANGLE

UNIT	J	K
50GCO+04	33 3/8 [847]	18 5/8 [472]
50GCO+05	41 3/8 [1054]	18 5/8 [472]
50GCO+06	41 3/8 [1054]	18 5/8 [472]



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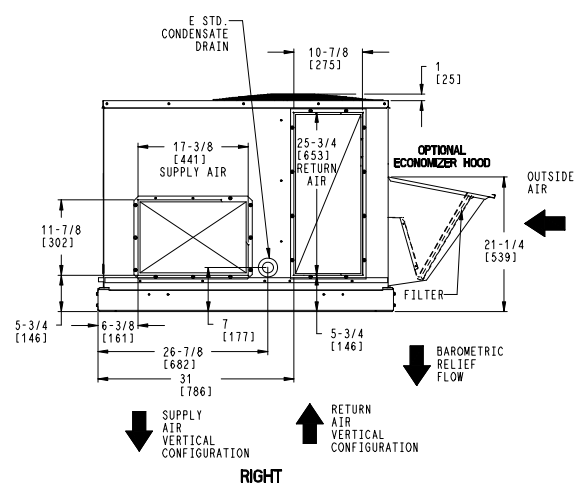
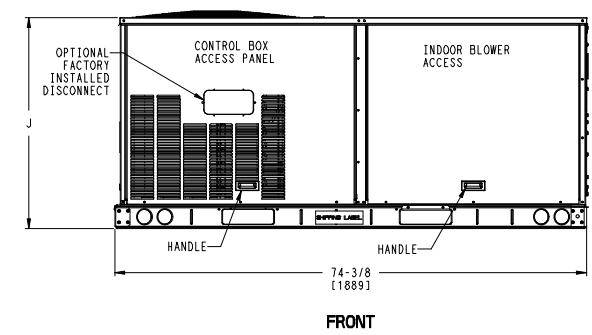
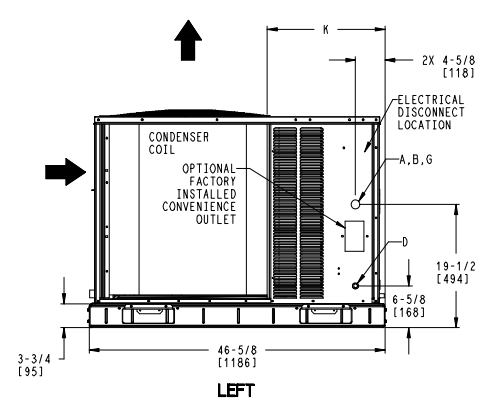
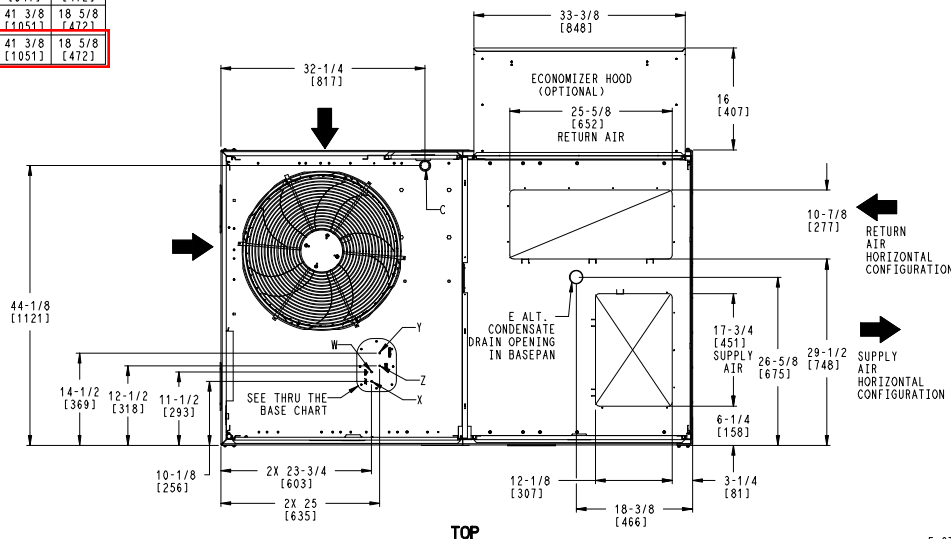
CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW008A00, 009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	115V	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y *	3/4"	POWER	1 1/8" [28.6]
Z **	(009A00) 1/2" FPT	GAS	1 1/8" [28.6]

FOR "THRU-THE-BASEPANEL" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	1 OF 3	08/15/19	-			-

Certified Drawing for HP-1A

Project: BCSD HVAC Replacement
Prepared By:

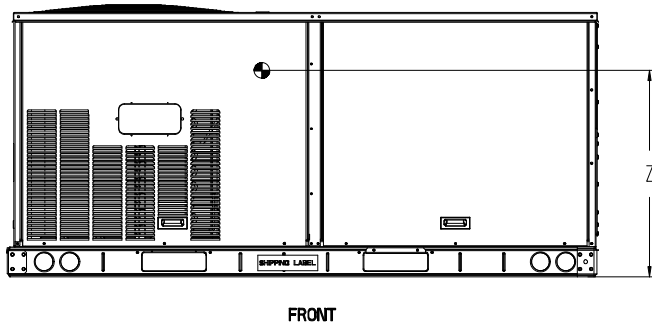
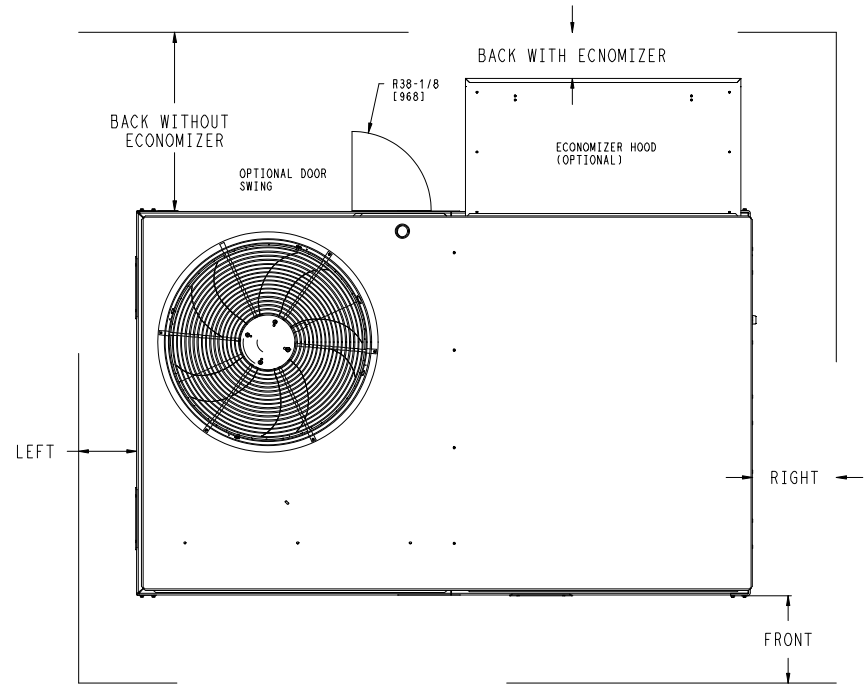
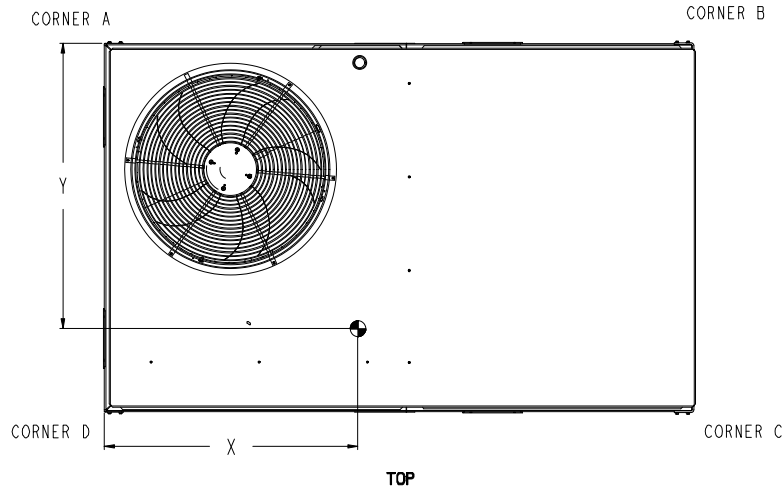
08/09/2023
09:57AM

UNIT	STD. UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.			HEIGHT
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z	
50GCO*04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]	
50GCO*05	590	268	162	73	147	67	134	61	148	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	
50GCO*06	596	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	

* - STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.



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NOTE:

1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH CONDUCTIVE BARRIER	SERVICE WITH NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

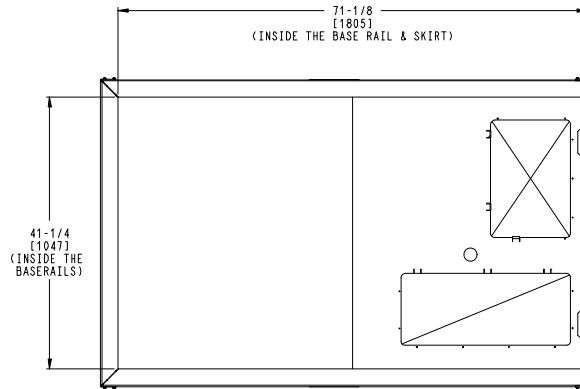
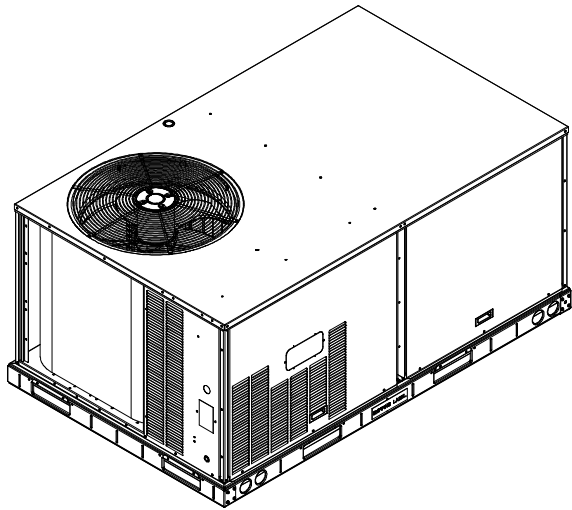
ITC CLASSIFICATION U.S. ECCN: NSR	SHEET 2 OF 3	DATE 08/15/19	SUPERCEDES -	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV -
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Certified Drawing for HP-1A

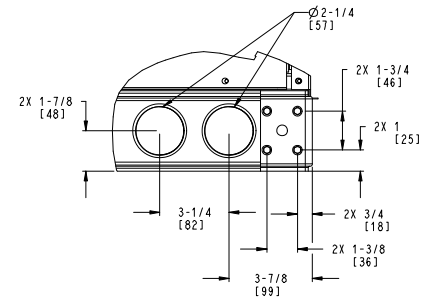
Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

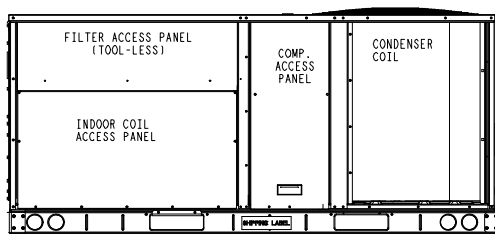
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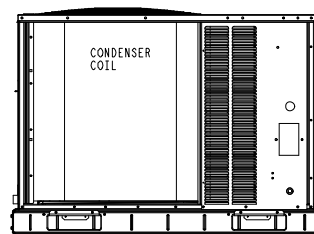
INSIDE BASERAIL DIMENSIONS
BOTTOM



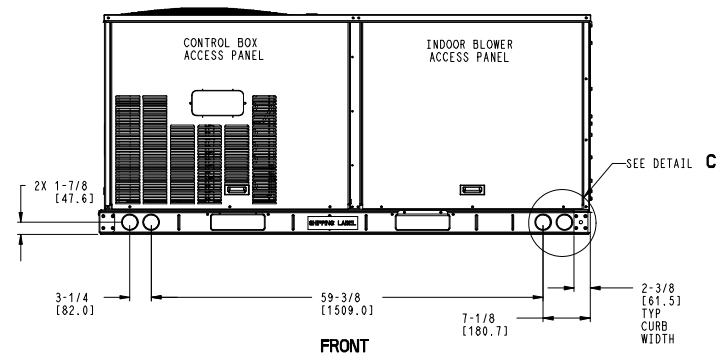
DETAIL **C**
TYP 4 PLCS



BACK



LEFT



FRONT

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCQ 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN: NSR	3 OF 3	08/15/19	-			-

ION-0A * 00 | Ion Generator for AHU's, Heating and AC Units

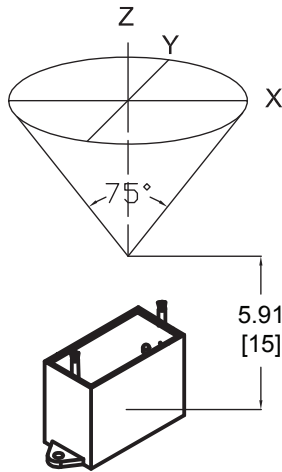
Part Number

ION-0A * 00

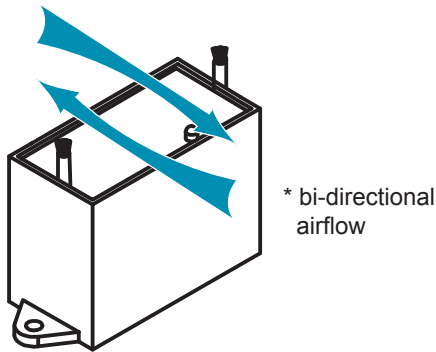
VOLTAGE:

- A - 24VAC / VDC, 1 ϕ
- D - 115VAC, 1 ϕ

Ion Distribution (inches[cm])



Airflow



Technical Data

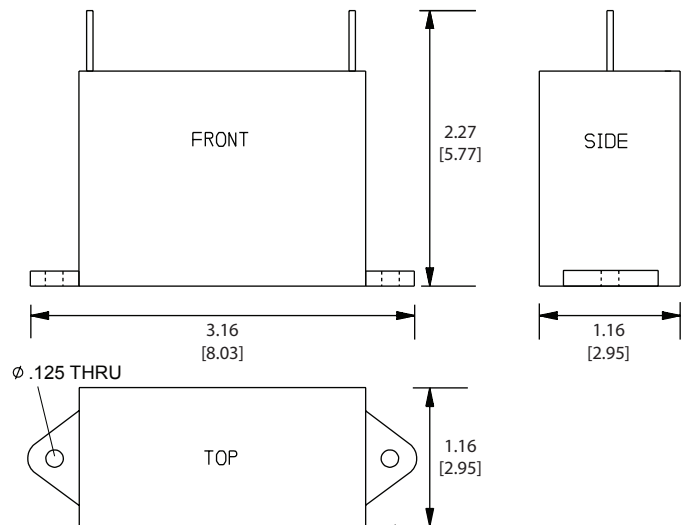
Power Supply	See part number voltage
Power Consumption	4.3 W / 24V; 6.9 W all other volts
Output Voltage	+/- 9000VDC
Power Wiring Leads	35 inches in length
Mounting	Self tapping metal screws
Dimensions	3.16" x 1.16" x 2.27" (w/ CF tips)
CFM	2,000 CFM
Output Ion	Negative 4×10^7 pieces / cm^3
Weight	.5 lbs (.25 kg)
Life Span	15,000 Hours



Product Application

- Hospitals | Nursing Homes | Schools |
- Animal Feeding and Processing Plants |
- Shopping Malls | Laboratories | Veterinary Offices |
- Restaurants and Food Preparation Areas | Zoos |
- Casinos | Convention Centers and Arenas | Jails |
- Museums | Health Clubs | Churches and Synagogues

Product Dimensions (inches [cm])





Date: _____ Weight: 45lbs (US) 20.41kg (Metric) Part Number: ECD-SRT12CB-D0DB-4

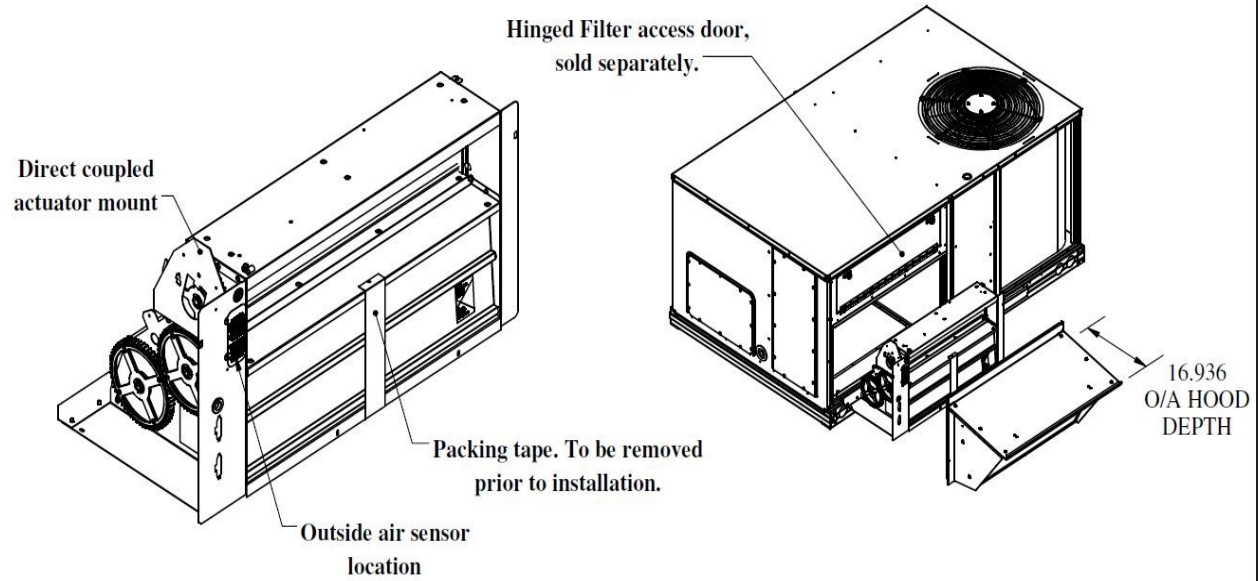
RTU: _____

Submitted to: _____ Approved by: _____ Notes: _____

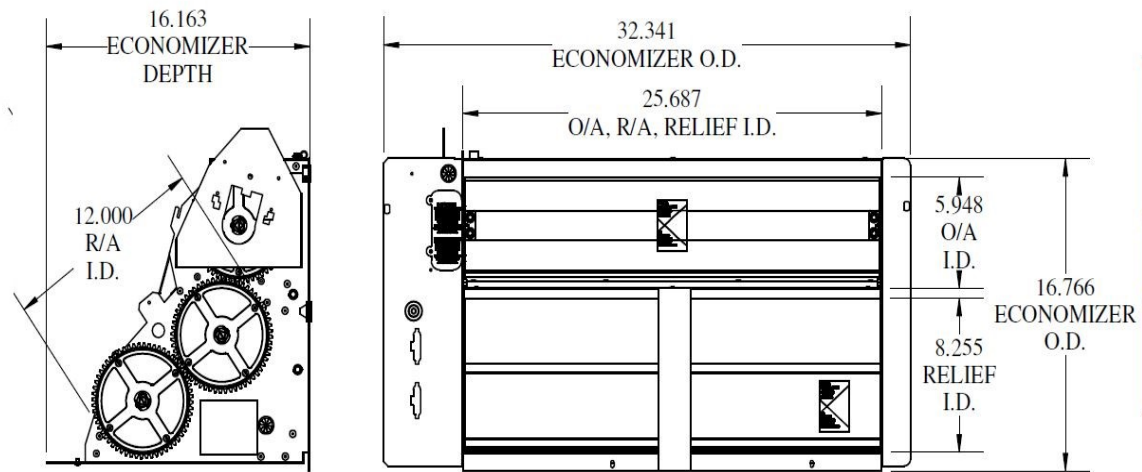
Economizer - Economizer - Genesis Ultra Low Leak Economizer, Vertical Orientation, RTU Open - Premier Link - System VU - No Controller, Adjustable Dry Bulb Sensor, Belimo Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

FEATURES:

- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrainment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 1 - ECD-SRT1CA-HDOOR
 - MMC P/# for Chassis 2 - ECD-SRT2CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class IA & AMCA rated.
- Relief blades are AMCA rated.
- Uses filter rack with unit.
- Motorized relief available, add -M to end of part number
 - Ex: ECD-SRT12CB-D00H-M
- Economizer with smoke detector available, add -S to end of part number
 - Ex: ECD-SRT12CB-D00H-S



-Control Types	
-D0DB-4	RTU Open - Premier Link - System VU, No controller, Adjustable dry bulb, Belimo actuator
-D0DB-X	Comfortlink - No controller, Adjustable dry bulb, Belimo MFT actuator with 500 ohm resistor
-D00H-H	Communicating Honeywell actuator only
-D00H	Non-communicating Honeywell actuator only
-D00B	Belimo actuator with feedback and end switch
-D00S	Siemens actuator with feedback



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Master Revision 0001A
Page Revision 0001A



Date:

Weight: 45lbs (US) 20.41kg (Metric)

Part Number: ECD-SRT12CB-D0DB-4

RTU:

Submitted to:

Approved by:

Notes:

Economizer - Economizer - Genesis Ultra Low Leak Economizer, Vertical Orientation, RTU Open - Premier Link - System VU - No Controller, Adjustable Dry Bulb Sensor, Belimo Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

Compliant Economizer:

- Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements. 5 Year Warranty for parts and components only.
- ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
- IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
- AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- For single or 2 speed indoor fan units. Other control options available.
- Gear driven design for trouble-free operation, eliminating slippage and binding associated with standard linkage.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided. Power exhaust options available.
- All harnesses and plugs needed are provided.
- Uses standard factory filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

- Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
- Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
- ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP A

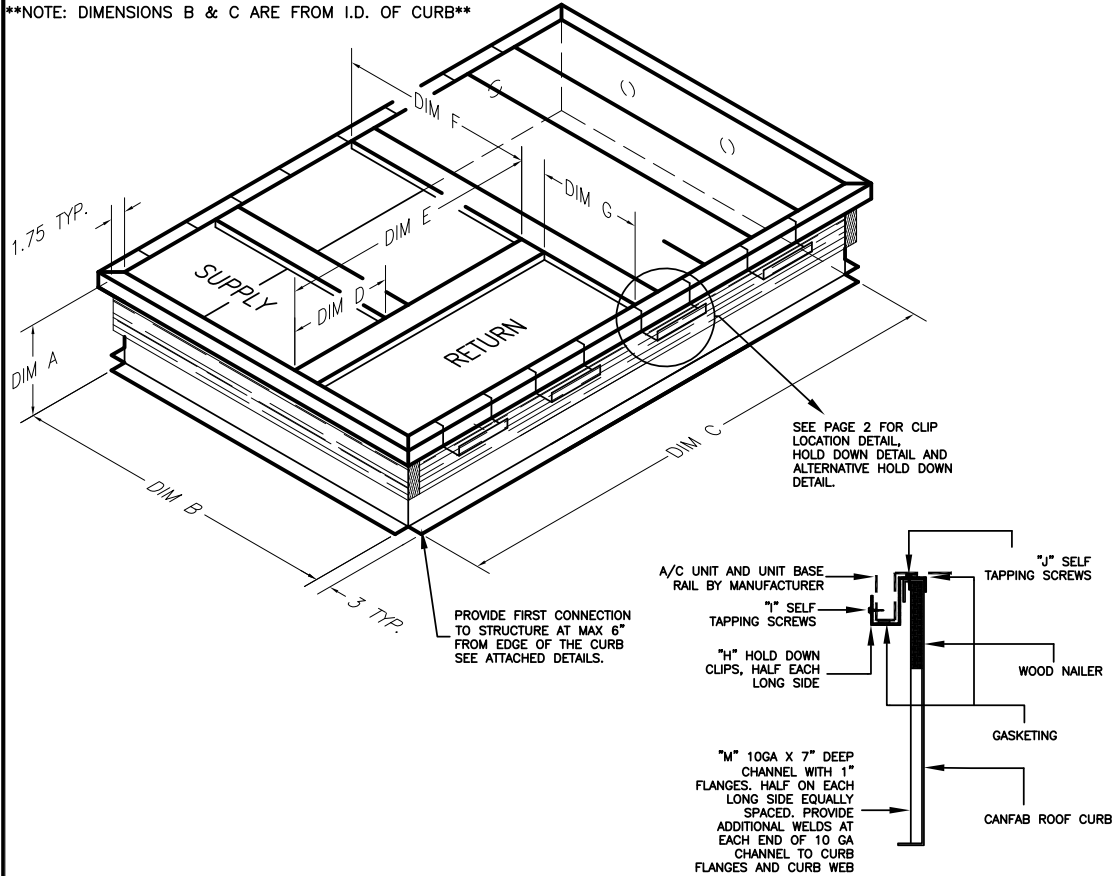
CARRIER 3 - 6-1/2 TONS

48/50HC/GC 04-06, 50HCQ 04-06, 50 KCQ 04-06, 48/50LC 04-06, 48/50TC/FC 04-07, 50TCQ 04-07, 48/50KC/FC 04-06

PART NO: 1005-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	37.1875"	67.375"	14.1875"	32.1875"	20.25"	13.875"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

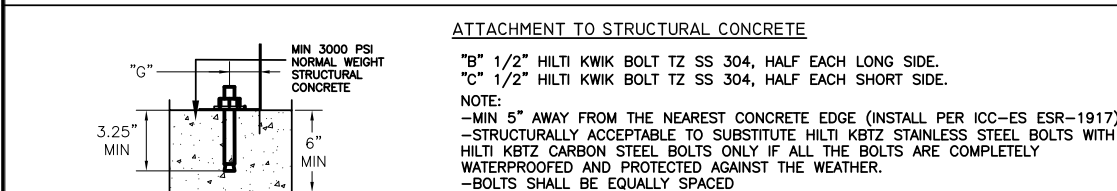
SEISMIC DESIGN CRITERIA
 -SDS = 1.5 ap = 2.5
 -I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA
 -MAX 60 FT TALL BUILDING
 -EXPOSURE C
 -175 MPH, 3 SECOND GUST WIND

NOTE:
 -INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
 -INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION
 1) WELDED
 2) BOLTED
 3) FINGERLOCK
 -ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
 -SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
 -NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

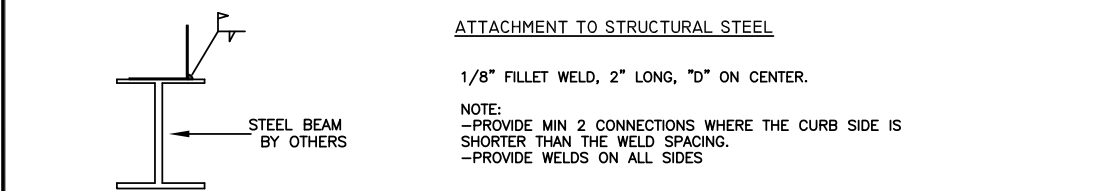
CURB AND UNIT INFORMATION
 "A" GAUGE GALVANIZED STEEL CURB
 -SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
 -SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
 - ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3



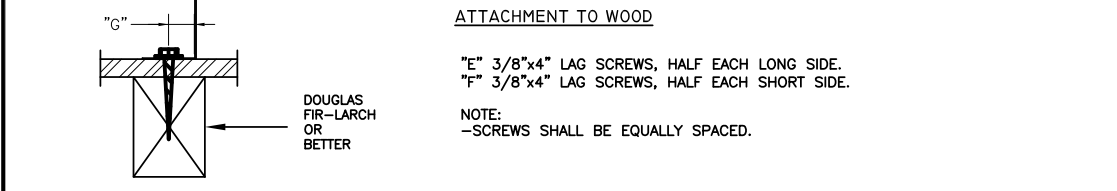
ATTACHMENT TO STRUCTURAL CONCRETE
 "B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
 "C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
 NOTE:
 -MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
 -STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
 -BOLTS SHALL BE EQUALLY SPACED

STRUCTURAL REVIEW BY:

 JOHN A. MARTIN AND ASSOCIATES
 Structural Engineers
 950 South Grand Ave., 4th Floor
 Los Angeles, California, 90015
 Phone (213) 483 6490
 Fax (213) 483 3084
 Job No.: 19022



ATTACHMENT TO STRUCTURAL STEEL
 1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
 NOTE:
 -PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
 -PROVIDE WELDS ON ALL SIDES



ATTACHMENT TO WOOD
 "E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
 "F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
 NOTE:
 -SCREWS SHALL BE EQUALLY SPACED.



3/22/2019

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE	DATE: 3.12.19
ENGINEER: LD	DISTRIBUTOR:
DRAWING NUMBER: GROUP_A.DWG	PAGE 1 OF 3



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP A

PART NO:

HOLD DOWN DETAIL

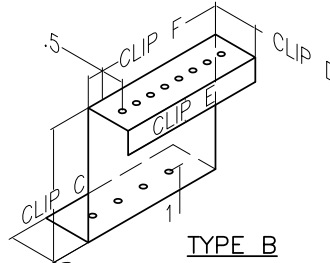
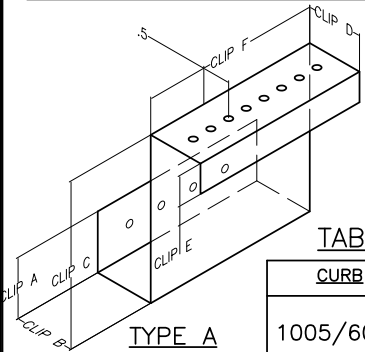


TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1005/6059	1909-SHD8-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3003	3901-SHD8-12	12 GA	1.0	4.81	3.875	2.125	1.0	9.0	N/A	A
4027	4905-SHD8-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B
6037	6907-SHD8-12	12 GA	2.0	2.0	3.25	1.875	1.0	9.0	N/A	A
4047	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022

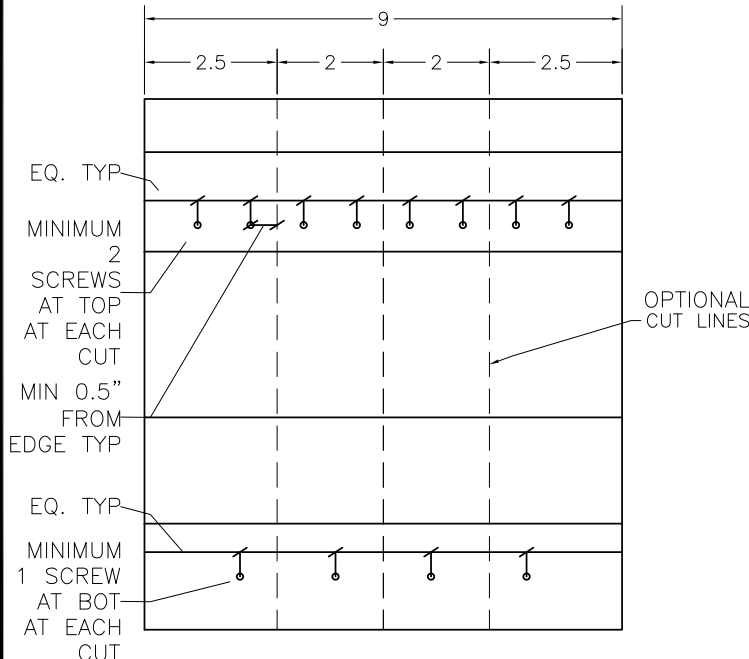


01/13/2021

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:

- SEE TABLE 2 FOR CLIP LOCATION
- ONLY 4047 HAS CLIPS ON THE SHORT SIDE

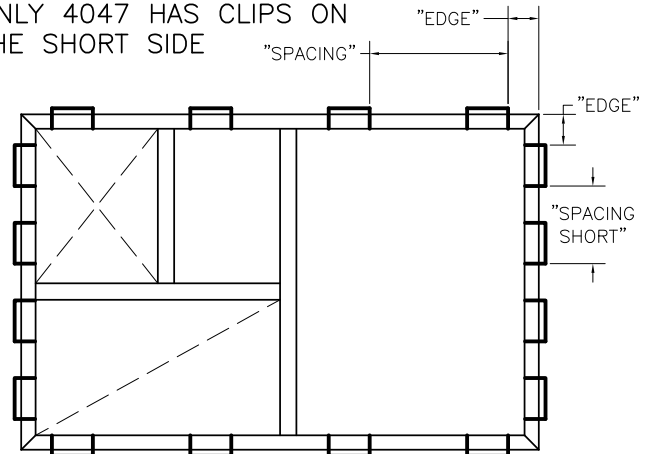


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1005/6059	7.75	15.46	N/A
3003	7.75	19.00	N/A
4027	7.75	18.33	N/A
6037	7.75	13.58	N/A
4047	7.75	15.5	10.8125

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 2 OF 3



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP A

PART NO: 4047-CB

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

RELATED_CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1005	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 110	74.375	46.75	41.375	MAX 900	34.625	22.5	20.25
			11	127							
			14	144							
			18	166							
			24	262							
			MAX 36	MAX 354							
3003	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 82	82.25	44.875	32.625	MAX 900	38.6	18.75	HUNIT/2
			11	99							
			14	115							
			18	137							
			24	225							
			MAX 36	MAX 316							
4027	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 91	83.25	45	43.375	MAX 1316	47	22	HUNIT/2
			11	109							
			14	127							
			18	151							
			24	238							
			MAX 36	MAX 355							
4047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 101	73.75	45.25	44.875	MAX 712	42	26.5	HUNIT/2
			11	119							
			14	137							
			18	151							
			24	187							
			MAX 36	MAX 250							
6037	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 111	69.875	44.25	40.875	MAX 1202	44	22	HUNIT/2
			11	124							
			14	141							
			18	162							
			24	256							
			MAX 36	MAX 345							
6059	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 112	76.841	47.934	42.004	MAX 869	42	29	HUNIT/2
			11	129							
			14	146							
			18	169							
			24	265							
			MAX 36	MAX 358							

STRUCTURAL REVIEW BY:



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Job No.: 19022



12/19/2019

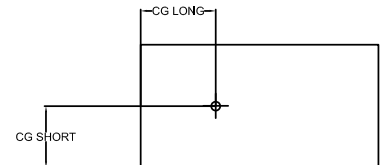


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	24"
E	SCREWS	16	18	20	22
F	SCREWS	8	8	10	12
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	8 (4 ON EACH LONG SIDE) TYPICAL. 12 (4 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	6 (3 ON EACH LONG SIDE) TYPICAL. 10 (3 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/18/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 3 OF 3



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

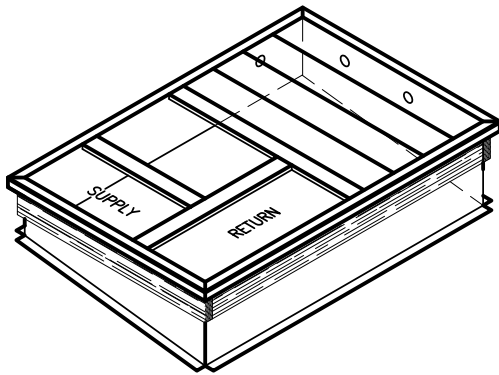
PART NO:

PITCHED ROOF CURB

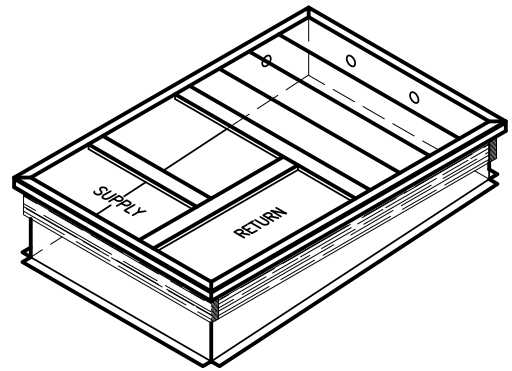
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

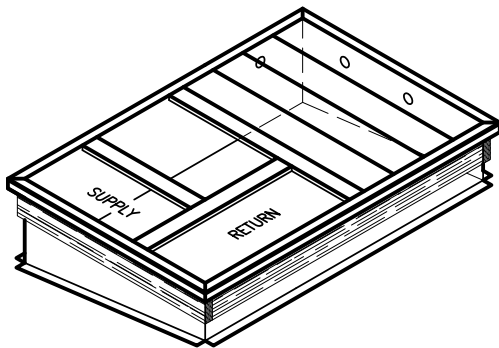
(A)



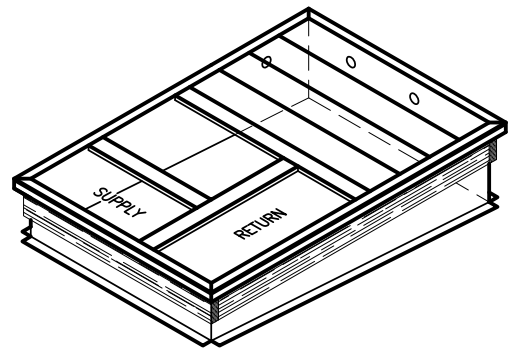
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-2

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 10:28AM

Unit Parameters

Unit Model:.....**50VT-K24---3**
 Unit Size:.....**24 (2 Tons)**
 Volts-Phase-Hertz:.....**208-1-60**
 Heating Type:.....**Heat Pump**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**4' 0.1875"**
 Unit Width:.....**2' 8.625"**
 Unit Height:.....**4' 3.75"**

*** Weights and Dimensions are approximate. Weight does not include roof curbs, unit packaging, field installed accessories or factory installed options. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Base Unit Weight (Does not include any accessories):
332.....lb

Warranty Information

1 year warranty on parts
 5 year warranty on compressor

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50VT-K24---3	Rooftop Unit	1
	Base Unit	
Field Installed Accessories		
CPHEATER070B00	5.6/6.9/7.5 kW, 208/230/240-1-60 volt, Electric Heater	1
CRTIMEGD001A00	Time Guard II	1

Performance Summary For HP-2

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 10:28AM

Part Number:50VT-K24---3

ARI SEER2:..... **13.40**
 Application EER (Rooftop Unit only):..... **0.00**

Base Unit Dimensions

Unit Length:..... **48.2** in
 Unit Width:..... **32.6** in
 Unit Height:..... **51.8** in

Base Unit Weight (Does not include any accessories):..... 332 lb

Unit

Unit Voltage-Phase-Hertz:..... **208-1-60**
 Air Discharge:..... **Vertical**
 Fan Drive Type:..... **Direct**
 Actual Airflow:..... **703** CFM
 Site Altitude:..... **0** ft

Cooling Performance

Condenser Entering Air DB:..... **95.0** F
 Evaporator Entering Air DB:..... **80.0** F
 Evaporator Entering Air WB:..... **67.0** F
 Entering Air Enthalpy:..... **31.44** BTU/lb
 Evaporator Leaving Air DB:..... **57.2** F
 Evaporator Leaving Air WB:..... **56.5** F
 Evaporator Leaving Air Enthalpy:..... **24.06** BTU/lb
 Unit Discharge Air DB:..... **0.0** F
 Unit Discharge Air WB:..... **0.0** F
 Unit Discharge Air Enthalpy:..... **0.00** BTU/lb
 Net Cooling Capacity:..... **23.34** MBH
 Net Sensible Capacity:..... **17.33** MBH
 Total Unit Power Input:..... **1.92** kW
 Coil Bypass Factor:..... **0.000**

Heating Performance

Outdoor Ambient Temperature:..... **47.0** F
 Entering Air Indoor Coil DB:..... **70.0** F
 Leaving Air Indoor Coil DB:..... **101.3** F
 Total Heating Capacity:..... **23.73** MBH
 Integrated Heating Capacity:..... **23.73** MBH
 Heating Power Input:..... **1.95** kW
 High Temperature COP:..... **3.70**
 Low Temperature COP:..... **2.20**
 HSPF2:..... **6.7**
 Electric Heating Capacity:..... **5.40** kW
 Unit Leaving Air Temp:..... **125.5** F

Supply Fan

External Static Pressure:..... **0.76** in wg
 Options / Accessories Static Pressure
 Wet Coil:..... **0.04** in wg
 Application External Static (ESP + Unit Opts/Acc.):..... **0.80** in wg
 Fan Power:..... **0.25** BHP
 Fan Motor Size, hp:..... **1/2**
 NOTE:..... **Med-High Motor Speed, Vert**

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Minimum Voltage:..... **197**

Performance Summary For HP-2

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 10:28AM

Maximum Voltage:.....	253
Compressor RLA:.....	11.1
Compressor LRA:.....	59.5
Actual Electric Heater kW:.....	5.4
Electric Heater FLA:.....	25.9
Outdoor Fan FLA (ea):.....	0.7
Indoor Fan Motor FLA (Total):.....	3.5
Power Supply MCA:.....	50.5
Power Supply MOCP (Fuse or HACR):.....	60

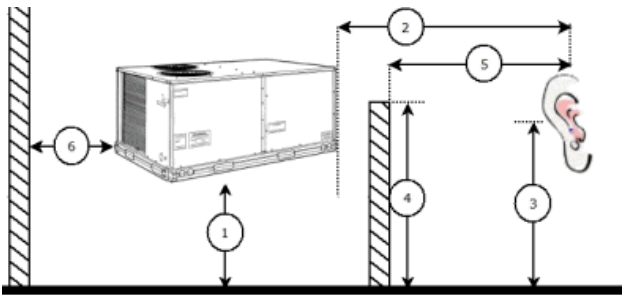
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Rating:..... 69.9 db
 Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	NA	NA	NA
125 Hz	NA	NA	59.0
250 Hz	NA	NA	56.6
500 Hz	NA	NA	57.9
1000 Hz	NA	NA	60.9
2000 Hz	NA	NA	55.3
4000 Hz	NA	NA	51.7
8000 Hz	NA	NA	44.0

Advanced Acoustics



Advanced Acoustics Parameters

- 1. Unit height above ground:..... 30.0 ft
- 2. Horizontal distance from unit to receiver:..... 50.0 ft
- 3. Receiver height above ground:..... 5.7 ft
- 4. Height of obstruction:..... 0.0 ft
- 5. Horizontal distance from obstruction to receiver:..... 0.0 ft
- 6. Horizontal distance from unit to obstruction:..... 0.0 ft

Detailed Acoustics Information

Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	0.0	59.0	56.6	57.9	60.9	55.3	51.7	44.0	65.6 Lw
B	- 26.2	42.9	48.0	54.7	60.9	56.5	52.7	42.9	63.5 LwA
C	0.0	26.6	24.2	25.5	28.5	22.9	19.3	11.6	33.2 Lp
D	- 26.2	10.5	15.6	22.3	28.5	24.1	20.3	10.5	31.1 LpA

Performance Summary For HP-2

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
10:28AM

Legend

- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.

Certified Drawing for HP-2

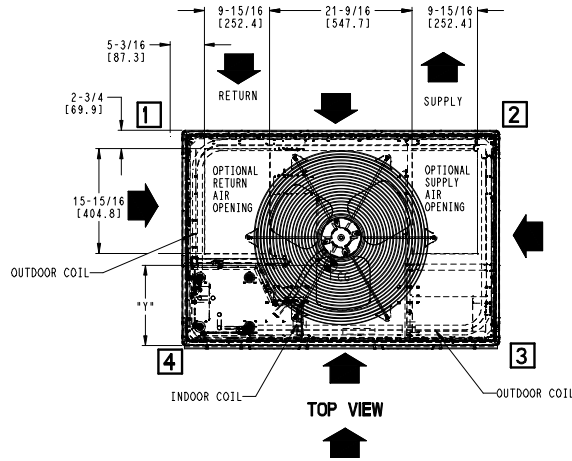
Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
10:28AM

CARRIER / BRYANT HP (SMALL CHASSIS)

COOLING CAPACITY	UNIT WT.		UNIT HEIGHT IN/MM		CENTER OF GRAVITY IN/MM					
	LB	KG	"A"	"A"	X	Y	Z	X	Y	Z
24	332	150.6	51-3/4	1315	20-1/2	520.7	15-1/2	394	16-5/8	422.3
30	363	163.6	51-3/4	1315	20-1/2	520.7	15-1/2	394	16-5/8	422.3

UNIT	CORNER WEIGHT LB/KG			
	"1"	"2"	"3"	"4"
24	84.8	38.5	74.9	34.0
30	93.3	42.3	82.1	37.3



REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

	INCHES [MM]
TOP OF UNIT.....	14 [355.6]
DUCT SIDE OF UNIT.....	2 [50.8]
SIDE OPPOSITE DUCTS.....	14 [355.6]
BOTTOM OF UNIT.....	0 [0.0]
ELECTRICAL PANEL.....	36 [914.4]

NEC. REQUIRED CLEARANCES.

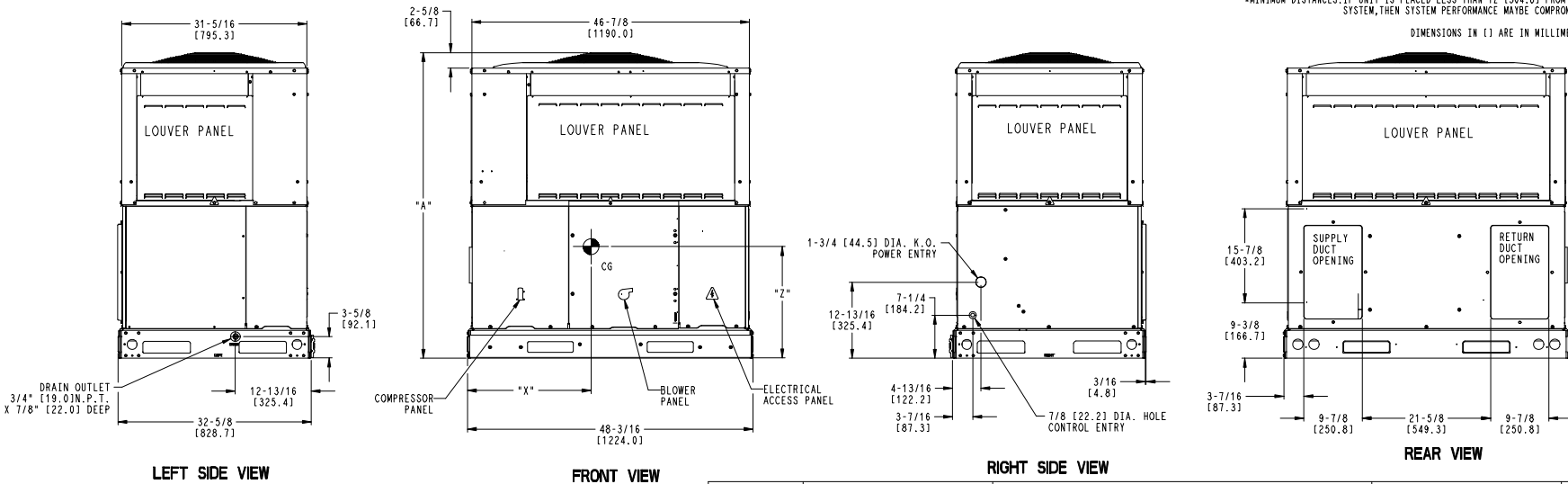
	INCHES [MM]
BETWEEN UNITS, POWER ENTRY SIDE.....	42 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....	36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42 [1066.8]

REQUIRED CLEARANCES FOR OPERATION AND SERVICING

	INCHES [MM]
EVAP. COIL ACCESS SIDE.....	36 [914.0]
POWER ENTRY SIDE.....	42 [1066.8]
(EXCEPT FOR NEC REQUIREMENTS)	
UNIT TOP.....	48 [1219.2]
SIDE OPPOSITE DUCTS.....	36 [914.0]
DUCT PANEL.....	12 [304.8]

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN [] ARE IN MILLIMETERS



10/19/22	UPDATED TABLE DIMS.	SINGLE ZONE ELECTRIC COOLING & HEAT(SM)	SD5770-4	A
----------	---------------------	---	----------	---



Date:
RTU:

Weight: 0lbs (US) 0kg (Metric)

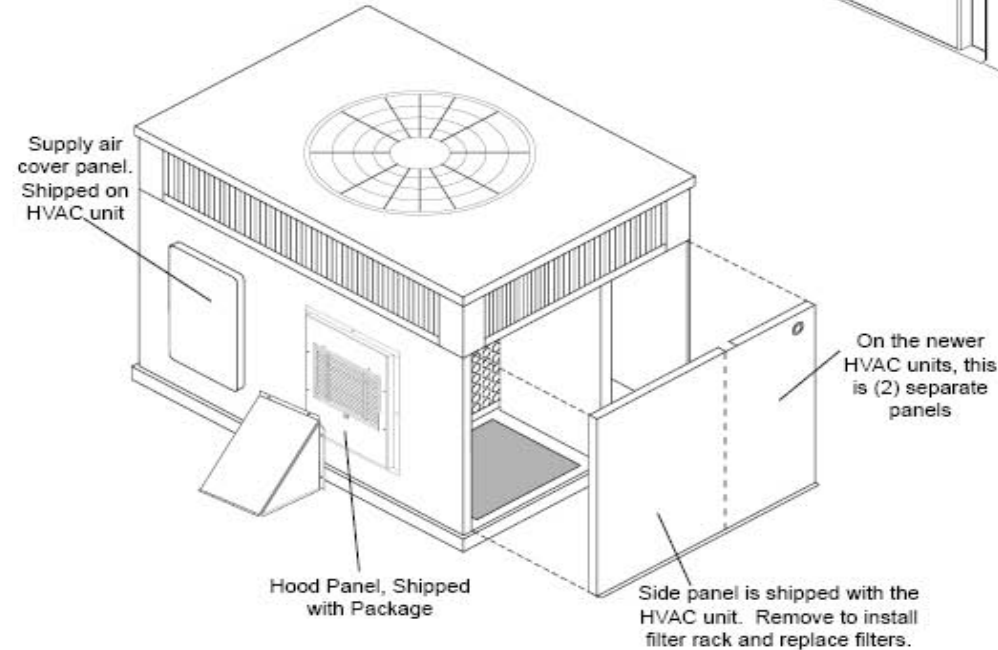
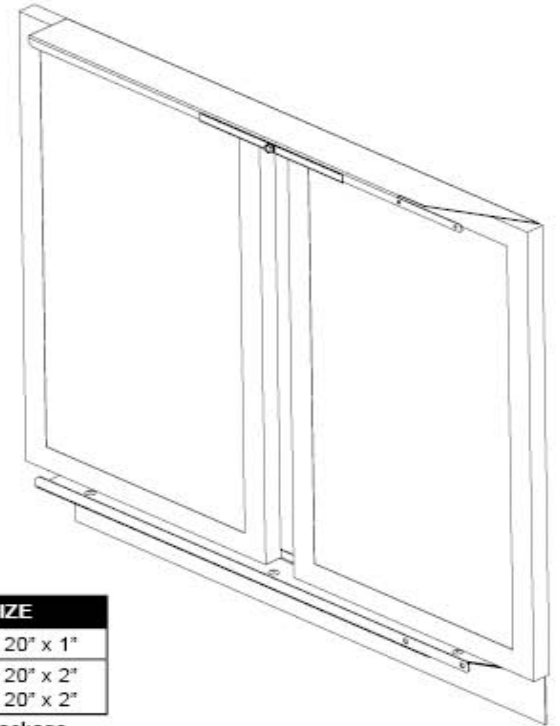
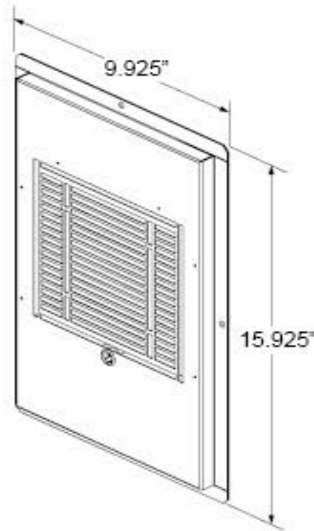
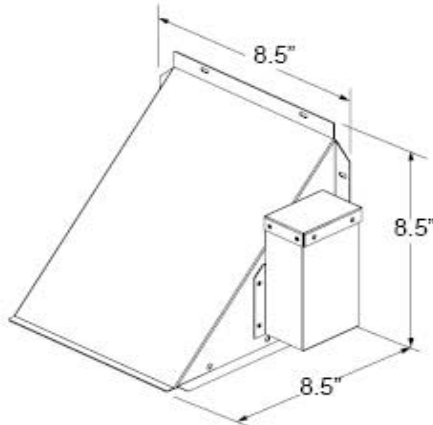
Part Number: OA2-SDSML-CD

Submitted to:

Approved by:

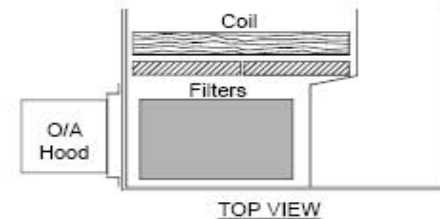
Notes:

Hood - Unit Specific - Motorized Damper - 25% Outside Air & Filter Rack , CFM 610 @ 650FPM - 12 X 12 X 12 , No Aluminium Filter , Painted Color Gray. Includes One 17.5 Inch X 11.5 Inch Painted Blankoff Panel, And A Filter Rack Containing Two 12x20x1 Filters.



FILTER RACK SIZE	
1" Filters	(2) 12" x 20" x 1"
2" Filters	(1) 10" x 20" x 2"
	(1) 12" x 20" x 2"

*1" Filters shipped with package





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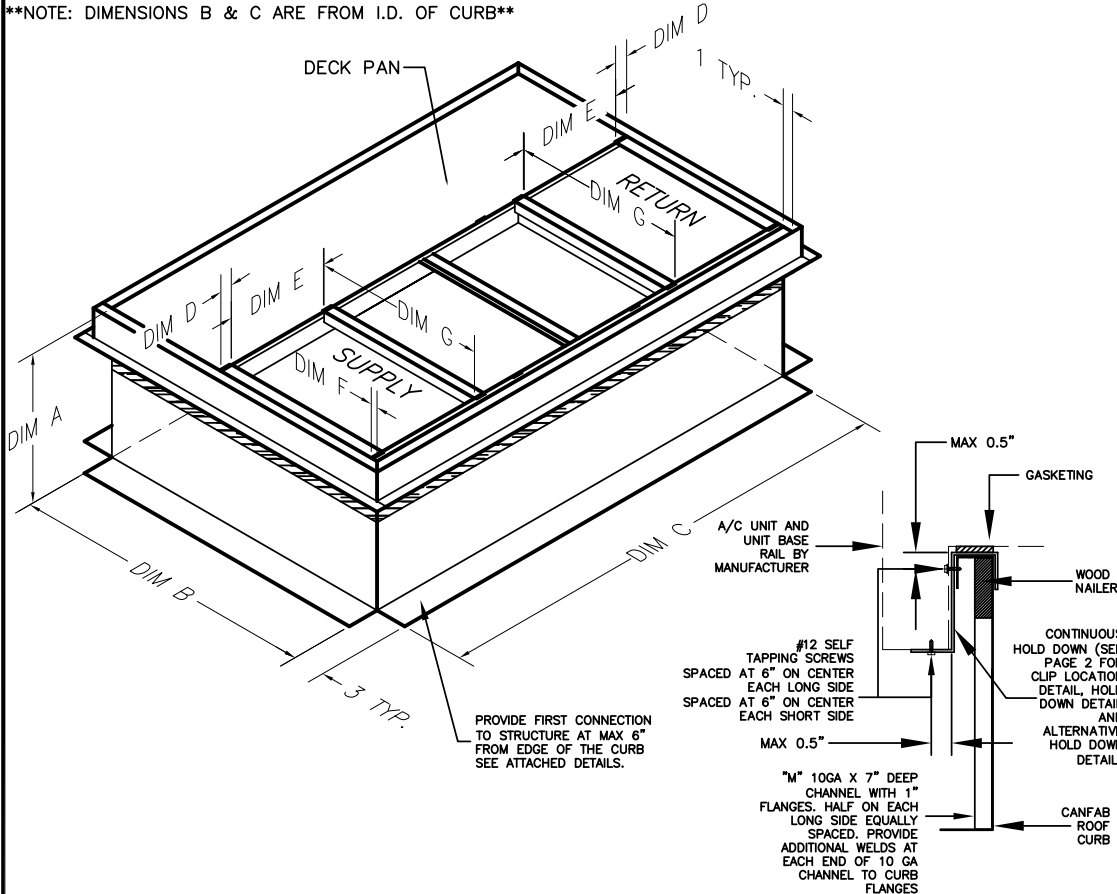
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FOR: GROUP D
CARRIER 2 - 3 TONS
 48/50 ES, EZ, 48/50VL-A 24-36, 48/50 VT-A, VG,
 48/50VR, XL, XT-A 24-30

PART NO: 1001A-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	28.75"	44.0625"	1.1875"	10"	.625"	16"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
 -I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
 -EXPOSURE C
 -175 MPH, 3 SECOND GUST WIND

NOTE:
 INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.

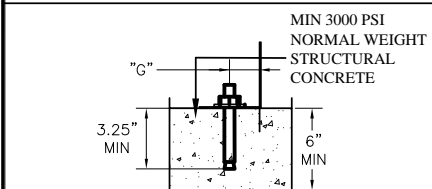
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION

- 1) WELDED
 - 2) BOLTED
 - 3) FINGERLOCK
- ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
 -SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
 -NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

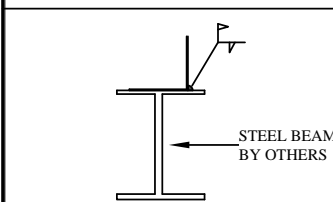
CURB AND UNIT INFORMATION

- "A" GAUGE GALVANIZED STEEL CURB
- SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
- SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
- ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3



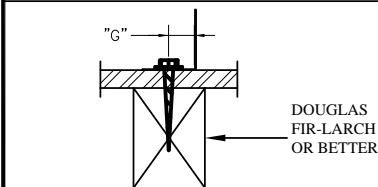
ATTACHMENT TO STRUCTURAL CONCRETE

"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
 "C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
 NOTE:
 -MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
 -STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
 -BOLTS SHALL BE EQUALLY SPACED



ATTACHMENT TO STRUCTURAL STEEL

1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
 NOTE:
 -PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
 -PROVIDE WELDS ON ALL SIDES



ATTACHMENT TO WOOD

"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
 "F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
 NOTE:
 -SCREWS SHALL BE EQUALLY SPACED.

