

# ENTHALPY TD SERIES CONDENSING UNITS

## *Enthalpy*

### Semi Hermetic TD Series Condensing Units (Medium / Low Temperature)

#### *Standard Features*

- Weatherproof White Powder Coated Casing
- Bitzer Ecoline Semi Hermetic Compressors
- Oil Level Monitor (OLC-D1 & DP-2)  
(4 cylinder compressor models only)
- Compressor Oil Sight Glass
- Crankcase Heater
- Service Shut Off Valves
- Pressure Control(s)
- Gomax Flexible Control Hoses
- Liquid Line Drier & Sight Glass
- Oil Separator (Pre-charged with POE oil)
- Liquid Receiver
- **Supercoat** Condenser Treatment  
(5000 Hour Salt Spray Test)
- Top Discharge High Ambient Condenser
- Space Saving Unit Design  
(Can be installed in a corner or back to back - except ML & MC series)
- ebm AC Condenser Fans – Single Phase
- Saginomiya 1ph Condenser Fan Speed Controller
- ebm 800mm EC Condenser Fans – 3 phase (MC series cases only)
- Carel EC Fan Speed Controlled (MC series cases only)
- 3PH Contactor & Electronic Motor Protection Relay
- Phase Loss & Phase Imbalance Protection
- Dust & Weatherproof Electrical Box
- Pre-Wired Back to Electrical Box
- 1.22mm (18G) Interconnecting Copper Pipe Work
- Pre-Drilled ready to fit **IPW** series isolating switch
- Discharge Vibration Eliminator
- Suction Accumulator



#### *Optional Features*

- ebm EC condenser fans.
  - 500mm & 630mm fan diameter case models
  - 500mm fan models available in 1 phase only
  - 630mm fan models available in 3 phase only
- Bitzer CR11 compressor 10-100% capacity regulation.
  - 4 cylinder compressor models only
  - Utilises Bitzer CM-RC-01 control module
- EC fans & Bitzer CR11 controlled via Carel controller.
- Oil Separator with Reservoir + Dekka oil level regulator.



# ENTHALPY TD SERIES CONDENSING UNITS

## R404a (R507) – TD Semi Hermetic Condensing Units

Airefrig Part Number	H/P (Nom)	Displ m³/h	Amb. Temp °C	Refrigeration Capacity Watts									
				Evaporating Temperature °C									
				-40	-35	-30	-25	-20	-15	-10	-5	0	+5
TD2JES07ML3003	3/4	5.21	32	564	815	1107	1442	1821	2247	2722	3246	3817	4437
			38	456	687	954	1260	1608	1997	2431	2908	3427	3989
			43	370	583	831	1113	1434	1793	2193	2631	3106	3618
TD2GES2ML4003	1.5	7.58	32	961	1328	1756	2248	2809	3443	4153	4944	5815	6766
			38	815	1151	1543	1992	2505	3085	3733	4453	5245	6108
			43	696	1008	1369	1785	2259	2793	3390	4052	4778	5566
TD2FES3ML4003	1.8	9.54	32	1144	1594	2113	2706	3377	4126	4958	5867	6854	7916
			38	965	1375	1849	2389	2998	3678	4429	5247	6134	7083
			43	822	1201	1637	2133	2691	3312	3996	4741	5542	-
TD2DES3MP123	3.0	13.4	32	1835	2521	3311	4213	5232	6367	7623	8998	10485	12080
			38	1576	2204	2924	3747	4672	5702	6838	8077	9412	10837
			43	1354	1931	2594	3348	4195	5138	6173	7298	8508	-
TD2CES4MP273	4.0	16.2	32	2431	3309	4330	5505	6850	8376	10097	12022	14154	16508
			38	2125	2930	3865	4941	6171	7565	9133	10879	12810	14934
			43	1855	2599	3463	4455	5587	6867	8305	9903	11665	13595
TD4FES5MP273*	5.0	18.1	32	2660	3533	4579	5815	7255	8913	10798	12919	15278	17880
			38	2374	3170	4124	5247	6554	8054	9755	11659	13772	16093
			43	2126	2859	3733	4762	5955	7322	8867	10592	12498	14582
TD4EES6MP273*	5.5	22.7	32	3214	4300	5594	7112	8868	10876	13139	15661	18445	21482
			38	2834	3823	5001	6383	7978	9798	11844	14120	16622	19340
			43	2511	3420	4501	5768	7228	8890	10755	12824	15089	17542

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid subcooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# ENTHALPY TD SERIES CONDENSING UNITS

## R404a (R507) – TD Semi Hermetic Condensing Units (cont'd)

Airefrig Part Number	H/P (Nom)	Displ m³/h	Amb. Temp °C	Refrigeration Capacity Watts									
				Evaporating Temperature °C									
				-40	-35	-30	-25	-20	-15	-10	-5	0	+5
TD4DES7MP273*	7.5	26.8	32	3940	5224	6741	8506	10537	12839	15419	18282	21416	24813
			38	3491	4659	6042	7651	9500	11595	13939	16533	19361	22415
			43	3117	4189	5458	6936	8632	10551	12695	15060	17636	-
TD4CES9MP383*	9.0	35.2	32	4670	6250	8117	10293	12799	15657	18881	22480	26458	30813
			38	4101	5539	7243	9236	11533	14155	17110	20403	24033	27987
			43	3645	4966	6535	8373	10495	12914	15637	18667	21997	-
TD4TES12MP383*	12.0	41.3	32	5471	7425	9730	12408	15478	18953	22828	27102	31753	36749
			38	4734	6505	8600	11040	13842	17011	20542	24427	28640	33144
			43	4142	5762	7684	9926	12501	15412	18652	22205	-	-
TD4PES15MP573*	15.0	48.5	32	5897	8212	10970	14203	17940	22207	27029	32405	38336	44816
			38	4990	7083	9586	12529	15937	19836	24239	29144	34545	40421
			43	4269	6178	8471	11173	14308	17894	21944	26448	31395	-
TD4NES20MP573*	20.0	56.2	32	7549	10219	13376	17054	21277	26072	31437	37371	43857	50855
			38	6558	8976	11845	15194	19048	23422	28312	33711	39589	45904
			43	5764	7974	10605	13682	17222	21241	25727	30668	-	-
TD4HE25MC723SU#	25.0	73.7	32	10451	14115	18373	23265	28818	35052	41972	49573	57821	66682
			38	9093	12442	16340	20817	25898	31594	37903	44811	52275	60253
			43	7983	11068	14662	18789	23470	28711	34500	40820	47614	54828
TD4GE30MC723SU#	30.0	84.6	32	12129	16240	20997	26432	32563	39393	46911	55077	63846	73134
			38	10653	14398	18733	23686	29268	35473	42284	49654	57533	65826
			43	9446	12883	16864	21408	26525	32201	38412	45108	52222	-

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid subcooling.

■ Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# The 25HP & 30HP units are fitted standard with 3 phase ebm EC fans that are speed controlled from 0% to 100% plus compressor 50% capacity control & alternating digital displays of unit suction & discharge pressures all via a Carel panel mount universal controller.

# ENTHALPY TD SERIES CONDENSING UNITS

## R134a – TD Semi Hermetic Condensing Units

Airefrig Part Number	H/P (Nom)	Displ m <sup>3</sup> /h	Amb. Temp °C	Refrigeration Capacity Watts							
				Evaporating Temperature °C							
				-25	-20	-15	-10	-5	0	+5	+10
TD2JES07ML3003	3/4	5.21	32	581	843	1151	1509	1920	2391	2923	3519
			38	502	752	1044	1383	1772	2217	2718	3279
			43	445	683	862	1285	1656	2078	2555	3087
TD2GES2ML4003	1.5	7.58	32	1148	1535	1989	2516	3123	3817	4606	5467
			38	1036	1403	1831	2329	2901	3556	4300	5139
			43	945	1293	1701	2174	2719	3341	4046	4842
TD2FES3ML4003	1.8	9.54	32	1426	1904	2461	3104	3839	4674	5612	6654
			38	1265	1712	2233	2832	3520	4299	5172	6145
			43	1140	1561	2052	2617	3264	3997	4819	5732
TD2DES3MP123	3.0	13.4	32	2068	2775	3606	4573	5685	6949	8373	9959
			38	1870	2530	3306	4209	5246	6425	7751	9228
			43	1707	2328	3060	3909	4885	5992	7237	8622
TD2CES4MP273	4.0	16.2	32	2661	3554	4614	5858	7304	8971	10874	13036
			38	2426	3261	4252	5415	6766	8322	10097	12113
			43	2235	3022	3956	5052	6325	7789	9460	11353
TD4FES5MP273*	5.0	18.1	32	2707	3635	4755	6091	7663	9491	11596	13995
			38	2429	3291	4333	5576	7038	8738	10691	12917
			43	2192	3002	3980	5145	6517	8110	9940	12022
TD4EES6MP273*	5.5	22.7	32	3762	4918	6290	7899	9764	11904	14337	17076
			38	3412	4493	5773	7276	9016	11011	13275	15821
			43	3122	4139	5346	6760	8397	10271	12397	14783

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid subcooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller will require to be adjusted to suit R134a refrigerant at time of commissioning.

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# ENTHALPY TD SERIES CONDENSING UNITS

## R134a – TD Semi Hermetic Condensing Units (cont'd)

Airefrig Part Number	H/P (Nom)	Displ m <sup>3</sup> /h	Amb. Temp °C	Refrigeration Capacity Watts							
				Evaporating Temperature °C							
				-25	-20	-15	-10	-5	0	+5	+10
TD4DES7MP273*	7.5	26.8	32	4163	5509	7122	9026	11243	13790	16681	19924
			38	3771	5023	6524	8295	10355	12721	15402	18405
			43	3438	4613	6022	7684	9615	11832	14341	17146
TD4CES9MP383*	9.0	35.2	32	5270	6921	8900	11239	13965	17105	20678	24698
			38	4813	6350	8193	10370	12906	15823	19139	22863
			43	4423	5869	7600	9644	12023	14758	17861	21343
TD4TES12MP383*	12.0	41.3	32	6249	8362	10853	13754	17095	20899	25182	29965
			38	5644	7597	9905	12600	15709	19250	23237	27686
			43	5156	6977	9135	11658	14572	17894	21633	25795
TD4PES15MP573*	15.0	48.5	32	6962	9479	12463	15958	20005	24649	29921	35854
			38	6204	8525	11289	14533	18297	22622	27534	33061
			43	5590	7750	10331	13367	16896	20954	25564	30752
TD4NES20MP573*	20.0	56.2	32	8566	11461	14878	18860	23455	28694	34605	41219
			38	7748	10422	13588	17287	21563	26441	31943	38101
			43	7087	9580	12540	16005	20013	24589	29753	35518
TD4HE25MC723SU#	25.0	73.7	32	11878	15779	20356	25657	31729	38608	46318	54876
			38	10753	14406	18687	23640	29305	35715	42887	50834
			43	9798	13248	17287	21955	27286	33308	40036	47477
TD4GE30MC723SU#	30.0	84.6	32	13808	18233	23431	29446	36309	44051	52668	62144
			38	12568	16714	21574	27185	33580	40777	48771	57541
			43	11480	15400	19988	25275	31289	38041	45524	53713

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid subcooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller will require to be adjusted to suit R134a refrigerant at time of commissioning.

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# The 25HP & 30HP units are fitted standard with 3 phase ebm EC fans that are speed controlled from 0% to 100% plus compressor 50% capacity control & alternating digital displays of unit suction & discharge pressures all via a Carel panel mount universal controller.

# ENTHALPY TD SERIES CONDENSING UNITS

## R449A - TD Semi Hermetic Condensing Units

Airefrig Part Number	H/P (Nom)	Displ m³/h	Amb. Temp °C	Refrigeration Capacity Watts									
				Evaporating Temperature °C									
				-40	-35	-30	-25	-20	-15	-10	-5	0	+5
TD2JES07ML3003	3/4	5.21	32	410	632	899	1220	1595	2030	2524	3081	3701	4383
			38	331	532	776	1068	1412	1809	2260	2769	3335	3958
			43	251	438	663	934	1252	1620	2040	2513	3037	3616
TD2GES2ML4003	1.5	7.58	32	685	1022	1428	1911	2480	3141	3899	4756	5718	6788
			38	573	879	1251	1694	2217	2823	3517	4303	5183	6158
			43	456	740	1086	1499	1985	2548	3193	3924	4741	5643
TD2FES3ML4003	1.8	9.54	32	868	1285	1783	2375	3067	3865	4767	5782	6908	8142
			38	726	1103	1559	2102	2737	3466	4294	5222	6253	7381
			43	577	927	1352	1856	2446	3125	3898	4762	5718	6775
TD2DES3MP123	3.0	13.4	32	1416	2026	2757	3618	4622	5780	7102	8594	10265	12116
			38	1212	1773	2447	3244	4177	5255	6484	7874	9428	11146
			43	1045	1565	2192	2937	3810	4819	5973	7276	8730	10334
TD2CES4MP273	4.0	16.2	32	1893	2661	3589	4696	5999	7520	9277	11293	13590	16187
			38	1654	2360	3219	4244	5456	6873	8513	10395	12540	14965
			43	1461	2116	2914	3873	5009	6338	7880	9649	11665	13942
TD4FES5MP273*	5.0	18.1	32	2031	2870	3884	5094	6521	8185	10108	12313	14820	17653
			38	1765	2532	3467	4586	5911	7459	9251	11309	13649	16291
			43	1552	2261	3129	4173	5411	6862	8544	10475	12673	15153
TD4EES6MP273*	5.5	22.7	32	2497	3532	4780	6264	8007	10029	12355	15005	17997	21348
			38	2162	3110	4259	5631	7246	9126	11291	13760	16547	19665
			43	1896	2771	3837	5115	6625	8384	10414	12728	15339	18258

