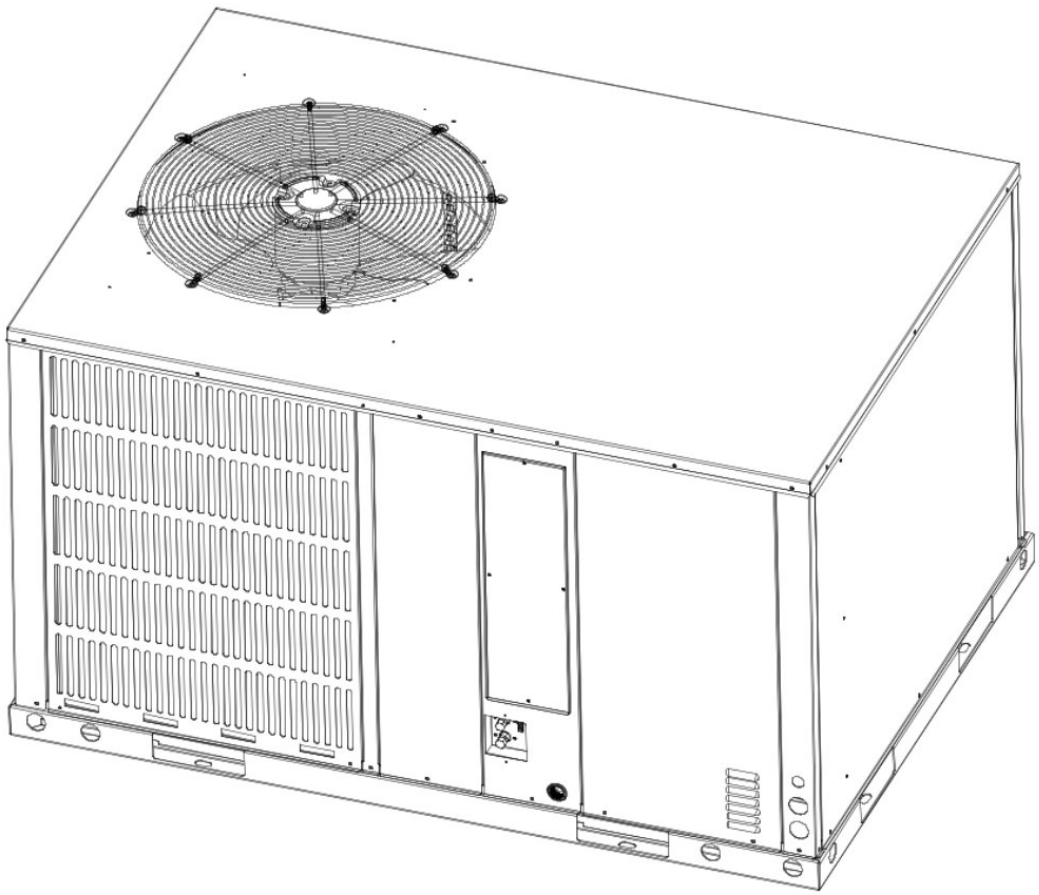
iAir

TAG:

Submittal

Condensing Unit
16.0 SEER2 | 2Ton、2.5Ton、3 Ton Capacity | R32

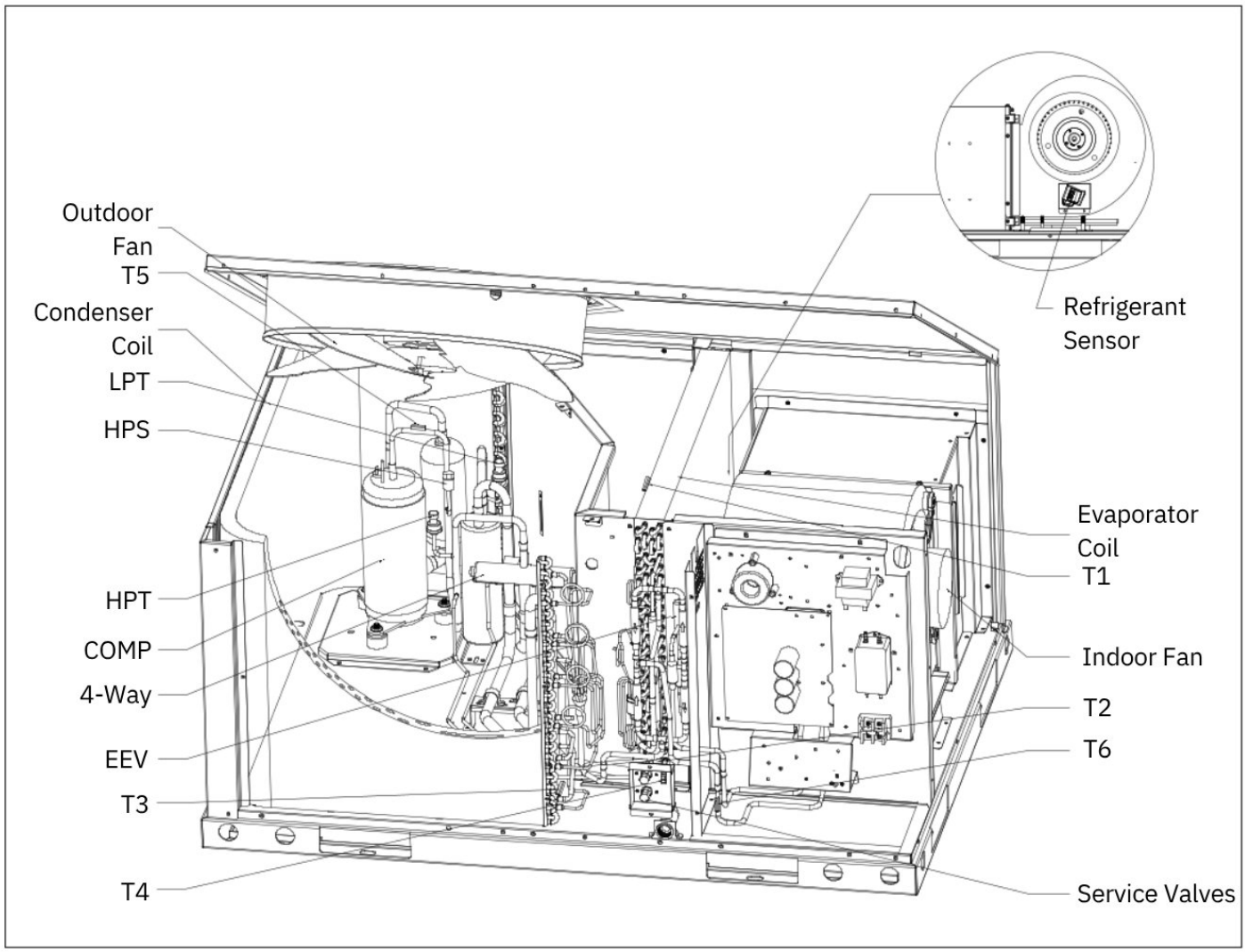


1.Product Specifications

Model	ART-HF24DDMR3-D01/SE160	ART-HF30DDMR3-D01/SE160	ART-HF36DDMR3-D01/SE160
Electrical Data			
Rated Volts/PH/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Min / Max Volts	176 / 265	176 / 265	176 / 265
Performance Cooling	40°F - 120 °F	40°F - 120 °F	40°F - 120 °F
BTUH (High)	23000	27400	33000
Indoor Airflow (CFM)	720	815	1000
SEER2/ EER2-HI	16/10.5	16/10.5	16/10.5
Performance Heating	-4°F - 86°F	-4°F - 86°F	-4°F - 86°F
(High Temp.) BTUH / COP (High)	24000/3.5	28400/3.5	34000/3.5
Power Input (KW)	6.86	8.11	9.71
HSPF2 (BTU / Watt-Hr.)	7.5	7.5	7.5
Power Conn. - V/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity	25.5	25.5	25.5
Max. Overcurrent Protection Min.	40	40	40
/ Max. Volts	176 / 265	176 / 265	176 / 265
Fuse Size - Max. / Recmd. (amps)	40	40	40
Compressor	Rotary	Rotary	Rotary
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
R.L. Amps	15.0	15.0	15.0
