



# Project Submittal

**Project Name:** Westover Animal Clinic  
**Project Number:** 507385  
**Project Altitude:** 500  
**Project Location:**  
 South Hadley, Massachusetts US

**Date:** 12/14/2023  
**Quote:** 392631  
**Roof Top Units:** 0  
**Split Systems:** 3

**Customer:** Zone Res Boston

## Table of Contents

Tag	Qty	Model	Description
<b>AHU/CU-1,2,3</b>	3	14J05	ML14XC1S042-230 Condenser/3.5 Ton/230
	3	10C55	CX35-48C-6F-20 Coil/4TON/CASED
	3	24X52	EL297UH090XV48C/90Btuh/4Ton
<b>Miscellaneous Items</b>			

Revit® Building Information Modeling (BIM) - [Click here](#)

AutoCAD® Templates - [Click here](#)

SUBMITTAL REVIEW	
<input checked="" type="checkbox"/> NO EXCEPTION TAKEN	<input type="checkbox"/> REVISE AND RESUBMIT
<input checked="" type="checkbox"/> MAKE CORRECTIONS NOTED	<input type="checkbox"/> SUBMIT SPECIFIED ITEM
<p>CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN ABOVE, IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR: DIMENSIONS WHICH SHALL BE FABRICATED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES; AND THE SATISFACTORY PERFORMANCE OF HIS WORK.</p>	
<b>WHS ENGINEERING INC.</b> 2012 WEST 25TH STREET, SUITE 200, CLEVELAND, OH 44113	
BY:	DATE:
WHS	12/21/2023

**Notes:**

Coordinate revised breaker size (40A/2P), revised wire size [(2)#8 & (1)#10gnd in 3/4"C) and revised disconnect size (non-fused, 60A, 240V) with E.C.



# Project Submittal

**Tag:** AHU/CU-1,2,3  
**Condenser:** ML14XC1S042-230  
**Evaporator Coil:** CX35-48C-F  
**Furnace:** EL297UH090XV48C

UNIT OVERVIEW						AHRI Reference - 213185141		
Voltage	SEER2 EER2	Tons	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208 Volt 1 Phase / 60Hz	14.7 12.2	3.5			1,440	0.5 / 0.7	80.0 / 67.0	79.9 / 67.0

COOLING			
Cooling Performance		Temperatures (DB/WB °F)	
No Expanded Ratings		Ambient	95.0
		Entering	80.0      67.0
		Leaving – (Coil)	79.9      67.0
		Leaving – (Unit)	79.9      67.0
ARI Performance	Compressors	Refrigerant	Condensate Drain
ARI Cooling      40.0 MBH	Cooling Stages      Single Compressor Qty      1	Type      R-410A Cond Suction Line      7/8 Cond Liquid Line      3/8 Coil Suction Line      7/8 Coil Liquid Line      3/8	Qty      2 Size      0.75 in. Pipe Thread      fpt

HEATING					
Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	86.0 / 56.0 MBH	Leaving	55.3	Thermal Efficiency	97.0%
Input (High/Low)	88.0 / 57.0 MBH			Gas Line Size	0.5 in.
Heat Rise	55.3 °F			Heat Exchange Type	Aluminum

VENTILATION							
Air Flow (cfm)		Supply Fan			Air Resistance (in.WC)		
Supply	1,440	Nominal Power	0.75hp		Total	0.66	
		Drive Type	ECM Variable Speed Constant Volume			Ext Supply	0.50
		Speed	Medium-High DIP Factory Default			Wet Coil	0.16
		Orientation	Upflow/Horizontal				

ELECTRICAL			
Condenser		Furnace	
Voltage	208 Volt 1 Phase / 60Hz	Voltage	120V / 1Ph / 60Hz
MCA	23 amp	MCA	
MOCP	40 amp	MOCP	15.0 amp
Condenser Oper Range-Nom Volt	+/- 10%		
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA					
Condenser		Furnace		Evaporator Coil	
Dimensions	28.25 in. x 28.25 in. x 33.25 in.	Dimensions	29.25 in. x 21.00 in. x 33.00 in.	Dimensions	21.00 in. x 21.00 in. x 28.25 in.
Total Weight	211 lb	Total Weight	157 lb	Total Weight	60 lb



# Project Submittal

Tag: AHU/CU-1,2,3

## Field Installed Accessories

Catalog Number	Qty	Description
93G35	3	Freezestat 3/8 Field Installed
34M72	3	Low Ambient Control (30 Deg) Fan Cycling Field Installed
93M04	3	Compressor Crankcase Heater Field Installed
19L16	3	H/C HCF16-13 MERV 13 REPL FLTR 16X25X5
Y2920	3	H/C HCC16-28 FLTR CABINET17.25 X28.5 X 7
Y8705	3	HN TH6210U2001/U T6 Pro Tstat - 2H 1C

## Product Features

### Cabinet

Heavy gauge galvanized steel cabinet  
Heavy Gauge Cold Rolled Steel Cabinet

### Cooling System

Non Chlorine, Ozone Friendly Refrigerant, R410A  
RFC IV Metering Device furnished (easily removed for expansion valve use)  
High Pressure Switch (Manual Reset)  
Scroll Compressor  
Quantum Coil / Fortified aluminum allow tube/enhanced fin coil  
Hi-Capacity Drier factory installed in liquid line  
Low Pressure Switch  
Twin Coils assembled in an "A" configuration  
Check and Expansion Valve is factory installed

### Heating System

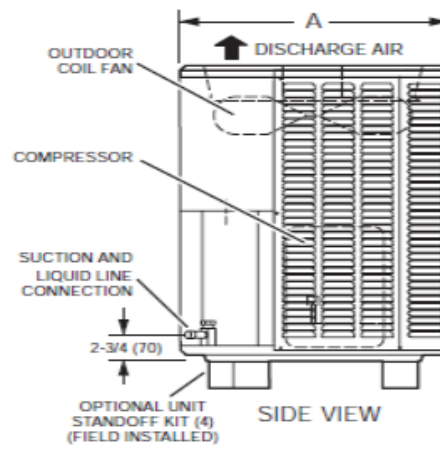
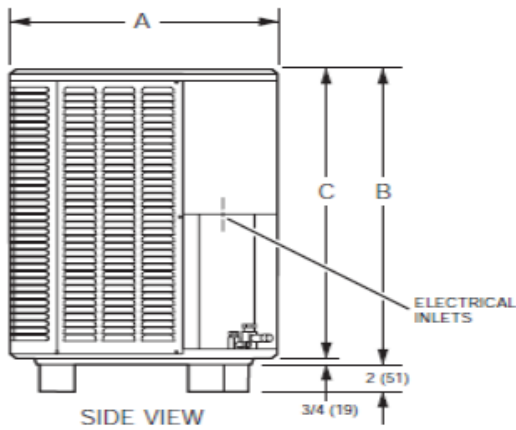
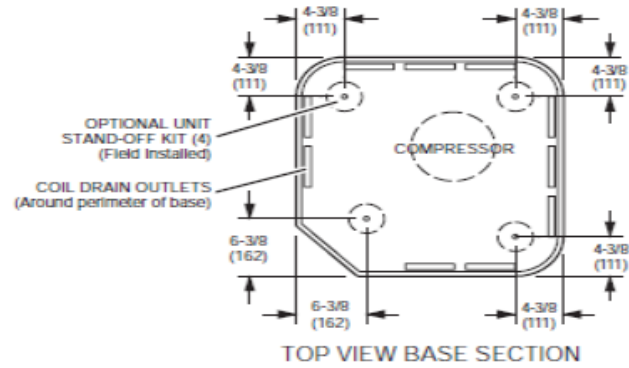
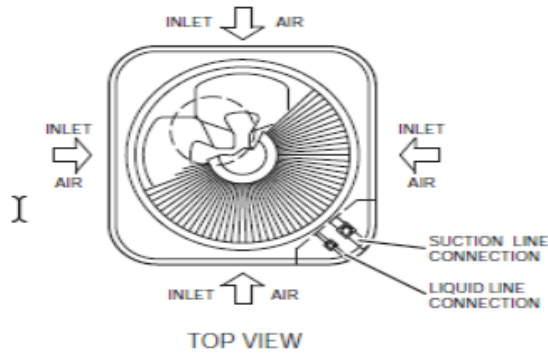
Aluminized Steel Inshot Burners  
Aluminized Steel Tubular Heat Exchanger  
SureLight(R) Hot Surface Ignition  
Furnace Limited Warranty 10 Years Comm

### Warranty

Condenser Limited compressor warranty of 5 years for Residential Installations  
Condenser See Limited Warranty Certificate included with unit for details  
Condenser Limited compressor warranty of 5 years for Non-Residential Installations  
Condenser Limited warranty on all covered components of 1 year in Non-Residential Installations  
Coil See Limited Warranty Certificate included with unit for details  
Coil Limited warranty on all other covered components of 1 year (Comm Use)  
Furnace See Limited Warranty Certificate included with unit for details  
Furnace Limited warranty on heat exchanger of 20 years  
Furnace Limited warranty on all other covered components of 1 year (Comm Use)  
Furnace Limited warranty on Surelight ignition control system of 1 Year (Comm Use)



# Project Submittal



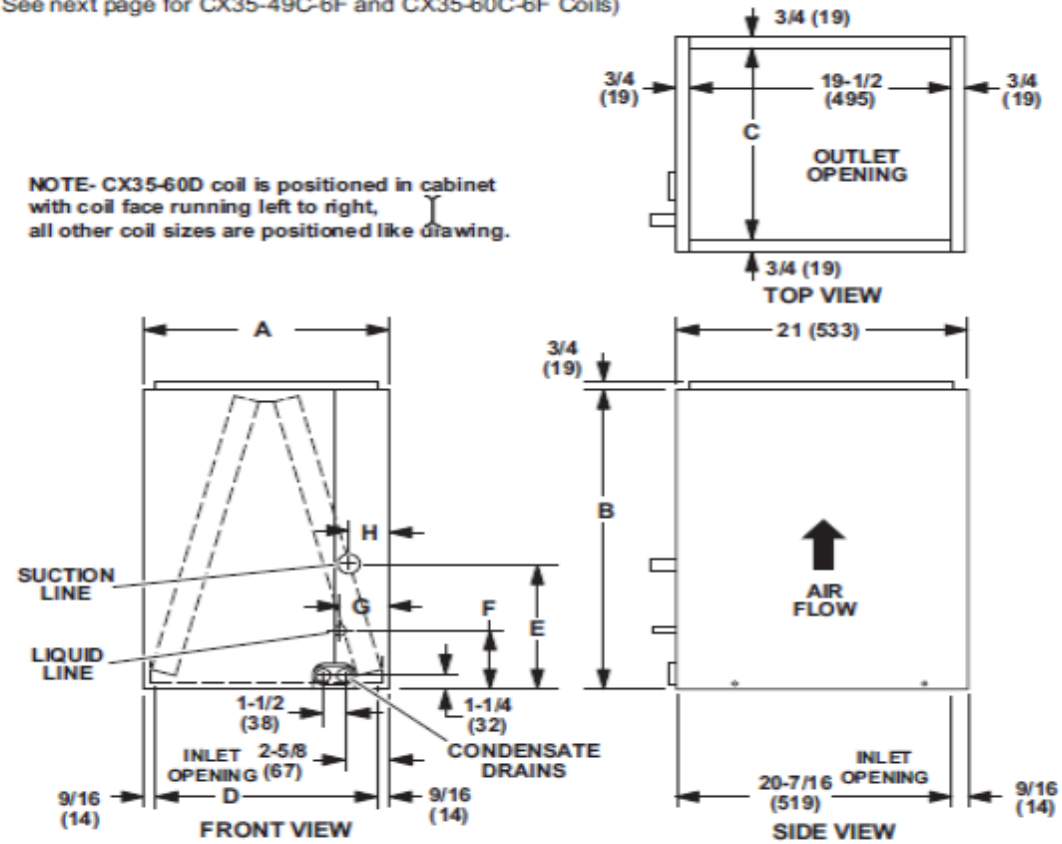
Model	A		B		C	
	inches	mm	inches	mm	inches	mm
018	24-1/4	616	29-1/4	743	28-1/2	724
024	28-1/4	718	29-1/4	743	28-1/2	724
030	28-1/4	718	37-1/4	946	36-1/2	927
036	28-1/4	718	33-1/4	845	32-1/2	826
041	28-1/4	718	37-1/4	946	36-1/2	927
042	28-1/4	718	37-1/4	946	36-1/2	927
047	32-1/4	817	33-1/4	845	32-1/2	826
048	28-1/4	718	37-1/4	946	36-1/2	927
059	32-1/4	817	43-1/4	1099	42-1/2	1080
060	32-1/4	817	43-1/4	1099	42-1/2	1080



# Project Submittal

CX35-24(A/B), -30(A/B), -48(B/C), -50/60C and -60D Coils  
 (NOTE - See next page for CX35-49C-6F and CX35-60C-6F Coils)

NOTE- CX35-60D coil is positioned in cabinet with coil face running left to right, all other coil sizes are positioned like drawing.