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid sub-cooling.

■ Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Note: Fan speed controller will require to be adjusted to suit R449a refrigerant at time of commissioning.

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# ENTHALPY TD SERIES CONDENSING UNITS

## R449A - TD Semi Hermetic Condensing Units (cont'd)

Airefrig Part Number	H/P (Nom)	Displ m³/h	Amb. Temp °C	Refrigeration Capacity Watts									
				Evaporating Temperature °C									
				-40	-35	-30	-25	-20	-15	-10	-5	0	+5
TD4DES7MP273*	7.5	26.8	32	2879	4079	5524	7237	9241	11560	14216	17226	20605	24363
			38	2485	3584	4913	6495	8353	10508	12978	15779	18922	22412
			43	2170	3185	4419	5893	7628	9643	11957	14580	17520	20778
TD4CES9MP383*	9.0	35.2	32	3753	5227	7004	9110	11578	14436	17717	21441	25631	30304
			38	3295	4647	6283	8231	10520	13178	16230	19695	23591	27930
			43	2929	4180	5700	7517	9657	12143	15002	18248	21894	25941
TD4TES12MP383*	12.0	41.3	32	4344	6150	8333	10927	13962	17472	21472	25980	31004	36537
			38	-	5394	7397	9785	12588	15835	19539	23715	28367	33482
			43	-	4783	6639	8857	11466	14494	17951	21845	26182	30943
TD4PES15MP573*	15.0	48.5	32	4566	6688	9276	12377	16036	20295	25201	30783	37066	44079
			38	3813	5743	8111	10960	14334	18272	22818	27994	33822	40324
			43	-	4985	7172	9813	12950	16620	20863	25698	31143	37209
TD4NES20MP573*	20.0	56.2	32	6018	8484	11470	15026	19195	24026	29549	35785	42762	50470
			38	-	7470	10209	13481	17329	21801	26916	32696	39158	46288
			43	-	6654	9190	12229	15812	19980	24752	30145	36168	42805
TD4HE25MC723SU#	25.0	73.7	32	8258	11700	15778	20551	26075	32390	39535	47541	56411	66153
			38	-	10306	14081	18505	23628	29488	36114	43530	51736	60726
			43	-	9155	12675	16806	21590	27067	33256	40174	47820	56175
TD4GE30MC723SU#	30.0	84.6	32	9665	13543	18124	23464	29609	36590	44435	53143	62704	73084
			38	-	12033	16258	21188	26862	33308	40543	48562	57349	66864
			43	-	10787	14713	19296	24575	30570	37290	44731	52867	-

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid sub-cooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller will require to be adjusted to suit R449a refrigerant at time of commissioning

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# The 25HP & 30HP units are fitted standard with 3 phase ebm EC fans that are speed controlled from 0% to 100% plus compressor 50% capacity control & alternating digital displays of unit suction & discharge pressures all via a Carel panel mount universal controller.

# ENTHALPY TD SERIES CONDENSING UNITS

## R448A - TD Semi Hermetic Condensing Units

Airefrig Part Number	H/P (Nom)	Displ m³/h	Amb. Temp °C	Refrigeration Capacity Watts									
				Evaporating Temperature °C									
				-40	-35	-30	-25	-20	-15	-10	-5	0	+5
TD2JES07ML3003	3/4	5.21	32	407	631	900	1220	1597	2033	2529	3087	3710	4393
			38	329	530	776	1068	1413	1812	2265	2776	3344	3969
			43	249	435	662	934	1254	1623	2045	2520	3046	3628
TD2GES2ML4003	1.5	7.58	32	682	1020	1428	1913	2484	3148	3909	4769	5734	6808
			38	571	878	1251	1696	2221	2830	3528	4316	5200	6179
			43	453	739	1085	1500	1988	2555	3203	3938	4758	5663
TD2FES3ML4003	1.8	9.54	32	865	1283	1783	2377	3072	3872	4778	5795	6925	8162
			38	722	1101	1559	2104	2741	3473	4304	5236	6270	7402
			43	573	924	1351	1857	2450	3132	3909	4776	5738	6797
TD2DES3MP123	3.0	13.4	32	1372	1968	2681	3523	4506	5641	6936	8402	10043	11865
			38	1174	1722	2380	3161	4074	5130	6337	7702	9230	10922
			43	1013	1520	2133	2862	3717	4707	5839	7120	8551	10131
TD2CES4MP273	4.0	16.2	32	1889	2660	3592	4703	6011	7539	9305	11330	13637	16248
			38	1651	2360	3222	4252	5470	6893	8542	10435	12591	15028
			43	1458	2116	2918	3882	5023	6360	7910	9690	11717	14007
TD4FES5MP273*	5.0	18.1	32	2027	2868	3886	5101	6534	8205	10137	12352	14871	17716
			38	1761	2532	3470	4594	5925	7481	9282	11349	13702	16357
			43	1549	2261	3133	4181	5426	6885	8575	10517	12727	15220
TD4EES6MP273*	5.5	22.7	32	2492	3529	4783	6272	8021	10052	12388	15049	18052	21419
			38	2157	3109	4262	5640	7262	9150	11326	13806	16605	19738
			43	1891	2770	3840	5125	6641	8409	10449	12775	15399	18330

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid sub-cooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Note: Fan speed controller will require to be adjusted to suit R448a refrigerant at time of commissioning.

