Engineered efficiency - no matter where or what

Air Cooled Condenser Range
Fresh ideas from Searle

GEA Searle

MM - MX Condensers

The MM and MX ranges of fully weather-proofed air cooled condensers feature a new range of coil module sizes to extend the coil surface to air volume ratio and thereby increase the "airvolume efficiency" factor. The MM series has a duty range of 18kW to 596kW and the MX series has a duty range of 22kW to 754kW.

Both ranges are available in flat-bed horizontal and vertical configurations and have the latest innovation of blow-through horizontal design for high temperature applications. The MM range is available in a single width of 1539mm and the MX range is available in a single width of 2301mm, both with module lengths of 1200mm, 1440mm and 1800mm, up to 8 fans and 2 to 4 coil rows.

The full fanset options are available, including the 910mm EC energy efficient fanset, which enables a highly efficient, very low noise complete fan speed-control package. Full details of the EC fanset and ideal application areas can be found in the EC section.

Due to the wide variety of condensers available only a selection of the range is represented in this catalogue. For full selection data either refer to the Selection data tables or use the Searle selection software, either on-line or via the Searle Selection CD.

Fan data table

Fan type & Pole	Diameter	Module	Delta			Star		
			Speed (rpm)	FLC (Amp)	SC (Amp)	Speed (rpm)	FLC (Amp)	SC (Amp)
N504 4 Pole	800mm	A,B,C	895	4.3	14	685	2.5	4
N808 8 Pole		A,B,C	665	2.5	6.2	495	1.3	2.2
N812 12 Pole		A,B,C	450	1.2	2.3	350	0.5	0.8
Q812 12 Pole	910mm	A,B,C	360	0.75	1	255	0.3	0.5
N906 6 Pole		A,B,C	870	5.7	19	650	3.3	1.10
09EC EC Technology		A,B,C	Variable 100 - 855	3.1	4.3			

MM A 1 6 2 H - N8 12 D - AL

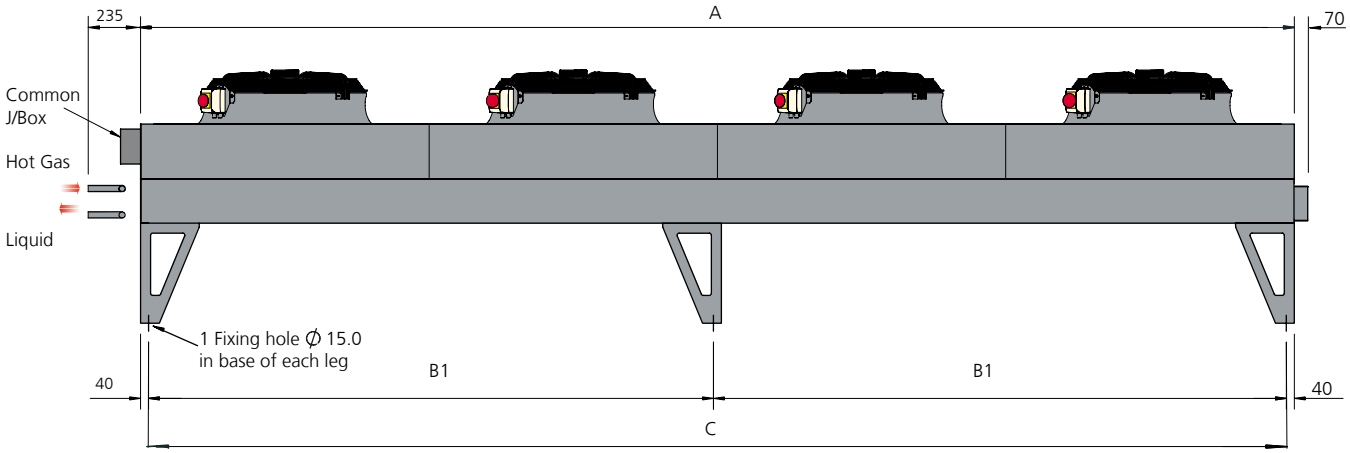
Range	MM - MX
Module size	A (1200mm), B (1440mm), C (1800mm)
Bank of fans	1
Fans per bank	1 - 8 (MMA & MXA), 1 - 6 (MMB & MXB), 1-5 (MMC & MXC),
Coils rows	2, 3, 4
Coil Orientation	H = Horizontal, V = Vertical
Fans type	N8 (800mm), Q8 (800mm), 09 (910mm), N9 (910mm), 99 (990mm)
Motor speed (poles)	06, 08, 12, 09EC = (Max 855rpm)
Power	D = Delta, S = Star, 2 = 2 Speed, Variable speed
Coil material	AL = Copper tubes/ Aluminium fns, AV = Copper tubes with 2 pack epoxy coated aluminium fns. CU = Copper tubes/ Copper fns, ET = Copper tubes/ Copper fns electro-tinned, Bg = Copper tube/Aluminium fn Blygold coated

