

Illustrations and photographs are only representative.
Some product models may vary.

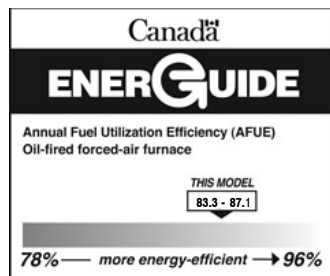
HI-BOY MULTI-POSITION, VARIABLE SPEED OIL FURNACE

FEATURES

- **Stainless Steel construction** - Heavy gauge heat exchanger quickly transfers heat to the ambient air
- **Multi-position** - True four-way multipoise unit that opens-up installation possibilities
- **Low profile** - OMV098 is 40-3/4 inches (1035mm) high and OMV112 is 41-1/2 inches (1054mm) high OMV154 is 47-7/8 inches (1216mm) high
- **Sound attenuator** - High density acoustic wool dampens combustion sound
- **Motor** - Variable speed ECM motor that provides true constant CFM capabilities
- **Burners** - Choice of high static pressure oil burners Becket AFG & NX, Riello 40-F3 (Burners must be ordered separately)
- **Inspection port** - External for easy access and sealed - Adjust combustion parameters and simplify inspections
- **Accessories included** - Barometric draft regulator, external filter rack and air filter
- **High quality finish** - High gloss baked
- **Efficiency** - AFUE up to 87.1% Canada, 86.4% US
- **Approved** - For chimney vent and sealed combustion installations

LIMITED WARRANTY *

- 10 year No Hassle Replacement[™] limited warranty
- Lifetime heat exchanger limited warranty with timely registration
- 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications



ONLY applies to applications in Canada where the furnace is installed in the conditioned space, per sections 5.35.1.2 and 4.7.1.1 of CSA standard B212 dated October 2000.

| Model Number | Input (BTU/h) | Efficiency AFUE | | Cooling capacity @ .5 in. w.c. (125 Pa) | Dimensions in(mm) H x W x D† | Shipping Wt. Lbs. (Kg.) |
|--------------|-----------------|-----------------|---------------|-----------------------------------------|---------------------------------------------|-------------------------|
| | | CANADA | US | | | |
| OMV098J12 | 70,000-84,000 | 85.3‡ - 87.0‡ | 85.0‡ - 86.4‡ | 3 Tons | 40-3/4 x 16-7/8 x 21-1/2 (1035 x 429 x 546) | 125 (57) |
| OMV112K14 | 95,200-112,000 | 85.5‡ - 87.1‡ | 85.3‡ - 85.8‡ | 3.5 Tons | 41-1/2 x 21-3/4 x 25-3/4 (1054 x 553 x 654) | 153 (70) |
| OMV154L20 | 126,000-154,000 | 85.3‡ - 87.0‡ | 85.0‡ - 86.0‡ | 5.0 Tons | 47-7/8 x 28-1/2 x 25 (1216 x 724 x 635) | 200 (90) |

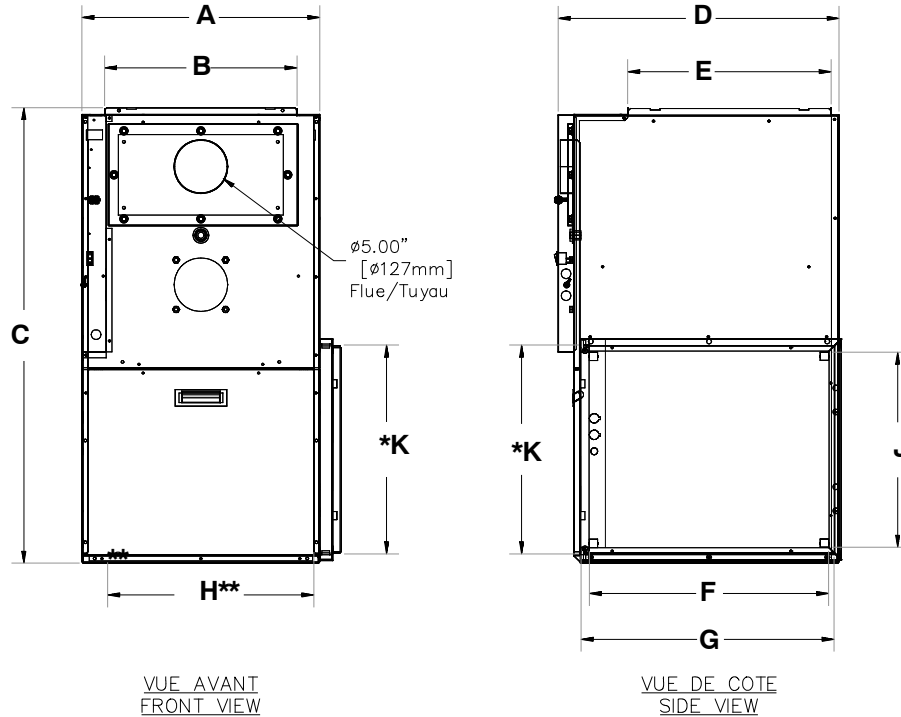
‡ Meets EnergyStar guidelines (Only specific firing rates meet the ENERGY STAR[®] guidelines).