STRUCTURAL REVIEW BY:

MARTIN & associates
 JOHN A. MARTIN AND ASSOCIATES
 Structural Engineers
 950 South Grand Ave., 4th Floor
 Los Angeles, California 90015
 Phone (213) 483 6490
 Fax (213) 483 3084
 Job No.: 13001



12/14/2018

PROJECT: IBC 2018/ CBC 2019 UPDATE

DATE: 12.6.18

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_D.DWG

PAGE 1 OF 3



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

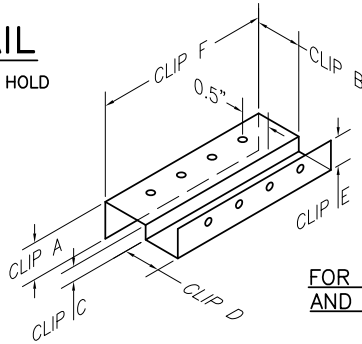
PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP D

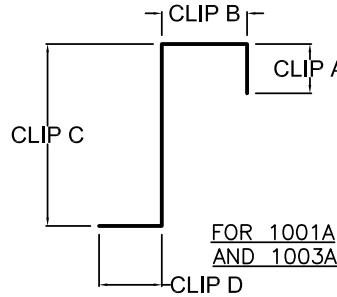
PART NO: SEE BELOW

HOLD DOWN DETAIL

NOTE: SEE TABLE 1 FOR DESIGNATED HOLD DOWN CLIP PER CURB



FOR 6047
AND 6049



FOR 1001A
AND 1003A

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GUAGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]
1001A	N/A	14 GA	.75	1.0625	2.75	.875	N/A	SEE PAGE 1
1003A	N/A	14 GA	.75	1.0625	2.75	.875	N/A	SEE PAGE 1
6047	6905-SHD6-14	12 GA	1.0	1.625	.5	.8125	.75	9.0
6049	6905-SHD6-14	12 GA	1.0	1.625	.5	.8125	.75	9.0

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 13001

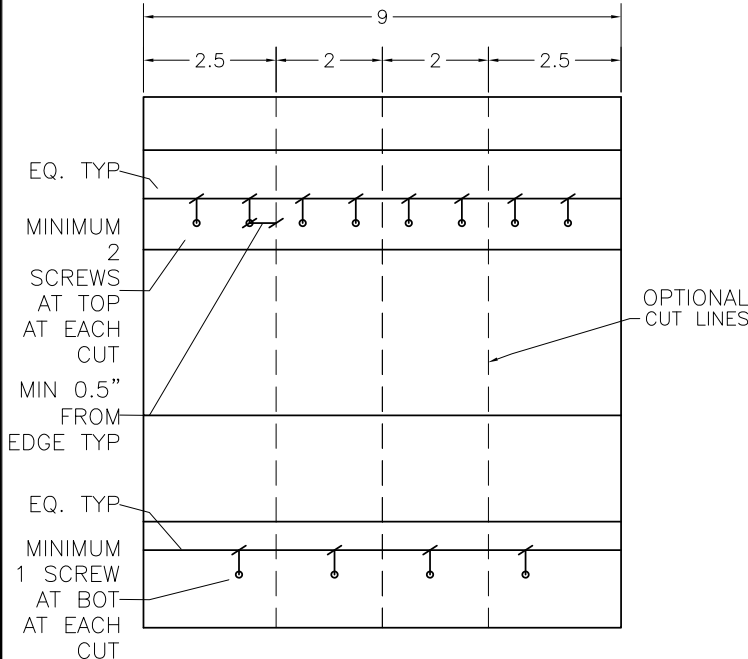


12/14/2018

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:
SEE TABLE 2 FOR CLIP LOCATION

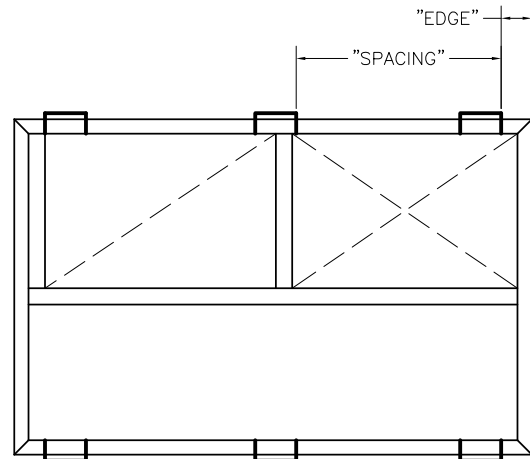


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]
1001A	N/A	N/A
1003A	N/A	N/A
6047	7.75	15.6875
6049	7.75	20.5625

PROJECT: IBC 2018/ CBC 2019 UPDATE

DATE: 12.6.18

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_D.DWG

PAGE 2 OF 3



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FOR: GROUP D

PART NO: SEE BELOW

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

STRUCTURAL REVIEW BY:



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Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 13001



12/14/2018

RELATED CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG LONG [IN]	CG SHORT [IN]	CG HEIGHT [IN]
1001A	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 70	48.28	32.72	42.98	MAX 400	22.6	15.8	HUNIT/2
			11	80							
			14	90							
			18	104							
			24	187							
			MAX 36	MAX 253							
1003A	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 84	48.28	44.22	46.98	MAX 600	25.5	15.5	HUNIT/2
			11	95							
			14	107							
			18	122							
			24	217							
			MAX 36	MAX 294							
6047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 55	50.625	43.125	37.375	MAX 400	20	15.8	HUNIT/2
			11	66							
			14	77							
			18	92							
			24	185							
			MAX 36	MAX 259							
6049	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 66	60.313	46.063	41.375	MAX 600	25	16.3	HUNIT/2
			11	79							
			14	92							
			18	109							
			24	216							
			MAX 36	MAX 300							

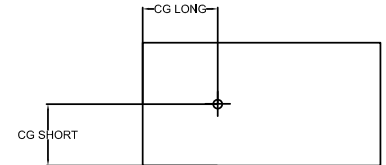


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	16 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	36"
E	SCREWS	12	12	14	14
F	SCREWS	10	10	10	10
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	6	6	6	6
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	(6)

NOTE:
SEE PAGE 1 FOR CLIP SMS FOR CONTINUOUS HOLD DOWN ON 1001A AND 1003A

PROJECT: IBC 2018/ CBC 2019 UPDATE

DATE: 12.6.18

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_D.DWG

PAGE 3 OF 3



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

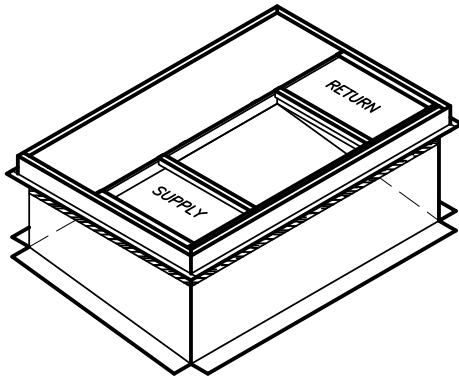
PART NO:

PITCHED ROOF CURB

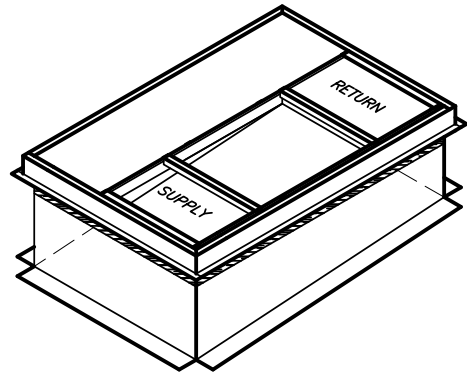
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

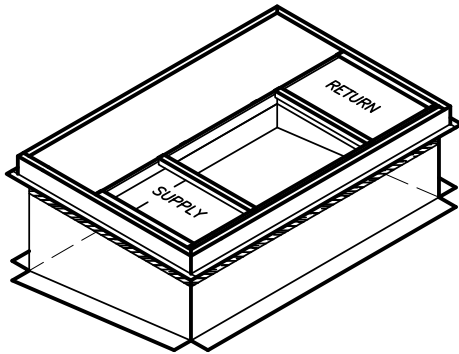
(A)



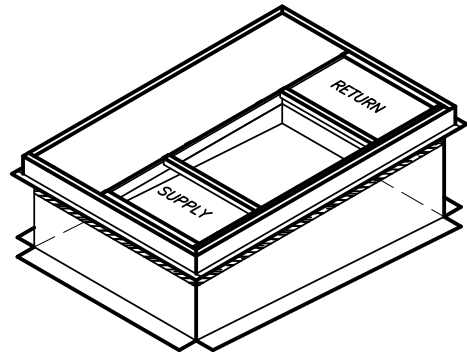
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-3

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Unit Parameters

Unit Model:.....**50FCQM07A2A6-0A0A0**
 Unit Size:.....**07 (6 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:**Single Circuit, Two Stage Cooling (07 only)**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**3' 5.375"**
Total Operating Weight:.....599 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**4**
 Return Air Filter Size:.....**16 x 16 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu
 Base Electro-mechanical controls
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (STD.)

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50FCQM07A2A6-0A0A0	Rooftop Unit	1
	Base Unit	
	Direct Drive - EcoBlue - Medium Static	
	None	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	1
CRHEATER335A00	Electric Heater	1

Performance Summary For HP-3

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Part Number:50FCQM07A2A6-0A0A0

ARI EER:.....	11.20
Application EER (Rooftop Unit only):.....	11.28
IEER:.....	15.0

Base Unit Dimensions

Unit Length:.....	74.4	in
Unit Width:.....	46.6	in
Unit Height:.....	41.4	in

Operating Weight

Base Unit Weight:.....	589	lb
------------------------	-----	----

Accessories

Electric Heater:.....	10	lb
-----------------------	----	----

Total Operating Weight:.....	599	lb
------------------------------	-----	----

Unit

Unit Voltage-Phase-Hertz:.....	460-3-60	
Air Discharge:.....	Vertical	
Fan Drive Type:.....	Vane Axial	
Actual Airflow:.....	2100	CFM
Site Altitude:.....	0	ft

Cooling Performance

Condenser Entering Air DB:.....	95.0	F
Evaporator Entering Air DB:.....	80.0	F
Evaporator Entering Air WB:.....	67.0	F
Entering Air Enthalpy:.....	31.44	BTU/lb
Evaporator Leaving Air DB:.....	55.6	F
Evaporator Leaving Air WB:.....	55.6	F
Evaporator Leaving Air Enthalpy:.....	23.55	BTU/lb
Unit Discharge Air DB:.....	56.7	F
Unit Discharge Air WB:.....	56.2	F
Unit Discharge Air Enthalpy:.....	23.92	BTU/lb
Gross Cooling Capacity:.....	73.45	MBH
Net Cooling Capacity:.....	71.03	MBH
Gross Sensible Capacity:.....	55.30	MBH
Net Sensible Capacity:.....	52.88	MBH
Compressor Power Input:.....	5.29	kW
Coil Bypass Factor:.....	0.022	

Heating Performance

Outdoor Ambient Temperature:.....	47.0	F
Entering Air Indoor Coil DB:.....	70.0	F
Leaving Air Indoor Coil DB:.....	98.0	F
Total Heating Capacity:.....	63.55	MBH
Integrated Heating Capacity:.....	63.55	MBH
Heating Power Input:.....	5.15	kW
High Temperature COP:.....	3.60	
Low Temperature COP:.....	2.40	
Electric Heating Capacity:.....	10.60	kW
Unit Leaving Air Temp:.....	114.0	F

Supply Fan

External Static Pressure:.....	0.60	in wg
Options / Accessories Static Pressure		
Electric Heaters:.....	0.24	in wg
Application External Static (ESP + Unit Opts/Acc.):.....	0.84	in wg
Fan RPM:.....	1986	

Performance Summary For HP-3

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Fan Power:..... **0.83** BHP

NOTE:..... **Selected IFM RPM Range: 253 - 2530**

Supply Fan Motor Maximum Continuous BHP:..... **1.8** HP

Supply Fan Motor Application HP:..... **1.8** HP

NOTE:Motors with application horse power are specifically designed and tested for Carrier rooftop units therefore do not have a standard HP rating.

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range:..... **414 - 506**

Compressor #1 RLA:..... **8.5**

Compressor #1 LRA:..... **66**

Actual Electric Heater kW:..... **10.6**

Electric Heater FLA:..... **13.8**

Indoor Fan Motor Type:..... **MED**

Indoor Fan Motor FLA (Total):..... **2.6**

Power Supply MCA:..... **32**

Power Supply MOCP (Fuse or HACR):..... **35**

Disconnect Size FLA:..... **30**

Disconnect Size LRA:..... **86**

Electrical Convenience Outlet:..... **None**

Outdoor Fan [Qty / FLA (ea)]:..... **1 / 0.8**

Electric Heater Part Number:..... **335A**

Electric Heater Number of Stages:..... **1**

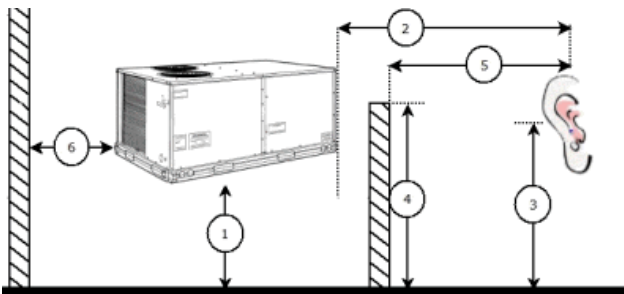
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	90.5	88.2	85.6
125 Hz	81.6	77.8	84.7
250 Hz	75.7	71.0	80.5
500 Hz	73.0	64.5	76.0
1000 Hz	69.4	67.1	72.4
2000 Hz	67.0	58.4	68.0
4000 Hz	63.2	51.5	62.8
8000 Hz	59.6	46.0	59.3
A-Weighted	76.0	70.9	79.0

Advanced Acoustics



Advanced Acoustics Parameters

1. Unit height above ground:..... **30.0** ft

2. Horizontal distance from unit to receiver:..... **50.0** ft

Performance Summary For HP-3

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

- 3. Receiver height above ground:.....**5.7** ft
- 4. Height of obstruction:.....**0.0** ft
- 5. Horizontal distance from obstruction to receiver:.....**0.0** ft
- 6. Horizontal distance from unit to obstruction:.....**0.0** ft

Detailed Acoustics Information

Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3	89.2 Lw
B	59.4	68.6	71.9	72.8	72.4	69.2	63.8	58.2	78.5 LwA
C	53.2	52.3	48.1	43.6	40.0	35.6	30.4	26.9	56.8 Lp
D	27.0	36.2	39.5	40.4	40.0	36.8	31.4	25.8	46.1 LpA

Legend

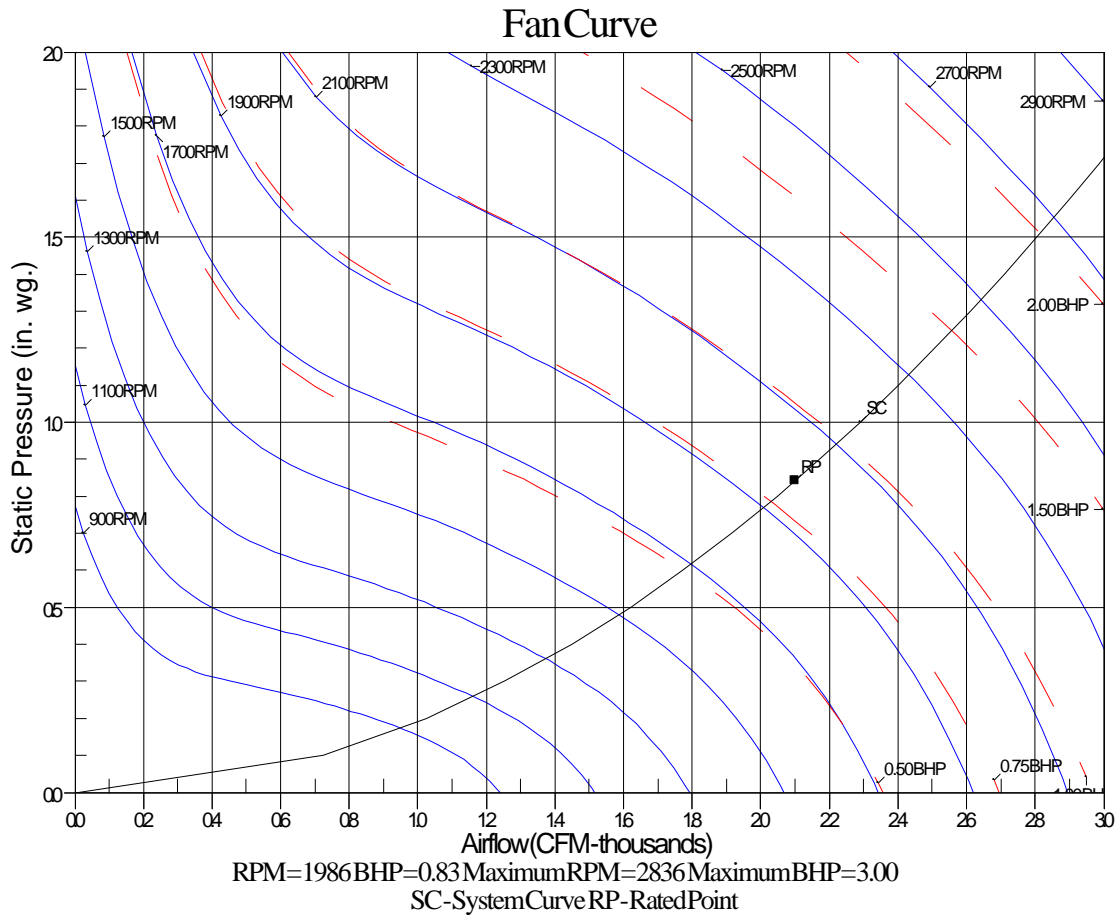
- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.

Performance Summary For HP-3

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM



Certified Drawing for HP-3

Project: BCSD HVAC Replacement
Prepared By:

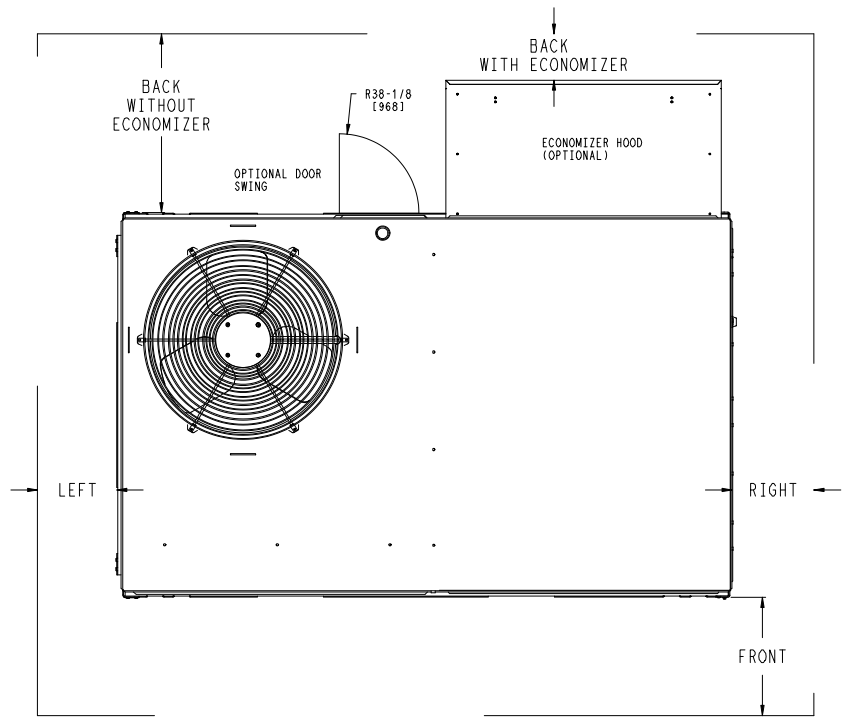
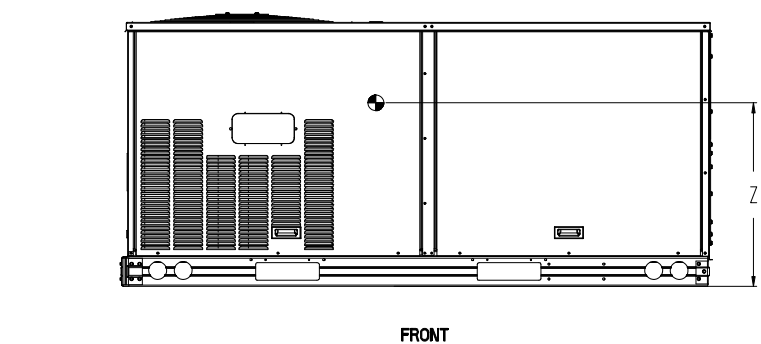
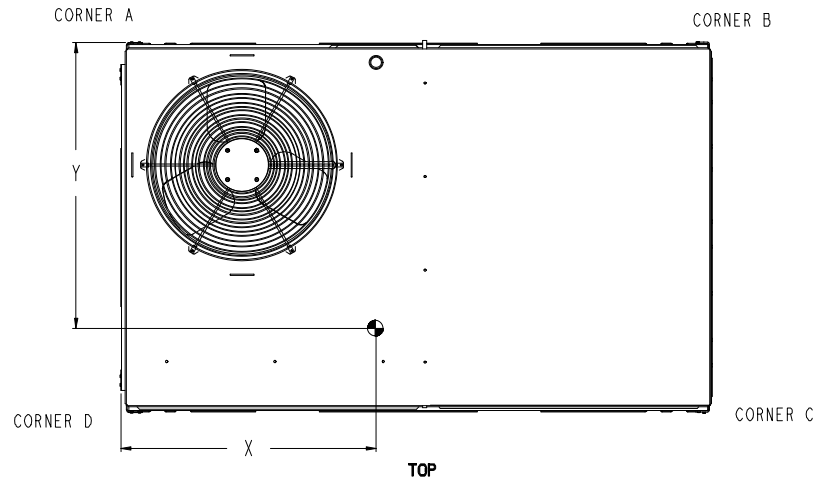
08/09/2023
09:57AM

UNIT	STD. UNIT WEIGHT*		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		HEIGHT	
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y		Z
50FCQ*04	467	212	126	57	118	53	108	49	115	52	36	[914]	22 3/8 [568]	16 1/8 [410]
50FCQ*05	473	215	127	58	119	54	110	50	117	53	36	[914]	22 3/8 [568]	16 1/8 [410]
50FCQ*06	584	265	160	72	145	66	133	60	146	66	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	
50FCQ*07	589	267	161	73	146	66	134	61	147	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]	

* STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



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NOTE:
1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

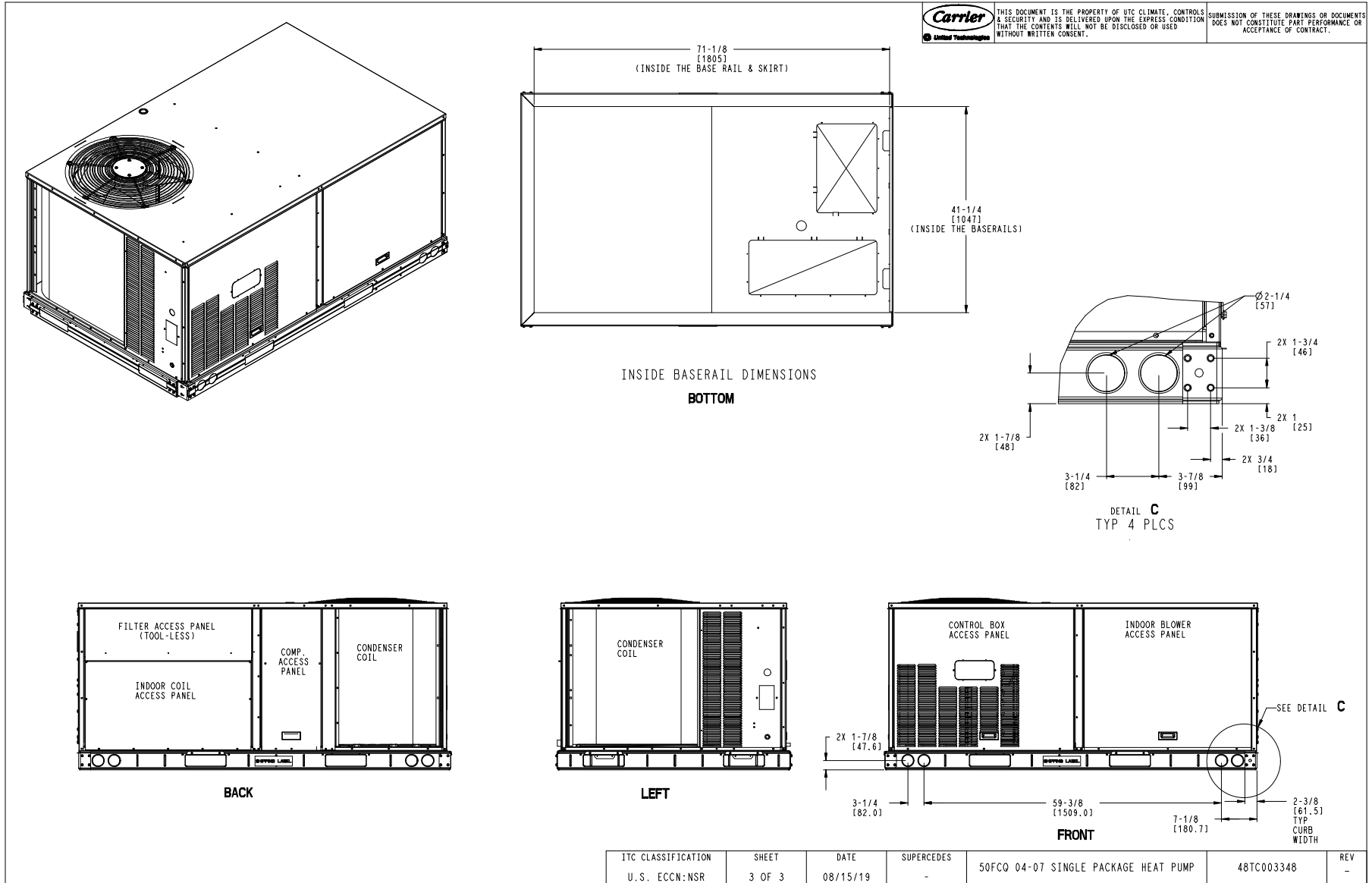
SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH: CONDUCTIVE BARRIER	SERVICE WITH: NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

ITC CLASSIFICATION U.S. ECCN:NSR	SHEET 2 OF 3	DATE 08/15/19	SUPERCEDES -	50FCQ 04-07 SINGLE PACKAGE HEAT PUMP	48TC003348	REV -
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Certified Drawing for HP-3

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM





Date: 3/1/2022

Weights: 191lbs/86.64kg

Units:

Part Number: PECD-SRT12CB-D0DB-4L1-4

Submitted To: aarballo@siglers.com

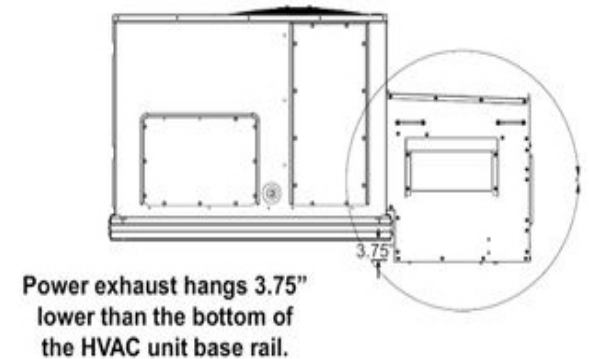
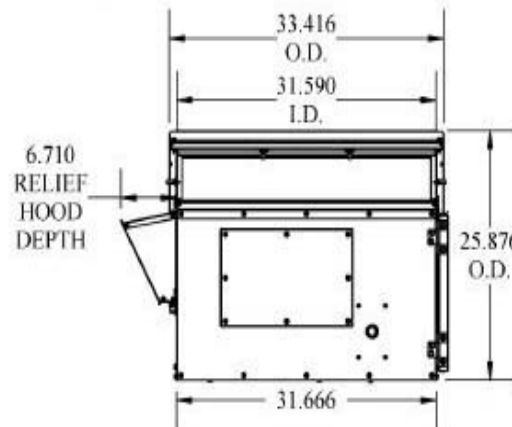
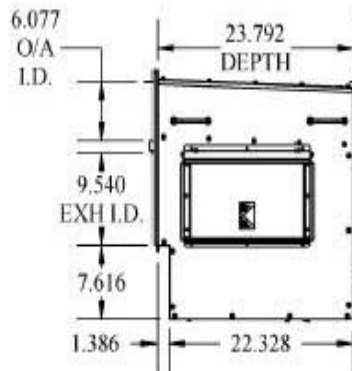
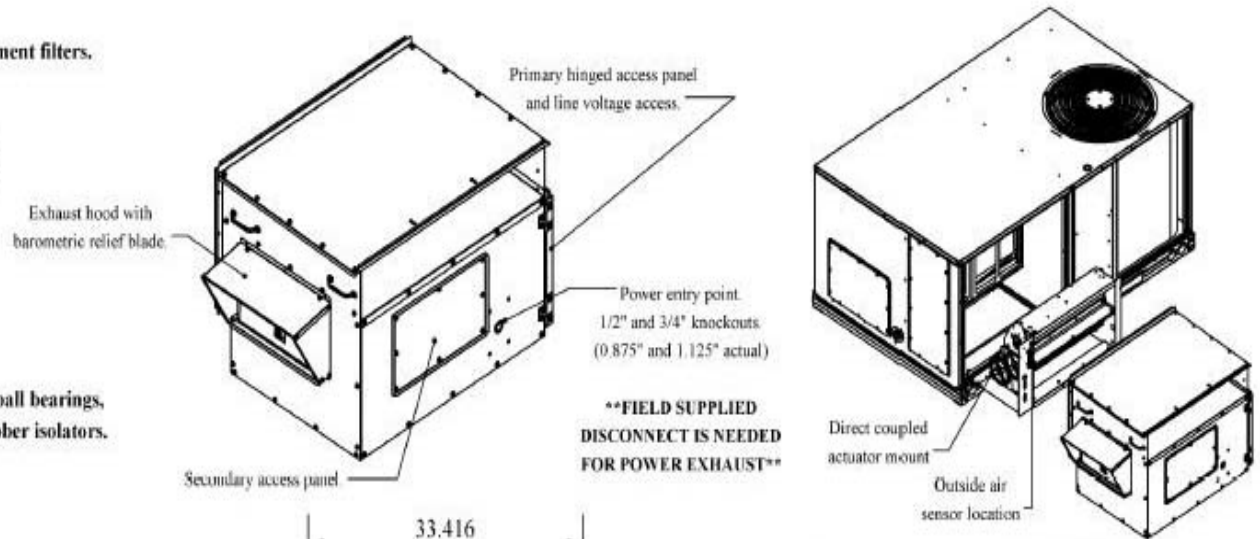
Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 2675 CFM @ 1/2" - 1 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

FEATURES:

- Includes ECD-SRT12CB series economizer.
- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrainment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 1 - ECD-SRT1CA-HDOOR
 - MMC P/# for Chassis 2 - ECD-SRT2CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class 1A & AMCA certified.
- Relief blades are AMCA certified.
- Uses filter rack with unit.
- Field supplied and installed disconnect is required.
- Blower is forward curved, double inlet, with pre-lubricated ball bearings, have a dynamically balanced wheel, and are mounted on rubber isolators.
- Thermally protected motors.
- Adjustable motor pulleys
- See page 2 for PE performance and electrical data.



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MicroMetl

Date:
3/1/2022

Weights:
191lbs/86.64kg

Units:

Part Number:
PECD-SRT12CB-D0DB-4L1-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 2675 CFM @ 1/2" - 1 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

Compliant Economizer:

1. **Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements. 5 Year Warranty for parts and components only.
2. **ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
3. **IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
4. **AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- Includes **ECD-SRT12CA Series Economizer**. See economizer submittal for economizer details.
- Designed specifically for vertical discharge applications. Easy to install. Easy to service.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided.
- All harnesses and plugs needed are provided.
- Uses standard filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

1. Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
2. Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
3. ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

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Date:
3/1/2022

Weights:
191lbs/86.64kg

Units:

Part Number:
PECD-SRT12CB-D0DB-4L1-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 2675 CFM @ 1/2" - 1 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

- 1/2HP Power Exhaust Configurations and Electrical Data								
Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
1VH	208-230/240	1	Constant Volume	0.5	4.1-4.3	5.1-5.4	9.2-9.7	N/A
2VH	208-230/240	3	Constant Volume	0.5	2.3-2.2	2.9-2.8	5.2-5.0	N/A
1LH or 1TH	208-230/240	1	Modulating	0.5	5.7*	7.1	12.8	10 Amp
2LH or 2TH	208-230/240	3	Modulating	0.5	3.9*	4.9	8.8	10 Amp
4VH	460/480	3	Constant Volume	0.5	1.1	1.4	2.5	N/A
4LH or 4TH	460/480	3	Modulating	0.5	1.5*	1.9	3.4	10 Amp

- 1HP Power Exhaust Configurations and Electrical Data								
Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
2V1	208-230/240	3	Constant Volume	1.0	3.8-3.6	4.8-4.5	8.6-8.1	N/A
1L1	208-230/240	1	Modulating	1.0	10.0*	12.5	22.5	20 Amp
2L1 or 2T1	208-230/240	3	Modulating	1.0	6.4*	8.0	14.4	12 Amp
4V1	460/480	3	Constant Volume	1.0	1.9	2.4	4.3	N/A
4L1 or 4T1	460/480	3	Modulating	1.0	2.8*	3.5	6.3	10 Amp

*VFD Input Current

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**MicroMetl**Date:
3/1/2022Weights:
191lbs/86.64kg

Units:

Part Number:
PECD-SRT12CB-D0DB-4L1-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 2675 CFM @ 1/2" - 1 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

****Data provided by blower manufacturer****

"1/2 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2200	0.1	712	dBA	76	74	71	69	68	65	61	58	62
2075	.25	760		78	76	74	71	70	68	64	61	64
2025	.3	781		78	76	75	72	71	69	64	61	65
1950	.4	821		81	78	76	73	71	69	65	62	66
1850	.5	864		83	80	77	74	72	69	66	63	67
1775	.6	908		84	82	79	76	74	72	68	65	68
1650	.75	974		86	83	82	78	76	76	70	67	71

"1 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2900	0.1	840	dBA	82	79	76	73	71	68	65	62	66
2825	.25	875		83	80	78	74	73	70	67	64	67
2800	.3	886		83	81	78	75	73	71	67	64	68
2725	.4	909		84	81	79	76	74	73	68	65	69
2675	.5	935		85	82	80	77	75	74	69	66	70
2625	.6	967		86	83	82	78	76	75	70	67	71
2525	.75	1011		87	85	83	79	77	76	71	68	72

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FOR: GROUP A

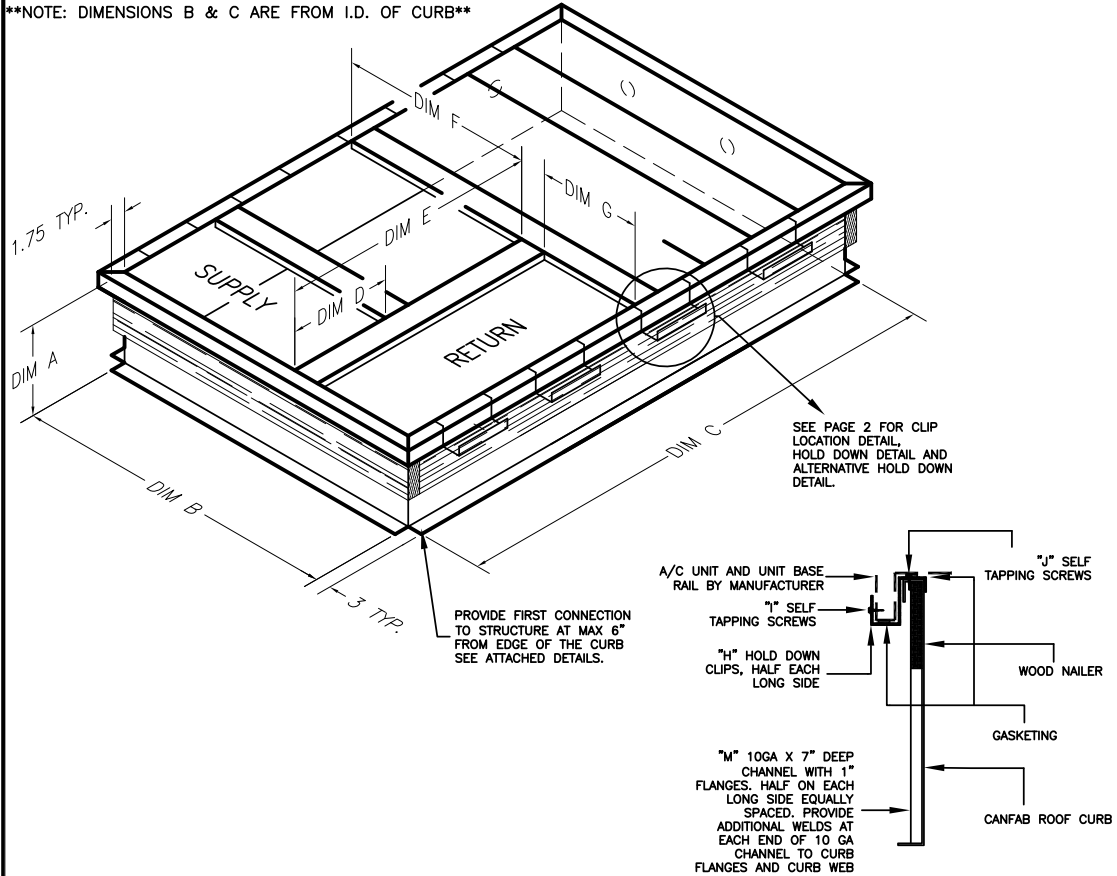
CARRIER 3 - 6-1/2 TONS

48/50HC/GC 04-06, 50HCQ 04-06, 50 KCQ 04-06, 48/50LC 04-06, 48/50TC/FC 04-07, 50TCQ 04-07, 48/50KC/FC 04-06

PART NO: 1005-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	37.1875"	67.375"	14.1875"	32.1875"	20.25"	13.875"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

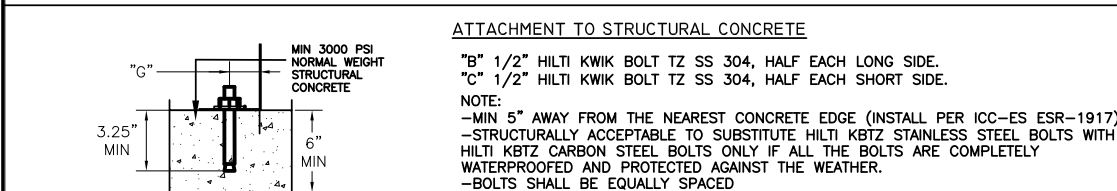
SEISMIC DESIGN CRITERIA
 -SDS = 1.5 ap = 2.5
 -I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA
 -MAX 60 FT TALL BUILDING
 -EXPOSURE C
 -175 MPH, 3 SECOND GUST WIND

NOTE:
 -INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
 -INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

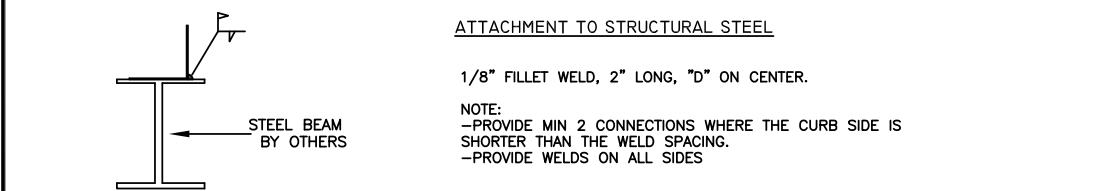
CURB CONSTRUCTION
 1) WELDED
 2) BOLTED
 3) FINGERLOCK
 -ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
 -SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
 -NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION
 "A" GAUGE GALVANIZED STEEL CURB
 -SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
 -SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
 -ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3

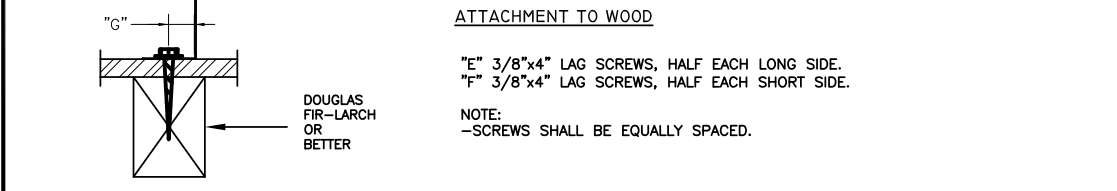


ATTACHMENT TO STRUCTURAL CONCRETE
 "B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
 "C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
 NOTE:
 -MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
 -STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
 -BOLTS SHALL BE EQUALLY SPACED

STRUCTURAL REVIEW BY:
MARTIN & associates
 JOHN A. MARTIN AND ASSOCIATES
 Structural Engineers
 950 South Grand Ave., 4th Floor
 Los Angeles, California, 90015
 Phone (213) 483 6490
 Fax (213) 483 3084
 Job No.: 19022



ATTACHMENT TO STRUCTURAL STEEL
 1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
 NOTE:
 -PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
 -PROVIDE WELDS ON ALL SIDES



ATTACHMENT TO WOOD
 "E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
 "F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
 NOTE:
 -SCREWS SHALL BE EQUALLY SPACED.



PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE	DATE: 3.12.19
ENGINEER: LD	DISTRIBUTOR:
DRAWING NUMBER: GROUP_A.DWG	PAGE 1 OF 3



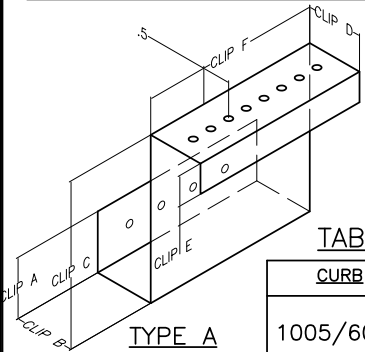
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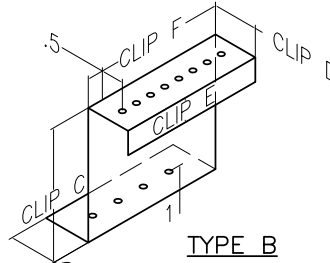
FOR: GROUP A

PART NO:

HOLD DOWN DETAIL



TYPE A



TYPE B

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1005/6059	1909-SHD8-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3003	3901-SHD8-12	12 GA	1.0	4.81	3.875	2.125	1.0	9.0	N/A	A
4027	4905-SHD8-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B
6037	6907-SHD8-12	12 GA	2.0	2.0	3.25	1.875	1.0	9.0	N/A	A
4047	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022

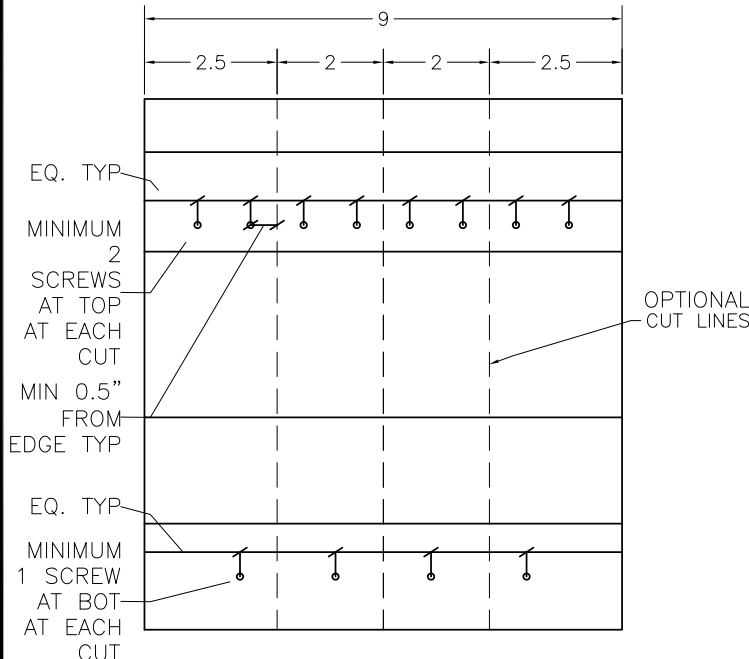


01/13/2021

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:

- SEE TABLE 2 FOR CLIP LOCATION
- ONLY 4047 HAS CLIPS ON THE SHORT SIDE

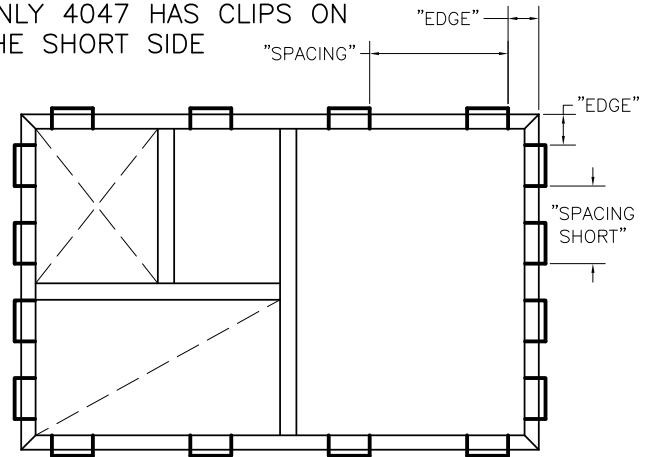


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1005/6059	7.75	15.46	N/A
3003	7.75	19.00	N/A
4027	7.75	18.33	N/A
6037	7.75	13.58	N/A
4047	7.75	15.5	10.8125

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 2 OF 3



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FOR: GROUP A

PART NO: 4047-CB

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

RELATED_CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1005	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 110	74.375	46.75	41.375	MAX 900	34.625	22.5	20.25
			11	127							
			14	144							
			18	166							
			24	262							
			MAX 36	MAX 354							
3003	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 82	82.25	44.875	32.625	MAX 900	38.6	18.75	HUNIT/2
			11	99							
			14	115							
			18	137							
			24	225							
			MAX 36	MAX 316							
4027	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 91	83.25	45	43.375	MAX 1316	47	22	HUNIT/2
			11	109							
			14	127							
			18	151							
			24	238							
			MAX 36	MAX 355							
4047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 101	73.75	45.25	44.875	MAX 712	42	26.5	HUNIT/2
			11	119							
			14	137							
			18	151							
			24	187							
			MAX 36	MAX 250							
6037	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 111	69.875	44.25	40.875	MAX 1202	44	22	HUNIT/2
			11	124							
			14	141							
			18	162							
			24	256							
			MAX 36	MAX 345							
6059	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 112	76.841	47.934	42.004	MAX 869	42	29	HUNIT/2
			11	129							
			14	146							
			18	169							
			24	265							
			MAX 36	MAX 358							

STRUCTURAL REVIEW BY:



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Job No.: 19022



12/19/2019

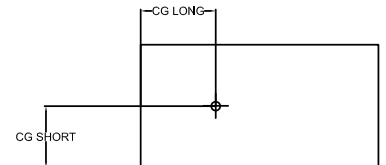


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	24"
E	SCREWS	16	18	20	22
F	SCREWS	8	8	10	12
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	8 (4 ON EACH LONG SIDE) TYPICAL. 12 (4 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	6 (3 ON EACH LONG SIDE) TYPICAL. 10 (3 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/18/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 3 OF 3



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

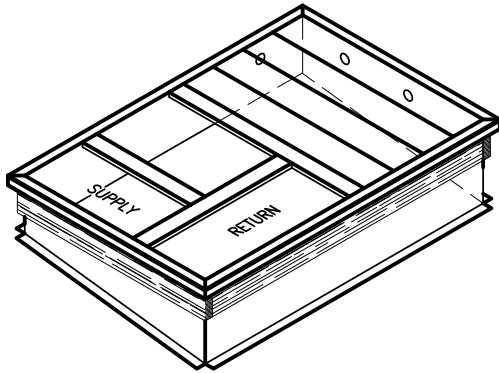
PART NO:

PITCHED ROOF CURB

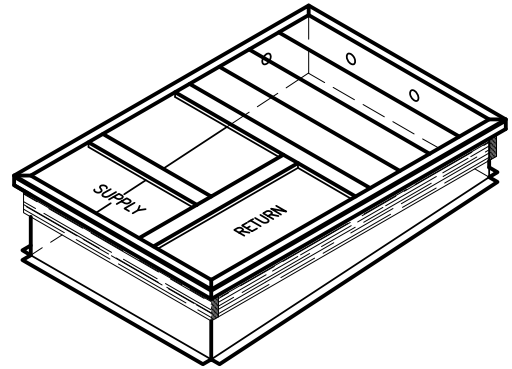
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

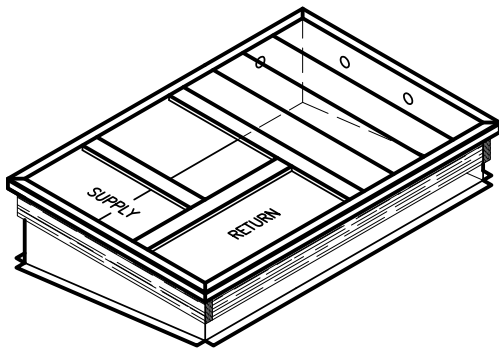
(A)



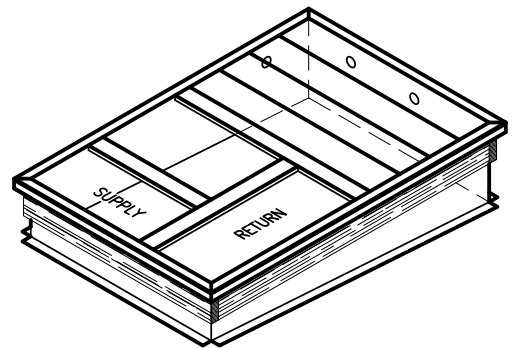
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-4

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Unit Parameters

Unit Model:.....**50GCQJ04A2A6-0A0A0**
 Unit Size:.....**04 (3 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:.....**Two Stage Cooling Models**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**2' 9.375"**
Total Operating Weight:.....485 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**2**
 Return Air Filter Size:.....**16 x 25 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Direct Drive - EcoBlue - Medium Static
 A/Cu - A/Cu
 Base controls set up for field installed air management device
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (STD.)
 3-Year SystemVu controller

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50GCQJ04A2A6-0A0A0	Rooftop Unit	1
	Base Unit	
	Direct Drive - EcoBlue - Medium Static	
	None	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	1
CRHEATER334A00	Electric Heater	1

Performance Summary For HP-4

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Part Number:50GCQJ04A2A6-0A0A0

ARI SEER:..... **17.00**
 ARI SEER2:..... **16.00**
 Application EER (Rooftop Unit only):..... **12.47**

Base Unit Dimensions

Unit Length:..... **74.4** in
 Unit Width:..... **46.6** in
 Unit Height:..... **33.4** in

Operating Weight

Base Unit Weight:..... **475** lb

Accessories

Electric Heater:..... **10** lb

Total Operating Weight:..... **485** lb

Unit

Unit Voltage-Phase-Hertz:..... **460-3-60**
 Air Discharge:..... **Vertical**
 Fan Drive Type:..... **Vane Axial**
 Actual Airflow:..... **1200** CFM
 Site Altitude:..... **0** ft

Cooling Performance

Condenser Entering Air DB:..... **95.0** F
 Evaporator Entering Air DB:..... **80.0** F
 Evaporator Entering Air WB:..... **67.0** F
 Entering Air Enthalpy:..... **31.44** BTU/lb
 Evaporator Leaving Air DB:..... **58.3** F
 Evaporator Leaving Air WB:..... **57.4** F
 Evaporator Leaving Air Enthalpy:..... **24.66** BTU/lb
 Unit Discharge Air DB:..... **59.1** F
 Unit Discharge Air WB:..... **57.7** F
 Unit Discharge Air Enthalpy:..... **24.85** BTU/lb
 Gross Cooling Capacity:..... **36.59** MBH
 Net Cooling Capacity:..... **35.58** MBH
 Gross Sensible Capacity:..... **28.14** MBH
 Net Sensible Capacity:..... **27.13** MBH
 Compressor Power Input:..... **2.38** kW
 Coil Bypass Factor:..... **0.066**

Heating Performance

Outdoor Ambient Temperature:..... **47.0** F
 Entering Air Indoor Coil DB:..... **70.0** F
 Leaving Air Indoor Coil DB:..... **96.5** F
 Total Heating Capacity:..... **34.30** MBH
 Integrated Heating Capacity:..... **34.30** MBH
 Heating Power Input:..... **2.34** kW
 High Temperature COP:..... **3.80**
 Low Temperature COP:..... **2.40**
 HSPF:..... **8.8**
 High Temperature COP2:..... **3.60**
 Low Temperature COP2:..... **2.30**
 HSPF2:..... **7.3**
 Electric Heating Capacity:..... **8.10** kW
 Unit Leaving Air Temp:..... **117.8** F

Supply Fan

External Static Pressure:..... **0.60** in wg

Performance Summary For HP-4

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Options / Accessories Static Pressure

Electric Heaters:.....	0.07	in wg
Application External Static (ESP + Unit Opts/Acc.):.....	0.67	in wg
Fan RPM:.....	1680	
Fan Power:.....	0.35	BHP
NOTE:.....	Selected IFM RPM Range: 1058 - 2190	

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range:.....	414 - 506
Compressor #1 RLA:.....	4.7
Compressor #1 LRA:.....	44
Actual Electric Heater kW:.....	8.1
Electric Heater FLA:.....	10.6
Indoor Fan Motor Type:.....	MED
Indoor Fan Motor FLA (Total):.....	1.2
Power Supply MCA:.....	21
Power Supply MOCP (Fuse or HACR):.....	25
Disconnect Size FLA:.....	20
Disconnect Size LRA:.....	58
Electrical Convenience Outlet:.....	None
Outdoor Fan [Qty / FLA (ea)]:.....	1 / 0.6
Electric Heater Part Number:.....	334A
Electric Heater Number of Stages:.....	1

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

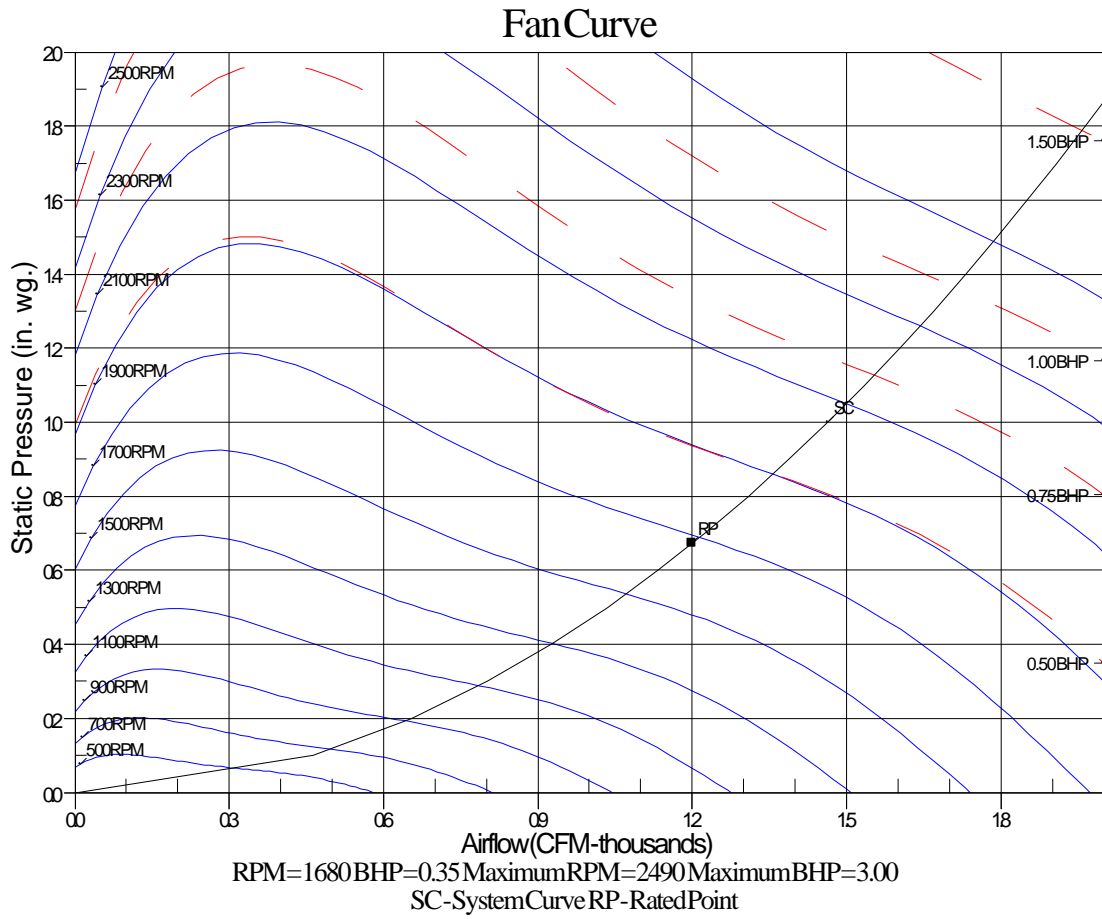
Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	88.9	83.1	NA
125 Hz	81.0	75.4	NA
250 Hz	72.8	66.9	NA
500 Hz	65.5	59.0	NA
1000 Hz	62.6	60.2	NA
2000 Hz	59.2	51.8	NA
4000 Hz	55.9	45.9	NA
8000 Hz	55.8	41.1	NA

Performance Summary For HP-4

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM



Certified Drawing for HP-4

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

NOTES:

1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN () ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW
4. ALL VIEW DRAWN USING 3RD ANGLE

UNIT	J	K
50GCO+04	33 3/8 [847]	18 5/8 [472]
50GCO+05	41 3/8 [1051]	18 5/8 [472]
50GCO+06	41 3/8 [1051]	18 5/8 [472]



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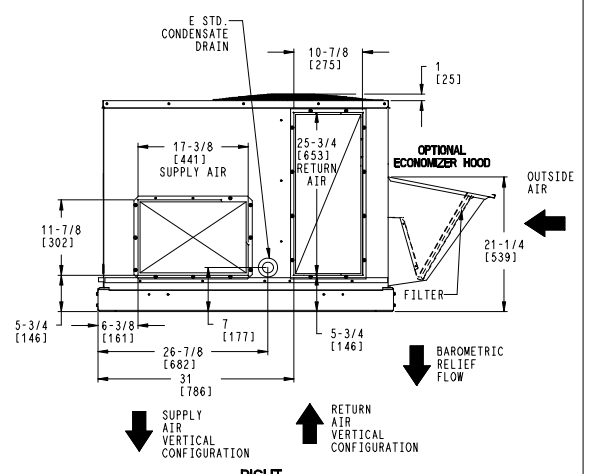
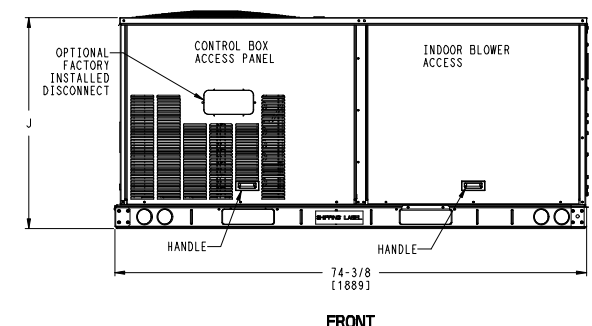
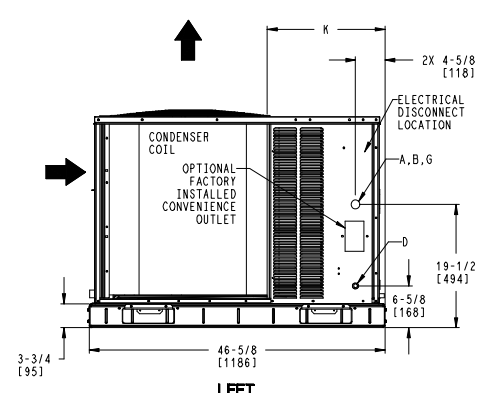
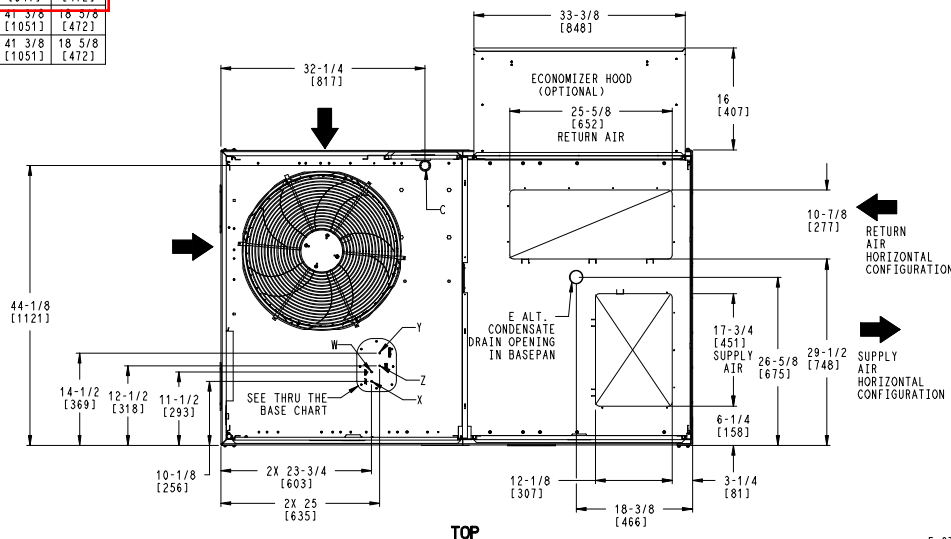
CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW008A00, 009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	115V	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y *	3/4"	POWER	1 1/8" [28.6]
Z **	(009A00) 1/2" FPT	GAS	1 1/8" [28.6]

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	1 OF 3	08/15/19	-			-

Certified Drawing for HP-4

Project: BCSD HVAC Replacement
Prepared By:

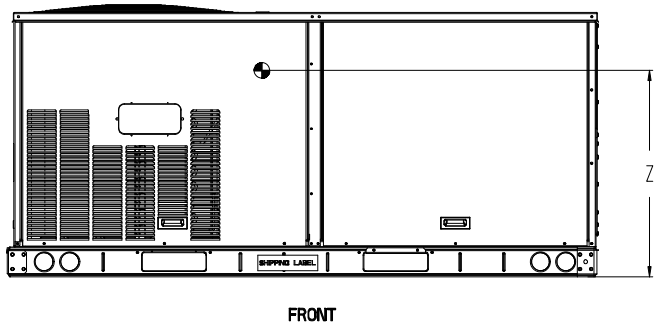
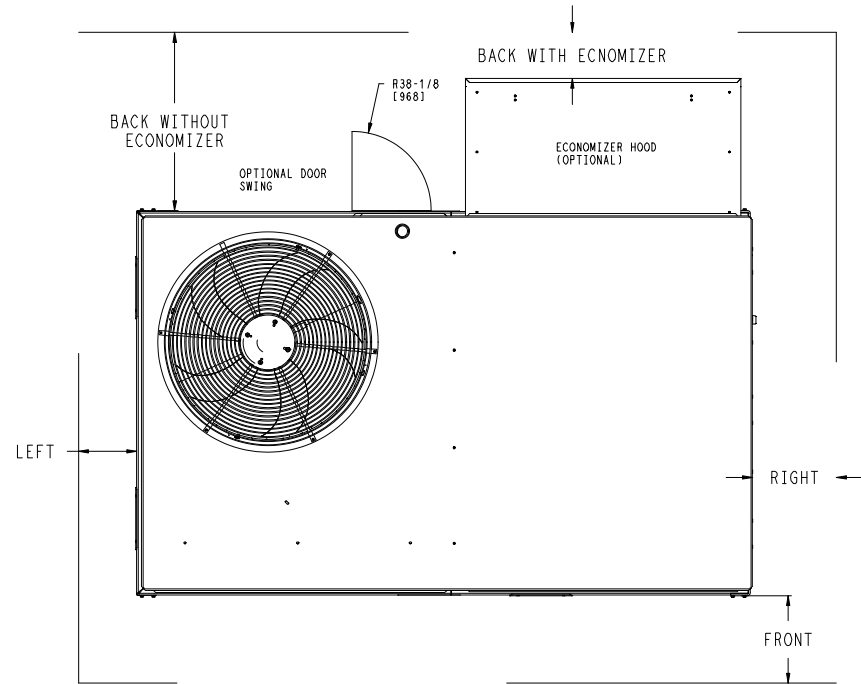
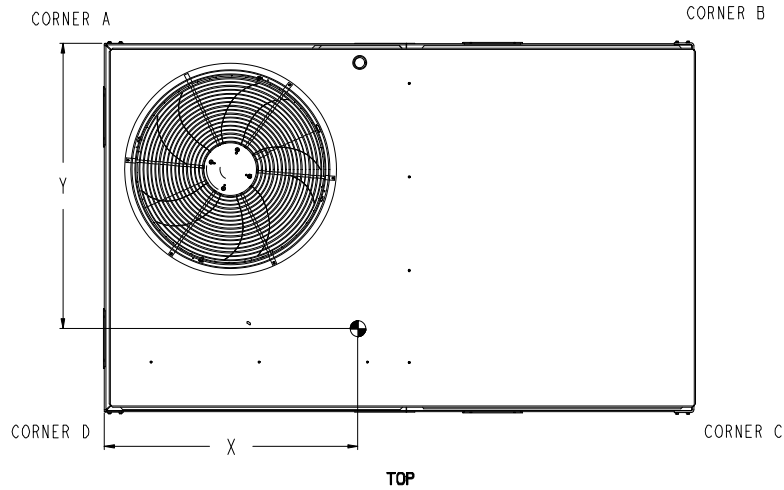
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UNIT	STD. UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		HEIGHT
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50GCO*04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]
50GCO*05	390	176	102	46	96	43	87	41	91	42	33 3/8 [898]	22 5/16 [557]	16 1/2 [419]
50GCO*06	596	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]

* - STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.



