

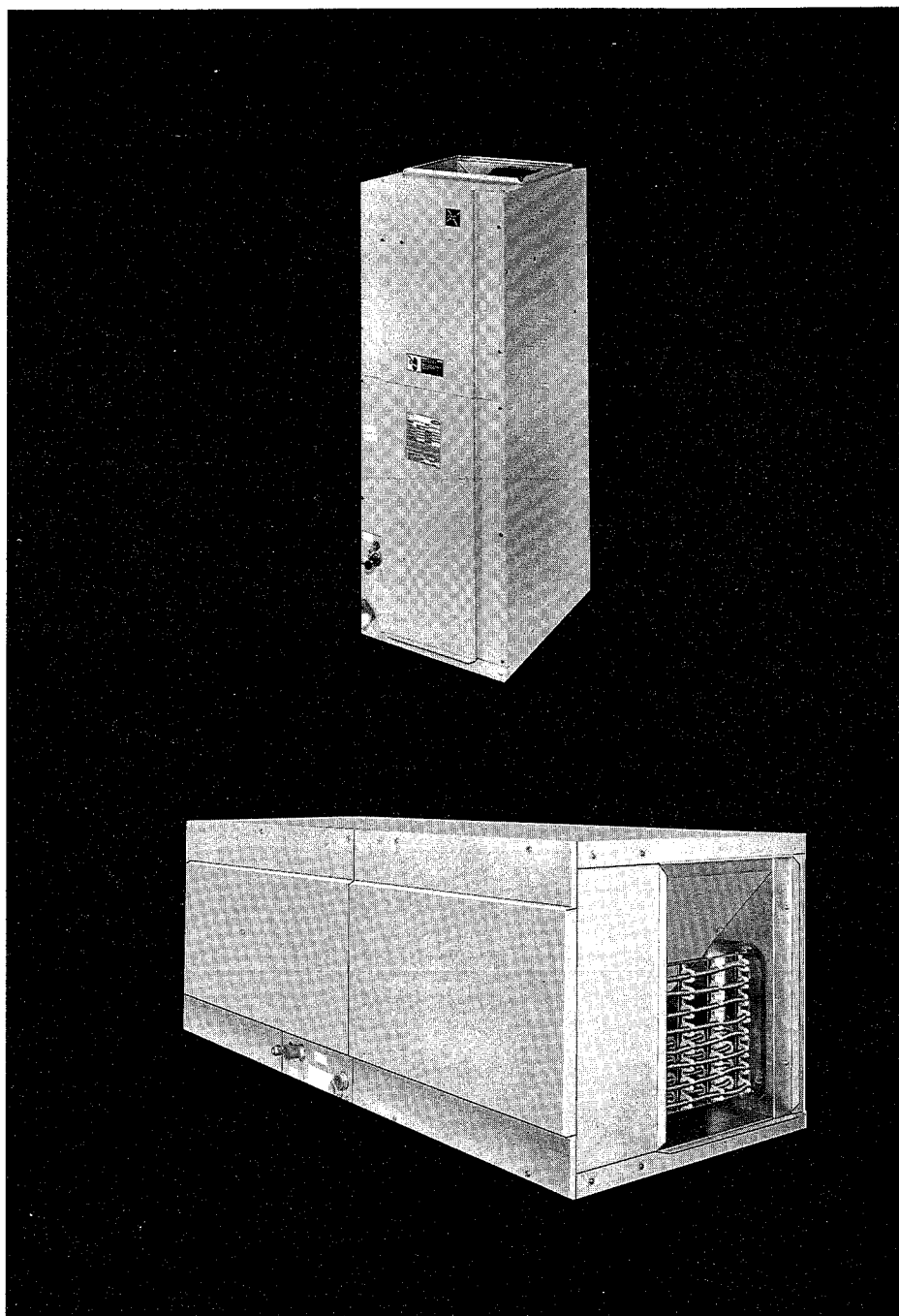


Product Data

40QE, QEH Direct Expansion Fan Coil

Sizes 024 & 036

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FEATURES/BENEFITS

Variable Speed Standard Control Module — A Variable Speed Standard Control Module is used to optimize control of the blower motor and accessories. When applied with a Carrier variable speed system and the Parker Homezone air management system, the module will tune the system performance for comfortable and efficient operation.

Variable Speed Blower — The blower speed is electronically varied for optimum performance under varying loads.

Parker Homezone Compatible — The 40QE Fan Coil may be installed in a system using the Parker Homezone air management system allowing comfort control of individual zones in a home.