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)



# ENTHALPY TD SERIES CONDENSING UNITS

## R448A - TD Semi Hermetic Condensing Units (cont'd)

Airefrig Part Number	H/P (Nom)	Displ m³/h	Amb. Temp °C	Refrigeration Capacity Watts									
				Evaporating Temperature °C									
				-40	-35	-30	-25	-20	-15	-10	-5	0	+5
TD4DES7MP273*	7.5	26.8	32	2791	3963	5373	7048	9009	11279	13885	16839	20158	23857
			38	2409	3481	4781	6328	8146	10258	12682	15433	18523	21960
			43	2104	3094	4300	5742	7442	9418	11689	14266	17159	20369
TD4CES9MP383*	9.0	35.2	32	3748	5227	7010	9124	11603	14474	17771	21512	25722	30418
			38	3290	4648	6290	8247	10547	13218	16286	19770	23686	28047
			43	2925	4182	5709	7534	9685	12185	15059	18322	21988	26056
TD4TES12MP383*	12.0	41.3	32	4335	6146	8336	10939	13987	17511	21529	26055	31101	36657
			38	-	5391	7401	9799	12615	15877	19598	23793	28466	33603
			43	-	4780	6643	8872	11493	14536	18010	21924	26279	31060
TD4PES15MP573*	15.0	48.5	32	4552	6678	9275	12386	16057	20331	25257	30858	37164	44202
			38	3798	5735	8111	10970	14357	18312	22877	28073	33926	40452
			43	-	4977	7171	9823	12974	16660	20922	25778	31246	37336
TD4NES20MP573*	20.0	56.2	32	6006	8478	11473	15040	19224	24072	29615	35873	42874	50605
			38	-	7465	10213	13499	17363	21852	26987	32790	39273	46427
			43	-	6650	9195	12248	15846	20031	24824	30239	36283	42941
TD4HE25MC723SU#	25.0	73.7	32	8238	11691	15784	20576	26121	32460	39634	47671	56572	66348
			38	-	10298	14089	18533	23678	29563	36218	43664	51901	60925
			43	-	9148	12683	16834	21641	27143	33361	40309	47985	56370
TD4GE30MC723SU#	30.0	84.6	32	9645	13536	18132	23491	29658	36665	44538	53275	62863	73267
			38	-	12027	16269	21219	26917	33389	40652	48699	57513	67049
			43	-	10783	14725	19329	24631	30652	37400	44868	53028	-

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid sub-cooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller will require to be adjusted to suit R448a refrigerant at time of commissioning

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# The 25HP & 30HP units are fitted standard with 3 phase ebm EC fans that are speed controlled from 0% to 100% plus compressor 50% capacity control & alternating digital displays of unit suction & discharge pressures all via a Carel panel mount universal controller.

# ENTHALPY TD SERIES CONDENSING UNITS

## R513A – TD Semi Hermetic Condensing Units

Airefrig Part Number	H/P (Nom)	Displ m <sup>3</sup> /h	Amb. Temp °C	Refrigeration Capacity Watts							
				Evaporating Temperature °C							
				-25	-20	-15	-10	-5	0	+5	+10
TD2JES07ML3003	3/4	5.21	32	665	935	1250	1612	2025	2493	3017	3600
			38	581	837	1133	1474	1861	2300	2791	3334
			43	519	762	1043	1365	1731	2145	2606	3117
TD2GES2ML4003	1.5	7.58	32	1274	1673	2136	2670	3280	3973	4753	5629
			38	1150	1525	1960	2461	3032	3680	4411	5228
			43	1049	1404	1815	2287	2827	3437	4125	4894
TD2FES3ML4003	1.8	9.54	32	1580	2071	2638	3286	4022	4850	5770	6786
			38	1404	1859	2385	2986	3669	4435	5287	6227
			43	1265	1692	2184	2747	3384	4099	4895	5770
TD2DES3MP123	3.0	13.4	32	2295	3024	3873	4850	5961	7215	8612	10158
			38	2073	2750	3537	4443	5472	6632	7923	9349
			43	1891	2524	3260	4107	5068	6149	7351	8677
TD2CES4MP273	4.0	16.2	32	2951	3877	4965	6232	7692	9360	11253	13387
			38	2686	3547	4558	5734	7089	8636	10389	12364
			43	2468	3276	4224	5324	6591	8038	9676	11518
TD4FES5MP273*	5.0	18.1	32	3005	3973	5129	6493	8083	9917	12009	14377
			38	2695	3590	4659	5921	7391	9083	11014	13195
			43	2432	3267	4265	5441	6812	8388	10184	12210
TD4EES6MP273*	5.5	22.7	32	4135	5333	6739	8370	10244	12377	14779	17464
			38	3743	4855	6159	7673	9409	11382	13603	16077
			43	3417	4458	5678	7094	8716	10556	12625	14926

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid subcooling.

Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller will require to be adjusted to suit R513A refrigerant at time of commissioning.

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# ENTHALPY TD SERIES CONDENSING UNITS

## R513A – TD Semi Hermetic Condensing Units (cont'd)

Airefrig Part Number	H/P (Nom)	Displ m <sup>3</sup> /h	Amb. Temp °C	Refrigeration Capacity Watts							
				Evaporating Temperature °C							
				-25	-20	-15	-10	-5	0	+5	+10
TD4DES7MP273*	7.5	26.8	32	4594	5991	7645	9577	11802	14333	17178	20341
			38	4152	5445	6975	8760	10813	13146	15765	18671
			43	3779	4985	6412	8075	9987	12157	14588	17280
TD4CES9MP383*	9.0	35.2	32	5800	7514	9545	11920	14661	17785	21308	25239
			38	5281	6869	8749	10945	13475	16357	19601	23215
			43	4840	6323	8079	10126	12484	15165	18178	21528
TD4TES12MP383*	12.0	41.3	32	6926	9105	11646	14572	17909	21668	25865	30502
			38	6242	8246	10587	13290	16373	19847	23722	27999
			43	5688	7546	9723	12238	15108	18342	21946	25920
TD4PES15MP573*	15.0	48.5	32	7769	10375	13431	16973	21035	25654	30853	36655
			38	6922	9315	12130	15400	19156	23429	28237	33602
			43	6233	8450	11066	14108	17607	21589	26071	31068
TD4NES20MP573*	20.0	56.2	32	9494	12482	15969	19991	24585	29770	35568	41997
			38	8567	11314	14528	18242	22488	27281	32638	38571
			43	7815	10364	13351	16807	20761	25225	30212	35728
TD4HE25MC723SU#	25.0	73.7	32	13131	17148	21810	27154	33213	40013	47567	55875
			38	11874	15611	19941	24897	30508	36794	43762	51410
			43	10810	14316	18373	23010	28248	34106	40588	47687
TD4GE30MC723SU#	30.0	84.6	32	15222	19775	25060	31102	37926	45544	53932	63072
			38	13831	18066	22970	28564	34871	41892	49605	57984
			43	12619	16595	21190	26420	32301	38831	45988	53737

Nominal ratings should be used as a guide, based on 20 degree Celsius return vapour and inherent liquid subcooling.