† Depth is without the burner

MODEL NUMBER IDENTIFICATION GUIDE

| | | | | | | | | |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------|---|---|-----|---|----|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MODEL NUMBER | O | M | V | 098 | J | 12 | # | REVISION |
| FUEL O = Oil | | | | | | | | AIR FLOW 10 = 1000 CFM 12 = 1200 CFM 14 = 1400 CFM |
| PRODUCT GROUP U = Upflow H = Horizontal T = Upflow/Horizontal L = Lo-Boy | D = Downflow C = Downflow/Horizontal M = Multiposition | | | | | | | SUPPLY PLENUM SIZE A = 20 x 20 B = 24 x 24 C = 21 ¹ / ₈ x 21 ¹ / ₂ D = 19 x 20 E = 19 x 24 |
| SERIES F = Front Breech R = Rear Breech V = Variable Motor | | | | | | | | J = 16 x 19 K = 17 ¹ / ₂ x 19 L = 20 x 22 |
| | | | | | | | | INPUT, MBTUH |

DIMENSIONS AND CLEARANCES



* OUVERTURE CONDUIT/DUCT OPENING

DNS-1226 Rev.A

FURNACE DIMENSIONS - in(mm)

| OMV | DIMENSIONS - in(mm) | | | | | | | | | |
|-----|---------------------|-------------|--------------|-------------|---------|-------------|---------|-------------|-------------|---------|
| | A | B | C | D | E | F | G | H | J | K |
| 098 | 16-7/8(429) | 16(406) | 40-3/4(1035) | 21-1/2(546) | 19(483) | 17-3/4(451) | 19 | 18-3/4(476) | 17-3/4(451) | 19(483) |
| 112 | 21-5/8(550) | 17-1/2(444) | 41-1/2(1054) | 25-1/2(649) | 19(483) | 21-3/4(552) | 23(584) | 18-3/4(476) | 17-3/4(451) | 19(483) |
| 154 | 23(584) | 20(508) | 47-7/8(1216) | 28-1/2(725) | 22(559) | 21-3/4(552) | 23(584) | 25(635) | 21-3/4(552) | 23(584) |

MINIMUM INSTALLATION CLEARANCES FROM COMBUSTIBLE MATERIALS - in(mm)

| Location | Application | Upflow | Downflow | Horizontal |
|-----------|---------------------------------------------------------------|------------|-----------------------|-----------------------|
| Sides | Furnace ¹ | 1 (25.4) | 1 (25.4) | N / A |
| | OMV154 Furnace ¹ | 1 (25.4) | 2 (50.8) | N / A |
| | Supply plenum - within 6ft (1.8m) of furnace ¹ | 2 (50.8) | 2 (50.8) | 1 (25.4) |
| Bottom | Furnace ² (*use sub-base on combustible floor) | 0 | 2 (50.8) ⁴ | 1 (25.4) ³ |
| Back | OMV098 Furnace (opposite end of burner) ¹ | 3 (76.2) | 3 (76.2) | 1 (25.4) |
| | OMV112 & OMV154 Furnace (opposite end of burner) ¹ | 3 (76.2) | 3 (76.2) | 3 (76.2) |
| Top | Furnace ² or Plenum | N / A | N / A | 2 (50.8) |
| | Horizontal warm air duct - within 6ft (1.8m) of furnace | 2 (50.8) | 2 (50.8) | 2 (50.8) |
| Flue pipe | Vertically above flue pipe | 9 (228.6) | 9 (228.6) | 9 (228.6) |
| Front | Furnace (burner end) ¹ | 18 (457.2) | 18 (457.2) | 18 (457.2) |

