

Magic Aire®

BMW/BMX SERIES



MODULAR BLOWER COIL UNITS

Nominal Sizes 2 and 3 Ton



MAGIC AIRE BMW SERIES FAN COILS ARE ETL C LISTED IN ACCORDANCE WITH UL 1995 AND ARE ASSEMBLED TO ORDER FOR COMPETITIVE DELIVERY.

UNITED ELECTRIC COMPANY, L.P.

501 Galveston St. • Wichita Falls, Texas 76301 • 940-397-2100 • Fax 940-397-2166

Contractor shall furnish and install high quality air handling units as indicated on plans. Sizes and capacities shall be shown in the Unit Schedule included on the drawings. All units shall be the products of *Magic Aire* with the ETL safety listing.

Cabinets shall be fabricated of LFQ (min) steel. External parts are to be made with polyurethane based powder coated heavy gauge galvanealed, while internal parts are to be built from heavy gauge galvanized steel. Units shall pass 500 hour salt spray test as described in ASTM B-117. Large access panels shall be provided to permit full access to internal components. The structural integrity of the cabinets shall remain unaffected by the removal of any or all access panels.

Insulation shall be 1 inch IAQ, blanket-type made from borosilicate glass fibers bonded with a thermosetting resin. Insulation shall include antimicrobial coating. Insulation shall be one and-one-half pound density providing effective acoustical and thermal control, fire safety, and resistance to air erosion.

Coils shall be of the staggered tube type constructed with seamless copper tubes and headers, and deep corrugated aluminum fins with straight edges. Manufacturer shall supply full depth collars, drawn in the fin stock to provide accurate control of fin spacing and completely cover the copper tubes to lengthen coil life. The tubes are to be mechanically expanded into the fins for a permanent primary to secondary surface bond, assuring maximum heat transfer efficiency. The coils are to be tested at 500 PSI for operation at 400 PSI gauge. The coils provided shall be suitable for the application and comply with the required performance as described in the Unit Schedule.

Drainpans shall be sloped in two planes for positive drainage and shall be fabricated of heavy gauge Type 304 stainless steel.

Fan Wheels shall be double width, double inlet, forward curved, centrifugal type. They shall be statically and dynamically balanced for smooth, quiet operation. The housing shall be constructed of heavy gauge steel with die-formed inlet cones. The bearings shall be self aligning, sealed cartridge, permanently lubricated ball bearings that are rubber mounted and shall provide dependable fan operation for an average life of 200,000 hours. The fan shaft shall be solid cold rolled steel designed such that its operating speed is below its first critical speed.

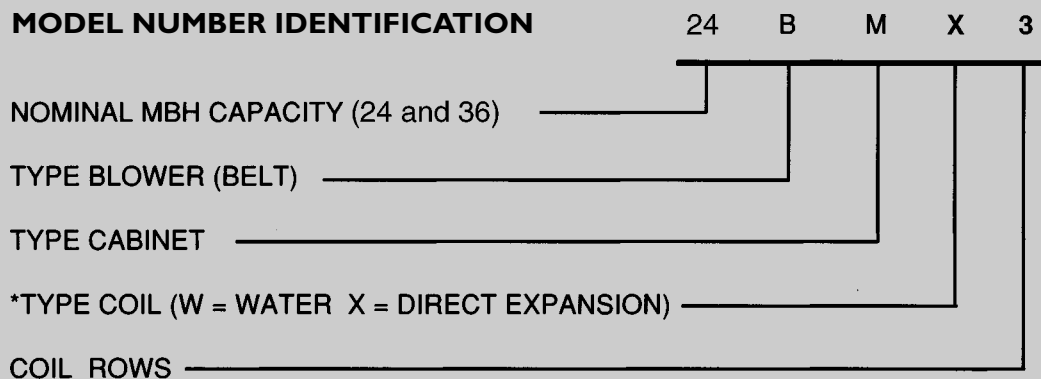
Motors and Drives shall be belt drive, standard duty, 1725 RPM, open, drip-proof construction. Single phase motors shall be provided with resilient mount and automatic reset thermal protection. Drive shall be of the V-belt type. Variable pitch motor sheaves are to be furnished for ease and accuracy in balancing the system and adjusting the required air volume. The motors are to be bolted to an adjustable platform to facilitate belt tension and alignment. The blower sheave shall be cast iron single groove with split tapered bushing that is keyed to the blower shaft.

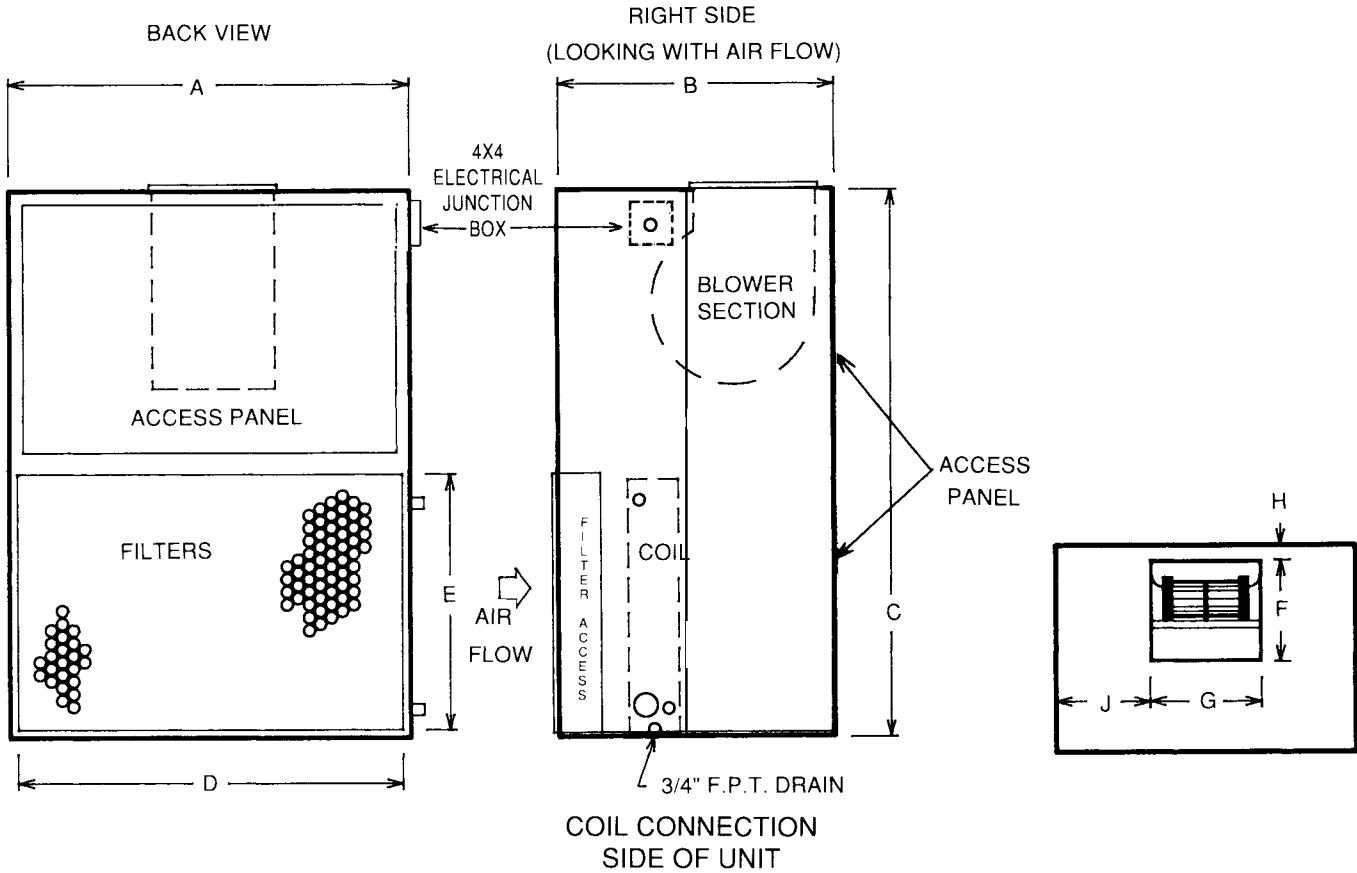
Filters are to be 2" disposable type. They shall be center loading with an 85% arrestance efficiency. The filters shall be included in the units as an integral part of the cabinet with easy access provided by the manufacturer.