Model Number	A		B		C		D		E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
CX35-24A-6F	14-1/2	368	18-1/2	470	13	330	13-3/8	340	9-3/4	248	3-5/8	92	2-5/8	66	2-3/8	60
CX35-24B-6F	17-1/2	445	18-1/2	470	16	406	16-3/8	416	9-3/4	248	3-5/8	92	2-5/8	66	2-3/8	60
CX35-30A-6F	14-1/2	368	22-1/2	572	13	330	13-3/8	340	11-1/2	292	3-5/8	92	2-5/8	66	2-3/8	60
CX35-30B-6F	17-1/2	445	22-1/2	572	16	406	16-3/8	416	11-1/2	292	3-5/8	92	2-5/8	66	2-3/8	60
CX35-48B-6F	17-1/2	445	27-1/2	699	16	406	16-3/8	416	12-1/2	318	3-5/8	92	2-5/8	66	2-3/8	60
CX35-48C-6F	21	533	27-1/2	699	19-1/2	495	19-7/8	505	12-1/2	318	3-5/8	92	2-5/8	66	2-3/8	60
CX35-50/60C-6F	21	533	27-1/2	699	19-1/2	495	19-7/8	505	12-1/2	318	3-5/8	92	2-5/8	66	2-3/8	60
CX35-60D-6F	24-1/2	622	29-1/2	749	23	584	23-3/8	594	10	254	3-5/8	92	2-5/8	66	2-3/8	60

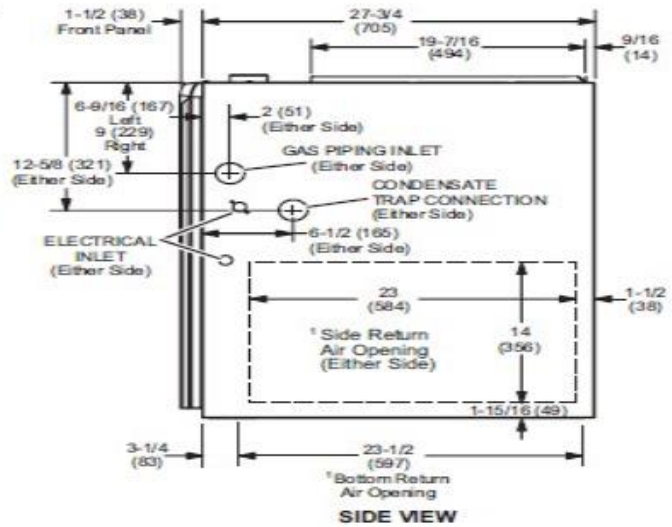
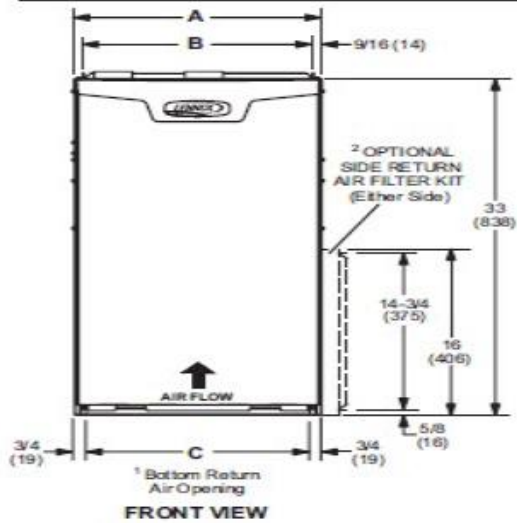
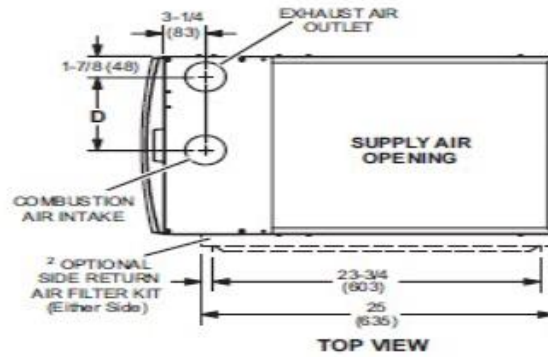
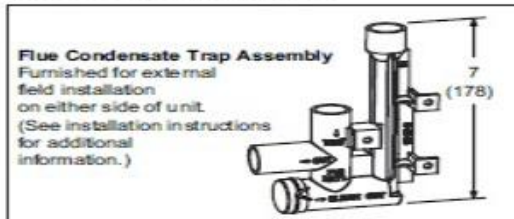
## DIMENSIONS

## UNIT - UPFLOW POSITION

<sup>1</sup> NOTE - 60C and 60D size units that require air volumes over 1800 cfm must have one of the following:

1. Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch (508 x 635 x 25 mm) air filter to maintain proper velocity.
  2. Bottom return air.
  3. Return air from both sides.
  4. Bottom and one side return air.
- See Blower Performance Tables for additional information.

<sup>2</sup> Optional Side Return Air Filter Kit is not for use with the Optional Return Air Base.



Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
EL297UH045XV36B	17-1/2	446	16-3/8	416	16	406	7-5/8	194
EL297UH070XV36B								
EL297UH090XV36C	21	533	19-7/8	505	19-1/2	495	9-3/8	238
EL297UH090XV48C								
EL297UH090XV60C								
EL297UH110XV48C								
EL297UH110XV60C								
EL297UH135XV60D	24-1/2	622	23-3/8	594	23	584	11-1/8	283



# Project Submittal

**Tag:** Miscellaneous Items

## Miscellaneous Items

Tag	Catalog Number	Qty	Description
AC/CU-A			
	22B16	1	MLB018S4S-1P LOW AMB SZ ODU 18K 208/230V
	22B24	1	MWMC018S4-1P MS IDU Wall 18k 208/230V
	Y7949	1	DI Mini-Split Cond Pump 230V



# SUBMITTAL DATA – WALL MOUNTED

## MLB018S4S-1P – MWMC018S4-1P

SINGLE ZONE MINI-SPLIT HEAT PUMP

Job: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Schedule No.: \_\_\_\_\_  
 System Designation: \_\_\_\_\_

Engineer: \_\_\_\_\_  
 Architect: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 For:  Reference  Approval  Review  Construction

### FEATURES

Outdoor Unit: MLB018S4S-1P



- DC Inverter Control
- Compressor Overcurrent Protection
- Base Dancer
- Defrost Control

Indoor Unit: MWMC018S4-1P



- Pre-Heat Function
- Auto Restart
- Three Selectable Fan Speeds
- Flare Connections
- LED Readout
- Multi-Refrigerant Outlet
- Wireless Remote Included

### PIPING

#### Line Set and Elevation Guidelines

Maximum Line Set Length ft. (m)	98 (30)
Maximum Elevation - Outdoor Unit Below/Above Indoor Unit ft. (m)	66 (20)
Liquid Line Set Diameter (in.)	1/4
Gas Line Set Diameter (in.)	1/2
Pre-Charged (ft.)	25
Additional Charge of Refrigerant (oz/ft.)	0.16

### PRODUCT WARRANTY

Compressor – Twelve year limited warranty\*  
 All other covered components - Twelve year limited warranty\*  
 \*Product registration required

### OPTIONAL ACCESSORIES

Non-Programmable Controller (M0STAT61Q-1)  
 Non-Programmable Controller (M0STAT120L-1)  
 Programmable Controller (M0STAT64Q-2)  
 Hail Guard Set (M9GARD23Q-1/24M85)



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# SUBMITTAL DATA – WALL MOUNTED

## MLB018S4S-1P – MWMC018S4-1P

### SINGLE ZONE MINI-SPLIT HEAT PUMP

#### OUTDOOR SPECIFICATIONS

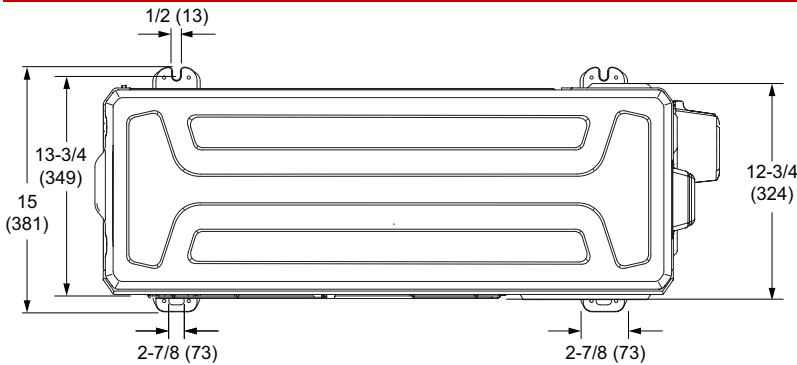
PERFORMANCE	
Cooling Capacity (Max/Min) (Btu/h) <sup>1</sup>	18,000 (19,400/8,870)
EER2	12.5
SEER2	21.5
Heating Capacity (Max/Min) (Btu/h) <sup>1</sup>	18,000 (19,500/15,100)
HSPF2	11.2
Outdoor Fan Total Air Volume (CFM)	1,355
Ambient Temperature Operating Range	
Cooling	-22°F - 122°F
Heating	-22°F - 86°F
ELECTRICAL DATA	
Power Supply (V/Hz/Φ)	208-230/60/1
Minimum Circuit Ampacity (A)	16
Maximum Overcurrent Protection (A)	25
Outdoor Fan Motor RLA (A)	0.76
No. of Compressors	1

GENERAL DATA		
Connection Ratio (%)		100%
Max. # of Indoor Units		1 unit
Sound Data (dBA) - Cooling/Heating		59/59
Refrigerant type		R-410A
Factory refrigerant charge		4 lbs. 1 oz.
DIMENSIONS		
Unit Dimensions (in)	Height	26-1/2
	Width	37-5/8
	Depth	15
Shipping Weight (lb)		108
Net Weight (lb)		101