¹ Horizontal dimensions

² Vertical dimensions

³ This dimension can be obtained by using Horizontal Flow Base # HFB101

⁴ This dimension can be obtained by using Downflow Base # DFB102 for OMV098 or DFB103 for OMV112 or DFB104 for OMV154

| FURNACE SPECIFICATIONS | | | | | | |
|----------------------------------------------------------|------------------------------------|-----------------|-----------------------------------|------------------------------------|-----------------------------------|----------|
| Model: | OMV098 | | OMV112 | | OMV154 | |
| Rating & Performance | | | | | | |
| Firing rate (USGPH)* | 0.50 | 0.60 | 0.68 | 0.80 | 0.90 | 1.10 |
| Input (BTU/h)* | 70,000 | 84,000 | 95,200 | 112,000 | 126,000 | 154,000 |
| Maximum heating capacity (BTU/h)* | 59,200 | 70,400 | 79,000 | 93,000 | 107,000 | 129,000 |
| Heating temperature rise * | 30 - 47°C / 55 - 85°F | | 33 - 40°C / 60 - 72°F | | 33 - 40°C / 60 - 72°F | |
| Flue draft with chimney (in. w.c. / Pa) | -0.06 to -0.025 / -14.9 to -6.2 | | -0.06 to -0.025 / -14.9 to -6.2 | | -0.06 to -0.035 / -14.9 to -8.7 | |
| Overfire pressure with chimney (in. w.c. / Pa) | -0.035 to +0.010 / -8.7 to +2.5 | | -0.035 to +0.025 / -8.7 to +6.2 | | -0.035 to +0.045 / -8.7 to +11.2 | |
| Flue draft with direct vent (in. w.c. / Pa) | +0.05 to +0.20 / +12.5 to +50 | | +0.03 to +0.15 / +7.5 to +37.5 | | +0.05 to +0.16 / +12.5 to +40 | |
| Overfire pressure with direct vent (in. w.c. / Pa) | +0.03 to +0.15 / +7.5 to +37.5 | | +0.05 to +0.17 / +12.5 to +42.3 | | +0.06 to +0.22 / +14.9 to +54.8 | |
| Beckett Burner; (Chimney) | AFG70MQSS | | AFG70MQSS | | N/A | |
| Burner tube insertion length | 1-3/4" (45mm) | | 1-3/4" (45mm) | | | |
| Head type | 2-slots L2 head | | 2-slots L2 head | | | |
| Nozzle (Delavan) ** | 0.40-60A | 0.50-60A | 0.60-60W | 0.65-60B | | |
| Low firing rate baffle | Yes (5580) | Yes (5580) | N/A | N/A | | |
| Pump pressure (PSIG)* | 155 | 145 | 140 | 150 | | |
| Head/Air setting | 4/0 | 8/0 | 10/0 (Note 1) | 10/0 (Note 1) | | |
| AFUE % (From CSA B212 standard & Canadian regulation)*** | 85.6 ‡ | 85.6 ‡ | 86.3 ‡ | 85.6 ‡ | | |
| AFUE % (From ASHRAE 103 standard & US regulation)*** | 85.2 ‡ | 85.1 ‡ | 85.3 ‡ | 85.4 ‡ | | |
| Beckett Burner; (Chimney or Direct Vent) | NX56LQ | | NX56LQ | | NX50LC | |
| Burner tube insertion length | 2-3/4" (70mm) | | 1-3/4" (45mm) | | 1-3/4" (45mm) | |
| Head type | 6-slots LQ head | | 6-slot LQ head | | 6-slot LC head | |