Outdoor Coil - Type	Finned Tube Exchanger	Finned Tube Exchanger	Finned Tube Exchanger
Tube Size (in.)	9/32	9/32	9/32
Circuitry Type	Interlaced	Interlaced	Interlaced
Refrigerant Control	EEV	EEV	EEV
Indoor Coil - Type	Finned Tube Exchanger	Finned Tube Exchanger	Finned Tube Exchanger
Tube Size (In.)	9/32	9/32	9/32
Circuitry Type	Interlaced	Interlaced	Interlaced
Drain Conn. Size (In.)	3/4 NPTI	3/4 NPTI	3/4 NPTI
Outdoor Fan - Type	Propeller	Propeller	Propeller
Dia. (in.)	22	22	22
Motor - HP/R.P.M.	1/3 / 200~1050	1/3 / 200~1050	1/3 / 200~1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps/L.R. Amps	2.0	2.0	2.0
Indoor Fan - Type	Centrifugal	Centrifugal	Centrifugal
Drive/No. Speeds	Direct / 5	Direct / 5	Direct / 5
CFM	900	970	1200
Motor - HP/R.P.M.	1/2 / 1050	1/2 / 1050	1/2 / 1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps/L.R. Amps	4.6	4.6	4.6
Refrigerant / Charge (OZ)	R32 /74 .1	R32 /74 .1	R32 /74 .1
Dimensions			
Unit only L x W x H (in.)	52×37-3/7×24-4/5	52×37-3/7×24-4/5	52×37-3/7×24-4/5
Weight			
Net lb. (OZ)	332(14)	332(14)	332(14)
Gross lb. (OZ)	337(5)	337(5)	337(5)

