



# 80PS- SERIES Models with Input Rates from 50,000 to 150,000 BTU/HR [15 to 44 kW]













# 80% A.F.U.E.† UPFLOW/ HORIZONTAL GAS FURNACES

The WeatherKing® line of upflow/horizontal gas furnaces are designed for utility rooms, closets, alcoves, or attics. Because of the model's low-profile 34 inch [864 mm] height, the upflow model can also be used to satisfy most applications that traditionally call for a horizontal furnace.

The design is certified by CSA International.

### **Features**

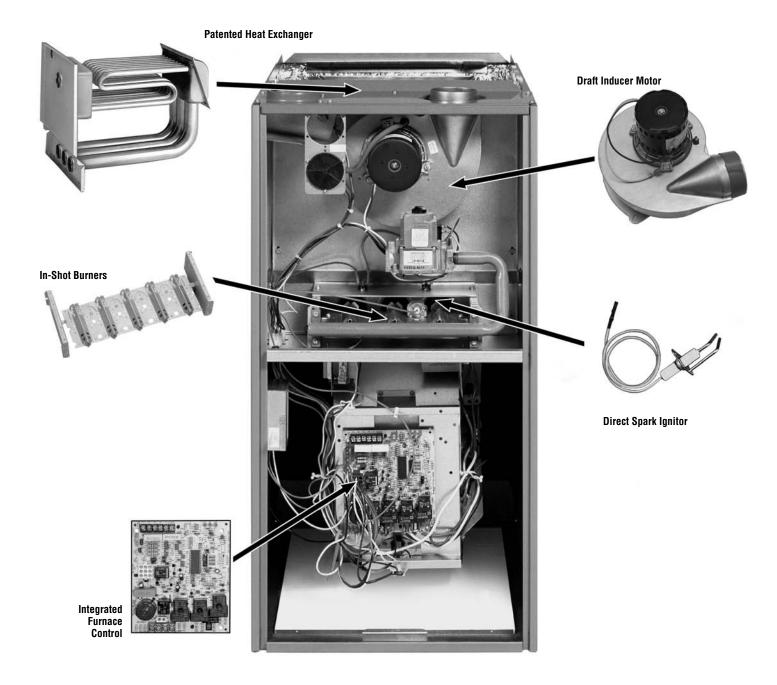
- Unique solid door design leads to quiet operation.
- Patented heat exchanger, constructed of both stainless and aluminized steel for the maximum in corrosion resistance.
- Low profile "34 inch" [864 mm] design is lighter and easier to handle, and leaves room for optional equipment.
- Convertible from upflow to horizontal left or right without field conversion.
- Left or right side gas and electric inlet connections allow quick and simple change.
- Direct spark ignition with remote sense, features a integrated board with an electronic air cleaner hookup.
- Prepaint galvanized steel cabinet.
- A slow-open gas valve and a specially designed draft inducer motor make it one of the quietest furnaces on the market today.
- Grab-holes in doors to aid in easy door removal and replacement.

A variety of cooling coils and plenums designed to use with WeatherKing gas furnaces are available as optional accessories.

†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.



# WEATHERKING 80% UPFLOW/HORIZONTAL GAS FURNACE



# STANDARD EQUIPMENT

Completely assembled and wired; induced draft; pressure switch; redundant main gas control; blower compartment door safety switch; solid state time on/time off blower control; limit control; manual shut-off valve, pressure regulator for natural and L.P. (propane) gas; transformer; direct drive multi-speed blower motor. Furnaces are equipped with cooling/heating relay and transformer (40VA) ready for air conditioning applications. (Please note: a thermostat is not included as standard equipment.) Flame sensor diagnostics.

# **OPTIONAL EQUIPMENT**

Twinning Kit

Side and bottom filter frame assembly. Return air cabinet for all sizes.

NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

The complete terms of limited and other warranties are available at our sales office, or through local installer.

All models can be converted by a qualified WeatherKing distributor or local service dealer to use L.P. (propane) gas without changing burners. Factory approved kits must be used to convert from natural to L.P. (propane) gas and may be ordered as optional accessories from a WeatherKing parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form.

NOTE: For natural and L.P. (propane) gas models, standard hot surface ignition is 100% safety lockout type.