Model	Delta (High speed)					Star (Low Speed)					Total surface	Internal volume	R404A Charge
	Capacity * R404A & R507A	Air volume	Sound level **	Power input	Energy rating	Capacity * R404A & R507A	Air volume	Sound level **	Power input	Energy rating			
	kW	m³/s	dB(A)	W		kW	m³/s	dB(A)	W		m²	dm³	kg
910mm 6 Pole													
MMA112	53.5	7.08	52	2110	E	46.9	5.55	45	1470	D	80	20	6.3
MMB113	74.1	7.00	52	2130	D	63.1	5.38	45	1490	D	143	31	9.8
MMC114	94.4	7.15	52	2100	D	78.4	5.51	45	1480	C	239	48	15.2
MMA122	107.7	14.16	55	4230	E	94.3	11.10	48	2950	D	159	34	10.7
MMB123	149.5	14.01	55	4260	D	126.7	10.76	48	2980	D	286	56	17.7
MMC124	189.3	14.31	55	4200	C	157.2	11.01	48	2960	C	477	93	29.4
MMB133	223.8	21.01	57	6400	D	190.2	16.15	49	4470	D	429	84	26.5
MMC134	283.8	21.46	57	6300	C	234.1	16.52	49	4440	C	715	136	43.0
MMC143	336.2	29.66	58	8190	D	286.7	23.24	51	5800	C	715	136	43.0
MMC144	379.4	28.62	58	8410	C	314.7	22.03	50	5920	C	954	177	55.9
MMB154	419.6	33.49	59	10990	D	345.2	25.08	51	7610	C	954	184	58.1
MMC154	471.9	35.77	59	10500	D	391.9	27.53	51	7400	C	1192	221	69.8
MMB164	502.9	40.19	60	13140	D	411.8	30.09	52	9120	C	1145	217	68.7
MMA174	521.1	43.39	61	16030	D	421.8	31.77	54	10850	D	1113	212	66.9
MMA184	595.5	49.59	62	18320	D	482.1	36.30	55	12400	D	1272	241	76.3
MXA112	67.6	7.78	52	1960	D	59.2	6.21	46	1400	D	119	26	8.2
MXB113	91.4	7.68	52	1990	C	78.3	6.08	46	1420	C	215	44	13.9
MXC114	112.3	7.75	52	1970	C	95.3	6.15	46	1410	C	358	72	22.8
MXA122	136.1	15.57	55	3930	D	118.5	12.43	49	2810	D	239	50	15.8
MXB123	181.2	15.35	55	3980	C	154.1	12.15	48	2840	C	429	84	26.5
MXC124	223.4	15.49	55	3950	C	188.9	12.30	48	2820	C	715	134	42.3
MXB133	272.0	23.03	57	5980	C	231.3	18.23	50	4260	C	644	121	38.2
MXC134	335.2	23.24	57	5930	C	283.4	18.45	50	4240	C	1073	201	63.5
MXC143	400.3	31.71	58	7740	C	337.4	25.45	51	5560	C	1073	200	63.2
MXC144	451.0	30.99	58	7910	C	382.1	24.60	51	5650	C	1431	263	83.1
MXB154	514.2	37.26	58	10200	C	431.7	29.13	51	7240	C	1431	263	83.1
MXC154	561.7	38.74	59	9850	C	476.4	30.75	52	7050	C	1789	328	103.5
MXB164	614.2	44.71	60	12240	C	515.1	34.96	53	8640	C	1717	314	99.3