Humidity Control — Summer and Winter — During the cooling season and when matched with Carrier variable speed heat pump or cooling systems and accessory humidistat, the 40QE will adjust the system operation to dehumidify the living space to homeowner selected levels. In the heating season, an accessory humidifier can be added and will be controlled to maintain the desired humidity level.

Air Cleaner Option — An electronic air cleaner accessory may be added to the system to improve the indoor air quality.

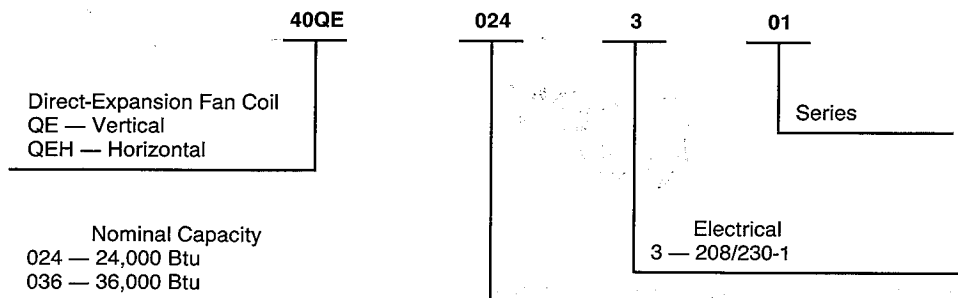
Electric Power Demand Limit — This option allows the electric power consumption of the system to automatically be reduced in response to an electric utility signal indicating a demand limit period. This option is functional.

Quiet Operation — The indoor blower is “soft-started” to eliminate harsh start-up noises as experienced with standard fan coils. When the indoor blower is operated at low

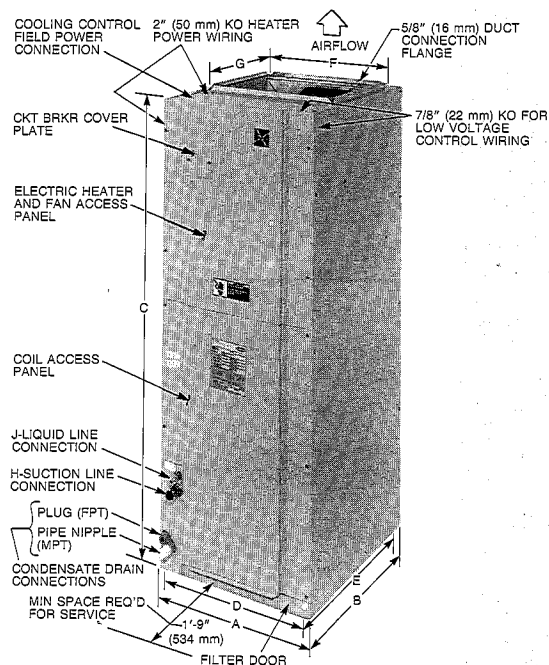
speeds, as it is for most of its operating time, objectionable air movement noises are considerably reduced.

Note: This unit is not compatible with Carrier 38EV, QV Variable Speed outdoor units.