#### NOTES

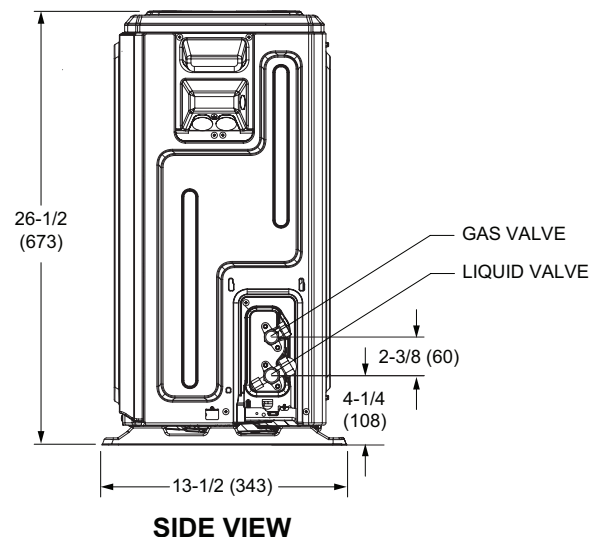
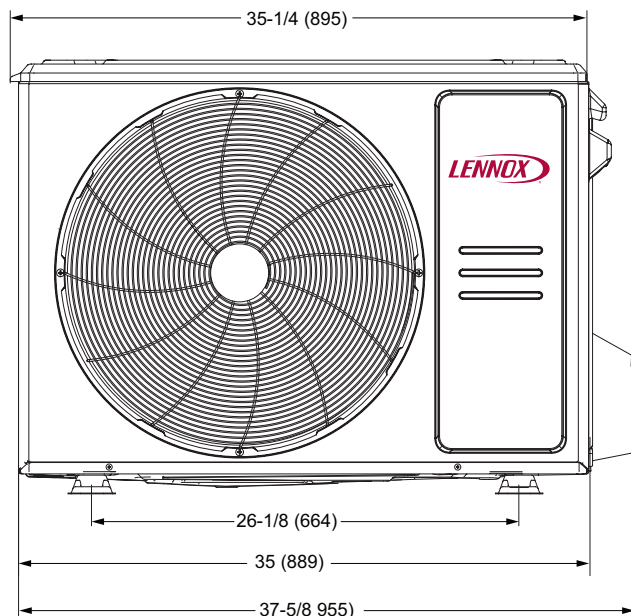
- Cooling and Heating Capacity data is rated at the following conditions:  
 Cooling: 80°FDB / 67°FWB Indoor, 95°FDB Outdoor  
 Heating: 70°FDB Indoor, 47°FDB / 43°FWB Outdoor

#### OUTDOOR DIMENSIONAL DRAWINGS - INCHES (MM)



TOP VIEW

FRONT VIEW



SIDE VIEW

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# SUBMITTAL DATA – WALL MOUNTED

## MLB018S4S-1P – MWMC018S4-1P

### SINGLE ZONE MINI-SPLIT HEAT PUMP

#### INDOOR SPECIFICATIONS

PERFORMANCE		
AIR FLOW (CFM)	High	524
	Medium	376
	Low	306
SOUND PRESSURE (dBA)	High	46.5
	Medium	43
	Low	32.5

DIMENSIONS		
Unit Dimensions (in)	Height	12-1/2
	Width	40
	Depth	9-1/2
Shipping Weight (lb)		36
Net Weight (lb)		27

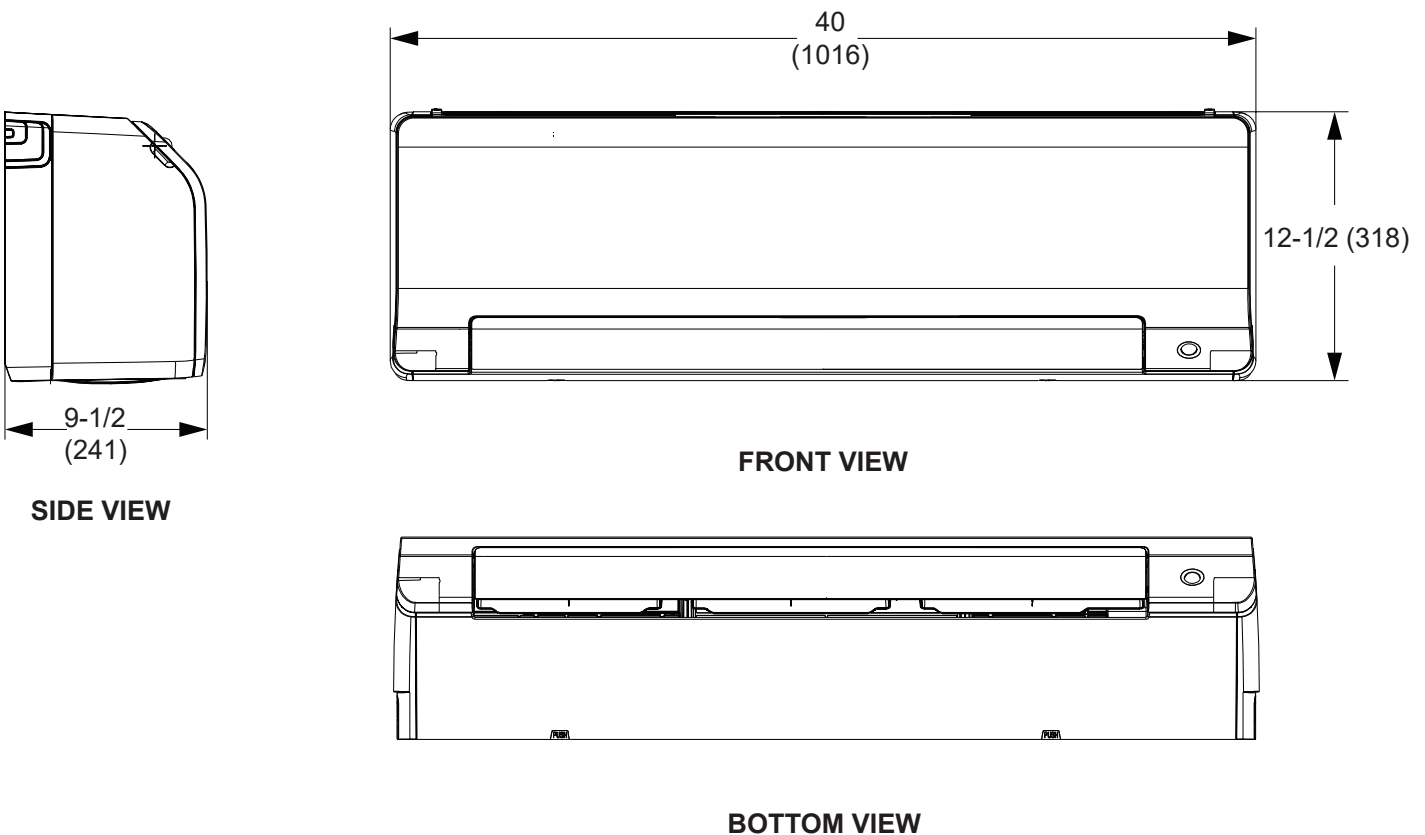
#### ELECTRICAL DATA

Power Supply (V/Hz/Φ)	Supplied by ODU
Rated Load Amps (RLA)	0.13
Power Output (W)	30

#### NOTES

1. Cooling and Heating Capacity data is rated at the following conditions:  
 Cooling: 80°FDB / 67°FWB Indoor, 95°FDB Outdoor  
 Heating: 70°FDB Indoor, 47°FDB / 43°FWB Outdoor

#### INDOOR DIMENSIONAL DRAWINGS - INCHES (MM)



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# SUBMITTAL DATA - **WALL-MOUNTED** **MWMC018S4-1P**

## **MULTI-ZONE MINI-SPLIT HEAT PUMP**

**Job:** \_\_\_\_\_

**Location:** \_\_\_\_\_

**Schedule No.:** \_\_\_\_\_

**System Designation:** \_\_\_\_\_

**Engineer:** \_\_\_\_\_

**Architect:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**For:** Reference Approval Review Construction

### FEATURES

- Pre Heat Function
- Multi-Refrigerant Outlet
- Flare Connections
- Refrigerant R-410A
- Auto Restart
- Three Speed Fan
- LED Readout Panel
- Wireless Remote Controller included

### Product Warranty

All covered components - Twelve year limited warranty.  
Product registration required.

### SPECIFICATIONS

#### PERFORMANCE

Cooling Capacity <sup>1</sup> (Btu/h)		18,000
Heating Capacity <sup>1</sup> (Btu/h)		18,000
Airflow (CFM)	High	524
	Medium	476
	Low	306
External Static Pressure (in. w.g.)		-
Sound Pressure (dBA)	High	46.5
	Medium	43.0
	Low	32.5

#### ELECTRICAL DATA

Power Supply (V/Hz/Φ)	208-230/60/1
Rated load amps (RLA)	0.13
Power Output (W)	30

#### DIMENSIONS

Unit Dimensions (in)	Height	12-1/2
	Width	40
	Depth	9-1/2
Liquid Pipe Connection (in)		1/4
Gas Pipe Connection (in)		1/2
Condensate drain connection (in)		1
Unit Shipping Weight (lb)		36
Unit Net Weight (lb)		27



### OPTIONAL ACCESSORIES

Non-Programmable Controller (M0STAT61Q-1)	
Non-Programmable Controller (M0STAT120L-1)	
Programmable Controller (M0STAT64Q-2)	

### NOTES

- Cooling and Heating capacity data is rated at the following conditions:  
Cooling: 80°FDB / 67°FWB Indoor, 95°FDB Outdoor  
Heating: 70°FDB Indoor, 47°FDB / 43°FWB Outdoor

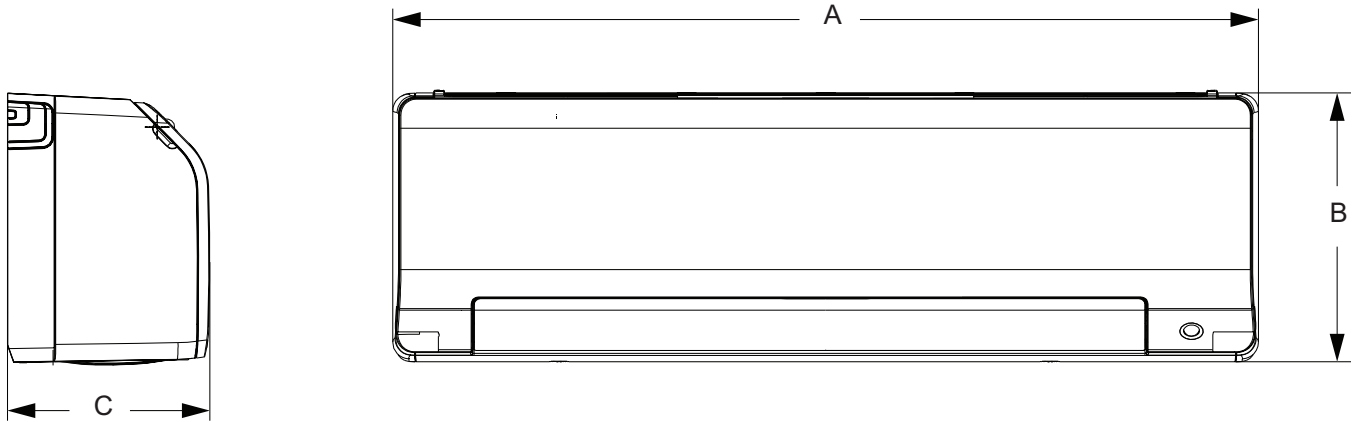


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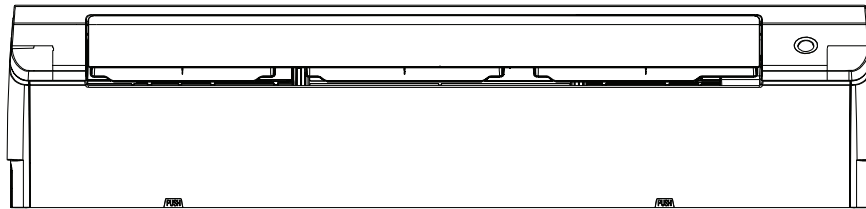
SUBMITTAL DATA – **WALL-MOUNTED**  
**MWMC018S4-1P**  
**MULTI-ZONE MINI-SPLIT HEAT PUMP**

**DIMENSIONAL DRAWINGS - INCHES (MM)**



**SIDE VIEW**

**FRONT VIEW**



**BOTTOM VIEW**

Size	A		B		C	
	in.	mm	in.	mm	in.	mm
MWMC009, 012	33-3/8	848	11-3/4	298	9	229
MWMC018	40	1016	12-1/2	318	9-1/2	241
MWMC024, 030	46-7/8	1191	14-5/8	371	11	279

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# Submittal

## Job Name

Westover Animal Clinic Relocation

## PRODUCTS

Westover Animal Clinic Relocation – South Hadley

## Contractors

Industrial Technical Services (ITS) Westfield

Please note – Roof slope required for release.



