

Bosch DX Series Unitary Air Handler

Engineering
Submittal
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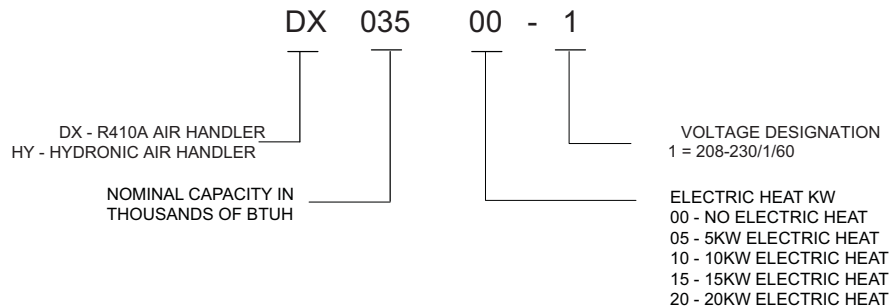


BOSCH

Overview



Model Nomenclature



Features and Benefits

- ▶ Reduced footprint for additional space savings and for retrofitting existing systems
- ▶ Energy Star tier 3 compliant (when paired with a SM or CE condensing section)
- ▶ Constant CFM Variable Speed ECM
- ▶ 4-way multiposition (accessory kit required for downflow applications)
- ▶ 1" cabinet insulation
- ▶ Hydronic connections on top
- ▶ Electrical connections on top or sides
- ▶ Plenum collar on supply outlet
- ▶ Factory installed bleed port thermal expansion valve (TXV)