# WARNING

THIS FURNACE IS NOT APPROVED
OR RECOMMENDED
FOR USE IN MOBILE HOMES

# PHYSICAL DATA AND SPECIFICATIONS

MODEL NUMBERS 80PS- SERIES	05EAR** 05NAR**	07EBR** 07NBR**	07EER** 07NER**	10EBR**	10ECR**	10EDR** 10NDR**	12EDR**	15EDR**
Input-BTU/Hr [kW] ②	50,000 [15]	75,000 [22]	75,000 [22]	100,000 [29]	100,000 [29]	100,000 [29]	125,000 [37]	150,000 [44]
Heating Capacity BTU/Hr [kW] ①	41,000 [12]	60,000 [18]	60,000 [18]	80,000 [23]	80,000 [23]	80,000 [23]	99,000 [29]	119,000 [35]
Heat Ext. Static Pressure [kPa]	.10 [.025]	.12 [.029]	.12 [.029]	.15 [.037]	.15 [.037]	.15 [.037]	.20 [.05]	.20 [.05]
Blower (D x W) [mm]	11 x 6 [279 x 152]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
Motor H.PSpeed- PSC Type [W]	<sup>1/2</sup> -4-PSC [373]	<sup>1</sup> / <sub>2</sub> -3-PSC [373]	<sup>3</sup> /4-3-PSC [560]	<sup>3</sup> /4-3-PSC [560]	<sup>3</sup> /4-3-PSC [560]			
Motor Full Load Amps	6.8	5.8	7.9	7.1	7.9	9.5	9.5	9.5
Heating Speed	Med-Low	Med	Med	Med	Med	Low	Low	Low
Cooling Speed	High	High	High	High	High	Med	Med	Med
Cooling CFM @ .5" E.S.P. (Nominal) [L/s]	1200 [566]	1200 [566]	1600 [755]	1200 [566]	1845 [871]	2060 [922]	2115 [998]	2080 [982]
Max. E.S.P. (In. W.C.) [kPa]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	35-65 [19.4-36.1]	25-55 [13.9-30.6]	45-75 [250-41.7]	30-60 [16.7-33.3]	30-60 [16.7-33.3]	35-65 [19.4-36.1]	50-80 [27.8-44.4]
Max. Outlet Air Temp. °F [°C]	155 [68.3]	165 [73.8]	155 [68.3]	190 [87.7]	170 [76.6]	170 [76.6]	180 [82.2]	190 [87.7]
Approx. Shipping Weight (Lbs.) [kg]	85 [39]	105 [48]	105 [48]	115 [52]	120 [54]	120 [54]	140 [63]	150 [68]
Standard Filter (In.) [mm]	15 <sup>3</sup> /4 x 25 [400 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	19 <sup>1</sup> / <sub>4</sub> x 25 [489 x 635]	19 <sup>1</sup> / <sub>4</sub> x 25 [489 x 635]	22 <sup>3</sup> /4 x 25 [578 x 635]	22 <sup>3</sup> / <sub>4</sub> x 25 [578 x 635]
Return Air Cabinets (Opt.) RXGR- Filter Size [mm]	C14B (2) 12 x 16 [305 x 406]	C17B (2) 12 x 16 [305 x 406]	C17B (2) 12 x 16 [305 x 406]	C17B (2) 12 x 16 [305 x 406]	C21B (2) 20 x 16 [508 x 406]	C21B (2) 20 x 16 [508 x 406]	C24B (2) 24 x 16 [610 x 406]	C24B (2) 24 x 16 [610 x 406]
AFUE-H.S.I. Models ①	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%

NOTES: All models are 115V, 60HZ, 1 Ph. Gas connection size for all models is 1/2" [12 mm] N.P.T.