MXA174	659.5	50.08	61	14700	D	544.6	38.55	53	10360	C	1669	308	97.5
MXA184	753.7	57.24	62	16800	D	622.4	44.05	54	11840	C	1907	352	111.2
800mm 6 pole													
MMA112	47.9	5.85	48	1560	D	42.5	4.78	44	1070	D	80	20	6.3
MMB113	67.4	5.65	48	1580	D	58.8	4.57	44	1070	C	143	31	9.8
MMC114	86.5	5.67	48	1570	C	73.8	4.55	44	1070	C	239	48	15.2
MMA122	96.2	11.70	51	3130	D	85.3	9.55	47	2140	D	159	34	10.7
MMB123	136.5	11.30	51	3160	D	118.1	9.15	46	2150	C	286	56	17.7
MMC124	173.9	11.34	51	3140	C	148.0	9.10	47	2150	C	477	93	29.4
MMB133	204.4	16.95	53	4750	D	177.4	13.72	48	3230	C	429	84	26.5
MMC134	260.2	17.01	53	4710	C	220.3	13.64	48	3220	C	715	136	43.0
MMC143	305.5	23.83	54	6160	C	262.4	19.12	50	4250	C	715	136	43.0
MMC144	348.4	22.69	54	6280	C	296.3	18.19	49	4300	C	954	177	55.9
MMB154	391.4	26.85	55	8090	C	333.6	21.48	49	5470	C	954	184	58.1
MMC154	432.7	28.36	55	7850	C	369.1	22.74	50	5350	C	1192	221	69.8
MMB164	468.4	32.22	56	9660	C	397.9	25.78	50	6540	C	1145	217	68.7
MMA174	493.2	35.55	57	11620	D	420.1	28.3	51	7700	C	1113	212	66.9
MMA184	563.7	40.63	58	13280	D	480.1	32.4	52	8800	C	1272	241	76.3
MXA112	60.3	6.38	48	1580	D	52.0	5.10	44	1040	C	119	26	8.2
MXB113	82.7	6.16	48	1510	C	70.8	4.91	44	1050	C	215	44	13.9
MXC114	102.9	6.12	48	1500	C	86.5	4.85	44	1050	B	358	72	22.8
MXA122	120.8	12.76	51	3160	D	103.9	10.21	47	2090	C	239	50	15.8
MXB123	163.2	12.32	51	3020	C	139.0	9.82	47	2100	C	429	84	26.5
MXC124	204.3	12.25	51	3010	C	171.5	9.70	47	2100	B	715	134	42.3
MXB133	244.8	18.48	53	4540	C	208.6	14.73	48	3150	C	644	121	38.2
MXC134	306.5	18.37	53	4520	C	257.3	14.55	48	3150	B	1073	201	63.5
MXC143	353.0	25.37	54	5940	C	300.4	20.13	49	4170	B	1073	200	63.2
MXC144	412.7	24.49	54	6020	C	346.4	19.40	49	4200	B	1431	263	83.1
MXB154	471.8	29.52	55	7690	C	399.3	23.52	50	5310	B	1431	263	83.1
MXC154	514.3	30.61	55	7500	C	432.5	24.2	50	5250	B	1789	328	103.5
MXB164	563.6	35.43	56	9180	C	476.6	28.2	52	6360	B	1717	314	99.3
MXA174	604.9	39.70	57	10990	C	512.6	31.8	52	7490	C	1669	308	97.5
MXA184	691.3	45.37	58	12560	C	585.8	36.4	53	8560	C	1907	352	111.2