Mixing Boxes shall include low leak damper assemblies constructed of welded steel channel frames with 18 gauge galvanized steel blades, die formed stiffeners and full blade stop. Stainless steel side seals and vinyl blade seals to reduce leakage shall be standard. All hardware shall be zinc plated with brass pivot points and bronze oilite bearings. Shafts shall be corrosion resistant steel. Mixing box shall be fully insulated with manufacturers standard insulation.

- Controls (i.e. contactor, starter, or transformer/fan relay) not included in standard product. Only ODP, single and three phase motors on 2-5 ton units are factory-wired to J-box. All other motors require field wiring to J-box located on side of unit cabinet.
- Chilled water (optional hot water or steam) coil stubouts, electrical and drain connections are standard right hand looking at filters. Optional left hand connections available (see price sheets for additional charge).
- Coil connections are located on the right side of cabinet looking at the filters, with drain located on coil connection side only.
- Fan discharge arrangement vertical only.
- Suction, liquid, are standard right hand, looking at filters. All units stocked with nominal tonnage distributor orifice and thermal expansion valve mounted – with side port distributors, (non-adjustable 2-5 ton).
- Stocked Optional Accessories:
 - 2 Row Hot Water Heating Coils (Install Preheat only same hand as cooling coil)
 - MX Series Mixing Box
 - Actuator Kits for Mixing Box (Field install and wire)
 - Return Air Grille
 - 6” Leg Kit
 - 2” Pleated Filters
 - Heat Pump By-pass Kit
- Non-Stock Accessories:
 - Steam Coils
 - Downflow Arrangement
 - 6 Row Direct Expansion Coil

Product Description





DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	1" FILTER
24-36 BM	37.00	31.75	36.00	27.50	16.00	12.00	8.50	1.13	14.25	16 X 32

SPECIFICATIONS

MODEL	NOM CAP	ROWS/FPI				COIL CONNECTION (OD SWT)				
		DX	HOT WATER	CHILLED WATER		DX		2 ROW	4 ROW	6 ROW
				4/10	6/10	LIQ	SUCT			
24-BM	2	3/10	2/10	4/10	6/10	.500	.875	.625	.750	.750
36-BM	3	3/10	2/10	4/10	6/10	.500	1.125	.625	.750	.875

Specifications subject to change without notice due to continuing effort to improve our product.



FAN PERFORMANCE

MODEL	INTER S.P.	CFM	.25° ESP		.50° ESP		.75° ESP		1.00° ESP		1.25° ESP		1.50° ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24 BMX	.20	600	669	.08	823	.11	956	.15	-	-	-	-	-	-
	.26	700	720	.11	862	.15	988	.19	1101	.24	-	-	-	-
	.33	800	775	.15	907	.19	1026	.24	1133	.29	1233	.34	1326	.40
	.40	900	829	.19	952	.24	1064	.29	1167	.35	1263	.40	1353	.46
	.46	1000	877	.24	993	.30	1099	.35	1198	.41	1290	.47	1377	.53
36 BMX	.23	900	736	.16	870	.21	989	.26	1098	.31	1198	.37	1292	.42
	.30	1050	808	.23	929	.28	1039	.34	1141	.40	1236	.46	1325	.52
	.37	1200	879	.31	989	.38	1091	.44	1187	.51	1276	.58	1362	.65
	.44	1350	950	.42	1051	.49	1146	.56	1235	.64	1320	.71	1401	.79
	.53	1500	1029	.55	1121	.63	1209	.71	1293	.79	1373	.87	1450	.96
24 BMX w/24 HBH-2	.24	600	696	.08	846	.12	975	.16	-	-	-	-	-	-
	.29	700	738	.11	878	.15	1002	.20	1114	.24	-	-	-	-
	.38	800	803	.15	932	.20	1048	.25	1154	.30	1252	.35	-	-
	.45	900	855	.20	975	.25	1085	.30	1187	.36	1281	.42	1370	.48
	.54	1000	915	.26	1028	.31	1131	.37	1228	.43	1318	.49	1404	.56
36 BMX w/36 HBH-2	.29	900	770	.17	899	.22	1016	.27	1123	.32	1221	.38	1314	.44
	.37	1050	843	.24	960	.30	1026	.33	1168	.42	1261	.48	1349	.54
	.47	1200	924	.34	1031	.40	1130	.47	1223	.54	1311	.60	1395	.67
	.56	1350	999	.45	1097	.53	1189	.60	1277	.67	1360	.75	1439	.82
	.67	1500	1081	.60	1171	.68	1257	.76	1338	.84	1417	.92	1492	1.00
24 BMX-6	.23	600	689	.08	840	.12	970	.16	-	-	-	-	-	-
	.30	700	744	.11	883	.16	1007	.20	1112	.25	-	-	-	-
	.37	800	797	.15	927	.20	1043	.25	1150	.30	1248	.35	1340	.41
	.45	900	855	.20	975	.25	1085	.30	1187	.36	1281	.42	1370	.48
	.55	1000	920	.26	1032	.32	1135	.37	1232	.43	1322	.49	1407	.56
36 BMX-6	.27	900	759	.17	890	.21	1007	.27	1114	.32	1214	.37	1307	.43
	.35	1050	833	.24	951	.29	1060	.35	1160	.41	1254	.47	1342	.54
	.41	1200	897	.32	1006	.39	1107	.45	1201	.52	1290	.59	1375	.66
	.51	1350	979	.44	1078	.51	1171	.58	1260	.66	1343	.73	1423	.81
	.60	1500	1055	.57	1146	.65	1233	.73	1316	.82	1395	.90	1471	.98
24 BMX-6-2	.29	600	728	.09	873	.13	1000	.17	-	-	-	-	-	-
	.37	700	785	.13	919	.17	1039	.21	1147	.26	-	-	-	-
	.46	800	846	.17	970	.22	1083	.26	1186	.32	1282	.37	-	-
	.57	900	914	.22	1029	.28	1135	.33	1233	.39	1325	.44	1411	.51
	.68	1000	979	.29	1087	.35	1186	.40	1279	.47	1367	.53	1450	.59
36 BMX-6-2	.32	900	786	.18	914	.22	1029	.28	1135	.33	1233	.39	1325	.44
	.40	1050	858	.25	974	.31	1080	.36	1179	.42	1272	.49	1360	.55
	.50	1200	937	.35	1043	.41	1142	.48	1234	.54	1321	.61	1404	.68
	.60	1350	1015	.47	1112	.54	1204	.61	1290	.68	1373	.76	1451	.84
	.75	1500	1110	.62	1199	.70	1283	.78	1364	.87	1441	.95	1515	1.03