# MODEL IDENTIFICATION—UPFLOW/HORIZONTAL MODELS

80 S 05E R 01 Α Fuel Designation Efficiency  $\mathbf{P} = \mathsf{Upflow}$ **Design Series Heating Input Designation** Blower Designation [mm] W Non-Condensing R = Natural Gas - CSA -Ε S = 3rd Design Series A = Standard Cabinet **Electric Ignition** Input BTU/HR [kW] United States & Canada A T 11 x 6 [279 x 152] 05E/05N 50,000 [15] (North American) 1/2 H.P. PSC 073/07N 75,000 [22] Н B = Standard Cabinet 100,000 [28] 10E/10N Е 11 x 7 [279 x 178] 12E 125,000 [37] R K 1/2 H.P. PSC/1200 CFM 15E 150,000 [44] C = Wide Cabinet I 11 x 10 [279 x 254] N 1/2 H.P. PSC G **D** = Standard Cabinet 11 x 10 [279 x 254] 3/4 H.P. PSC E = Standard Cabinet 11 x 7 [279 x 178] 1/2 H.P. PSC/1600 CFM

[ ] Designates Metric Conversions

# **GENERAL TERMS OF LIMITED WARRANTY**

ICECO<sup>SM</sup> will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

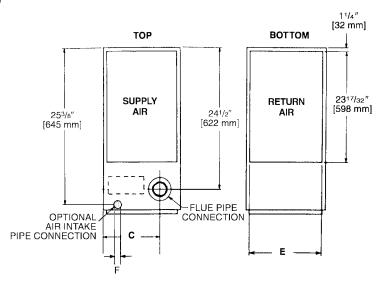
Gas Heat Exchanger Limited Warranty ......Twenty (20) Years \*Any Other Part.......Five (5) Years

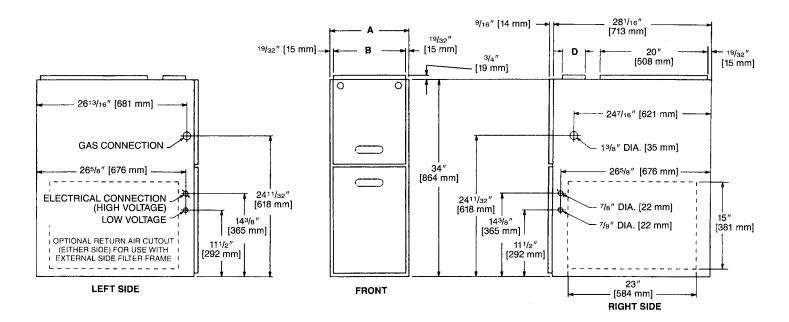
① In accordance with D.O.E. test procedures.

② See Conversion Kit Index Form for high altitude derate.

<sup>\*</sup>This five year limited warranty is applicable only to single-phase products installed in residential applications on or after January 1, 2001.

# **UPFLOW DIMENSIONS**





### UPFLOW DIMENSIONS AND CLEARANCE TO COMBUSTIBLE MATERIAL (INCHES) [mm]

								•	<i>,</i> -	-			
MODEL							REDUCED CLEARANCE (IN.) [mm]						
80PS-	A	В	С	D	E	E	D E	F	LEFT SIDE	RIGHT SIDE	BACK TOP FRONT	VENT	SHIP. WGTS. (LBS.) [Kg]
05	14 [356]	1227/32 [326]	105/8 [270]	1	111/2 [292]	17/8 [48]	0	4 [102] ②	0	1 [25]	3 [76]	6 [152] ③	85 [38.6]
07	171/2 [445]	16 <sup>11</sup> / <sub>32</sub> [415]	123/8 [314]	1	15 [381]	21/2 [64]	0	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	105 [47.6]
10EB	17 <sup>1</sup> /2 [445]	16 <sup>11</sup> /32 [415]	12 <sup>3</sup> /8 [314]	1	15 [381]	21/2 [64]	0	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	115 [52.2]
10EC & 10ED	21 [533]	19 <sup>27</sup> / <sub>32</sub> [504]	14 <sup>1</sup> /8 [359]	1	18 <sup>1</sup> / <sub>2</sub> [470]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
12	241/2 [622]	2311/32 [593]	15 <sup>7</sup> /8 [403]	1	22 [559]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]
15	241/2 [622]	2311/32 [593]	157/8 [403]	1	22 [559]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	150 [68]