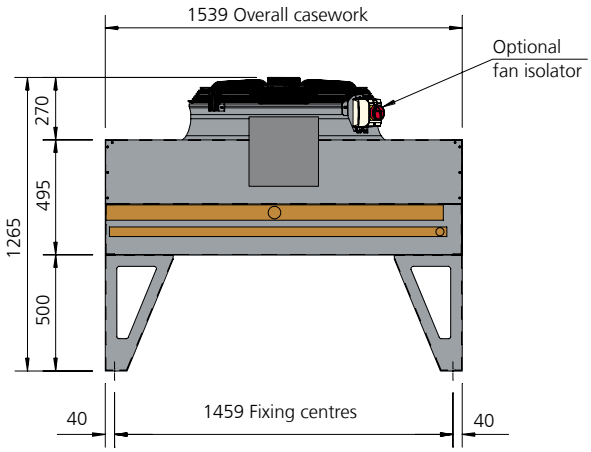
Note: * Capacity quoted at 15 K DT1 Dew Point, ** Sound level quoted as mean pressure level at 10m

Model	Delta (High speed)					Star (Low Speed)					Total surface	Internal volume	R404A Charge
	Capacity * R404A & R507A	Air volume	Sound level **	Power input	Energy rating	Capacity * R404A & R507A	Air volume	Sound level **	Power input	Energy rating			
	kW	m^3/s	dB(A)	W		kW	m^3/s	dB(A)	W		m^2	dm^3	kg
800mm 8 Pole													
MMA112	41.3	4.46	41	790	C	35.0	3.40	34	490	B	80	20	6.3
MMB113	56.7	4.32	41	790	B	47.3	3.29	34	500	B	143	31	9.8
MMC114	71.0	4.38	41	790	B	58.1	3.33	34	490	A	239	48	15.2
MMA122	83.0	8.91	44	1580	C	70.2	6.81	37	990	B	159	34	10.7
MMB123	113.6	8.65	44	1590	B	94.6	6.58	37	1000	B	286	56	17.7
MMC124	142.4	8.76	44	1580	B	116.5	6.65	37	990	A	477	93	29.4
MMB133	170.8	12.97	46	2380	B	142.6	9.88	39	1500	B	429	84	26.5
MMC134	211.8	13.15	45	2370	B	173.0	9.98	39	1490	A	715	136	43.0
MMC143	254.5	18.24	46	3130	B	212.8	13.91	40	1960	B	715	136	43.0
MMC144	285.1	17.53	46	3170	B	233.1	13.31	40	1990	A	954	177	55.9
MMB154	318.3	20.44	48	4020	B	262.3	15.61	41	2550	B	954	184	58.1
MMC154	355.2	21.91	47	3950	B	290.7	16.63	41	2450	A	1192	221	69.8
MMB164	379.2	24.53	50	4800	B	312.6	18.73	42	3060	B	1145	217	68.7
MMA174	398.5	26.61	50	5740	C	329.1	20.30	44	3640	B	1113	212	66.9
MMA184	455.4	30.42	51	6560	C	376.1	23.20	45	4160	B	1272	241	76.3
MXA112	50.8	4.80	41	750	C	43.4	3.69	34	470	B	119	26	8.2
MXB113	68.8	4.71	41	760	B	57.1	3.60	34	480	A	215	44	13.9
MXC114	83.8	4.72	41	750	A	68.4	3.62	34	480	A	358	72	22.8
MXA122	101.3	9.60	43	1500	C	86.5	7.39	37	950	B	239	50	15.8
MXB123	135.1	9.41	44	1520	B	112.8	7.20	37	960	A	429	84	26.5
MXC124	167.0	9.44	43	1510	A	135.7	7.23	37	960	A	715	134	42.3
MXB133	202.7	14.12	45	2290	B	169.3	10.81	39	1450	A	644	121	38.2
MXC134	251.0	14.17	45	2270	A	203.6	10.85	39	1440	A	1073	201	63.5
MXC143	292.6	19.35	47	3180	B	245.5	14.91	39	1890	A	1073	200	63.2
MXC144	335.5	18.89	46	3030	A	274.0	14.47	40	1930	A	1431	263	83.1
MXB154	386.0	22.81	47	3900	B	315.1	17.37	41	2450	A	1431	263	83.1