FAN PERFORMANCE

MODEL	INTER S.P.	CFM	.25° ESP		.50° ESP		.75° ESP		1.00° ESP		1.25° ESP		1.50° ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24 BMW-4	.20	600	669	.08	823	.11	956	.15	-	-	-	-	-	-
	.26	700	720	.11	862	.15	988	.19	1101	.24	-	-	-	-
	.31	800	764	.14	897	.19	1017	.24	1125	.29	1225	.34	1319	.39
	.38	900	818	.19	943	.24	1055	.29	1159	.34	1255	.40	1346	.46
	.45	1000	872	.24	988	.29	1095	.35	1194	.41	1287	.47	1374	.53
36 BMW-4	.20	900	719	.15	855	.20	975	.25	1085	.30	1187	.36	1281	.42
	.27	1050	793	.22	915	.28	1026	.33	1129	.39	1225	.45	1315	.52
	.33	1200	861	.30	972	.37	1075	.43	1172	.50	1262	.57	1348	.63
	.39	1350	929	.41	1031	.48	1127	.55	1218	.62	1304	.70	1386	.77
	.48	1500	1010	.54	1103	.62	1192	.70	1277	.78	1358	.86	1435	.94
24 BMW-4 w/24 HBH-2	.25	600	702	.09	851	.12	980	.16	-	-	-	-	-	-
	.31	700	750	.12	889	.16	1011	.20	1122	.25	-	-	-	-
	.39	800	808	.16	937	.20	1052	.25	1158	.30	1256	.36	-	-
	.47	900	865	.20	984	.26	1094	.31	1194	.36	1288	.42	1377	.48
	.56	1000	924	.26	1036	.32	1139	.38	1235	.44	1325	.50	1411	.56
36 BMW-4 w/36 HBH-2	.28	900	764	.17	895	.22	1012	.27	1119	.32	1218	.38	1310	.43
	.36	1050	838	.24	956	.30	1064	.36	1164	.42	1258	.48	1346	.54
	.44	1200	911	.33	1018	.40	1118	.46	1212	.53	1301	.60	1385	.67
	.51	1350	979	.44	1078	.51	1171	.58	1260	.66	1343	.73	1423	.81
	.61	1500	1059	.58	1150	.66	1237	.74	1319	.82	1398	.90	1474	.98
24 BMW-6	.23	600	689	.08	840	.12	970	.16	-	-	-	-	-	-
	.30	700	744	.11	883	.16	1007	.20	1112	.25	-	-	-	-
	.37	800	797	.15	927	.20	1043	.25	1150	.30	1248	.35	1340	.41
	.45	900	855	.20	975	.25	1085	.30	1187	.36	1281	.42	1370	.48
	.55	1000	920	.26	1032	.32	1135	.37	1232	.43	1322	.49	1407	.56
36 BMW-6	.27	900	759	.17	890	.21	1007	.27	1114	.32	1214	.37	1307	.43
	.35	1050	833	.24	951	.29	1060	.35	1160	.41	1254	.47	1342	.54
	.41	1200	897	.32	1006	.39	1107	.45	1201	.52	1290	.59	1375	.66
	.51	1350	979	.44	1078	.51	1171	.58	1260	.66	1343	.73	1423	.81
	.60	1500	1055	.57	1146	.65	1233	.73	1316	.82	1395	.90	1471	.98
24 BMW-6-2 w/24 HBH-2	.29	600	728	.09	873	.13	1000	.17	-	-	-	-	-	-
	.37	700	785	.13	919	.17	1039	.21	1147	.26	-	-	-	-
	.46	800	846	.17	970	.22	1083	.26	1186	.32	1282	.37	-	-
	.57	900	914	.22	1029	.28	1135	.33	1233	.39	1325	.44	1411	.51
	.68	1000	979	.29	1087	.35	1186	.40	1279	.47	1367	.53	1450	.59
36 BMW-6-2 w/36 HBH-2	.32	900	786	.18	914	.22	1029	.28	1135	.33	1233	.39	1325	.44
	.40	1050	858	.25	974	.31	1080	.36	1179	.42	1272	.49	1360	.55
	.50	1200	937	.35	1043	.41	1142	.48	1234	.54	1321	.61	1404	.68
	.60	1350	1015	.47	1112	.54	1204	.61	1290	.68	1373	.76	1451	.84
	.75	1500	1110	.62	1199	.70	1283	.78	1364	.87	1441	.95	1515	1.03



MOTOR DATA

Available Motors (60 Hz)

HORSE POWER	VOLTAGE/PHASE
1/4, 1/3	115/1 Split Phase
1/4, 1/3, 1/2, 3/4, 1, 1 1/2, 2	115/208-230/1
1/4, 1/3, 1/2, 3/4	115/1 2 SPD
1/4, 1/3, 1/2, 3/4	230/1 2 SPD
1/4, 1/3, 1/2, 3/4, 1, 1 1/2	277/1
1/3, 1/2, 3/4, 1, 1 1/2, 2, 3, 5, 7 1/2, 10	208-230/460/3

- Select appropriate motor horsepower from pages 4-5.
- Consult List Price Pages for motor installation and options.
- When ordering, specify HP – voltage/phase – CFM@ESP.
- For motors not listed, contact factory.

Only ODP, single and three phase motors on 2-5 Ton units are factory-wired to J-box. All others require field wiring to J-box on side of unit cabinet.

Full-Load Currents in Amperes, Single Phase Alternating-Current Motors*

The following values of full-load currents are for motors running at usual speeds and motors with normal torque characteristics. Motors built for especially low speeds or high torques may have higher full-load currents, and multi-speed motors will have full-load current varying with speed, in which case, the nameplate current rating shall be used.

The voltages listed are rated motor voltages. The currents listed shall be permitted for system voltage ranges of 110 to 120 and 220 to 240 volts.

HORSEPOWER	115 volts	200 volts	208 volts	230 volts
1/4	5.8	3.3	3.2	2.9
1/3	7.2	4.1	4.0	3.6
1/2	9.8	5.6	5.4	4.9
3/4	13.8	7.9	7.6	6.9
1	16	9.2	8.8	8
1.5	20	11.5	11	10
2	24	13.8	13.2	12

*Values from NEC Handbook 1999 Edition, actual motor nameplate amps may vary.

Full-Load Currents in Amperes, Three Phase Alternating-Current Motors*

The following values of full-load currents are typical for motors running at speeds usual for belted motors and motors with normal torque characteristics. Motors built for low speeds (1200 RPM or less) or high torques may require more running current, and multi-speed motors will have full-load current varying with speed. In these cases, the nameplate current rating shall be used.

The voltages listed are rated motor voltages. The currents listed shall be permitted for system voltage ranges of 110 to 120, 220 to 240, 440 to 480, and 550 to 600 volts.

HORSEPOWER	200 volts	208 volts	230 volts	460 volts	575 volts
1/2	2.5	2.4	2.2	1.1	0.9
3/4	3.7	3.5	3.2	1.6	1.3
1	4.8	4.6	4.2	2.1	1.7
1.5	6.9	6.6	6	3	2.4
2	7.8	7.5	6.8	3.4	2.7
3	11	10.6	9.6	4.8	3.9
5	17.5	16.7	15.2	7.6	6.1
7.5	25.3	24.2	22	11	9
10	32.2	30.8	28	14	11

*Values from NEC Handbook 1999 Edition, actual motor nameplate amps may vary.