■ Shaded areas require additional cooling &/or return vapour limitations – contact Airefrig Australia for further information.

\* 4 Cylinder Compressors are fitted with OLC-K1 Oil Level Monitors & have one head ready for capacity control – contact Airefrig for details.

Note: Fan speed controller will require to be adjusted to suit R513A refrigerant at time of commissioning.

Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing (do not use this option if unit is operating in the shaded area envelope which requires additional cooling)

# The 25HP & 30HP units are fitted standard with 3 phase ebm EC fans that are speed controlled from 0% to 100% plus compressor 50% capacity control & alternating digital displays of unit suction & discharge pressures all via a Carel panel mount universal controller.

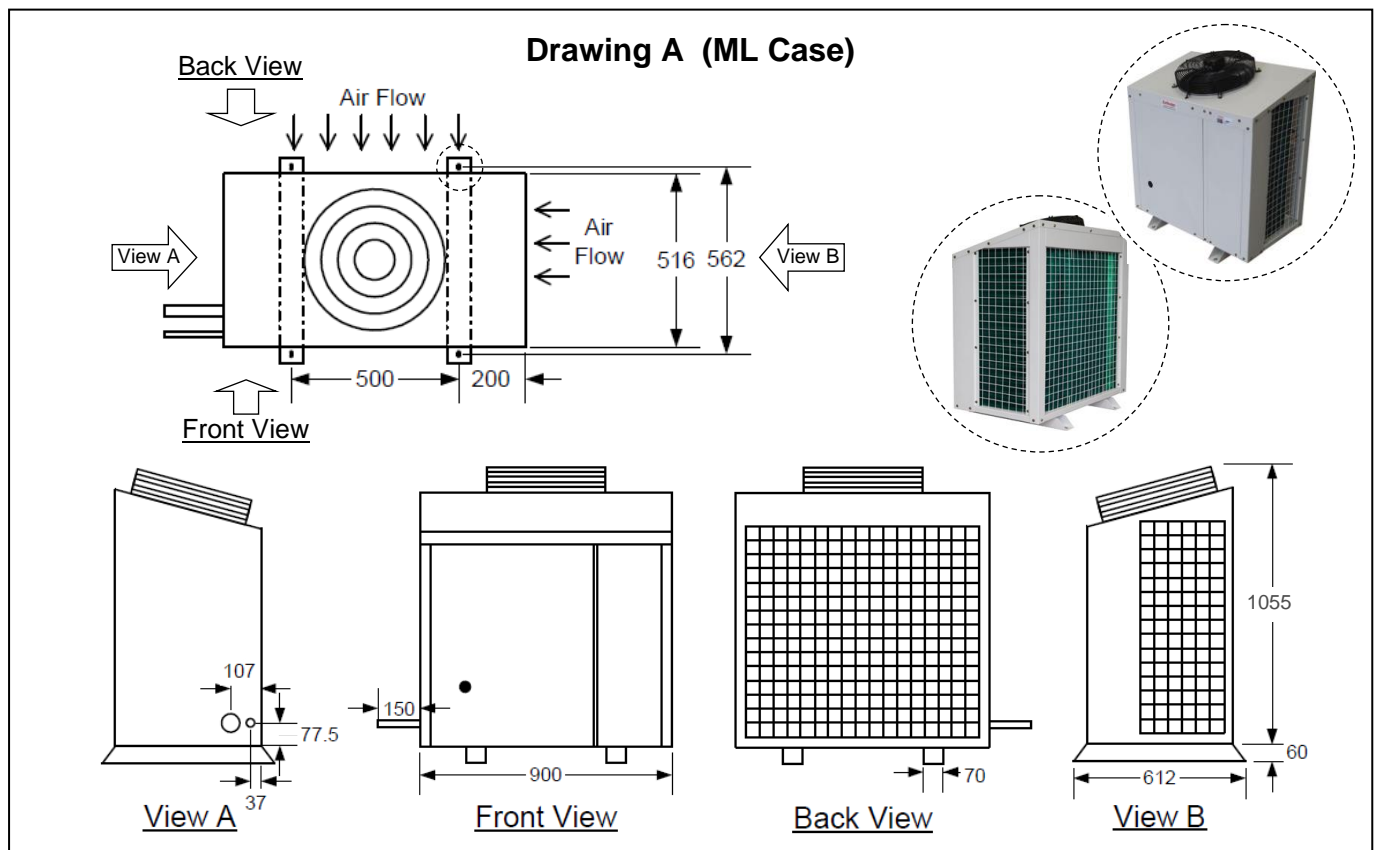
# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Specifications & Dimensions

Unit Model	Connections Inches		Unit Weight Kg	Compressor		Condenser Fan Motor(s)				Receiver @ 90% (R404a) KG	Dimension Drawing
	Suction	Liquid		Voltage 380/400V 3Phase 50Hz	MOC maximum operating current	Voltage	Diam.	Qty	Amps per Fan		
TD2JES07ML3003	5/8"	1/2"	130	D.O.L.	3.7	230V 1Phase 50Hz AC fans	300mm	1	0.32	4.29	A
TD2GES2ML4003	5/8"	1/2"	130		5.0		400mm	1	0.73	4.29	A
TD2FES3ML4003	5/8"	1/2"	130		6.1		400mm	1	0.73	4.29	A
TD2DES3MP123	7/8"	5/8"	195		8.6		450mm	1	1.55	8.10	B
TD2CES4MP273	1-1/8"	5/8"	265		10.0		500mm	2	3.0	12.0	C
TD4FES5MP273	1-1/8"	5/8"	280		10.8		500mm	2	3.0	12.0	C
TD4EES6MP273	1-1/8"	5/8"	280		13.6		500mm	2	3.0	12.0	C
TD4DES7MP273	1-1/8"	5/8"	285		16.5		500mm	2	3.0	12.0	C
TD4CES9MP383	1-1/8"	5/8"	325		20.2		630mm	2	2.7	12.0	D
TD4TES12MP383	1-3/8"	5/8"	385		25.1		630mm	2	2.7	12.0	D
TD4PES15MP573	1-3/8"	3/4"	500	P.W.S.	28.2	630mm	3	2.7	34.0	E	
TD4NES20MP573	1-3/8"	3/4"	505		33.2	630mm	3	2.7	34.0	E	
TD4HE25MC723SU	2-1/8"	7/8"	780		44.0	400V 3Phase EC fans	800mm	2	3.1	34.0	F
TD4GE30MC723SU	2-1/8"	7/8"	790		51.2		800mm	2	3.1	34.0	F

Note: Bitzer Crankcase Heaters are Internal PTC self-regulating 230 volts.