**COOK**  
cUL US



MARK: EF-1-3

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

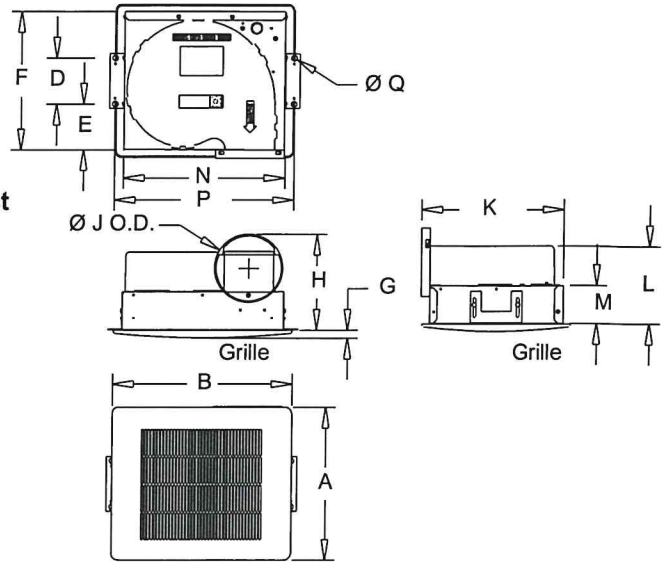
DATE: 12/18/2023

# GEMINI

## Ceiling Fans 100 Series

### STANDARD CONSTRUCTION FEATURES:

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated 2-speed motor with built-in thermal overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
3	GC-146	75	.290	844	31	FSC

Altitude (ft): 1270 Temperature (F): 70

### Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.313

### Accessories:

FAN SPEED CONTROLLER 5 AMP 120 VOLT  
WHITE PLASTIC GRILLE  
INTEGRAL BD DAMPER  
GEMINI ISOLATOR KIT - ISOLATORS  
ROOF CURB RCG 16-13.5H SLP 4/12

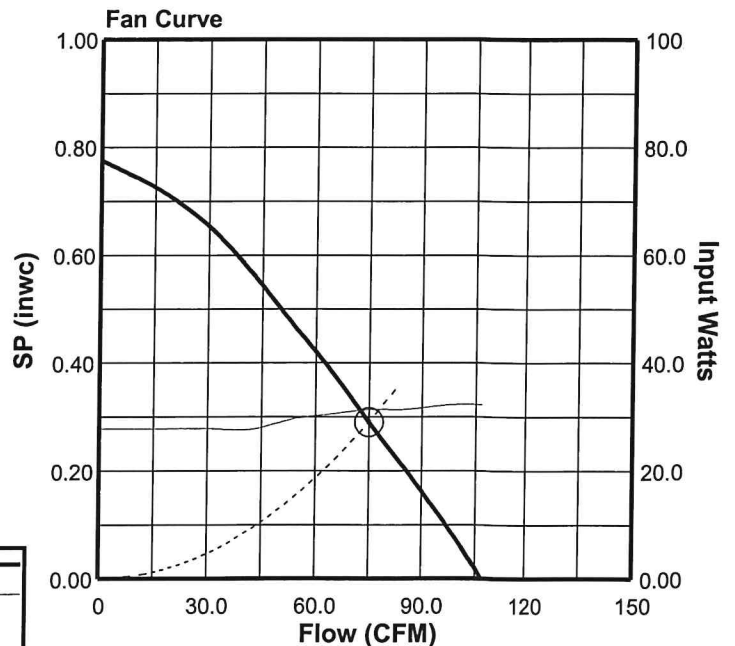
### Dimensions (inches)

A Plastic	13-1/4	M	3-1/4
B Plastic	15-1/2	N	14
D	4	P	15-1/2
E	4	Q	1/2
F	12		
G	5/8		
H	8-3/8		
J O.D.	5-15/16		
K	12-3/4		
L	6-11/16		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	43	Unit	40
----------------	----------	----	------	----

\*\*\*Includes fan, motor & accessories.



### Fan Curve Legend

CFM vs SP	—
CFM vs Watts	- - -
Point of Operation	○
System Curve	-----



# COOK

## FSC

### Fan Speed Controls

#### STANDARD CONSTRUCTION FEATURES:

**PRODUCT DESCRIPTION** - Through the "Quadrac" integrated semi-conductor device it is now possible to offer this system with many advantages. Fewer semi-conductor parts mean greater reliability and the passivation process used in the manufacture of the semi-conductor insures long life.

Printed circuit construction eliminates wiring difficulties and guarantees workmanship.

All of these factors serve to offer the most important of all features - quality.

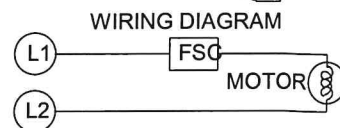
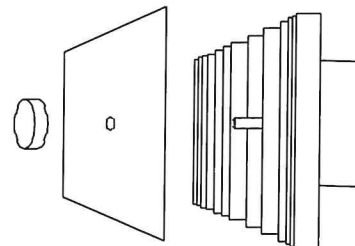
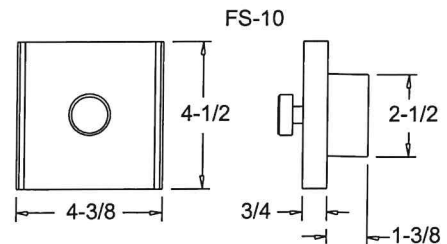
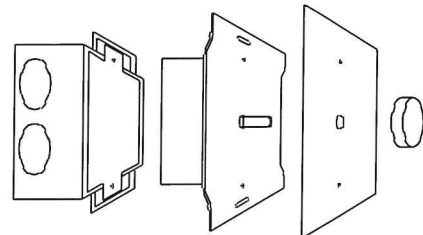
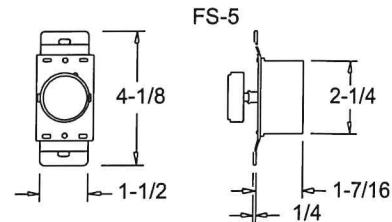
**SPEED CONTROL** - Positive Off/On action in the control dial. Speed range set to the customer's requirements. **CONTROL RATING** - 120 volts, 60 cycles, 1 phase. Maximum ambient temperature - 120 degree F (5 AMP, 10 AMP, 15 AMP). 220/240 volt, 50/60 cycles, 1 phase. Maximum ambient temperature - 120 degree F (5 AMP, 10 AMP). 220/240 volt model not UL listed. Fan cannot have UL listing if furnished with prewired 220/240 volt FSC. 277 volt, 60 cycles, 1 phase.

Maximum ambient temperature - 120 degree F (5 AMP). **WARNING** - Power must be turned off before installing this unit. **STANDARD INSTALLATION** - Fits any standard single gang box.

Turn off power and connect the two wires on the control to the two switch wires in the usual manner. The connection box is not supplied. **SPECIAL FEATURES** - Complete range control, solid state "Quadrac" integrated circuitry, solid state construction for long reliable operating life, saves on electric bills.

#### Dimensions (inches)

Mark	Qty	Description
EF-1-3	3	FSC 5 AMP 120 VOLT



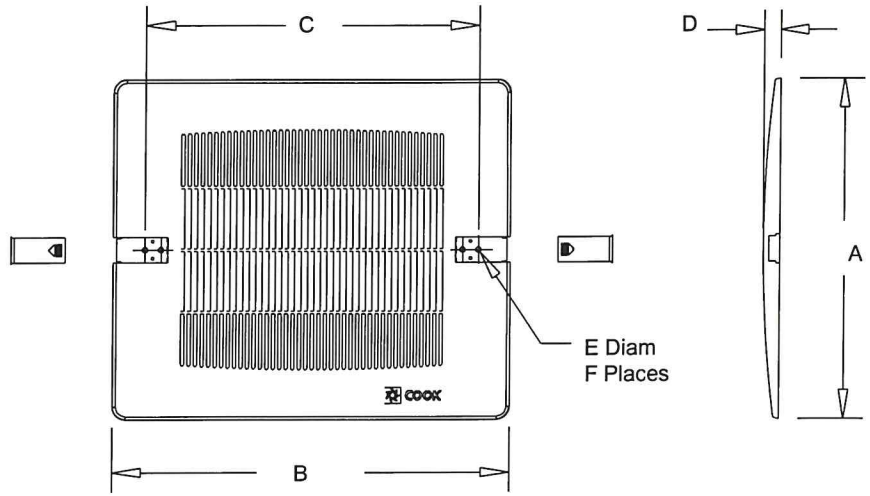


# COOK

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

DATE: 12/18/2023

## GEMINI PLASTIC GRILLE



### Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E Diam	F Places
EF-1-3	3	WHITE PLASTIC GRILLE	13-1/4	15-1/2	13	1/4	1/4	4