2 Component Location

2.1 2-3 Ton Model



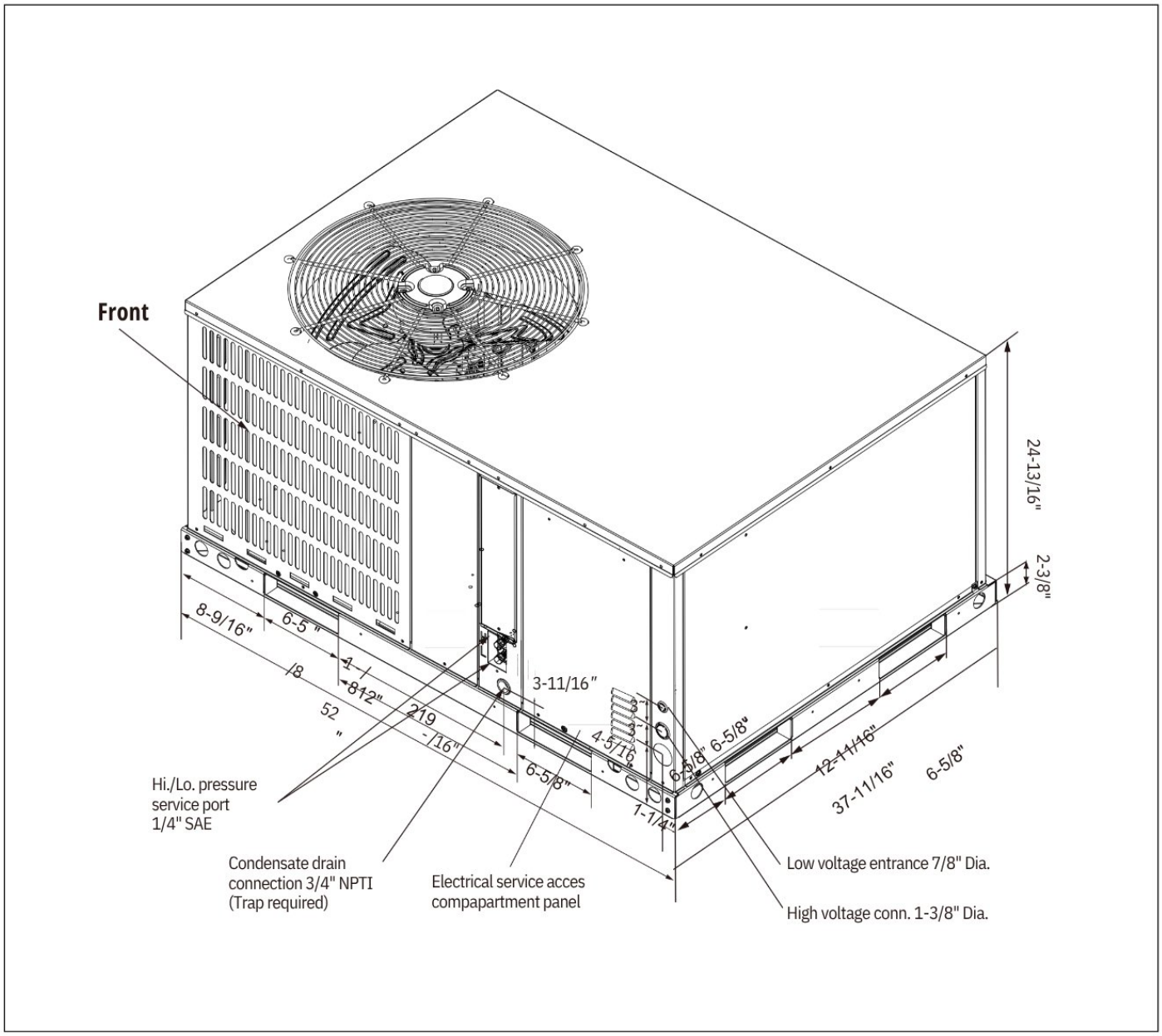
Component	Descriptions	Component	Descriptions
LPT	Low Pressure transducer	T4	Ambient temp. sensor
HPS	High pressure switch	T5	Comp. discharge temp. sensor
HPT	High Pressure transducer	T6 4-	Liquid pipe temperature
T1	Return air temp. sensor	Way	Four-Way Valve
T2	Indoor coil temp. sensor	COMP	Compressor
T3	Condenser temp. sensor	EEV	Electronic expansion valve