CHILLED WATER COOLING CAPACITIES

24-BMW-4 (4 ROW COIL)

Ent Wtr	GPM	PD FT.	CFM	85 degF DB/71 deg.F WB					80 deg.F DB/67 degF WB					75 degF DB/63 deg.F WB				
				TTL	SENS	LVG AIR		Deg F	TTL	SENS	LVG AIR		Deg F	TTL	SENS	LVG AIR		Deg F
				MBH	MBH	DB	WB		MBH	MBH	DB	WB		MBH	MBH	DB	WB	
42	2.4	1.00	600	19.4	14.0	63.4	61.8	58.2	16.4	12.8	60.2	58.5	55.7	13.7	11.7	57.0	55.3	53.4
			800	21.0	16.4	66.0	63.6	59.6	17.9	15.1	62.6	60.1	57.0	15.1	13.7	59.2	56.7	54.6
			1000	22.2	18.5	67.9	64.8	60.6	19.2	16.9	64.4	61.2	58.0	16.2	15.1	61.0	57.6	55.6
	6.0	5.70	600	27.4	17.1	58.7	57.3	51.2	22.8	15.5	56.1	54.7	49.6	18.6	13.9	53.6	52.2	48.2
			800	30.8	20.0	61.9	59.8	52.3	25.8	18.3	58.9	56.8	50.6	21.0	16.4	56.0	54.0	49.0
			1000	33.4	22.6	64.1	61.4	53.1	27.8	20.6	60.9	58.3	51.3	22.8	18.7	57.7	55.3	49.6
	9.6	14.10	600	30.4	18.2	57.0	55.6	48.3	25.2	16.5	54.6	53.2	47.3	20.4	14.7	52.4	51.0	46.3
			800	34.8	21.6	60.1	58.1	49.3	28.8	19.6	57.4	55.4	48.0	23.4	17.5	54.8	52.9	46.9
			1000	38.0	24.4	62.5	59.9	49.9	31.8	22.2	59.5	57.0	48.6	25.8	19.9	56.6	54.2	47.4
45	2.4	1.00	600	17.8	13.4	64.3	62.6	59.8	14.9	12.3	61.1	59.4	57.4	12.3	11.0	58.1	56.1	55.3
			800	19.4	15.7	66.8	64.3	61.2	16.4	14.4	63.4	60.8	58.7	13.7	12.7	60.3	57.3	56.5
			1000	20.6	17.7	68.6	65.3	62.3	17.6	16.0	65.2	61.7	59.7	14.1	13.9	62.1	58.3	56.8
	6.0	5.70	600	25.0	16.1	60.2	58.7	53.4	20.4	14.5	57.6	56.1	51.9	16.2	12.9	55.1	53.7	50.4
			800	28.0	19.0	63.0	60.9	54.4	23.0	17.2	60.1	58.0	52.7	18.3	15.3	57.3	55.2	51.1
			1000	30.4	21.4	65.1	62.4	55.2	25.0	19.6	61.9	59.3	53.4	20.0	17.4	58.9	56.3	51.7
	9.6	14.10	600	27.6	17.1	58.7	57.2	50.8	22.4	15.4	56.3	54.9	49.7	17.8	13.5	54.2	52.7	48.7
			800	31.6	20.2	61.6	59.5	51.6	25.8	18.4	58.8	56.8	50.4	20.4	16.2	56.3	54.3	49.3
			1000	34.6	23.0	63.7	61.1	52.2	28.2	20.8	60.7	58.2	50.9	22.4	18.5	57.9	55.4	49.7
48	2.4	1.00	600	16.2	12.8	65.3	63.4	61.5	13.4	11.6	62.1	60.1	59.2	10.3	10.2	59.3	57.3	56.7
			800	17.8	15.1	67.6	64.8	62.9	15.0	13.6	64.3	61.3	60.5	11.7	11.6	61.6	58.1	57.8
			1000	19.0	17.0	69.3	65.8	63.9	15.2	15.0	66.1	62.4	60.7	12.8	12.6	63.3	58.8	58.7
	6.0	5.70	600	22.6	15.2	61.6	60.1	55.5	18.1	13.6	59.1	57.6	54.0	13.9	11.9	56.7	55.2	52.6
			800	25.2	18.0	64.2	62.0	56.5	20.2	16.2	61.3	59.2	54.8	15.9	14.2	58.6	56.3	53.3
			1000	27.4	20.4	66.1	63.3	57.1	22.0	18.4	63.0	60.3	55.4	17.6	16.2	60.0	57.1	53.9
	9.6	14.00	600	24.8	16.0	60.3	58.8	53.2	19.8	14.3	58.0	56.5	52.1	15.1	12.4	55.9	54.4	51.2
			800	28.2	19.0	63.0	60.8	53.9	22.6	17.1	60.3	58.2	52.7	17.3	14.9	57.8	55.7	51.6
			1000	31.0	21.8	64.9	62.2	54.5	24.8	19.5	62.0	59.4	53.2	19.2	17.1	59.2	56.6	52.0

24-BMW-6 (6 ROW COIL)

Ent Wtr	GPM	PD FT.	CFM	85 degF DB/71 deg.F WB					80 deg.F DB/67 degF WB					75 degF DB/63 deg.F WB				
				TTL	SENS	LVG AIR		Deg F	TTL	SENS	LVG AIR		Deg F	TTL	SENS	LVG AIR		Deg F
				MBH	MBH	DB	WB		MBH	MBH	DB	WB		MBH	MBH	DB	WB	
42	1.8	0.80	600	21.2	15.3	61.4	60.7	65.7	18.3	14.1	58.2	57.4	62.4	15.5	12.9	55.1	54.2	59.3
			800	23.4	18.3	63.9	62.7	68.2	20.2	16.8	60.6	59.2	64.6	17.3	15.1	57.5	55.7	61.2
			1000	25.0	20.6	65.9	64.0	69.9	21.6	18.8	62.6	60.4	66.1	18.4	16.7	59.6	56.9	62.5
	3.0	2.10	600	27.2	17.5	58.0	57.5	60.2	22.8	16.1	55.2	54.7	57.3	18.8	14.5	52.7	52.1	54.6
			800	30.0	20.8	61.0	60.1	62.1	25.4	19.1	57.9	56.9	59.0	21.2	17.4	54.9	53.9	56.2
			1000	32.4	23.6	63.1	61.7	63.6	27.6	21.8	59.8	58.4	60.5	23.2	19.8	56.7	55.1	57.5
	7.2	10.90	600	35.6	21.0	52.7	52.3	51.9	29.6	19.0	50.8	50.4	50.3	24.0	16.8	49.1	48.6	48.7
			800	41.0	25.0	56.0	55.2	53.5	34.4	22.8	53.6	52.8	51.6	28.0	20.4	51.4	50.6	49.8
			1000	45.5	28.6	58.5	57.4	54.7	38.0	26.2	55.8	54.7	52.6	31.0	23.4	53.3	52.2	50.7
45	1.8	0.80	600	19.8	14.7	62.3	61.6	67.0	16.8	13.5	59.2	58.2	63.8	14.2	12.2	56.2	55.0	60.8
			800	21.8	17.5	64.8	63.3	69.4	18.7	16.0	61.5	59.8	65.9	15.7	14.1	58.7	56.4	62.5
			1000	23.4	19.9	66.6	64.5	71.2	20.0	17.7	63.6	60.9	67.2	15.4	15.1	61.0	57.9	62.2
	3.0	2.10	600	24.8	16.7	59.3	58.8	61.6	20.6	15.1	56.7	56.1	58.8	16.8	13.6	54.1	53.3	56.2
			800	27.6	19.9	62.0	61.1	63.5	23.2	18.2	59.0	57.9	60.5	19.2	16.4	56.1	54.8	57.9
			1000	29.8	22.6	64.0	62.5	65.0	25.2	20.8	60.8	59.2	61.9	21.0	18.6	57.8	55.9	59.1
	7.2	10.90	600	32.6	19.7	54.7	54.2	54.1	26.6	17.6	52.9	52.3	52.4	21.0	15.5	51.1	50.6	50.9
			800	37.5	23.6	57.6	56.8	55.5	30.8	21.4	55.3	54.5	53.6	24.6	18.9	53.2	52.3	51.8
			1000	41.5	27.2	59.9	58.7	56.6	34.2	24.6	57.3	56.1	54.5	27.2	21.8	54.9	53.7	52.6
48	1.8	0.80	600	18.2	14.1	63.3	62.4	68.3	15.4	12.8	60.2	59.0	65.2	11.4	11.2	57.7	56.6	60.7
			800	20.4	16.9	65.5	63.9	70.7	17.2	15.1	62.6	60.4	67.2	12.9	12.7	60.3	57.7	62.4
			1000	21.8	18.9	67.5	65.0	72.3	16.6	16.3	64.9	62.0	66.5	13.9	13.7	62.3	58.4	63.5
	3.0	2.10	600	22.4	15.8	60.7	60.1	63.0	18.5	14.3	58.0	57.3	60.4	14.9	12.6	55.5	54.6	57.9
			800	25.2	19.0	63.1	62.0	64.9	21.0	17.2	60.1	58.8	62.1	17.1	15.2	57.4	55.8	59.5
			1000	27.4	21.8	64.9	63.3	66.3	23.0	19.7	61.8	59.9	63.4	17.4	17.1	59.2	57.2	59.6
	7.2	10.90	600	29.4	18.4	56.7	56.2	56.2	23.4	16.4	54.8	54.3	54.5	17.9	14.1	53.3	52.7	53.0
			800	34.0	22.2	59.3	58.5	57.5	27.2	19.9	57.0	56.2	55.6	21.0	17.3	55.0	54.0	53.9
			1000	37.4	25.6	61.3	60.1	58.4	30.0	23.0	58.8	57.6	56.3	23.6	20.2	56.3	55.0	54.6