| Nozzle (Delavan) ** | 0.40-60W | 0.50-60W | 0.60-60A | 0.70-60A | 0.75-60B | 0.90-60B |
| Low firing rate baffle | Yes (32229) | Yes (32229) | N/A | N/A | N/A | N/A |
| Pump pressure (PSIG)* | 155 | 145 | 130 | 130 | 145 | 150 |
| Combustion air adjustment OR Head/Air setting | 2.0 | 2.75 | 3.5 | 2.5 | 3.5 | 4.0 |
| AFUE % (From CSA B212 standard & Canadian regulation)*** | 86.7 ‡ | 85.7 ‡ | 87.1 ‡ | 86.6 ‡ | 87.0 ‡ | 85.6 ‡ |
| AFUE % (From ASHRAE 103 standard & US regulation)*** | 86.1 ‡ | 85.4 ‡ | 85.8 ‡ | 85.3 ‡ | 85.3 ‡ | 85.1 ‡ |
| Riello Burner; (Chimney) | 40-F3 with Air Inlet Damper | | | F5 with Electric Air Damper | | |
| Burner tube insertion length | 2-3/4" (70mm) | | 2-3/4" (70mm) | | 2 3/4" (70mm) | |
| Nozzle (Delavan) | 0.40-70A | 0.50-70A | 0.60-70A | 0.70-70A | 0.75-70A | 0.90-70A |
| Pump pressure (PSIG)* | 155 | 145 | 130 | 130 | 145 | 150 |
| Combustion air adjustment (turbulator/damper) | 0 / 1.5 | 0 / 2.5 | 1 / 2.6 | 2 / 3.1 | 1.5/2.25 | 2.5/2.75 |
| AFUE % (From CSA B212 standard & Canadian regulation)*** | 87.0 ‡ | 86.3 ‡ | 87.0 ‡ | 86.8 ‡ | 86.6 ‡ | 85.3 ‡ |
| AFUE % (From ASHRAE 103 standard & US regulation)*** | 86.4 ‡ | 85.9 ‡ | 85.8 ‡ | 85.4 ‡ | 86.0 ‡ | 85.0 ‡ |
| Riello Burner; (Direct vent) | 40-BF3 | | 40-BF5 | | 40-BF5 | |
| Burner tube insertion length | 2-3/4" (70mm) | | 2-3/4" (70mm) | | 2 3/4" (70mm) | |
| Nozzle (Delavan) | 0.40-70A | 0.50-70A | 0.60-70A | 0.70-70A | 0.75-70A | 0.90-70A |
| Pump pressure (PSIG)* | 155 | 145 | 130 | 130 | 145 | 150 |
| Combustion air adjustment (turbulator/damper) | 0 / 3.25 | 0 / 4 | 0 / 2.75 | 0 / 3.25 | 1.0/3.75 | 3.0/4.25 |
| AFUE % (From CSA B212 standard & Canadian regulation)*** | 85.6 ‡ | 85.3 ‡ | 86.7 ‡ | 85.5 ‡ | 86.4 ‡ | 85.7 ‡ |
| AFUE % (From ASHRAE 103 standard & US regulation)*** | 85.1 ‡ | 85.0 ‡ | 85.3 ‡ | 85.3 ‡ | 86.1 ‡ | 85.0 ‡ |
| Electrical System | | | | | | |
| Volts - Hz - Phase | 115 - 60 - 1 | | 115 - 60 - 1 | | 115 - 60 - 1 | |
| Rated current (Amps) | 10.3 | | 10.3 | | 15.7 | |
| Minimum ampacity for wire sizing (Amps) | 12.2 | | 12.2 | | 18.1 | |
| Max. fuse size (Amps) | 15 | | 15 | | 20 | |
| Control Transformer (VA) | 40 | | 40 | | 40 | |
| External control power available Heating/Cooling (VA) | 40/30 | | 40/30 | | 40/30 | |
| Blower Data (Side Air Return) | | | | | | |
| Motor (HP) / Number of speeds | 1/2 HP / ECM (with inductor) | | 1/2 HP / ECM | | 1 HP / ECM | |
| Blower wheel size in(mm) | 10 x 8 (254 x 203) | | 10 x 10 (254 x 254) tight housing | | 12 x 10 (301 x 254) tight housing | |