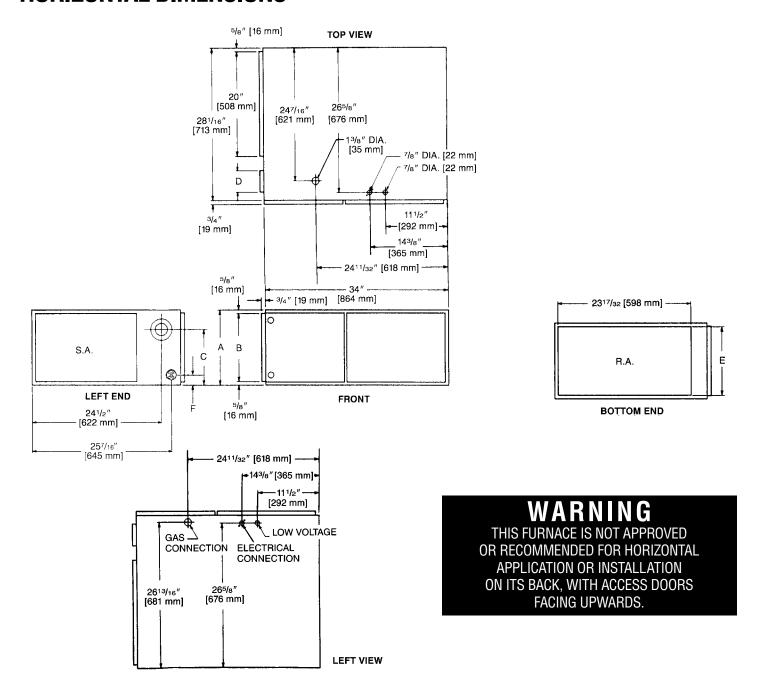
NOTES: 1 May require a 3" [76 mm] to 4" [102 mm] or 3" [76 mm] to 5" [127 mm] adapter.

- ② May be 0" [0 mm] with type B vent.
- 3 May be 1" [25 mm] with type B vent.

Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and/or Can/CGA-B149 Installation Codes and in accordance with local codes.

### [ ] Designates Metric Conversions

# **HORIZONTAL DIMENSIONS**



### HORIZONTAL DIMENSIONS AND CLEARANCE TO COMBUSTIBLE MATERIAL (INCHES) [mm]

MODEL							REDUCED CLEARANCE (IN.) [mm]						
80PS-	Α	В	С	D	E	F	LEFT SIDE	RIGHT SIDE	BACK	ТОР	FRONT	VENT	SHIP. WGTS. (LBS.) [Kg]
05	14 [356]	1227/32 [326]	105/8 [270]	1	111/2 [292]	17/8 [48]	0	4 [102] ②	0	1 [25]	3 [76]	6 [152] ③	85 [38.6]
07	171/2 [445]	1611/32 [415]	123/8 [314]	1	15 [381]	21/2 [64]	0	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	105 [47.6]
10EB	171/2 [445]	16 <sup>11</sup> /32 [415]	123/8 [314]	1	15 [381]	21/2 [64]	0	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	115 [52.2]
10EC & 10ED	21 [533]	19 <sup>27</sup> /32 [504]	14 <sup>1</sup> /8 [359]	1	18 <sup>1</sup> / <sub>2</sub> [470]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
12	241/2 [622]	2311/32 [593]	15 <sup>7</sup> /8 [403]	1	22 [559]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]
15	241/2 [622]	2311/32 [593]	157/8 [403]	1	22 [559]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	150 [68]

NOTES: ① May require a 3" [76 mm] to 4" [102 mm] or 3" [76 mm] to 5" [127 mm] adapter.

Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and/or Can/CGA-B149 Installation Codes and in accordance with local codes.

② May be 0" [0 mm] with type B vent.

<sup>3</sup> May be 1" [25 mm] with type B vent.

# **ACCESSORIES—UPFLOW**

# INTERNAL FILTER RACK FOR BOTTOM

**OR SIDE RETURN: RXGF-DA\*** 

Each order contains (1) one box of 10 filter racks supplied

without filters.

\*Filters available through PROSTOCK®.

SIDE RETURN FILTER RACK: RXGF-CA

BOTTOM RETURN FILTER RACK FOR

UPFLOW APPLICATION: RXGF-CB

FILTER RACK FILTER SIZES† INCHES [mm]								
MODEL 80PS-	RXGF-CA (SIDE)							
05, 07, 10EB (3 Ton)	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]							
10EC & 10ED	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]							
12, 15	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]							

<sup>†</sup>Filter racks are shipped without filters.