CHILLED WATER COOLING CAPACITIES

36-BMW-4 (4 ROW COIL)

Ent Wtr	GPM	PD FT.	CFM	85 degF DB/71 deg.F WB					80 deg.F DB/67 degF WB					75 degF DB/63 deg.F WB							
				TTL	SENS		LVG AIR		Deg	TTL	SENS		LVG AIR		Deg	TTL	SENS		LVG AIR		Deg
				MBH	MBH	DB	WB	F	MBH	MBH	DB	WB	F	MBH	MBH	DB	WB	F			
42	3.2	1.20	900	28.2	20.6	63.7	62.1	59.7	24.0	19.1	60.4	58.7	57.0	20.0	17.2	57.3	55.5	54.6			
			1200	30.6	24.2	66.3	63.9	61.2	26.2	22.2	62.8	60.3	58.4	22.2	20.0	59.5	56.8	55.9			
			1500	32.4	27.2	68.2	65.0	62.4	28.0	25.0	64.6	61.4	59.5	22.4	22.0	61.4	58.0	56.1			
	8.0	6.70	900	41.0	25.4	58.8	57.4	52.3	34.0	23.2	56.2	54.8	50.5	27.8	20.6	53.7	52.3	49.0			
			1200	46.0	30.0	61.9	59.9	53.5	38.0	27.4	58.9	56.9	51.6	31.2	24.6	56.0	54.1	49.8			
			1500	49.5	33.8	64.2	61.5	54.4	41.5	31.0	60.9	58.4	52.4	33.8	27.8	57.8	55.4	50.5			
		12.8	16.50	900	45.5	27.4	56.9	55.6	49.1	37.5	24.8	54.6	53.2	47.9	30.6	22.0	52.3	51.0	46.8		
				1200	52.0	32.4	60.1	58.1	50.2	43.0	29.4	57.4	55.4	48.8	35.2	26.4	54.7	52.9	47.5		
				1500	57.0	36.6	62.5	59.9	50.9	47.5	33.2	59.5	57.0	49.4	38.5	30.0	56.5	54.2	48.1		
45	3.2	1.20	900	26.0	19.9	64.6	62.8	61.3	21.8	18.2	61.3	59.5	58.7	18.1	16.3	58.3	56.2	56.4			
			1200	28.4	23.4	67.0	64.4	62.8	24.0	21.2	63.6	60.9	60.1	19.0	18.7	60.6	57.8	56.9			
			1500	30.2	26.2	68.8	65.4	63.9	25.8	23.4	65.5	61.8	61.2	20.6	20.2	62.5	58.5	57.9			
	8.0	6.70	900	37.4	24.2	60.2	58.8	54.4	30.6	21.8	57.6	56.2	52.7	24.2	19.3	55.2	53.7	51.1			
			1200	41.5	28.4	63.1	60.9	55.5	34.4	25.8	60.1	58.0	53.6	27.4	23.0	57.3	55.3	51.9			
			1500	45.0	32.2	65.1	62.4	56.3	37.2	29.4	61.9	59.3	54.3	30.0	26.2	58.9	56.3	52.5			
		12.8	16.40	900	41.5	25.6	58.6	57.2	51.5	33.8	23.0	56.3	54.9	50.3	26.8	20.4	54.1	52.7	49.2		
				1200	47.0	30.4	61.5	59.5	52.4	38.5	27.6	58.8	56.8	51.1	30.6	24.4	56.2	54.3	49.8		
				1500	51.5	34.6	63.7	61.1	53.1	42.5	31.4	60.7	58.2	51.6	33.6	27.8	57.8	55.4	50.3		
48	3.2	1.20	900	23.8	19.1	65.4	63.6	62.9	19.8	17.2	62.3	60.3	60.4	15.2	15.0	59.6	57.4	57.5			
			1200	26.2	22.2	67.8	65.0	64.4	22.0	20.0	64.6	61.5	61.8	17.2	16.9	62.0	58.3	58.8			
			1500	28.0	25.0	69.6	65.9	65.5	22.2	21.8	66.5	62.6	61.9	18.7	18.3	63.7	58.9	59.7			
	8.0	6.60	900	33.6	22.6	61.7	60.1	56.4	27.0	20.4	59.1	57.6	54.8	20.8	17.8	56.7	55.2	53.2			
			1200	37.6	27.0	64.2	62.1	57.4	30.2	24.2	61.4	59.2	55.6	23.8	21.2	58.6	56.3	54.0			
			1500	40.5	30.6	66.1	63.4	58.2	33.0	27.6	63.0	60.3	56.3	26.4	24.4	60.0	57.1	54.6			
		12.8	16.40	900	37.2	24.0	60.3	58.8	53.8	29.8	21.4	58.0	56.5	52.7	22.6	18.7	55.8	54.4	51.6		
				1200	42.5	28.6	62.9	60.8	54.6	34.0	25.6	60.2	58.2	53.3	26.0	22.4	57.7	55.7	52.1		
				1500	46.0	32.6	64.9	62.2	55.3	37.2	29.4	61.9	59.4	53.8	28.8	25.6	59.2	56.6	52.5		

36-BMW-6 (6 ROW COIL)