MXC154	419.1	23.61	47	3750	A	342.2	18.09	41	2400	A	1789	328	103.5
MXB164	460.5	27.37	49	4680	B	377.8	20.84	42	2940	A	1717	314	99.3
MXA174	496.2	30.68	50	5530	B	406.4	23.29	43	3430	A	1669	308	97.5
MXA184	567.0	35.06	51	6320	B	464.4	26.61	44	3920	A	1907	352	111.2
800mm 12 pole													
MMA112	30.2	2.81	29	300	B	27.0	2.27	23	170	A	80	20	6.3
MMB113	40.2	2.70	29	300	A	35.1	2.15	23	170	A	143	31	9.8
MMC114	48.5	2.72	29	300	A	41.1	2.10	23	170	A	239	48	15.2
MMA122	60.7	5.62	32	610	B	54.3	4.54	26	340	A	159	34	10.7
MMB123	80.7	5.41	32	600	A	70.4	4.29	26	340	A	286	56	17.7
MMC124	97.2	5.43	32	610	A	82.3	4.20	26	340	A	477	93	29.4
MMB133	121.2	8.11	34	900	A	105.7	6.44	28	520	A	429	84	26.5
MMC134	146.1	8.15	34	910	A	123.3	6.30	28	520	A	715	136	43.0
MMC143	181.0	11.49	35	1210	A	155.8	9.04	29	680	A	715	136	43.0
MMC144	194.7	10.86	34	1220	A	164.8	8.41	29	690	A	954	177	55.9
MMB154	217.7	12.64	36	1550	A	186.5	9.88	30	880	A	954	184	58.1
MMC154	242.6	13.58	36	1500	A	205.4	10.51	30	850	A	1192	221	69.8
MMB164	261.3	15.17	37	1860	A	223.4	11.85	31	1020	A	1145	217	68.7
MMA174	276.6	16.59	38	2170	A	236.7	12.88	32	1260	A	1113	212	66.9
MMA184	276.6	16.59	39	2480	A	270.5	14.72	33	1440	A	1272	241	76.3
MXA112	37.5	3.04	29	300	A	33.4	2.45	23	160	A	119	26	8.2
MXB113	48.7	2.96	29	300	A	42.0	2.33	23	160	A	215	44	13.9
MXC114	56.3	2.92	29	300	A	47.4	2.28	23	160	A	358	72	22.8
MXA122	75.3	6.07	32	600	A	67.1	4.89	26	330	A	239	50	15.8
MXB123	97.9	5.92	32	600	A	84.3	4.67	26	330	A	429	84	26.5
MXC124	114.0	5.85	32	600	A	94.5	4.56	26	330	A	715	134	42.3
MXB133	145.9	8.88	34	900	A	125.5	7.00	28	500	A	644	121	38.2
MXC134	170.3	8.77	34	900	A	142.0	6.84	28	500	A	1073	201	63.5
MXC143	212.2	12.16	34	1200	A	181.1	9.58	29	660	A	1073	200	63.2
MXC144	225.7	11.69	35	1210	A	189.9	9.12	29	670	A	1431	263	83.1
MXB154	261.8	14.11	35	1520	A	221.0	10.95	30	850	A	1431	263	83.1
MXC154	281.3	14.62	36	1500	A	237.1	11.41	30	800	A	1789	328	103.5
MXB164	313.2	16.93	36	1800	A	263.1	13.14	31	1020	A	1717	314	99.3
MXA174	339.3	19.01	37	2100	A	287.0	14.71	32	1190	A	1669	308	97.5
MXA184	387.7	21.73	38	2400	A	328.0	16.81	33	1360	A	1907	352	111.2