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NOTE:

1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

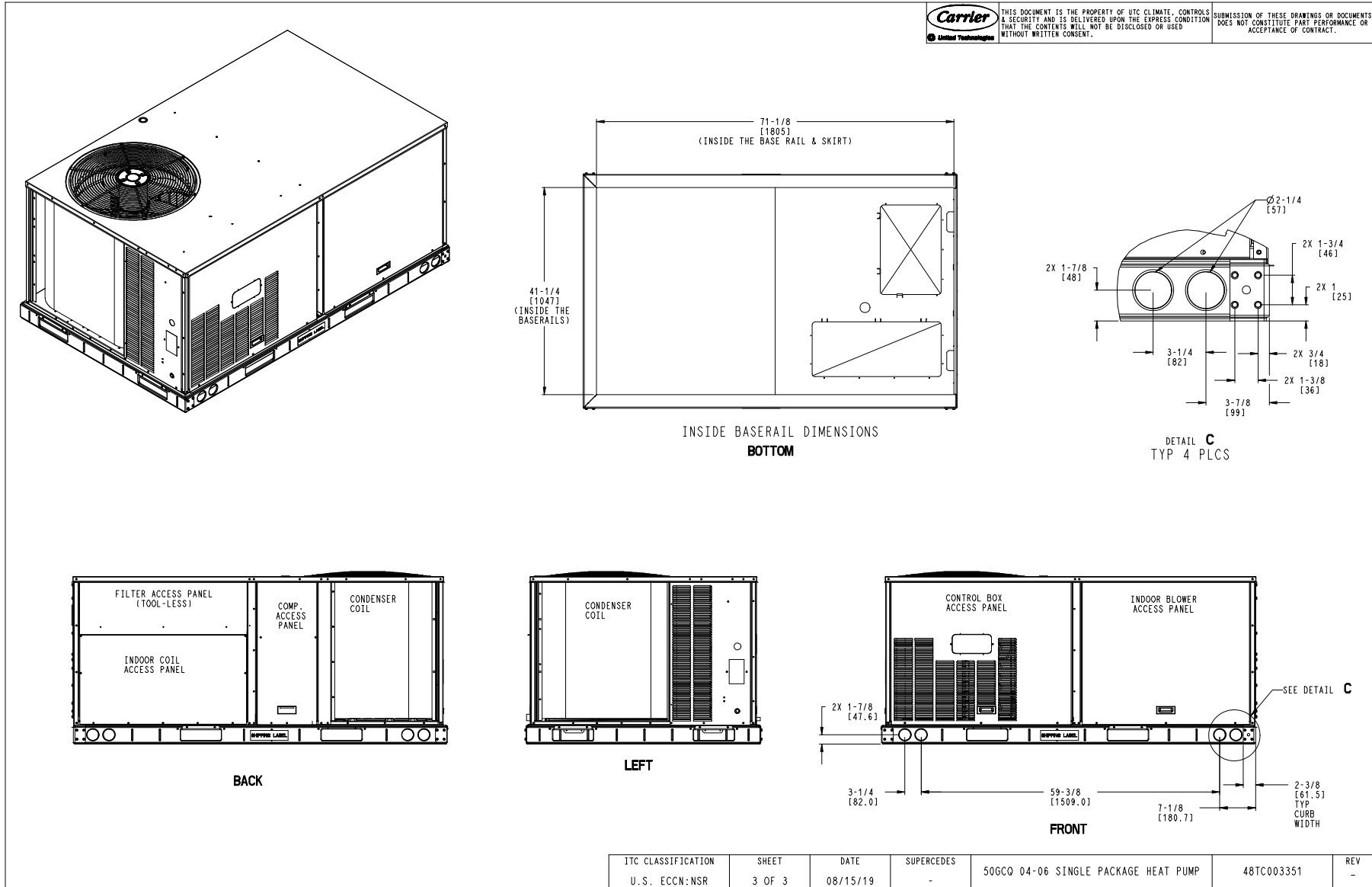
SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH CONDUCTIVE BARRIER	SERVICE WITH NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

ITC CLASSIFICATION U.S. ECCN: NSR	SHEET 2 OF 3	DATE 08/15/19	SUPERCEDES -	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV -
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Certified Drawing for HP-4

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
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ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCQ 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN: NSR	3 OF 3	08/15/19	-			-



Date:
1/13/2022

Weights:
191lbs/86.64kg

Units:
48JC D05

Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

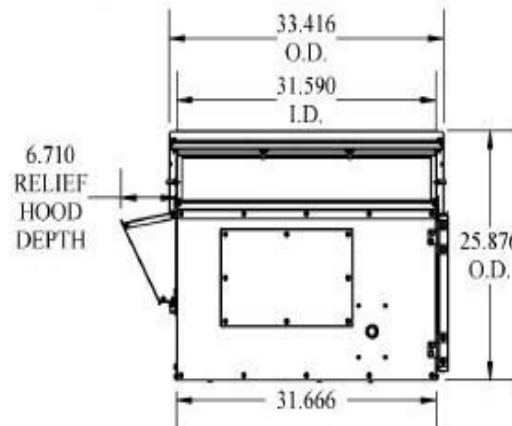
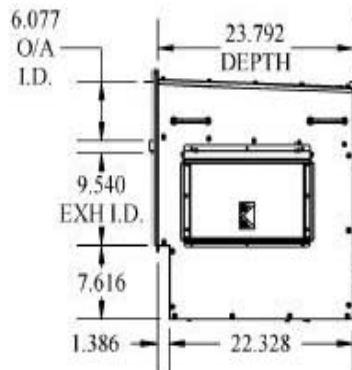
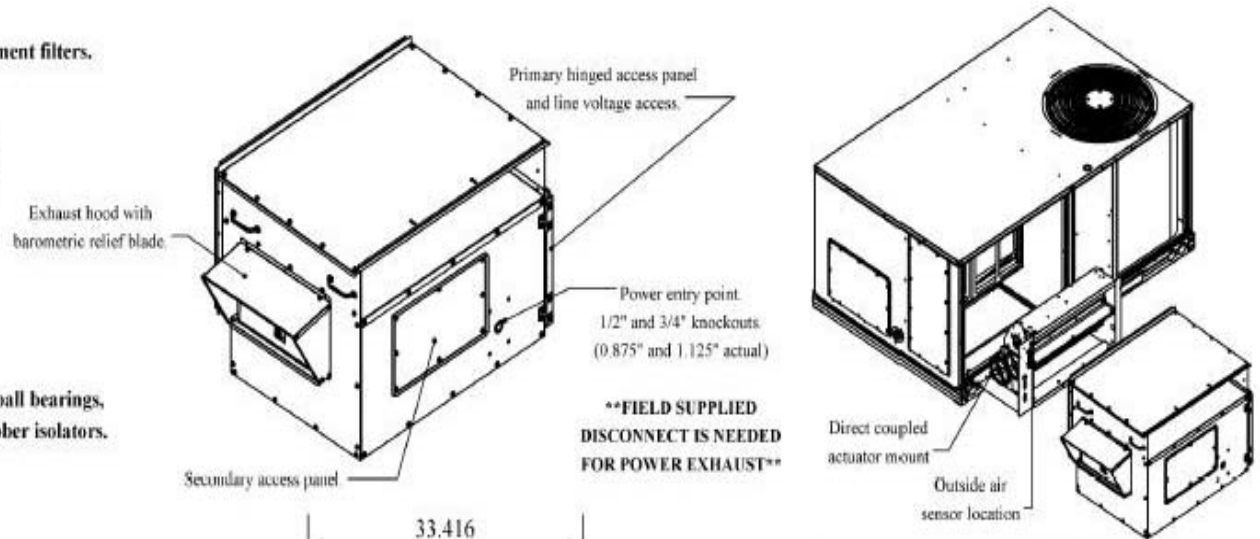
Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

FEATURES:

- Includes ECD-SRT12CB series economizer.
- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrainment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 1 - ECD-SRT1CA-HDOOR
 - MMC P/# for Chassis 2 - ECD-SRT2CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class 1A & AMCA certified.
- Relief blades are AMCA certified.
- Uses filter rack with unit.
- Field supplied and installed disconnect is required.
- Blower is forward curved, double inlet, with pre-lubricated ball bearings, have a dynamically balanced wheel, and are mounted on rubber isolators.
- Thermally protected motors.
- Adjustable motor pulleys
- See page 2 for PE performance and electrical data.



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MicroMetl

Date:
1/13/2022

Weights:
191lbs/86.64kg

Units:
48JC D05

Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

Compliant Economizer:

- Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements. 5 Year Warranty for parts and components only.
- ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
- IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
- AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- Includes **ECD-SRT12CA Series Economizer**. See economizer submittal for economizer details.
- Designed specifically for vertical discharge applications. Easy to install. Easy to service.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided.
- All harnesses and plugs needed are provided.
- Uses standard filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

- Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
- Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
- ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

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**MicroMetl**Date:
1/13/2022Weights:
191lbs/86.64kgUnits:
48JC D05Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

- 1/2HP Power Exhaust Configurations and Electrical Data

Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
1VH	208-230/240	1	Constant Volume	0.5	4.1-4.3	5.1-5.4	9.2-9.7	N/A
2VH	208-230/240	3	Constant Volume	0.5	2.3-2.2	2.9-2.8	5.2-5.0	N/A
1LH or 1TH	208-230/240	1	Modulating	0.5	5.7*	7.1	12.8	10 Amp
2LH or 2TH	208-230/240	3	Modulating	0.5	3.9*	4.9	8.8	10 Amp
4VH	460/480	3	Constant Volume	0.5	1.1	1.4	2.5	N/A
4LH or 4TH	460/480	3	Modulating	0.5	1.5*	1.9	3.4	10 Amp

- 1HP Power Exhaust Configurations and Electrical Data

Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
2V1	208-230/240	3	Constant Volume	1.0	3.8-3.6	4.8-4.5	8.6-8.1	N/A
1L1	208-230/240	1	Modulating	1.0	10.0*	12.5	22.5	20 Amp
2L1 or 2T1	208-230/240	3	Modulating	1.0	6.4*	8.0	14.4	12 Amp
4V1	460/480	3	Constant Volume	1.0	1.9	2.4	4.3	N/A
4L1 or 4T1	460/480	3	Modulating	1.0	2.8*	3.5	6.3	10 Amp

*VFD Input Current

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**MicroMetl**Date:
1/13/2022Weights:
191lbs/86.64kgUnits:
48JC D05Part Number:
PECD-SRT12CB-D0DB-4LH-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 1850 CFM @ 1/2" - 1/2 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

****Data provided by blower manufacturer****

"1/2 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2200	0.1	712	dBA	76	74	71	69	68	65	61	58	62
2075	.25	760		78	76	74	71	70	68	64	61	64
2025	.3	781		78	76	75	72	71	69	64	61	65
1950	.4	821		81	78	76	73	71	69	65	62	66
1850	.5	864		83	80	77	74	72	69	66	63	67
1775	.6	908		84	82	79	76	74	72	68	65	68
1650	.75	974		86	83	82	78	76	76	70	67	71

"1 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2900	0.1	840	dBA	82	79	76	73	71	68	65	62	66
2825	.25	875		83	80	78	74	73	70	67	64	67
2800	.3	886		83	81	78	75	73	71	67	64	68
2725	.4	909		84	81	79	76	74	73	68	65	69
2675	.5	935		85	82	80	77	75	74	69	66	70
2625	.6	967		86	83	82	78	76	75	70	67	71
2525	.75	1011		87	85	83	79	77	76	71	68	72

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182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP A

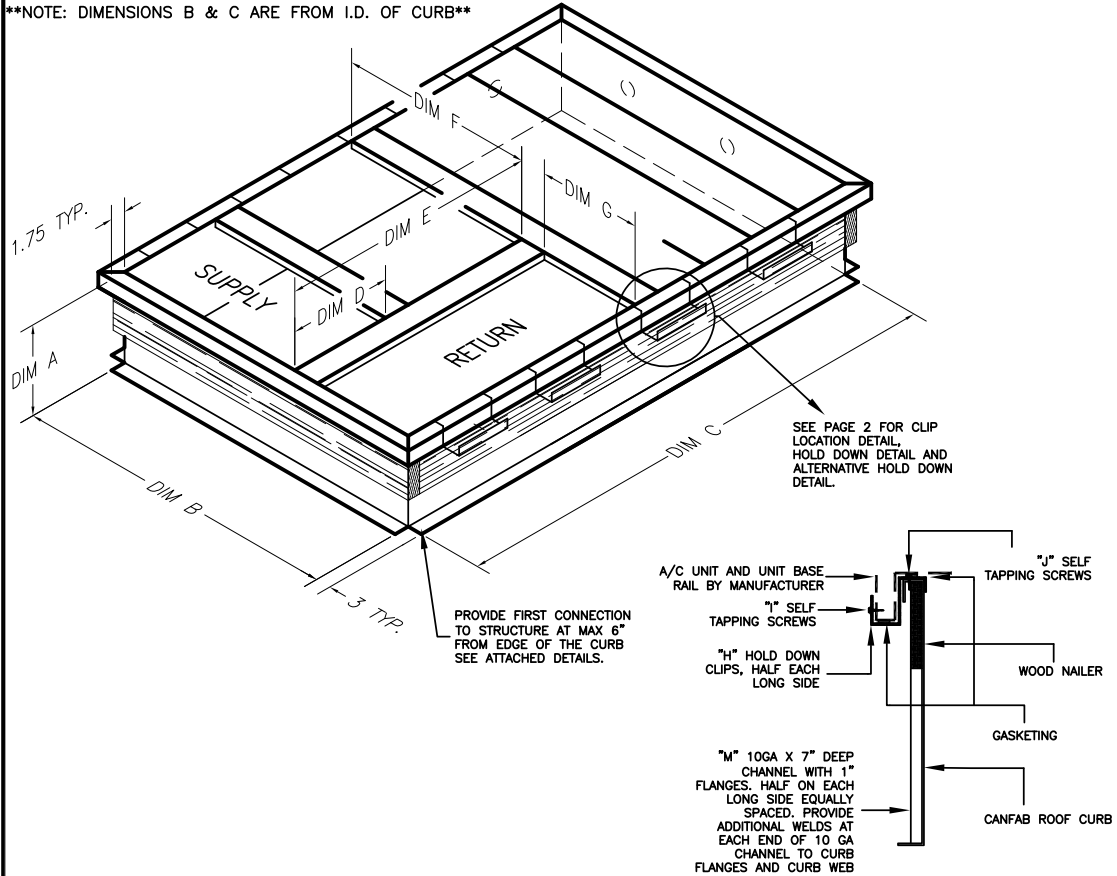
CARRIER 3 - 6-1/2 TONS

48/50HC/GC 04-06, 50HCQ 04-06, 50 KCQ 04-06, 48/50LC 04-06, 48/50TC/FC 04-07, 50TCQ 04-07, 48/50KC/FC 04-06

PART NO: 1005-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	37.1875"	67.375"	14.1875"	32.1875"	20.25"	13.875"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:

INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

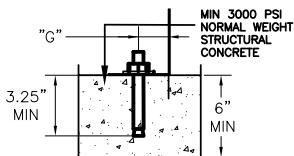
CURB CONSTRUCTION

1) WELDED
2) BOLTED
3) FINGERLOCK
-ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION

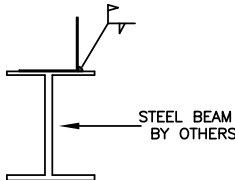
"A" GAUGE GALVANIZED STEEL CURB
-SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
-SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
- ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3

ATTACHMENT TO STRUCTURAL CONCRETE



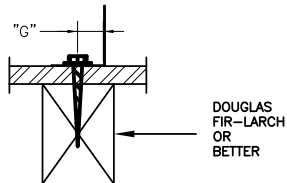
"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
"C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
NOTE:
-MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
-STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
-BOLTS SHALL BE EQUALLY SPACED

ATTACHMENT TO STRUCTURAL STEEL



1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
NOTE:
-PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
-PROVIDE WELDS ON ALL SIDES

ATTACHMENT TO WOOD



"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
"F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
NOTE:
-SCREWS SHALL BE EQUALLY SPACED.

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022



3/22/2019

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 3.12.19

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 1 OF 3



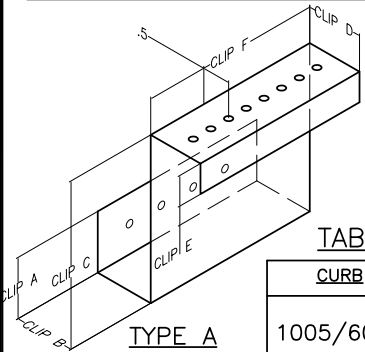
182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

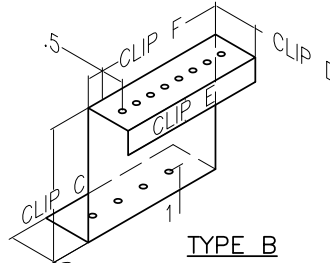
FOR: GROUP A

PART NO:

HOLD DOWN DETAIL



TYPE A



TYPE B

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1005/6059	1909-SHD8-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3003	3901-SHD8-12	12 GA	1.0	4.81	3.875	2.125	1.0	9.0	N/A	A
4027	4905-SHD8-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B
6037	6907-SHD8-12	12 GA	2.0	2.0	3.25	1.875	1.0	9.0	N/A	A
4047	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

STRUCTURAL REVIEW BY:



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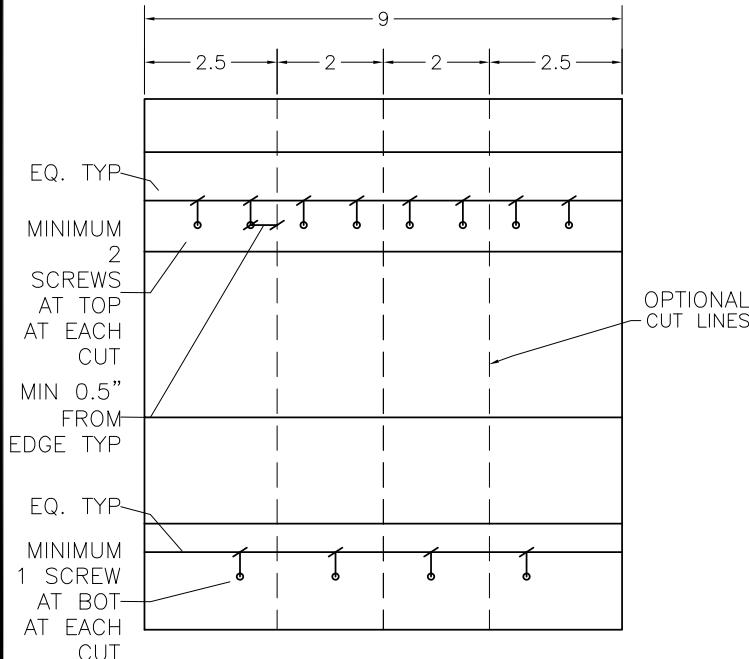


01/13/2021

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:

- SEE TABLE 2 FOR CLIP LOCATION
- ONLY 4047 HAS CLIPS ON THE SHORT SIDE

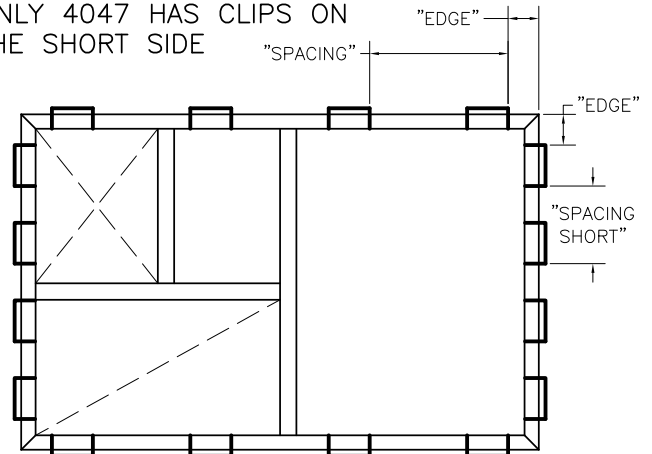


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1005/6059	7.75	15.46	N/A
3003	7.75	19.00	N/A
4027	7.75	18.33	N/A
6037	7.75	13.58	N/A
4047	7.75	15.5	10.8125

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 2 OF 3



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FOR: GROUP A

PART NO: 4047-CB

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

RELATED_CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1005	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 110	74.375	46.75	41.375	MAX 900	34.625	22.5	20.25
			11	127							
			14	144							
			18	166							
			24	262							
			MAX 36	MAX 354							
3003	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 82	82.25	44.875	32.625	MAX 900	38.6	18.75	HUNIT/2
			11	99							
			14	115							
			18	137							
			24	225							
			MAX 36	MAX 316							
4027	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 91	83.25	45	43.375	MAX 1316	47	22	HUNIT/2
			11	109							
			14	127							
			18	151							
			24	238							
			MAX 36	MAX 355							
4047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 101	73.75	45.25	44.875	MAX 712	42	26.5	HUNIT/2
			11	119							
			14	137							
			18	151							
			24	187							
			MAX 36	MAX 250							
6037	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 111	69.875	44.25	40.875	MAX 1202	44	22	HUNIT/2
			11	124							
			14	141							
			18	162							
			24	256							
			MAX 36	MAX 345							
6059	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 112	76.841	47.934	42.004	MAX 869	42	29	HUNIT/2
			11	129							
			14	146							
			18	169							
			24	265							
			MAX 36	MAX 358							

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Job No.: 19022



12/19/2019

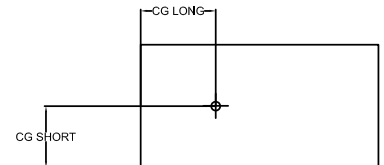


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	24"
E	SCREWS	16	18	20	22
F	SCREWS	8	8	10	12
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	8 (4 ON EACH LONG SIDE) TYPICAL. 12 (4 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	6 (3 ON EACH LONG SIDE) TYPICAL. 10 (3 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/18/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 3 OF 3



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

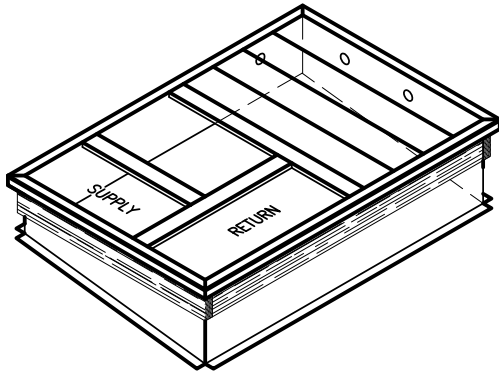
PART NO:

PITCHED ROOF CURB

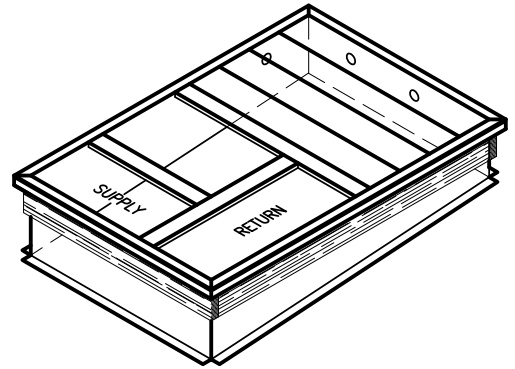
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

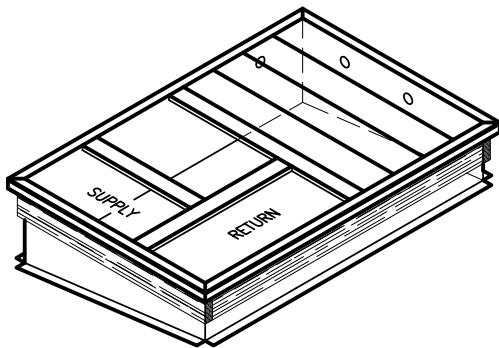
(A)



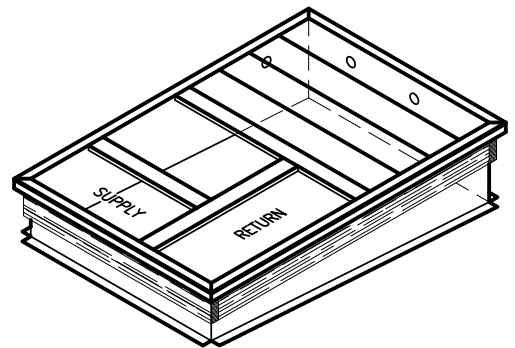
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-4A

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Unit Parameters

Unit Model:.....**50GCQJ04J2M6-0A3A0**
 Unit Size:.....**04 (3 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:.....**Two Stage Cooling Models**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**2' 9.375"**
Total Operating Weight:.....508 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**2**
 Return Air Filter Size:.....**16 x 25 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Condensate Overflow Switch
 Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu - Louvered Hail Guards
 Base controls set up for field installed air management device
 Hinged Access Panels
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (STD.)
 3-Year SystemVu controller

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50GCQJ04J2M6-0A3A0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	Direct Drive - EcoBlue - Medium Static	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels	
	None	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	1
CRSTATUS001A00	Fan/Filter Status Switch	1
CRPHASE3001A02	Phase Monitor Control	1
CRHEATER333A00	Electric Heater	1
CRPECONV003A00	Hinged Panel Sealing Angle Kit	1

Performance Summary For HP-4A

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Part Number:50GCQJ04J2M6-0A3A0

ARI SEER:	17.00
ARI SEER2:	16.00
Application EER (Rooftop Unit only):	11.93

Base Unit Dimensions

Unit Length:	74.4	in
Unit Width:	46.6	in
Unit Height:	33.4	in

Operating Weight

Base Unit Weight:	475	lb
Condensate Overflow Switch:	5	lb
Al/Cu - Al/Cu - Louvered Hail Guards:	13	lb
Hinged Access Panels:	5	lb

Accessories

Electric Heater:	10	lb
------------------	----	----

Total Operating Weight: 508 lb

Unit

Unit Voltage-Phase-Hertz:	460-3-60	
Air Discharge:	Vertical	
Fan Drive Type:	Vane Axial	
Actual Airflow:	1200	CFM
Site Altitude:	0	ft

Cooling Performance

Condenser Entering Air DB:	95.0	F
Evaporator Entering Air DB:	80.0	F
Evaporator Entering Air WB:	67.0	F
Entering Air Enthalpy:	31.44	BTU/lb
Evaporator Leaving Air DB:	58.3	F
Evaporator Leaving Air WB:	57.4	F
Evaporator Leaving Air Enthalpy:	24.66	BTU/lb
Unit Discharge Air DB:	59.3	F
Unit Discharge Air WB:	57.8	F
Unit Discharge Air Enthalpy:	24.91	BTU/lb
Gross Cooling Capacity:	36.59	MBH
Net Cooling Capacity:	35.25	MBH
Gross Sensible Capacity:	28.14	MBH
Net Sensible Capacity:	26.80	MBH
Compressor Power Input:	2.38	kW
Coil Bypass Factor:	0.066	

Heating Performance

Outdoor Ambient Temperature:	47.0	F
Entering Air Indoor Coil DB:	70.0	F
Leaving Air Indoor Coil DB:	96.5	F
Total Heating Capacity:	34.30	MBH
Integrated Heating Capacity:	34.30	MBH
Heating Power Input:	2.34	kW
High Temperature COP:	3.80	
Low Temperature COP:	2.40	
HSPF:	8.8	
High Temperature COP2:	3.60	
Low Temperature COP2:	2.30	
HSPF2:	7.3	
Electric Heating Capacity:	5.50	kW
Unit Leaving Air Temp:	110.9	F

Performance Summary For HP-4A

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Supply Fan

External Static Pressure:..... **0.80** in wg
 Options / Accessories Static Pressure
 Electric Heaters:..... **0.07** in wg
 Application External Static (ESP + Unit Opts/Acc.):..... **0.87** in wg
 Fan RPM:..... **1849**
 Fan Power:..... **0.46** BHP
 NOTE:..... **Selected IFM RPM Range: 1058 - 2190**

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range:..... **414 - 506**
 Compressor #1 RLA:..... **4.7**
 Compressor #1 LRA:..... **44**
 Actual Electric Heater kW:..... **5.5**
 Electric Heater FLA:..... **7.2**
 Indoor Fan Motor Type:..... **MED**
 Indoor Fan Motor FLA (Total):..... **1.2**
 Power Supply MCA:..... **17**
 Power Supply MOCP (Fuse or HACR):..... **20**
 Disconnect Size FLA:..... **16**
 Disconnect Size LRA:..... **54**
 Electrical Convenience Outlet:..... **None**
 Outdoor Fan [Qty / FLA (ea)]:..... **1 / 0.6**
 Electric Heater Part Number:..... **333A**
 Electric Heater Number of Stages:..... **1**

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

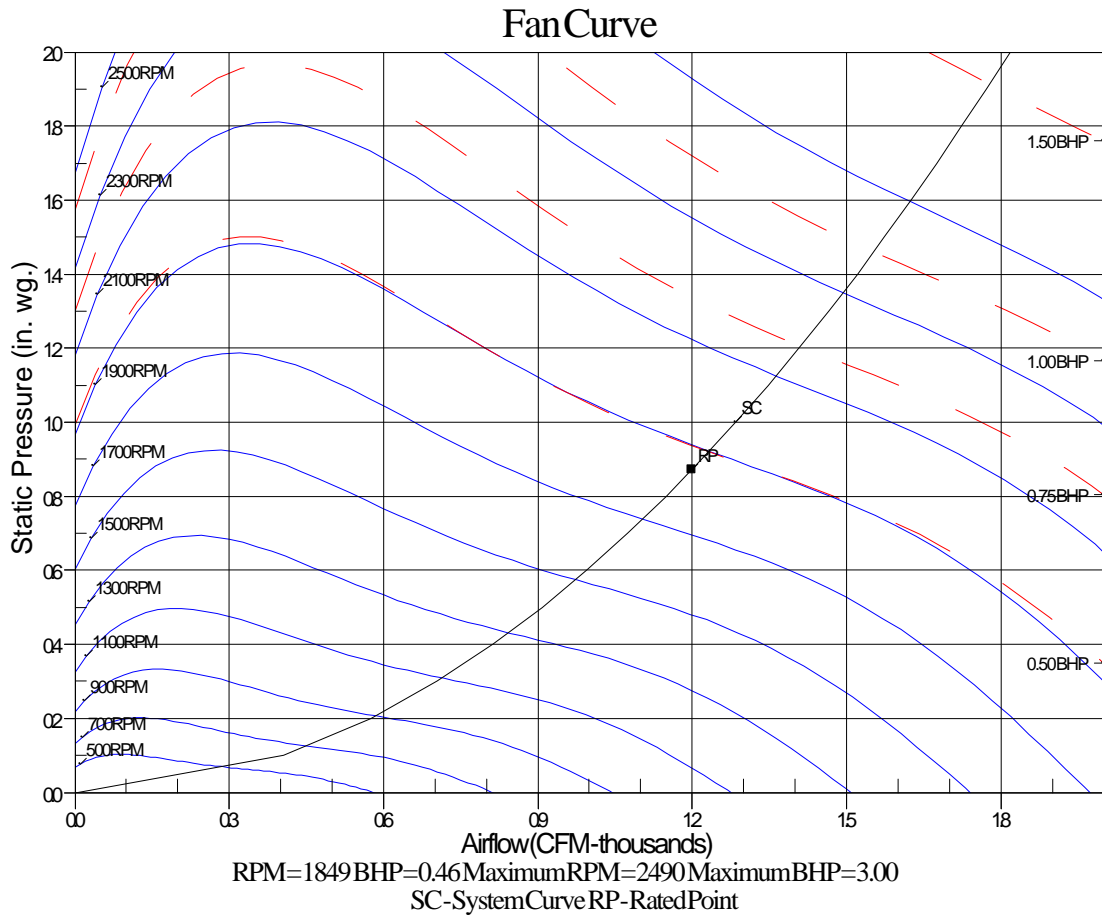
Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	91.2	85.1	NA
125 Hz	82.7	77.9	NA
250 Hz	75.2	68.9	NA
500 Hz	67.8	61.4	NA
1000 Hz	65.2	62.7	NA
2000 Hz	62.0	54.4	NA
4000 Hz	58.2	48.6	NA
8000 Hz	56.6	42.5	NA

Performance Summary For HP-4A

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM



Certified Drawing for HP-4A

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

- NOTES:
1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN () ARE IN MILLIMETERS.
 2. CENTER OF GRAVITY
 3. DIRECTION OF AIR FLOW
 4. ALL VIEW DRAWN USING 3RD ANGLE

UNIT	J	K
50GCO*04	33 3/8 [847]	18 5/8 [472]
50GCO*05	41 3/8 [1051]	18 5/8 [472]
50GCO*06	41 3/8 [1051]	18 5/8 [472]



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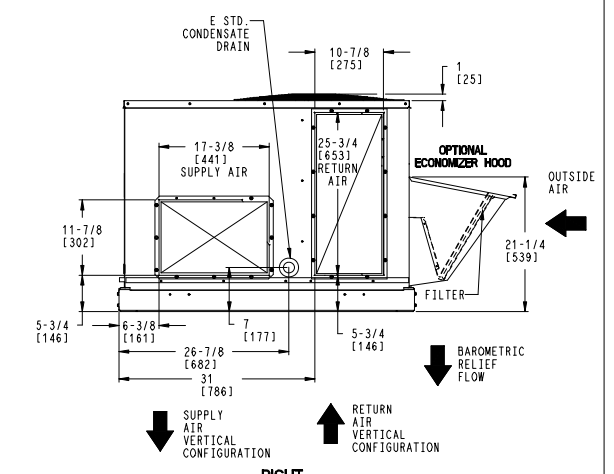
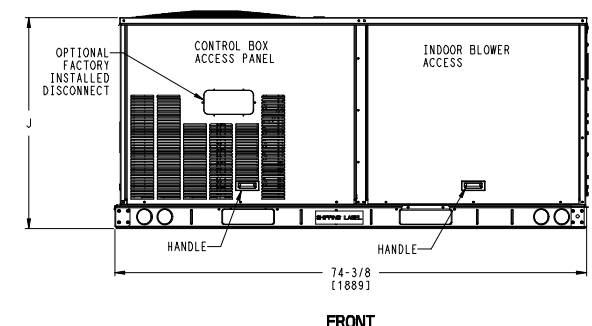
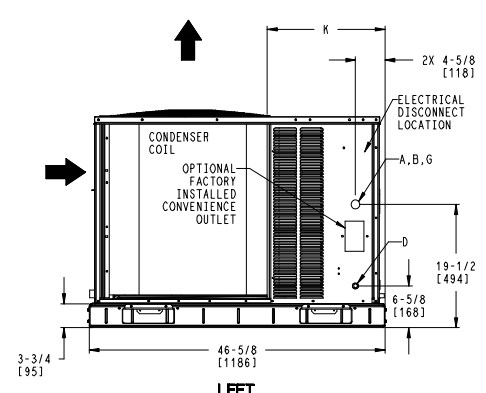
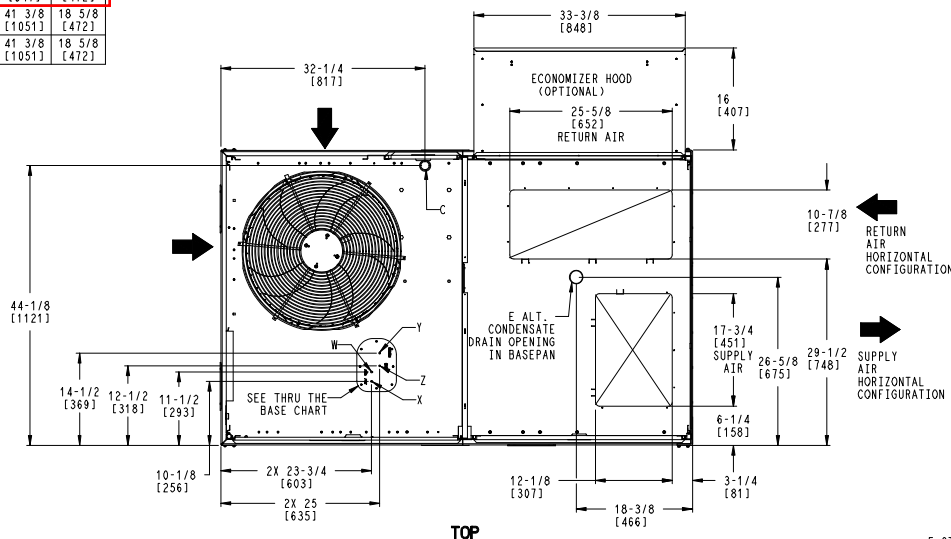
CONNECTION SIZES	
A	1 3/8" [35] DIA FIELD POWER SUPPLY HOLE
B	2" [51] DIA POWER SUPPLY KNOCKOUT
C	1 3/4" [44] DIA GAUGE ACCESS PLUG
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW008A00, 009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	115V	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y *	3/4"	POWER	1 1/8" [28.6]
Z **	(009A00) 1/2" FPT	GAS	1 1/8" [28.6]

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



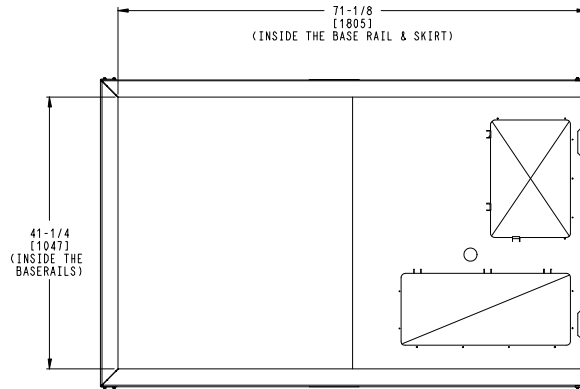
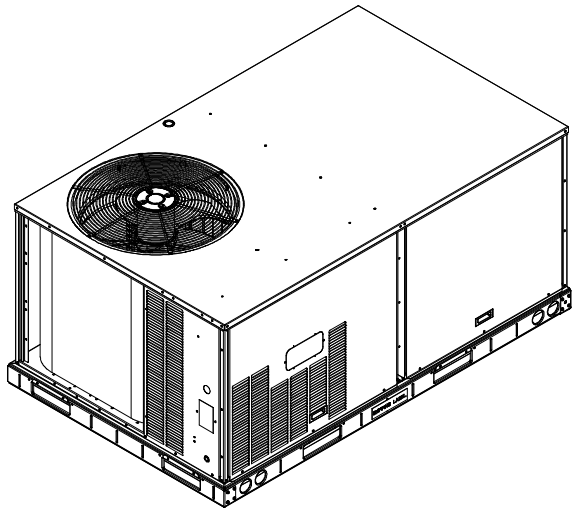
ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	1 OF 3	08/15/19	-			-

Certified Drawing for HP-4A

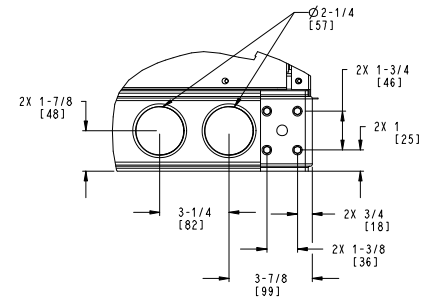
Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

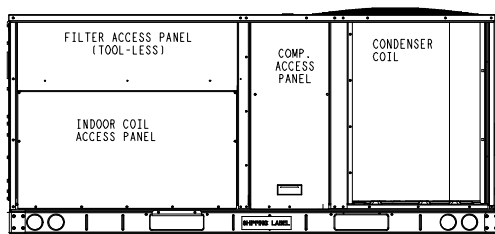
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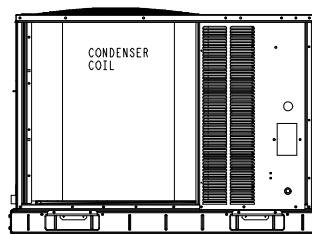
INSIDE BASERAIL DIMENSIONS
BOTTOM



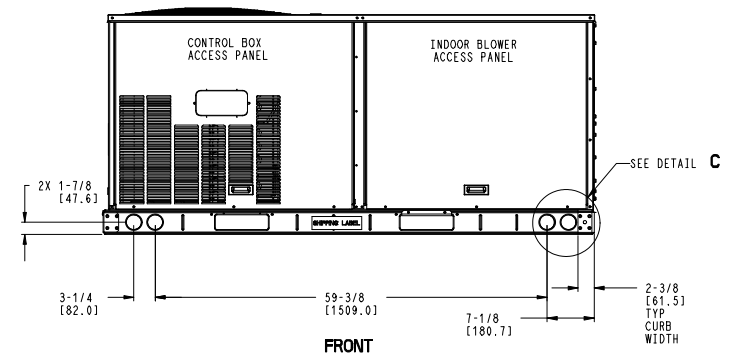
DETAIL **C**
TYP 4 PLCS



BACK



LEFT



FRONT

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCQ 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN: NSR	3 OF 3	08/15/19	-			-

ION-0A * 00 | Ion Generator for AHU's, Heating and AC Units

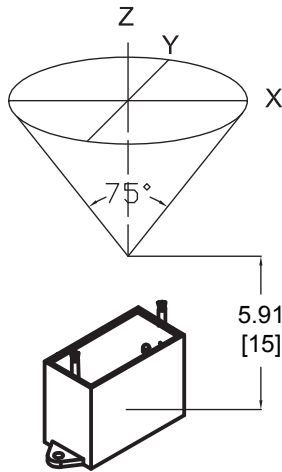
Part Number

ION - 0A * 00

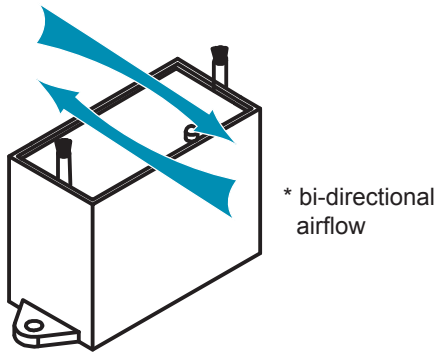
VOLTAGE:

- A - 24VAC / VDC, 1 ϕ
- D - 115VAC, 1 ϕ

Ion Distribution (inches[cm])



Airflow



Technical Data

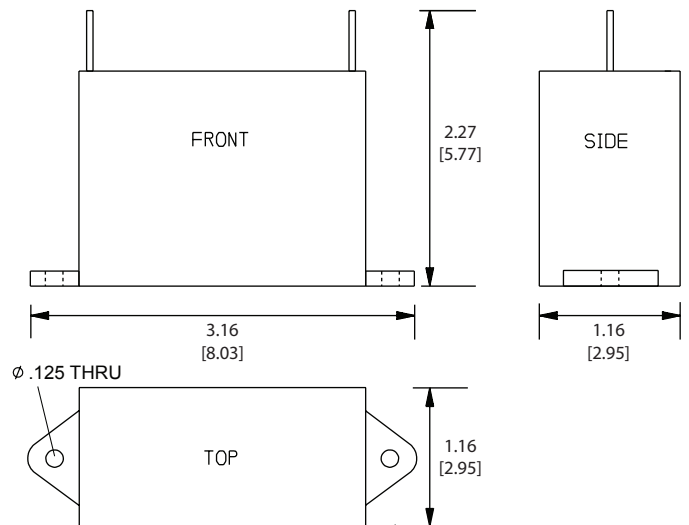
Power Supply	See part number voltage
Power Consumption	4.3 W / 24V; 6.9 W all other volts
Output Voltage	+/- 9000VDC
Power Wiring Leads	35 inches in length
Mounting	Self tapping metal screws
Dimensions	3.16" x 1.16" x 2.27" (w/ CF tips)
CFM	2,000 CFM
Output Ion	Negative 4×10^7 pieces / cm^3
Weight	.5 lbs (.25 kg)
Life Span	15,000 Hours



Product Application

- Hospitals | Nursing Homes | Schools |
- Animal Feeding and Processing Plants |
- Shopping Malls | Laboratories | Veterinary Offices |
- Restaurants and Food Preparation Areas | Zoos |
- Casinos | Convention Centers and Arenas | Jails |
- Museums | Health Clubs | Churches and Synagogues

Product Dimensions (inches [cm])





Date: _____ Weight: 45lbs (US) 20.41kg (Metric) Part Number: ECD-SRT12CB-D0DB-4

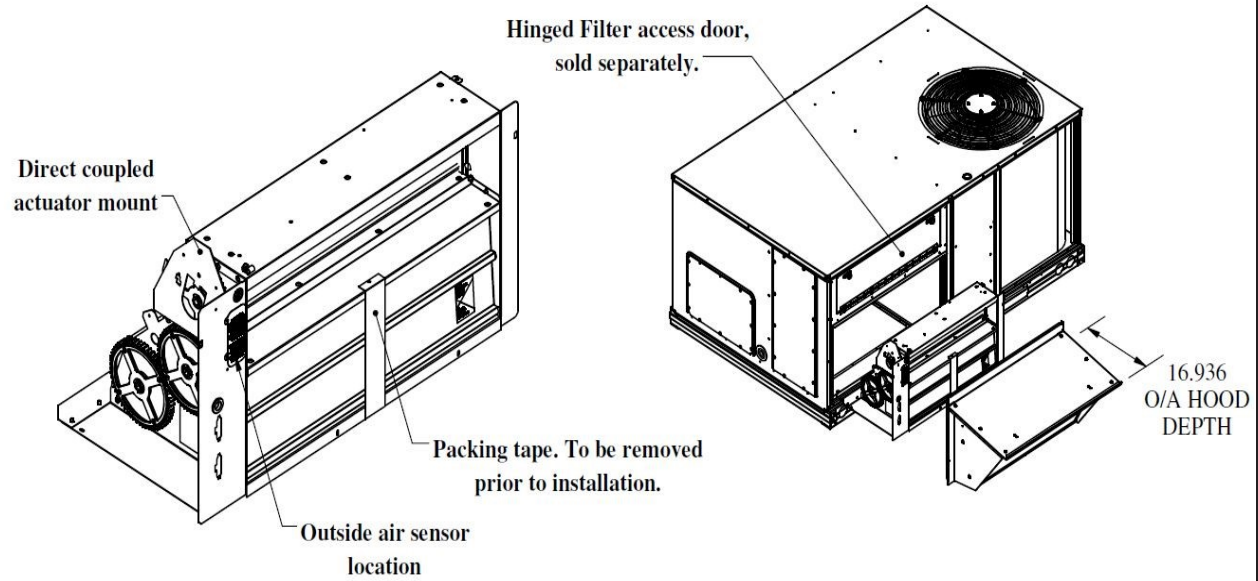
RTU: _____

Submitted to: _____ Approved by: _____ Notes: _____

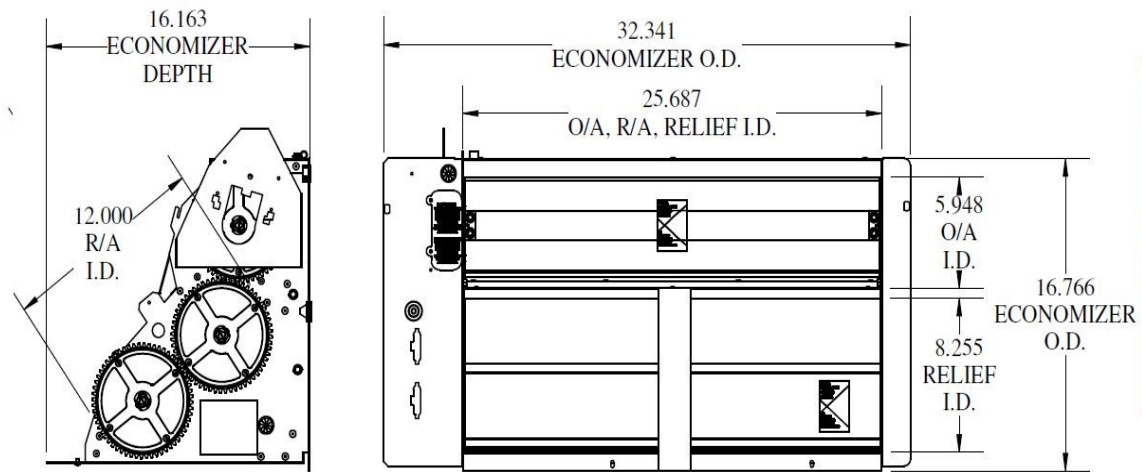
Economizer - Economizer - Genesis Ultra Low Leak Economizer, Vertical Orientation, RTU Open - Premier Link - System VU - No Controller, Adjustable Dry Bulb Sensor, Belimo Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

FEATURES:

- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrainment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 1 - ECD-SRT1CA-HDOOR
 - MMC P/# for Chassis 2 - ECD-SRT2CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class IA & AMCA rated.
- Relief blades are AMCA rated.
- Uses filter rack with unit.
- Motorized relief available, add -M to end of part number
 - Ex: ECD-SRT12CB-D00H-M
- Economizer with smoke detector available, add -S to end of part number
 - Ex: ECD-SRT12CB-D00H-S



-Control Types	
-D0DB-4	RTU Open - Premier Link - System VU, No controller, Adjustable dry bulb, Belimo actuator
-D0DB-X	Comfortlink - No controller, Adjustable dry bulb, Belimo MFT actuator with 500 ohm resistor
-D00H-H	Communicating Honeywell actuator only
-D00H	Non-communicating Honeywell actuator only
-D00B	Belimo actuator with feedback and end switch
-D00S	Siemens actuator with feedback



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Master Revision 0001A
Page Revision 0001A



Date:

Weight: 45lbs (US) 20.41kg (Metric)

Part Number: ECD-SRT12CB-D0DB-4

RTU:

Submitted to:

Approved by:

Notes:

Economizer - Economizer - Genesis Ultra Low Leak Economizer, Vertical Orientation, RTU Open - Premier Link - System VU - No Controller, Adjustable Dry Bulb Sensor, Belimo Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

Compliant Economizer:

- Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements. 5 Year Warranty for parts and components only.
- ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
- IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
- AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- For single or 2 speed indoor fan units. Other control options available.
- Gear driven design for trouble-free operation, eliminating slippage and binding associated with standard linkage.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided. Power exhaust options available.
- All harnesses and plugs needed are provided.
- Uses standard factory filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

- Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
- Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
- ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.