Ent Wtr	GPM	PD FT.	CFM	85 degF DB/71 deg.F WB					80 deg.F DB/67 degF WB					75 degF DB/63 deg.F WB							
				TTL	SENS		LVG AIR		Deg	TTL	SENS		LVG AIR		Deg	TTL	SENS		LVG AIR		Deg
				MBH	MBH	DB	WB	F	MBH	MBH	DB	WB	F	MBH	MBH	DB	WB	F			
42	2.0	0.60	900	28.2	21.4	62.9	62.1	70.3	24.6	20.0	59.5	58.5	66.7	21.2	18.2	56.3	55.0	63.3			
			1200	30.6	25.2	65.5	63.8	72.8	26.8	23.2	62.1	60.2	68.9	22.8	20.6	59.1	56.6	65.0			
			1500	32.2	28.0	67.7	65.1	74.3	28.0	25.2	64.5	61.4	70.0	22.0	21.6	61.7	58.2	64.1			
	4.0	2.10	900	39.5	26.0	58.3	57.8	61.9	33.4	23.8	55.6	55.0	58.8	27.8	21.4	52.9	52.2	56.0			
			1200	44.0	30.8	61.3	60.4	64.1	37.4	28.2	58.2	57.2	60.8	31.4	25.6	55.2	54.0	57.8			
			1500	47.5	35.2	63.3	62.0	65.8	40.5	32.4	60.0	58.6	62.3	34.2	29.4	56.9	55.3	59.2			
		9.6	10.90	900	53.0	31.4	52.8	52.4	53.1	44.0	28.4	50.9	50.4	51.3	36.0	25.2	49.1	48.6	49.5		
				1200	61.5	37.6	56.1	55.3	54.9	51.5	34.2	53.7	52.9	52.7	41.5	30.4	51.5	50.7	50.7		
				1500	67.0	42.5	58.6	57.5	56.2	56.5	39.0	55.9	54.8	53.9	46.5	35.2	53.3	52.2	51.7		
45	2.0	0.60	900	26.2	20.6	63.8	62.8	71.2	22.6	19.0	60.5	59.2	67.8	19.3	16.9	57.6	55.8	64.4			
			1200	28.6	24.2	66.4	64.4	73.7	24.6	21.6	63.3	60.8	69.6	18.8	18.6	60.7	57.8	63.9			
			1500	30.6	27.0	68.3	65.4	75.7	23.2	22.8	65.9	62.3	68.3	20.0	19.6	62.9	58.6	65.0			
	4.0	2.10	900	36.4	24.6	59.7	59.2	63.2	30.4	22.4	56.9	56.3	60.2	25.0	20.2	54.2	53.4	57.5			
			1200	40.5	29.4	62.3	61.3	65.3	34.2	27.0	59.2	58.1	62.2	28.4	24.2	56.3	54.9	59.3			
			1500	43.5	33.8	64.2	62.7	67.0	37.2	30.8	61.0	59.3	63.7	31.2	27.6	58.0	56.0	60.6			
		9.6	10.90	900	48.5	29.4	54.8	54.3	55.2	39.5	26.4	52.9	52.4	53.3	31.6	23.2	51.1	50.6	51.6		
				1200	56.0	35.4	57.7	56.9	56.7	46.0	32.0	55.4	54.6	54.6	36.8	28.2	53.2	52.4	52.7		
				1500	62.0	40.5	60.0	58.9	57.9	51.0	36.8	57.3	56.2	55.6	40.5	32.6	54.9	53.7	53.5		
48	2.0	0.60	900	24.4	19.8	64.7	63.4	72.4	20.8	17.8	61.7	59.9	68.9	15.4	15.2	59.4	57.3	63.4			
			1200	26.6	22.8	67.4	64.9	74.7	20.0	19.7	64.8	62.0	68.1	16.9	16.6	62.2	58.4	65.0			
			1500	24.6	24.4	70.0	66.5	72.7	21.2	20.8	67.1	62.8	69.3	18.0	17.7	64.1	59.1	66.0			
	4.0	2.10	900	33.0	23.4	60.9	60.3	64.6	27.4	21.2	58.1	57.4	61.8	22.2	18.9	55.6	54.6	59.2			
			1200	37.2	28.2	63.3	62.2	66.7	31.2	25.6	60.2	58.9	63.6	25.6	22.6	57.6	55.8	60.8			
			1500	40.5	32.2	65.1	63.4	68.3	34.2	29.2	62.0	60.0	65.1	25.4	25.0	59.6	57.4	60.8			
		9.6	10.80	900	44.0	27.6	56.7	56.2	57.2	35.2	24.6	54.8	54.3	55.4	26.8	21.0	53.3	52.7	53.6		
				1200	50.5	33.2	59.4	58.5	58.6	40.5	29.8	57.0	56.2	56.5	31.6	26.0	54.9	54.0	54.6		
				1500	55.5	38.0	61.4	60.2	59.6	44.5	34.2	58.9	57.6	57.4	35.4	30.4	56.3	55.0	55.4		



DIRECT EXPANSION COOLING CAPACITIES

24-BMX-3

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	7.05	600	35.2	21.0	52.6	52.6	30.2	19.5	50.0	50.0	23.0	16.6	49.5	49.2
		800	40.0	25.0	56.1	55.7	34.0	23.0	53.5	53.0	28.6	20.8	50.9	50.3
		1000	44.0	28.4	58.7	57.8	37.6	26.2	55.8	54.9	32.6	24.4	52.5	51.5
45	4.89	600	31.6	19.5	54.9	54.9	23.8	16.6	54.4	54.1	17.0	13.9	53.6	53.2
		800	35.0	23.0	58.5	58.0	29.4	21.0	55.8	55.2	20.0	17.0	55.4	54.5
		1000	38.5	26.2	60.8	59.7	31.6	23.6	58.1	57.1	24.0	20.6	56.0	54.8
50	3.30	600	24.2	16.7	59.3	59.1	17.1	13.9	58.6	58.1	12.4	11.7	57.0	56.1
		800	30.2	21.0	60.7	60.0	20.0	17.1	60.3	59.3	14.8	14.4	58.4	56.8
		1000	32.0	23.8	63.0	61.9	24.0	20.6	60.9	59.6	16.5	16.2	60.0	57.5

36-BMX-3

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	8.72	900	51.5	31.0	53.2	53.2	44.0	28.8	50.5	50.5	34.0	24.6	49.8	49.6
		1200	58.5	36.8	56.7	56.3	49.5	33.8	54.0	53.5	41.5	30.8	51.3	50.8
		1500	63.5	41.5	59.3	58.4	54.5	38.5	56.3	55.4	47.0	35.8	52.9	52.0
45	6.14	900	46.0	28.8	55.4	55.4	35.0	24.8	54.6	54.4	25.4	20.6	53.7	53.2
		1200	51.0	33.8	58.9	58.4	43.0	31.0	56.1	55.5	29.8	25.4	55.4	54.5
		1500	56.0	38.5	61.1	60.1	48.5	36.2	57.7	56.7	35.4	30.4	56.2	55.0
50	4.15	900	36.0	24.8	59.5	59.3	25.6	20.8	58.6	58.1	18.7	17.6	56.9	56.0
		1200	44.0	31.2	61.0	60.3	29.8	25.6	60.3	59.3	22.2	21.6	58.4	56.8
		1500	50.0	36.4	62.6	61.5	35.6	30.6	61.1	59.7	24.8	24.4	59.9	57.5

24-BMX-6

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	5.47	600	37.4	22.0	51.2	51.2	30.6	19.6	49.8	49.8	24.2	17.1	48.6	48.5
		800	43.5	26.4	54.4	54.3	35.8	23.8	52.5	52.2	28.6	21.0	50.8	50.3
		1000	48.5	30.2	57.0	56.3	40.0	27.4	54.7	53.9	32.2	24.2	52.6	51.7
45	3.63	600	31.6	19.5	54.9	54.9	24.6	17.1	53.6	53.6	18.6	14.6	52.5	52.2
		800	37.0	23.8	57.5	57.1	29.2	21.0	55.8	55.3	22.0	18.0	54.2	53.5
		1000	41.5	27.4	59.6	58.8	32.8	24.4	57.5	56.6	24.8	21.0	55.6	54.5
50	2.13	600	25.2	17.1	58.7	58.6	18.6	14.6	57.5	57.2	13.2	12.1	56.3	55.6
		800	29.6	21.0	60.8	60.2	22.0	18.0	59.2	58.4	15.8	15.1	57.6	56.4
		1000	33.2	24.4	62.5	61.5	24.8	21.0	60.5	59.3	18.2	17.6	58.7	56.9