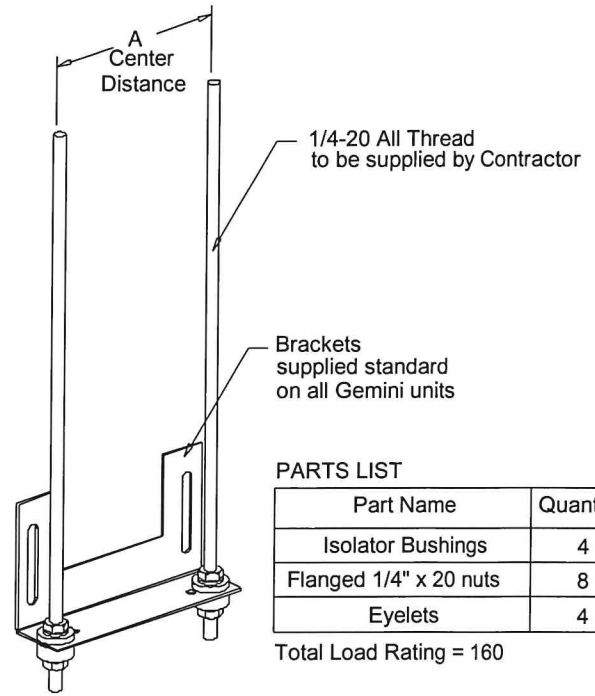


# COOK

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...
DATE: 12/18/2023

## GEMINI

Gemini Isolator Kit  
GIK  
Rubber In Shear



### Dimensions (inches)

Mark	Qty	Description	Part #	A
EF-1-3	3	GEMINI ISOLATO	GIK	4



## RCG SLOPED

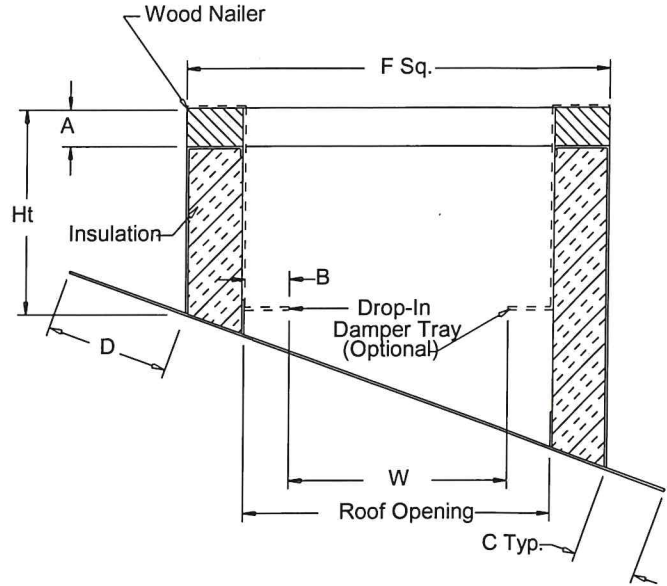
### Galvanized Steel Roof Curb

#### STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2", 3 lbs.  
density thermal and acoustical insulation -  
Continuously welded corners - Wood nailer.

#### Options:(As noted below\*)

- 1) No wood nailer (deduct 1-1/2" for actual height)
- 2) Drop-in damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.



#### Dimensions (inches)

Mark	Qty	Description	Ht	Options* Rise/Run	A	B	C	D	F Sq.	W Sq.	Roof Opening
EF-1-3	3	RCG 16	13.5	4/12	1.5	1.875	2	6	16.5	9.75	13.5 X 13.5



# COOK

MARK: CAPS EF-1-3

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

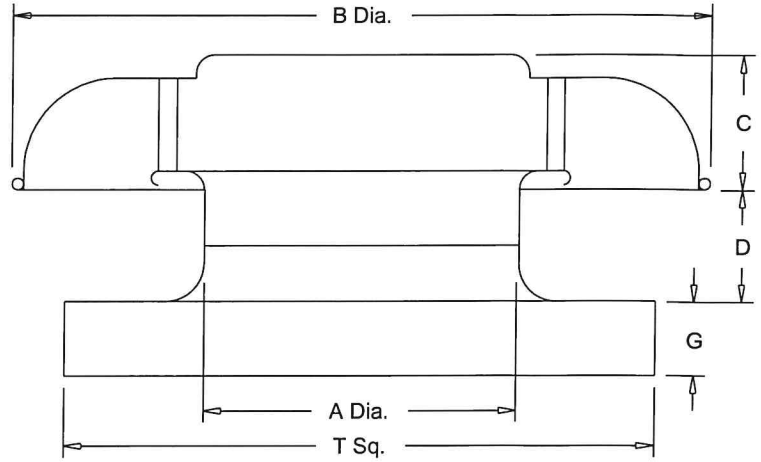
DATE: 12/18/2023

## PR

### Spun Aluminum Intake/Relief Ventilator

#### STANDARD CONSTRUCTION FEATURES:

All aluminum construction - Anti-backdraft flange - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)
3	8 PR	247	.050

Altitude (ft): 1270 Temperature (F): 70

#### Accessories:

BIRDSCREEN

#### Dimensions (inches)

A Dia.	8-5/8
B Dia.	18-3/4
C	4-5/8
D	3-1/2
G	2
T Sq.	18
Roof Open.	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	11	Unit	7
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\*\*\*Includes accessories.



# COOK



MARK: EF-4

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

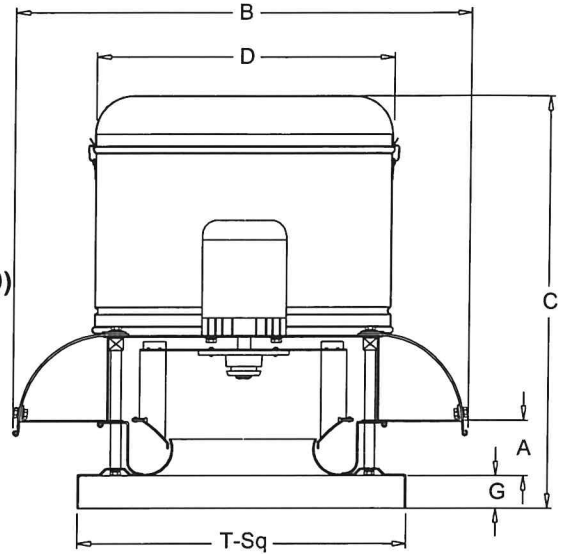
DATE: 12/18/2023

## ACE-D VF

**Downblast Centrifugal Exhaust Ventilator**  
**Roof Mounted/Direct Drive**  
**Electronically Commutated Vari-Flow® Motor**

**STANDARD CONSTRUCTION FEATURES:**

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300)  
- Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



**Performance**

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	135C17DOR92VF	550	.500	996	.109	n/a(<1HP)	EC

Altitude (ft): 1270 Temperature (F): 70

**Motor Information**

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/4	1725	115/1/60	OPEN -EC	3.2



\*Motor programmed to max speed of 1292 RPM.  
RLA based on motor manufacturer's data at programmed HP and max RPM.  
Motor is electronically/thermally protected.

**Accessories:**

- FAN MOUNTED SPEED CONTROL
- ORIFICE PLATE 92
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N SL-4:12

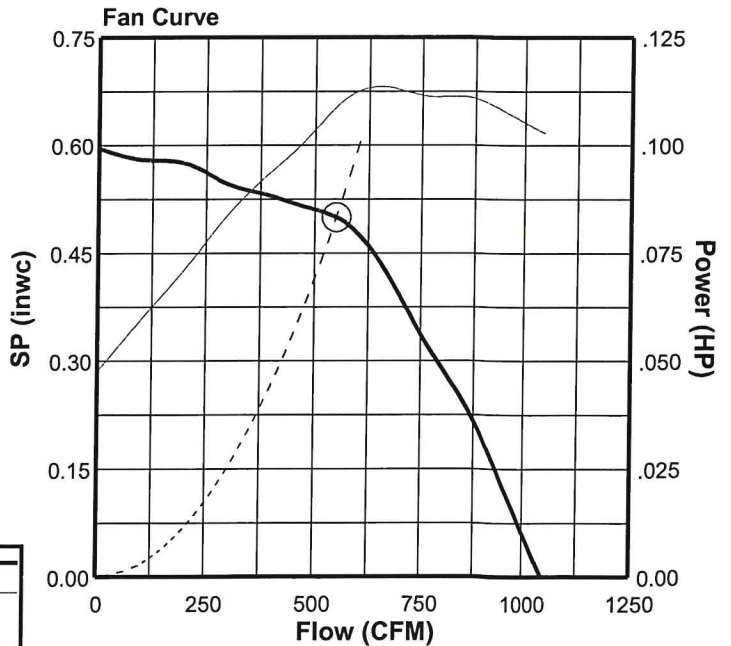
**Dimensions (inches)**

A	1-15/16
B O.D.	28-7/16
C	28-11/16
D O.D.	20-3/8
G	2
T Sq.	20
Roof Open. Sq.*	15-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	90	Unit	74
----------------	----------	----	------	----

\*Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.



**Fan Curve Legend**

CFM vs SP	—
CFM vs HP	- - -
Point of Operation	○
System Curve	- - - - -



# COOK

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

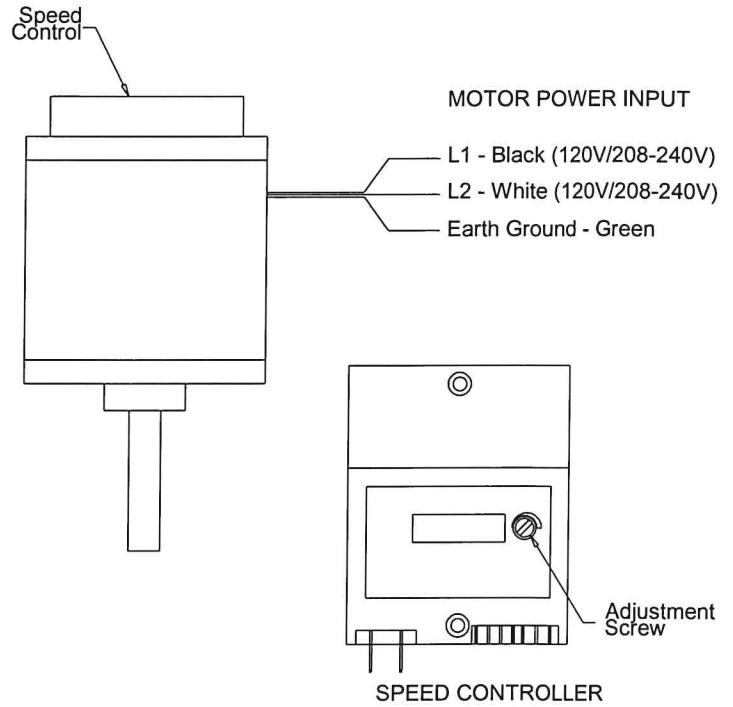
DATE: 12/18/2023

## Speed Control

### Internal Speed Control Electronically Commutated (EC) Motor Type N

#### STANDARD CONSTRUCTION FEATURES:

Some motors come with a factory programmed maximum RPM for specific applicaitons - Integral potentiometer with slotted screw for speed adjustment.



#### Dimensions (inches)

Mark	Qty	Description
EF-4	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC



# COOK

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

DATE: 12/18/2023

## BD

### Gravity Backdraft Damper

#### STANDARD CONSTRUCTION FEATURES:

.020 Aluminum blades - .060 aluminum frame -  
Aluminum hinge pins - Nylon bushings.

#### Notes:

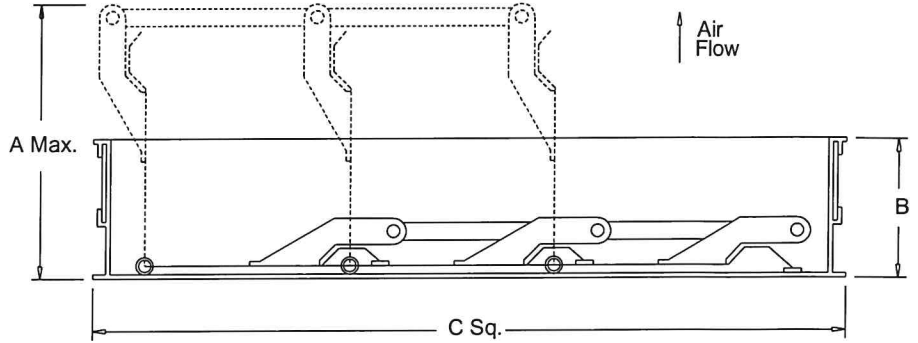
Max. operating temperature 200 Deg F (95 Deg C).

Max. discharge velocity 2000 fpm.

Sizes 36 thru 60 are shipped as 2 panels.