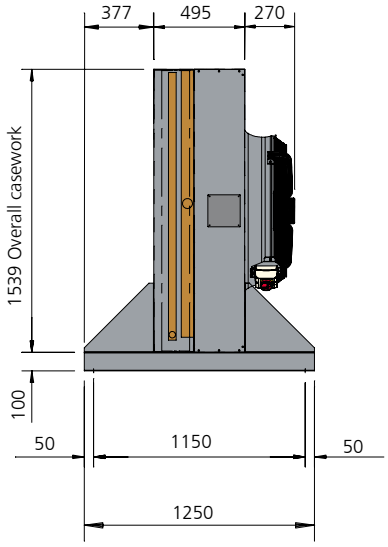
Note: * Capacity quoted at 15 K DT1 Dew Point, ** Sound level quoted as mean pressure level at 10m



MM Horizontal Unit



MM Vertical Unit



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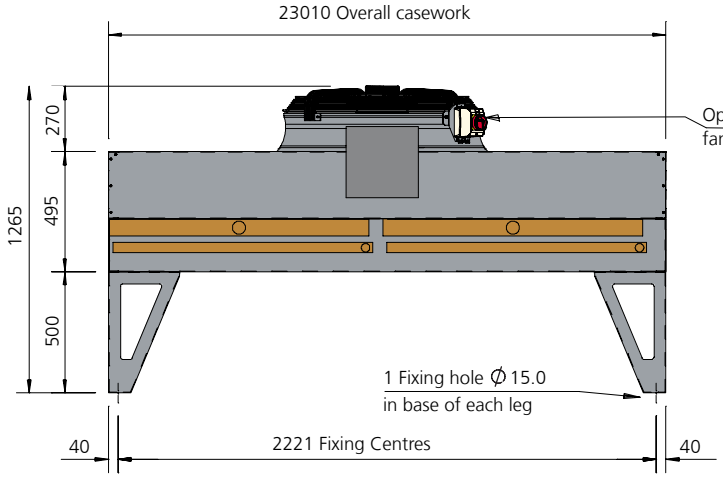
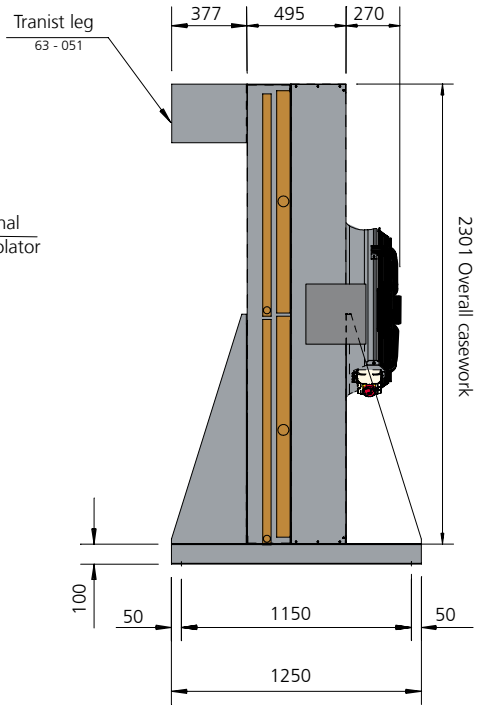


MX Vertical Unit



Notes: All dimensions in mm. Common junction box will vary in size and position depending on the control option required.