36-BMX-6

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	5.95	900	57.5	33.4	50.7	50.7	47.0	29.8	49.3	49.3	37.4	26.2	48.0	48.0
		1200	66.0	40.0	53.9	53.8	55.0	36.4	52.0	51.7	44.5	32.0	50.3	49.8
		1500	74.0	46.0	56.5	55.9	62.0	41.5	54.2	53.5	50.0	37.2	52.1	51.3
45	4.00	900	48.5	29.8	54.3	54.3	38.0	26.2	53.1	53.0	29.0	22.4	52.0	51.8
		1200	57.0	36.4	57.0	56.7	45.5	32.0	55.3	54.8	34.4	27.6	53.7	53.1
		1500	64.0	42.0	59.1	58.4	51.0	37.4	57.0	56.1	39.0	32.2	55.1	54.1
50	2.40	900	39.0	26.2	58.1	58.1	29.2	22.4	57.0	56.8	20.6	18.7	55.8	55.2
		1200	46.0	32.2	60.2	59.8	34.6	27.6	58.7	58.0	24.8	23.2	57.1	56.1
		1500	52.0	37.4	61.9	61.0	39.0	32.4	60.0	58.9	28.4	27.2	58.2	56.7



HOT WATER HEATING CAPACITIES

I ROW COILS

24 HMH-1						36 HMH-1					
GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F	GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F
2.0	4.40	600	20.6	91.9	158.8	2.0	5.30	900	30.0	90.9	149.2
		800	23.2	86.9	156.2			1200	33.6	85.9	145.6
		1000	25.4	83.5	154.1			1500	36.4	82.5	142.8
3.0	9.90	600	21.8	93.7	165.1	3.0	11.60	900	32.2	93.2	158.0
		800	24.8	88.7	163.1			1200	36.4	88.1	155.1
		1000	27.2	85.1	161.4			1500	39.5	84.6	152.8
4.0	17.60	600	22.4	94.7	168.4	4.0	20.40	900	33.4	94.4	162.8
		800	25.6	89.6	166.8			1200	38.0	89.3	160.5
		1000	28.2	86.1	165.5			1500	41.5	85.7	158.6

2 ROW COILS

24 HMH-2						36 HMH-2					
GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F	GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F
2.0	1.30	600	32.2	109.7	147.0	3.0	1.10	900	49.0	110.3	146.6
		800	36.4	102.1	142.8			1200	55.0	102.6	142.4
		1000	39.5	96.6	139.6			1500	60.0	97.1	139.0
4.0	5.20	600	36.2	116.0	161.4	6.0	4.10	900	55.0	116.8	161.1
		800	41.5	108.4	158.6			1200	63.5	109.1	158.3
		1000	46.0	102.8	156.3			1500	70.0	103.5	155.9
6.0	11.70	600	37.5	118.4	167.0	9.0	9.00	900	57.5	119.3	166.9
		800	44.0	110.9	165.0			1200	67.0	111.7	164.7
		1000	49.0	105.4	163.2			1500	75.0	106.2	162.9

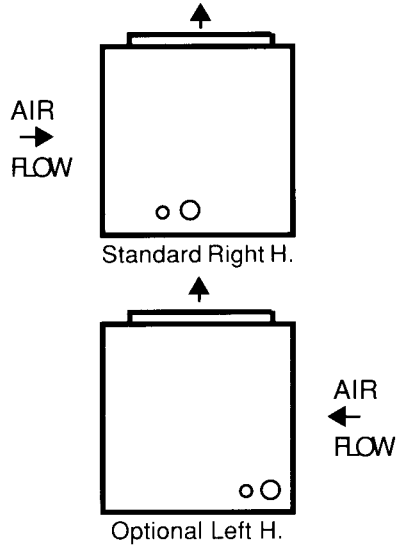
4 ROW COILS

24 BMW-4						36 BMW-4					
GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F	GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F
2.4	0.90	600	50.0	136.9	137.6	3.2	1.00	900	73.0	135.9	132.9
		800	57.0	126.2	131.3			1200	84.0	125.0	126.3
		1000	63.0	118.2	126.6			1500	92.0	116.8	121.4
6.0	5.10	600	57.0	147.9	160.5	8.0	5.90	900	85.0	148.0	158.1
		800	68.0	138.6	156.8			1200	102.0	138.6	153.9
		1000	77.0	131.2	153.8			1500	115.0	131.1	150.6
9.0	11.20	600	58.5	150.5	166.6	12.0	12.90	900	88.0	150.9	164.9
		800	70.0	141.7	163.9			1200	106.0	142.0	161.8
		1000	80.0	134.6	161.6			1500	121.0	134.8	159.3

CAPACITIES BASED ON 60° EAT AND 180° EWT.

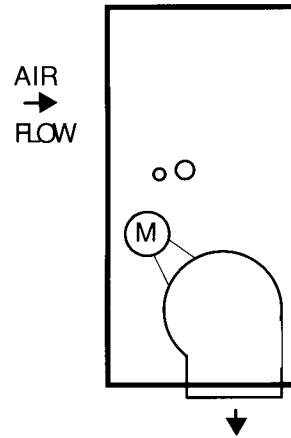
Units not recommended for heating applications when the leaving air exceeds 130°.

COIL HAND ARRANGEMENT

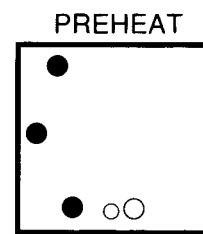
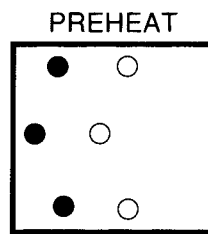
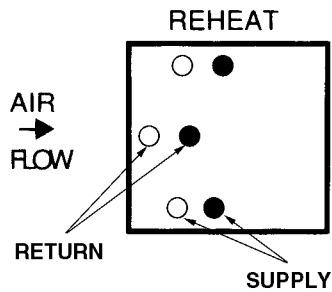


Heating coil available same end or opposite end cooling coil connections.

OPT. DOWN FLOW (Max. 400 FPM Coil Velocity) (Factory Conversion)



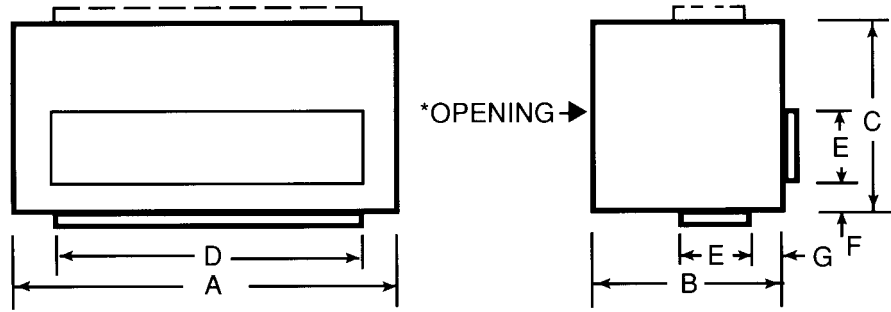
OPTIONAL COIL COMBINATIONS



- CW COIL
- REFRIG. COIL
- HW COIL

Mixing Box

With low leak dampers. May be attached to air unit for top/rear or bottom/rear duct connection.