Model number nomenclature

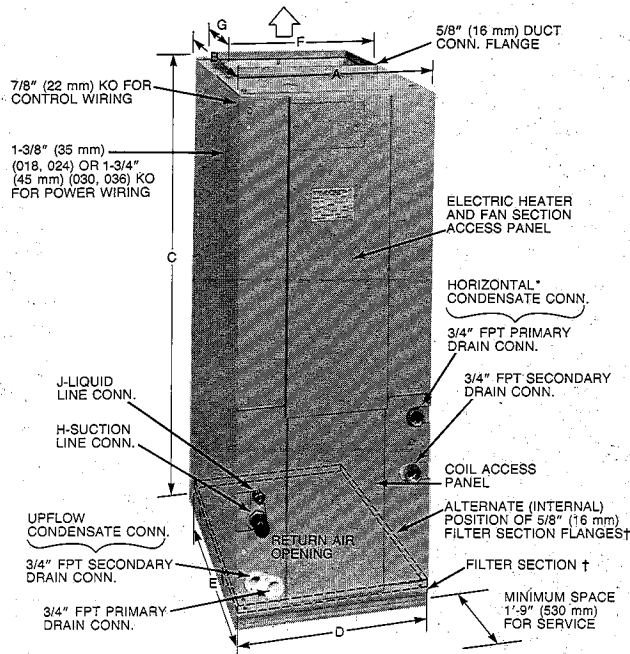


Dimensions



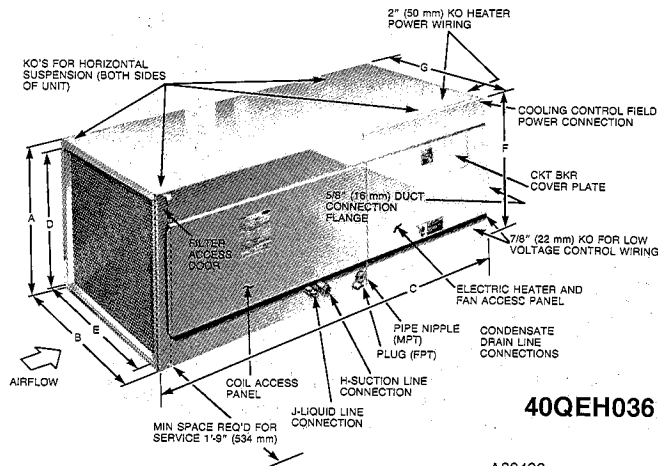
40QE036

A88583



40QE024

A88273



40QEH036

A88492

Physical Data and Dimensions

MODEL		40QE 024	40QE/40QEH 036
OPERATING WEIGHT Standard Units (Bare Box)		(lb) 122 (Kg) 55	183 83
FAN		Centrifugal/Direct Drive	
Rpm		700	800
Nominal	(Cfm)	850	1310
ECM Motor/Controller	(L/s) (Hp) (kW)	401 1/2 0.372	618
DIMENSIONS			
		A (ft-in.) (mm)	1-9 533
		B (ft-in.) (mm)	1-9-1/2 546
		C (ft-in.) (mm)	3-6 1067
DUCT INLET		D (ft-in.) (mm)	1-6-3/8 467
		E (ft-in.) (mm)	1-6-3/4 476
DUCT OUTLET		F (ft-in.) (mm)	1-6-5/8 473
		G (ft-in.) (mm)	9-11/16 246
CONNECTIONS			
Suction ODF (Compatible Fitting)		H (in.) (mm)	3/4 19.1
Liquid ODF (S.A.E. Flare Fitting)		J (in.) (mm)	3/8 9.5
Condensate Plug (FPT)		(in.)	3/4
Pipe Adapter (MPT)		(in.)	3/4

Electrical Data

FAN COIL ELECTRIC HEATERS/ELECTRICAL DATA (208/240-V, 1-PH, 60-HZ)

40QE024																			
HEATER 40AQ	KW		HEATER AMPS				MOTOR FLA	AMPACITIES			MIN WIRE SIZE (AWG)*			MAX CIRCUIT PROTECTION			MAX WIRE LENGTH (FT)		
	208-V	240-V	SINGLE	DUAL		SINGLE		DUAL		SINGLE	DUAL		SINGLE	DUAL		SINGLE	DUAL		
				L1, L2	L3, L4			L1, L2	L3, L4		L1, L2	L3, L4		L1, L2	L3, L4		L1, L2	L3, L4	
901190	5.6	7.5	27.1/30.0	—	—	3.5	37.4/41.0	—	—	8/8	—	—	40/45	—	—	85/85	—	—	
901200	7.5	10	36.1/39.9	—	—	3.5	48.6/53.4	—	—	8/8	—	—	50/60	—	—	100/100	—	—	
903100	9.0	12	—	25.2/27.9	18.1/20.0	3.5	—	35.0/38.4	22.6/25.0	—	8/8	10/10	—	40/40	25/25	—	90/90	90/90	
903060	11.3	15	—	36.1/39.9	18.1/20.0	3.5	—	48.6/53.4	22.6/25.0	—	6/6†	10/10	—	50/60	25/25	—	100/100	90/90	
903080	15.0	20	—	36.1/39.9	36.1/39.9	3.5	—	48.6/53.4	45.1/49.9	—	6/6†	6/6	—	50/60	50/50	—	100/100	105/105	
40QE036, 40QEH036																			
HEATER 40QB	KW		HEATER AMPS				MOTOR FLA	AMPACITIES			MIN WIRE SIZE (AWG)*			MAX CIRCUIT PROTECTION			MAX WIRE LENGTH (FT)		
	208-V	240-V	SINGLE	DUAL		SINGLE		DUAL		SINGLE	DUAL		SINGLE	DUAL		SINGLE	DUAL		
				L1, L2	L3, L4			L1, L2	L3, L4		L1, L2	L3, L4		L1, L2	L3, L4		L1, L2	L3, L4	
900010	5.6	7.5	27.1/30.0	—	—	3.5	37.4/41.0	—	—	8/8	—	—	40/45	—	—	80/80	—	—	
900020	7.5	10	36.1/39/9	—	—	3.5	48.6/53.4	—	—	6/6†	—	—	50/60	—	—	95/95	—	—	
901060	11.3	15	—	36.1/39.9	18.1/20.0	3.5	—	48.6/53.4	22.6/25.0	—	6/6	10/10	—	50/60	25/25	—	95/95	90/90	
901100	15.0	20	—	36.1/39.9	36.1/39.9	3.5	—	48.6/53.4	45.1/49.9	—	6/6	6/6	—	50/60	50/50	—	95/95	105/105	