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FOR: GROUP A

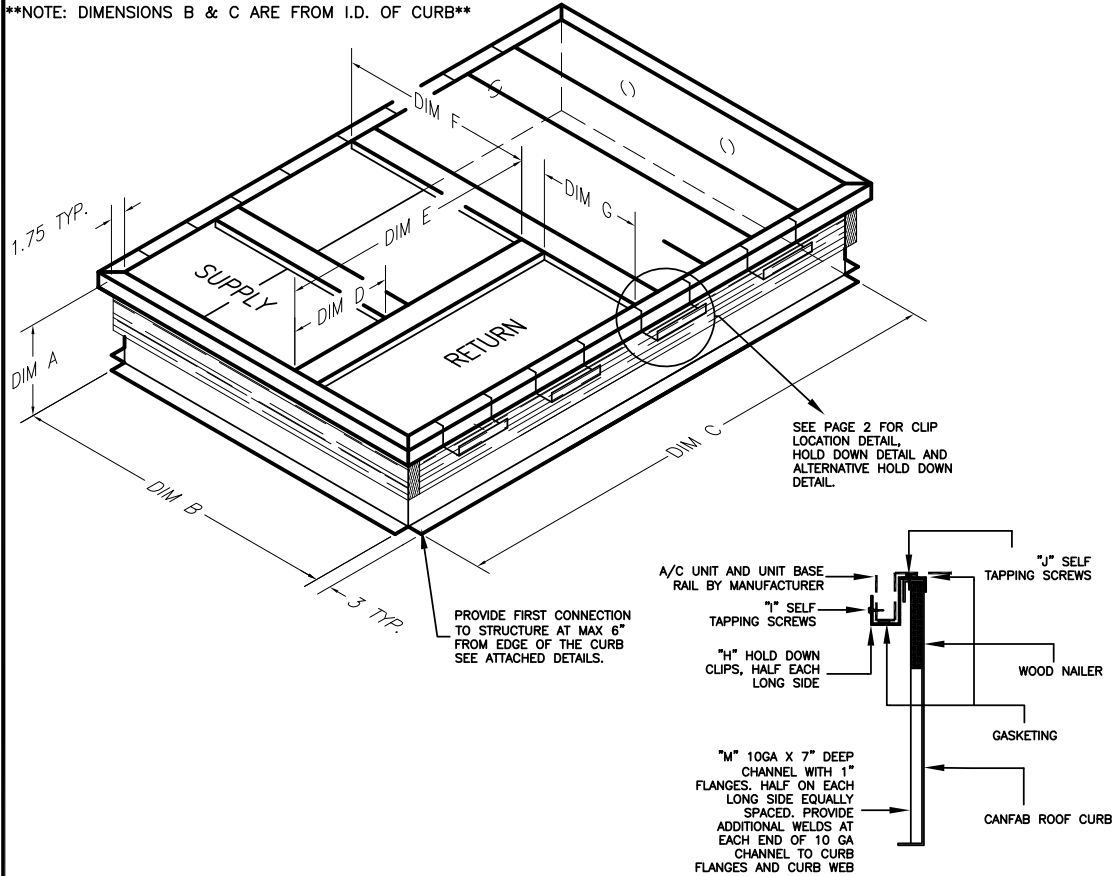
CARRIER 3 - 6-1/2 TONS

48/50HC/GC 04-06, 50HCQ 04-06, 50 KCQ 04-06, 48/50LC 04-06, 48/50TC/FC 04-07, 50TCQ 04-07, 48/50KC/FC 04-06

PART NO: 1005-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	37.1875"	67.375"	14.1875"	32.1875"	20.25"	13.875"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:

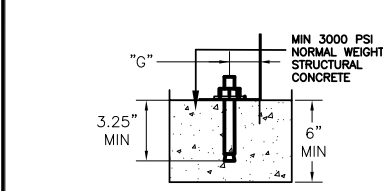
INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION

- 1) WELDED
 - 2) BOLTED
 - 3) FINGERLOCK
- ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

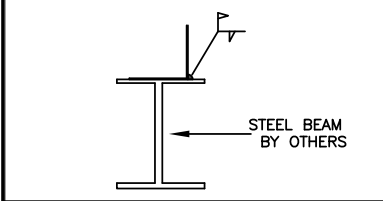
CURB AND UNIT INFORMATION

- "A" GAUGE GALVANIZED STEEL CURB
-SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
-SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
- ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3



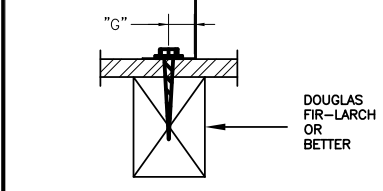
ATTACHMENT TO STRUCTURAL CONCRETE

"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
"C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
NOTE:
-MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
-STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
-BOLTS SHALL BE EQUALLY SPACED



ATTACHMENT TO STRUCTURAL STEEL

1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
NOTE:
-PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
-PROVIDE WELDS ON ALL SIDES



ATTACHMENT TO WOOD

"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
"F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
NOTE:
-SCREWS SHALL BE EQUALLY SPACED.

STRUCTURAL REVIEW BY:
MARTIN & associates
JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022



3/22/2019

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE	DATE: 3.12.19
ENGINEER: LD	DISTRIBUTOR:
DRAWING NUMBER: GROUP_A.DWG	PAGE 1 OF 3



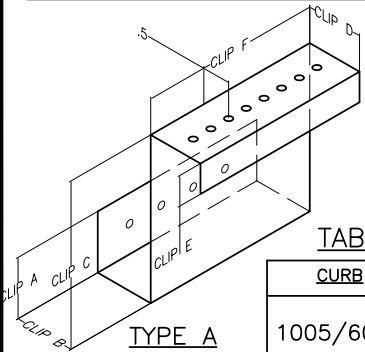
182 GRANITE STREET, SUITE 101, CORONA, CA 92879

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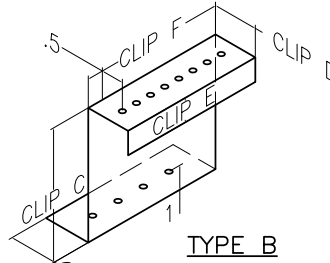
FOR: GROUP A

PART NO:

HOLD DOWN DETAIL



TYPE A



TYPE B

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1005/6059	1909-SHD8-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3003	3901-SHD8-12	12 GA	1.0	4.81	3.875	2.125	1.0	9.0	N/A	A
4027	4905-SHD8-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B
6037	6907-SHD8-12	12 GA	2.0	2.0	3.25	1.875	1.0	9.0	N/A	A
4047	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

STRUCTURAL REVIEW BY:



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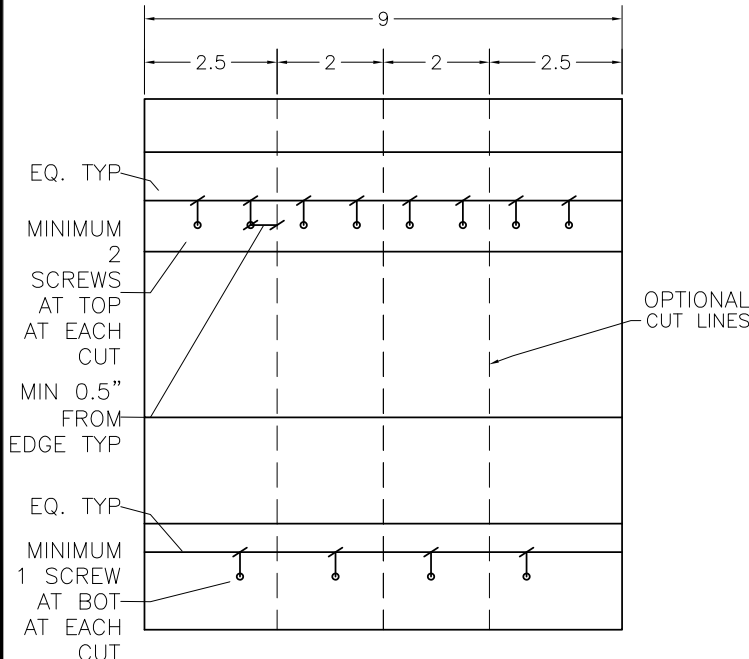


01/13/2021

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:

- SEE TABLE 2 FOR CLIP LOCATION
- ONLY 4047 HAS CLIPS ON THE SHORT SIDE

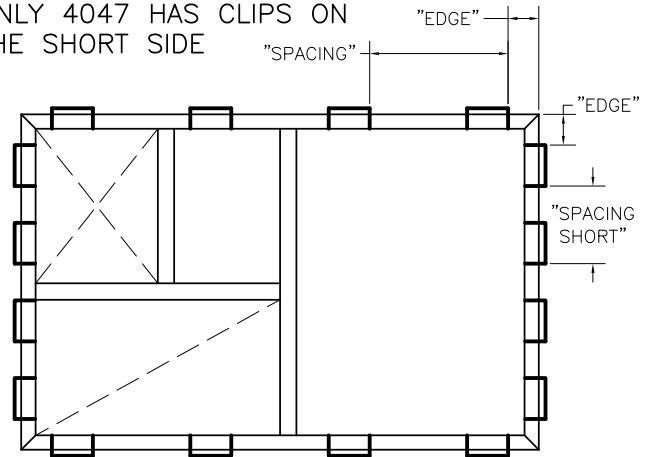


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1005/6059	7.75	15.46	N/A
3003	7.75	19.00	N/A
4027	7.75	18.33	N/A
6037	7.75	13.58	N/A
4047	7.75	15.5	10.8125

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 2 OF 3



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FOR: GROUP A

PART NO: 4047-CB

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

RELATED_CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1005	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 110	74.375	46.75	41.375	MAX 900	34.625	22.5	20.25
			11	127							
			14	144							
			18	166							
			24	262							
			MAX 36	MAX 354							
3003	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 82	82.25	44.875	32.625	MAX 900	38.6	18.75	HUNIT/2
			11	99							
			14	115							
			18	137							
			24	225							
			MAX 36	MAX 316							
4027	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 91	83.25	45	43.375	MAX 1316	47	22	HUNIT/2
			11	109							
			14	127							
			18	151							
			24	238							
			MAX 36	MAX 355							
4047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 101	73.75	45.25	44.875	MAX 712	42	26.5	HUNIT/2
			11	119							
			14	137							
			18	151							
			24	187							
			MAX 36	MAX 250							
6037	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 111	69.875	44.25	40.875	MAX 1202	44	22	HUNIT/2
			11	124							
			14	141							
			18	162							
			24	256							
			MAX 36	MAX 345							
6059	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 112	76.841	47.934	42.004	MAX 869	42	29	HUNIT/2
			11	129							
			14	146							
			18	169							
			24	265							
			MAX 36	MAX 358							

STRUCTURAL REVIEW BY:



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Job No.: 19022



12/19/2019

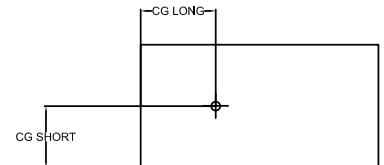


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	24"
E	SCREWS	16	18	20	22
F	SCREWS	8	8	10	12
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	8 (4 ON EACH LONG SIDE) TYPICAL. 12 (4 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	6 (3 ON EACH LONG SIDE) TYPICAL. 10 (3 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/18/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 3 OF 3



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

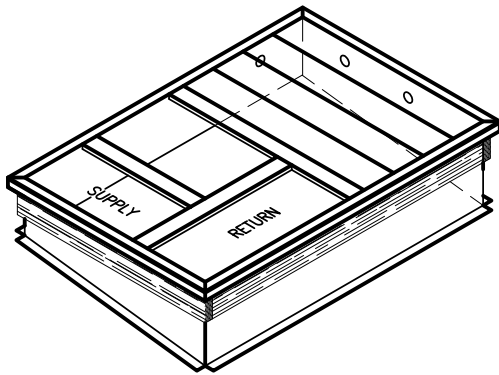
PART NO:

PITCHED ROOF CURB

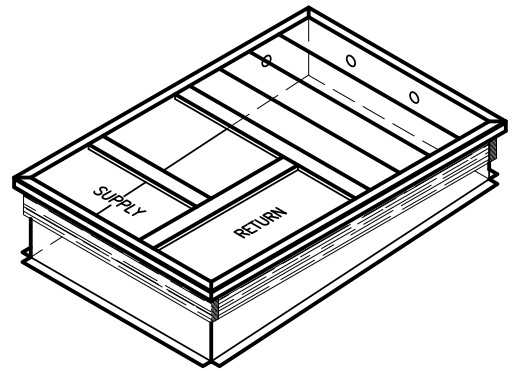
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

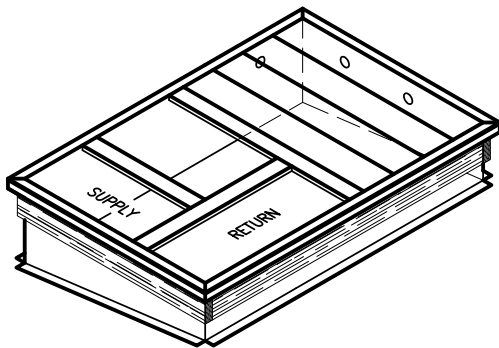
(A)



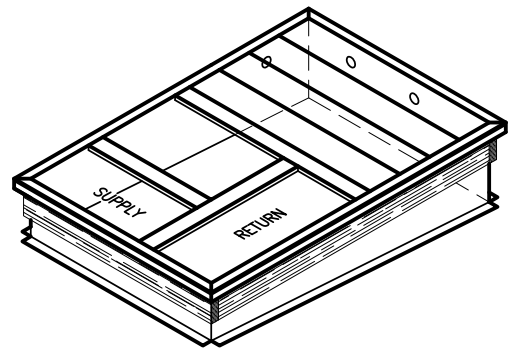
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-5

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 10:28AM

Unit Parameters

Unit Model:..... **50VT-K30---3**
 Unit Size:..... **30 (2-1/2 Tons)**
 Volts-Phase-Hertz:..... **208-1-60**
 Heating Type:..... **Heat Pump**
 Duct Cfg:..... **Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:..... **4' 0.1875"**
 Unit Width:..... **2' 8.625"**
 Unit Height:..... **4' 3.75"**

*** Weights and Dimensions are approximate. Weight does not include roof curbs, unit packaging, field installed accessories or factory installed options. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Base Unit Weight (Does not include any accessories):
365.....lb

Warranty Information

1 year warranty on parts
 5 year warranty on compressor

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50VT-K30---3	Rooftop Unit	1
	Base Unit	
Field Installed Accessories		
CPHEATER070B00	5.6/6.9/7.5 kW, 208/230/240-1-60 volt, Electric Heater	1
CRTIMEGD001A00	Time Guard II	1

Performance Summary For HP-5

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 10:28AM

Part Number:50VT-K30---3

ARI SEER2:..... **13.40**
 Application EER (Rooftop Unit only):..... **0.00**

Base Unit Dimensions

Unit Length:..... **48.2** in
 Unit Width:..... **32.6** in
 Unit Height:..... **51.8** in

Base Unit Weight (Does not include any accessories):..... 365 lb

Unit

Unit Voltage-Phase-Hertz:..... **208-1-60**
 Air Discharge:..... **Vertical**
 Fan Drive Type:..... **Direct**
 Actual Airflow:..... **948** CFM
 Site Altitude:..... **0** ft

Cooling Performance

Condenser Entering Air DB:..... **95.0** F
 Evaporator Entering Air DB:..... **80.0** F
 Evaporator Entering Air WB:..... **67.0** F
 Entering Air Enthalpy:..... **31.44** BTU/lb
 Evaporator Leaving Air DB:..... **59.0** F
 Evaporator Leaving Air WB:..... **57.2** F
 Evaporator Leaving Air Enthalpy:..... **24.54** BTU/lb
 Unit Discharge Air DB:..... **0.0** F
 Unit Discharge Air WB:..... **0.0** F
 Unit Discharge Air Enthalpy:..... **0.00** BTU/lb
 Net Cooling Capacity:..... **29.43** MBH
 Net Sensible Capacity:..... **21.51** MBH
 Total Unit Power Input:..... **2.63** kW
 Coil Bypass Factor:..... **0.000**

Heating Performance

Outdoor Ambient Temperature:..... **47.0** F
 Entering Air Indoor Coil DB:..... **70.0** F
 Leaving Air Indoor Coil DB:..... **99.2** F
 Total Heating Capacity:..... **29.93** MBH
 Integrated Heating Capacity:..... **29.93** MBH
 Heating Power Input:..... **2.44** kW
 High Temperature COP:..... **3.60**
 Low Temperature COP:..... **2.30**
 HSPF2:..... **6.7**
 Electric Heating Capacity:..... **5.40** kW
 Unit Leaving Air Temp:..... **117.2** F

Supply Fan

External Static Pressure:..... **0.52** in wg
 Options / Accessories Static Pressure
 Wet Coil:..... **0.05** in wg
 Application External Static (ESP + Unit Opts/Acc.):..... **0.57** in wg
 Fan Power:..... **0.38** BHP
 Fan Motor Size, hp:..... **1/2**
 NOTE:..... **Med-High Motor Speed, Vert**

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Minimum Voltage:..... **197**

Performance Summary For HP-5

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 10:28AM

Maximum Voltage:.....	253
Compressor RLA:.....	13.2
Compressor LRA:.....	72.2
Actual Electric Heater kW:.....	5.4
Electric Heater FLA:.....	25.9
Outdoor Fan FLA (ea):.....	1.2
Indoor Fan Motor FLA (Total):.....	3.9
Power Supply MCA:.....	54
Power Supply MOCP (Fuse or HACR):.....	60

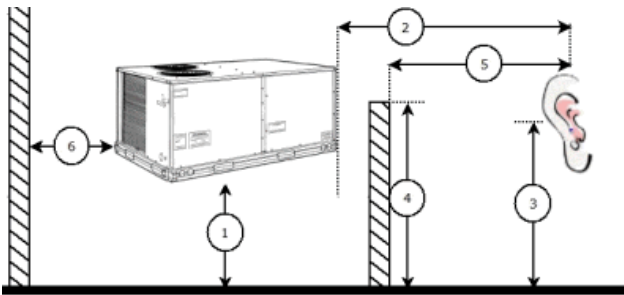
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Rating:..... **73.1 db**
 Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	NA	NA	NA
125 Hz	NA	NA	55.9
250 Hz	NA	NA	57.0
500 Hz	NA	NA	63.1
1000 Hz	NA	NA	63.7
2000 Hz	NA	NA	59.7
4000 Hz	NA	NA	54.2
8000 Hz	NA	NA	48.8

Advanced Acoustics



Advanced Acoustics Parameters

- 1. Unit height above ground:..... **30.0** ft
- 2. Horizontal distance from unit to receiver:..... **50.0** ft
- 3. Receiver height above ground:..... **5.7** ft
- 4. Height of obstruction:..... **0.0** ft
- 5. Horizontal distance from obstruction to receiver:..... **0.0** ft
- 6. Horizontal distance from unit to obstruction:..... **0.0** ft

Detailed Acoustics Information

Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	0.0	55.9	57.0	63.1	63.7	59.7	54.2	48.8	68.2 Lw
B	- 26.2	39.8	48.4	59.9	63.7	60.9	55.2	47.7	67.0 LwA
C	0.0	23.5	24.6	30.7	31.3	27.3	21.8	16.4	35.8 Lp
D	- 26.2	7.4	16.0	27.5	31.3	28.5	22.8	15.3	34.6 LpA

Performance Summary For HP-5

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
10:28AM

Legend

- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.

Certified Drawing for HP-5

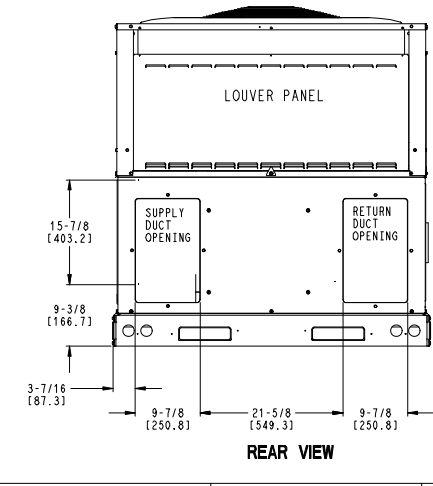
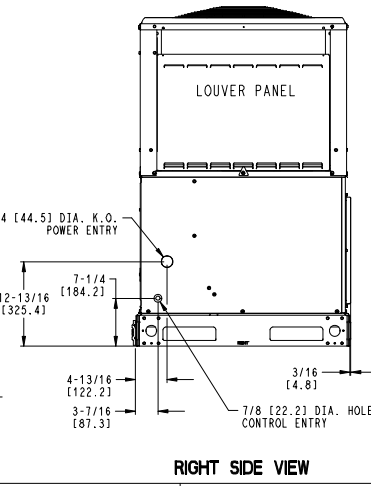
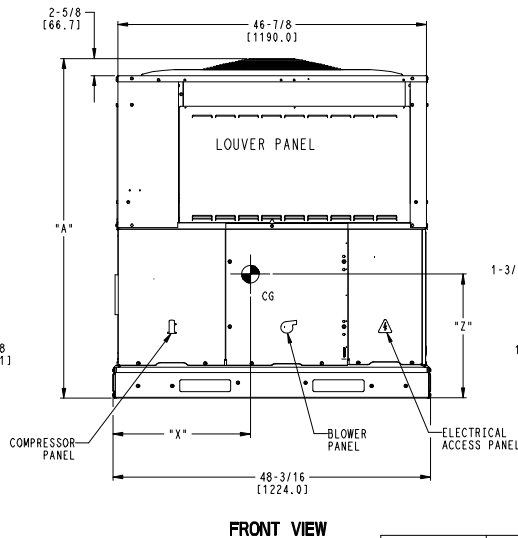
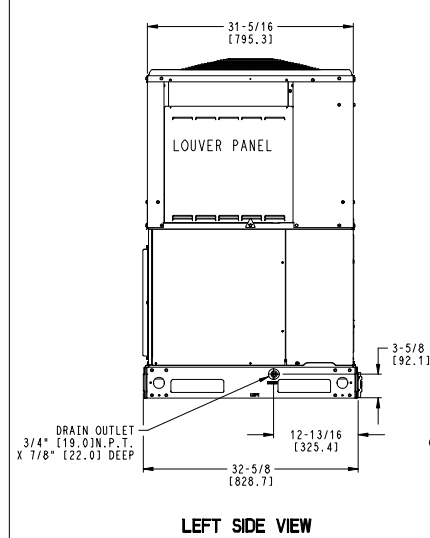
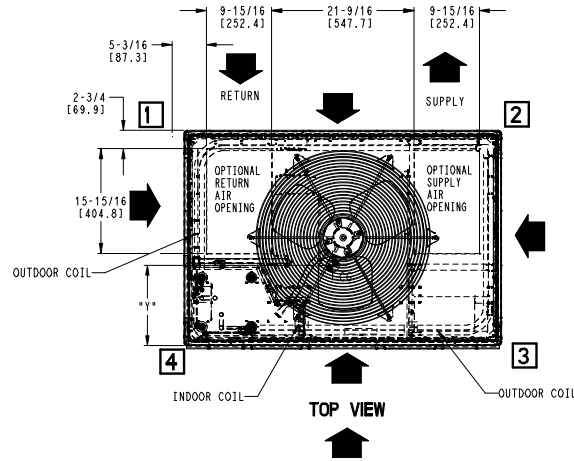
Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
10:28AM

CARRIER / BRYANT HP (SMALL CHASSIS)

COOLING CAPACITY	UNIT WT.		UNIT HEIGHT IN/MM		CENTER OF GRAVITY IN/MM					
	LB	KG	"A"	"A"	X	Y	Z	X	Y	Z
24	332	150.6	51-3/4	1315	20-1/2	520.7	15-1/2	394	16-5/8	422.3
30	365	165.6	51-3/4	1315	20-1/2	520.7	15-1/2	394	16-5/8	422.3

UNIT	CORNER WEIGHT LB/KG			
	"1"	"2"	"3"	"4"
24	84.8	38.5	74.0	34.0
30	93.3	42.3	82.1	37.3



REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

	INCHES [MM]
TOP OF UNIT.....	14 [355.6]
DUCT SIDE OF UNIT.....	2 [50.8]
SIDE OPPOSITE DUCTS.....	14 [355.6]
BOTTOM OF UNIT.....	0 [0.0]
ELECTRICAL PANEL.....	36 [914.4]

NEC. REQUIRED CLEARANCES.

	INCHES [MM]
BETWEEN UNITS, POWER ENTRY SIDE.....	42 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....	36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42 [1066.8]

REQUIRED CLEARANCES FOR OPERATION AND SERVICING

	INCHES [MM]
EVAP. COIL ACCESS SIDE.....	36 [914.0]
POWER ENTRY SIDE.....	42 [1066.8]
(EXCEPT FOR NEC REQUIREMENTS)	
UNIT TOP.....	48 [1219.2]
SIDE OPPOSITE DUCTS.....	36 [914.0]
DUCT PANEL.....	12 [304.8]

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN [] ARE IN MILLIMETERS

10/19/22	UPDATED TABLE DIMS.	SINGLE ZONE ELECTRIC COOLING & HEAT(SM)	SD5770-4	A
----------	---------------------	---	----------	---



Date:
RTU:

Weight: 0lbs (US) 0kg (Metric)

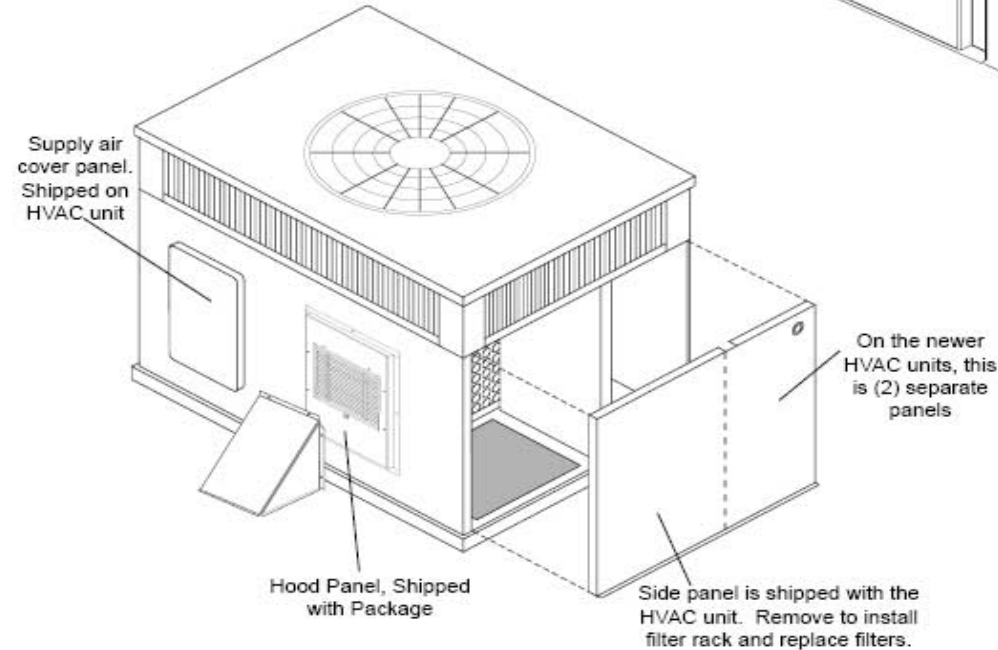
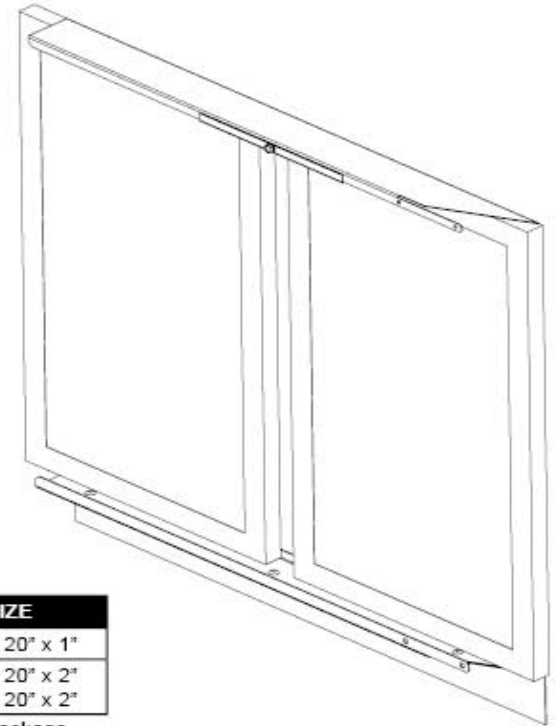
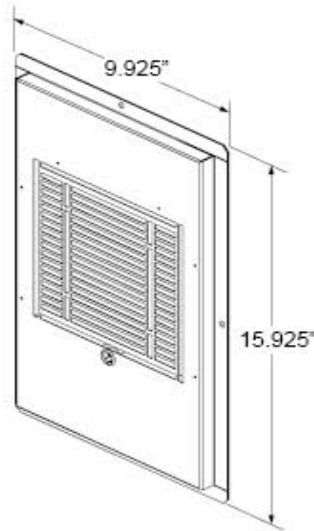
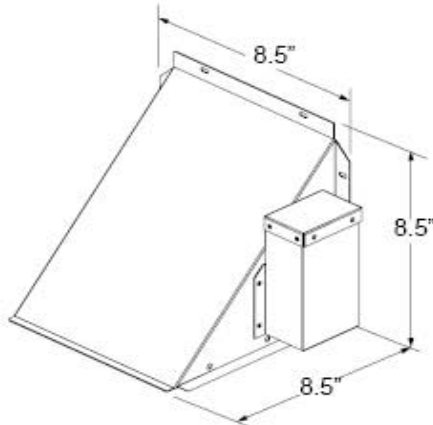
Part Number: OA2-SDSML-CD

Submitted to:

Approved by:

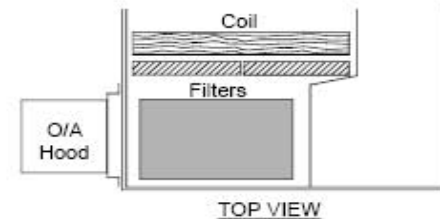
Notes:

Hood - Unit Specific - Motorized Damper - 25% Outside Air & Filter Rack , CFM 610 @ 650FPM - 12 X 12 X 12 , No Aluminium Filter , Painted Color Gray. Includes One 17.5 Inch X 11.5 Inch Painted Blankoff Panel, And A Filter Rack Containing Two 12x20x1 Filters.



FILTER RACK SIZE	
1" Filters	(2) 12" x 20" x 1"
2" Filters	(1) 10" x 20" x 2" (1) 12" x 20" x 2"

*1" Filters shipped with package





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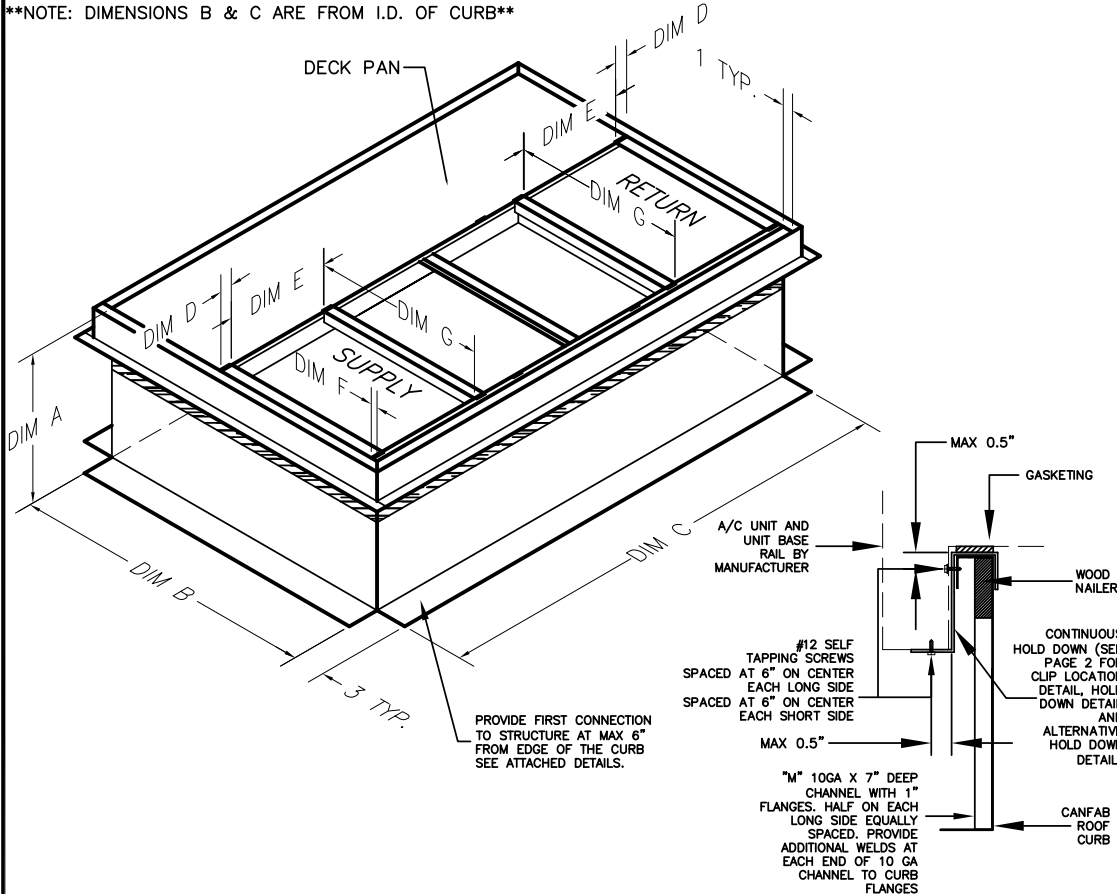
PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP D
CARRIER 2 - 3 TONS
 48/50 ES, EZ, 48/50VL-A 24-36, 48/50 VT-A, VG,
 48/50VR, XL, XT-A 24-30

PART NO: 1001A-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	28.75"	44.0625"	1.1875"	10"	.625"	16"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
 -I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
 -EXPOSURE C
 -175 MPH, 3 SECOND GUST WIND

NOTE:

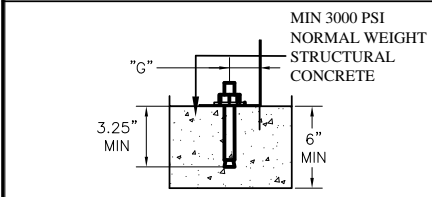
INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
 -INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION

- 1) WELDED
 - 2) BOLTED
 - 3) FINGERLOCK
- ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
 -SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
 -NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION

- "A" GAUGE GALVANIZED STEEL CURB
 -SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
 -SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
 -ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3

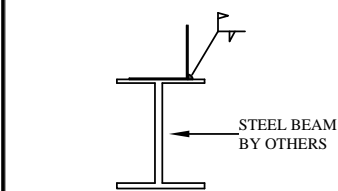


ATTACHMENT TO STRUCTURAL CONCRETE

"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
 "C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
NOTE:
 -MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
 -STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
 -BOLTS SHALL BE EQUALLY SPACED

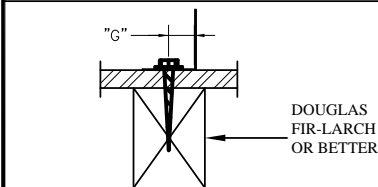
STRUCTURAL REVIEW BY:

MARTIN & associates
 JOHN A. MARTIN AND ASSOCIATES
 Structural Engineers
 950 South Grand Ave., 4th Floor
 Los Angeles, California 90015
 Phone (213) 483 6490
 Fax (213) 483 3084
 Job No.: 13001



ATTACHMENT TO STRUCTURAL STEEL

1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
NOTE:
 -PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
 -PROVIDE WELDS ON ALL SIDES



ATTACHMENT TO WOOD

"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
 "F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
NOTE:
 -SCREWS SHALL BE EQUALLY SPACED.



12/14/2018

PROJECT: IBC 2018/ CBC 2019 UPDATE

DATE: 12.6.18

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_D.DWG

PAGE 1 OF 3



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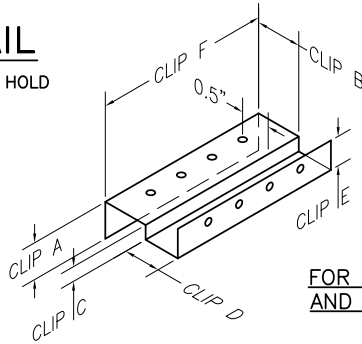
PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP D

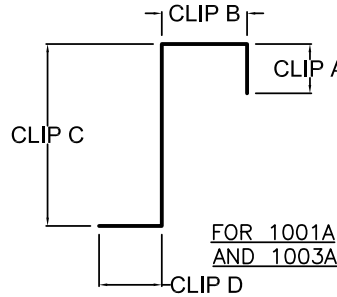
PART NO: SEE BELOW

HOLD DOWN DETAIL

NOTE: SEE TABLE 1 FOR DESIGNATED HOLD DOWN CLIP PER CURB



FOR 6047
AND 6049



FOR 1001A
AND 1003A

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GUAGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]
1001A	N/A	14 GA	.75	1.0625	2.75	.875	N/A	SEE PAGE 1
1003A	N/A	14 GA	.75	1.0625	2.75	.875	N/A	SEE PAGE 1
6047	6905-SHD6-14	12 GA	1.0	1.625	.5	.8125	.75	9.0
6049	6905-SHD6-14	12 GA	1.0	1.625	.5	.8125	.75	9.0

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 13001

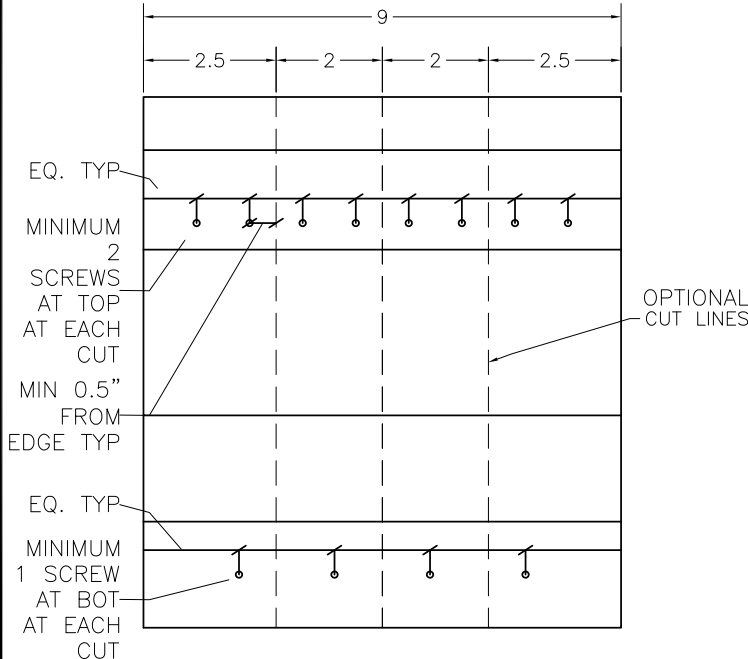


12/14/2018

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:
SEE TABLE 2 FOR CLIP LOCATION

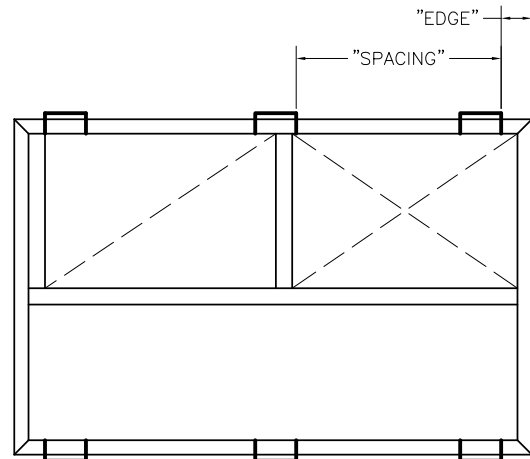


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]
1001A	N/A	N/A
1003A	N/A	N/A
6047	7.75	15.6875
6049	7.75	20.5625

PROJECT: IBC 2018/ CBC 2019 UPDATE

DATE: 12.6.18

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_D.DWG

PAGE 2 OF 3



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FOR: GROUP D

PART NO: SEE BELOW

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
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Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 13001



12/14/2018

RELATED CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG LONG [IN]	CG SHORT [IN]	CG HEIGHT [IN]
1001A	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 70	48.28	32.72	42.98	MAX 400	22.6	15.8	HUNIT/2
			11	80							
			14	90							
			18	104							
			24	187							
			MAX 36	MAX 253							
1003A	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 84	48.28	44.22	46.98	MAX 600	25.5	15.5	HUNIT/2
			11	95							
			14	107							
			18	122							
			24	217							
			MAX 36	MAX 294							
6047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 55	50.625	43.125	37.375	MAX 400	20	15.8	HUNIT/2
			11	66							
			14	77							
			18	92							
			24	185							
			MAX 36	MAX 259							
6049	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 66	60.313	46.063	41.375	MAX 600	25	16.3	HUNIT/2
			11	79							
			14	92							
			18	109							
			24	216							
			MAX 36	MAX 300							

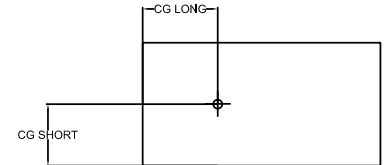


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	16 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	36"
E	SCREWS	12	12	14	14
F	SCREWS	10	10	10	10
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	6	6	6	6
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	(6)

NOTE:
SEE PAGE 1 FOR CLIP SMS FOR CONTINUOUS HOLD DOWN ON 1001A AND 1003A

PROJECT: IBC 2018/ CBC 2019 UPDATE

DATE: 12.6.18

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_D.DWG

PAGE 3 OF 3



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

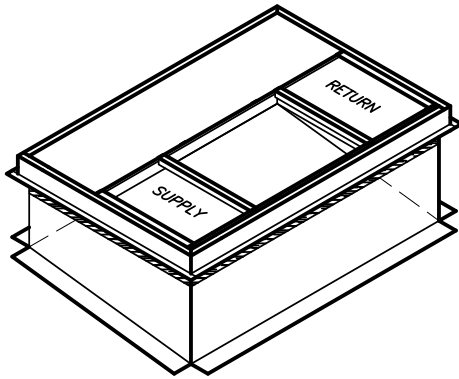
PART NO:

PITCHED ROOF CURB

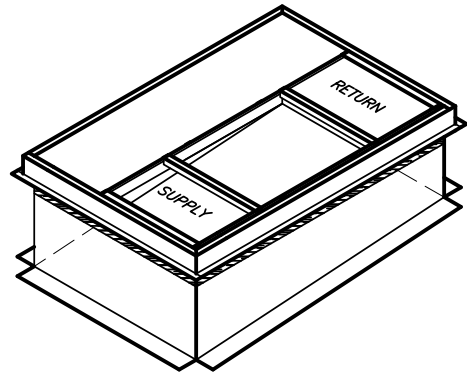
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

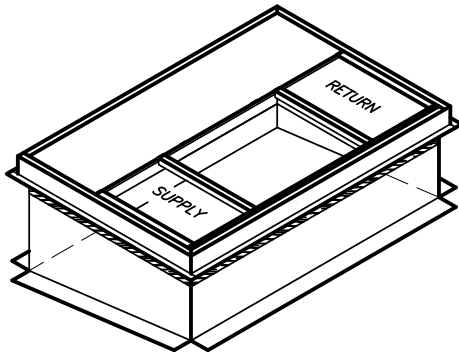
(A)



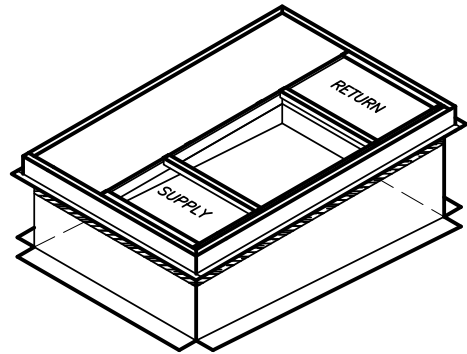
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-6

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Unit Parameters

Unit Model:.....**50FCQM14A2A6-0A0A0**
 Unit Size:.....**14 (12.5 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:.....**Two-Stage Cooling / One Circuit**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**9' 7.875"**
 Unit Width:.....**5' 3.375"**
 Unit Height:.....**4' 9.375"**

*** Weights and Dimensions are approximate. Weight does not include roof curbs, unit packaging, field installed accessories or factory installed options. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Base Unit Weight (Does not include any accessories):
1250.....lb

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**6**
 Return Air Filter Size:.....**18 x 24 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Standard/Medium Static (EcoBlue)
 Al/Cu - Al/Cu
 Base Electromechanical Controls
 Standard Packaging

Warranty Information

5-Year electric heaters (STD.)
 1-Year parts (STD.)
 5-Year Compressor (std.)

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50FCQM14A2A6-0A0A0	Rooftop Unit	1
	Base Unit	
	Electromechanical control, No intake or exhaust option. Will allow for use of field installed econom	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	2
CRHEATER420A00	Electric Heater	1
CRSINGLE047A00	Single Point Kit	1

Performance Summary For HP-6

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Part Number:50FCQM14A2A6-0A0A0

ARI EER:.....	10.60
Application EER (Rooftop Unit only):.....	11.02
IEER:.....	15.0

Base Unit Dimensions

Unit Length:.....	115.9 in
Unit Width:.....	63.4 in
Unit Height:.....	57.4 in
Base Unit Weight (Does not include any accessories):.....	1250 lb

Unit

Unit Voltage-Phase-Hertz:.....	460-3-60
Air Discharge:.....	Vertical
Fan Drive Type:.....	Vane Axial
Actual Airflow:.....	4800 CFM
Site Altitude:.....	0 ft

Cooling Performance

Condenser Entering Air DB:.....	95.0 F
Evaporator Entering Air DB:.....	80.0 F
Evaporator Entering Air WB:.....	67.0 F
Entering Air Enthalpy:.....	31.44 BTU/lb
Evaporator Leaving Air DB:.....	59.7 F
Evaporator Leaving Air WB:.....	57.3 F
Evaporator Leaving Air Enthalpy:.....	24.61 BTU/lb
Unit Discharge Air DB:.....	60.5 F
Unit Discharge Air WB:.....	57.6 F
Unit Discharge Air Enthalpy:.....	24.79 BTU/lb
Gross Cooling Capacity:.....	147.59 MBH
Net Cooling Capacity:.....	143.52 MBH
Gross Sensible Capacity:.....	105.36 MBH
Net Sensible Capacity:.....	101.30 MBH
Compressor Power Input:.....	11.24 kW
Coil Bypass Factor:.....	0.090

Heating Performance

Outdoor Ambient Temperature:.....	47.0 F
Entering Air Indoor Coil DB:.....	70.0 F
Leaving Air Indoor Coil DB:.....	94.7 F
Total Heating Capacity:.....	127.86 MBH
Integrated Heating Capacity:.....	127.86 MBH
Heating Power Input:.....	10.84 kW
High Temperature COP:.....	3.30
Low Temperature COP:.....	2.30
Electric Heating Capacity:.....	13.80 kW
Unit Leaving Air Temp:.....	103.7 F

Supply Fan

External Static Pressure:.....	0.60 in wg
Options / Accessories Static Pressure	
Electric Heaters:.....	0.12 in wg
Application External Static (ESP + Unit Opts/Acc.):.....	0.72 in wg
Fan RPM:.....	1411
Fan Power:.....	1.40 BHP
NOTE:.....	Selected IFM RPM Range: 947 - 2200

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Performance Summary For HP-6

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

Voltage Range:.....	414 - 506
Compressor #1 RLA:.....	7.7
Compressor #1 LRA:.....	60
Compressor #2 RLA:.....	7.7
Compressor #2 LRA:.....	60
Actual Electric Heater kW:.....	13.8
Electric Heater FLA:.....	18
Indoor Fan Motor Type:.....	MED
Indoor Fan Motor FLA (Total):.....	3.5
Power Supply MCA:.....	46
Power Supply MOCP (Fuse or HACR):.....	50
Disconnect Size FLA:.....	45
Disconnect Size LRA:.....	151
Electrical Convenience Outlet:.....	None
Outdoor Fan [Qty / FLA (ea)]:.....	3 / 0.8
Electric Heater Part Number:.....	420A
Electric Heater Number of Stages:.....	1

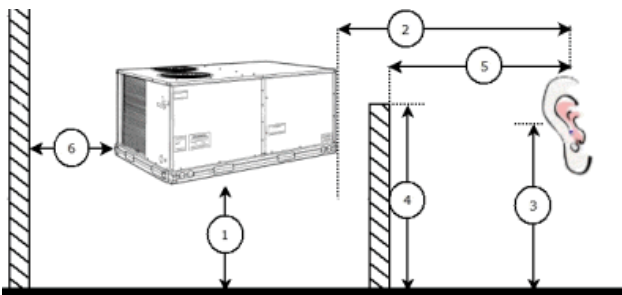
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	87.9	85.8	89.3
125 Hz	86.6	77.3	85.2
250 Hz	68.9	63.3	80.3
500 Hz	72.9	64.7	78.0
1000 Hz	69.8	63.3	77.0
2000 Hz	67.8	57.9	74.4
4000 Hz	69.5	54.7	73.7
8000 Hz	61.1	47.7	68.9
 A-Weighted	 77.2	 68.6	 83.0

Advanced Acoustics



Advanced Acoustics Parameters

1. Unit height above ground:.....	30.0 ft
2. Horizontal distance from unit to receiver:.....	50.0 ft
3. Receiver height above ground:.....	5.7 ft
4. Height of obstruction:.....	0.0 ft
5. Horizontal distance from obstruction to receiver:.....	0.0 ft
6. Horizontal distance from unit to obstruction:.....	0.0 ft

Detailed Acoustics Information

Performance Summary For HP-6

Project: BCSD HVAC Replacement
 Prepared By:

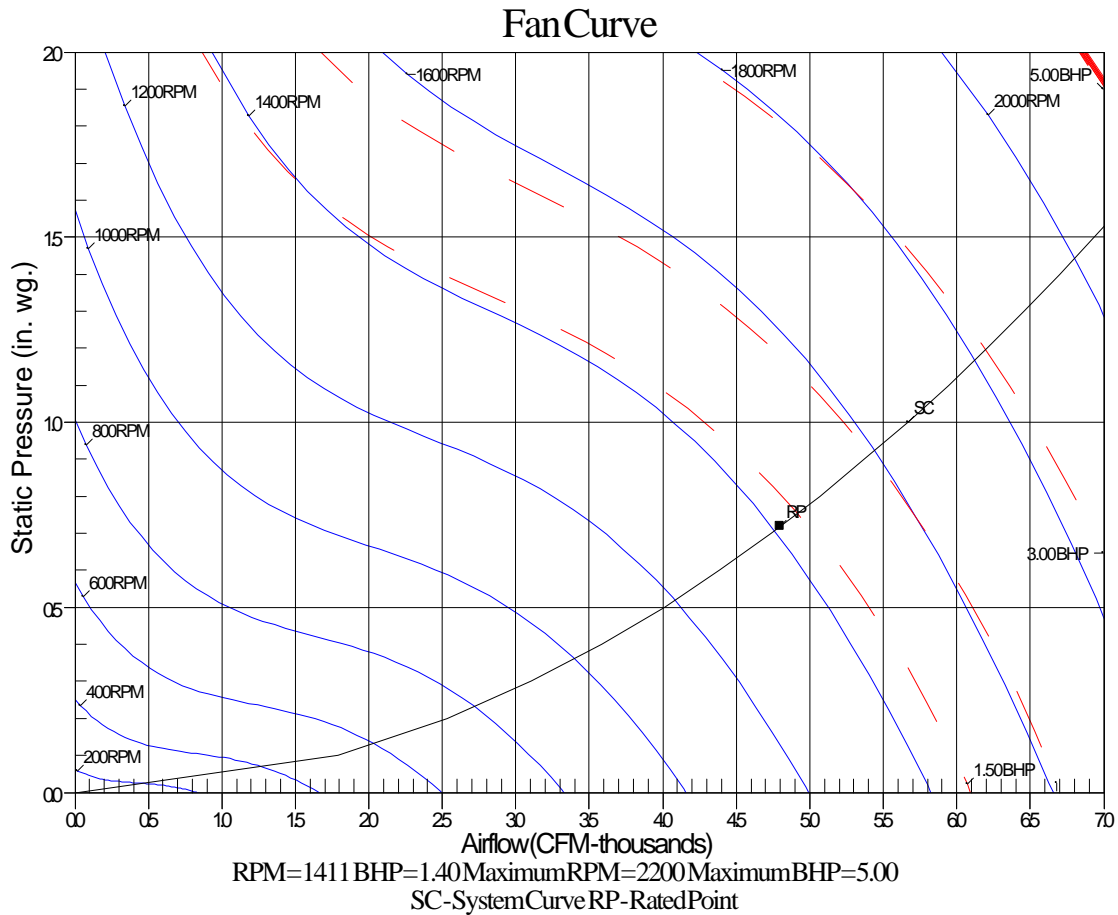
08/09/2023
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Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	89.3	85.2	80.3	78.0	77.0	74.4	73.7	68.9	91.6 Lw
B	63.1	69.1	71.7	74.8	77.0	75.6	74.7	67.8	82.5 LwA
C	56.9	52.8	47.9	45.6	44.6	42.0	41.3	36.5	59.2 Lp
D	30.7	36.7	39.3	42.4	44.6	43.2	42.3	35.4	50.1 LpA

Legend

- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.



Certified Drawing for HP-6

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
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NOTES:

1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW



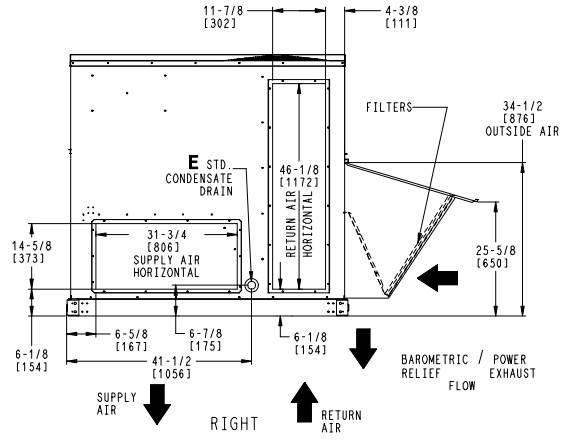
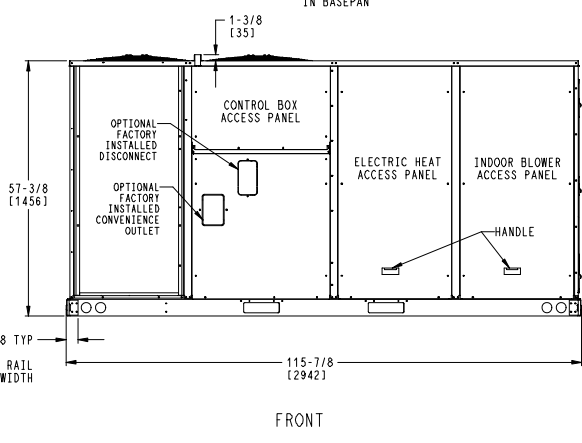
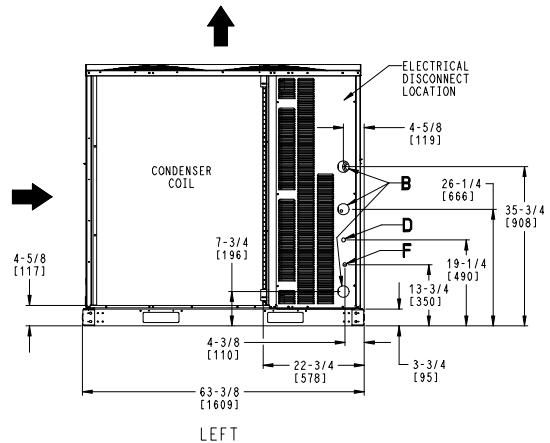
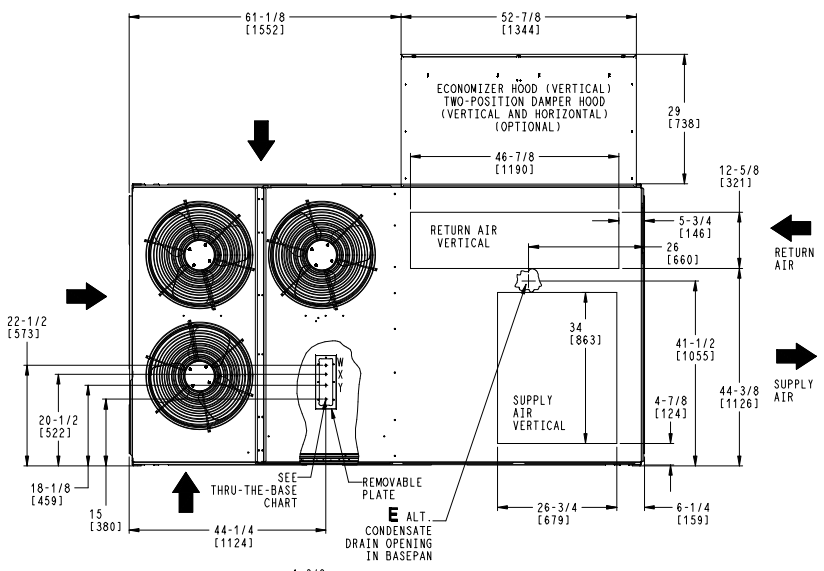
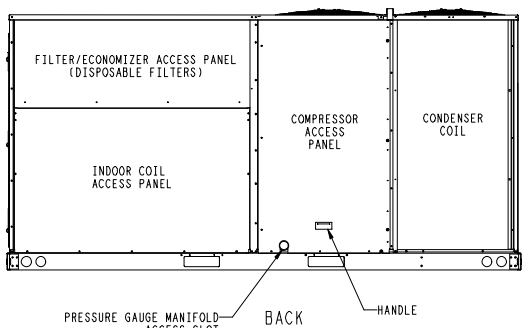
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CONNECTION SIZES	
B	2 1/2" [64] DIA POWER SUPPLY HOLE
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
F	7/8" [22] DIA FIELD CONVENIENCE OUTLET HOLE

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW005A00,006A00,007A00				
ACCESSORY NO.	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)	
005	W	1/2" ACC.	7/8" [22.2]	
	X	1/2" 24V	7/8" [22.2]	
	Y	1 1/4" POWER	1 1/2" [38.1]	
006	W	1/2" ACC.	7/8" [22.2]	
	X	1/2" 24V	7/8" [22.2]	
	Y	1 1/2" POWER	2" [50.8]	
007	W	1/2" ACC.	7/8" [22.2]	
	X	1/2" 24V	7/8" [22.2]	
	Y	2" POWER	2 1/2" [63.5]	

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR X & Y ARE PROVIDED AS SPECIFIED ON "006".



ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50FCO 14 SINGLE ZONE ELECTRICAL HEAT PUMP	50TM002592	REV
U.S. ECCN:NSR	1 OF 2	5/4/22	-			-

Certified Drawing for HP-6

Project: BCSD HVAC Replacement
Prepared By:

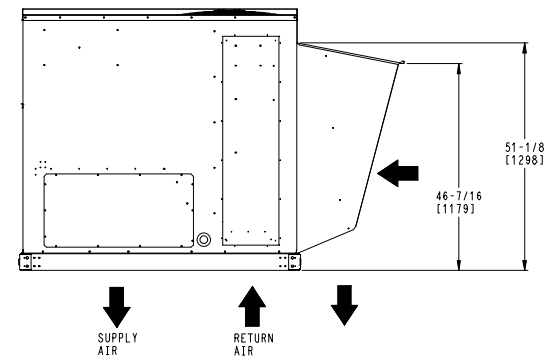
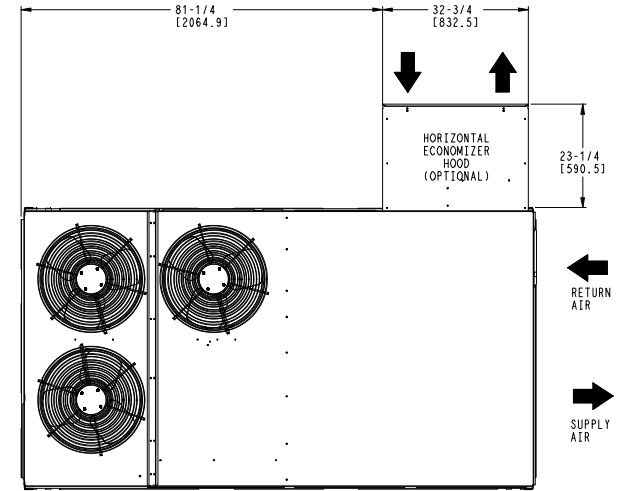
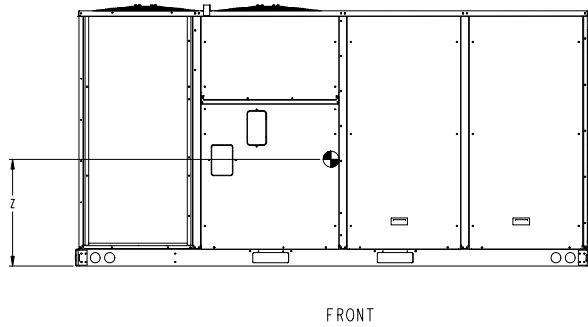
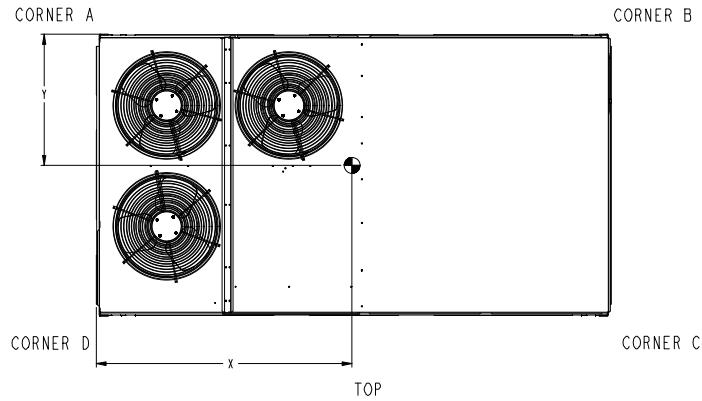
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UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50FCQ-14	1250	567	350	159	338	153	277	125	286	130	57 (1448)	28 1/2 (724)	24 (610)

STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT & WITHOUT PACKAGING.
FOR OPTIONS & ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.