Sizes 66 and 78 are shipped as 6 panels.

These may require assembly.



#### Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
EF-4	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1



**COOK**

PROJECT: NVA#233 WESTOVER ANIMAL CLINIC RELO...

DATE: 12/18/2023

# RCG SLOPED

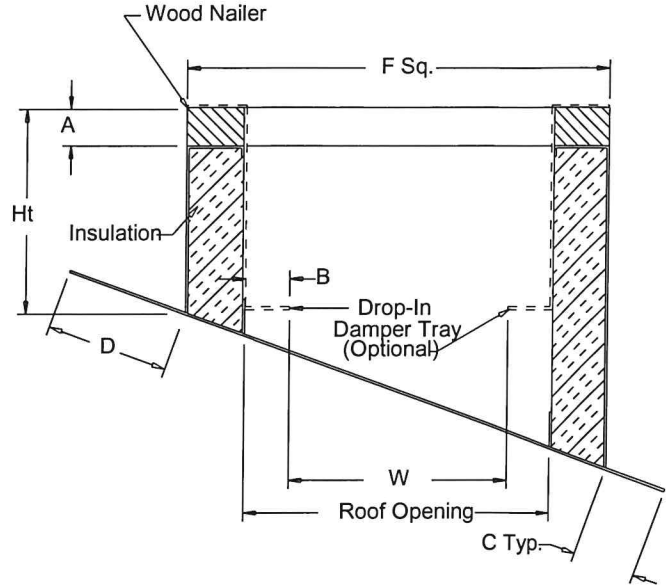
## Galvanized Steel Roof Curb

### STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2", 3 lbs. density thermal and acoustical insulation - Continuously welded corners - Wood nailer.

### Options:(As noted below\*)

- 1) No wood nailer (deduct 1-1/2" for actual height)
- 2) Drop-in damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.



### Dimensions (inches)

Mark	Qty	Description	Ht	Options* Rise/Run	A	B	C	D	F Sq.	W Sq.	Roof Opening
EF-4	1	RCG 18	13.5	2; 4:12	1.5	1.875	2	6	18.5	11.75	15.5 X 15.5



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***SUBMITTAL***

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**PROJECT:** Westover Animal Clinic  
South Hadley, MA

**ARCHITECT:** VOCON

**ENGINEER:** whs

**CONTRACTOR:**

**DESCRIPTION:** Dryer Booster Fan

**MANUFACTURER:** Soler&Palau

**SPEC SECTION:**

**SUBMITTAL #:** 14479

**DATE:** December 18, 2023

**SUBMITTED BY:** Mike Casey



**ADVANCING VENTILATION®**

# MODEL PV-POWERVENT

For High Static Pressure Applications

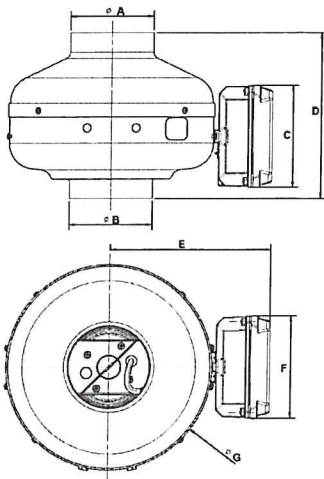


## FEATURES

- Exhaust air up to 942 CFM with static pressure capabilities to 1-1/2" w.g.
- Galvanized steel casing with black baked enamel coating
- Pre-wired junction box
- Ideal for applications where space is limited
- Non-overloading backward inclined wheel for efficiency at higher static pressures
- AMCA Seal for Air Performance
- cULus Listed



## DIMENSIONS IN INCHES/MM



Model	A	B	C	D	E	F	G	Weight lbs/(kg)
PV-100x	3 <sup>13/16</sup> 97.5	3 <sup>13/16</sup> 97.5	4 <sup>3/4</sup> 120	7 <sup>1/16</sup> 196	7 <sup>1/2</sup> 190	4 <sup>3/4</sup> 120	9 <sup>9/16</sup> 243	7 3.0
PV-125x	4 <sup>13/16</sup> 122.5	4 <sup>13/16</sup> 122.5	4 <sup>3/4</sup> 120	7 <sup>13/16</sup> 198	7 <sup>1/2</sup> 190	4 <sup>3/4</sup> 120	9 <sup>9/16</sup> 243	7 3.0
PV-150x	5 <sup>13/16</sup> 147	5 <sup>13/16</sup> 147	4 <sup>3/4</sup> 120	8 <sup>7/16</sup> 214	9 <sup>5/16</sup> 236	4 <sup>3/4</sup> 120	13 <sup>1/8</sup> 334	11 5.0
PV-200x	7 <sup>13/16</sup> 198	7 <sup>13/16</sup> 198	4 <sup>3/4</sup> 120	8 <sup>3/4</sup> 223	9 <sup>5/16</sup> 236	4 <sup>3/4</sup> 120	13 <sup>1/8</sup> 334	11 5.0
PV-250x	9 <sup>3/4</sup> 248	9 <sup>3/4</sup> 248	4 <sup>3/4</sup> 120	8 <sup>1/16</sup> 205	9 <sup>5/16</sup> 236	4 <sup>3/4</sup> 120	13 <sup>1/8</sup> 334	13 6.0
PV-315	12 <sup>5/16</sup> 312	12 <sup>5/16</sup> 312	4 <sup>3/4</sup> 120	9 <sup>3/16</sup> 233	10 <sup>9/16</sup> 269	4 <sup>3/4</sup> 120	15 <sup>13/16</sup> 401	21 10.0
PV-315x	12 <sup>5/16</sup> 312	12 <sup>5/16</sup> 312	4 <sup>3/4</sup> 120	9 <sup>3/16</sup> 233	10 <sup>9/16</sup> 269	4 <sup>3/4</sup> 120	15 <sup>13/16</sup> 401	21 10.0

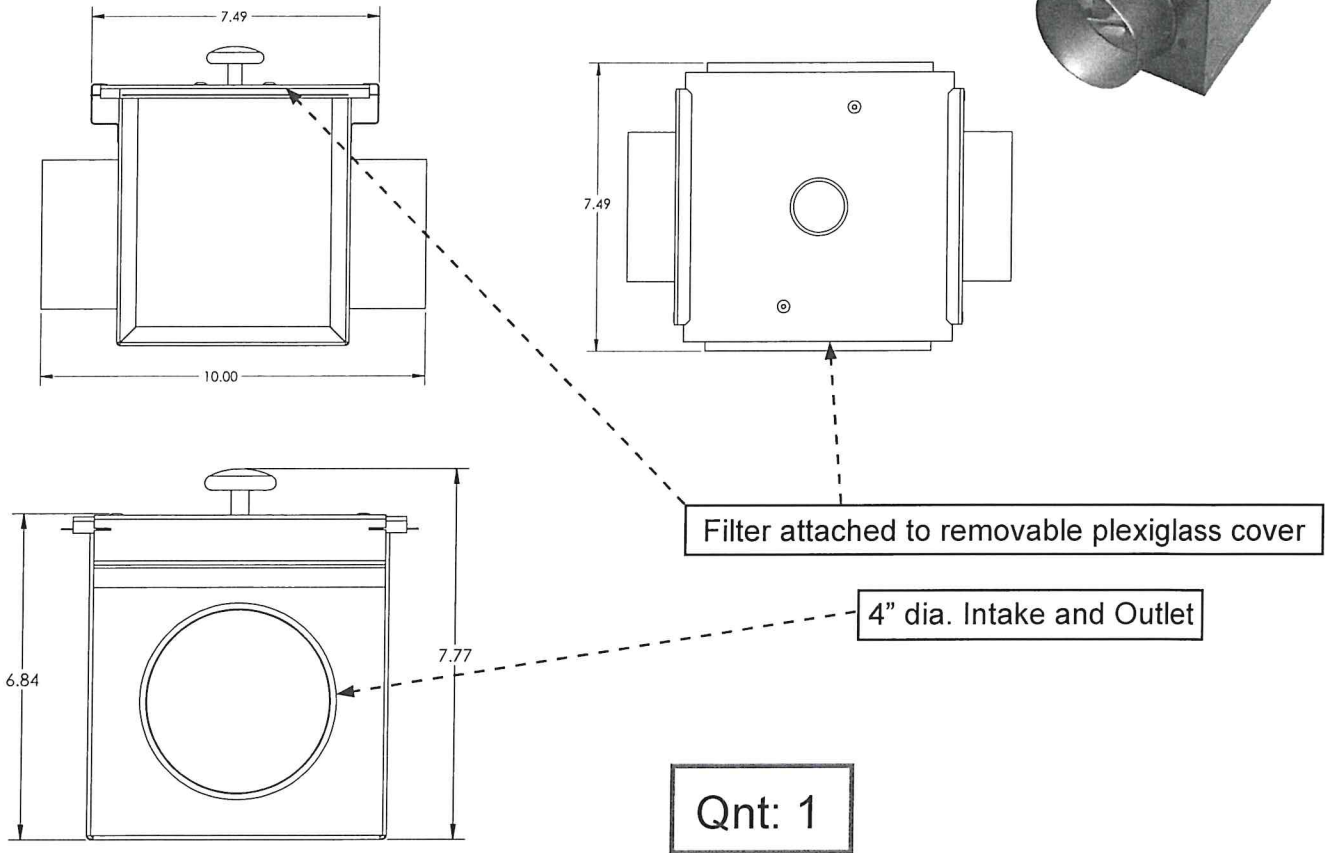
## SPECIFICATIONS

Model	Duct (IN)	Max CFM	Voltage/Frequency	Max Watts	Current	Max SP	Max Temperature of Transported air
PV-100X	4	153	115V/60Hz	84W	0.8A	1.85"	158°F
PV-125X	5	206	115V/60Hz	85W	0.8A	1.77"	158°F
PV-150X	6	390	115V/60Hz	135W	1.0A	2.05"	158°F
PV-200X	8	544	115V/60Hz	180W	1.76A	2.64"	158°F
PV-250X	10	618	115V/60Hz	214W	1.5A	2.8"	158°F
PV-315	12.4	669	115V/60Hz	200W	1.5A	2.21"	158°F
PV-315X	12.4	943	115V/60Hz	365W	2.4A	3.9"	158°F



P: 800.961.7370  
www.solerpalau-usa.com

## LT-100 - Lint Trap



Pressure drop across LT-100 Lint Trap (when clean) is .05" SP.