# **RXPF-F01** and F02

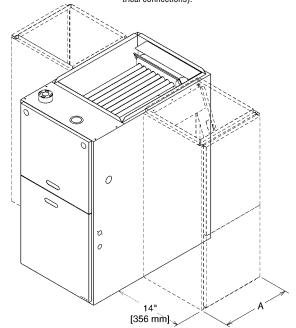
**FOSSIL FUEL KIT**—is for use with WeatherKing Heat Pumps and warm air furnaces. RXPF-F02 meets TVA requirements.

### **RXGP-F03**

**TWINNING KIT**—is for parallel operation requirements.

### ACCESSORY RETURN AIR CABINETS

Return Air Cabinets may be installed on either side application except RXGR-C24B (side application must be on side opposite gas and electrical connections).



THE RXGR-C24B MUST ONLY BE INSTALLED ON THE SIDE OPPOSITE THE GAS AND ELECTRICAL CONNECTIONS.

RETURN AIR CABINETS	A IN. [mm]	FILTER SIZE IN. [mm]
RXGR-C14B	14 [356]	(2) 12 x 16 [305 x 406]
RXGR-C17B	17 <sup>1</sup> /2 [445]	(2) 12 x 16 [305 x 406]
RXGR-C21B	21 [533]	(2) 20 x 16 [508 x 406]
RXGR-C24B	241/2 [622]	(2) 24 x 16 [610 x 406]

### **WARNING: IMPORTANT NOTICE**

A SOLID METAL BASE PLATE (SEE TABLE) MUST BE IN PLACE WHEN THE FURNACE IS INSTALLED WITH SIDE AIR RETURN DUCTS. FAILURE TO INSTALL A BASE PLATE COULD CAUSE PRODUCTS OF COMBUSTION TO BE CIRCULATED INTO THE LIVING SPACE AND CREATE POTENTIALLY HAZARDOUS CONDITIONS.

FURNACE WIDTH IN. [mm]	SOLID BOTTOM KIT NO.	BASE Plate No.	BASE PLATE SIZE IN. [mm]		
14 [356]	RXGB-D14	AE-61874-01	115/8 x 239/16 [295 x 598]		
171/2 [445]	RXGB-D17	AE-61874-02	15 <sup>1</sup> / <sub>8</sub> x 23 <sup>9</sup> / <sub>16</sub> [384 x 598]		
21 [533]	RXGB-D21	AE-61874-03	185/8 x 239/16 [473 x 598]		
241/2 [622]	RXGB-D24	AE-61874-04	25 <sup>5</sup> / <sub>8</sub> x 23 <sup>9</sup> / <sub>16</sub> [651 x 598]		

# **FOR HIGH ALTITUDES:**

HIGH ALTITUDE OPTION CODE: U.S. & Canada –

None required for high altitudes.

HIGH ALTITUDE CONVERSION KITS: U.S. & Canada -

None required for high altitudes.

### **80+ HIGH ALTITUDE INSTRUCTIONS**

**CAUTION:** Always follow National Fuel Gas Code (NFGC) guidelines when converting for high altitudes.

High altitude option codes are not required for these models. However, the burner orifice size needs to be recalculated and verified at elevations above 2000 ft. See Installation Instructions for more information.

**NOTE:** For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations.

### [ ] Designates Metric Conversions

A 1" [25.4 mm] filter may be used.

<sup>\*</sup> Designates "E" or "N".