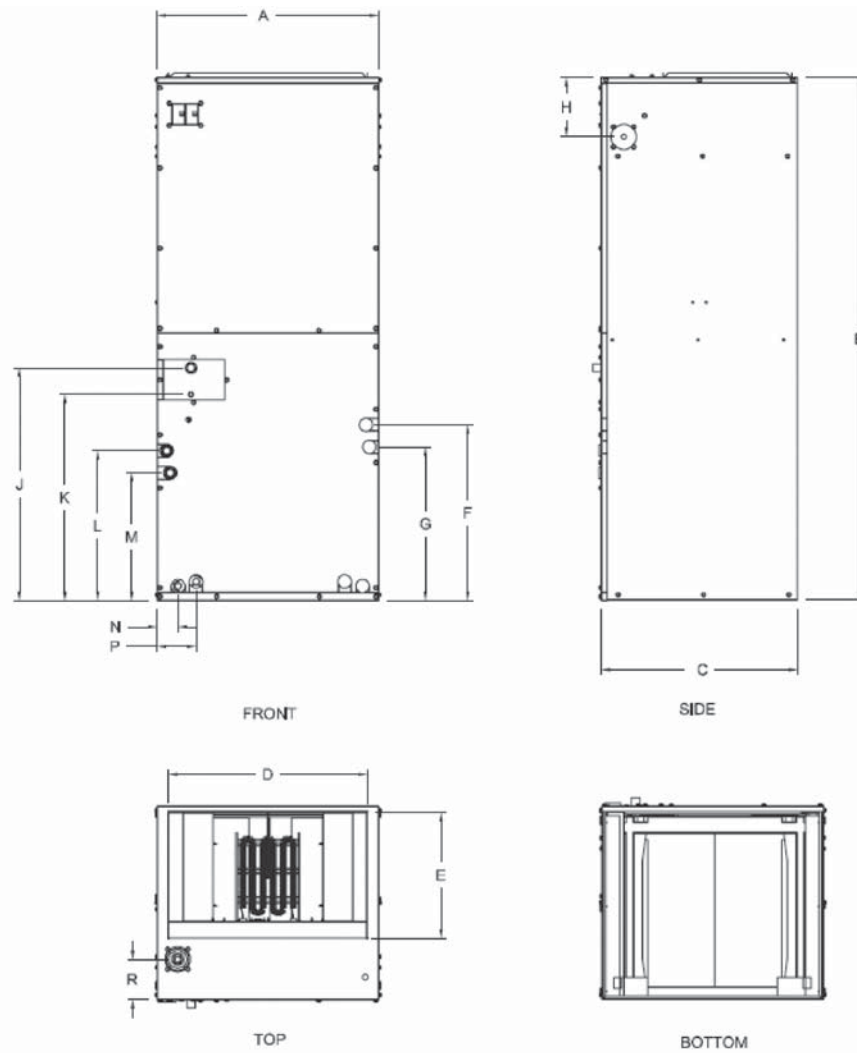


Physical Data						
Description	Unit	Value				
		DX025	DX035	DX049	DX061	DX071
Nominal Capacity	Tons	2	3	4	5	6
Refrigerant Type	—	R410A				
Max Refrig Working Press.	PSIG	600				
Liquid Line Connection Size	Inch	3/8	3/8	3/8	3/8	3/8
Suction Line Connection Size	Inch	3/4	3/4	7/8	7/8	7/8
Condensate Connection Size	Inch	3/4	3/4	3/4	3/4	3/4
Slab Size (FH x FL)	Inch	12 x 16	20 x 16	20 x 17.5	24 x 17.5	26 x 17.5
Rows	—	3				
Fins per Inch	—	12				
Standard Filter Size	Inch	16 x 20 x 2	20 x 20 x 2	20 x 24 x 2	20 x 24 x 2	20 x 24 x 2
Blower Size	Inch	9X6	10X7	12X9	12X10	12X10
Blower Motor HP	HP	1/3	1/2	3/4	1	1
Blower Motor Type	—	ECM Style - Constant CFM/Variable Speed				
Available Electrical	v/p/h	208-230 / 1 / 60				
Shipping Weight	lbs	120	145	202	212	217
Installation Weight	lbs	108	132	170	172	180

i Filter is not included with the unit.
Filter must be ordered with filter rack as an accessory.

Package Data						
Bosch Part Number	Bosch Model	Height	Width	Depth	Weight	Shipping Weight
7738002700	DX02500-1	43	17.5	21	108	120
7738002701	DX03500-1	48	21	21	132	145
7738002702	DX04900-1	58.75	24.5	21.75	170	202
7738002703	DX06100-1	58.75	24.5	21.75	172	212
7738002704	DX07100-1	58.75	24.5	21.75	180	217
7738002705	DX02505-1	43	17.5	21	110	124
7738002706	DX03505-1	48	21	21	134	149
7738002707	DX03510-1	48	21	21	135	120
7738002708	DX04910-1	58.75	24.5	21.75	172	207
7738002709	DX04912-1	58.75	24.5	21.75	175	208
7738002710	DX06110-1	58.75	24.5	21.75	174	217
7738002711	DX06112-1	58.75	24.5	21.75	175	218
7738002712	DX06120-1	58.75	24.5	21.75	177	220
7738002713	DX07110-1	58.75	24.5	21.75	184	227
7738002714	DX07112-1	58.75	24.5	21.75	185	228
7738002712	DX07120-1	58.75	24.5	21.75	187	230