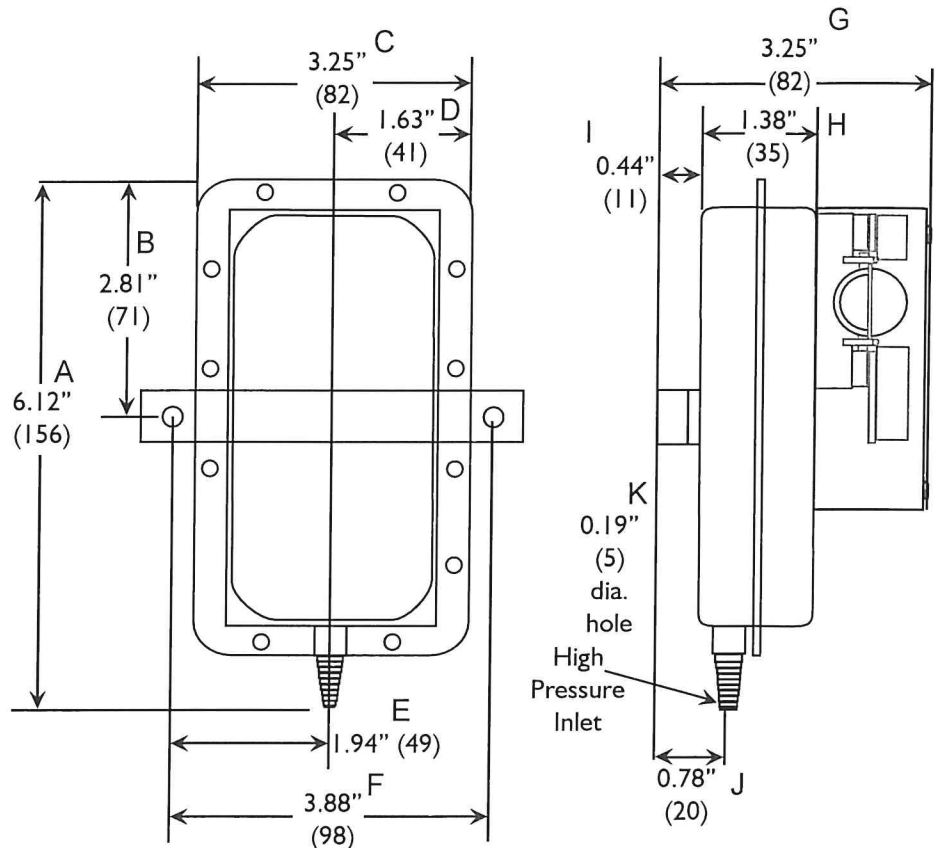
For more information contact us at [www.solerpalau-usa.com](http://www.solerpalau-usa.com) or 1.800.961.7370 for additional submittal drawings.

Soler & Palau will not be responsible for fabrication changes or errors resulting from customer use of a non-current submittal drawing.



P: 800.961.7370  
www.solerpalau-usa.com

## SPT-100x - Pressure Switch



Qty: 1

### Specifications:

Integral recycling delay timer with 10 minute ON, 15 seconds OFF cycle, 120 volt input.

Power: 120 V AC +10%/-15%, 50/60 Hz.

Timing Range: 10 minutes (600 seconds) 10%

Output: SPST NO relay rated for 8 amps (resistive) @ 250 V AC or 1/8 hp @ 250 V AC.

Electrical Connections: Terminal block with clamp-type screw connector suitable for 12-26 AWG.

Temperature Range: -40 to 140 °F (-40 to 60 °C)

For more information contact us at [www.solerpalau-usa.com](http://www.solerpalau-usa.com) or 1.800.961.7370 for additional submittal drawings.

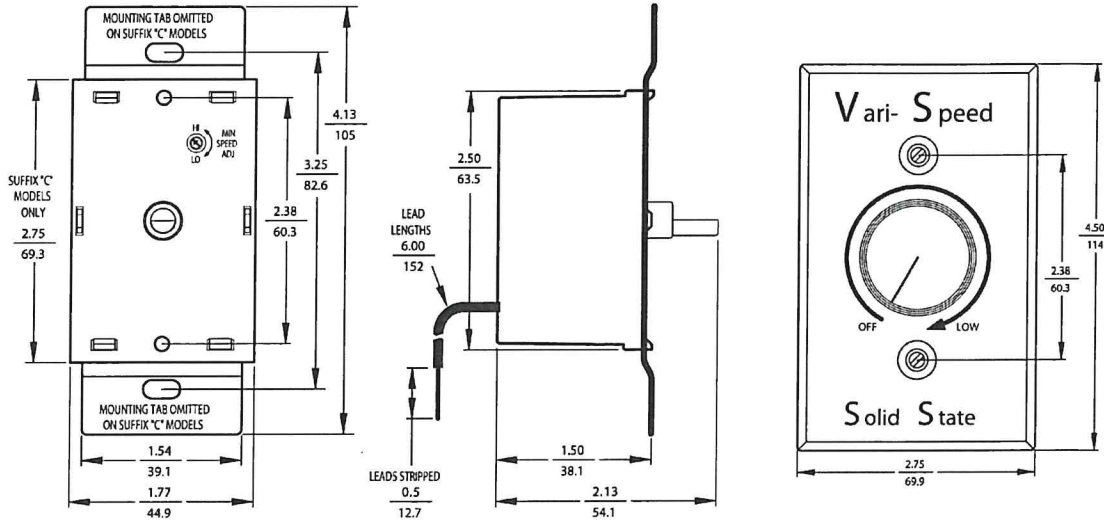
Soler & Palau will not be responsible for fabrication changes or errors resulting from customer use of a non-current submittal drawing.





# SC-15 & 2727.1 Rotary Speed Controls

P: 800.961.7370  
www.solerpalau-usa.com



## Electrical Ratings

Model No.	AC Line Input Voltage (Volts AC - 50/60 Hz)	Maximum Current Rating (Amps RMS)	Ambient Temperature (°F/ °C)
SC-15	115	5	104 / 40
2727.1	115	5	104 / 40

Qnt: 1

Mounting Kit: Includes individual packaging with dial plate, knob, mounting screws, wire connectors, and instructions.

2727.1 includes handi-box, label, and hardware.



Project: _____	Submitted: _____
Customer: _____	Approved: _____
Location: _____	

Soler & Palau will not be responsible for fabrication changes or errors resulting from customer use of a non-current submittal drawing.



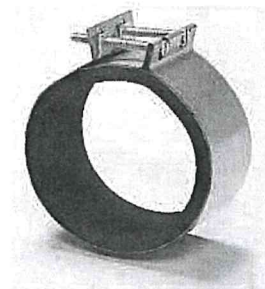
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VENT Mounting accessoires. Flexible connector  
**ACOP-VENT**

**ACOP-VENT**

Flexible connector.

Qty: 2





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***SUBMITTAL***

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**PROJECT:** Westover Animal Clinic  
South Hadley, MA

**ARCHITECT:** VOCON

**ENGINEER:** whs

**CONTRACTOR:**

**DESCRIPTION:** Louver

**MANUFACTURER:** Ruskin

**SPEC SECTION:**

**SUBMITTAL #:** 14479-1

**DATE:** December 18, 2023

**SUBMITTED BY:** Mike Casey

Job: Westover Animal Clinic- South Hadley, MA

## SUBMITTAL PACKAGE



### Stationary Louvers

Model: ELF6350DMP - Extruded Aluminum Stationary Louver

ID#	Qty	Width (A)	Height (B)	Size	Frame	Screen	Finish Type
ELF6350DMP-1	1	30	18	Deduct 1/4	FRONT FLANGE	5/8 Inch .040 ALUM	70% PVDF (B3)

- Note:
- Quantities and Sizes listed are for submittal purposes only, to be verified prior to order.
  - Submittal information is deemed correct at time of printing, however in the interest of product improvement Ruskin reserves the right to make changes without notice.

# ELF6350DMP

Extruded Aluminum Stationary Louver  
 6 Inch Deep - Horizontal Blades at 35 degrees



## CONSTRUCTION

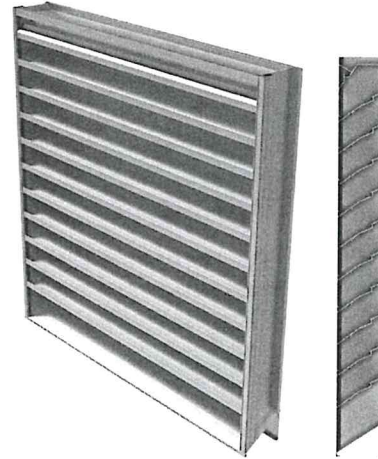
Frame Material	6063-T6 Extruded alum with .0125" nominal thickness
Blade Material	6063-T6 Extruded alum with 0.94" nominal wall thickness
Frame Type	FRONT FLANGE
Screen	5/8 Inch .040 ALUM
Screen Mtg	REAR

## FINISH DETAILS

Finish Type	70% PVDF (B3)
Finish Color	TO MATCH(98)

## PERFORMANCE RATINGS

Listing	Published performance rating based on testing in accordance with AMCA 511
Beginning Point of Water	1250 fpm (+381 m/min)
FreeArea	62%
Intake Pressure Drop	1000 fpm = 0.13"w.g.
Exhaust Pressure Drop	1000 fpm = 0.13"w.g.
Windload	30 PSF



## SCHEDULE

ID#	Qty	Dimensions (Inches)			Sections		Screen	Wind Load (PSF)	Free Area (%)
		Width (A)	Height (B)	Size	Wide	High			
ELF6350DMP-1	1	30	18	Deduct 1/4	1	1	5/8 Inch .040 ALUM	30	47



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***SUBMITTAL***

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**PROJECT:** Westover Animal Clinic  
South Hadley, MA

**ARCHITECT:** VOCON

**ENGINEER:** whs

**CONTRACTOR:**

**DESCRIPTION:** Electric heaters

**MANUFACTURER:** Qmark

**SPEC SECTION:**

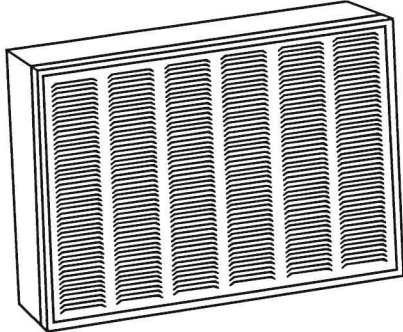
**SUBMITTAL #:** 14479-euh

**DATE:** December 18, 2023

**SUBMITTED BY:** Mike Casey



470 Beauty Spot Rd. E, Bennettsville, SC 29512



**EFQ SERIES  
COMMERCIAL FAN-FORCED  
WALL HEATER  
SUBMITTAL SHEET**

CAPACITIES
6000 or 8000 Watts
208, 240, 277, 347, 480, 600V
1Ø only



**EFQ SERIES - COMMERCIAL FAN FORCED WALL HEATERS**

ITEM	QTY.	CATALOG NUMBER	TAG	WATTS	VOLTS	Ø	AMPS	BUILT-IN CONTROLS
	2	EFQ8008	ECUH-1, 2	8000	208	1	38.1	Tstat and disconnect

**ACCESSORIES  
& CONTROLS**

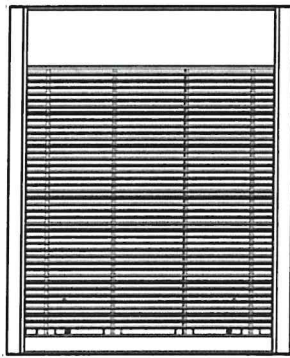
ITEM	QTY.	CAT. NO.	TAG	DESCRIPTION
	2	EFQS2	"	2" Semi-recess Frame

SUBMITTED BY:	DATE
Mike Casey	12/18/20

APPROVED BY:	DATE



470 Beauty Spot Rd. E  
Bennettsville, SC 29512



SUBMITTAL SHEET  
AWH SERIES  
**ARCHITECTURAL HEAVY-DUTY WALL HEATER**

CAPACITIES
1500-4800 Watts
120, 208, 240, 277, 347, or 600V
1Ø and 3Ø
Thermostat Range: 40° - 90° F
Air Movement: 100 CFM