*40QB Heaters minimum wire size based on using copper wire with a minimum 90C insulation rating. Use copper wire only. 40AQ heaters minimum wire size based on using copper wire with a minimum 75 C insulation rating.

†For 240V operation, if more than three conductors are used in conduct or raceway, increase wire size to 4AWG.

NOTE: Motor FLA peak at 208-V operation with a severely restricted duct system. Nominal amp draws range from 0% to 90% of FLA.

Electrical Data (Con't)

40QE, 40QEH FAN COIL ELECTRICAL DATA (Unit Equipped With Cooling Control Kit)

MODEL W/COOLING CONTROL KIT	VOLTS (1-PH)	FLA	MIN WIRE SIZE* (AWG)	BRANCH CIRCUIT MAX WIRE LENGTH		FUSE AMPS
				ft	m	
40QE024/ 40AS901000	208/230	3.5	14	100	30.5	15
40QE036, 40QEH036/ 40QB900131	208/230	3.5	14	100	30.5	15

FLA—Full Load Amps

*Copper wire sizes based on 75 C insulation rating. Use National Electric Code for wire sizing. Use copper wire only.

NOTES: 1. Fan motor line power supplied from electric heat line power circuit.

Accessory Heaters

SINGLE-PHASE HEATERS

40AQ-904---101--	7.5 KW, Circuit Breaker	024
40AQ-904---111--	10 KW, Circuit Breaker	
40AQ-903---121--	12 KW, Circuit Breaker	
40AQ-903---131--	15 KW, Circuit Breaker	
40AQ-903---141--	20 KW, Circuit Breaker	
40QB-901---141--	7.5 KW, Non-fused	036
40QB-901---161--	10 KW, Circuit Breaker	
40QB-901---201--	15 KW, Circuit Breaker	
40QB-901---241--	20 KW, Circuit Breaker	

Performance Data

MINIMUM AIRFLOW DATA

MODEL	HEATER KW		MIN TORQUE PIN FOR SAFE HEATER OPERATION	MIN AIRFLOW TO PREVENT NUISANCE HEATER CYCLING	
	240-V	208-V		CFM	L/S
40QE024	7.5 10 12 15 20	5.6 7.5 9.0 11.3 15.0	5	950	448
40QE036 40QEH036	7.5 10 15 20	5.6 7.5 11.3 15.0	7	1250	590

Performance Data (Con't)

40QE024 AIRFLOW PERFORMANCE					
TORQUE PIN NO.	E.S.P.	MOTOR AMPS	MOTOR WATTS	BLOWER RPM	SCFM
8	0.10	3.84	463	980	1357
	0.20	3.87	471	1005	1318
	0.30	3.94	479	1042	1280
	0.40	3.99	486	1075	1247
	0.50	4.04	494	1101	1215
	0.60	4.11	500	1128	1177
	0.70	4.13	505	1158	1107
	0.80	4.17	508	1179	1122
	0.90	4.20	513	1219	1078
7	0.10	3.08	358	904	1238
	0.20	3.16	365	936	1201
	0.30	3.23	374	972	1163
	0.40	3.32	382	1006	1126
	0.50	3.40	390	1044	1086
	0.60	3.44	397	1075	1054
	0.70	3.54	410	1111	1028
	0.80	3.64	417	1145	994
	0.90	3.65	424	1180	953
6	0.10	2.50	272	842	1116
	0.20	2.49	279	870	1079
	0.30	2.59	287	907	1042
	0.40	2.68	295	947	1001
	0.50	2.76	303	986	966
	0.60	2.78	311	1022	927
	0.70	2.81	318	1062	893
	0.80	2.86	326	1104	855
	0.90	2.91	333	1136	820
5	0.05	1.18	146	741	1010
	0.10	1.21	147	758	989
	0.15	1.22	149	778	966
	0.20	1.23	150	816	942
	0.25	1.23	150	832	914
	0.30	1.22	152	859	892
	0.35	1.24	153	879	871
	0.40	1.24	153	901	859
	0.45	1.25	153	925	842
	0.50	1.25	155	938	822
4	0.05	1.06	121	661	886
	0.10	1.08	121	688	854
	0.15	1.09	124	714	826
	0.20	1.09	126	736	805
	0.25	1.11	127	760	782
	0.30	1.12	129	782	757
	0.35	1.13	130	809	736
	0.40	1.14	130	853	708
3	0.05	0.50	64	555	706
	0.10	0.50	64	586	676
	0.15	0.51	65	614	648
	0.20	0.52	66	649	610
	0.25	0.53	67	677	584
	0.30	0.54	68	705	560
2	0.05	0.20	26	437	501
	0.10	0.21	26	486	453
	0.15	0.22	27	524	410
	0.20	0.23	28	561	369