Dimensions



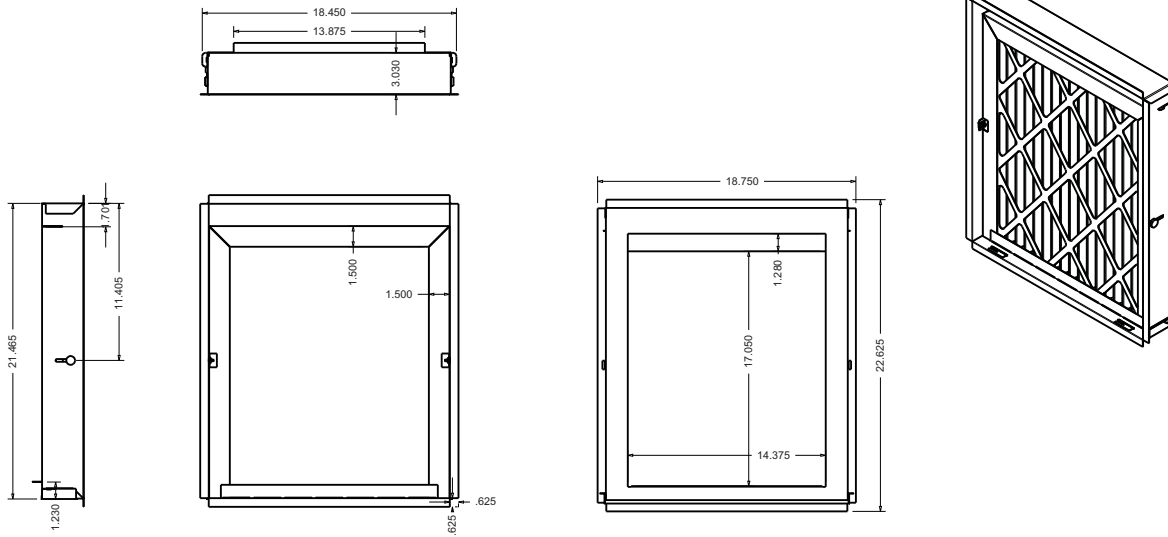
Dimensional Data

Model Number	Dimension (inches)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
DX025	17.5	43	21	15.5	12.5	13.5	11	6.75	16.75	14	11	8.5	2	4	2
DX035	21	48	21	19	12.5	15.5	13	6.75	20	17	12.75	10.25	2.25	4.25	2.5
DX049,61,71	24.5	58.75	21.75	22.25	14.25	19.75	17.25	6.75	26	23	16.75	14.35	2.25	4.25	2.25

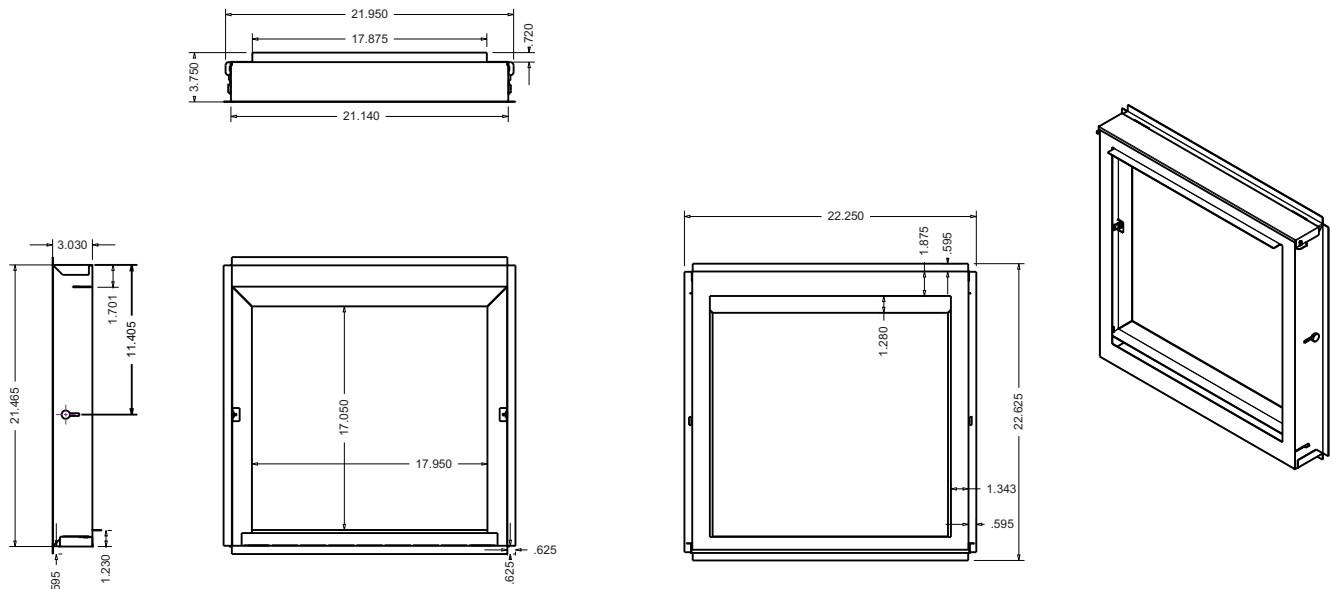


All dimensions are rounded.