# **BLOWER PERFORMANCE DATA—UPFLOW MODELS**

MODEL NUMBER 80PS-	BLOWER SIZE	MOTOR H.P.	BLOWER SPEED	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES [kPa] WATER COLUMN								
SERIES	[mm]	[W]	SPEED	.1 [.02]	.2 [.05]	.3 [.07]	.4 [.10]	.5 [.12]	.6 [.15]	.7 [.17]		
05EAR** 05NAR**	11 x 6 [279 x 152]	1/2 [373]	LOW MED-LO MED-HI HIGH	675 [319] <b>950 [448]</b> 1115 [526] 1270 [599]	655 [309] <b>930 [439]</b> 1090 [514] 1250 [590]	635 [300] <b>905 [427]</b> 1070 [505] 1225 [578]	610 [288] <b>880 [415]</b> 1040 [491] 1200 [566]	585 [276] <b>860 [406]</b> 1015 [479] 1165 [550]	555 [262] <b>830 [392]</b> 985 [465] 1130 [533]	520 [245] <b>800 [380]</b> 945 [446] 1085 [512]		
07EBR** 07NBR**	11 x 7 [279 x 178]	1/2 [373]	LOW <b>MED</b> HIGH	1093 [563] <b>1241 [586]</b> 1393 [657]	1066 [503] <b>1212 [572]</b> 1359 [642]	1039 [490] <b>1183 [558]</b> 1326 [626]	1008 [476] <b>1150 [543]</b> 1293 [610]	977 [461] <b>1118 [528]</b> 1259 [594]	941 [444] <b>1076 [508]</b> 1214 [573]	905 [427] <b>1033 [487]</b> 1169 [552]		
07EER** 07NER**	11 x 7 [279 x 178]	1/2 [373]	LOW <b>MED</b> HIGH	1245 [588] <b>1555 [734]</b> 1810 [854]	1220 [576] <b>1515 [715]</b> 1755 [828]	1195 [564] <b>1475 [696]</b> 1705 [805]	1165 [550] <b>1435 [677]</b> 1645 [776]	1135 [536] <b>1395 [658]</b> 1585 [748]	1105 [522] <b>1350 [637]</b> 1530 [722]	1065 [503] <b>1300 [614]</b> 1470 [694]		
10EBR**	11 x 7 [279 x 178]	1/2 [373]	LOW <b>MED</b> HIGH	1050 [496] <b>1220 [576]</b> 1410 [665]	1040 [491] <b>1195 [564]</b> 1380 [651]	1030 [486] <b>1160 [547]</b> 1345 [635]	990 [467] <b>1140 [538]</b> 1300 [614]	960 [453] <b>1105 [522]</b> 1255 [592]	920 [434] <b>1065 [503]</b> 1205 [569]	890 [420] <b>1020 [481]</b> 1150 [543]		
10ECR**	11 x 10 [279 x 254]	1/2 [373]	LOW <b>MED</b> HIGH	1295 [611] <b>1645 [776]</b> 2045 [965]	1275 [602] <b>1615 [762]</b> 2000 [944]	1250 [590] <b>1580 [746]</b> 1955 [923]	1225 [578] <b>1550 [732]</b> 1905 [899]	1195 [564] <b>1510 [713]</b> 1845 [871]	1165 [550] <b>1465 [691]</b> 1785 [842]	1135 [536] <b>1425 [673]</b> 1720 [812]		
10EDR** 10NDR**	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	<b>1645</b> [ <b>776</b> ] 2045 [965] 2320 [1095]	<b>1615</b> [ <b>762</b> ] 2000 [944] 2260 [1067]	<b>1580 [746]</b> 1955 [923] 2200 [1038]	<b>1550 [732]</b> 1905 [899] 2130 [1005]	<b>1510 [713]</b> 1845 [871] 2060 [972]	<b>1465 [691]</b> 1785 [842] 1985 [937]	<b>1425 [673]</b> 1720 [812] 1910 [901]		
12EDR**	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	<b>1645</b> [ <b>776</b> ] 2050 [967] 2365 [1116]	<b>1635</b> [ <b>772</b> ] 2015 [951] 2310 [1090]	<b>1615</b> [ <b>762</b> ] 1980 [934] 2250 [1062]	<b>1590 [750]</b> 1935 [913] 2185 [1031]	<b>1560 [736]</b> 1885 [890] 2115 [998]	<b>1520 [717]</b> 1835 [866] 2035 [960]	<b>1470 [694]</b> 1775 [838] 1950 [920]		
15EDR**	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	<b>1620</b> [ <b>765</b> ] 2010 [949] 2340 [1104]	<b>1595</b> [ <b>753</b> ] 1985 [937] 2275 [1074]	<b>1570 [741]</b> 1960 [925] 2215 [1045]	<b>1545</b> [ <b>729</b> ] 1915 [904] 2145 [1012]	<b>1515 [715]</b> 1850 [873] 2080 [982]	<b>1480 [698]</b> 1800 [850] 2010 [949]	<b>1440 [680]</b> 1730 [816] 1940 [916]		

Note: Recommended blower speeds are in bold.

[ ] Designates Metric Conversions

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