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HORIZONTAL ECONOMIZER

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50FCQ 14 SINGLE ZONE ELECTRICAL HEAT PUMP	50TM002592	REV
U. S. ECCN: NSR	2 OF 2	5/4/22	-			-



Date:
8/9/2023

Weights:
332lbs/150.59kg

Units:

Part Number:
PECD-SRT05CB-D0DB-4L3-4

Submitted To: aarballo@siglers.com

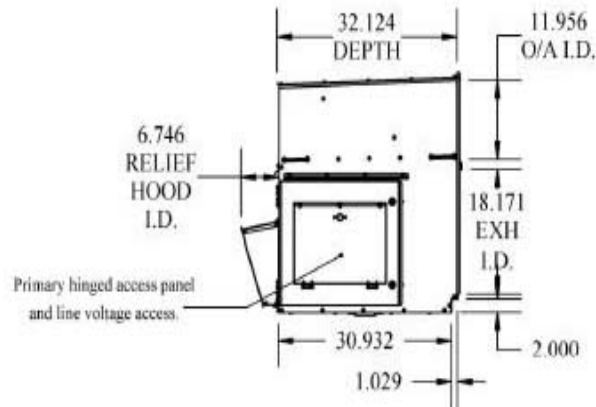
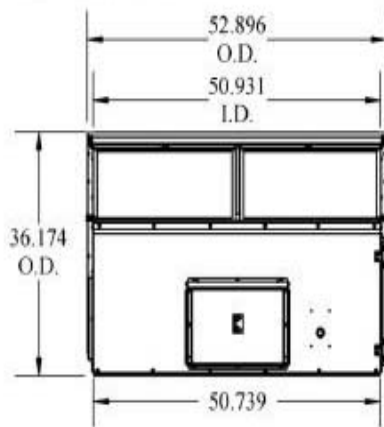
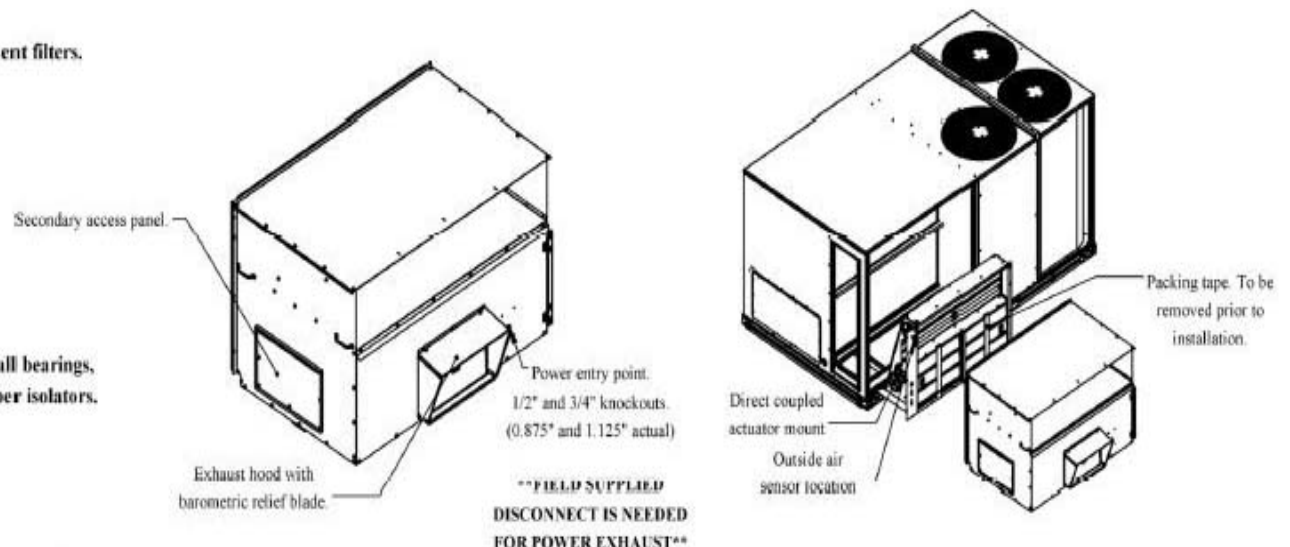
Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 5200 CFM @ 1/2" - 3 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

FEATURES:

- Includes ECD-SRT05CB series economizer.
- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrapment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 5 - ECD-SRT5CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class 1A & AMCA certified.
- Relief blades are AMCA certified.
- Uses filter rack with unit.
- Field supplied and installed disconnect is required.
- Blower is forward curved, double inlet, with pre-lubricated ball bearings, have a dynamically balanced wheel, and are mounted on rubber isolators.
- Thermally protected motors.
- Adjustable motor pulleys
- See page 2 for electrical data.
- See page 3 for PE performance and sound data.



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MicroMetl

Date:
8/9/2023

Weights:
332lbs/150.59kg

Units:

Part Number:
PECD-SRT05CB-D0DB-4L3-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 5200 CFM @ 1/2" - 3 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

Compliant Economizer:

- Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements.
- ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
- IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
- AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- Includes **ECD-SRT05CA Series Economizer**. See economizer submittal for economizer details.
- Designed specifically for down discharge applications.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided.
- All harnesses and plugs needed are provided.
- Uses standard factory filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV007B00 or MicroMetl part number 0640-0300-SPNLH

Notes:

- Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
- Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
- ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

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Date:
8/9/2023

Weights:
332lbs/150.59kg

Units:

Part Number:
PECD-SRT05CB-D0DB-4L3-4

Submitted To: aarballo@siglers.com

Job:

Notes:

Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 5200 CFM @ 1/2" - 3 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

- 1/2HP Power Exhaust Configurations and Electrical Data								
Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
1VH	208-230/240	1	Constant Volume	0.5	4.1-4.3	5.1-5.4	9.2-9.7	N/A
2VH	208-230/240	3	Constant Volume	0.5	2.3-2.2	2.9-2.8	5.2-5.0	N/A
1LH or 1TH	208-230/240	1	Modulating	0.5	5.7*	7.1	12.8	10 Amp
2LH or 2TH	208-230/240	3	Modulating	0.5	3.9*	4.9	8.8	10 Amp
4VH	460/480	3	Constant Volume	0.5	1.1	1.4	2.5	N/A
4LH or 4TH	460/480	3	Modulating	0.5	1.5*	1.9	3.4	10 Amp

- 1HP Power Exhaust Configurations and Electrical Data								
Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
2V1	208-230/240	3	Constant Volume	1.0	3.8-3.6	4.8-4.5	8.6-8.1	N/A
2L1 or 2T1	208-230/240	3	Modulating	1.0	6.4*	8	14.4	12 Amp
4V1	460/480	3	Constant Volume	1.0	1.9	2.4	4.3	N/A
4L1 or 4T1	460/480	3	Modulating	1.0	2.8*	3.5	6.3	10 Amp

- 2HP Power Exhaust Configurations and Electrical Data								
Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provided Fuses
2V2	208-230/240	3	Constant Volume	2.0	5.6-5.4	7.0-6.8	12.6-12.2	N/A
2L2 or 2T2	208-230/240	3	Modulating	2.0	9.5*	11.9	21.4	15 Amp
4V2	460/480	3	Constant Volume	2.0	2.7	3.4	6.1	N/A
4L2 or 4T2	460/480	3	Modulating	2.0	4.5*	5.6	10.1	10 Amp

- 3HP Power Exhaust Configurations and Electrical Data								
Suffix	Voltage	Phase	Description	HP	FLA	MCA	MOCP	Internally Provide Fuses
2V3	208-230/240	3	Constant Volume	3.0	9.2-8.6	11.5-10.8	20.7-19.4	N/A
2L3 or 2T3	208-230/240	3	Modulating	3.0	13.6*	17	30.6	25 Amp
4V3	460/480	3	Constant Volume	3.0	4.3	5.4	9.7	N/A
4L3 or 4T3	460/480	3	Modulating	3.0	6.5*	8.1	14.6	10 Amp

*VFD Input Current

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Date:
8/9/2023

Weights:
332lbs/150.59kg

Units:

Part Number:
PECD-SRT05CB-D0DB-4L3-4

Submitted To: aarballo@siglers.com

Job:

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Economizer & Power Exhaust Combination Package, Genesis Ultra Low Leak Vertical with RTU Open - Premier Link - System VU - No Controller, Belimo Actuator, Adjustable Dry Bulb Sensor, 460 Volt Three Phase, Modulating, Designed To Operate At 5200 CFM @ 1/2" - 3 HP. Power Exhaust Painted To Match RTU, All Necessary Panels And Hardware Included. Electrical junction box provided. High voltage cable to be field supplied and installed. Power Exhaust VFD is BacNet Compatible..

****Data provided by blower manufacturer****

"1/2 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
2650	0.1	578	dBA	73	68	66	63	62	60	57	54	56
2475	.25	638		76	71	68	65	64	61	58	55	58
2400	.3	660		77	72	69	66	65	62	59	56	59
2250	.4	701		80	76	72	69	68	66	62	59	62
2100	.5	740		80	78	73	70	68	67	63	60	63
2000	.6	784		82	80	74	72	69	68	64	61	65
1725	.75	859		86	83	78	75	72	71	67	64	67

"1 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
3575	0.1	667	dBA	80	77	72	69	68	66	63	60	63
3450	.25	702		81	76	72	70	68	66	62	59	63
3400	.3	717		81	76	72	70	68	66	62	59	63
3300	.4	745		82	77	73	71	69	66	63	60	63
3200	.5	778		84	78	74	71	70	67	64	61	64
3100	.6	809		85	78	74	72	70	67	64	61	65
2925	.75	859		86	83	78	75	72	70	67	64	67

"2 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
4650	0.1	812	dBA	87	86	80	78	74	74	70	67	70
4550	.25	827		87	85	79	77	74	73	69	66	70
4525	.3	834		87	85	79	77	74	73	69	66	70
4450	.4	850		87	85	79	77	73	72	69	66	70
4400	.5	867		87	84	79	77	73	72	69	65	70
4350	.6	888		87	85	79	77	73	72	69	66	70
4250	.75	924		88	85	80	77	73	72	69	66	70

"3 HP" Airflow & Sound Data - Assumes .3125 Internal Exhaust Cabinet Static.												
CFM	ESP	RPM	Freq. (Hz)	63	125	250	500	1000	2000	4000	8000	Blower Outlet dBA @ 5ft.
5400	0.1	922	dBA	90	90	85	82	77	77	74	71	74
5325	.25	934		90	90	85	81	77	77	73	70	74
5300	.3	938		90	90	85	81	77	77	73	70	74
5250	.4	946		89	90	84	81	76	76	73	70	74
5200	.5	957		89	90	84	81	76	76	73	69	74
5150	.6	971		89	89	84	81	76	76	73	69	74
5050	.75	993		89	89	84	81	76	75	72	69	74

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182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

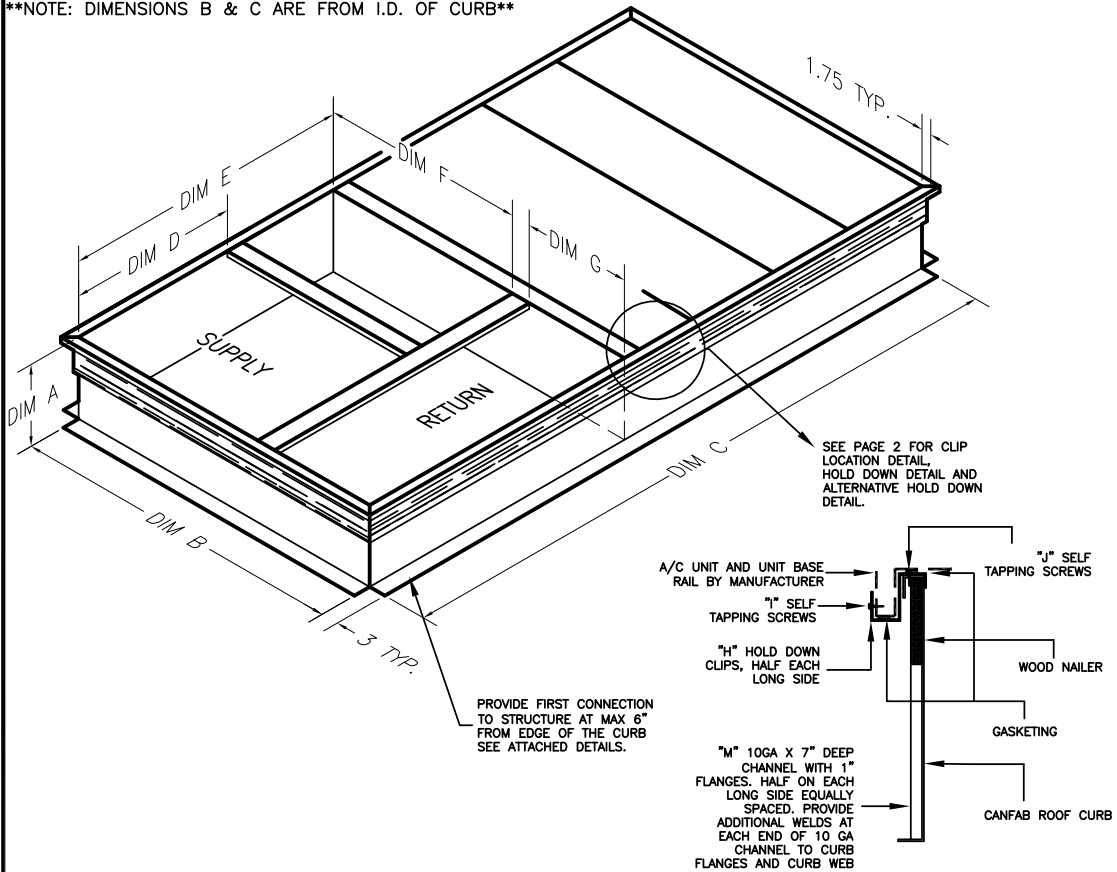
FOR: GROUP C

CARRIER 12-1/2 - 15 TONS
48/50TC 016, 48/50HC 014 48/50 LC 08-12

PART NO: 1093-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	54.0625"	105.75"	29.4375"	50.375"	35.4375"	15.3125"	N/A

****NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB****



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:

INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

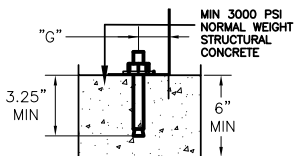
CURB CONSTRUCTION

- 1) WELDED
 - 2) BOLTED
 - 3) FINGERLOCK
- ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION

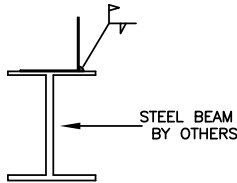
- "A" GAUGE GALVANIZED STEEL CURB
-SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
-SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
- ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3

ATTACHMENT TO STRUCTURAL CONCRETE



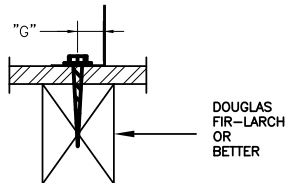
"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
"C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
NOTE:
-MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
-STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
-BOLTS SHALL BE EQUALLY SPACED

ATTACHMENT TO STRUCTURAL STEEL



1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
NOTE:
-PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
-PROVIDE WELDS ON ALL SIDES

ATTACHMENT TO WOOD



"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
"F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
NOTE:
-SCREWS SHALL BE EQUALLY SPACED.

STRUCTURAL REVIEW BY:

MARTIN & associates
JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California, 90015
Phone (213) 483 8490
Fax (213) 483 3084
Job No.: 19022



3/13/2019

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 3.12.19

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_C.DWG

PAGE 1 OF 4



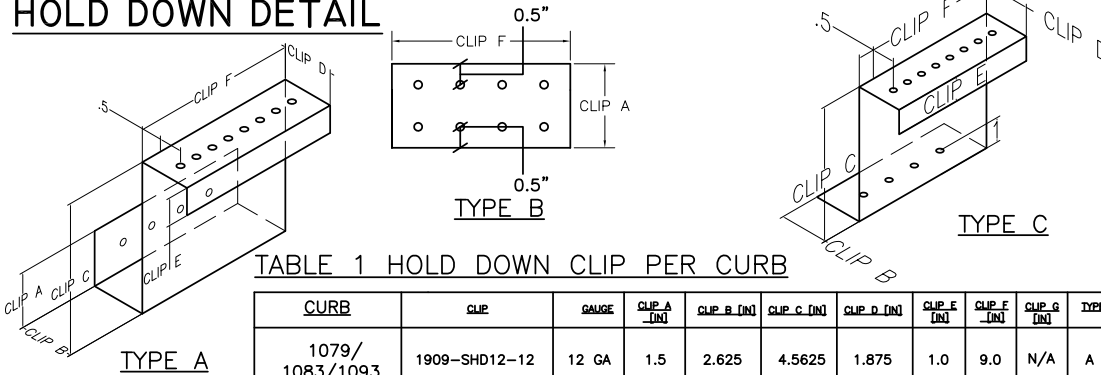
182 GRANITE STREET, SUITE 101, CORONA, CA 92879

PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR: GROUP C

PART NO:

HOLD DOWN DETAIL



STRUCTURAL REVIEW BY:



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Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022



01/13/2021

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1079/1083/1093	1909-SHD12-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3009	3902-SHD12-12	12 GA	1.5	5.295	3.825	2.0	1.0	9.0	N/A	A
6007/6009	6911-SHD12-12	12 GA	2.0	2.125	6.0	1.875	1.0	9.0	N/A	A
6009-HCB	8004-SHD-D-12-12	12 GA	2.0	N/A	N/A	N/A	N/A	9.0	N/A	B
4013	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1	9.0	N/A	C

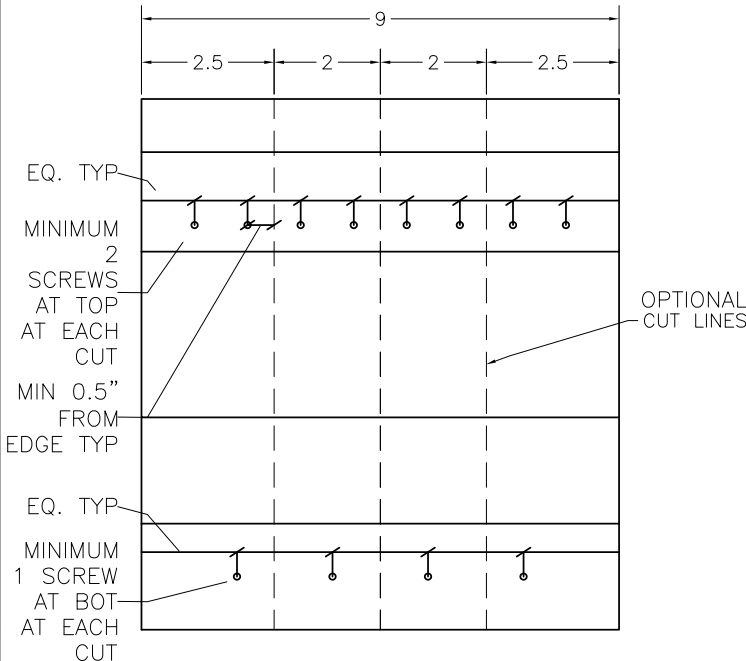
**NOTE: 6009-HCB HAS FLAT STYLE CLIP (SEE LEFT)

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:
-SEE TABLE 2 FOR CLIP LOCATION
-ONLY 4013 HAS CLIPS ON THE "EDGE"
SHORT SIDES

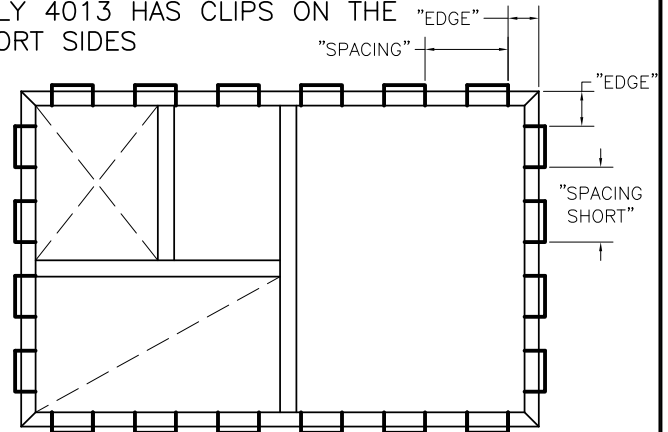


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1079	7.75	21.175	N/A
1083/1093	7.75	16.85	N/A
3009	7.75	20.25	N/A
6007	7.75	15.45	N/A
6009	7.75	18.4375	N/A
6009-HCB	7.75	18.4375	N/A
4013	7.75	19.375	20.5417

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_C.DWG

PAGE 2 OF 3



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FOR: GROUP C

PART NO:

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

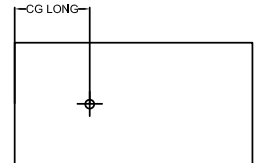
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Job No.: 19022



12/19/2019



RELATED CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1079	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 206	127.875	86.375	49.375	MAX 3261	68.7	40.9	HUNIT/2
			11	237							
			14	267							
			18	371							
			24	599							
			MAX 36	MAX 808							
1083	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 186	115.875	63.375	57.375	MAX 2900	57	31.5	HUNIT/2
			11	212							
			14	237							
			18	271							
			24	499							
			MAX 36	MAX 673							
1093	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 180	115.875	63.375	57.375	MAX 2729	58	32	HUNIT/2
			11	206							
			14	231							
			18	265							
			24	493							
			MAX 36	MAX 667							
3009	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 181	180.594	92	63	MAX 3918	85.25	45	HUNIT/2
			11	214							
			14	247							
			18	292							
			24	476							
			MAX 36	MAX 657							
4013	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 171	106.5	90.125	54.25	MAX 2800	55.25	42.75	HUNIT/2
			11	200							
			14	230							
			18	270							
			24	435							
			MAX 36	MAX 596							

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/13/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_C_ISO.DWG

PAGE 3 OF 4



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FOR: GROUP C

PART NO:

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT (CONTINUE)

STRUCTURAL REVIEW BY:



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Job No.: 19022



12/19/2019

RELATED CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG LONG [IN]	CG SHORT [IN]	CG HEIGHT [IN]
6007	SEE PAGE 1	SEE PAGE 1	11	228	122.313	84.188	66.25	MAX 3195	58	36	HUNIT/2
			14	255							
			18	290							
			24	438							
			MAX 36	MAX 583							
6009	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 260	122.313	84.188	66.25	MAX 3195	58	36	HUNIT/2
			11	291							
			14	322							
			18	363							
			24	536							
6009-HCB	SEE PAGE 1	SEE PAGE 1	MAX 36	MAX 706	122.313	84.188	66.25	MAX 3195	58	36	HUNIT/2
			MIN 8	MIN 365							
			11	390							
			14	414							
			18	446							
			24	609							
			MAX 36	MAX 741							

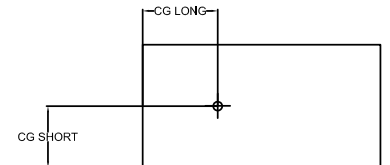


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA, 12 GA FOR 6009-HCB	14 GA, 12 GA FOR 6009-HCB	12 GA	12 GA
B	EXP. ANCHOR	8	8	8	10
C	EXP. ANCHOR	6	6	6	6
D	WELD	24"	24"	24"	24"
E	SCREWS	34	36	40	46
F	SCREWS	22	24	26	30
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	12 (6 ON EACH LONG SIDE) TYPICAL. 18 (5 ON EACH LONG SIDE AND 4 ON EACH SHORT SIDE) FOR 4013.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12 TYPICAL. #14 FOR 3009	(8) #12 TYPICAL. #14 FOR 3009	(8) #12 TYPICAL. #14 FOR 3009	(8) #12 TYPICAL. #14 FOR 3009
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	8 (4 ON EACH LONG SIDE) TYPICAL. 16 (4 ON EACH LONG SIDE AND 4 ON EACH SHORT SIDE) FOR 4013.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/13/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_c_ISO.DWG

PAGE 4 OF 4



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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

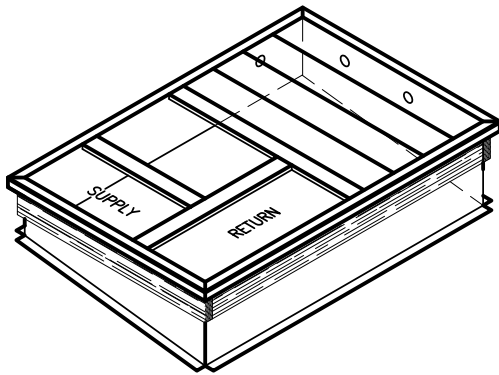
PART NO:

PITCHED ROOF CURB

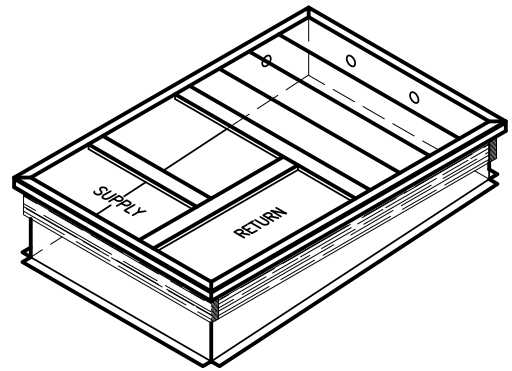
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

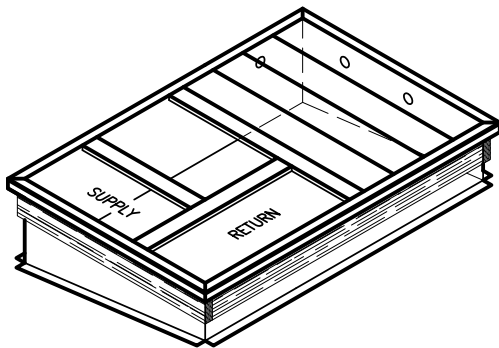
(A)



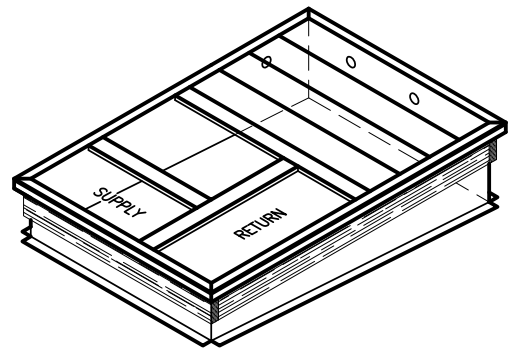
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

Unit Report For HP-7

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

Unit Parameters

Unit Model:.....**50GCQJ05J2M6-0A3A0**
 Unit Size:.....**05 (4 Tons)**
 Volts-Phase-Hertz:.....**460-3-60**
 Heating Type:.....**Heat Pump**
 Heat Control:.....**Two Stage Cooling Models**
 Duct Cfg:.....**Vertical Supply / Vertical Return**

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**6' 2.375"**
 Unit Width:.....**3' 10.625"**
 Unit Height:.....**3' 5.375"**
Total Operating Weight:.....623 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....**Throwaway**
 Return Air Filter Quantity:.....**4**
 Return Air Filter Size:.....**16 x 16 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Condensate Overflow Switch
 Direct Drive - EcoBlue - Medium Static
 Al/Cu - Al/Cu - Louvered Hail Guards
 Base controls set up for field installed air management device
 Hinged Access Panels
 Standard Packaging

Warranty Information

5-Year compressor parts (STD.)
 5-Year electric heater (STD.)
 1-Year parts (STD.)
 3-Year SystemVu controller

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
50GCQJ05J2M6-0A3A0	Rooftop Unit	1
	Base Unit	
	Condensate Overflow Switch	
	Direct Drive - EcoBlue - Medium Static	
	Al/Cu - Al/Cu - Louvered Hail Guards	
	Hinged Access Panels	
	None	
Field Installed Accessories		
CRTIMEGD001A00	Time Guard II	1
CRSTATUS001A00	Fan/Filter Status Switch	1
CRPHASE3001A02	Phase Monitor Control	1
CRHEATER333A00	Electric Heater	1
CRPECONV003A00	Hinged Panel Sealing Angle Kit	1

Performance Summary For HP-7

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Part Number:50GCQJ05J2M6-0A3A0

ARI SEER:	17.00
ARI SEER2:	16.00
Application EER (Rooftop Unit only):	11.77

Base Unit Dimensions

Unit Length:	74.4	in
Unit Width:	46.6	in
Unit Height:	41.4	in

Operating Weight

Base Unit Weight:	590	lb
Condensate Overflow Switch:	5	lb
Al/Cu - Al/Cu - Louvered Hail Guards:	13	lb
Hinged Access Panels:	5	lb

Accessories

Electric Heater:	10	lb
------------------	----	----

Total Operating Weight:	623	lb
-------------------------	-----	----

Unit

Unit Voltage-Phase-Hertz:	460-3-60	
Air Discharge:	Vertical	
Fan Drive Type:	Vane Axial	
Actual Airflow:	1600	CFM
Site Altitude:	0	ft

Cooling Performance

Condenser Entering Air DB:	95.0	F
Evaporator Entering Air DB:	80.0	F
Evaporator Entering Air WB:	67.0	F
Entering Air Enthalpy:	31.44	BTU/lb
Evaporator Leaving Air DB:	58.5	F
Evaporator Leaving Air WB:	57.3	F
Evaporator Leaving Air Enthalpy:	24.58	BTU/lb
Unit Discharge Air DB:	59.7	F
Unit Discharge Air WB:	57.7	F
Unit Discharge Air Enthalpy:	24.86	BTU/lb
Gross Cooling Capacity:	49.39	MBH
Net Cooling Capacity:	47.37	MBH
Gross Sensible Capacity:	37.07	MBH
Net Sensible Capacity:	35.05	MBH
Compressor Power Input:	3.25	kW
Coil Bypass Factor:	0.055	

Heating Performance

Outdoor Ambient Temperature:	47.0	F
Entering Air Indoor Coil DB:	70.0	F
Leaving Air Indoor Coil DB:	96.4	F
Total Heating Capacity:	45.60	MBH
Integrated Heating Capacity:	45.60	MBH
Heating Power Input:	3.04	kW
High Temperature COP:	3.70	
Low Temperature COP:	2.40	
HSPF:	8.7	
High Temperature COP2:	3.60	
Low Temperature COP2:	2.40	
HSPF2:	7.1	
Electric Heating Capacity:	5.50	kW
Unit Leaving Air Temp:	107.2	F

Performance Summary For HP-7

Project: BCSD HVAC Replacement
 Prepared By:

08/09/2023
 09:57AM

Supply Fan

External Static Pressure: **0.80** in wg
 Options / Accessories Static Pressure
 Electric Heaters: **0.18** in wg
 Application External Static (ESP + Unit Opts/Acc.): **0.98** in wg
 Fan RPM: **1863**
 Fan Power: **0.70** BHP
 NOTE: **Selected IFM RPM Range: 1047 - 2170**

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Voltage Range: **414 - 506**
 Compressor #1 RLA: **7.7**
 Compressor #1 LRA: **62**
 Actual Electric Heater kW: **5.5**
 Electric Heater FLA: **7.2**
 Indoor Fan Motor Type: **MED**
 Indoor Fan Motor FLA (Total): **1.5**
 Power Supply MCA: **21**
 Power Supply MOCP (Fuse or HACR): **25**
 Disconnect Size FLA: **20**
 Disconnect Size LRA: **72**
 Electrical Convenience Outlet: **None**
 Outdoor Fan [Qty / FLA (ea)]: **1 / 0.8**
 Electric Heater Part Number: **333A**
 Electric Heater Number of Stages: **1**

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

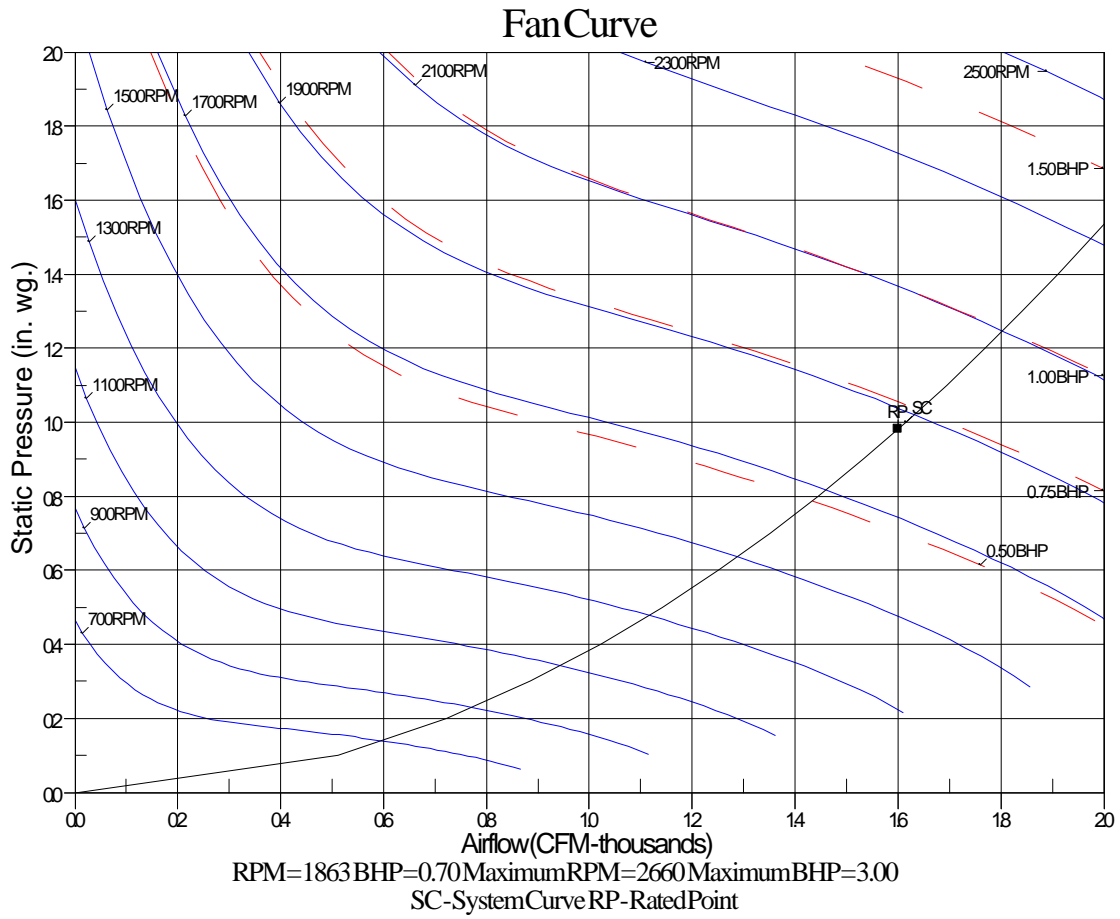
Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	92.3	90.0	NA
125 Hz	83.1	78.2	NA
250 Hz	76.8	71.9	NA
500 Hz	71.8	64.3	NA
1000 Hz	68.3	66.5	NA
2000 Hz	65.0	57.3	NA
4000 Hz	62.4	51.5	NA
8000 Hz	59.3	45.0	NA

Performance Summary For HP-7

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM



Certified Drawing for HP-7

Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

- NOTES:
1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN () ARE IN MILLIMETERS.
 2. CENTER OF GRAVITY
 3. DIRECTION OF AIR FLOW
 4. ALL VIEW DRAWN USING 3RD ANGLE

UNIT	J	K
50GCO+04	33 3/8 (847)	18 5/8 (472)
50GCO+05	41 3/8 (1051)	18 5/8 (472)
50GCO+06	41 3/8 (1051)	18 5/8 (472)



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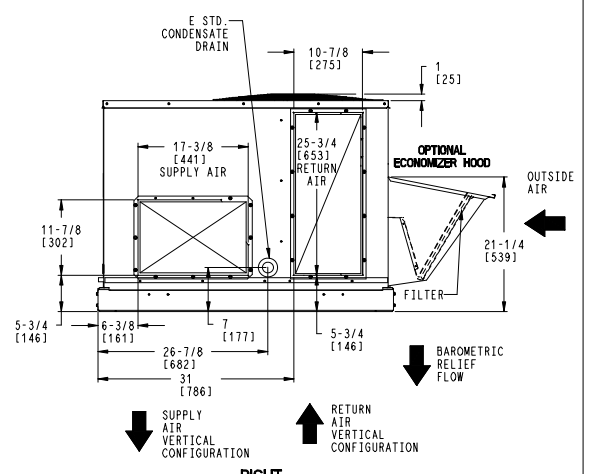
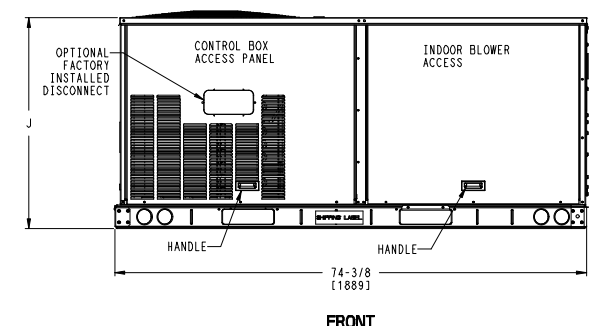
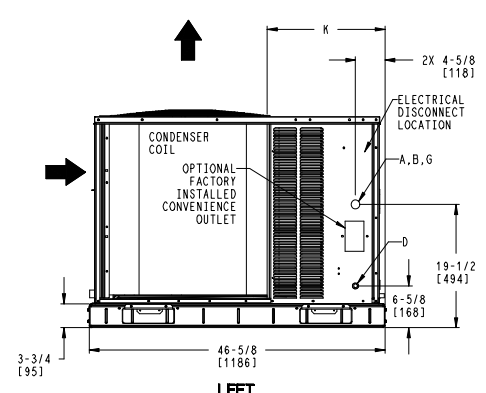
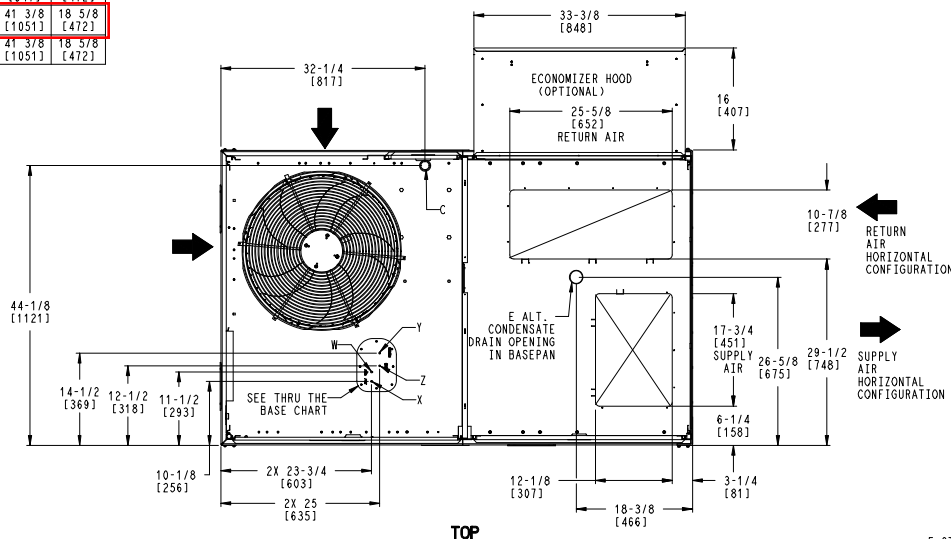
CONNECTION SIZES	
A	1 3/8" (35) DIA FIELD POWER SUPPLY HOLE
B	2" (51) DIA POWER SUPPLY KNOCKOUT
C	1 3/4" (44) DIA GAUGE ACCESS PLUG
D	7/8" (22) DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2 1/2" (64) DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPW008A00, 009A00			
	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
W	1/2"	115V	7/8" [22.2]
X	1/2"	24V	7/8" [22.2]
Y *	3/4"	POWER	1 1/8" [28.6]
Z **	(009A00) 1/2" FPT	GAS	1 1/8" [28.6]

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED

* SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE

** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.



ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN:NSR	1 OF 3	08/15/19	-			-

Certified Drawing for HP-7

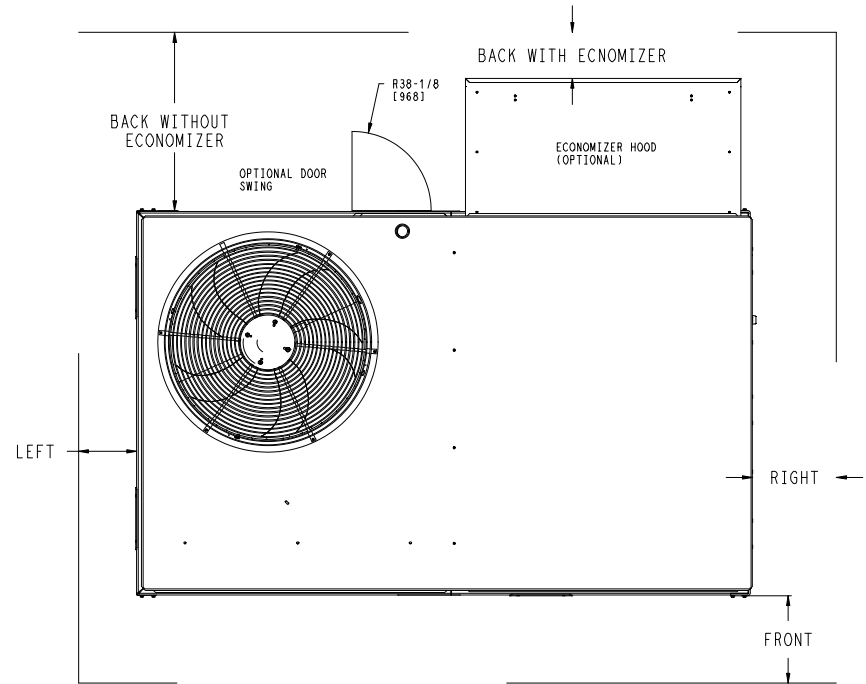
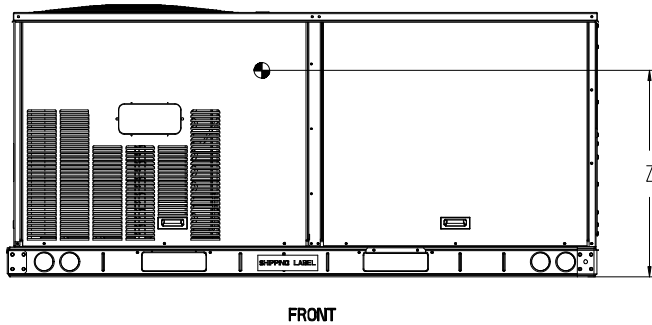
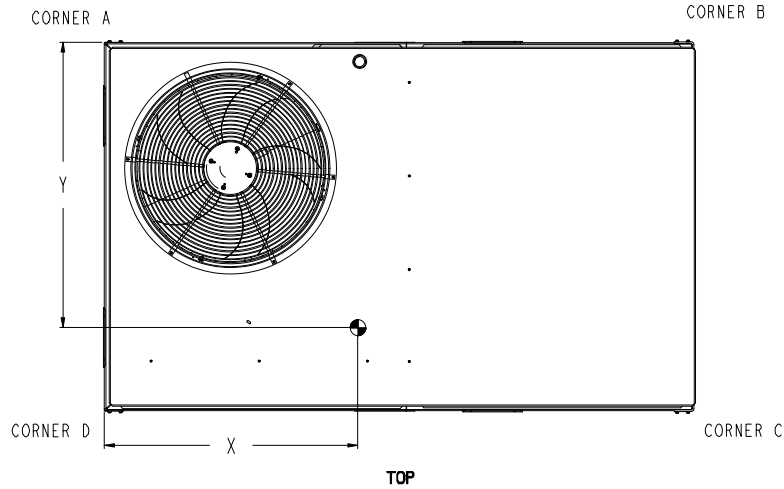
Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

UNIT	STD. UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.			HEIGHT		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z			
50GCO#04	475	215	128	58	120	54	110	50	117	53	36 [914]	22 3/8 [568]	16 1/8 [410]			
50GCO#05	590	268	162	73	147	67	134	61	148	67	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]			
50GCO#06	596	270	163	74	148	67	125	61	149	68	35 3/8 [898]	22 5/16 [557]	16 1/2 [419]			

* - STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.

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NOTE:
1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

SURFACE	CLEARANCE		OPERATING CLEARANCE
	SERVICE WITH CONDUCTIVE BARRIER	SERVICE WITH NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/O ECON	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/ECON	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

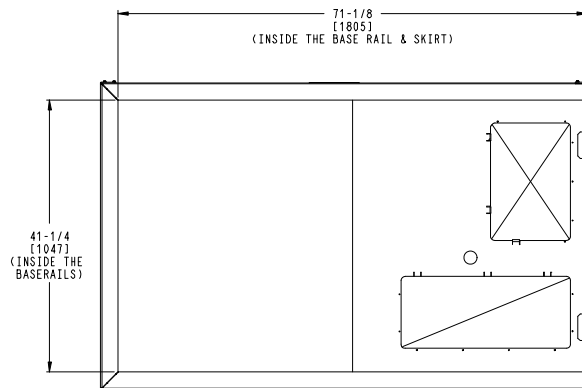
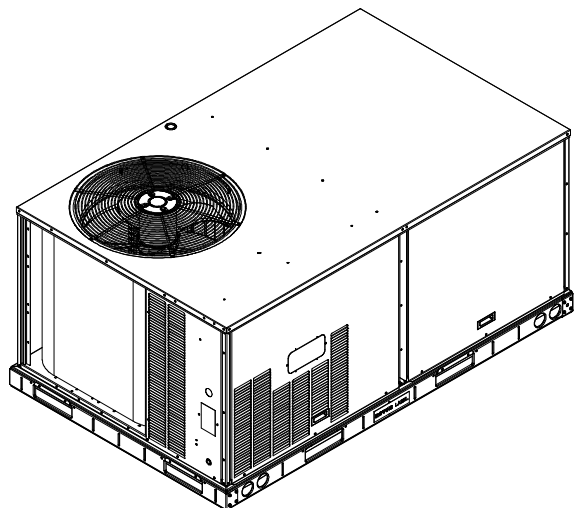
ITC CLASSIFICATION U.S. ECCN: NSR	SHEET 2 OF 3	DATE 08/15/19	SUPERCEDES -	50GCO 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV -
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Certified Drawing for HP-7

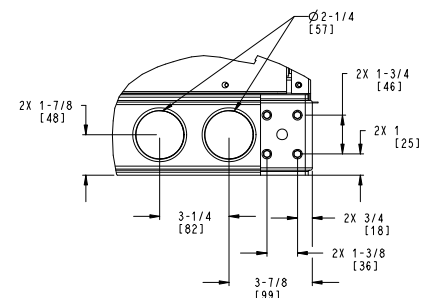
Project: BCSD HVAC Replacement
Prepared By:

08/09/2023
09:57AM

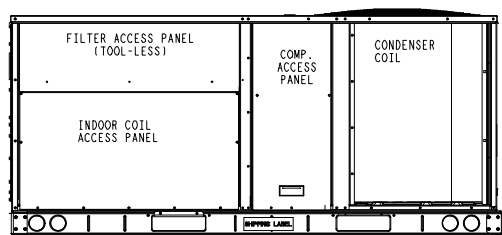
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 SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.



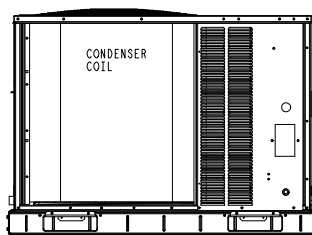
INSIDE BASERAIL DIMENSIONS
BOTTOM



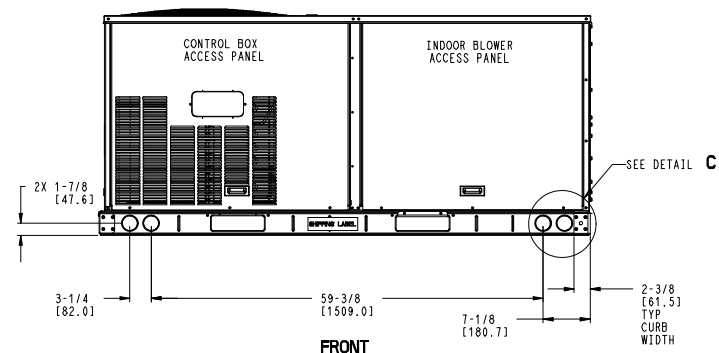
DETAIL **C**
TYP 4 PLCS



BACK



LEFT



FRONT

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	50GCQ 04-06 SINGLE PACKAGE HEAT PUMP	48TC003351	REV
U.S. ECCN: NSR	3 OF 3	08/15/19	-			-

ION-0A * 00 | Ion Generator for AHU's, Heating and AC Units

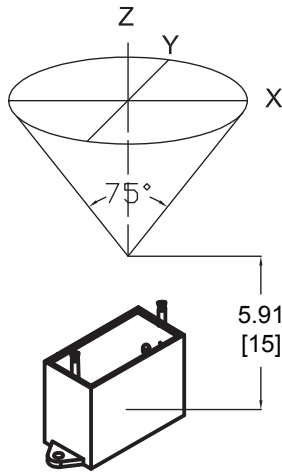
Part Number

ION - 0A * 00

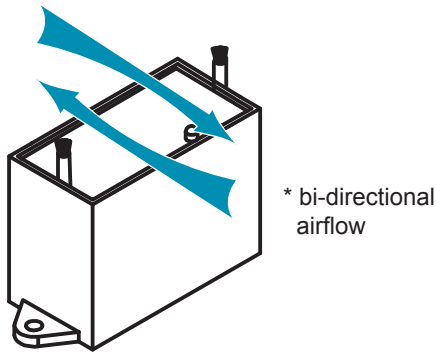
VOLTAGE:

- A - 24VAC / VDC, 1 ϕ
- D - 115VAC, 1 ϕ

Ion Distribution (inches[cm])



Airflow



Technical Data

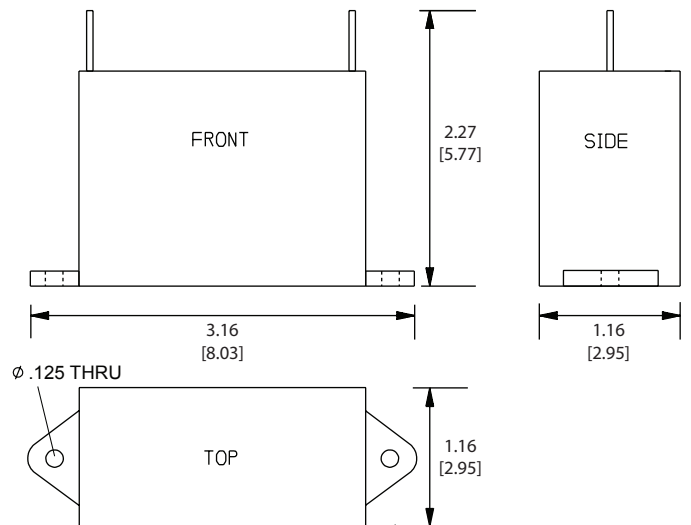
Power Supply	See part number voltage
Power Consumption	4.3 W / 24V; 6.9 W all other volts
Output Voltage	+/- 9000VDC
Power Wiring Leads	35 inches in length
Mounting	Self tapping metal screws
Dimensions	3.16" x 1.16" x 2.27" (w/ CF tips)
CFM	2,000 CFM
Output Ion	Negative 4×10^7 pieces / cm^3
Weight	.5 lbs (.25 kg)
Life Span	15,000 Hours



Product Application

- Hospitals | Nursing Homes | Schools |
- Animal Feeding and Processing Plants |
- Shopping Malls | Laboratories | Veterinary Offices |
- Restaurants and Food Preparation Areas | Zoos |
- Casinos | Convention Centers and Arenas | Jails |
- Museums | Health Clubs | Churches and Synagogues

Product Dimensions (inches [cm])





Date: _____ Weight: 45lbs (US) 20.41kg (Metric) Part Number: ECD-SRT12CB-D0DB-4

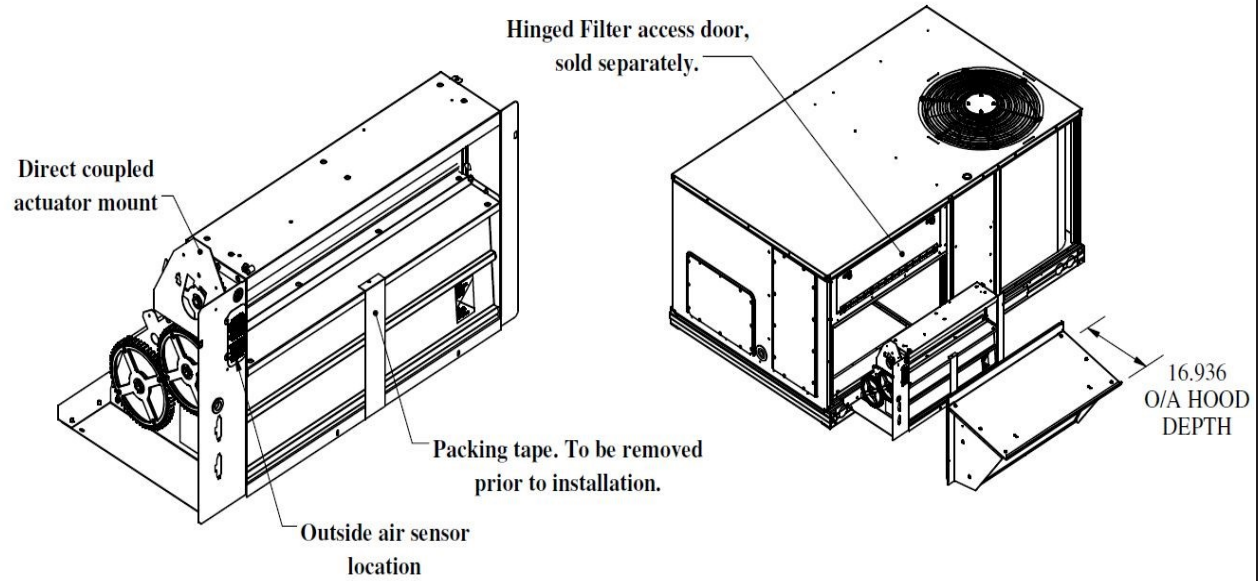
RTU: _____

Submitted to: _____ Approved by: _____ Notes: _____

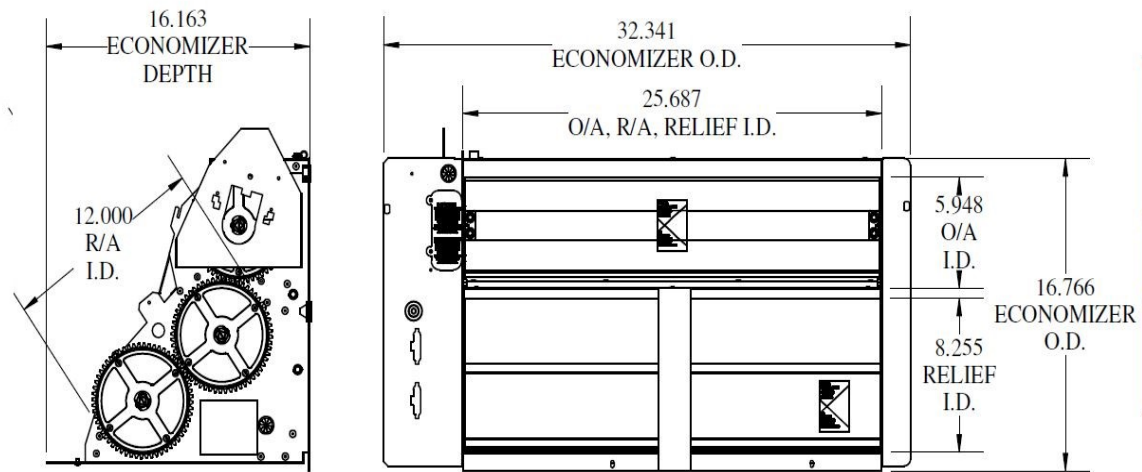
Economizer - Economizer - Genesis Ultra Low Leak Economizer, Vertical Orientation, RTU Open - Premier Link - System VU - No Controller, Adjustable Dry Bulb Sensor, Belimo Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

FEATURES:

- External gear driven dampers with roll formed blades.
- Designed for vertical applications only.
- Factory assembled rain hood, with aluminum water entrainment filters.
- Filter access door supplied with RTU.
- Hinged filter access door is ordered separately.
 - MMC P/# for Chassis 1 - ECD-SRT1CA-HDOOR
 - MMC P/# for Chassis 2 - ECD-SRT2CA-HDOOR
- Rain hood is sloped for water run off.
- All harnesses and plugs needed are supplied.
- Economizer is class IA & AMCA rated.
- Relief blades are AMCA rated.
- Uses filter rack with unit.
- Motorized relief available, add -M to end of part number
 - Ex: ECD-SRT12CB-D00H-M
- Economizer with smoke detector available, add -S to end of part number
 - Ex: ECD-SRT12CB-D00H-S



-Control Types	
-D0DB-4	RTU Open - Premier Link - System VU, No controller, Adjustable dry bulb, Belimo actuator
-D0DB-X	Comfortlink - No controller, Adjustable dry bulb, Belimo MFT actuator with 500 ohm resistor
-D00H-H	Communicating Honeywell actuator only
-D00H	Non-communicating Honeywell actuator only
-D00B	Belimo actuator with feedback and end switch
-D00S	Siemens actuator with feedback



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Master Revision 0001A
Page Revision 0001A



Date:

Weight: 45lbs (US) 20.41kg (Metric)

Part Number: ECD-SRT12CB-D0DB-4

RTU:

Submitted to:

Approved by:

Notes:

Economizer - Economizer - Genesis Ultra Low Leak Economizer, Vertical Orientation, RTU Open - Premier Link - System VU - No Controller, Adjustable Dry Bulb Sensor, Belimo Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

Compliant Economizer:

- Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems, meet mandatory section 120.2.i for Fault Detection and Diagnostic requirements. 5 Year Warranty for parts and components only.
- ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013/2016 damper leakage requirements, and meet 2016 Fault Detection and Diagnosis requirements when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex 6126 control systems.
- IECC:** Economizers meet IECC 2012, IECC 2015, and IECC 2018 for outside air, return air, and relief damper (when provided) leakage requirements, and when used with Carrier Comfortlink, RTU Open, System Vu, or I/O Flex control systems meet IECC 2015 and IECC 2018 for Fault Detection and Diagnostic requirements. Note: IECC 2015 and IECC 2018 requires differential return air sensor, which must be ordered separately.
- AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS2 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- For single or 2 speed indoor fan units. Other control options available.
- Gear driven design for trouble-free operation, eliminating slippage and binding associated with standard linkage.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided. Power exhaust options available.
- All harnesses and plugs needed are provided.
- Uses standard factory filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

- Control systems include DDC actuator, and some models include 500 OHM resistor and outside air temperature sensor.
- Differential return air sensor if required can be ordered from OEM unit factory, and is field installed in return duct.
- ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to DDC controller for options.