* INPUT & OUTPUT ADJUSTMENT
 Pump pressure can be adjusted to maintain proper firing rate
 Increase pump pressure if flue gases' temperature is under 400°F
 Adjust the **total** flue gas temperature between 400°F and 575°F/330°F and 505°F **net** approx.)
 Adjust fan speed for air temperature rise to be in specified range
 ** Default installed nozzle in bold character
 *** AFUE value established after minimum 20 hours of continuous operation.

FURNACE SPECIFICATIONS

| General Information | | | | |
|------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|--------------------------------------------|--|
| Overall dimensions W x D x H - in(mm) | 16-7/8 x 21-1/8 x 40-3/4 (429 x 511 x 1035) | 21-3/4 x 25-3/4 x 41-1/2 (553 x 654 x 1054) | 25 x 28-1/2 x 47-7/8 (635 x 724 x 1216) | |
| Supply air opening - in(mm) | 16 x 19 (406 x 483) | 17-1/2 x 19 (445 x 483) | 20 x 22 (508 x 559) | |
| Return air opening - in(mm) | 19 x 19 (483 x 483) | 23 x 19 (584 x 483) | 23 x 23 (584 x 584) | |
| Filter size - in(mm) | 20 x 20 (508 x 508) | 24 x 20 x 1 (610 x 508 x 25) | 24 x 24 x 1 (610 x 610 x 25) | |
| Shipping weight - lbs(kg) | 125 (57) | 153 (70) | 200 (91) | |
| Air conditioning, maximum output (tons) at .50 in. w.c. (125 Pa) | 3 | 3.5 | 5.0 | |

AIR FLOW - CFM (L/s)

OMV098

| OIL HEATING MODE - 24 VAC input (R) on W only | | | | |
|-----------------------------------------------|-------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| SW1- HEAT DIP switch position | HEAT INPUT (USGPH) | CFM (L/s) with SW3-ADJ DIP switch position A | CFM (L/s) with SW3-ADJ DIP switch position B | CFM (L/s) with SW3-ADJ DIP switch position C |
| A (1=OFF, 2=OFF) | 0.70 | 1260 (595) | 1385 (654) | 1135 (536) |
| B (1=ON, 2=OFF) | 0.60 | 1050 (496) | 1155 (545) | 945 (446) |
| C (1=OFF, 2=ON) | 0.50 | 850 (401) | 935 (441) | 765 (361) |
| D (1=ON, 2=ON) | Same value as DIP switch position A | | | |

| CONTINUOUS FAN - 24 VAC input (R) on G only | | | | |
|---------------------------------------------|-------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| SW2- COOL DIP switch position | A/C size (TON) | CFM (L/s) with SW3-ADJ DIP switch position A | CFM (L/s) with SW3-ADJ DIP switch position B | CFM (L/s) with SW3-ADJ DIP switch position C |
| A (1=OFF, 2=OFF) | 3.0 | 900 (425) | 990 (467) | 810 (382) |
| B (1=ON, 2=OFF) | 2.5 | 750 (354) | 830 (392) | 675 (319) |
| C (1=OFF, 2=ON) | 2.0 | 600 (283) | 660 (311) | 540 (255) |
| D (1=ON, 2=ON) | 1.5 | 450 (212) | 495 (234) | 405 (191) |

| COOLING OR HEAT PUMP HEATING MODE - 24 VAC input (R) to G, Y/Y2 and O (for cooling) | | | | |
|-------------------------------------------------------------------------------------|-------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| SW2- COOL DIP switch position | A/C size (TON) | CFM (L/s) with SW3-ADJ DIP switch position A | CFM (L/s) with SW3-ADJ DIP switch position B | CFM (L/s) with SW3-ADJ DIP switch position C |
| A (1=OFF, 2=OFF) | 3.0 | 1200 (566) | 1320 (623) | 1080 (510) |
| B (1=ON, 2=OFF) | 2.5 | 1000 (472) | 1100 (519) | 900 (425) |
| C (1=OFF, 2=ON) | 2.0 | 800 (378) | 880 (415) | 720 (340) |
| D (1=ON, 2=ON) | 1.5 | 600 (283) | 660 (311) | 540 (255) |

In Cooling - Dehumidification mode, with no 24 VAC input to DH, the CFM (L/s) are reduced by 15%.
The CFM (L/s) shown are reduced by 55% if there is 24 VAC input to Y1 (Slow speed of 2-speed compressor)

| DELAY PROFILE FOR OIL HEATING MODE | | | | |
|------------------------------------|-----------------------|-------------------------------------------|---------------------------------------------|-------------------------------------|
| SW4- DELAY DIP switch position | HEAT INPUT (USGPH) | PreRun On-Delay CFM (L/s) Level - Time | ShortRun On-Delay CFM (L/s) Level - Time | Off-Delay CFM (L/s) Level - Time |
| A (1=OFF, 2=OFF) | 0.75 | 13% - 45 sec. | 19% - 30 sec | 38% -3 min. |
| B (1=ON, 2=OFF) | 0.65 | 13% - 45 sec. | 19% - 60 sec | 38% -3 min. |
| C (1=OFF, 2=ON) | 0.50 | 13% - 60 sec. | 13% - 60 sec | 38% -3 min. |
| D (1=ON, 2=ON) | All | 13% - 30 sec. | 100% - 0 sec | 100% - 2 min. |

PreRun and ShortRun are the periods of time when the the blower starts at very low CFM (L/s) to minimize the distribution of cool air in the system and then runs up to normal speed.