Model MM/MX	Fan per bank	A	B1	B2	C	MM Dry weight		MX Dry weight	
						AL	CU	AL	CU
		mm	mm	mm	mm	kg	kg	kg	kg
M_A112	1	1203	—	—	1123	212	244	249	299
M_A113	1	1203	—	—	1123	237	287	278	352
M_A114	1	1203	—	—	1123	261	330	306	405
M_A122	2	2403	—	—	2323	348	414	413	512
M_A123	2	2403	—	—	2323	396	500	470	618
M_A124	2	2403	—	—	2323	444	589	527	725
M_A132	3	3603	—	—	3523	482	583	576	724
M_A133	3	3603	—	—	3523	553	711	661	883
M_A134	3	3603	—	—	3523	623	839	745	1042
M_A142	4	4803	2342	2382	4723	636	768	748	946
M_A143	4	4803	2342	2382	4723	732	939	861	11158
M_A144	4	4803	2342	2382	4723	828	1111	975	1370
M_A152	5	6003	2942	2982	5923	778	942	918	1165
M_A153	5	6003	2942	2982	5923	898	1157	1060	1431
M_A154	5	6003	2942	2982	5923	1017	1370	1201	1695
M_A162	6	7203	3542	3582	7123	909	1107	1073	1370
M_A163	6	7203	3542	3582	7123	1054	1364	1244	1689
M_A164	6	7203	3542	3582	7123	1197	1621	1414	2007
M_A172	7	8403	2341	2381	8323	1053	1284	1243	1589
M_A173	7	8403	2341	2381	8323	1222	1585	1442	1962
M_A174	7	8403	2341	2381	8323	1389	1884	1640	2332
M_A182	8	9603	3541	3581	9523	1194	1458	1409	1805
M_A183	8	9603	3541	3581	9523	1387	1802	1636	2230
M_A184	8	9603	3541	3581	9523	1578	2143	1863	2653
M_B112	1	1443	—	—	1363	249	285	278	337
M_B113	1	1443	—	—	1363	278	339	311	401
M_B114	1	1443	—	—	1363	309	392	346	465
M_B122	2	2883	—	—	2803	400	459	465	584
M_B123	2	2883	—	—	2803	457	557	532	710
M_B124	2	2883	—	—	2803	516	657	600	838
M_B132	3	4323	—	—	4243	549	629	650	828
M_B133	3	4323	—	—	4243	635	775	753	1020
M_B134	3	4323	—	—	4243	720	919	954	1210
M_B142	4	5763	2822	2862	5683	711	816	848	1093
M_B143	4	5763	2822	2862	5683	823	999	983	1329
M_B144	4	5763	2822	2862	5683	938	1189	1120	1594
M_B152	5	7203	3542	3582	7123	869	998	1042	1338
M_B153	5	7203	3542	3582	7123	1009	1234	1211	1656
M_B154	5	7203	3542	3582	7123	1151	1471	1381	1974
M_B162	6	8643	2821	2880	8563	1021	1172	1230	1606
M_B163	6	8643	2821	2880	8563	1189	1723	1434	1967
M_B164	6	8643	2821	2880	8563	1358	2056	1638	2349
M_C112	1	1803	—	—	1723	273	312	314	388
M_C113	1	1803	—	—	1723	309	376	356	467
M_C114	1	1803	—	—	1723	346	440	399	547
M_C122	2	3603	—	—	3523	439	504	536	684
M_C123	2	3603	—	—	3523	508	620	621	843
M_C124	2	3603	—	—	3523	578	737	706	1002
M_C132	3	5403	2642	2682	5323	602	691	776	998
M_C133	3	5403	2642	2682	5323	700	856	902	1236
M_C134	3	5403	2642	2682	5323	799	1021	1030	1475
M_C142	4	7203	3542	3582	7123	781	896	991	1287
M_C143	4	7203	3542	3582	7123	914	1117	1160	1605
M_C144	4	7203	3542	3582	7123	1047	1338	1330	1923
M_C152	5	9003	3541	1840	8923	955	1097	1222	1592
M_C153	5	9003	3541	1840	8923	1119	1370	1433	1989
M_C154	5	9003	3541	1840	8923	1285	1643	1645	2387

Notes: Total unit dry weight is dependent upon the coil material used (AL/AV = Copper tubes with Aluminium or Copper tubes with 2 pack epoxy coated aluminium fns, CU = Copper tubes with Copper fins or Copper fins electro-tinned).

Engineered efficiency - no matter where or what

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