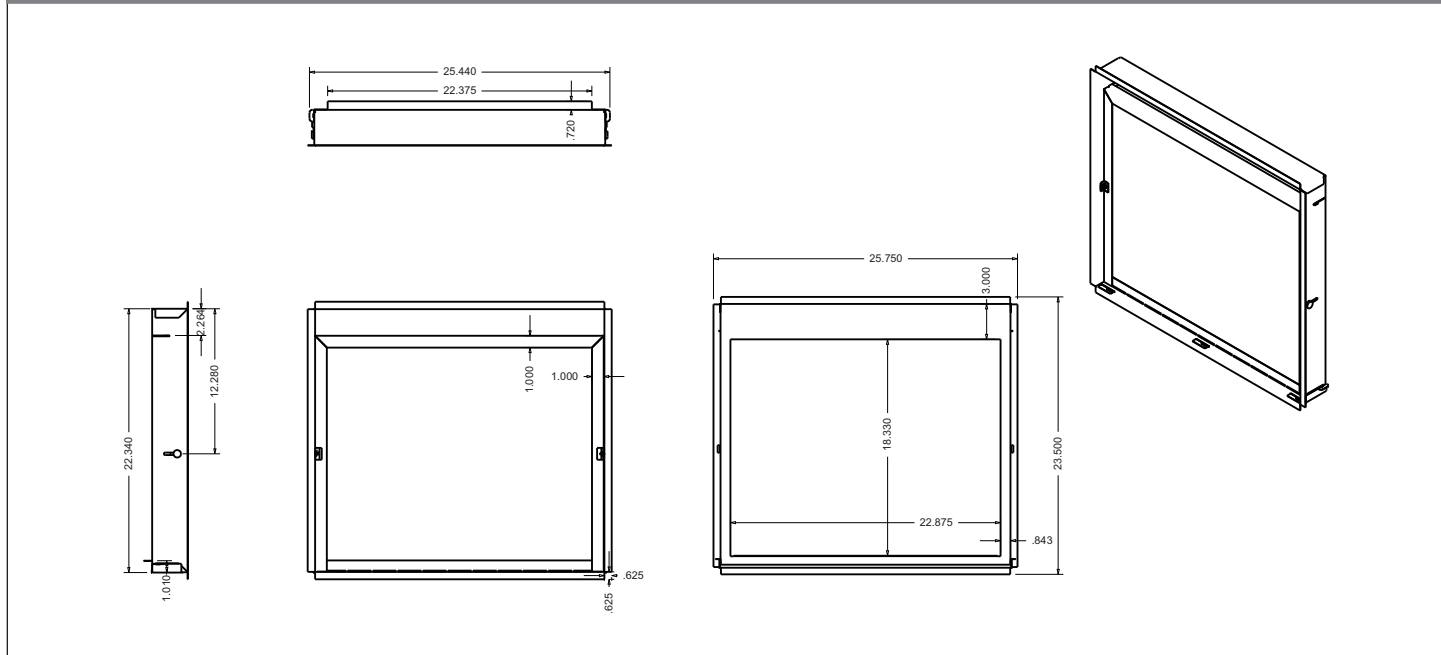
Dimensions for 16 X 20 X 2 Filter Base Assembly