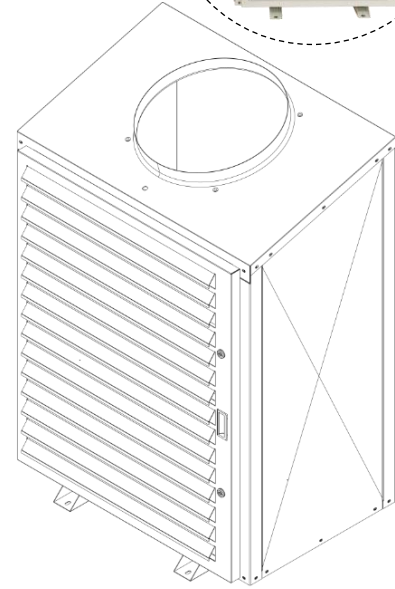
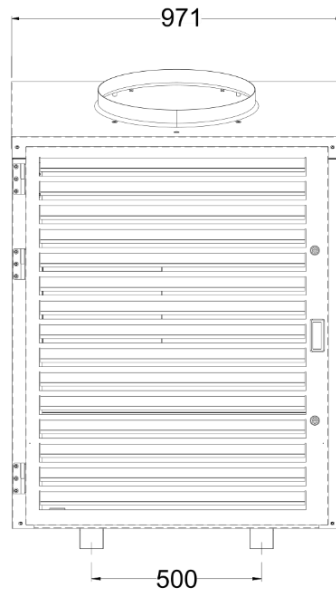
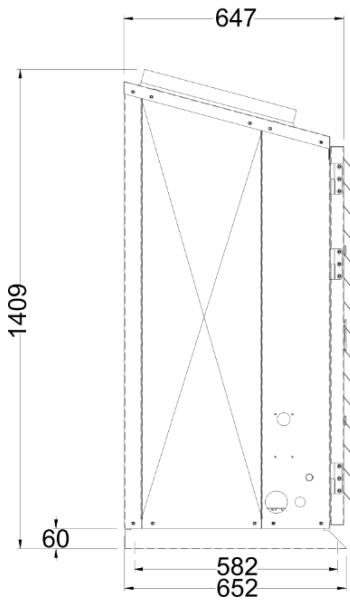
## TD Semi Hermetic Unit Dimensions



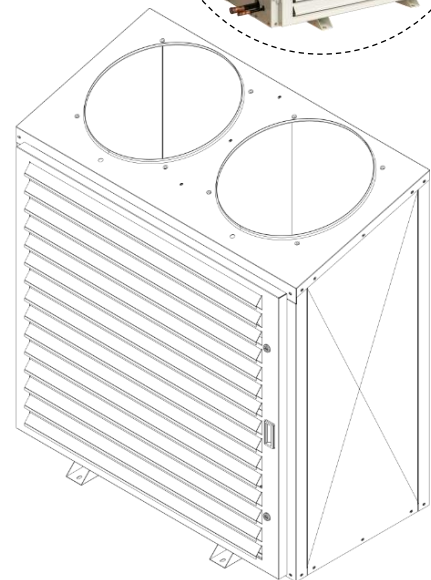
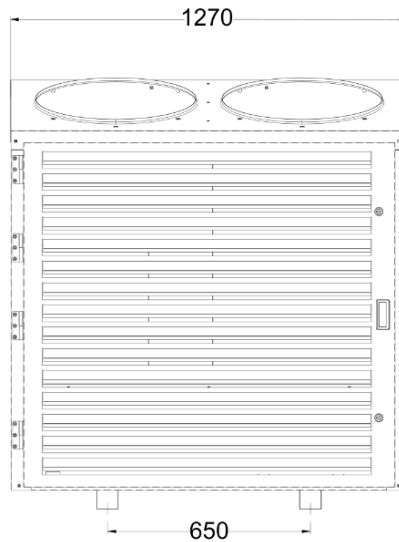
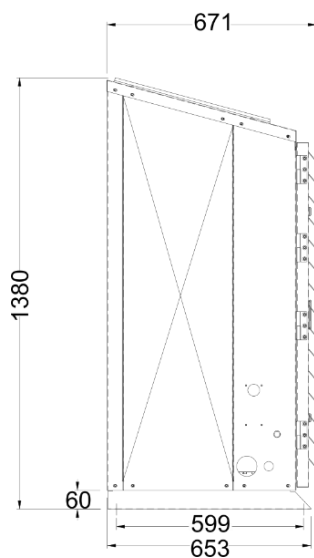
# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Dimensions (cont'd)

Drawing B (MP12 Case)