Off Delay is the time required to cool down the heat exchanger (heating mode) with low CFM (L/s), to minimize cool draft in the air distribution system.

| DELAY PROFILE FOR COOLING OR HEAT PUMP HEATING MODE | | | | |
|-----------------------------------------------------|----------|-------------------------------------------|---------------------------------------------|-------------------------------------|
| No adjustment required | A/C size | PreRun On-Delay CFM (L/s) Level - Time | ShortRun On-Delay CFM (L/s) Level - Time | Off-Delay CFM (L/s) Level - Time |
| - | All | No delay | No delay | 100% - 90 sec. |

PreRun and ShortRun are the periods of time when the the blower starts at very low CFM (L/s) to minimize the distribution of cool air in the system and then runs up to normal speed.

Off Delay is the time required to cool down the coil (heating mode) with low CFM (L/s), to minimize cool draft in the air distribution system.

AIR FLOW - CFM (L/s) continued

OMV112

| OIL HEATING MODE - 24 VAC input (R) on W only | | | | |
|-----------------------------------------------|-----------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| SW1- HEAT DIP switch position | HEAT INPUT (USGPH) | CFM (L/s) with SW3- ADJ DIP switch position A | CFM (L/s) with SW3- ADJ DIP switch position B | CFM (L/s) with SW3- ADJ DIP switch position C |
| A (1=OFF, 2=OFF) | 0.68 | 1160 (547) | 1310 (618) | 990 (467) |
| B (1=ON, 2=OFF) | 0.80 | 1340 (632) | 1400 (661) | 1140 (538) |
| C (1=OFF, 2=ON)* | 0.68 | 1000 (472) | 1130 (533) | 850 (401) |
| D (1=ON, 2=ON)* | 0.80 | 1160 (547) | 1310 (618) | 990 (467) |

| CONTINUOUS FAN - 24 VAC input (R) on G only | | | | |
|---------------------------------------------|-------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| SW2- COOL DIP switch position | A/C size (TON) | CFM (L/s) with SW3- ADJ DIP switch position A | CFM (L/s) with SW3- ADJ DIP switch position B | CFM (L/s) with SW3- ADJ DIP switch position C |
| A (1=OFF, 2=OFF) | 3.5 | 1050 (496) | 1210 (571) | 895 (422) |
| B (1=ON, 2=OFF) | 3.0 | 900 (425) | 1035 (488) | 765 (361) |
| C (1=OFF, 2=ON) | 2.5 | 750 (354) | 865 (408) | 640 (302) |
| D (1=ON, 2=ON) | 2.0 | 600 (283) | 690 (326) | 510 (241) |

| COOLING OR HEAT PUMP HEATING MODE - 24 VAC input (R) to G, Y/Y2 and O (for cooling) | | | | |
|-------------------------------------------------------------------------------------|-------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| SW2- COOL DIP switch position | A/C size (TON) | CFM (L/s) with SW3- ADJ DIP switch position A | CFM (L/s) with SW3- ADJ DIP switch position B | CFM (L/s) with SW3- ADJ DIP switch position C |
| A (1=OFF, 2=OFF) | 3.5 | 1400 (661) | 1400 (1400) | 1260 (595) |
| B (1=ON, 2=OFF) | 3.0 | 1200 (566) | 1320 (623) | 1080 (510) |
| C (1=OFF, 2=ON) | 2.5 | 1000 (472) | 1100 (519) | 900 (425) |
| D (1=ON, 2=ON) | 2.0 | 800 (378) | 880 (415) | 720 (340) |

In Cooling - Dehumidification mode, with no 24 VAC input to DH, the CFM (L/s) are reduced by 15%.