Dimensions for 20 X 20 X 2 Filter Base Assembly



Dimensions for 20 X 24 X 2 Filter Base





Variable Speed ECM CFM									
Model Number	Tap	Adjust	G	Y1+O	Y1+Y2+O	Y1+Y2+W1	EM	Y1 Dehum	Y1+Y2+O+DEHUM
DX025	A	Normal	525	750	950	950	950	638	808
	B	Normal	400	425	725	725	725	361	616
	C	Normal	450	500	800	800	800	425	680
	D	Normal	550	800	1000	1000	1000	680	850
DX035	A	Normal	675	1000	1200	1200	1200	850	1020
	B	Normal	600	925	1100	1100	1100	786	935
	C	Normal	550	800	975	975	975	680	829
	D	Normal	725	1075	1300	1300	1300	914	1105
DX049	A	Normal	950	1350	1700	1700	1700	1148	1445
	B	Normal	900	1270	1600	1600	1600	1080	1360
	C	Normal	800	1150	1450	1450	1450	978	1233
	D	Normal	725	1000	1300	1300	1300	850	1105
DX061 DX071	A	Normal	1125	1500	2000	2000	2000	1275	1700
	B	Normal	1200	1650	2200	2200	2200	1403	1870
	C	Normal	1050	1425	1900	1900	1900	1211	1615
		Normal	1275	1725	2300	2300	2300	1466	1955



Constant Airflow on DX025 with static pressures from 0.1-0.8" WC
 Constant Airflow on DX035, 049, 061, 071 with static pressures from 0.1-1.0" WC

Factory Default Motor Settings			
Model Number	Tap	Adjust	CFM
DX025	C	Normal	800
DX035	A	Normal	1200
DX049	B	Normal	1600
DX061	A	Normal	2000
DX071	B	Normal	2300

CFM @ Full And Part Load								
Model Number	Full Load - "Y1 + Y2" *				Part Load - "Y1" **			
	Tap	"."	"Norm"	"+"	Tap	"."	"Norm"	"+"
DX025	A	808	950	1093	A	638	750	863
	B	616	725	834	B	361	425	489
	C	680	800	920	C	425	500	575
	D	850	1000	1150	D	680	800	920
DX035	A	1020	1200	1380	A	850	1000	1150
	B	935	1100	1265	B	786	925	1064
	C	829	975	1121	C	680	800	920
	D	1105	1300	1495	D	914	1075	1236
DX049	A	1445	1700	1955	A	1148	1350	1553
	B	1360	1600	1840	B	1080	1270	1461
	C	1233	1450	1668	C	978	1150	1323
	D	1105	1300	1495	D	850	1000	1150
DX061	A	1700	2000	2300	A	1275	1500	1725
	B	1870	2200	2530	B	1403	1650	1898
	C	1615	1900	2185	C	1211	1425	1639
	D	1955	2300	2645	D	1466	1725	1984
DX071	A	1700	2000	2300	A	1275	1500	1725
	B	1870	2200	2530	B	1403	1650	1898
	C	1615	1900	2185	C	1211	1425	1639
	D	1955	2300	2645	D	1466	1725	1984

i Based on a wet Coil @ 45°F Evap. / 80°F DB / 67°F WB CFM @ 0.6" WC
 Based on a wet Coil @ 45°F Evap. / 80°F DB / 67°F WB CFM @ 0.4" WC

i Constant Airflow on DX025 with static pressures from 0.1-0.8" WC
 Constant Airflow on DX035, 049, 061, 071 with static pressures from 0.1-1.0" WC
 Factory default settings in **bold**

Pressure Drop Wet Coil Y1 Call Only						
Model Number	"Norm"	Coil	Filter 1"	Filter 2"	Unit 1"	Unit 2"
DX025	750	0.16	0.16	0.22	0.32	0.38
	425	0.08	0.00	0.19	0.08	0.27
	500	0.08	0.04	0.19	0.12	0.27
	800	0.17	0.18	0.23	0.35	0.40
DX035	1000	0.11	0.18	0.23	0.29	0.34
	925	0.09	0.16	0.21	0.25	0.31
	800	0.07	0.11	0.20	0.18	0.27
	1075	0.13	0.20	0.24	0.33	0.37
DX049	1350	0.14	0.22	0.25	0.36	0.39
	1270	0.14	0.20	0.24	0.33	0.37
	1150	0.12	0.17	0.22	0.28	0.34
	1000	0.09	0.13	0.20	0.22	0.29
DX061	1500	0.13	0.25	0.28	0.38	0.41
	1650	0.15	0.27	0.31	0.42	0.45
	1425	0.12	0.23	0.26	0.35	0.38
	1725	0.15	0.29	0.32	0.44	0.48
DX071	1500	0.12	0.25	0.28	0.37	0.40
	1650	0.15	0.27	0.31	0.42	0.46
	1425	0.11	0.23	0.26	0.34	0.37
	1725	0.17	0.29	0.32	0.45	0.49