Component Descriptions

3 Dimensions

3.1 2-3 Ton Model

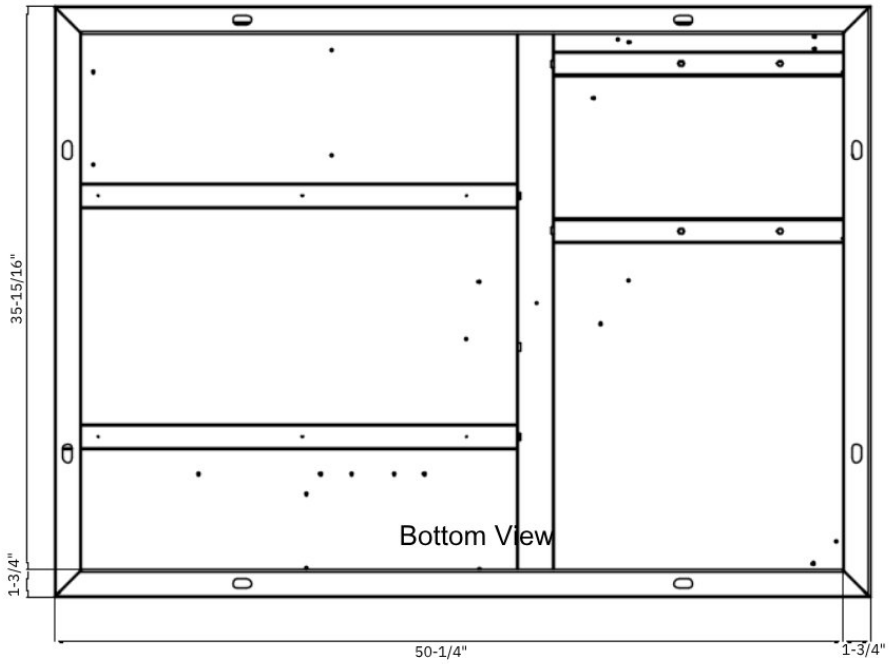
3.1.1 Unit Dimensions

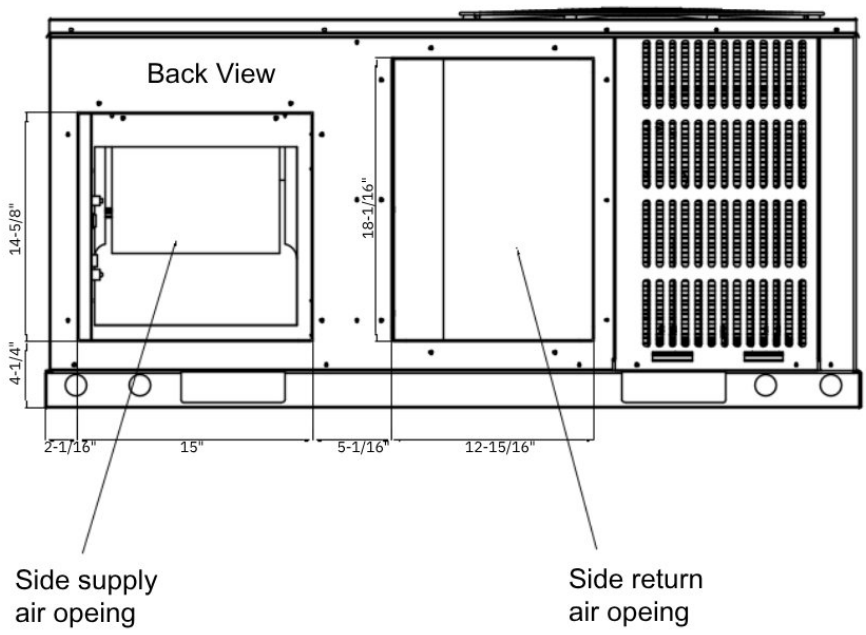


Heat Pump Model	L	W	H
2-3 Ton Model	52"	37-11/16"	24-13/16"