The CFM (L/s) shown are reduced by 20% if there is 24 VAC input to Y1 (first stage cooling mode)

| DELAY PROFILE FOR OIL HEATING MODE | | | | |
|------------------------------------|-----------------------|-------------------------------------------|---------------------------------------------|-------------------------------------|
| SW4- DELAY DIP switch position | HEAT INPUT (USGPH) | PreRun On-Delay CFM (L/s) Level - Time | ShortRun On-Delay CFM (L/s) Level - Time | Off-Delay CFM (L/s) Level - Time |
| A (1=OFF, 2=OFF) | 0.68 | 13% - 45 sec. | 19% - 60 sec | 38% - 3 min. |
| B (1=ON, 2=OFF) | 0.8 | 13% - 45 sec. | 19% - 30 sec | 38% - 3 min. |
| C (1=OFF, 2=ON) | All | 13% - 45 sec. | 100% - 0 sec | 100% - 2 min. |
| D (1=ON, 2=ON) | All | 13% - 90 sec. | 100% - 0 sec | 100% - 2 min. |

PreRun and ShortRun are the periods of time when the the blower starts at very low CFM (L/s) to minimize the distribution of cool air in the system and then runs up to normal speed.

Off Delay is the time required to cool down the heat exchanger with low CFM (L/s), to minimize cool draft in the air distribution system.

| DELAY PROFILE FOR COOLING OR HEAT PUMP HEATING MODE | | | | |
|-----------------------------------------------------|----------|-------------------------------------------|---------------------------------------------|-------------------------------------|
| No adjustment required | A/C size | PreRun On-Delay CFM (L/s) Level - Time | ShortRun On-Delay CFM (L/s) Level - Time | Off-Delay CFM (L/s) Level - Time |
| - | All | No delay | No delay | 100% - 90 sec. |

PreRun and ShortRun are the periods of time when the the blower starts at very low CFM (L/s) to minimize the distribution of cool air in the system and then runs up to normal speed.

Off Delay is the time required to cool down the coil (heating mode) with low CFM (L/s), to minimize cool draft in the air distribution system.

* Alternate adjustment in oil-fired heating mode with higher temperature rise

AIR FLOW - CFM (L/s) continued

OMV154

OIL HEATING MODE - 24 VAC input (R) on W only

| SW1- HEAT DIP switch position | HEAT INPUT (USGPH) | CFM (L/s) with SW3-ADJ DIP switch position A | CFM (L/s) with SW3-ADJ DIP switch position B | CFM (L/s) with SW3-ADJ DIP switch position C |
|----------------------------------|--------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| A (1=OFF, 2=OFF) | 0.90 | 1450 (684) | 1595 (753) | 1305 (616) |
| B (1=ON, 2=OFF) | 1.10 | 1700 (802) | 1870 (882) | 1530 (722) |
| C (1=OFF, 2=ON)* | Settings not used in this mode | | | |
| D (1=ON, 2=ON)* | | | | |

CONTINUOUS FAN - 24 VAC input (R) on G only

| SW2- COOL DIP switch position | A/C size (TON) | CFM (L/s) with SW3-ADJ DIP switch position A | CFM (L/s) with SW3-ADJ DIP switch position B | CFM (L/s) with SW3-ADJ DIP switch position C |
|----------------------------------|-------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| A (1=OFF, 2=OFF) | 5.0 | 1500 (708) | 1725 (814) | 1275 (602) |
| B (1=ON, 2=OFF) | 4.0 | 1200 (566) | 1380 (651) | 1020 (481) |
| C (1=OFF, 2=ON) | 3.5 | 1050 (496) | 1207 (570) | 890 (420) |
| D (1=ON, 2=ON) | 3.0 | 900 (425) | 1035 (488) | 765 (361) |

COOLING OR HEAT PUMP HEATING MODE - 24 VAC input (R) to G, Y/Y2 and O (for cooling)

| SW2- COOL DIP switch position | A/C size (TON) | CFM (L/s) with SW3-ADJ DIP switch position A | CFM (L/s) with SW3-ADJ DIP switch position B | CFM (L/s) with SW3-ADJ DIP switch position C |
|----------------------------------|-------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| A (1=OFF, 2=OFF) | 5.0 | 2000 (944) | 2200 (1038) | 1800 (849) |
| B (1=ON, 2=OFF) | 4.0 | 1600 (755) | 1760 (831) | 1440 (680) |
| C (1=OFF, 2=ON) | 3.5 | 1400 (661) | 1540 (727) | 1260 (595) |
| D (1=ON, 2=ON) | 3.0 | 1200 (566) | 1320 (623) | 1080 (510) |

In Cooling - Dehumidification mode, with no 24 VAC input to DH, the CFM (L/s) are reduced by 15%.