MicroMetl Corporation certifies that the models GR1 and NS2 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

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FOR: GROUP A

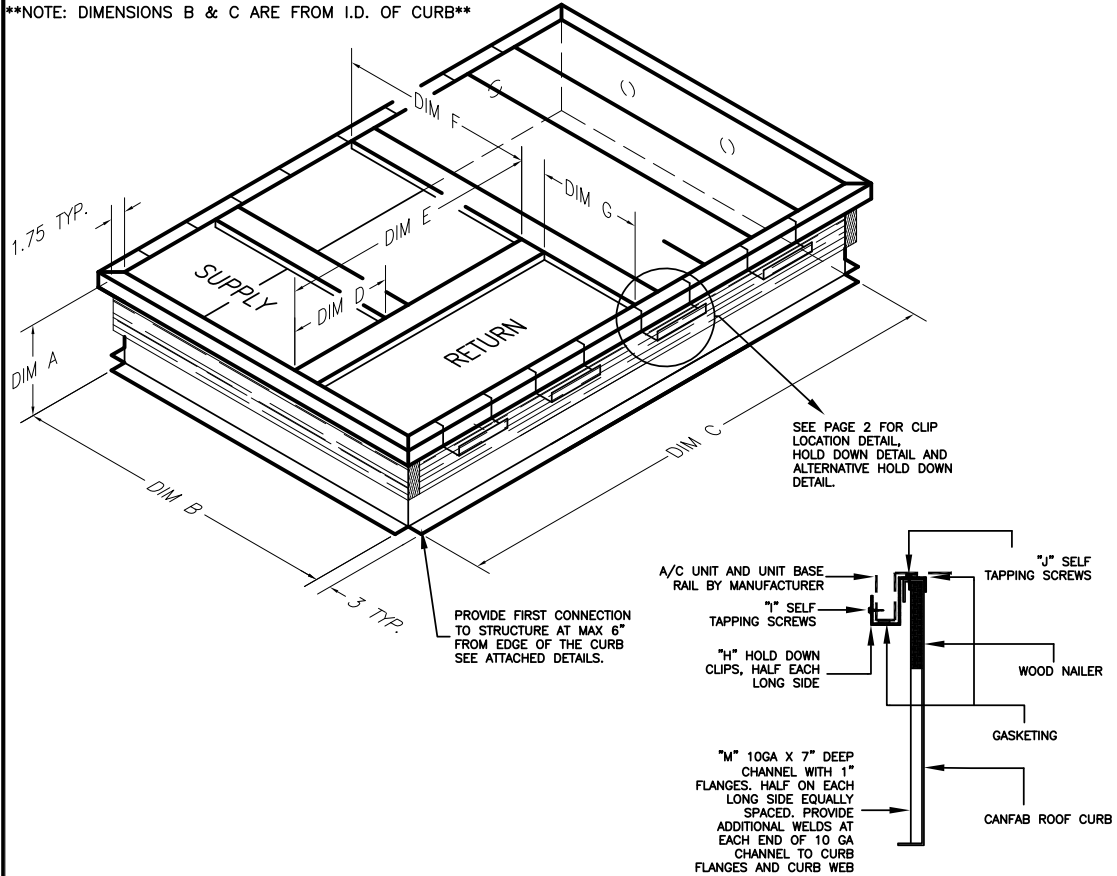
CARRIER 3 - 6-1/2 TONS

48/50HC/GC 04-06, 50HCQ 04-06, 50 KCQ 04-06, 48/50LC 04-06, 48/50TC/FC 04-07, 50TCQ 04-07, 48/50KC/FC 04-06

PART NO: 1005-CB

DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
VARIES MAX 36" SEE TABLE 3	37.1875"	67.375"	14.1875"	32.1875"	20.25"	13.875"	N/A

NOTE: DIMENSIONS B & C ARE FROM I.D. OF CURB



ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

SEISMIC DESIGN CRITERIA

-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 6.0

WIND DESIGN CRITERIA

-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:

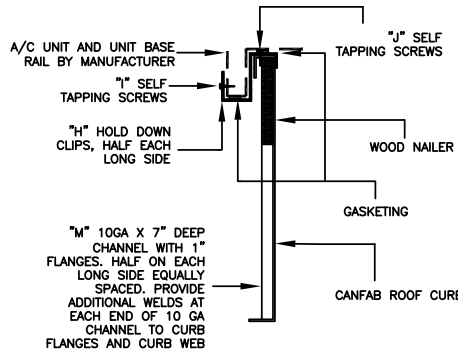
INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION

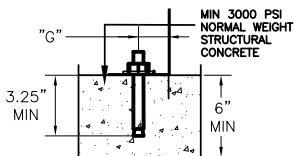
- 1) WELDED
 - 2) BOLTED
 - 3) FINGERLOCK
- ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION

- "A" GAUGE GALVANIZED STEEL CURB
-SEE TABLE 3 FOR ALLOWABLE CURB AND UNIT DIMENSIONAL AND WEIGHT
-SEE TABLE 4 FOR TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING CURB HEIGHT
- ALPHA DESIGNATIONS "A" THRU "M", CAN BE FOUND ON TABLE 4, PAGE 3

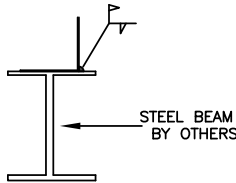


ATTACHMENT TO STRUCTURAL CONCRETE



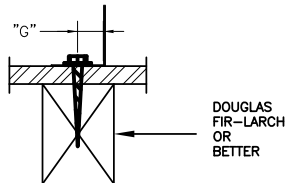
"B" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH LONG SIDE.
"C" 1/2" HILTI KWIK BOLT TZ SS 304, HALF EACH SHORT SIDE.
NOTE:
-MIN 5" AWAY FROM THE NEAREST CONCRETE EDGE (INSTALL PER ICC-ES ESR-1917).
-STRUCTURALLY ACCEPTABLE TO SUBSTITUTE HILTI KBTZ STAINLESS STEEL BOLTS WITH HILTI KBTZ CARBON STEEL BOLTS ONLY IF ALL THE BOLTS ARE COMPLETELY WATERPROOFED AND PROTECTED AGAINST THE WEATHER.
-BOLTS SHALL BE EQUALLY SPACED

ATTACHMENT TO STRUCTURAL STEEL



1/8" FILLET WELD, 2" LONG, "D" ON CENTER.
NOTE:
-PROVIDE MIN 2 CONNECTIONS WHERE THE CURB SIDE IS SHORTER THAN THE WELD SPACING.
-PROVIDE WELDS ON ALL SIDES

ATTACHMENT TO WOOD



"E" 3/8"x4" LAG SCREWS, HALF EACH LONG SIDE.
"F" 3/8"x4" LAG SCREWS, HALF EACH SHORT SIDE.
NOTE:
-SCREWS SHALL BE EQUALLY SPACED.

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California, 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022



3/22/2019

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 3.12.19

ENGINEER: LD

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 1 OF 3



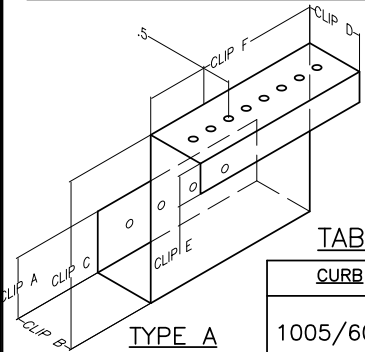
182 GRANITE STREET, SUITE 101, CORONA, CA 92879

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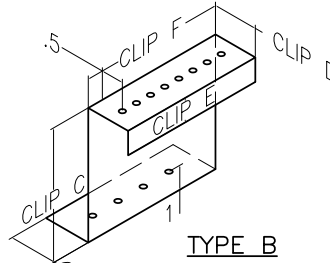
FOR: GROUP A

PART NO:

HOLD DOWN DETAIL



TYPE A



TYPE B

TABLE 1 HOLD DOWN CLIP PER CURB

CURB	CLIP	GAUGE	CLIP A [IN]	CLIP B [IN]	CLIP C [IN]	CLIP D [IN]	CLIP E [IN]	CLIP F [IN]	CLIP G [IN]	TYPE
1005/6059	1909-SHD8-12	12 GA	1.5	2.625	4.5625	1.875	1.0	9.0	N/A	A
3003	3901-SHD8-12	12 GA	1.0	4.81	3.875	2.125	1.0	9.0	N/A	A
4027	4905-SHD8-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B
6037	6907-SHD8-12	12 GA	2.0	2.0	3.25	1.875	1.0	9.0	N/A	A
4047	4905-SHD12-12	12 GA	N/A	2.0625	4.4082	1.875	1.0	9.0	N/A	B

NOTE:
SEE TABLE 1
FOR DESIGNATED
HOLD DOWN
CLIP PER CURB

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
950 South Grand Ave., 4th Floor
Los Angeles, California 90015
Phone (213) 483 6490
Fax (213) 483 3084
Job No.: 19022

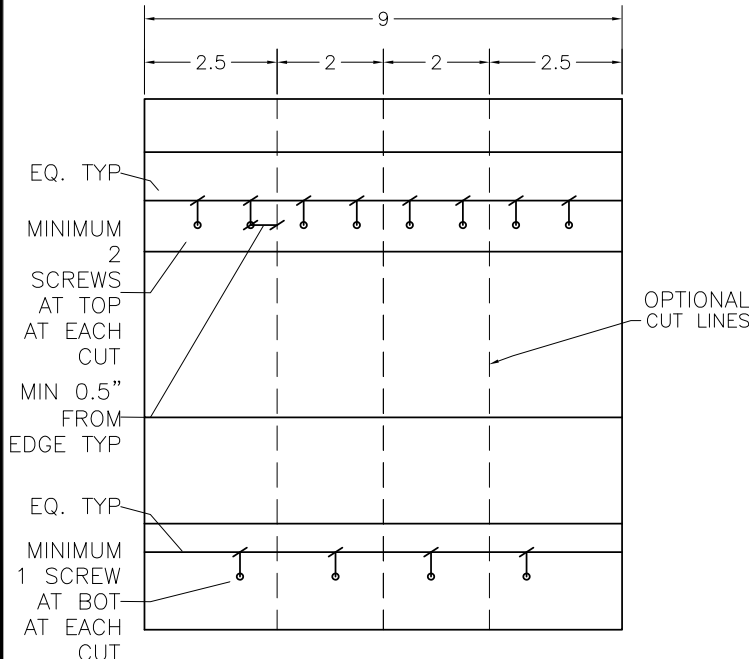


01/13/2021

ALTERNATIVE HOLD DOWN DETAIL

NOTE:
APPLICABLE ONLY FOR 9" LONG HOLD DOWN WITH (8) SCREWS AT TOP AND (4) SCREWS AT BOT EQUALLY SPACED

1. INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING IS THE MINIMUM REQUIREMENTS FOR THE CURB CONSTRUCTION AND INSTALLATION. NO STRUCTURAL OBJECTION TO THE USE OF LARGER SIZE SCREWS AND THICKER GAUGE SHEET METAL THAN THE INFORMATION SHOWN ON THE STAMPED CANFAB CURB DRAWING.
2. NO STRUCTURAL OBJECTION TO SHIFTING THE ATTACHMENT CLIPS ALONG THE CURB. FIRST AND LAST CLIP IN THE SERIES OF CLIPS SHALL BE LOCATED PER CLIP LOCATION DETAIL PER STAMPED CANFAB CURB DRAWING. DISTANCE SHIFTED SHALL NOT BE LARGER THAN THE LENGTH OF THE CLIP.
3. NO STRUCTURAL OBJECTION TO CUTTING THE ATTACHMENT CLIPS PER REQUIREMENTS AS SHOWN ON BELOW SKETCH.



CLIP LOCATION DETAIL

NOTE:

- SEE TABLE 2 FOR CLIP LOCATION
- ONLY 4047 HAS CLIPS ON THE SHORT SIDE

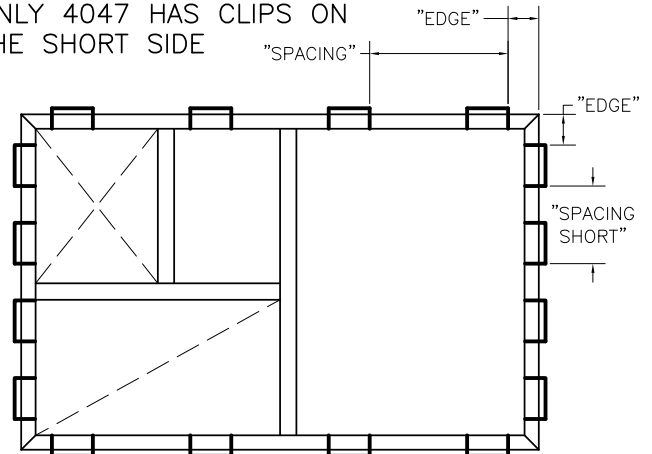


TABLE 2 CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]	SPACING SHORT [IN]
1005/6059	7.75	15.46	N/A
3003	7.75	19.00	N/A
4027	7.75	18.33	N/A
6037	7.75	13.58	N/A
4047	7.75	15.5	10.8125

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 1.13.2021

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 2 OF 3



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FOR: GROUP A

PART NO: 4047-CB

TABLE 3 ALLOWABLE CURB AND UNIT DIMENSION AND WEIGHT

RELATED_CURBS	LCURB [IN]	WCURB [IN]	HCURB [IN]	WTCURB [LBS]	LUNIT [IN]	WUNIT [IN]	HUNIT [IN]	WTUNIT [LBS]	CG.LONG [IN]	CG.SHORT [IN]	CG.HEIGHT [IN]
1005	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 110	74.375	46.75	41.375	MAX 900	34.625	22.5	20.25
			11	127							
			14	144							
			18	166							
			24	262							
			MAX 36	MAX 354							
3003	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 82	82.25	44.875	32.625	MAX 900	38.6	18.75	HUNIT/2
			11	99							
			14	115							
			18	137							
			24	225							
			MAX 36	MAX 316							
4027	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 91	83.25	45	43.375	MAX 1316	47	22	HUNIT/2
			11	109							
			14	127							
			18	151							
			24	238							
			MAX 36	MAX 355							
4047	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 101	73.75	45.25	44.875	MAX 712	42	26.5	HUNIT/2
			11	119							
			14	137							
			18	151							
			24	187							
			MAX 36	MAX 250							
6037	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 111	69.875	44.25	40.875	MAX 1202	44	22	HUNIT/2
			11	124							
			14	141							
			18	162							
			24	256							
			MAX 36	MAX 345							
6059	SEE PAGE 1	SEE PAGE 1	MIN 8	MIN 112	76.841	47.934	42.004	MAX 869	42	29	HUNIT/2
			11	129							
			14	146							
			18	169							
			24	265							
			MAX 36	MAX 358							

STRUCTURAL REVIEW BY:



JOHN A. MARTIN AND ASSOCIATES
Structural Engineers
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Los Angeles, California 90015
Phone (213) 483 6490
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Job No.: 19022



12/19/2019

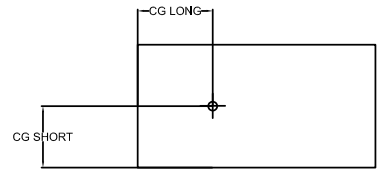


TABLE 4 TABULATED CURB AND ANCHORAGE INFORMATION PER VARYING HEIGHT

		0 < H ≤ 18"	18" < H ≤ 22"	22" < H ≤ 30"	30" < H ≤ 36"
A	CURB THICKNESS	14 GA	14 GA	12 GA	12 GA
B	EXP. ANCHOR	6	6	6	8
C	EXP. ANCHOR	4	4	4	4
D	WELD	36"	36"	36"	24"
E	SCREWS	16	18	20	22
F	SCREWS	8	8	10	12
G	DISTANCE	MAX 0.75"	MAX 0.75"	MAX 0.75"	MAX 0.75"
H	NO. OF CLIPS	8 (4 ON EACH LONG SIDE) TYPICAL. 12 (4 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.			
I	CLIP SMS	(4) #12	(4) #12	(4) #12	(4) #12
J	CLIP SMS	(8) #12	(8) #12	(8) #12	(8) #12
K	ISO RAIL	N/A	N/A	N/A	N/A
L	NO. OF ISOLATORS	N/A	N/A	N/A	N/A
M	NO. OF STIFFENERS	N/A	N/A	N/A	6 (3 ON EACH LONG SIDE) TYPICAL. 10 (3 ON EACH LONG SIDE AND 2 ON EACH SHORT SIDE) FOR 4047.

PROJECT: IBC 2018 UPDATE/ CBC 2019 UPDATE

DATE: 12/18/19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: GROUP_A.DWG

PAGE 3 OF 3



182 GRANITE STREET, SUITE 101, CORONA, CA 92879

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FOR: **PLEASE FILL OUT INDIVIDUALS FOR EVERY INSTANCE OF THIS UNIT**

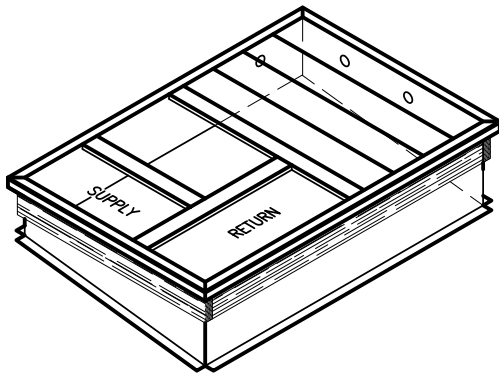
PART NO:

PITCHED ROOF CURB

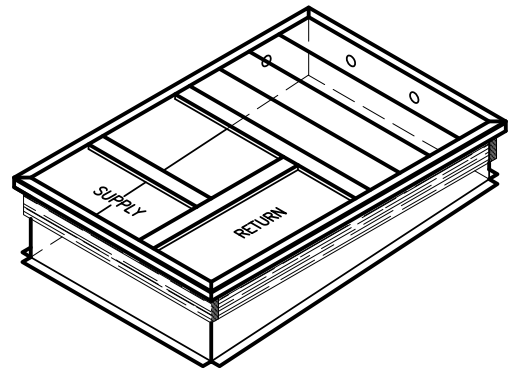
DRAWING MUST ACCOMPANY ALL PITCHED CURB ORDERS

APPLIES TO STANDARD AND ISOLATION CURBS

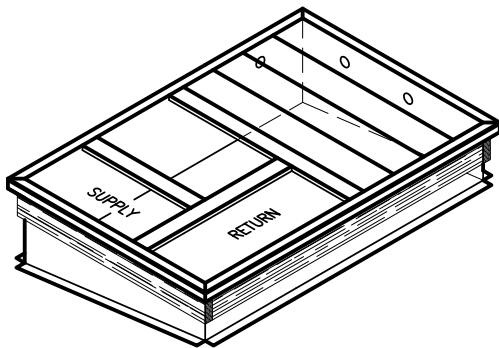
(A)



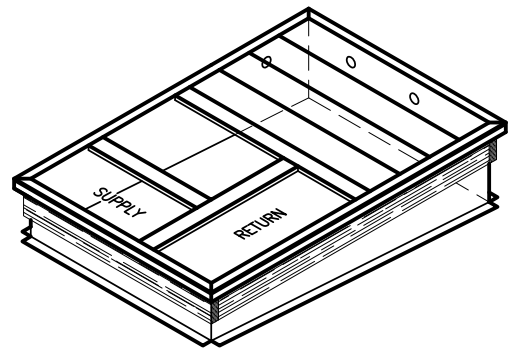
(B)



(C)



(D)



_____ ON 12"

(CIRCLE A, B, C OR D TO SPECIFY DUCT PLACEMENT)

PROJECT:

DATE: 01.08.19

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER:

VRoom Select v2.0.430.0

Project Name: BCSD HVAC Equipment
Project Number:
VRoom Job Created: 07/05/2023
VRoom Job Last Updated: 7/5/2023 1:23:36 PM
VRoom Job Revision:
Originator:
Project Address:



Design Engineering Firm

Installing Contractor

Project Phase:
Building Project Type: Airports and Transportation
Elevation (ft): 00.0
Notes:

Equipment List

Equipment Summary

Type	Description	Model	Qty	Tags
Outdoor Units	Ductless Series Outdoor Unit	38MARBQ12AA3	3	HP-8, HP-9, HP-13
	Ductless Series Outdoor Unit	38MARBQ18AA3	1	HP-10
	1-Phase Heat Pump Series Outdoor Unit	38VMB036HDS3-1	1	HP-11
	Ductless Series Outdoor Unit	38MBRBQ36AA3	1	HP-12
Indoor Units	4-Way Cassette Type Indoor Unit	40MBCQ12---3	1	HP-8
	High Wall Type Indoor Unit	40MAHBQ12XA3	1	HP-9
	4-Way Cassette Type Indoor Unit	40MBCQ18---3	1	HP-10
	Compact 4-Way Cassette Indoor Unit	40VMC012A--3	2	HP-11, HP-11
	Console Type Indoor Unit	40MBFQ36---3	1	HP-12
	Ducted Type Indoor Unit	40MBDQ12---3	1	HP-13
Branch Units	Y-Joint	40VM900031	1	
Controls	24V Interface	KSAIC0301230	5	
	24V Interface	40VM900008	2	
IU Accessories	Grille / Panel For Compact 4-Way Cassette	40VMC001----	2	

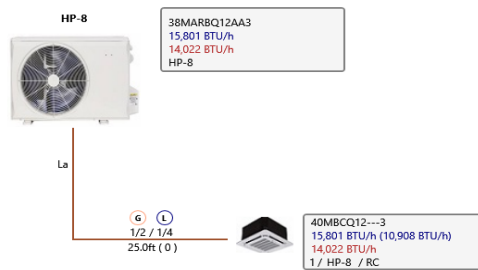
Refrigerant Piping Summary

Pipe Size (inch)	Total Length (feet)	Number of Bends
1/2	150	0
1/4	150	0
3/8	50	0
5/8	50	0

HP-8

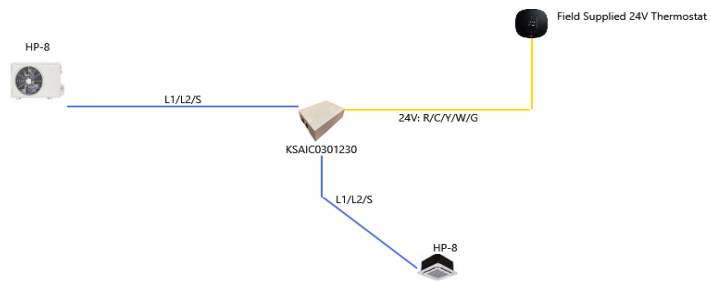
Piping Diagram Image (Design View)

Note: Installing Contractor must verify actual piping lengths and update selection file as necessary to check for errors and calculate correct additional refrigerant charge.



HP-8

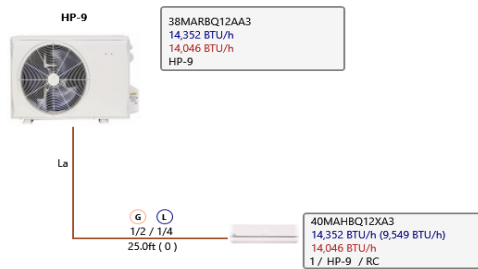
System Control Wiring Image (Wiring View)



HP-9

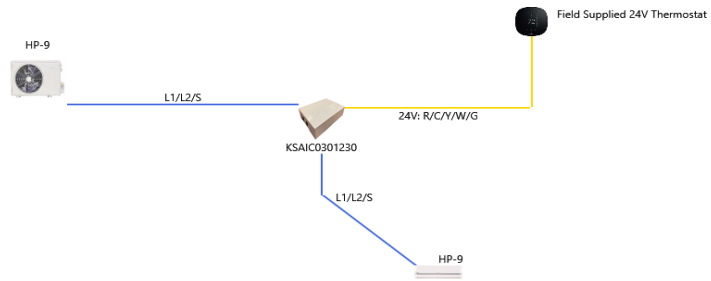
Piping Diagram Image (Design View)

Note: Installing Contractor must verify actual piping lengths and update selection file as necessary to check for errors and calculate correct additional refrigerant charge.



HP-9

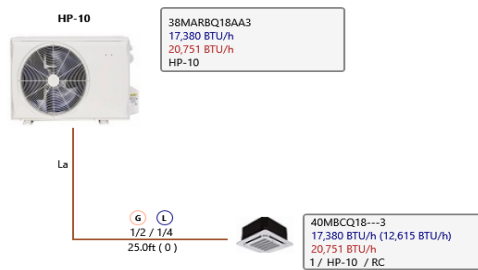
System Control Wiring Image (Wiring View)



HP-10

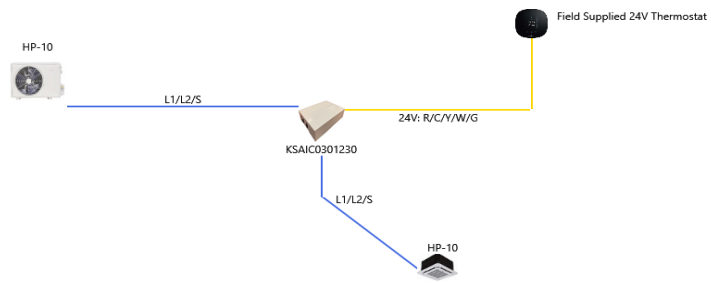
Piping Diagram Image (Design View)

Note: Installing Contractor must verify actual piping lengths and update selection file as necessary to check for errors and calculate correct additional refrigerant charge.



HP-10

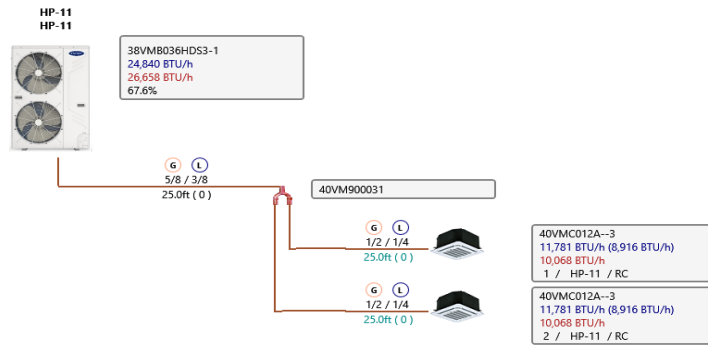
System Control Wiring Image (Wiring View)



HP-11

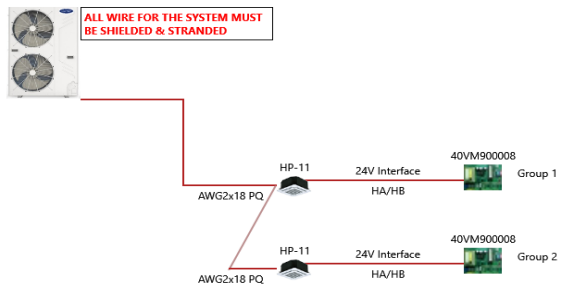
Piping Diagram Image (Design View)

Note: Installing Contractor must verify actual piping lengths and update selection file as necessary to check for errors and calculate correct additional refrigerant charge.



HP-11

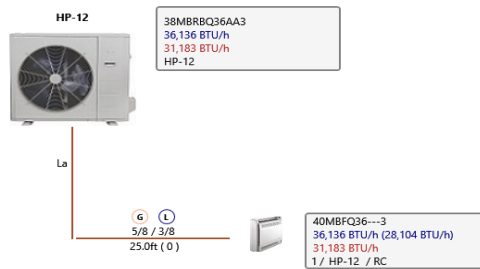
System Control Wiring Image (Wiring View)



HP-12

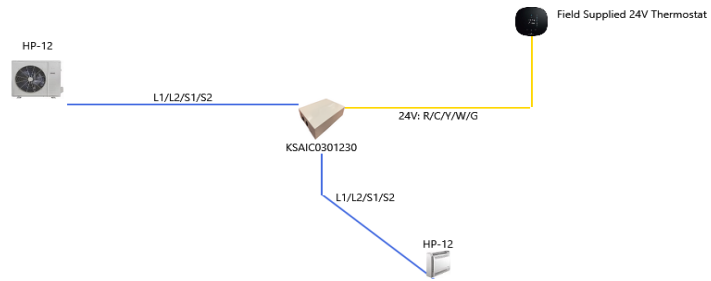
Piping Diagram Image (Design View)

Note: Installing Contractor must verify actual piping lengths and update selection file as necessary to check for errors and calculate correct additional refrigerant charge.



HP-12

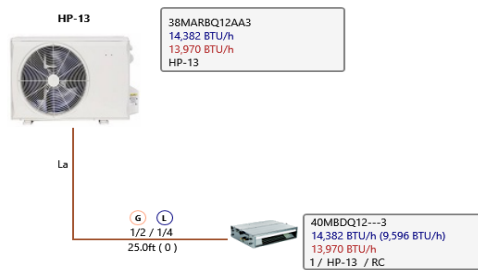
System Control Wiring Image (Wiring View)



HP-13

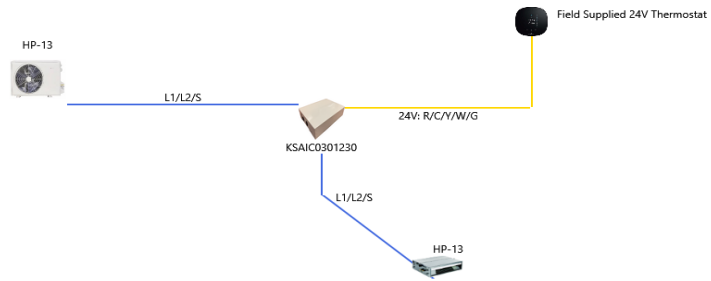
Piping Diagram Image (Design View)

Note: Installing Contractor must verify actual piping lengths and update selection file as necessary to check for errors and calculate correct additional refrigerant charge.



HP-13

System Control Wiring Image (Wiring View)



OUTDOOR UNIT SCHEDULE

VRoom Select v2.0.430.0

System Tag		HP-8	HP-9	HP-10	HP-11	HP-12	HP-13
Tag Reference		HP-8	HP-9	HP-10	HP-11	HP-12	HP-13
General Data	Make	Carrier	Carrier	Carrier	Carrier	Carrier	Carrier
	Model Number	38MARBQ12AA3	38MARBQ12AA3	38MARBQ18AA3	38VMB036HDS3-1	38MBRQ36AA3	38MARBQ12AA3
	Modules						
	Nominal Cooling Capacity (BTU/h)	12,000.0	12,000.0	18,000.0	36,000.0	36,000.0	12,000.0
	Nominal Heating Capacity (BTU/h)	12,000.0	12,000.0	18,000.0	40,000.0	39,000.0	12,000.0
	System Connected Capacity	N/A	N/A	N/A	67.6%	N/A	N/A
	Main Refrigerant Pipe Dims (inch)	1/2 / 1/4	1/2 / 1/4	1/2 / 1/4	3/8 / 5/8	5/8 / 3/8	1/2 / 1/4
	Preliminary Added Field Charge (lb)	0.0	0.0	0.0	2.0	0.0	0.0
	Sound Pressure (dBA)	56	56	59	58.7	61.7	56
Unit Weight (lbs)	73.6	73.6	101.0	220.0	155.4	73.6	
Design Conditions	Project Design Cooling Outdoor Temp DB (°F)	96.0	96.0	96.0	96.0	96.0	96.0
	Project Design Heating Outdoor Temp WB[or DB] (°F)	[18.0]	[18.0]	[18.0]	16.5	[18.0]	[18.0]
Performance Data	Corrected Cooling Total Capacity (BTU/h)	15,801.2	14,352.0	17,380.1	23,562.5	36,135.8	14,382.0
	Corrected Heating Capacity (BTU/h)	14,021.5	14,046.1	20,751.0	20,135.1	31,183.1	13,969.9
	Capacity Maintenance (%)	94.0	100.0	94.0	65.0		97.0
Electrical Data	Voltage / Phase	208/230V / 1-phase 4-wire	208/230V / 1-phase 4-wire	208/230V / 1-phase 4-wire	208/230V / 1-phase 3-wire	208/230V / 1-phase 4-wire	208/230V / 1-phase 4-wire
	MCA	15	15	16	36	30	15
	MOCP	15	15	25	75	45	15
	Recommended Fuse Size (RFS)	15	15	20	40	30	15
Efficiency Data	Cooling Efficiency IEER/EER	N/A	N/A	N/A	N/A	N/A	N/A
	SEER2/EER2	22.3/12.7	25.5/14	20/12.5	18.25/11.9	19/8.5	19.5/11.7
	SCHE[or HSPF2]	[10.2]	[10.4]	[9.5]	[9.15]	[9]	[10]
	Heating COP @ 47°F[or @5°F]	/[1.89]	/[1.80]	/[1.75]	3.40/[2.00]		/[1.96]
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8

Notes & Options:

- Nominal cooling capacities are based on indoor air temperature of 80°F DB / 67°F WB, outdoor air temperature of 95°F (DB)
- Nominal heating capacities are based on indoor air temperature of 70°F DB, outdoor air temperature of 47°F DB / 43°F WB
- VRF Efficiency values for EER, IEER, and COP are for mixed ducted and non-ducted indoor units based on AHRI 1230 test method.
- Ductless and Single-Phase VRF Heat Pump Efficiency values for EER, SEER, and HSPF are for mixed ducted and non-ducted indoor units based on AHRI 210/240 test method.
- Preliminary Additional Field Charge is calculated based on software inputs; Final Additional Field Charge must be calculated based on final "as-built" piping dimensions.
- Project design elevation is 0.0 feet
- COP2 as per M1 Rating for ductless and Single phase Heat Pump
- N/A = Not Applicable

INDOOR UNIT SCHEDULE

VRoom Select v2.0.430.0

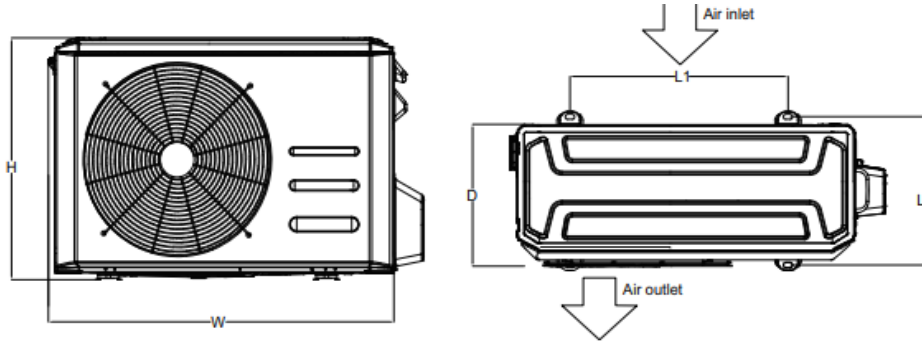
System Tag		HP-8	HP-9	HP-10	HP-11	HP-11	HP-12	HP-13
Tag Reference		HP-8	HP-9	HP-10	HP-11	HP-11	HP-12	HP-13
General Data	Room Name							
	Address							
	Make	Carrier	Carrier	Carrier	Carrier	Carrier	Carrier	Carrier
	Model	40MBCQ12---3	40MAHBQ12XA3	40MBCQ18---3	40VMC012A--3	40VMC012A--3	40MBFQ36---3	40MBDQ12---3
	Type	4-Way Cassette Type	High Wall Type	4-Way Cassette Type	Compact 4-Way Cassette	Compact 4-Way Cassette	Console Type	Ducted Type
	Nominal Cooling Capacity (BTU/h)	12,000.0	12,000.0	18,000.0	12,170.0	12,170.0	36,000.0	12,000.0
	Nominal Heating Capacity (BTU/h)	12,000.0	12,000.0	18,000.0	13,000.0	13,000.0	38,000.0	12,000.0
Refrig Pipe Dimensions (inch)	1/2 / 1/4	1/2 / 1/4	1/2 / 1/4	1/4 / 1/2	1/4 / 1/2	5/8 / 3/8	1/2 / 1/4	
Design Conditions	Project Cooling Design Entering Temp DB/WB (°F)	80.0 / 67.0	80.0 / 67.0	80.0 / 67.0	80.0 / 67.0	80.0 / 67.0	80.0 / 67.0	80.0 / 67.0
	Project Heating Design Entering Temp DB (°F)	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Performance Data	Cooling Total Capacity (BTU/h)	15,801.2	14,352.0	17,380.1	11,781.3	11,781.3	36,135.8	14,382.0
	Cooling Sensible Capacity (BTU/h)	10,907.6	9,549.2	12,615.2	8,915.9	8,915.9	28,103.7	9,596.3
	Heating Capacity (BTU/h)	14,021.5	14,046.1	20,751.0	10,067.6	10,067.6	31,183.1	13,969.9
	Estimated Cooling Coil LAT (°F)	54.2	53.1	51.6	56.5	56.5	54.4	57.2
	Estimated Heating Coil LAT (°F)	102.5	108.9	115.8	96.0	96.0	97.9	102.6
Electrical Data	Voltage / Phase	208/230V / 1-phase	208/230V / 1-phase	208/230V / 1-phase	208-230V / 1-phase	208-230V / 1-phase	208/230V / 1-phase	208/230V / 1-phase
	MCA / MOCP	Powered by Outdoor	Powered by Outdoor	Powered by Outdoor	.53 / 15	.53 / 15	Powered by Outdoor	Powered by Outdoor
Fan Data	Selected Fan Speed	High	High	High	High	High	High	High
	Rated Airflow at Selected Fan Speed (cfm)	400	335	420	359	359	1037	397
	Max Fan ESP Setting (IN WG)	0	0	0	0.04	0.04	0	0.2
	Sound Pressure Per Fan Speed (H/M/L) (dBA)	27/34/42	30/32/37/47	33/40/46.5	45.5 / 42.3 / 38.1	45.5 / 42.3 / 38.1	43/49/54	35/37/39
Remote Controller	Zone Remote Controller 1	KSAIC0301230	KSAIC0301230	KSAIC0301230	40VM900008	40VM900008	KSAIC0301230	KSAIC0301230
	Zone Remote Controller 2							
	ERV (DI/DO) Interface Model Number							
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6

Notes & Options:

- Nominal cooling capacities are based on indoor air temperature of 80°F DB / 67°F WB, outdoor air temperature of 95°F (DB)
- Nominal heating capacities are based on indoor air temperature of 70°F DB, outdoor air temperature of 47°F DB / 43°F WB
- LATs estimated using formula for sensible capacity = (1.08 Btu/(hr cfm °F)) x cfm x deltaT
- All ductless FMA/FMC/FMU or FV4 series indoor units require a piping adaptor kit (Model #: 331831-701 or 40MD000003)
- Warning: Accessories are filtered by system and unit type. Check product data to confirm accessory compatibility with voltage, product tier, etc.
- Warning: One or more outside air indoor units in this system have cooling or heating temperatures that are out of range.
- Nominal cooling capacities are based on indoor air temperature of 80°F DB / 67°F WB, outdoor air temperature of 95°F (DB)

	Outdoor Size	12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
Cassette	Indoor Model				12K - 208/230V					
	Energy Star				YES					
	Cooling System Tons				1					
	Cooling Rated Capacity	Btu/h			12000					
	Cooling Cap. Range Min - Max	Btu/h			3,000-13,700					
	SEER				21.5					
	EER				12.7					
	Heating Rated Capacity (47°F)	Btu/h			12000					
	Heating Rated Capacity (17°F)	Btu/h			7900					
	Heating Maximum Capacity (17°F)	Btu/h			14000					
	Heating Maximum Capacity (5°F)	Btu/h			11500					
	Heating Cap. Range Min - Max	Btu/h			2,000-15,300					
	HSPF				10.6					
	COP (47°F)	W/W			3.22					
COP (17°F)	W/W			2.2						
COP (5°F)	W/W			1.86						
Ducted	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Mix Match Ducted	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Console	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Air Handler	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									

Outdoor Size	12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
--------------	------------	----	----	----------------	-----	-----	-----	-----	----------------



Size					12K - 208/230V					
Width (W)	in (mm)				31.69 (805)					
Height (H)	in (mm)				21.81 (554)					
Depth (D)	in (mm)				12.99 (330)					
L1	in (mm)				20.1 (511)					
L2	in (mm)				12.5 (317.2)					
Operating Weight	lbs (kg)				73.63 (33.4)					
Shipping Width	in (mm)				36.02 (915)					
Shipping Height	in (mm)				24.21 (615)					
Shipping Depth	in (mm)				14.57 (370)					
Shipping Weight	lbs (kg)				79.37 (36)					



Cassette Heat Pump Ductless System

HP-8

Indoor Model: 40MBCQ12---3

Submittal Data

Job Data: Location:

Buyer: Buyer P.O. #: Carrier #:

Unit Number: Model Number:

Performance Data Certified By: Date:



STANDARD FEATURES

- Modes: Cool, Heat, Dry, Fan, Auto
- Louver Control (Fixed or Swing)
- Outside Air Intake
- Built-in condensate Lift pump
- Follow Me (senses temperature at handheld remote)
- Heating Setback (46° F Heating Mode)
- Quiet indoor operation
- Aluminum Golden Hydrophilic pre-coated fins

Controls:

- Wireless Remote Controller included with indoor unit
- Optional Wired Remote Controller (Timer Function)
- Optional Wired Remote Controller KSACN0501AAA (7 Day programmable)

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications. See warranty for full details.

System	Size	12	
	Indoor Model	40MBCQ12---3	
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	Power Supply	Indoor unit powered by outdoor unit	
	MCA	A.	0.2
Controls	Wireless Remote Controller (°F/°C Convertible)	Standard	
	Wired Remote Controller (°F/°C Convertible)	Optional	
Operating Range	Cooling Indoor DB Min -Max	°F(°C)	63~90 (17~32)
	Heating Indoor DB Min -Max	°F(°C)	32~86 (0~30)
Piping	Pipe Connection Size - Liquid	in (mm)	1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)	1/2 (12.7)

Indoor Coil	Face Area	Sq. Ft.	3.10
	No. Rows		2
	Fins per inch		19
	Circuits		4
Indoor	Body Unit Width	in (mm)	22.44 (570)
	Body Unit Height	in (mm)	10.24 (260)
	Body Unit Depth	in (mm)	22.44 (570)
	Body Net Weight	lbs (kg)	35.27 (16)
	Panel Unit Width	in (mm)	25.47 (647)
	Panel Unit Height	in (mm)	1.97 (50)
	Panel Unit Depth	in (mm)	25.47 (647)
	Panel Net Weight	lbs (kg)	5.51 (2.5)
	Number of Fan Speeds		3
	Airflow (low to high)	CFM	280/340/400
	Sound Pressure (lowest to highest)	dB(A)	36/39/42
	Air throw Data	ft (m)	23 (7)
Moisture removal	Pint/h (L/h)	2.88 (1.366)	
Field Drain Pipe Size O.D.	in (mm)	1 (25.4)	

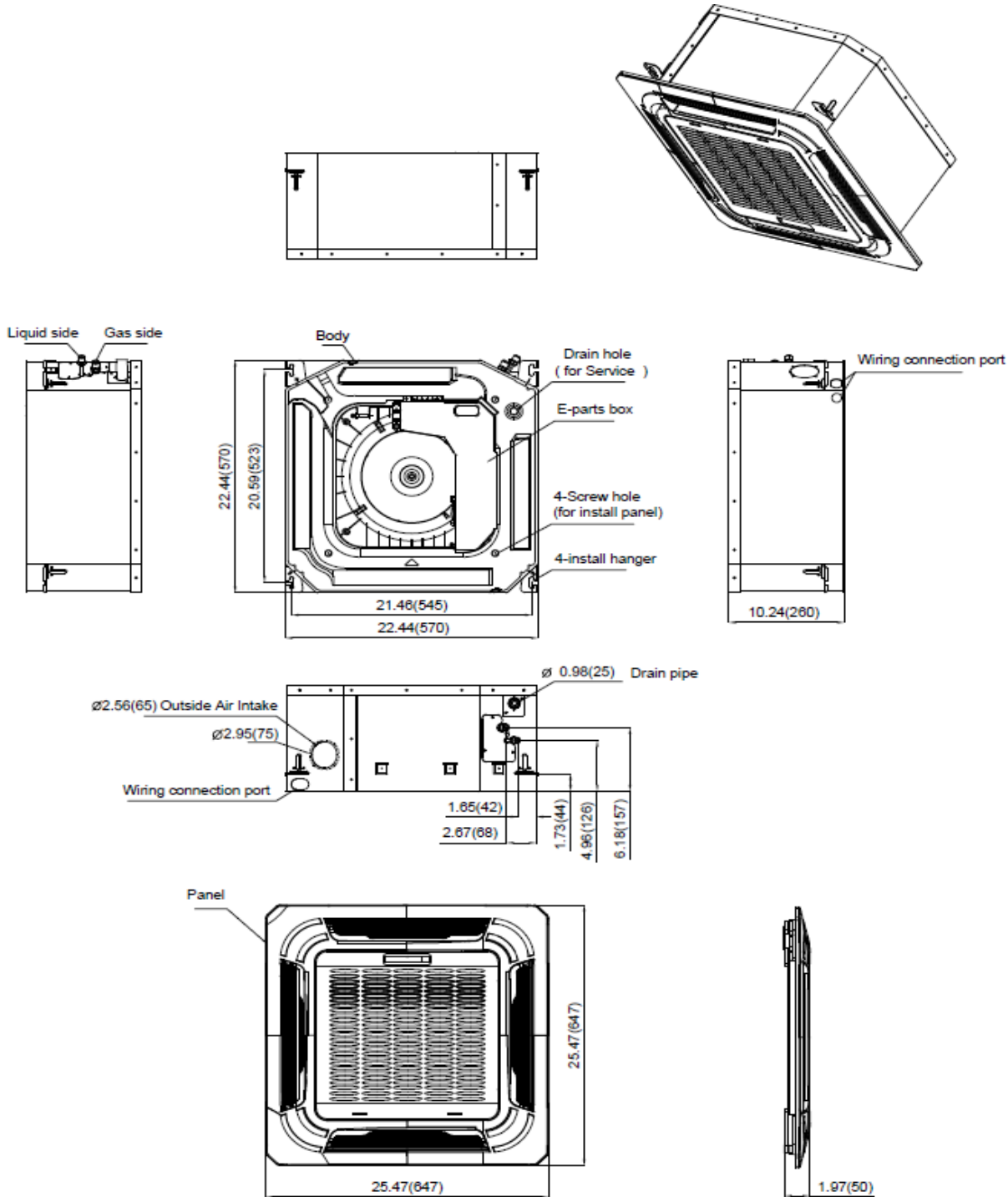
For Compatibility See Product Data

Performance may vary based on the outdoor unit matched to. See compatible outdoor units pages for Performance Data.

Accessories

KSACN0101AAA	Wired Remote Control with Timer Function
KSACN0501AAA	Wired Remote Control 7 day Programmable
KSAIF0401AAA	Wi-Fi™ Kit
KSAIC0101230	24V Interface Kit 208/230V
40MBCQ01XXX3	Grille/Ceiling panel
53DS-900---008	Insulated 25' Line Set - 1/4" x 1/2"

Construction View



24V Interface Kit 2nd Generation Ductless Systems

HP-8

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____



The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- 24V INTERFACE Control Box
- Installation manual
- Wall anchors
- Screws M4X20mm
- •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

- 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.
- Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

Compatibility

The 24V INTERFACE KIT is compatible with most thermostats matched with the Ductless Systems listed below. Before installation, check the compatibility of your Ductless System. Professional installation is recommended.

Type of Indoor unit	Indoor Family Name	Single Zone Outdoor Family Name	Multi-zone Outdoor Family Name	208/230V
HIGH WALL	40MPHA	38MPRA	38MGR	All Sizes
	619PHA	38MPRA	38MGR	All Sizes
	DHMPHA	38MPRA	38MGR	All Sizes
	40MAQ	38MA*R	38MGR	All Sizes
	619P*B	38MA*R	38MGR	All Sizes
	DHMSHA	38MA*R	38MGR	All Sizes
	40MHH	38MHR	38MGR	All Sizes
CASSETTE	40MBCQ	38MA*R	38MGR	All Sizes
DUCTED	40MBDQ	38MA*R	38MGR	All Sizes Except size 58
CONSOLE	40MBFQ	38MA*R	38MGR	All Sizes Except sizes 12 and 58
VERTICAL FAN COIL	FMA4	38MA*R		Sizes 12 to 36
CASED HORIZONTAL FAN COIL	FMC4	38MA*R		Sizes 12 to 36
UNCASED HORIZONTAL FAN COIL	FMU4	38MA*R		Sizes 12 to 36

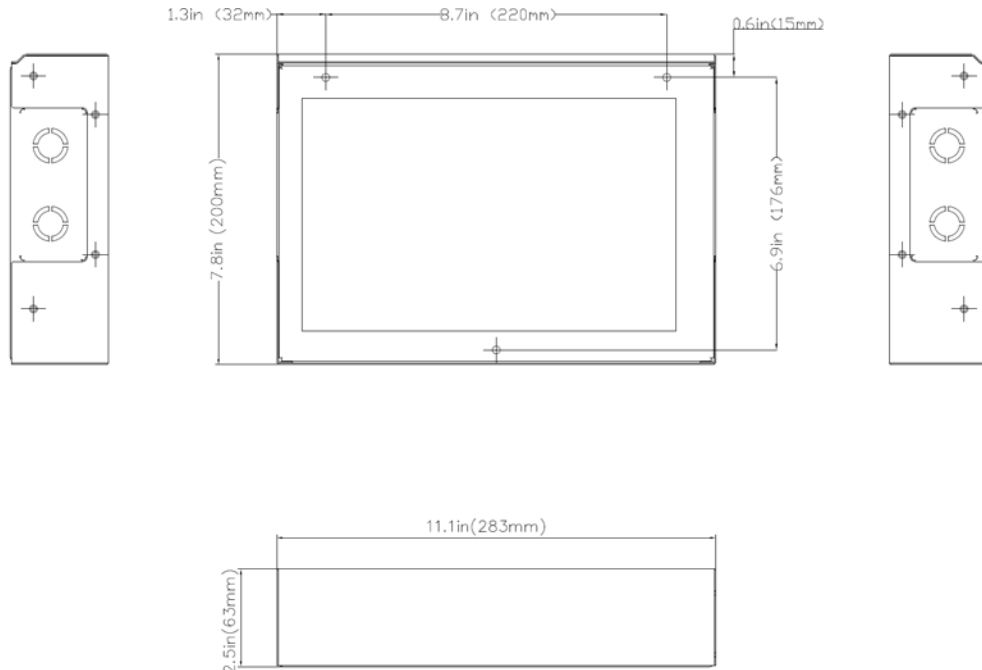
	Compatible
	Not Compatible

Notes: The Indoor unit requires an updated control board for compatibility with the 24V Interface Kit. High Wall units starting with Serial # 4316V10001 are shipped with the compatible control board. Ducted units starting with Serial # 4616V10001 are shipped with the compatible control board. For other model numbers not shown on the table above, please contact your ductless representative.

*Except size 58

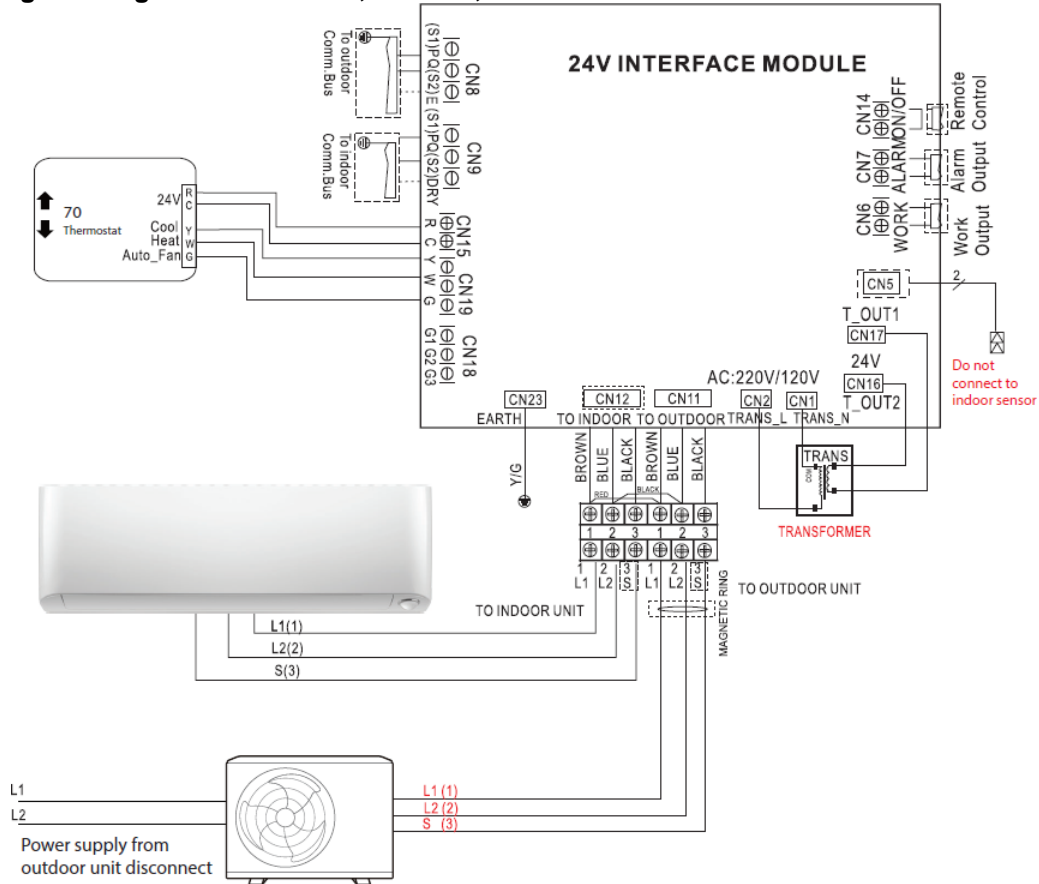
**Except sizes 12 and 58

Construction View

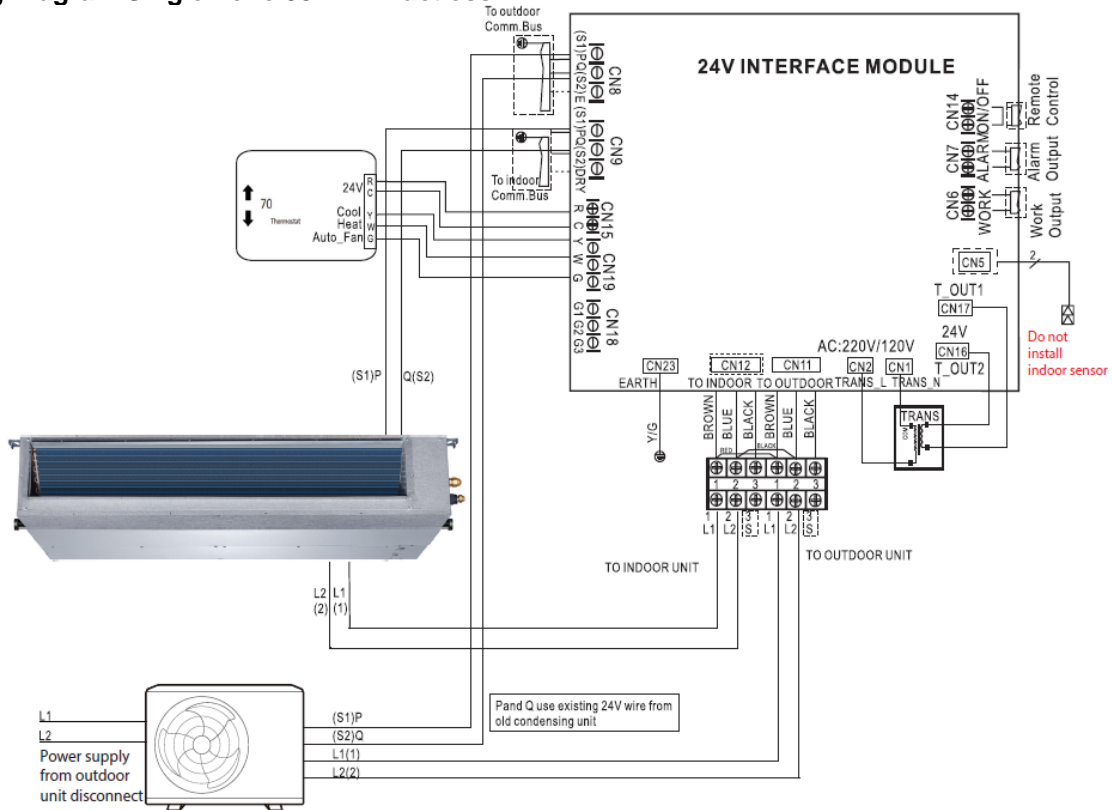


Wiring Diagrams

1. Wiring Diagram Single Zone 38MPRA, 38MA*R, 38MHR or Multi-zone 38MGR Ductless



2. Wiring Diagram Single Zone 38MBR Ductless



Outdoor Unit Single Zone Heat Pump Ductless System
38MARB Submittal Selection

HP-9



Turn to the experts

Job Data:
 Tag #:

Location:

Carrier #:

Date:



Outdoor Model #	Size
38MARBQ12AA1	12K - 115V
38MARBQ06AA3	6K
38MARBQ09AA3	9K
38MARBQ12AA3	12K - 208/230V
38MARBQ18AA3	18K
38MARBQ24AA3	24K
38MARBQ30AA3	30K
38MARBQ36AA3	36K
38MARBQ36AB3	36K - AHU Only

Combination Selection	
Outdoor Unit	12K - 208/230V
Indoor Category	High Wall

- STANDARD FEATURES**
- Variable Speed (Inverter)
 - Factory installed Base Pan Heater
 - Factory installed Crankcase Heater
 - Low Voltage Controls
 - Auto-Restart function
 - Condenser High Temp Protection
 - Quiet operation
 - Anti-corrosive fin coating

- LIMITED WARRANTY***
- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
 - *For residential applications.
- See warranty for full details.