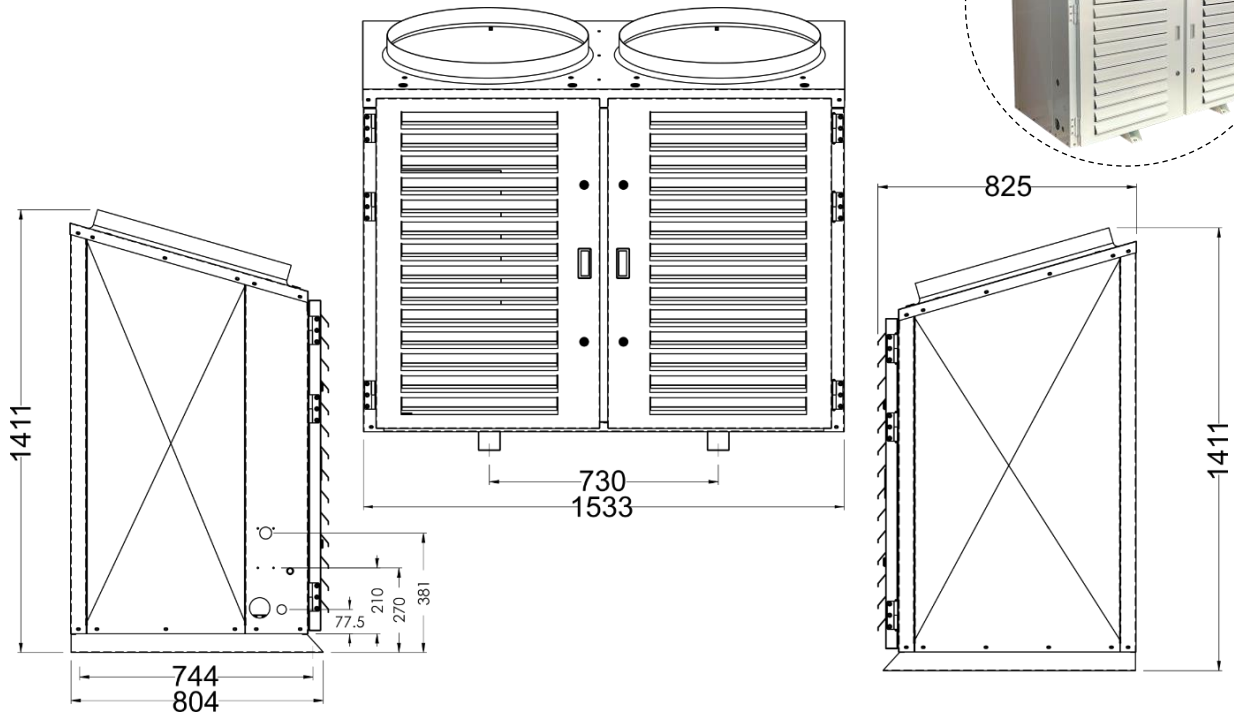
Drawing C (MP27 Case)



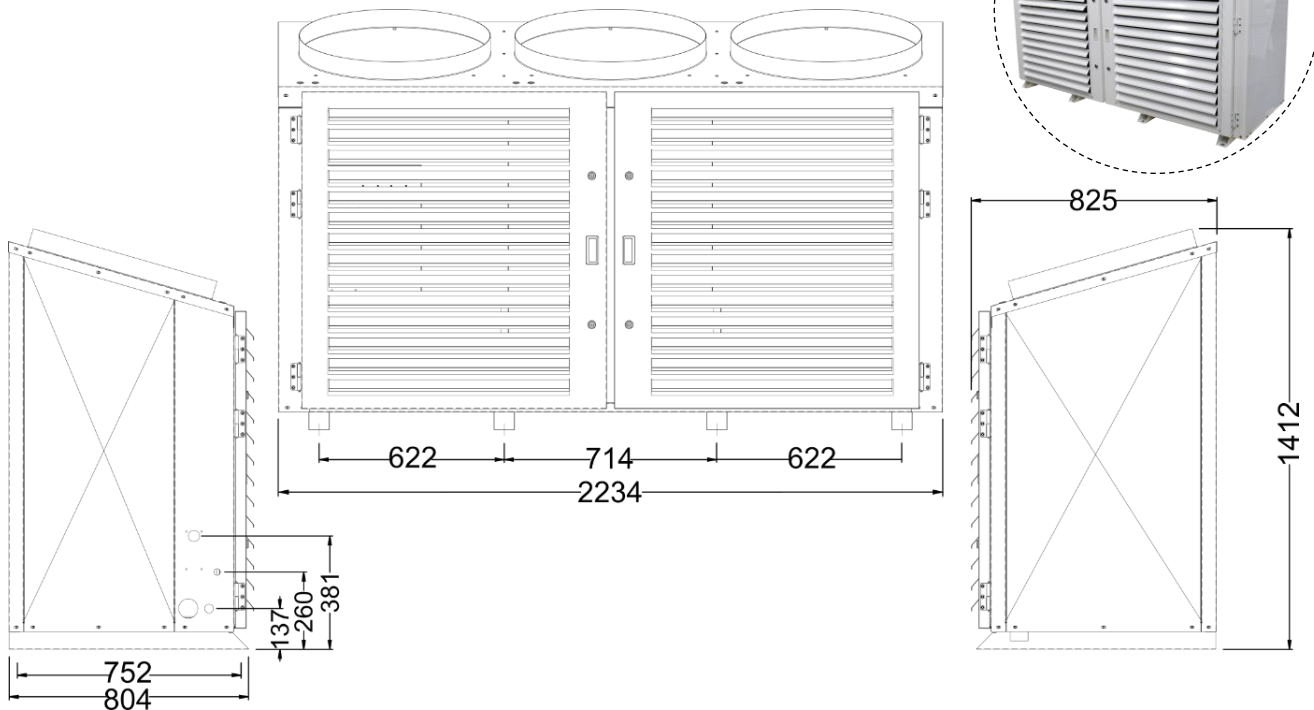
# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Dimensions (cont'd)

Drawing D (MP38 Case)