The CFM (L/s) shown are reduced by 20% if there is 24 VAC input to Y1 (first stage cooling mode)

DELAY PROFILE FOR OIL HEATING MODE

| SW4- DELAY DIP switch position | HEAT INPUT (USGPH) | PreRun On-Delay CFM (L/s) Level - Time | ShortRun On-Delay CFM (L/s) Level - Time | Off-Delay CFM (L/s) Level - Time |
|-----------------------------------|-----------------------|-------------------------------------------|---------------------------------------------|-------------------------------------|
| A (1=OFF, 2=OFF) | 0.90 | 13% - 90 sec. | 31% - 30 sec | 50% - 4 min. |
| B (1=ON, 2=OFF) | 1.10 | 13% - 60 sec. | 31% - 30 sec | 38% - 5 min. |
| C (1=OFF, 2=ON) | ALL | 13% - 90 sec. | 31% - 30 sec | 56% - 5 min. |
| D (1=ON, 2=ON) | ALL | 13% - 60 sec. | 31% - 30 sec | 44% - 5 min. |

PreRun and ShortRun are the periods of time when the the blower starts at very low CFM (L/s) to minimize the distribution of cool air in the system and then runs up to normal speed.

Off Delay is the time required to cool down the heat exchanger with low CFM (L/s), to minimize cool draft in the air distribution system.

DELAY PROFILE FOR COOLING OR HEAT PUMP HEATING MODE

| No adjustment required | A/C size | PreRun On-Delay CFM (L/s) Level - Time | ShortRun On-Delay CFM (L/s) Level - Time | Off-Delay CFM (L/s) Level - Time |
|------------------------|----------|-------------------------------------------|---------------------------------------------|-------------------------------------|
| - | All | No delay | No delay | 100% - 90 sec. |

PreRun and ShortRun are the periods of time when the the blower starts at very low CFM (L/s) to minimize the distribution of cool air in the system and then runs up to normal speed.

Off Delay is the time required to cool down the coil (heating mode) with low CFM (L/s), to minimize cool draft in the air distribution system.

* Alternate adjustment in oil-fired heating mode with higher temperature rise

| ACCESSORIES | | |
|-------------------|----------------------------------------|-------------------|
| Product Model No. | Burners | Nozzle (supplied) |
| OMV098 | N01J050 Beckett (chimney or direct) | (0.50-60W) |
| | N01F054 Riello (chimney) | (0.50 - 70A) |
| | N01F055 Riello (direct) | (0.50 - 70A) |
| OMV112 | N01J052 Beckett (chimney or direct) | (0.60-60W) |
| | N01F051 Riello (chimney) | (0.60-60A) |
| | N01F052 Riello (chimney or direct) | (0.60-70A) |
| OMV154 | N01J053 Beckett (chimney) | (0.75-60B) |
| | N01F053 Riello (chimney) | (0.60-70A) |
| | N01F056 Riello (direct) | (0.75-70A) |

| ACCESSORY DESCRIPTION | |
|-----------------------|----------------------------------------------------------------------------------|
| Model No | Description |
| N01F051 | Riello Burner (Chimney Vent) for OMV112 |
| N01F052 | Riello Burner (Direct Vent) for OMV112 |
| N01F054 | Riello Burner (Chimney Vent) for OMV098 |
| N01F055 | Riello Burner (Direct Vent) for OMV098 |
| N01F056 | Riello Burner (Direct Vent) for OMV154 |
| N01J050 | Beckett NX Oil Burner for OMV098 |
| N01J052 | Beckett NX Oil Burner for OMV112 |
| N01J053 | Beckett NX Oil Burner for OMV154 |
| DFB102 | Downflow Subbase for OMV098 |
| DFB103 | Downflow Subbase for OMV112 |
| DFB104 | Downflow Subbase for OMV154 |
| FRB101 | Floor Return Base for OMV098 |
| IFV520 | 5" Ø x 20' Insulated Flex Vent for 5"(127mm), Breech Models 20ft (6m) for OMV154 |
| IFV09820 | 4" Ø x 20' Insulated Flex Vent for 4" (102mm) Breech Models 20ft (6m) |
| VTK098 | Vent Terminal Kit for 4" |
| VTK3 | Vent Terminal Kit for 5" |