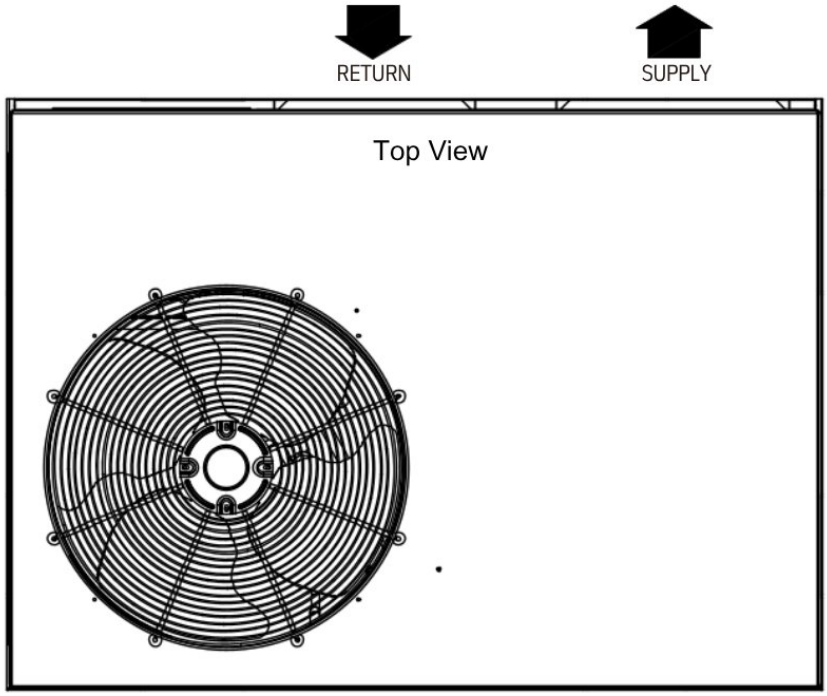
2-3 Ton Unit Dimensions

3.1.2 Dimensions - Back and Bottom

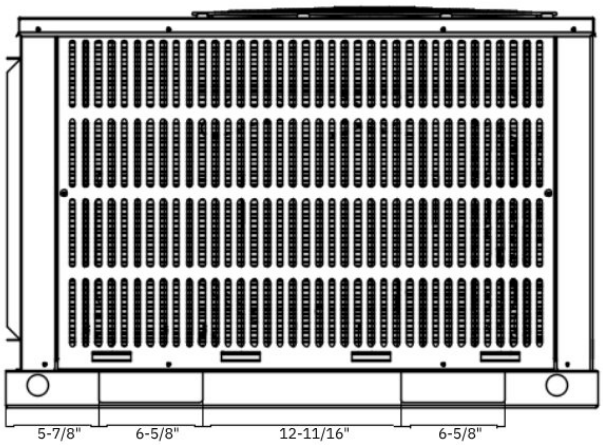




3.1.3 Dimensions - Left and Top



Top View



Left Side View

5 Airflow Performance

Airflow performance data is based on cooling performance with a coil and no filter in place. Select performance table for appropriate unit size. External static applied to unit allows operation within the minimum and maximum limits shown in table below for both cooling and electric heat operation

Airflow Performance

Model	Blower Speeds	External Static Pressure (in.w.c .)								
		0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
24K	1	1026	964	898	831	770	722	675	608	542
	2	1131	1074	1012	950	893	836	779	727	679
	3-Factory Default	1245	1197	1145	1093	1045	983	917	865	817
	4	1359	1316	1270	1226	1183	1131	1074	1007	945
	5	1510	1471	1432	1393	1355	1316	1277	1238	1200
30K	1	1026	964	898	831	770	722	675	608	542
	2	1131	1074	1012	950	893	836	779	727	679
	3	1245	1197	1145	1093	1045	983	917	865	817
	4-Factory Default	1359	1316	1270	1226	1183	1131	1074	1007	945
	5	1510	1471	1432	1393	1355	1316	1277	1238	1200
36K	1	1026	964	898	831	770	722	675	608	542
	2	1131	1074	1012	950	893	836	779	727	679
	3	1245	1197	1145	1093	1045	983	917	865	817
	4	1359	1316	1270	1226	1183	1131	1074	1007	945
	5-Factory Default	1510	1471	1432	1393	1355	1316	1277	1238	1200

1. The advanced airflow must be used as the rated airflow for the full-load operation of the machine.
2. The rated airflow of a system without an electric heater kit requires 300 to 450 cubic feet of air per minute (CFM).
3. The rated airflow of a system with an electric heater kit requires 350 to 450 cubic feet of air per minute(CFM).
4. The air distribution system has the greatest influence on air flow. Therefore, the contractor should only use the procedures recognized by the industry.
5. The design and construction of air duct should be done carefully. Poor design or process will lead to a significant decline in system performance.
6. The air supply duct should be set along the periphery of the air-conditioned space with appropriate size. Improper location of insufficient airflow may lead to insufficient ventilation or noise in the pipeline system.
7. The installer should balance the air distribution system to ensure that all rooms in the room have proper quiet airflow. The speedometer or airflow hood can be used to balance and verify the branch pipe and system airflow (CFM).