i Based on a wet Coil @ 45°F Evap. / 80°F DB / 67°F WB
 Unit 1" is with 1" filter, Unit 2" is with 2" filter
 Pressure Drop in Inches of Water Column (W.C)
 Constant airflow on DX025 with static pressure from 0.1- 0.8" W.C.
 Constant airflow on DX035, 049, 061, 071 with static 0.1 - 1.0" W.C.

Pressure Drop Wet Coil Y1 & Y2 Call						
Model Number	"Norm"	Coil	Filter 1"	Filter 2"	Unit 1"	Unit 2"
DX025	950	0.24	0.23	0.26	0.47	0.50
	725	0.15	0.15	0.21	0.30	0.37
	800	0.17	0.18	0.23	0.35	0.40
	1000	0.26	0.25	0.28	0.51	0.54
DX035	1200	0.14	0.24	0.27	0.38	0.41
	1100	0.12	0.21	0.24	0.33	0.37
	975	0.11	0.17	0.22	0.28	0.33
	1300	0.16	0.26	0.29	0.42	0.45
DX049	1700	0.23	0.28	0.32	0.51	0.55
	1600	0.21	0.27	0.30	0.48	0.51
	1450	0.17	0.24	0.27	0.41	0.44
	1300	0.15	0.20	0.24	0.35	0.39
DX061	2000	0.22	0.34	0.37	0.56	0.59
	2200	0.26	0.37	0.41	0.63	0.67
	1900	0.20	0.32	0.35	0.52	0.55
	2300	0.28	0.39	0.43	0.67	0.71
DX071	2000	0.19	0.34	0.37	0.53	0.56
	2200	0.23	0.37	0.41	0.60	0.64
	1900	0.17	0.32	0.35	0.49	0.52
	2300	0.25	0.39	0.43	0.64	0.68

i Based on a wet Coil @ 45°F Evap. / 80°F DB / 67°F WB
 Unit 1" is with 1" filter, Unit 2" is with 2" filter
 Pressure Drop in Inches of Water Column (W.C)
 Constant airflow on DX025 with static pressure from 0.1- 0.8" W.C.
 Constant airflow on DX035, 049, 061, 071 with static 0.1 - 1.0" W.C.