See Selection Chart for all Options

AWH SERIES - ARCHITECTURAL HEAVY-DUTY WALL HEATER

JOB NAME: Westover Animal Clinic

LOCATION: South Hadley, MA

ARCHITECT: \_\_\_\_\_

ENGINEER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

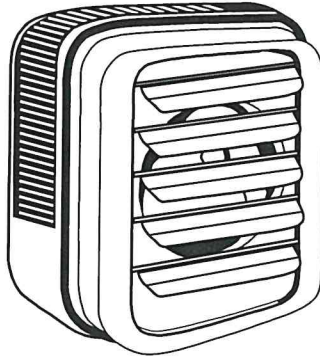
SUBMITTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TAG/ITEM	QTY.	CATALOG NUMBER	HEATER			AMPS	WEIGHT
			KW	VOLTS	Ø		
ECUH-3, 4, 5, 6	4	AWH3150F	1500	120	1	12.5	25

ACCESSORIES AND CONTROLS	TAG/ITEM	QTY.	CATALOG NUMBER	DESCRIPTION
	"	4	AWHS2	2" semi-recessed mounting frame
	"	4	LFKSFCNW	Security front cover

SUBMITTED BY:	DATE
Mike Casey	12/18/2023

APPROVED BY:	DATE



**SUBMITTAL SHEET  
MUH SERIES  
HORIZONTAL/VERTICAL  
UNIT HEATERS**

**MUH SERIES - HORIZONTAL/VERTICAL UNIT HEATERS**

JOB NAME: Westover Amental Clinic  
 LOCATION: South Hadley, MA  
 ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 SUBMITTED BY: Mike Casey  
 DATE: 12/18/20

ITEM	QTY.	CATALOG NUMBER	TAG	WATTS	VOLTS	Ø	AMPS	GRILLE FINISH	CEILING MOUNT
	1	MUH03-81	EUH-1	3000	208	1	14.5	Biege	

ACCESSORIES  
AND  
CONTROLS

ITEM	QTY.	CAT. NO.	TAG	DESCRIPTION
	1	MPDS25	"	Power Disconnect Switch (3-Pole)
	1	UHMT1	"	Single Pole Internal Thermostat
	1	B10	"	Universal Mounting Bracket

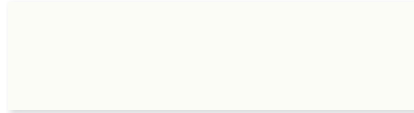
SUBMITTED BY:	DATE	APPROVED BY:	DATE

RUSKIN finishes enhance product appearance to blend with other colors selected.

These same finishes provide extended weathering resistance similar to adjacent building surfaces. RUSKIN provides most finishes available to architects and engineers. The standard finishes described herein represent those finishes usually selected, specified, or required for most applications.

## Finishes and Color Guide

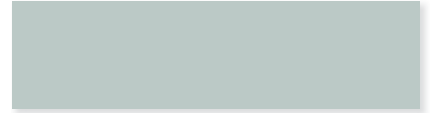
### Standard Colors



\* BONE WHITE (24)



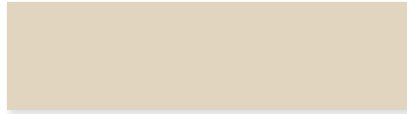
\* DARK BRONZE (75)



\* PORTLAND STONE (49)



\* LIGHT STONE (43)



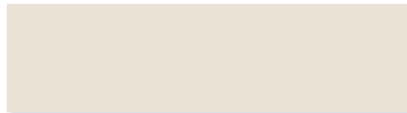
\* SHELburnE (69)



\* FOREST GREEN (36)



\* SANDSTONE (67)



\* HERRINGBONE (37)



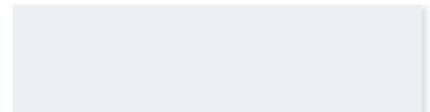
\* CORONADO RED (34)



\* SAHARA TAN (65)



\* STONE GRAY (78)



\* ASCOT WHITE (19)



\* BLACK (89)



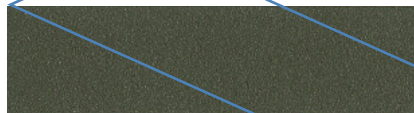
\* MEDIUM BRONZE (72)



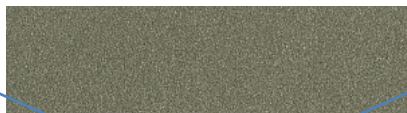
\* TAUPE (52)

### Pearledize 70 and Pearledize 50 Standard Colors

9 additional colors are only available in Pearledize 70 and Pearledize 50. Clear Anodize and 3 Color Anodize colors are also available. *Italicized color names and codes are available in Anodized Finish.*



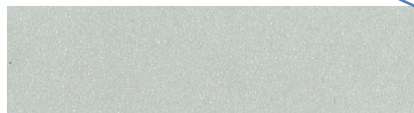
\* DARK BRONZE (75)  
\* DARK BRONZE (75)



\* MEDIUM BRONZE (72)  
\* MEDIUM BRONZE (72)



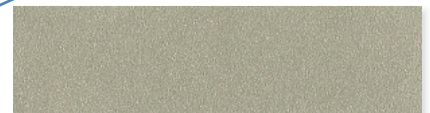
\* CHAMPAGNE BRZ (71)  
\* CHAMPAGNE BRZ (71)



\* BRIGHT SILVER (88)  
\* Clear 204R1 & 215R1 (00)



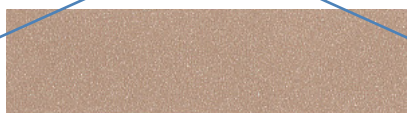
\* WARM SILVER (96)



\* ASTI (86)



\* COPPER (92)



\* CORAL REEF (93)



\* BLUE (05)

**NON STANDARD COLORS**

\* Denotes RUSKIN Color Code - Please use when ordering.

*This color card is for reference only and is not meant to be used for color matching or final color approval. Shades may vary due to the color and resolution of monitors or print-outs. RUSKIN is not responsible for color matches made with this online color chart.*

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# Finishes and Color Guide

Factory finishes by RUSKIN are designed for low VOC emissions and eliminate the risk of VOC emissions found in louver finishes that are applied on site. All RUSKIN manufacturing facilities operate in full compliance with all applicable air permitting regulations. All facilities maintain ISO 14001 Environmental Management Systems which include VOC emission reduction strategies including state of the art spray equipment and operator training.

## Type of Finish

### 2 COAT - 70% PVDF

**RUSKIN Superior Finish:** 2 Coat 70% PVDF wet on wet paint finishes provide maximum resistance against color fade and chalking. This carbon/fluorine bond, unique to the resin, when coupled with the finest inorganic pigments, produces the most durable and long lasting finish in the industry. These finishes are resistant to most chemicals, acid rain, salt spray and general air pollution. RUSKIN offers a twenty-year warranty on these finishes in standard colors on standard extruded aluminum products. All standard colors meet or exceed AAMA 2605.

### 2 COAT BAKED ENAMEL SILICONE MODIFIED POLYESTER

**RUSKIN High Performance Finish:** 2 coat, wet on wet, baked enamel finish with a highly durable silicone-modified polyester resin that provides fluoropolymer benefits such as long color life and resistance to chalking and chemicals. Its proprietary resin formulation gives it vastly superior hardness which is a major benefit during installation and aggregative environments. Ten-year warranty for standard colors are available. Before paint application, the louvers shall be thoroughly cleaned and pretreated to assure maximum performance.

### PRIME COAT

**Preparation for field painting:** Finish may be top coated with epoxy, vinyl, urethane and other heavy-duty coatings within six months of applications. Prime coat contaminations always occur before field painting and requires thorough field cleaning prior to painting.

### PEARLEDIZE 70 AND PEARLEDIZE 50

**RUSKIN'S High Pearlescent Finish:** Pearledize is a PVDF-based finish that utilizes pearlescent mica flakes to simulate the metallic appearance of anodized and metallic paint finishes.

**Pearledize 50 (50% PVDF):** Meets the AAMA 2604 specification. A ten-year warranty is available on standard colors on standard extruded aluminum products.

**Pearledize 70 (70% PVDF):** Pearledize 70 meets the AAMA 2605 specification. A twenty-year warranty is available on standard colors on extruded aluminum products.

### COLOR ANODIZE

**Electrolytically deposited coating on aluminum:** The color anodize process specified in Aluminum Association Code AA-C22A44 electrolytically deposits inorganic color pigment finish to a 0.7 mil (18µm) minimum surface depth on sulfuric acid anodized aluminum. Treated aluminum is sealed to convert a freshly formed aluminum oxide finish to a corrosion resistant, inert condition. Available only on aluminum. Some shade variation may occur.

### CLEAR ANODIZE

**Clear oxide coating for aluminum:** Clear anodize preoxidizes the aluminum surface for uniform clear finish not easily affected by natural oxidizing influences. Improved metallic luster appearance is similar to mill finish. 204-R1 (Aluminum Association Code AA-C22A31) provides 0.4 mi (10µm) minimum surface depth treatment recommended for normal weather exposure. 215-R1 (Aluminum Association Code AA-C22A41) provides 0.7 mils (18µm) minimum surface depth recommended for severely corrosive and abrasive atmospheric exposure. Both finish types available only on aluminum.

For additional information regarding finish warranties, please reference the Ruskin Finishes Warranty document on [www.ruskin.com](http://www.ruskin.com)

Dimensions in parentheses ( ) indicate microns.

\*AAMA 2605 is the most stringent performance specification for organic coatings or exterior aluminum finishes in the industry, requiring 10 years south Florida exposure.

## Finish Specifications

Before paint application, louvers shall be thoroughly cleaned and pretreated to assure maximum performance. PVDF finish shall be applied to provide 1.2 mils (30µm) factory applied, baked-on film in accordance with AAMA 2605 "Voluntary Specification Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels". Color shall be RUSKIN (specify color name and number). This finish is for both aluminum and steel products, see Finish Warranty guide for details.

The finish shall be applied at 1.2 mils (30µm) total dry film thickness in accordance with AAMA 2604 Color shall be RUSKIN (specify color name and number). This finish is for aluminum only products, see Finish Warranty guide for details.

Louvers shall receive prime coating following thorough cleaning and pretreatment of metal. Field topcoat with epoxy, vinyl, urethane or other heavy-duty coating within six months of application. Prime coat shall be a minimum of .3 ± .1 mils (8 ± 3µm) thick. This finish is for both aluminum and steel products, see Finish Warranty guide for details.

Louvers shall receive thorough cleaning and pretreatment as described above. Pearledize coating shall be applied and baked to achieve a hard durable finish in compliance with either AAMA 2605 or AAMA 2604 as selected and specified. Color shall be RUSKIN (specify color name and number). This finish is for both aluminum and steel products, see Finish Warranty guide for details.

Louvers shall receive electrolytically deposited color anodized finish complying with Aluminum Association Code AA-C22A44. Finish is applied to 0.7 mils (18µm) minimum thickness onto chemically etched and pretreated aluminum. Color shall be RUSKIN (specify color name). This finish is for aluminum only products, see Finish Warranty guide for details.

Louvers shall receive a 204-R1 clear anodize finish complying with Aluminum Association Code-C22A31. Finish is applied to chemically etched and pretreated aluminum to 0.4 mils (10µm) minimum surface depth by a 30 minute anodizing process. Louvers shall receive a 215-R1 clear anodize finish complying with Aluminum Association Code AA-C22A41. Finish is applied to chemically etched and pretreated aluminum to 0.7 mils (18µm) minimum surface depth by a 60 minute anodizing process. This finish is for aluminum only products, see Finish Warranty guide for details.

† AAMA 2604 and requires 5 years of south Florida exposure.

Twenty-year warranties are only available on extruded aluminum products, and are subject to restrictions. Consult RUSKIN for additional information.

Finishes meet latest revision of AAMA Standard.

Size and other limitations on finish types may not apply, consult Ruskin for additional information.