Performance Data (Con't)

40QE036, 40QEH036 AIRFLOW PERFORMANCE

TORQUE PIN NO.	E.S.P.	MOTOR AMPS	MOTOR WATTS	BLOWER RPM	SCFM
10	0.10	4.57	569	917	1639
	0.20	4.55	576	942	1588
	0.30	4.62	582	967	1547
	0.40	4.66	587	990	1505
	0.50	4.70	593	1020	1458
	0.60	4.73	598	1041	1414
	0.70	4.77	602	1065	1373
	0.80	4.80	606	1091	1328
	0.90	4.84	611	1119	1285
9	0.10	4.14	512	880	1562
	0.20	4.20	520	908	1519
	0.30	4.29	527	935	1478
	0.40	4.33	536	964	1438
	0.50	4.37	542	990	1393
	0.60	4.41	549	1019	1349
	0.70	4.44	555	1045	1302
	0.80	4.47	561	1069	1264
	0.90	4.51	568	1104	1208
8	0.10	3.56	421	832	1461
	0.20	3.53	431	868	1400
	0.30	3.59	439	896	1379
	0.40	3.63	447	924	1332
	0.50	3.70	456	954	1285
	0.60	3.74	464	985	1237
	0.70	3.78	472	1014	1195
	0.80	3.84	479	1046	1143
	0.90	3.88	488	1084	1092
7	0.10	2.77	327	778	1336
	0.20	2.80	335	812	1294
	0.30	2.84	344	845	1245
	0.40	2.92	352	876	1199
	0.50	3.00	360	911	1145
	0.60	3.09	369	944	1093
	0.70	3.14	378	980	1045
	0.80	3.18	388	1018	1007
	0.90	3.30	396	1056	963
6	0.10	2.19	245	723	1193
	0.20	2.27	253	758	1145
	0.30	2.28	259	789	1098
	0.40	2.37	268	827	1035
	0.50	2.44	274	861	988
	0.60	2.49	284	905	929
	0.70	2.60	291	964	873
	0.80	2.61	301	988	852
	0.90	2.69	309	1022	805
5	0.05	1.19	143	638	1090
	0.10	1.22	148	655	1064
	0.15	1.21	149	670	1033
	0.20	1.21	149	695	1005
	0.25	1.22	149	717	980
	0.30	1.23	153	741	949
	0.35	1.23	152	760	926
	0.40	1.25	154	780	894
	0.45	1.26	156	803	865
	0.50	1.26	156	826	837
4	0.05	1.03	119	573	950
	0.10	1.03	119	592	918
	0.15	1.04	122	616	881
	0.20	1.05	123	639	849
	0.25	1.08	125	664	819
	0.30	1.09	127	683	791
	0.35	1.10	130	706	760
	0.40	1.11	130	734	730
	0.45	1.11	131	762	696
	0.50	1.13	135	789	661
3	0.05	0.50	62	488	779
	0.10	0.51	62	517	742
	0.15	0.51	63	545	699
	0.20	0.52	63	575	657
	0.25	0.52	64	606	619
	0.30	0.53	64	639	586
	0.35	0.54	65	657	555
	0.40	0.55	66	684	519
	0.45	0.56	67	702	489
	0.50	0.57	68	724	448
2	0.05	0.20	23	372	554
	0.10	0.21	24	428	496
	0.15	0.22	25	468	437
	0.20	0.23	25	505	396

Performance Data (Con't)

40QE FAN COIL WET-COIL, HEATER PRESSURE DROPS			
UNIT	CFM	WET COIL PRESSURE DROP (IN. W. C.)	ELECTRIC HEATER PRESSURE DROP (IN. W. C.)
40QE024	750	.05	.09
	850	.06	.10
	950	.07	.11
	1050	.08	.12
40QE036 40QEH036	1050	.05	.3
	1150	.06	.04
	1250	.07	.04
	1350	.08	.05



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Form 40QE, QEH-1PD

Replaces: New