Bosch DX Series Unitary Air Handler



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Electric Heater Data																		
Model	Motor HP	Volts 1 Ph	Motor Type	Motor Amps (1)	No Circuits	Kw (2)	Amps 208V	Amps 208V	Amps 240V	Amps 240V	MCA 208V	MCA 208V	MCA 240V	MCA 240V	MOCP 208V (3,4)	MOCP 208V (3,4)	MOCP 240V (3,4)	MOCP 240V (3,4)
							Cr 1	Cr 2	Cr 1	Cr 2	Cr 1	Cr 2	Cr 1	Cr 2	Cr 1	Cr 2	Cr 1	Cr 2
DX02500-1	0.33	208/240	Eon	0.78	0	0	-	-	-	-	1.0	-	1.0	-	10	-	10	-
					1	5	18.0	-	20.8	-	23.3	-	26.8	-	30	-	30	-
						10	36.1	-	41.7	-	45.9	-	52.9	-	50	-	60	-
DX03500-1	0.50	208/240	Eon	2.03	0	0	-	-	-	-	2.5	-	2.5	-	10	-	10	-
					1	5	18.0	-	20.8	-	24.6	-	28.1	-	30	-	30	-
					1	10	36.1	-	41.7	-	47.1	-	54.1	-	50	-	60	-
						15	18.0	36.1	20.8	41.7	24.6	47.2	28.1	54.1	30	50	30	60
DX04900-1	0.75	208/240	Eon	2.50	0	0	-	-	-	-	3.1	-	3.1	-	15	-	15	-
					1	5	18.0	-	20.8	-	25.0	-	28.5	-	30	-	30	-
					1	10	36.1	-	41.7	-	47.6	-	54.6	-	50	-	60	-
					2	15	18.0	36.1	20.8	41.7	25.0	47.6	28.5	54.6	30	50	30	60
					2	20	36.1	36.1	41.7	41.7	47.6	47.6	54.6	54.6	50	50	60	60
DX06100-1 DX07100-1	1.00	208/240	Eon	3.75	0	0	-	-	-	-	4.7	-	4.7	-	15	-	15	-
					1	5	18.0	-	20.8	-	26.3	-	29.8	-	30	-	30	-
					1	10	36.1	-	41.7	-	48.8	-	55.8	-	50	-	60	-
					2	15	18.0	36.1	20.8	41.7	26.3	48.9	29.8	55.9	30	50	30	60
						20	36.1	36.1	41.7	41.7	48.9	48.9	55.9	55.9	50	50	60	60

- (1) Rated Motor Amps (at DOE External Static Rating Point)
- (2) Nominal Kw At 240V (Derate 25% For 208V)
- (3) Fuse or HACR Breaker
- (4) Maximum Overcurrent Device, Overcurrent Protection Installed On Breaker Models Are Sized Per MCA

Accessories		
Bosch Part Number	Description	Notes
7738002777	DOWNFLOW KIT 2 TON DX	
7738002778	DOWNFLOW KIT 3 TON DX	
7738002779	DOWNFLOW KIT 4 TON DX	
7738002780	DOWNFLOW KIT 5 TON DX	
7738002781	DOWNFLOW KIT 6 TON DX	
7738002782	DOWNFLOW KIT 2 TON HY	
7738002787	1"FILTER BASE KIT 2 TON	16 x 20 Filter, Small Cabinet
7738002788	1"FILTER BASE KIT 3 TON	20 x 20 Filter, Medium Cabinet
7738002789	1"FILTER BASE KIT 4,5,6 TON	20 x 24 Filter, Large Cabinet
7738002787	16 x 20 Filter base, 1" or 2"	Fits DX025
7738002788	20 x 20 Filter base, 1" or 2"	Fits DX035
7738002789	20 x 24 Filter base, 1" or 2"	Fits DX049,61,71
7738002790	ELECTRIC HEAT 5KW 2 TON	
7738002791	ELECTRIC HEAT 5KW 3 TON	
7738002792	ELECTRIC HEAT 10KW 3 TON	
7738002793	ELECTRIC HEAT 10KW 4 TON	
7738002794	ELECTRIC HEAT 15KW 4 TON	
7738002795	ELECTRIC HEAT 10KW 5 TON	
7738002796	ELECTRIC HEAT 15KW 5 TON	
7738002797	ELECTRIC HEAT 20KW 5 TON	
7738002798	ELECTRIC HEAT 10KW 6 TON	
7738002799	ELECTRIC HEAT 15KW 6 TON	
7738002800	ELECTRIC HEAT 20KW 6 TON	

Product Application and installation consideration:

Drain pan information:

A-Coil Pan

Drain Pan – Recognized (QMFZ2) plastic rated 94-5V, material is Nylon 6/6 with 15% glass filled, will withstand 400 degrees F without any distortion in molded profile. Drain pans are designed to withstand normal exposure levels of UVC produced by common HVAC add-on products (120,000 micro-watts per sq/cm) with no structure degradation for the lifetime of the product. Slight discoloration of material is permitted.