NOTE: Images for illustration purposes only. Actual models may be slightly different.

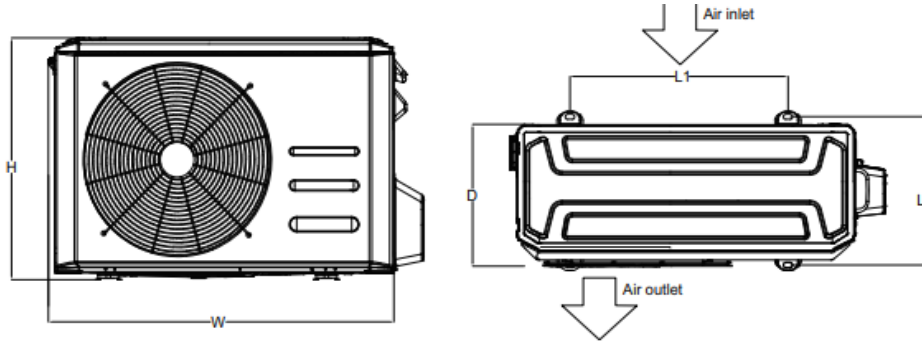
Specifications

System		Outdoor - Heat Pump																	
Electrical	Outdoor Size											12K - 208/230V							208/230-1-60
	Voltage, Phase, Cycle	V/Ph/Hz										15							15
	MCA	A.										15							15
	Recommended Fuse Size	A.										2.4							
	MOCP - Fuse Rating	A.																	
Operating Range	Short Circuit Current Rating (SCCR)	kA																	
	Cooling Outdoor DB Min - Max	°F(°C)										-22	-122	(-30-50)					
Piping	Heating Outdoor DB Min - Max	°F(°C)										-22	-86	(-30-30)					
	Total Piping Length	ft (m)										82	(25)						
	Piping Lift	ft (m)										32	(10)						
	Pipe Connection Size - Liquid	in (mm)										1/4	(6.35)						
	Pipe Connection Size - Suction	in (mm)										1/2	(12.7)						
Refrigerant	Refrigerant Type											R410A							
	Charge	lbs (kg)										2.6	(1.18)						
	Add'l Refrigerant (between Std & Max Piping Lngths)	Oz/ft (g/m)										0.161	(15)						
	Metering Device											EEV							
Outdoor Coil	Face Area	Sq. Ft.										4.67							
	No. Rows											2							
	Fins per inch											20							
Compressor	Circuits											4							
	Type											Rotary Inverter							
	Model											KTN110D42UFZ							
	Oil Type											VG74							
	Oil Charge	Fl. Oz.										11.84							
Airflow & Sound	Rated Current	RLA										8.5							
	Airflow	CFM										1323.53							
	Sound Pressure	dB(A)										56							

* Condensing unit above or below indoor unit

Performance

Outdoor Size		12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
High Wall	Indoor Model				12K - 208/230V					
	Energy Star				YES					
	Cooling Rated Capacity	Btu/h			12000					
	Cooling Cap. Range Min - Max	Btu/h			3,300-14,300					
	SEER				25.5					
	EER				14					
	Heating Rated Capacity (47°F)	Btu/h			12000					
	Heating Rated Capacity (17°F)	Btu/h			7500					
	Heating Maximum Capacity (17°F)	Btu/h			12000					
	Heating Maximum Capacity (5°F)	Btu/h			11650					
	Heating Cap. Range Min - Max	Btu/h			5,000-15,300					
	HSPF				13					
	COP (47°F)	W/W			3.81					
	COP (17°F)	W/W			3					
	COP (5°F)	W/W			1.8					



Size					12K - 208/230V					
Width (W)	in (mm)				31.69 (805)					
Height (H)	in (mm)				21.81 (554)					
Depth (D)	in (mm)				12.99 (330)					
L1	in (mm)				20.1 (511)					
L2	in (mm)				12.5 (317.2)					
Operating Weight	lbs (kg)				73.63 (33.4)					
Shipping Width	in (mm)				36.02 (915)					
Shipping Height	in (mm)				24.21 (615)					
Shipping Depth	in (mm)				14.57 (370)					
Shipping Weight	lbs (kg)				79.37 (36)					



High Wall Heat Pump Ductless System

HP-9



Indoor Model: **40MAHBQ12XA3**

Submittal Data

Job Data: Location:

Buyer: Buyer P.O. #: Carrier #:

Unit Number: Model Number:

Performance Data Certified By: Date:



STANDARD FEATURES

- Modes: Cool, Heat, Dry, Fan, Auto
- Turbo Mode
- Four fan speeds
- Sleep Mode
- Relative Humidity Sensor
- Intelligent Eye (Occupancy Sensor)
- ECO Mode
- Up-Down Louver control (fixed or swing)
- Follow Me (senses temperature at handheld remote)
- Heating Setback (46° F Heating Mode)
- Quiet indoor operation
- Aluminum Golden Hydrophilic pre-coated fins

CONTROLS:

- Wireless Remote Controller included with indoor unit

Performance
SERIES

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications. See warranty for full details.

System	Size	12	
	Indoor Model	40MAHBQ12XA3	
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	Power Supply	Indoor unit powered by outdoor unit	
	MCA	A.	0.3125
Controls	Wireless Remote Controller (°F/°C Convertible)	Standard	
	Wired Remote Controller (°F/°C Convertible)	Optional	
Operating Range	Cooling Indoor DB Min -Max	°F(°C)	63~90 (17~32)
	Heating Indoor DB Min -Max	°F(°C)	32~86 (0~30)
Piping	Pipe Connection Size - Liquid	in (mm)	1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)	1/2 (12.7)

Indoor Coil	Face Area	Sq. Ft.	2.15
	No. Rows	2	
	Fins per inch	20	
	Circuits	3	
Indoor	Unit Width	in (mm)	31.3 (795)
	Unit Height	in (mm)	11.61 (295)
	Unit Depth	in (mm)	8.86 (225)
	Net Weight	lbs (kg)	22.93 (10.4)
	Number of Fan Speeds	4	
	Airflow (lowest to highest)	CFM	176/229/335/382
	Sound Pressure (lowest to highest)	dB(A)	30/32/37/47
	Air throw Data	ft (m)	26.2 (8.0)
Moisture removal	Pint/h (L/h)	2.333 (1.11)	
Field Drain Pipe Size O.D.	in (mm)	0.625 (16)	

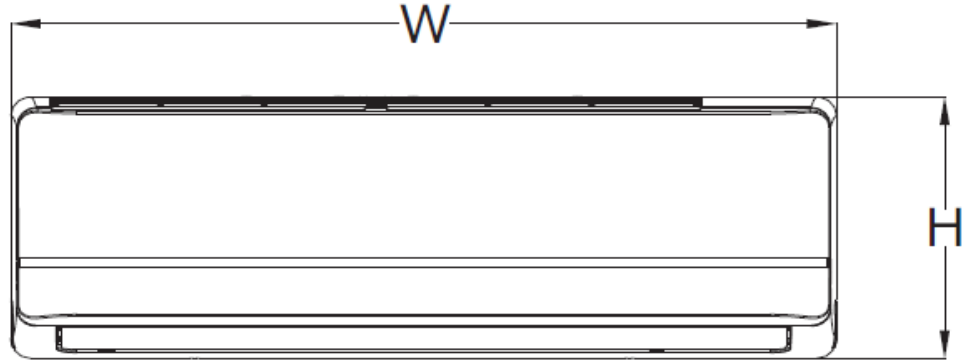
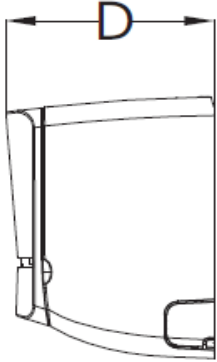
Performance may vary based on the outdoor unit matched to. See compatible outdoor units pages for Performance Data.
For Compatibility See Product Data

Accessories

KSACN0801AAA	Wired Remote Control 7 Day Programmable
KSACN0101AAA	Wired Remote Control with Timer Function
KSAIF0601AAA	Wi-Fi™ Kit High Wall Mid-Tier
KSAIC0301230	24V Interface Kit 230V

Construction View

Indoor Model: **40MAHBQ12XA3**



Unit Width	in (mm)	31.3 (795)
Unit Height	in (mm)	11.61 (295)
Unit Depth	in (mm)	8.86 (225)
Net Weight	lbs (kg)	22.93 (10.4)



24V Interface Kit 2nd Generation Ductless Systems

HP-9

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____



The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- 24V INTERFACE Control Box
- Installation manual
- Wall anchors
- Screws M4X20mm
- •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

- 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.
- Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

Compatibility

The 24V INTERFACE KIT is compatible with most thermostats matched with the Ductless Systems listed below. Before installation, check the compatibility of your Ductless System. Professional installation is recommended.

Type of Indoor unit	Indoor Family Name	Single Zone Outdoor Family Name	Multi-zone Outdoor Family Name	208/230V
HIGH WALL	40MPHA	38MPRA	38MGR	All Sizes
	619PHA	38MPRA	38MGR	All Sizes
	DHMPHA	38MPRA	38MGR	All Sizes
	40MAQ	38MA*R	38MGR	All Sizes
	619P*B	38MA*R	38MGR	All Sizes
	DHMSHA	38MA*R	38MGR	All Sizes
	40MHH	38MHR	38MGR	All Sizes
CASSETTE	40MBCQ	38MA*R	38MGR	All Sizes
DUCTED	40MBDQ	38MA*R	38MGR	All Sizes Except size 58
CONSOLE	40MBFQ	38MA*R	38MGR	All Sizes Except sizes 12 and 58
VERTICAL FAN COIL	FMA4	38MA*R		Sizes 12 to 36
CASED HORIZONTAL FAN COIL	FMC4	38MA*R		Sizes 12 to 36
UNCASED HORIZONTAL FAN COIL	FMU4	38MA*R		Sizes 12 to 36

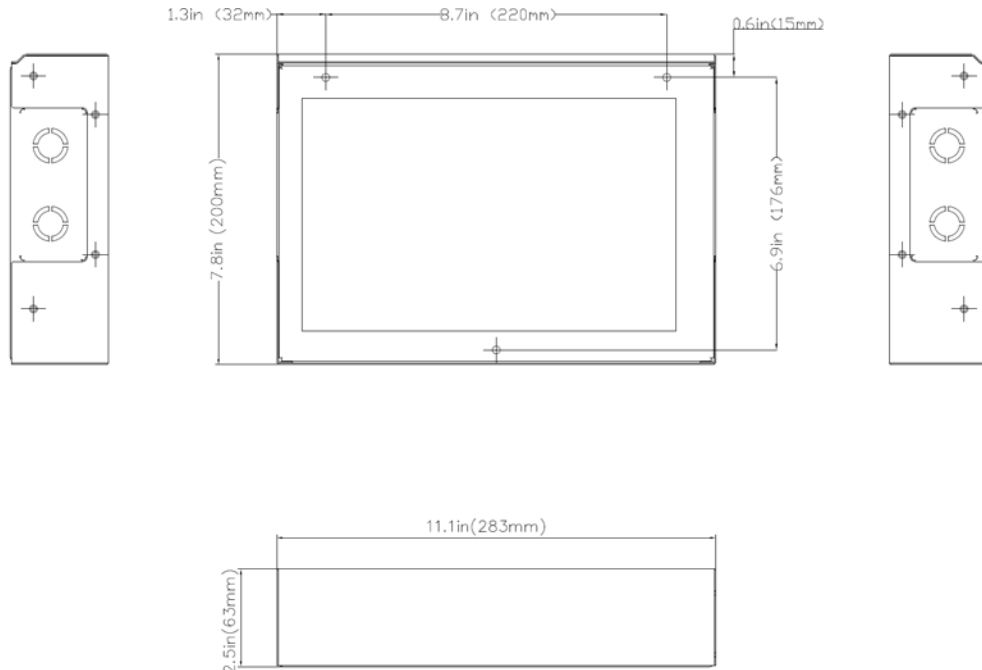
	Compatible
	Not Compatible

Notes: The Indoor unit requires an updated control board for compatibility with the 24V Interface Kit. High Wall units starting with Serial # 4316V10001 are shipped with the compatible control board. Ducted units starting with Serial # 4616V10001 are shipped with the compatible control board. For other model numbers not shown on the table above, please contact your ductless representative.

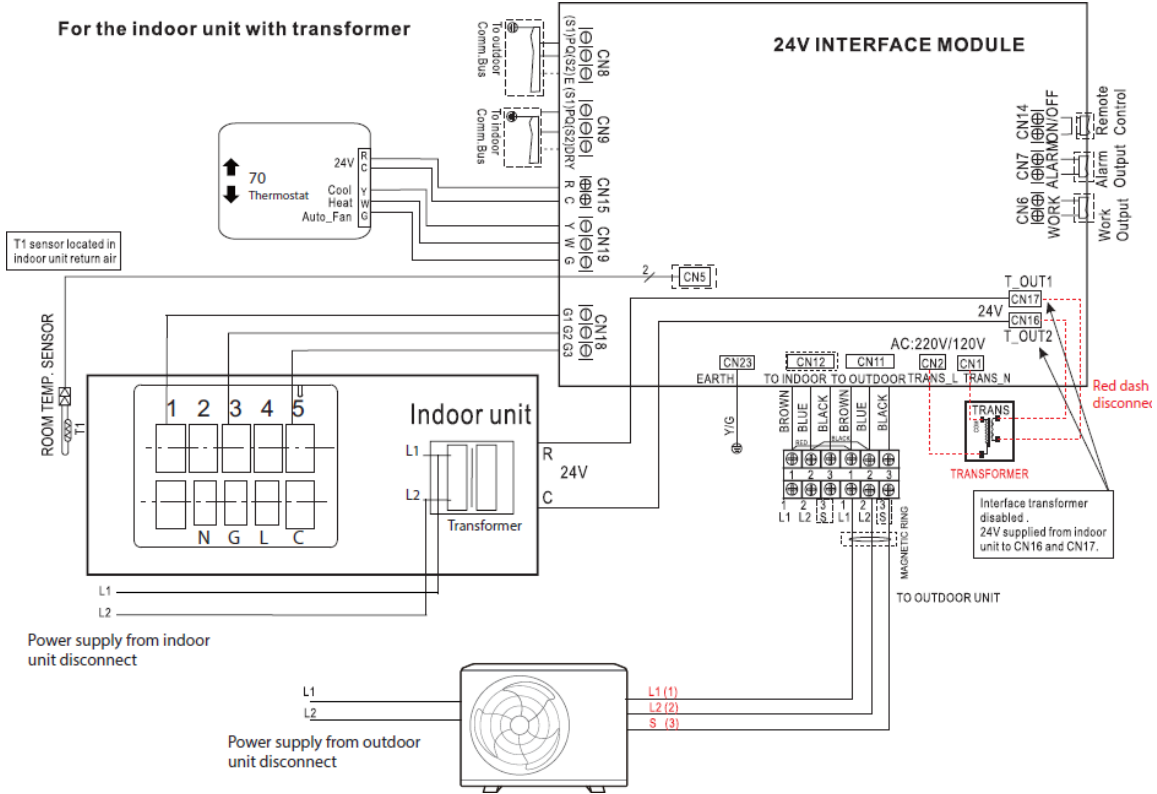
*Except size 58

**Except sizes 12 and 58

Construction View



3. Wiring Diagram Single Zone Ductless Condensing Unit 38MA*R with an approved Fan Coil/Furnace/Cased Coil





GOBI II

Item Number 3004145

The GOBI II condensate pump for direct mounting under the air conditioner is designed for systems from 6 000 BTU/h (1.75kW) up to 120 000 BTU/h (35kW). The digital water sensor, the universal voltage range and the individually configurable flow rate are features that contribute to making the Gobi II the most powerful and quietest condensate pump for air conditioning systems on the market today. The variable range of applications allows the trade as well as the installer to cover almost all needs with just one pump.

- Universal use due to wide range of applications
- Warranty period only starts with commissioning (readable via USB)
- 11 gallon pumping capacity per hour
- 65 ft delivery head
- <19 dB noise level
- No float problems thanks to digital sensor
- Demand-oriented control of the pumping capacity
- Spare parts available

Technical Data

Color	signal white (RAL 9003)
Standards	EN 60335-1, EN 60335-2-41, UL778 CSA C22.2 #68
RoHS Conformity	1
RoHS Conformity	Yes
Type	Diaphragm type
Operating Temperature Range	41 - 104 °F
Storage Temperature Range	-4 - 122 °F
Water Temperature Range	41 - 104 °F

Acknowledged globally



Voltage	100 - 240 VAC
Frequency	50 / 60 Hz
Protection Class	I
Ingression Protection	IP44
Energy Consumption	12 W
Cable Length	5 ft
Max. Flow Capacity	11 GPH
Max. Suction Head	10 ft
Max. Delivery Head	65.6 ft
Noise Level	19 dB(A)
Alarm Relay	Interchangeable NO or NC, rated 250VAC, 6.3A or 28VDC, 6.3A
Tube Diameter	1/4 "
Packaging	Blister
Scope of Supply	Power cable, Alarm cable, Star tube and anti-siphon device, Screws (for mounting), Screw anchors, Factory-installed alarm fuse, Cable ties, Instruction manual

Accessories

4678597	IN-LINE FILTER	Filter for condensate water
4679160	PVC-TUBE	Plastic tube 6 mm, 30 meters, 1/4"
4678741	AQUASWITCH	Electronic water switch, 95-254V
4678546	AQUASWITCH-24	Electronic water switch 24 V AC/DC

Spare Parts

3004064	FIL-4064/4	Spare filter for GOBI II, 4 pieces
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Acknowledged globally



3004087	KIT-4087	Star tube with Siphon device
3004180	FUS-4180/10	Spare fuses for COMBI and GOBI II 6.3A, pack of 10 pieces
3004050	FUS-4050/10	Spare fuse, 10 pieces
3004065	HSG-4065/4	Siphon Device, 4 pieces

Outdoor Unit Single Zone Heat Pump Ductless System
38MARB Submittal Selection

HP-10



Turn to the experts

Job Data:
 Tag #:

Location:

Carrier #:

Date:



Outdoor Model #	Size
38MARBQ12AA1	12K - 115V
38MARBQ06AA3	6K
38MARBQ09AA3	9K
38MARBQ12AA3	12K - 208/230V
38MARBQ18AA3	18K
38MARBQ24AA3	24K
38MARBQ30AA3	30K
38MARBQ36AA3	36K
38MARBQ36AB3	36K - AHU Only

Combination Selection	
Outdoor Unit	18K
Indoor Category	Cassette

STANDARD FEATURES

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Quiet operation
- Anti-corrosive fin coating

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications.
- See warranty for full details.

NOTE: Images for illustration purposes only. Actual models may be slightly different.

Specifications

System		Outdoor - Heat Pump		18K	
Electrical	Outdoor Size				18K
	Voltage, Phase, Cycle	V/Ph/Hz			208/230-1-60
	MCA	A.			16
	Recommended Fuse Size	A.			20
Operating Range	MOCF - Fuse Rating	A.			25
	Short Circuit Current Rating (SCCR)	kA			2.4
	Cooling Outdoor DB Min - Max	°F(°C)			-22-122 (-30-50)
	Heating Outdoor DB Min - Max	°F(°C)			-22-86 (-30-30)
Piping	Total Piping Length	ft (m)			98 (30)
	Piping Lift	ft (m)			65 (20)
	Pipe Connection Size - Liquid	in (mm)			1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)			1/2 (12.7)
Refrigerant	Refrigerant Type				R410A
	Charge	lbs (kg)			4.08 (1.85)
	Add'l Refrigerant (between Std & Max Piping Lngths)	Oz/ft (g/m)			0.161 (15)
	Metering Device				EEV
Outdoor Coil	Face Area	Sq. Ft.			5.9
	No. Rows				2
	Fins per inch				20
Compressor	Circuits				6
	Type				Rotary Inverter
	Model				KTM240D43UKT
	Oil Type				VG74
Airflow & Sound	Oil Charge	Fl. Oz.			20.97
	Rated Current	RLA			14.25
	Airflow	CFM			1764.71
	Sound Pressure	dB(A)			59

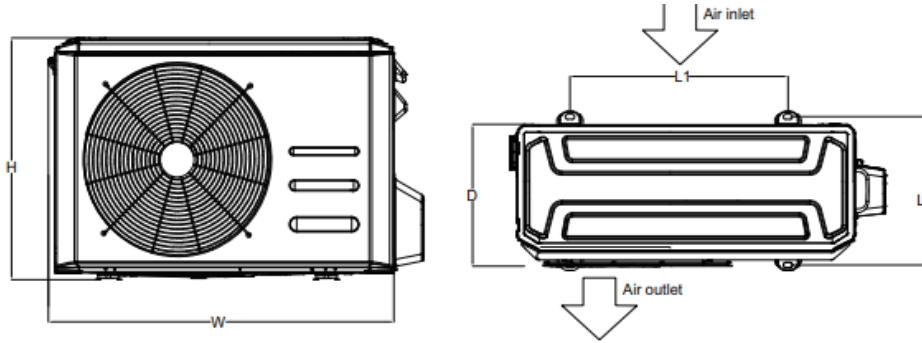
* Condensing unit above or below indoor unit

Performance

Outdoor Size		12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
High Wall	Indoor Model									
	Energy Star									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
	COP (17°F)	W/W								
COP (5°F)	W/W									

	Outdoor Size	12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
Cassette	Indoor Model					18K				
	Energy Star					YES				
	Cooling System Tons					1.33				
	Cooling Rated Capacity	Btu/h				16000				
	Cooling Cap. Range Min - Max	Btu/h				5,600-17,000				
	SEER					20				
	EER					12.5				
	Heating Rated Capacity (47°F)	Btu/h				18000				
	Heating Rated Capacity (17°F)	Btu/h				11000				
	Heating Maximum Capacity (17°F)	Btu/h				21000				
	Heating Maximum Capacity (5°F)	Btu/h				17000				
	Heating Cap. Range Min - Max	Btu/h				8,700-21,000				
	HSPF					10.3				
	COP (47°F)	W/W				2.88				
COP (17°F)	W/W				1.8					
COP (5°F)	W/W				1.8					
Ducted	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Mix Match Ducted	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Console	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Air Handler	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									

Outdoor Size	12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
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Size		18K							
Width (W)	in (mm)					35.04 (890)			
Height (H)	in (mm)					26.50 (673)			
Depth (D)	in (mm)					13.46 (342)			
L1	in (mm)					26.1 (663)			
L2	in (mm)					13.65 (346.674)			
Operating Weight	lbs (kg)					100.97 (45.8)			
Shipping Width	in (mm)					39.17 (995)			
Shipping Height	in (mm)					29.13 (740)			
Shipping Depth	in (mm)					15.67 (398)			
Shipping Weight	lbs (kg)					108.03 (49)			



Cassette Heat Pump Ductless System

HP-10

Indoor Model: **40MBCQ18---3**

Submittal Data

Job Data: Location:

Buyer: Buyer P.O. #: Carrier #:

Unit Number: Model Number:

Performance Data Certified By: Date:



STANDARD FEATURES

- Modes: Cool, Heat, Dry, Fan, Auto
- Louver Control (Fixed or Swing)
- Outside Air Intake
- Built-in condensate Lift pump
- Follow Me (senses temperature at handheld remote)
- Heating Setback (46° F Heating Mode)
- Quiet indoor operation
- Aluminum Golden Hydrophilic pre-coated fins

Controls:

- Wireless Remote Controller included with indoor unit
- Optional Wired Remote Controller (Timer Function)
- Optional Wired Remote Controller KSACN0501AAA (7 Day programmable)

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications. See warranty for full details.

System	Size	18	
	Indoor Model	40MBCQ18---3	
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	Power Supply	Indoor unit powered by outdoor unit	
	MCA	A.	0.2
Controls	Wireless Remote Controller (°F/°C Convertible)	Standard	
	Wired Remote Controller (°F/°C Convertible)	Optional	
Operating Range	Cooling Indoor DB Min -Max	°F(°C)	63~90 (17~32)
	Heating Indoor DB Min -Max	°F(°C)	32~86 (0~30)
Piping	Pipe Connection Size - Liquid	in (mm)	1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)	1/2 (12.7)

Indoor Coil	Face Area	Sq. Ft.	3.10
	No. Rows	2	
	Fins per inch	19	
	Circuits	4	
Indoor	Body Unit Width	in (mm)	22.44 (570)
	Body Unit Height	in (mm)	10.24 (260)
	Body Unit Depth	in (mm)	22.44 (570)
	Body Net Weight	lbs (kg)	39.68 (18)
	Panel Unit Width	in (mm)	25.47 (647)
	Panel Unit Height	in (mm)	1.97 (50)
	Panel Unit Depth	in (mm)	25.47 (647)
	Panel Net Weight	lbs (kg)	5.51 (2.5)
	Number of Fan Speeds	3	
	Airflow (low to high)	CFM	290/350/420
	Sound Pressure (lowest to highest)	dB(A)	46/48/50
	Air throw Data	ft (m)	30 (9)
Moisture removal	Pint/h (L/h)	4.26 (2.02)	
Field Drain Pipe Size O.D.	in (mm)	1 (25.4)	

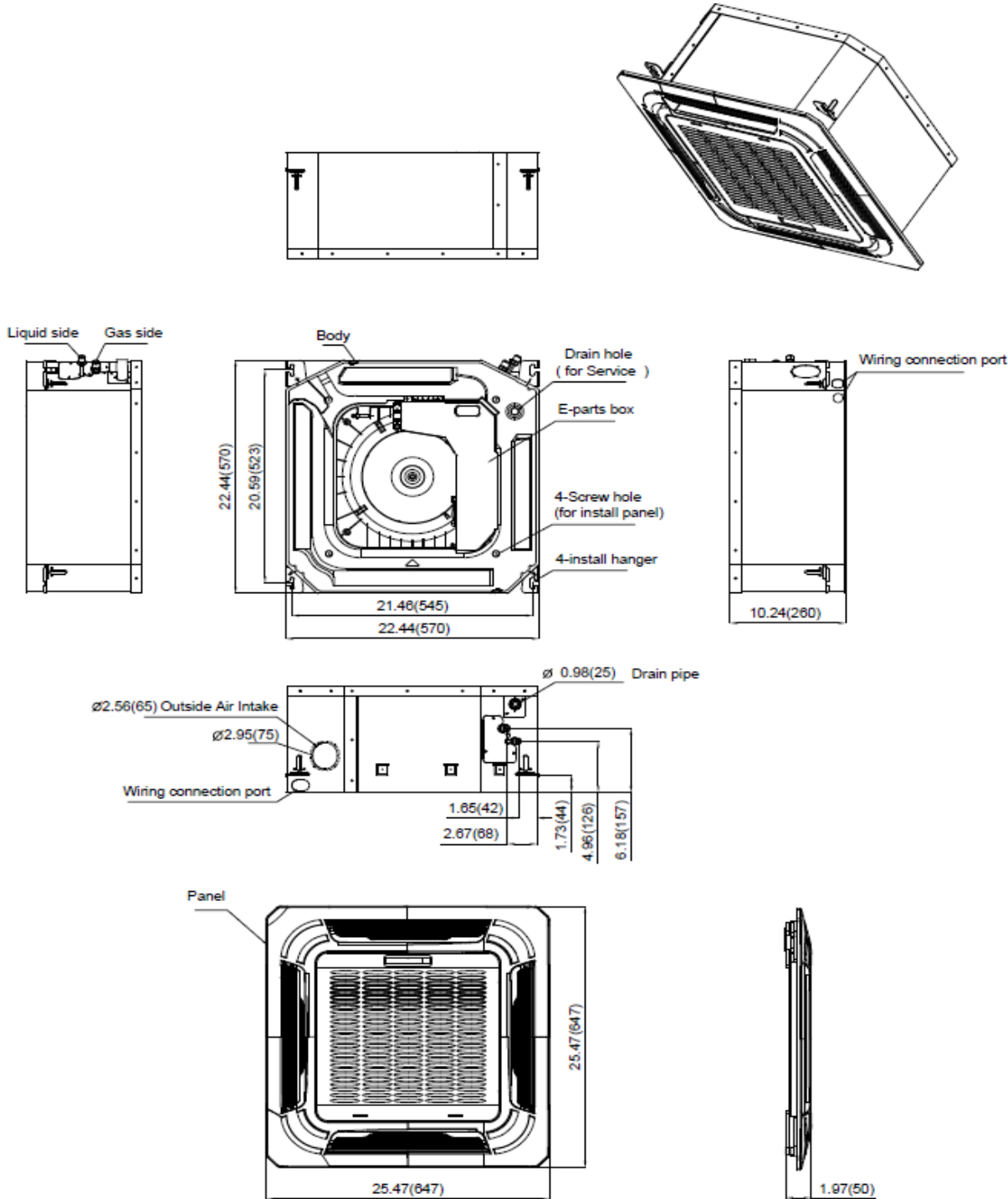
For Compatibility See Product Data

Performance may vary based on the outdoor unit matched to. See compatible outdoor units pages for Performance Data.

Accessories

KSACN0101AAA	Wired Remote Control with Timer Function
KSACN0501AAA	Wired Remote Control 7 day Programmable
KSAIF0401AAA	Wi-Fi™ Kit
KSAIC0101230	24V Interface Kit 208/230V
40MBCQ01XXX3	Grille/Ceiling panel
53DS-900---008	Insulated 25' Line Set - 1/4" x 1/2"

Construction View



24V Interface Kit 2nd Generation Ductless Systems

HP-10

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____



The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- 24V INTERFACE Control Box
- Installation manual
- Wall anchors
- Screws M4X20mm
- •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

- 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.
- Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

Compatibility

The 24V INTERFACE KIT is compatible with most thermostats matched with the Ductless Systems listed below. Before installation, check the compatibility of your Ductless System. Professional installation is recommended.

Type of Indoor unit	Indoor Family Name	Single Zone Outdoor Family Name	Multi-zone Outdoor Family Name	208/230V
HIGH WALL	40MPHA	38MPRA	38MGR	All Sizes
	619PHA	38MPRA	38MGR	All Sizes
	DHMPHA	38MPRA	38MGR	All Sizes
	40MAQ	38MA*R	38MGR	All Sizes
	619P*B	38MA*R	38MGR	All Sizes
	DHMSHA	38MA*R	38MGR	All Sizes
	40MHH	38MHR	38MGR	All Sizes
CASSETTE	40MBCQ	38MA*R	38MGR	All Sizes
DUCTED	40MBDQ	38MA*R	38MGR	All Sizes Except size 58
CONSOLE	40MBFQ	38MA*R	38MGR	All Sizes Except sizes 12 and 58
VERTICAL FAN COIL	FMA4	38MA*R		Sizes 12 to 36
CASED HORIZONTAL FAN COIL	FMC4	38MA*R		Sizes 12 to 36
UNCASED HORIZONTAL FAN COIL	FMU4	38MA*R		Sizes 12 to 36

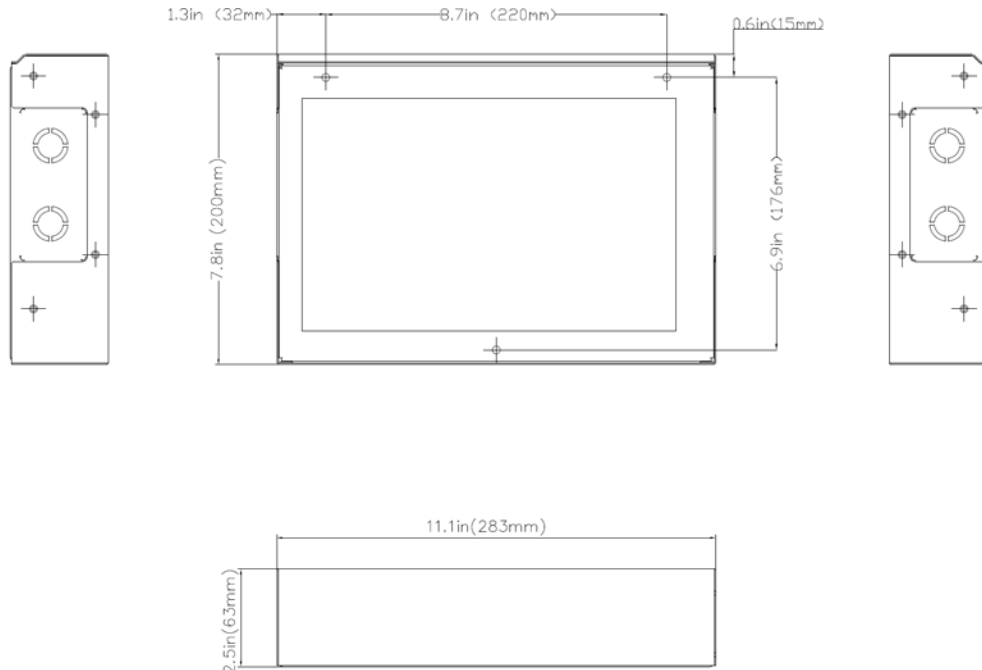
	Compatible
	Not Compatible

Notes: The Indoor unit requires an updated control board for compatibility with the 24V Interface Kit. High Wall units starting with Serial # 4316V10001 are shipped with the compatible control board. Ducted units starting with Serial # 4616V10001 are shipped with the compatible control board. For other model numbers not shown on the table above, please contact your ductless representative.

*Except size 58

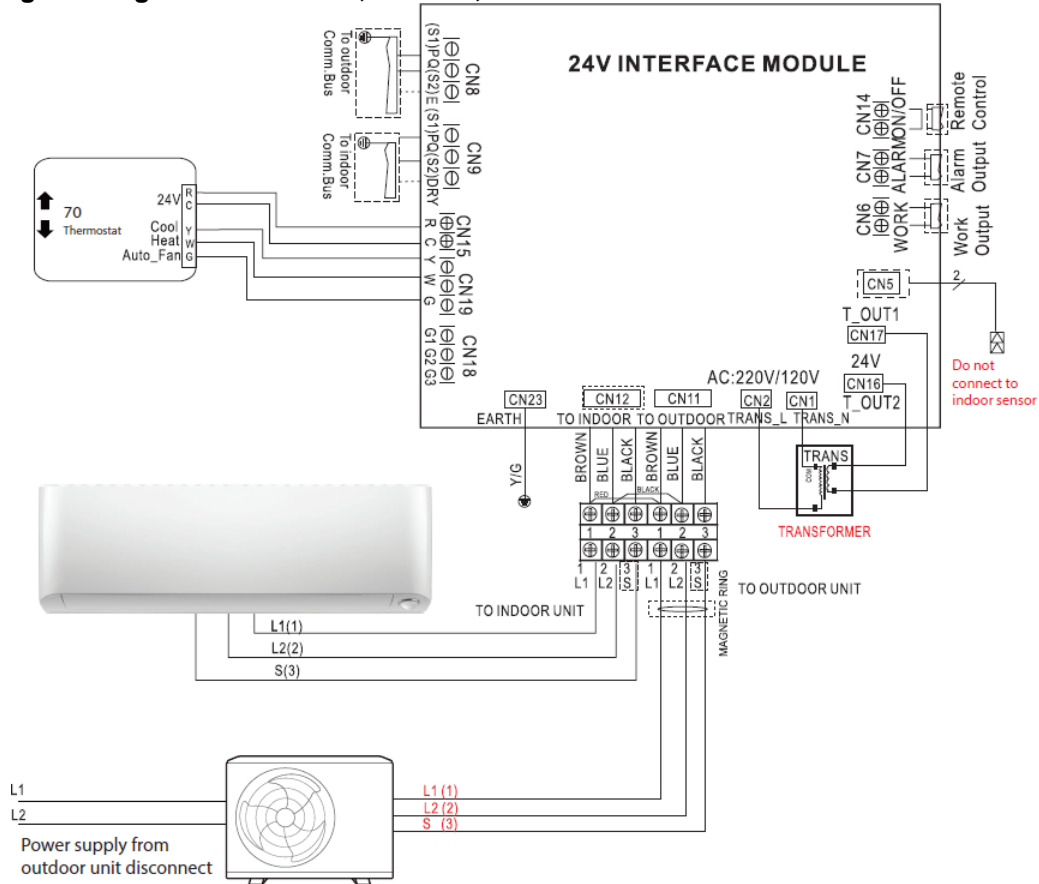
**Except sizes 12 and 58

Construction View

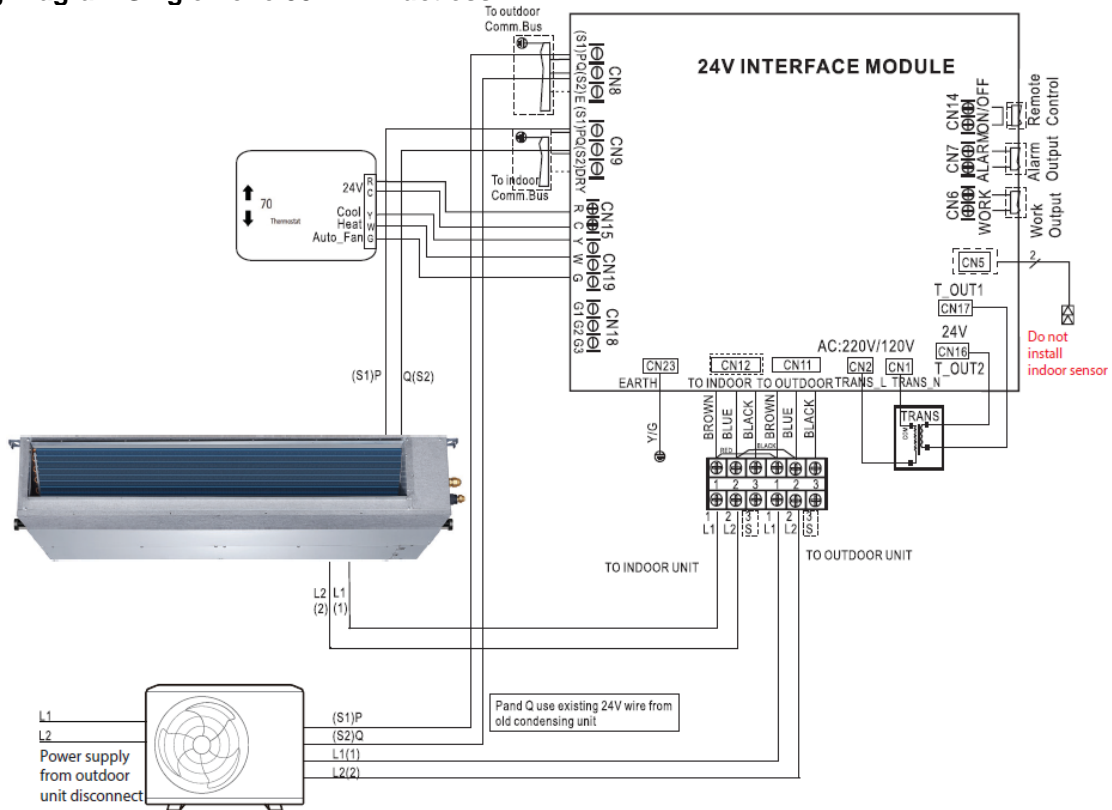


Wiring Diagrams

1. Wiring Diagram Single Zone 38MPRA, 38MA*R, 38MHR or Multi-zone 38MGR Ductless



2. Wiring Diagram Single Zone 38MBR Ductless



Single Phase VRF Outdoor Unit 38VMB036HDS3-1—Heat Pump

HP-11



Submittal Data

Job Name _____ Location _____
Tag _____



A210498

Standard Features

- High Efficiency Rotary Inverter Compressor
- Optimized Compressor Start-Up Technology
- DC Condenser Fan Motor
- Aerodynamic Fan Design for Increased Airflow
- Field Configurable Four Side Piping Connection
- 492 ft (150m) actual total system piping (liquid line)

Header Unit Model		38VMB036HDS3-1
PERFORMANCE		
Nominal Cooling Capacity	Btu/h	36,000
Nominal Heating Capacity	Btu/h	40,000
Maximum Total Connected Indoor Unit Capacity		50% to 130%
COOLING EFFICIENCY†		
SEER2, Ducted FCUs	Btu/Wh	17.30
SEER2, Ductless FCUs	Btu/Wh	19.20
HEATING EFFICIENCY†		
HSPF2, Ducted FCUs	Btu/Wh	9.10
HSPF2, Ductless FCUs	Btu/Wh	9.20
Fan Type (Qty)		Propeller (2)
Airflow, Standard Range	CFM	4,100
Sound Pressure, Cooling/Heating	dBA	58.7
ELECTRICAL		
Power Supply	V/Ph/Hz	208-230/1/60
Minimum Circuit Amps (MCA)	A	36
Recommended Fuse Size	A	40

LEGEND
SEER—Seasonal Energy Efficiency Ratio
FCU—Fan Coil Unit
HSPF—Heating Seasonal Performance Factor

COMPRESSORS		
Type (Number)		Hermetically Sealed Rotary DC Inverter (1)
FAN MOTOR		
Motor Type (Qty)		Brushless DC (2)
PHYSICAL DATA		
Pipe Connection Size - Liquid (High Pressure)	in.	3/8
Pipe Connection Size - Gas (Low Pressure)	in.	5/8
Refrigerant		R-410A
Factory Charge††	lb	8.6
Unit Width	in.	35-1/2
Unit Height	in.	52-1/4
Unit Depth	in.	15-3/4
Net Weight	lb	220.0
OPERATING TEMPERATURE RANGE		
Cooling (DB)	°F	5~118
Heating (WB)	°F	-13~64

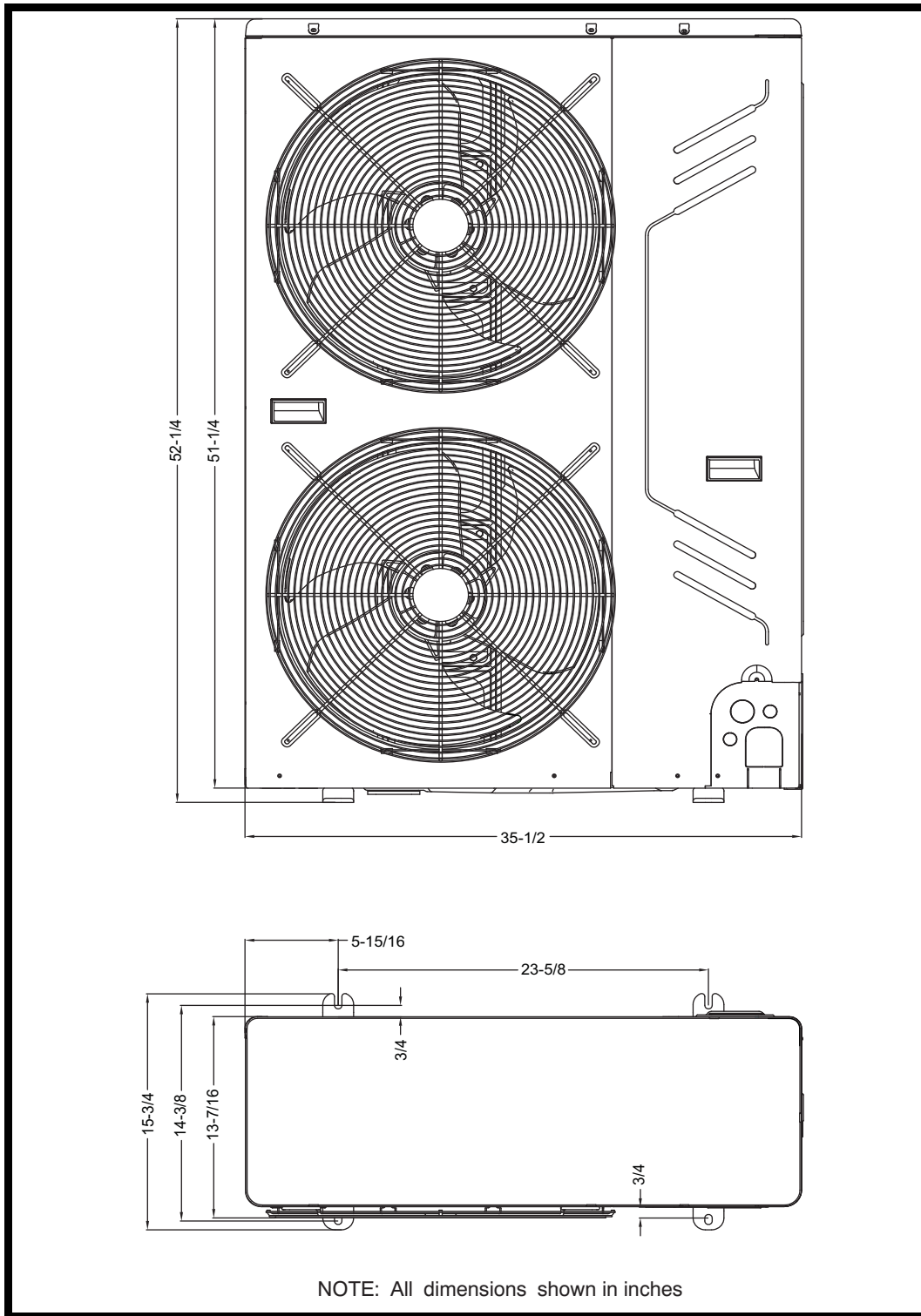
†Rated per AHRI (Air-Conditioning, Heating and Refrigeration Institute) 210/240 Standard.

Cooling: Indoor 80°F (27°C) db/67°F (20°C) wb; Outdoor 95°F (35°C) db

Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db/43°F (6°C) wb

††Additional charge required.

DIMENSIONAL DRAWING OUTDOOR UNIT 38VMB036HDS3-1



NOTE: All dimensions shown in inches

A210496



VRF Indoor Unit 40VMC012A--3—Compact 4-Way Cassette

HP-11



Submittal Data

Job Name _____ Location _____
Tag _____



STANDARD FEATURES

- Delivers air in all four directions
- Three fan speeds - high, medium, and low
- Built-in condensate lift mechanism
- Condensate lift 23-5/8 inches
- Built in EXV (Electronic Expansion Valve) for installation ease
- Outside air connection
- Branch duct for supply (blank off required)
- Panel/grill (40VMC001----) - ordered separately

INDOOR UNIT MODEL		40VMC012A--3
PERFORMANCE		
Total Cooling Rated Capacity	Btu/h	12,170
Sensible Cooling Capacity	Btu/h	8,050
Total Heating Rated Capacity	Btu/h	13,000
Airflow (H / M / L)	CFM	359 / 306 / 253
Sound Pressure (H / M / L)	dBA	45.5 / 42.3 / 38.1
ELECTRICAL		
Power Supply	V/Ph/Hz	208-230/1/60
Indoor Fan Motor Power Consumption (Input)	W	24
Minimum Circuit Amps (MCA)	A	0.53
Maximum Overcurrent Protection	A	15.0
Motor Type		DC

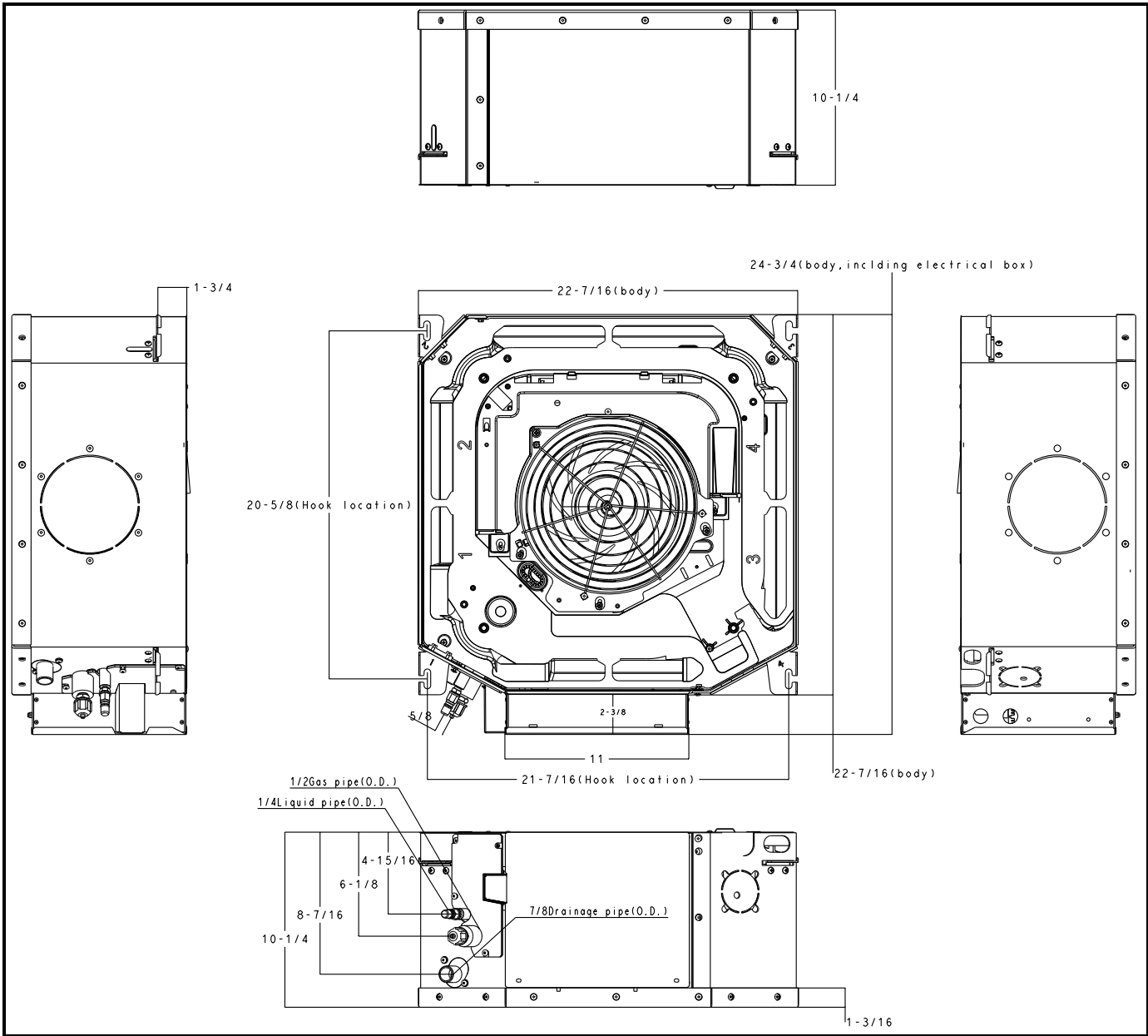
PHYSICAL DATA		
Pipe Connection Size - Liquid	in.	1/4 (OD)
Pipe Connection Size - Suction	in.	1/2 (OD)
Pipe Connection Size - Drain	in.	1 (OD)
Refrigerant		R-410A
Unit Width	in.	24-3/4
Unit Height	in.	10-1/4
Unit Depth	in.	22-7/16
Unit Net Weight	lbs.	43.0
Panel Width	in.	25-1/2
Panel Height	in.	2
Panel Depth	in.	25-1/2
Panel Net Weight	lbs.	5.5

ACCESSORIES

- Wireless Remote Controller 40VM900001
- Wired Remote Controller - Non-Prog. 40VM900002
- Wired Remote Controller - Prog. 40VM900003
- Touch Screen Wired Controller 40VM900005
- 24V Controller 40VM900008
- Button Sensor 40VM900009

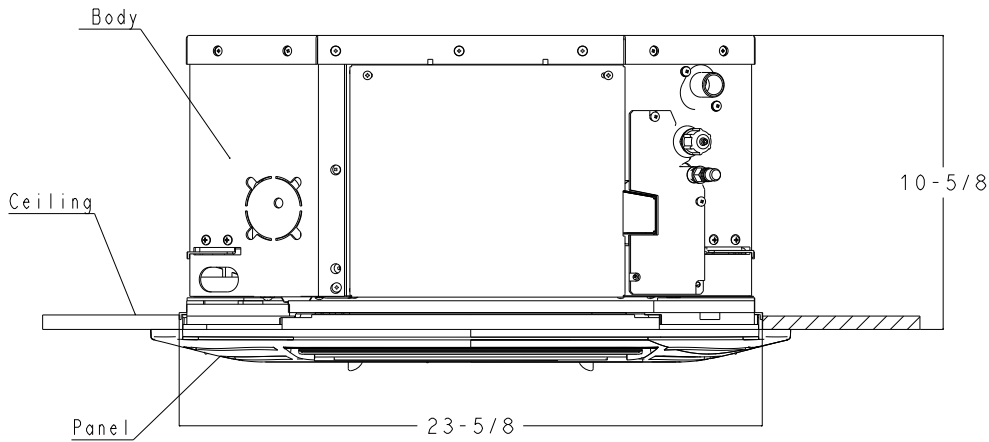
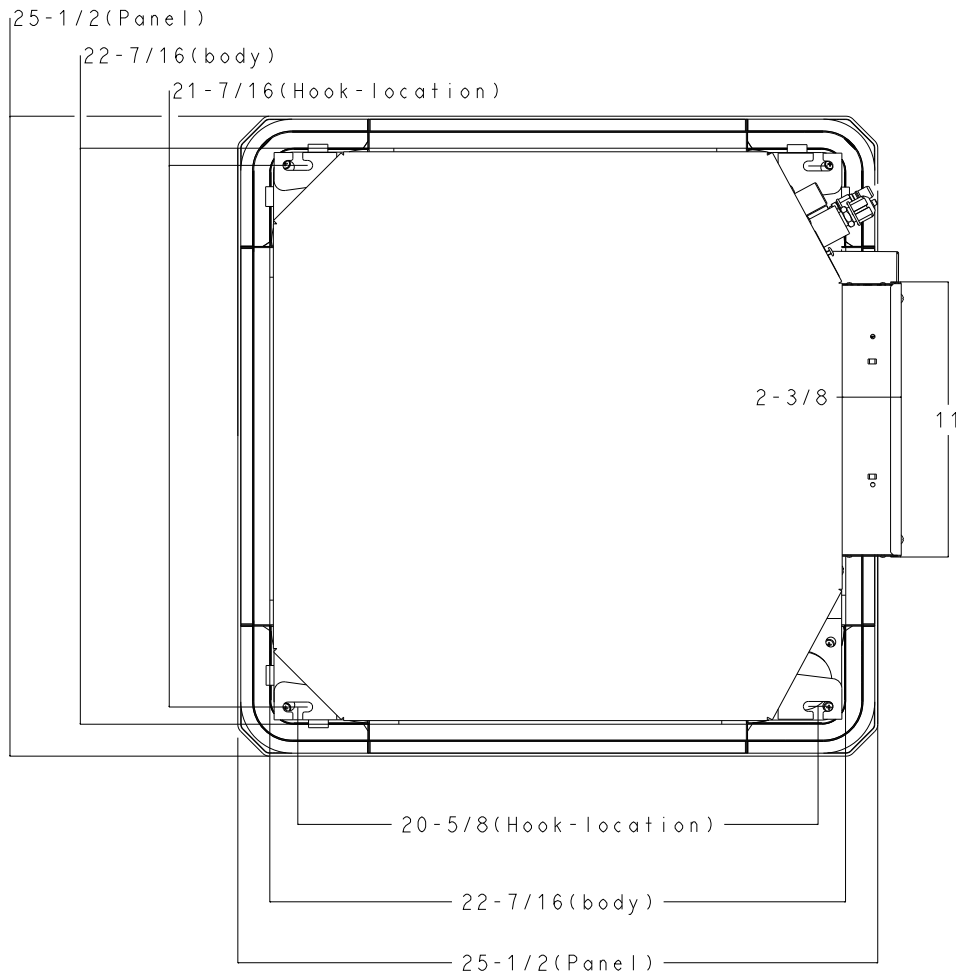
Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

DIMENSIONAL DRAWING INDOOR UNIT COMPACT 4-WAY CASSETTE 40VMC012A--3



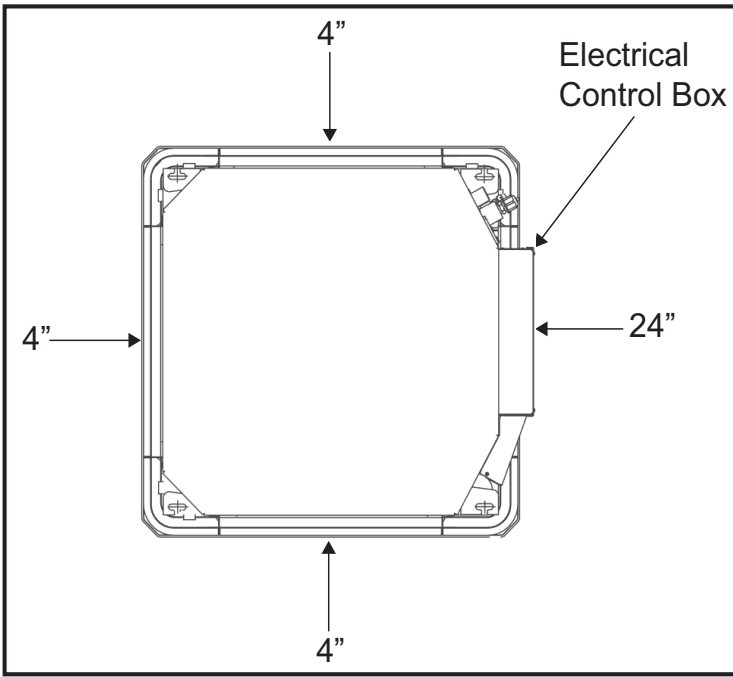
All Dimensions are shown in inches.

**DIMENSIONAL DRAWING
INDOOR UNIT COMPACT 4-WAY CASSETTE 40VMC012A--3**

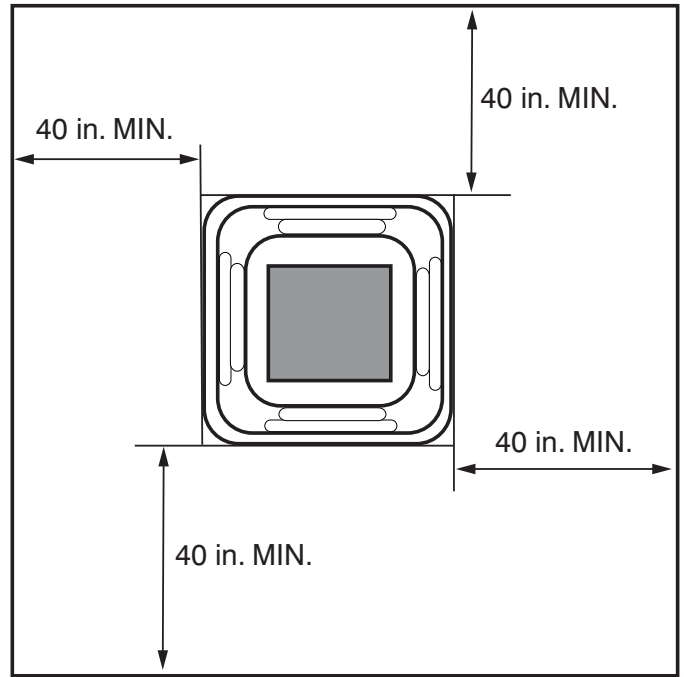


All Dimensions are shown in inches.