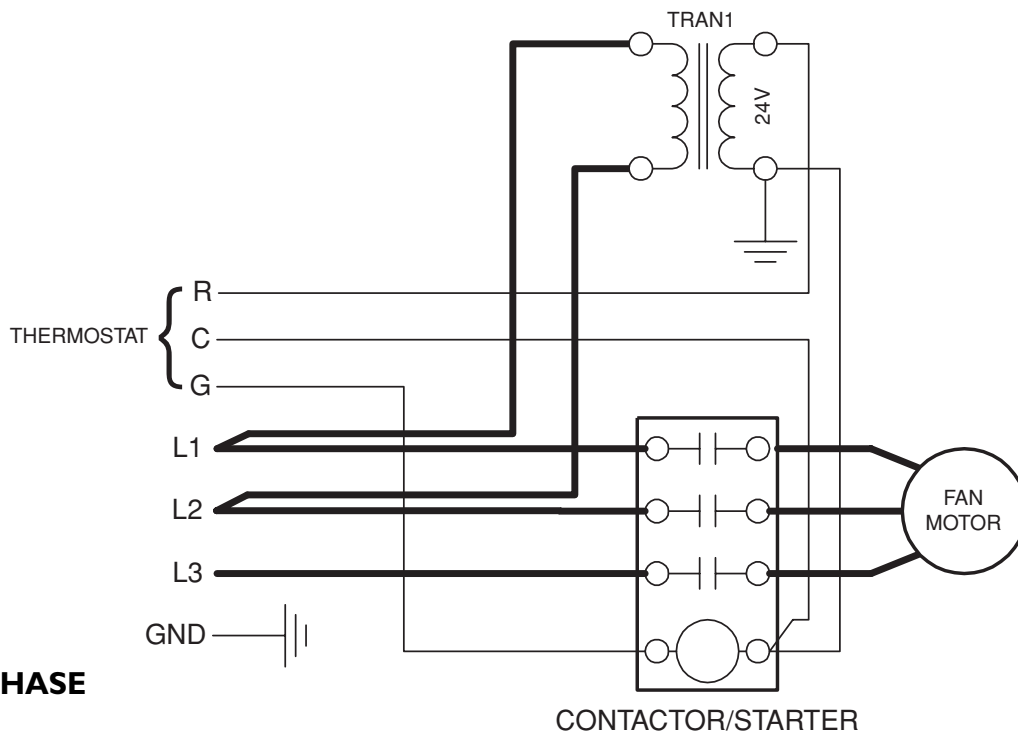
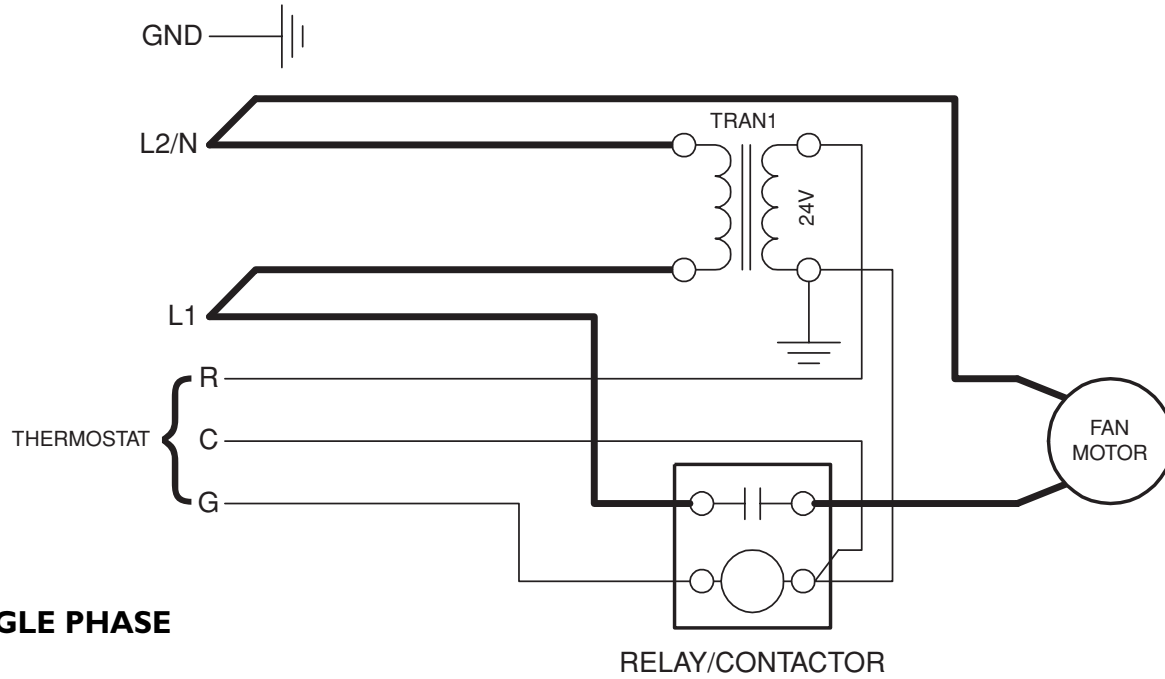
MODEL	A	B	C	D	E	F	G	WT.
24 MB	18.0	16.0	16.00	16.0	8.0	6.0	3.5	43
36 MB	27.5	16.0	16.00	25.5	8.0	6.0	3.5	60
48 MB	29.0	16.0	20.00	27.0	8.0	8.0	3.5	65
60 MB	36.0	16.0	20.00	34.0	8.0	8.0	3.5	75
90 MB	45.0	18.0	25.00	43.0	10.0	8.0	3.5	115
120 MB	48.0	20.0	32.00	46.0	12.0	10.0	3.5	131
180 MB	57.8	22.0	40.25	56.0	14.0	12.0	3.5	186
240 MB	66.0	22.0	45.00	64.0	14.0	15.0	3.5	201

*Unit side connection

Wiring, transformer, fan relay and terminal strips field provided. **Transformer Primary must match Supply Voltage.**

REFER TO NAMEPLATE FOR PROPER VOLTAGE

LOW VOLTAGE WIRING _____
HIGH VOLTAGE WIRING _____





ENGINEERING SPECIFICATIONS

- Cabinets shall be fabricated of LFQ (min) steel. External parts are to be made with a polyurethane based powder coated heavy gauge galvanealed, while internal parts are to be built from heavy gauge galvanized steel. Units shall pass 500 hour salt spray test as described in ASTM B-117.
- Coils are to be tested at 500 PSI for operation at 400 PSI guage. All water coils have air vents.
- Fan wheel bearings shall be self aligning, sealed cartridge, permanently lubricated ball bearings that provide dependable fan operation for an average life of 200,000 hours (belt drive only)
- Variable pitch motor sheaves.

United Electric Company designs and builds its *Magic Aire* products to comply and perform to one or more of the following standards:

AIR FLOW	General Belt Drive Equipment Direct Drive Equipment	AMCA 210 ASHRAE 51 ARI 430 ARI 440
COIL CAPACITY	Hydronic Direct Expansion	ARI 410 ARI 210
IN DUCT SOUND RATINGS	Air Moving Equipment	ASHRAE 68 AMCA 330
SAFETY AGENCY LISTINGS	Coils UL Report # Equipment ETL Report #	UL 207 SA 3438 CAN/CSA C22.2 #236 ANSI/UL-1995 491893
MATERIAL SPECIFICATIONS	Sheet Metal Copper Tubing Aluminum	ASTM A525 ASTM A527 ASTM B68 ASTM B75 ASTM B88 ASTM B251 ASTM B209
MAJOR COMPONENTS	Motors Wire Electrical Filters Fiberglass Paint	UL/CSA NEMA UL/CSA UL/CSA UL ASHRAE 52 UL 181 UL 723 (25/50) ASTM E-84 ASTM B117

UNITED ELECTRIC COMPANY, L.P.

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