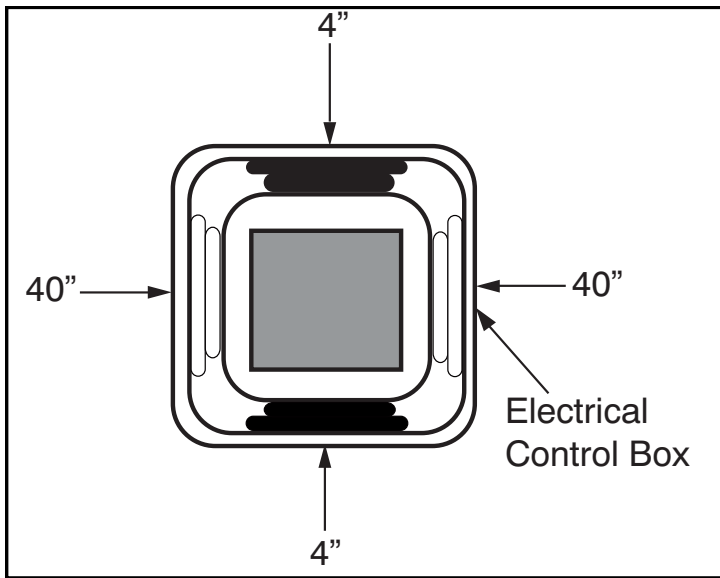
RECOMMENDED SERVICE CLEARANCE



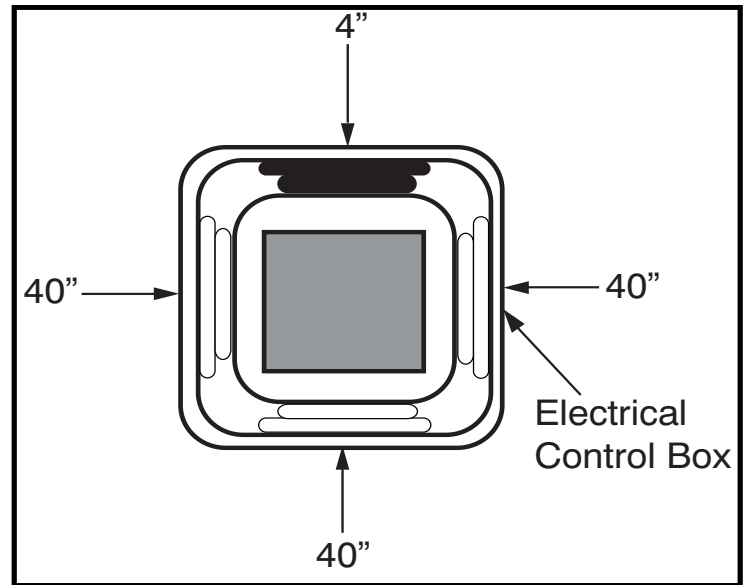
RECOMMENDED AIRFLOW CLEARANCE



RECOMMENDED CLEARANCE FOR BLOCKING OFF LOUVERS / SUPPLY DUCT OPENING



2 Supply Louvers Blocked Off



1 Supply Louver Blocked Off



Submittal Data

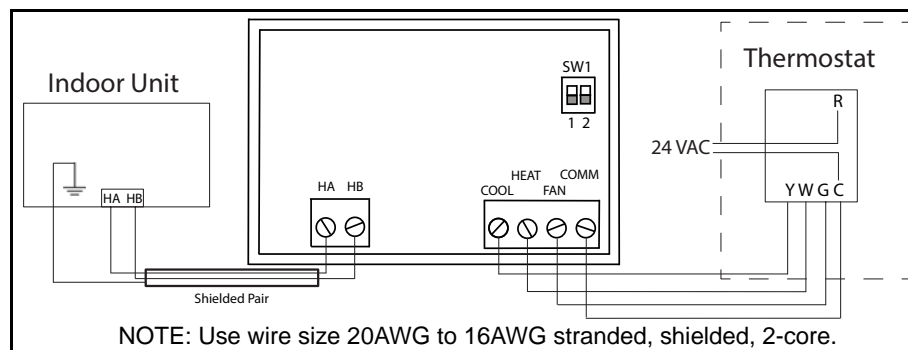
Job Data _____ Location _____
 Buyer _____ Buyer PO # _____ Carrier # _____
 Unit Number _____ Model Number _____
 Performance Data Certified By _____ Date _____



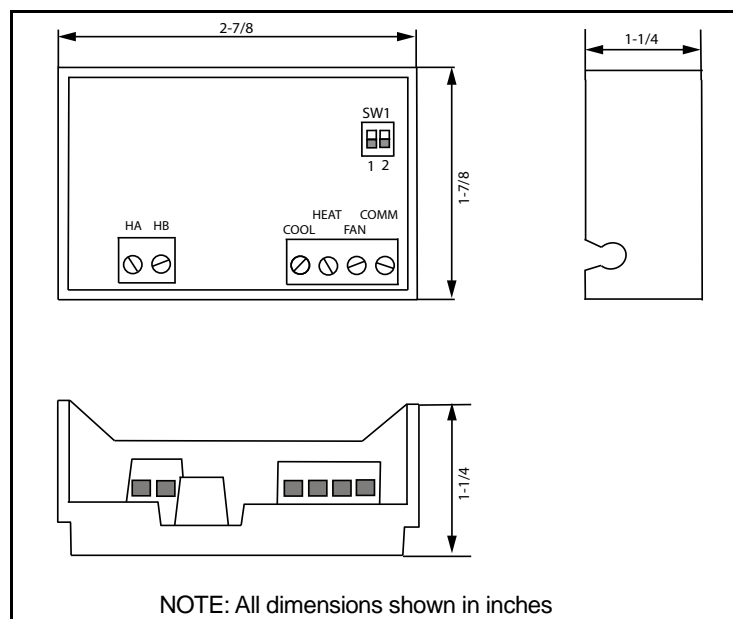
40VM900008 - 24V Interface Features

- Allows connection of conventional 24VAC thermostat to VRF system
- Accepts inputs for Fan, Heat, and Cool (single-stage)
- Fan speed configurable via dip switch settings for High, Medium, Low, or Auto
- Compact design for installation ease

WIRING DIAGRAM



DIMENSIONAL DRAWING



Outdoor Model: 38MBRBQ36AA3

Submittal Data

Job Data: Location:

Buyer: Buyer P.O. #: Carrier #:

Unit Number: Model Number:

Performance Data Certified By: Date:



STANDARD FEATURES

Features Outdoor:

- Variable Speed (Inverter) Compressor
- Basepan Heater factory installed
- Quiet operation
- Aluminum Hydrophilic pre-coated fins

- Piping length 213 ft. (65 m)

Cooling operating range -13° ~ 122° F (-25° ~ 50°C)
 Heating operating range -22°~86°F (-30°~30°C)

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications. See warranty for full details.

Specifications

System	Size	36	
	Outdoor Model	38MBRBQ36AA3	
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	MCA	A.	30
	MOCP - Fuse Rating	A.	45
Operating Range	Cooling Outdoor DB Min - Max	°F(°C)	-13~122 (-25~50)
	Heating Outdoor DB Min - Max	°F(°C)	-22~86 (-30~30)
Piping	Total Piping Length	ft (m)	213 (65)
	Piping Lift	ft (m)	98 (30)
	Pipe Connection Size - Liquid	in (mm)	3/8 (9.52)
	Pipe Connection Size - Suction	in (mm)	5/8 (16)
Refrigerant	Type	R410A	
	Charge	lbs (kg)	7.05 (3.2)
	Metering Device	EEV	
Outdoor Coil	Face Area	Sq. Ft.	9
	No. Rows	2	
	Fins per inch	20	
	Circuits	4	
Compressor	Type	R410A	
	Model	KTF310D43UMT	
	Oil Type	ESTER OIL VG74	
	Oil Charge	Fl. Oz.	33.82
	Rated Current	RLA	23.5
Outdoor	Unit Width	in (mm)	41.1 (1,045)
	Unit Height	in (mm)	31.9 (810)
	Unit Depth	in (mm)	17.9 (455)
	Net Weight	lbs (kg)	155.42 (70.5)
	Airflow	CFM	2,118
	Sound Pressure	dB(A)	61.7

* Condensing unit above or below indoor unit
For Compatibility See Product Data

Performance

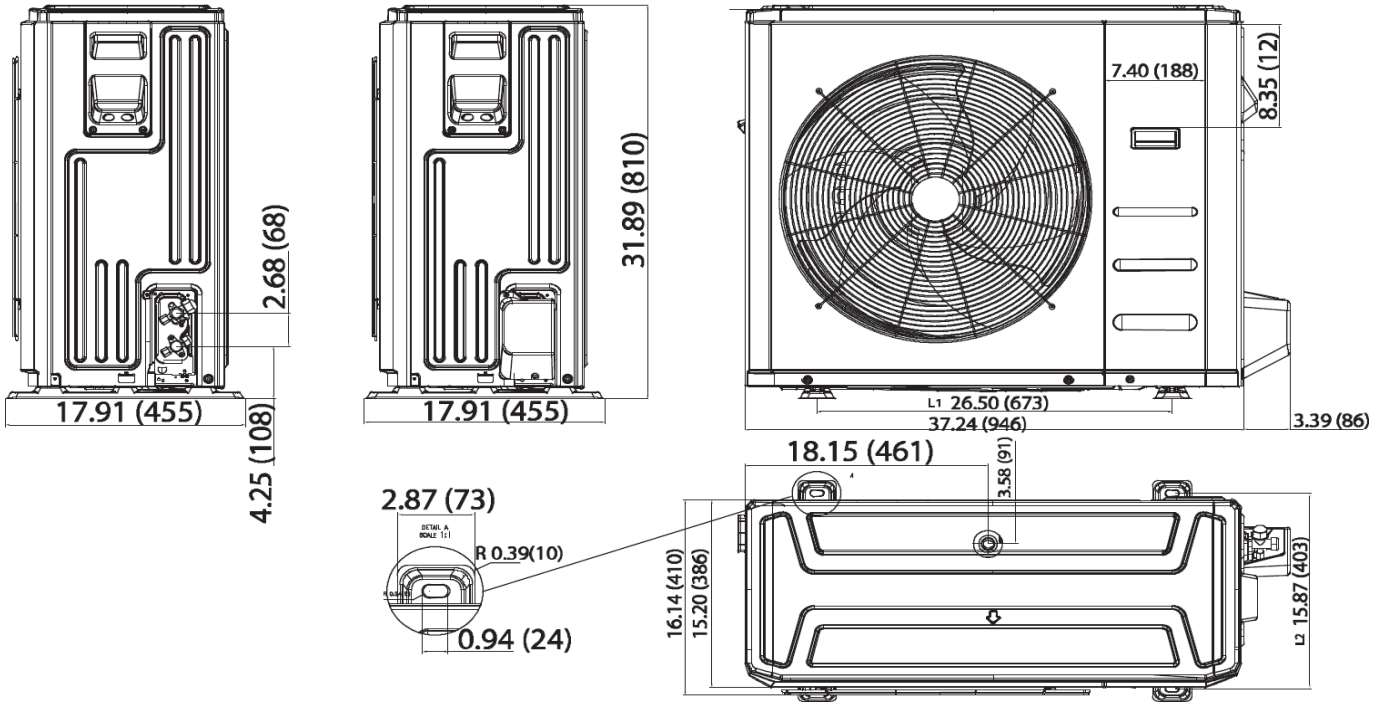
Air Handler	Indoor Model		40MBAAQ36XA3
	Energy Star		NO
	Cooling Rated Capacity	Btu/h	36,000
	Cooling Cap. Range Min - Max	Btu/h	7,500~52,200
	SEER		16.5
	EER		8.5
	Heating Rated Capacity (47°F)	Btu/h	39,000
	Heating Rated Capacity (17°F)	Btu/h	25,000
	Maximum Heating Capacity (5°F)	Btu/h	25,800
	Heating Cap. Range Min - Max	Btu/h	11,800~45,400
	HSPF		10.4
	COP (47°F)	W/W	3.2
	COP (17°F)	W/W	2.45
	COP (5°F)	W/W	2.3

Cassette	Indoor Model		40MBCQ36---3
	Energy Star		NO
	Cooling Rated Capacity	Btu/h	36,000
	Cooling Cap. Range Min - Max	Btu/h	7,500~52,200
	SEER		17.6
	EER		9
	Heating Rated Capacity (47°F)	Btu/h	38,000
	Heating Rated Capacity (17°F)	Btu/h	22,000
	Maximum Heating Capacity (5°F)	Btu/h	32,200
	Heating Cap. Range Min - Max	Btu/h	12,600~55,800
	HSPF		10.6
	COP (47°F)	W/W	3.01
	COP (17°F)	W/W	2.49
	COP (5°F)	W/W	2.41

Ducted	Indoor Model		40MBDQ36---3
	Energy Star		NO
	Cooling Rated Capacity	Btu/h	36,000
	Cooling Cap. Range Min - Max	Btu/h	7,500~52,100
	SEER		16.7
	EER		9
	Heating Rated Capacity (47°F)	Btu/h	40,000
	Heating Rated Capacity (17°F)	Btu/h	27,000
	Maximum Heating Capacity (5°F)	Btu/h	29,100
	Heating Cap. Range Min - Max	Btu/h	11,400~50,500
	HSPF		11.5
	COP (47°F)	W/W	3.37
	COP (17°F)	W/W	2.6
	COP (5°F)	W/W	2.5

Floor Console	Indoor Model		40MBFQ36---3
	Energy Star		NO
	Cooling Rated Capacity	Btu/h	36,000
	Cooling Cap. Range Min - Max	Btu/h	7,500~52,100
	SEER		17
	EER		8
	Heating Rated Capacity (47°F)	Btu/h	38,000
	Heating Rated Capacity (17°F)	Btu/h	22,000
	Maximum Heating Capacity (5°F)	Btu/h	29,300
	Heating Cap. Range Min - Max	Btu/h	11,400~50,000
	HSPF		10
	COP (47°F)	W/W	2.8
	COP (17°F)	W/W	2.3
	COP (5°F)	W/W	2.05

Construction View



Floor Console Heat Pump Ductless System

HP-12

Indoor Model: **40MBFQ36---3**

Submittal Data

Job Data: Location:

Buyer: Buyer P.O. #: Carrier #:

Unit Number: Model Number:

Performance Data Certified By: Date:



STANDARD FEATURES

Modes: Cool, Heat, Dry, Fan, Auto
 Timer
 Auto-Restart
 Sleep mode
 Up-Down Louver control (fixed or swing)
Capable to be mounted on Floor and Ceiling
 Follow Me (Sense Temperature at handheld remote)
 46°F Heating Mode (Heating Setback)
 Aluminum Golden Hydrophilic pre-coated fins

CONTROLS:

Wireless Remote Controller included with indoor unit
 Optional Wired Remote Controller (Timer Function)
 Optional Wired Remote Controller KSACN0501AAA (7 Day programmable)

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications. See warranty for full details.

System	Size	36	
	Indoor Model	40MBFQ36---3	
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	Power Supply	Indoor unit powered by outdoor unit	
	MCA	A.	1.23
Controls	Wireless Remote Controller (°F/°C Convertible)	Standard	
	Wired Remote Controller (°F/°C Convertible)	Standard	
Operating Range	Cooling Indoor DB Min -Max	°F(°C)	63~90 (17~32)
	Heating Indoor DB Min -Max	°F(°C)	32~86 (0~30)
Piping	Pipe Connection Size - Liquid	in (mm)	3/8 (9.52)
	Pipe Connection Size - Suction	in (mm)	5/8 (16)

Indoor Coil	Face Area	Sq. Ft.	3.2
	No. Rows	3	
	Fins per inch	19	
	Circuits	9	
Indoor	Unit Width	in (mm)	50.59 (1285)
	Unit Height	in (mm)	9.25 (235)
	Unit Depth	in (mm)	26.57 (675)
	Net Weight	lbs (kg)	69 (31.3)
	Number of Fan Speeds	3	
	Airflow (lowest to highest)	CFM	638/917/1037
	Sound Pressure (lowest to highest)	dB(A)	43/49/54
	Air throw Data	ft (m)	33(10)
Field Drain Pipe Size O.D.	in (mm)	1 (25.4)	

For Compatibility See Product Data

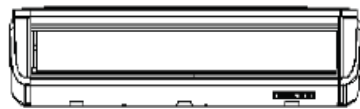
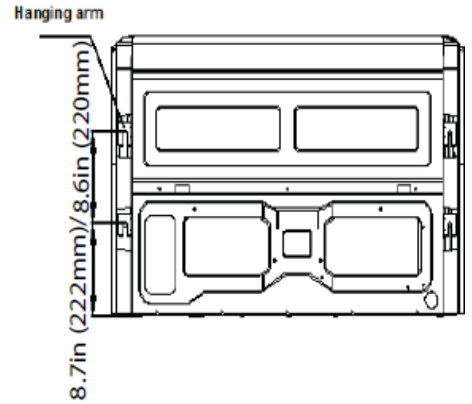
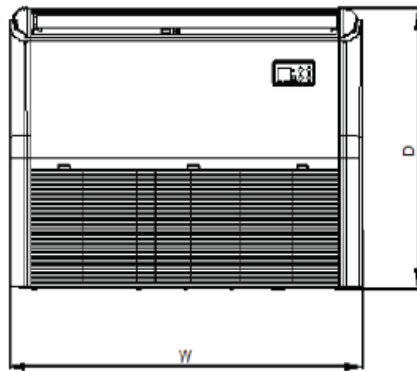
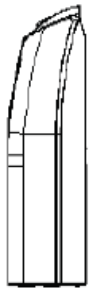
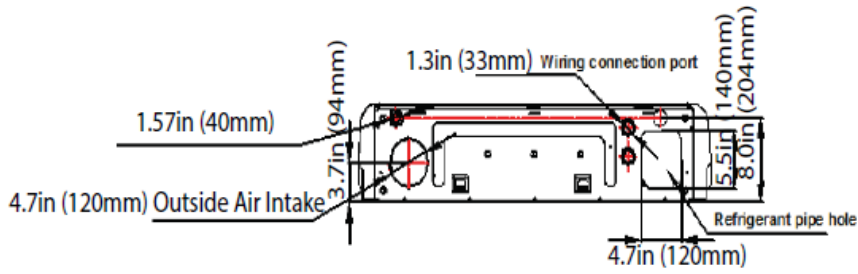
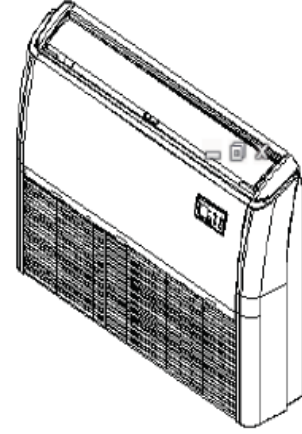
Performance may vary based on the outdoor unit matched to. See compatible outdoor units pages for Performance Data.

Accessories

53DS-900---118	Condensate Pump (208/230V)
KSACN0101AAA	Wired Remote Control with Timer Function
KSACN0501AAA	Wired Remote Control 7 day Programmable
KSAIF0401AAA	Wi-Fi™ Kit Console
KSAIC0101230	24V Interface Kit 208/230V
53DS-900---090	Wireless Remote Control Locking Mount Kit

Construction View

Indoor Model: 40MBFQ36---3



Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____



The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- 24V INTERFACE Control Box
- Installation manual
- Wall anchors
- Screws M4X20mm
- •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

- 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.
- Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

Compatibility

The 24V INTERFACE KIT is compatible with most thermostats matched with the Ductless Systems listed below. Before installation, check the compatibility of your Ductless System. Professional installation is recommended.

Type of Indoor unit	Indoor Family Name	Single Zone Outdoor Family Name	Multi-zone Outdoor Family Name	208/230V
HIGH WALL	40MPHA	38MPRA	38MGR	All Sizes
	619PHA	38MPRA	38MGR	All Sizes
	DHMPHA	38MPRA	38MGR	All Sizes
	40MAQ	38MA*R	38MGR	All Sizes
	619P*B	38MA*R	38MGR	All Sizes
	DHMSHA	38MA*R	38MGR	All Sizes
	40MHH	38MHR	38MGR	All Sizes
CASSETTE	40MBCQ	38MA*R	38MGR	All Sizes
DUCTED	40MBDQ	38MA*R	38MGR	All Sizes Except size 58
CONSOLE	40MBFQ	38MA*R	38MGR	All Sizes Except sizes 12 and 58
VERTICAL FAN COIL	FMA4	38MA*R		Sizes 12 to 36
CASED HORIZONTAL FAN COIL	FMC4	38MA*R		Sizes 12 to 36
UNCASED HORIZONTAL FAN COIL	FMU4	38MA*R		Sizes 12 to 36

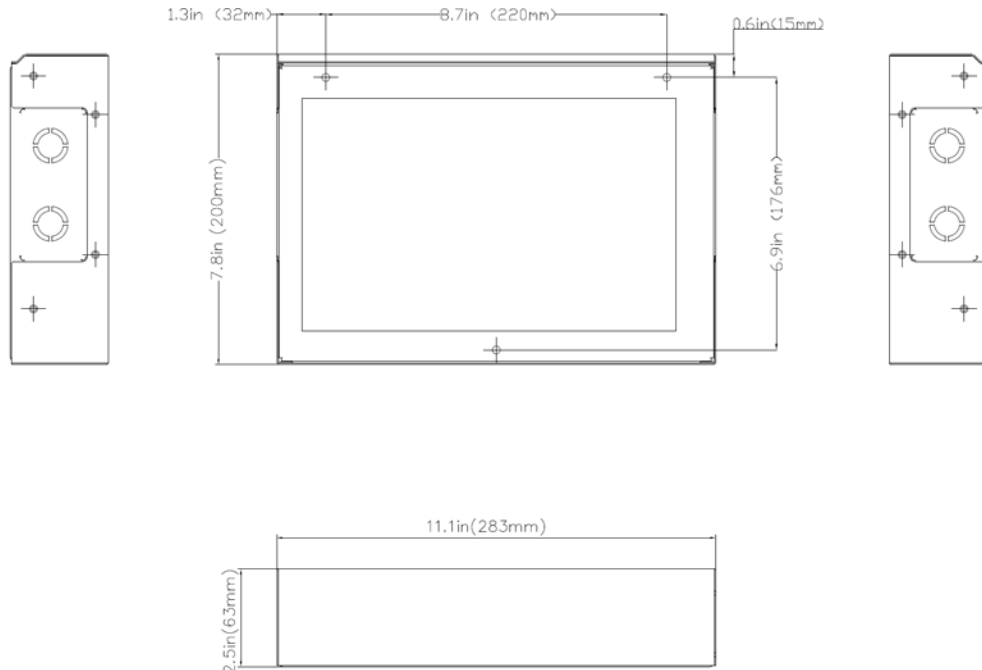
	Compatible
	Not Compatible

Notes: The Indoor unit requires an updated control board for compatibility with the 24V Interface Kit. High Wall units starting with Serial # 4316V10001 are shipped with the compatible control board. Ducted units starting with Serial # 4616V10001 are shipped with the compatible control board. For other model numbers not shown on the table above, please contact your ductless representative.

*Except size 58

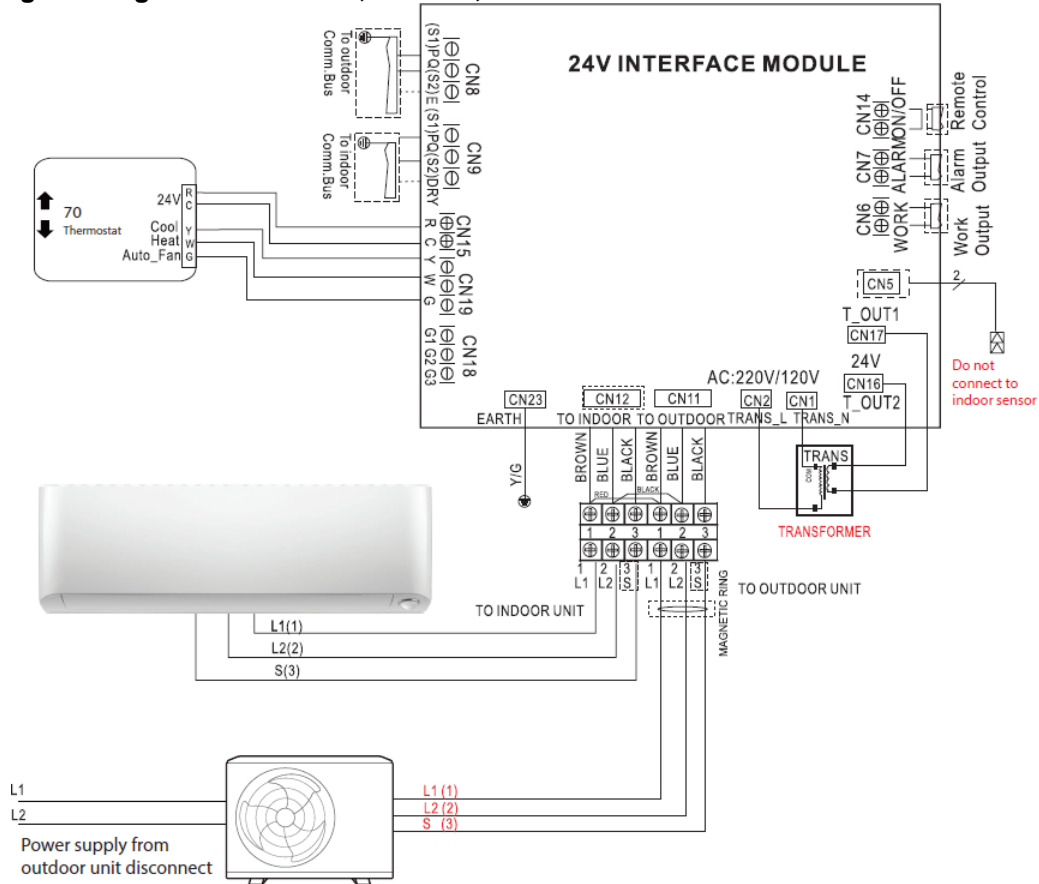
**Except sizes 12 and 58

Construction View

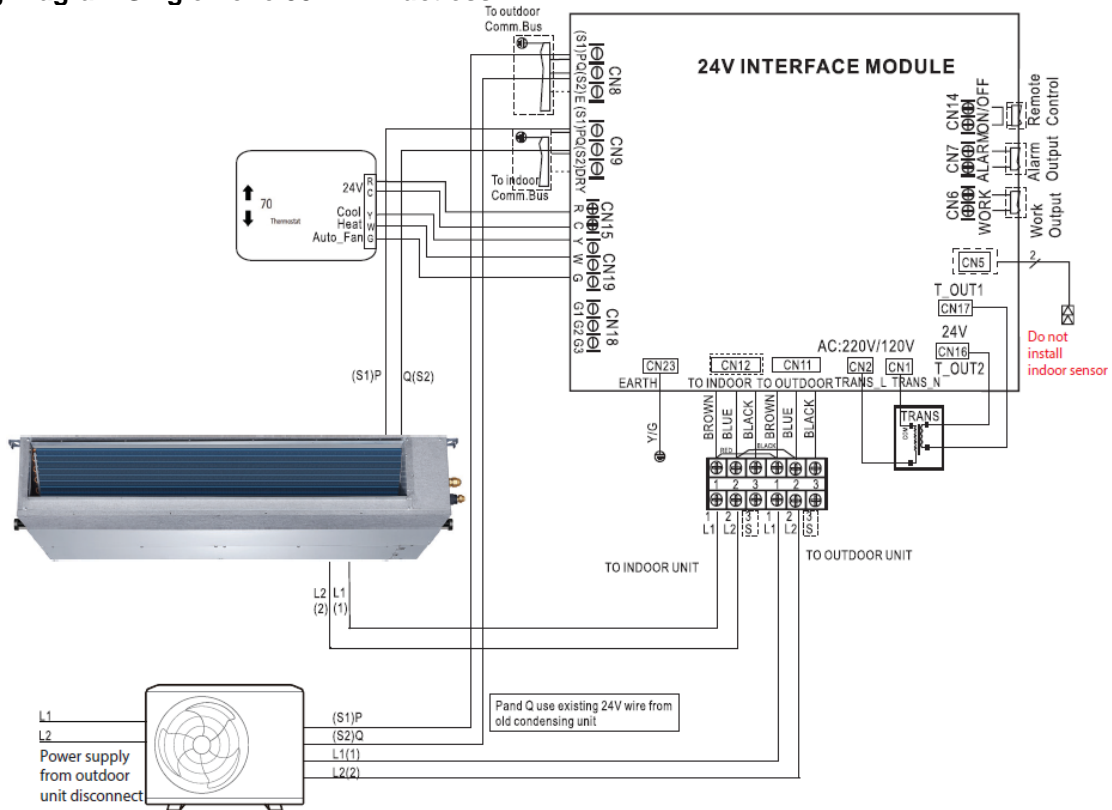


Wiring Diagrams

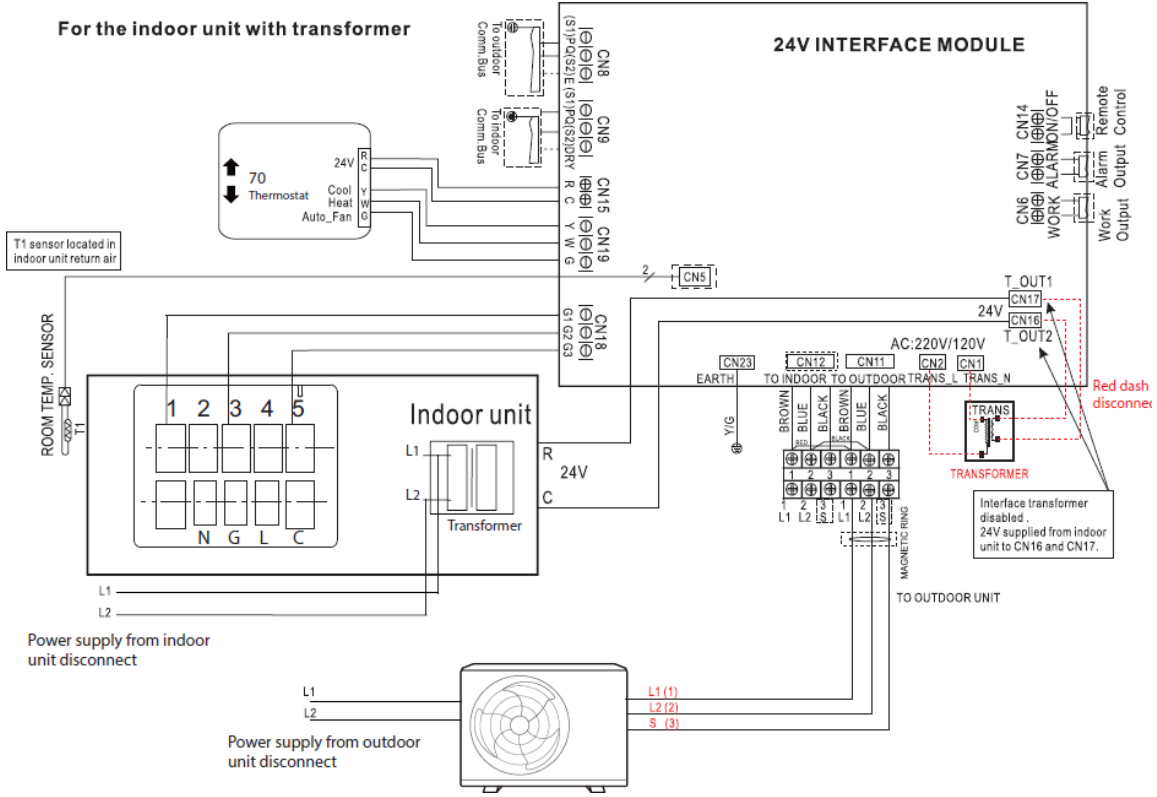
1. Wiring Diagram Single Zone 38MPRA, 38MA*R, 38MHR or Multi-zone 38MGR Ductless



2. Wiring Diagram Single Zone 38MBR Ductless



3. Wiring Diagram Single Zone Ductless Condensing Unit 38MA*R with an approved Fan Coil/Furnace/Cased Coil





GOBI II

Item Number 3004145

The GOBI II condensate pump for direct mounting under the air conditioner is designed for systems from 6 000 BTU/h (1.75kW) up to 120 000 BTU/h (35kW). The digital water sensor, the universal voltage range and the individually configurable flow rate are features that contribute to making the Gobi II the most powerful and quietest condensate pump for air conditioning systems on the market today. The variable range of applications allows the trade as well as the installer to cover almost all needs with just one pump.

- Universal use due to wide range of applications
- Warranty period only starts with commissioning (readable via USB)
- 11 gallon pumping capacity per hour
- 65 ft delivery head
- <19 dB noise level
- No float problems thanks to digital sensor
- Demand-oriented control of the pumping capacity
- Spare parts available

Technical Data

Color	signal white (RAL 9003)
Standards	EN 60335-1, EN 60335-2-41, UL778 CSA C22.2 #68
RoHS Conformity	1
RoHS Conformity	Yes
Type	Diaphragm type
Operating Temperature Range	41 - 104 °F
Storage Temperature Range	-4 - 122 °F
Water Temperature Range	41 - 104 °F

Acknowledged globally



Voltage	100 - 240 VAC
Frequency	50 / 60 Hz
Protection Class	I
Ingression Protection	IP44
Energy Consumption	12 W
Cable Length	5 ft
Max. Flow Capacity	11 GPH
Max. Suction Head	10 ft
Max. Delivery Head	65.6 ft
Noise Level	19 dB(A)
Alarm Relay	Interchangeable NO or NC, rated 250VAC, 6.3A or 28VDC, 6.3A
Tube Diameter	1/4 "
Packaging	Blister
Scope of Supply	Power cable, Alarm cable, Star tube and anti-siphon device, Screws (for mounting), Screw anchors, Factory-installed alarm fuse, Cable ties, Instruction manual

Accessories

4678597	IN-LINE FILTER	Filter for condensate water
4679160	PVC-TUBE	Plastic tube 6 mm, 30 meters, 1/4"
4678741	AQUASWITCH	Electronic water switch, 95-254V
4678546	AQUASWITCH-24	Electronic water switch 24 V AC/DC

Spare Parts

3004064	FIL-4064/4	Spare filter for GOBI II, 4 pieces
---------	------------	------------------------------------

REFCO Manufacturing (US) Inc.

66 B Industry Avenue
Springfield MA 01104

Phone 413 739 4761
Fax 413 733 9267

sales@refcoswiss.com

Certificate
ISO 9001 / ISO 14001

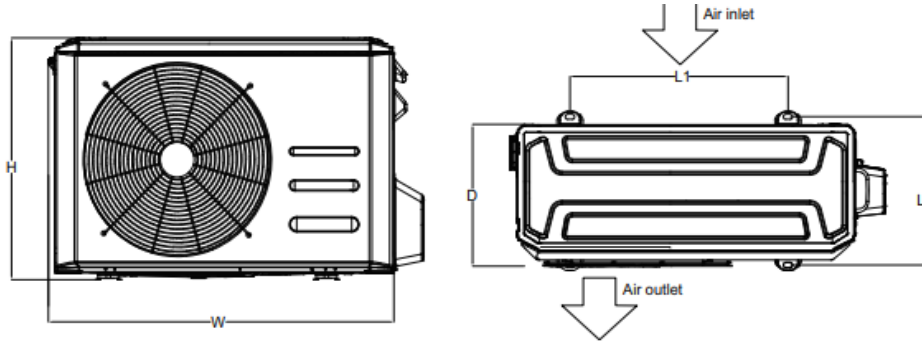
Acknowledged globally



3004087	KIT-4087	Star tube with Siphon device
3004180	FUS-4180/10	Spare fuses for COMBI and GOBI II 6.3A, pack of 10 pieces
3004050	FUS-4050/10	Spare fuse, 10 pieces
3004065	HSG-4065/4	Siphon Device, 4 pieces

	Outdoor Size	12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
Cassette	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Ducted	Indoor Model				12K - 208/230V					
	Energy Star				YES					
	Cooling System Tons				1					
	Cooling Rated Capacity	Btu/h			12000					
	Cooling Cap. Range Min - Max	Btu/h			2,250-14,400					
	SEER				21.5					
	EER				13					
	Heating Rated Capacity (47°F)	Btu/h			12000					
	Heating Rated Capacity (17°F)	Btu/h			8300					
	Heating Maximum Capacity (17°F)	Btu/h			12900					
	Heating Maximum Capacity (5°F)	Btu/h			12400					
	Heating Cap. Range Min - Max	Btu/h			1,800-16,300					
	HSPF				11.5					
	COP (47°F)	W/W			3.52					
COP (17°F)	W/W			2						
COP (5°F)	W/W			1.87						
Mix Match Ducted	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Console	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									
Air Handler	Indoor Model									
	Energy Star									
	Cooling System Tons									
	Cooling Rated Capacity	Btu/h								
	Cooling Cap. Range Min - Max	Btu/h								
	SEER									
	EER									
	Heating Rated Capacity (47°F)	Btu/h								
	Heating Rated Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (17°F)	Btu/h								
	Heating Maximum Capacity (5°F)	Btu/h								
	Heating Cap. Range Min - Max	Btu/h								
	HSPF									
	COP (47°F)	W/W								
COP (17°F)	W/W									
COP (5°F)	W/W									

Outdoor Size	12K - 115V	6K	9K	12K - 208/230V	18K	24K	30K	36K	36K - AHU Only
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Size					12K - 208/230V					
Width (W)	in (mm)				31.69 (805)					
Height (H)	in (mm)				21.81 (554)					
Depth (D)	in (mm)				12.99 (330)					
L1	in (mm)				20.1 (511)					
L2	in (mm)				12.5 (317.2)					
Operating Weight	lbs (kg)				73.63 (33.4)					
Shipping Width	in (mm)				36.02 (915)					
Shipping Height	in (mm)				24.21 (615)					
Shipping Depth	in (mm)				14.57 (370)					
Shipping Weight	lbs (kg)				79.37 (36)					



Ducted Style Heat Pump Ductless System

HP-13

Indoor Model: 40MBDQ12---3

Submittal Data

Job Data: Location:

Buyer: Buyer P.O. #: Carrier #:

Unit Number: Model Number:

Performance Data Certified By: Date:



STANDARD FEATURES

- Modes: Cool, Heat, Dry, Fan, Auto
- Vertical or Horizontal Installation
- Rear or Bottom Return
- Outside Air Intake
- Condensate Lift pump shipped with the unit
- Follow Me (senses temperature at handheld remote)
- Heating Setback (46° F Heating Mode)
- Quiet indoor operation
- Aluminum Golden Hydrophilic pre-coated fins

Controls:

- Wireless Remote Controller included with indoor unit
- Optional Wired Remote Controller (Timer Function)
- Wired Remote Controller KSACN0501AAA (7 Day programmable) included with indoor unit

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- *For residential applications. See warranty for full details.

System	Size	12	
	Indoor Model	40MBDQ12---3	
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	Power Supply	Powered from outdoor unit	
	MCA	A.	1.11
Controls	Wireless Remote Controller (°F/°C Convertible)	Standard	
	Wired Remote Controller (°F/°C Convertible)	Standard	
Operating Range	Cooling Indoor DB Min -Max	° F (° C)	62~90 (17~32)
	Heating Indoor DB Min -Max	° F (° C)	32~86 (0~30)
Piping	Pipe Connection Size - Liquid	in (mm)	1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)	1/2 (12.7)

Indoor Coil	Face Area	Sq. Ft.	1.18
	No. Rows	3	
	Fins per inch	18	
	Circuits	3	
Indoor	Unit Width	in (mm)	27.56 (700)
	Unit Height	in (mm)	7.87 (200)
	Unit Depth	in (mm)	19.92 (506)
	Net Weight	lbs (kg)	43.56 (19.8)
	Number of Fan Speeds	3	
	Airflow (lowest to highest)	CFM	176/282/353
	Sound Pressure (lowest to highest)	dB(A)	35/37/39
Max Static Pressure	In.WG.	0.2	
Field Drain Pipe Size O.D.	in (mm)	1 (25.4)	

For Compatibility See Product Data

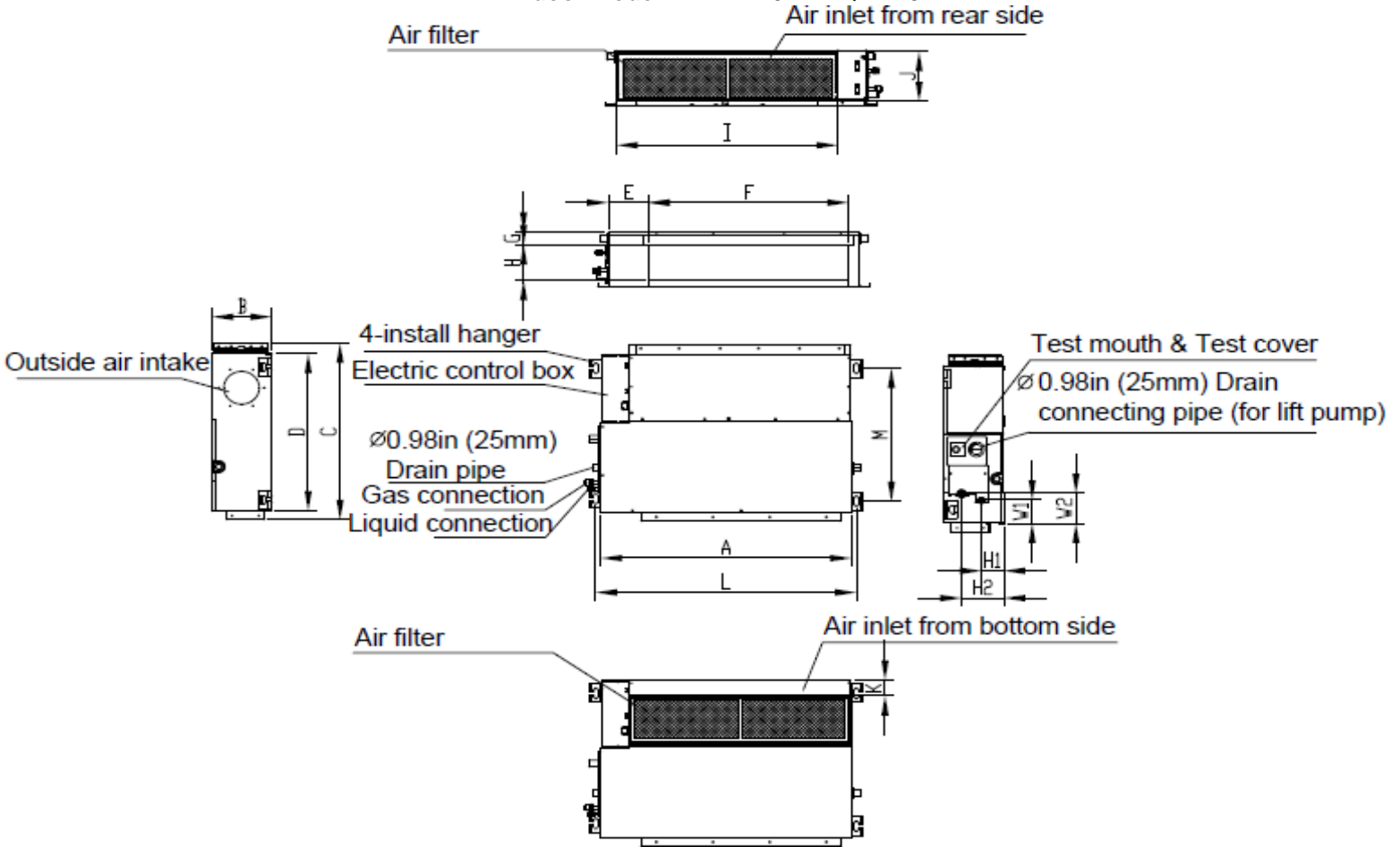
Performance may vary based on the outdoor unit matched to. See compatible outdoor units pages for Performance Data.

Accessories

KSACN0101AAA	Optional Wired Remote Control with Timer Function
KSACN0501AAA	Shipped with the unit Wired Remote Control 7 day Programmable
KSAIF0401AAA	Wi-Fi™ Kit
KSAIC0101230	24V Interface Kit 208/230V
53DS-900--008	Insulated 25' Line Set - 1/4" x 3/8"
53DS-900--090	Wireless Remote Control Locking Mount Kit


Construction View

Indoor Model: 40MBDQ12---3



		Unit	inch	mm
OUTLINE	DIMENSIONS	A	27.6	700
		B	7.9	200
		C	19.9	506
		D	17.7	450
AIR OUTLET	OPENING SIZE	E	5.4	137
		F	21.1	537
		G	1.2	30
		H	6	152
AIR RETURN	OPENING SIZE	I	23.6	599
		J	7.3	186
		K	2	50
HANGER	BRACKERS	L	29.2	741
		M	14.2	360
REFRIGERANT PIPE	LOCATIONS	H1	3.3	84
		H2	5.5	140
		W1	3.3	84
		W2	3.3	84
OPERATING WEIGHT	lb (kg)		40	18.1



 MicroMetl <small>Since 1982</small>	DATE: 06/2020	WEIGHT (LBS): SEE TABLE	DESCRIPTION: FILTER BOX FOR CARRIER 40MBDQ18-58 SERIES	PART NUMBER: FS-40MBDQ** SERIES
	SUBMITTED TO:	COMPANY: MMC	JOB NAME: Job Name	APPROVED BY: DATE:

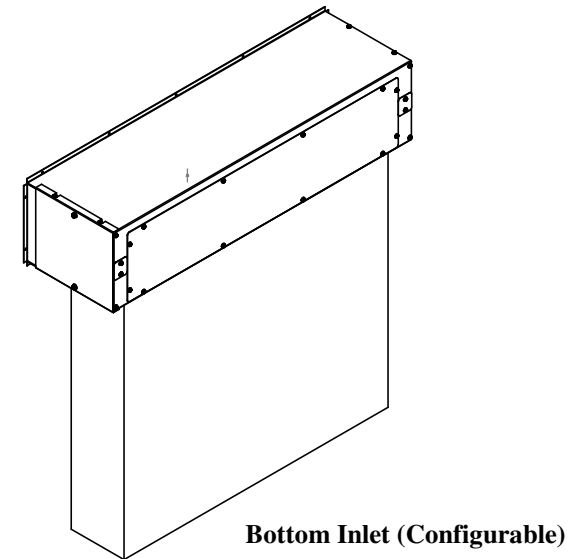
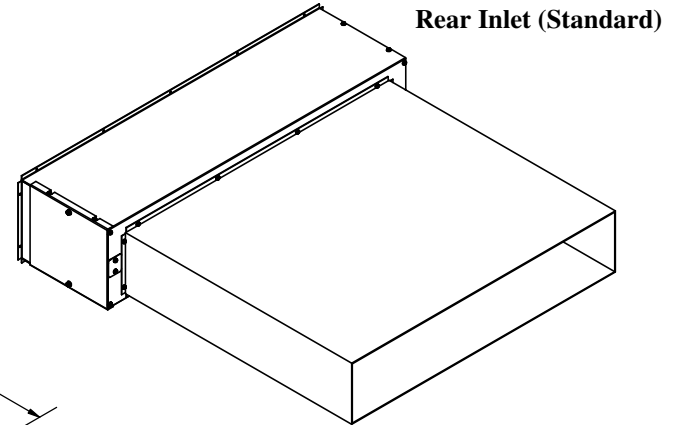
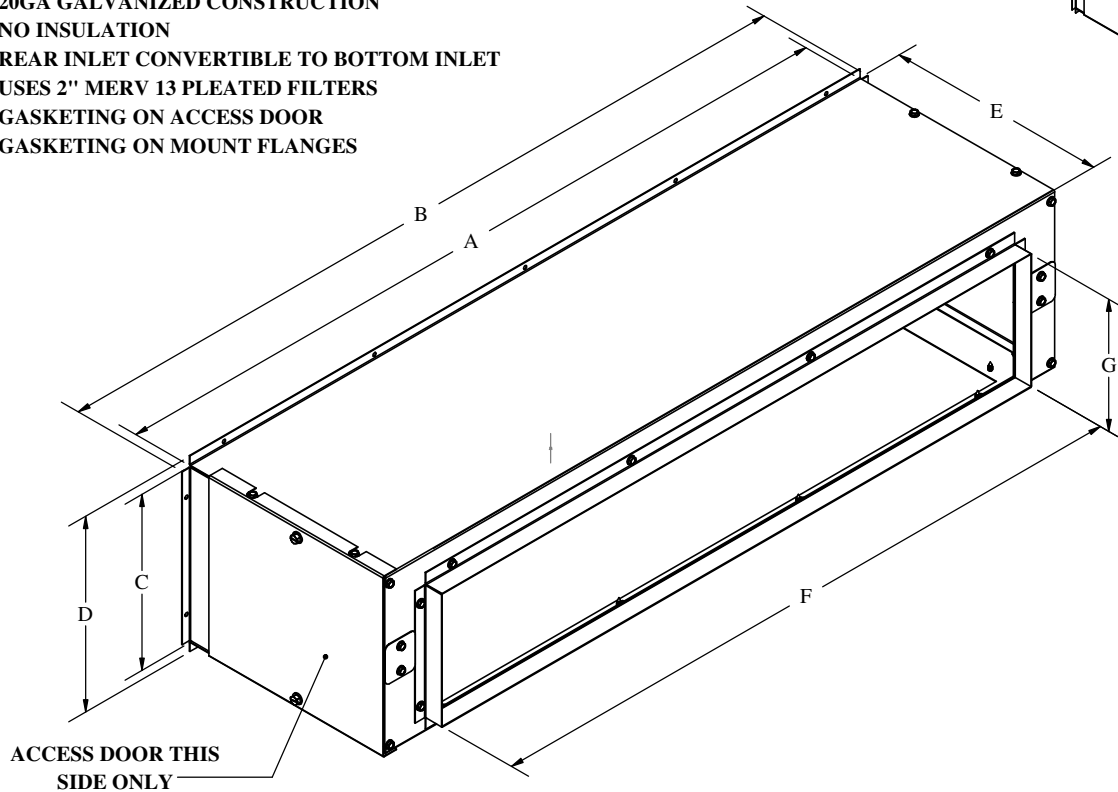
FOR MODEL NUMBER: SE TABLE BELOW

DETAILS: SEE TABLE BELOW

MMC Part #	Carrier unit	Filter Box Dimensions							Filters provided by MMC (MERV 13)	Weight
		A"	B"	C"	D"	E"	F"	G"		
FS-40MBDQ0912	40MBDQ09, 12	23.600	24.600	7.300	8.300	12.625	20.076	5.140	(1) 12" x 20" x 2"	14 lbs
FS-40MBDQ18	40MBDQ18	30.750	31.750	7.480	8.480	12.025	20.076	5.244	(1) 12" x 25" x 2"	17 lbs
FS-40MBDQ24	40MBDQ24	39.410	40.410	8.980	9.980	11.500	34.696	6.744	(2) 12" x 20" x 2"	21 lbs
FS-40MBDQ36	40MBDQ36	49.650	50.650	8.980	9.980	11.500	44.936	6.744	(2) 12" x 25" x 2"	25 lbs
FS-40MBDQ48	40MBDQ48	43.350	44.350	11.020	12.020	11.500	38.636	6.375	(2) 12" x 20" x 2"	24 lbs
FS-40MBDQ58	40MBDQ58	46.540	47.540	11.020	12.020	12.250	41.826	7.500	(1) 14" x 20" x 2" & (1) 14" 25" x 2"	25 lbs

FEATURES

- 20GA GALVANIZED CONSTRUCTION
- NO INSULATION
- REAR INLET CONVERTIBLE TO BOTTOM INLET
- USES 2" MERV 13 PLEATED FILTERS
- GASKETING ON ACCESS DOOR
- GASKETING ON MOUNT FLANGES



NOTES: SPECIAL NOTES

Openings and dimensions may vary from contract. An order constitutes acceptance of these variances.

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24V Interface Kit 2nd Generation Ductless Systems

HP-13

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____



The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- 24V INTERFACE Control Box
- Installation manual
- Wall anchors
- Screws M4X20mm
- •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

- 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.
- Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

Compatibility

The 24V INTERFACE KIT is compatible with most thermostats matched with the Ductless Systems listed below. Before installation, check the compatibility of your Ductless System. Professional installation is recommended.

Type of Indoor unit	Indoor Family Name	Single Zone Outdoor Family Name	Multi-zone Outdoor Family Name	208/230V
HIGH WALL	40MPHA	38MPRA	38MGR	All Sizes
	619PHA	38MPRA	38MGR	All Sizes
	DHMPHA	38MPRA	38MGR	All Sizes
	40MAQ	38MA*R	38MGR	All Sizes
	619P*B	38MA*R	38MGR	All Sizes
	DHMSHA	38MA*R	38MGR	All Sizes
	40MHH	38MHR	38MGR	All Sizes
CASSETTE	40MBCQ	38MA*R	38MGR	All Sizes
DUCTED	40MBDQ	38MA*R	38MGR	All Sizes Except size 58
CONSOLE	40MBFQ	38MA*R	38MGR	All Sizes Except sizes 12 and 58
VERTICAL FAN COIL	FMA4	38MA*R		Sizes 12 to 36
CASED HORIZONTAL FAN COIL	FMC4	38MA*R		Sizes 12 to 36
UNCASED HORIZONTAL FAN COIL	FMU4	38MA*R		Sizes 12 to 36

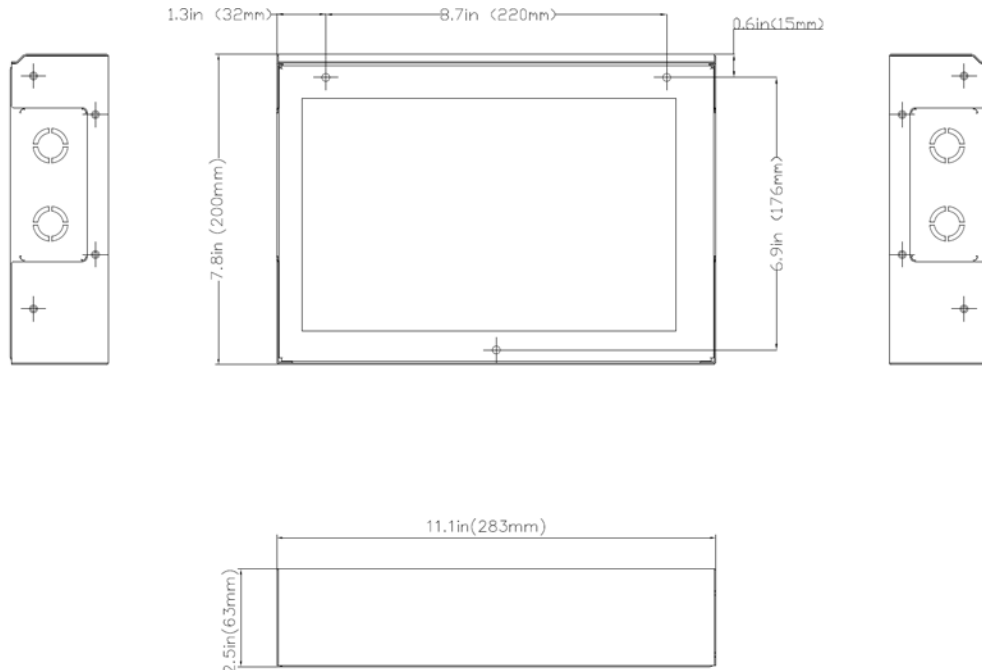
	Compatible
	Not Compatible

Notes: The Indoor unit requires an updated control board for compatibility with the 24V Interface Kit. High Wall units starting with Serial # 4316V10001 are shipped with the compatible control board. Ducted units starting with Serial # 4616V10001 are shipped with the compatible control board. For other model numbers not shown on the table above, please contact your ductless representative.

*Except size 58

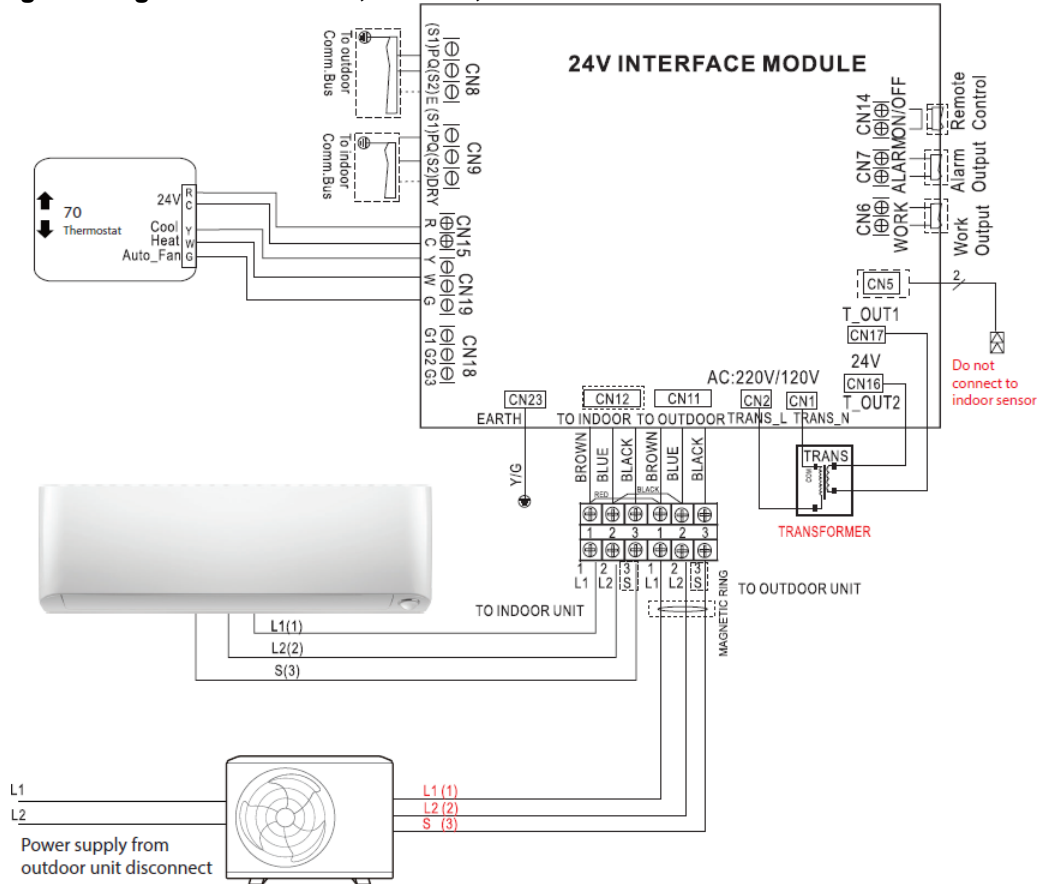
**Except sizes 12 and 58

Construction View



Wiring Diagrams

1. Wiring Diagram Single Zone 38MPRA, 38MA*R, 38MHR or Multi-zone 38MGR Ductless



2. Wiring Diagram Single Zone 38MBR Ductless