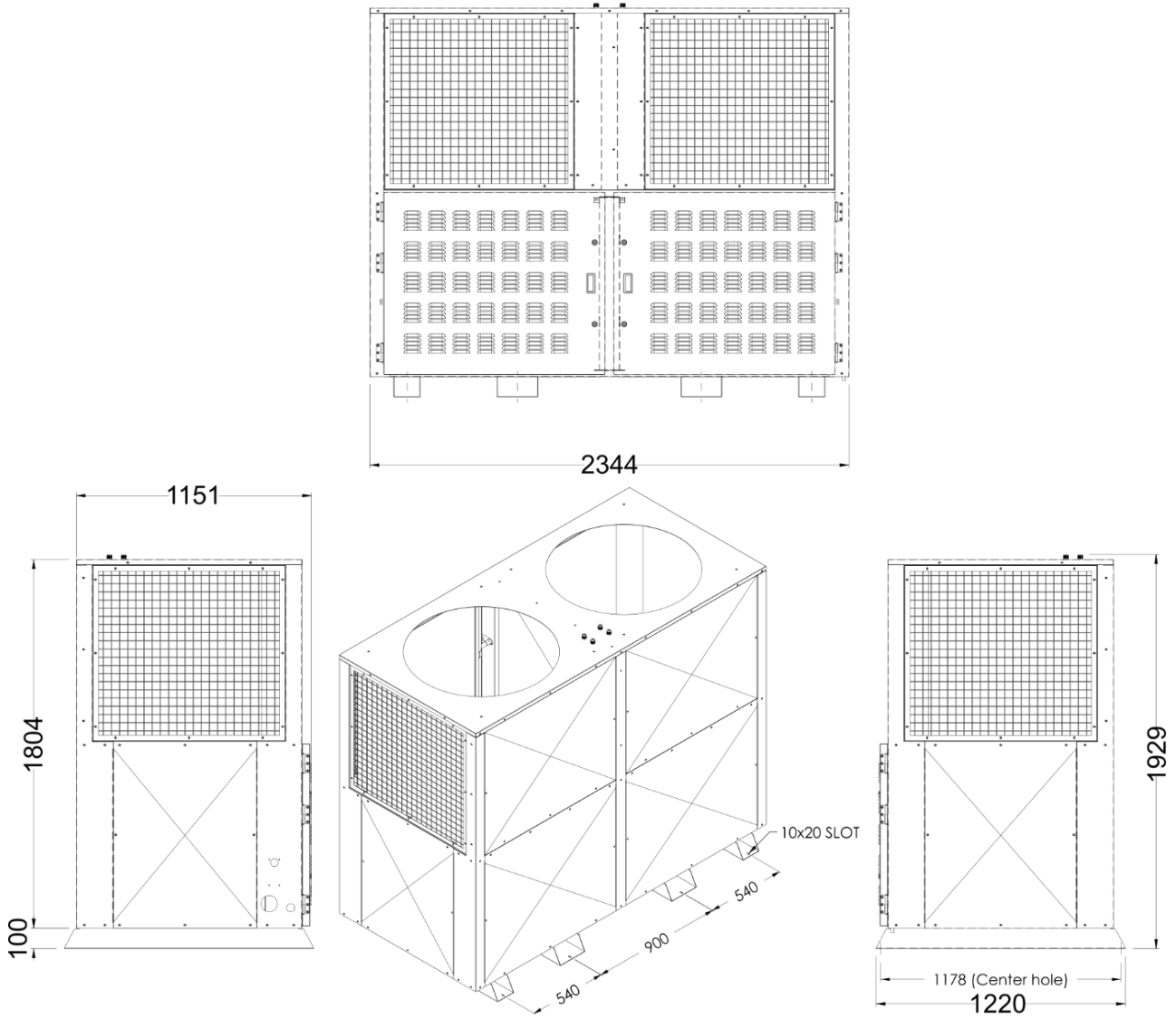
Drawing E (MP57 Case)



# ENTHALPY TD SERIES CONDENSING UNITS

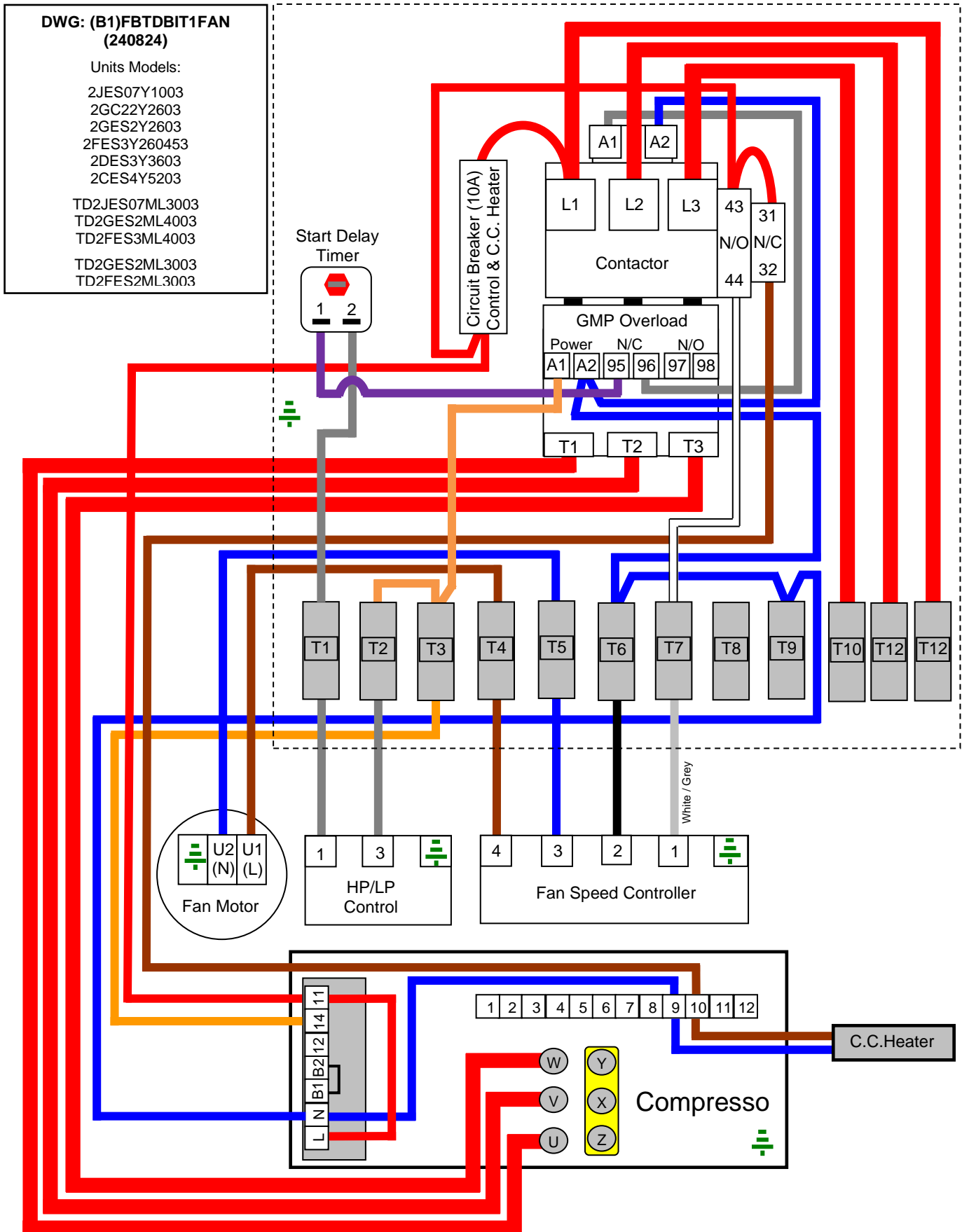
## TD Semi Hermetic Unit Dimensions (cont'd)

Drawing F (MC72 Case)



# ENTHALPY TD SERIES CONDENSING UNITS

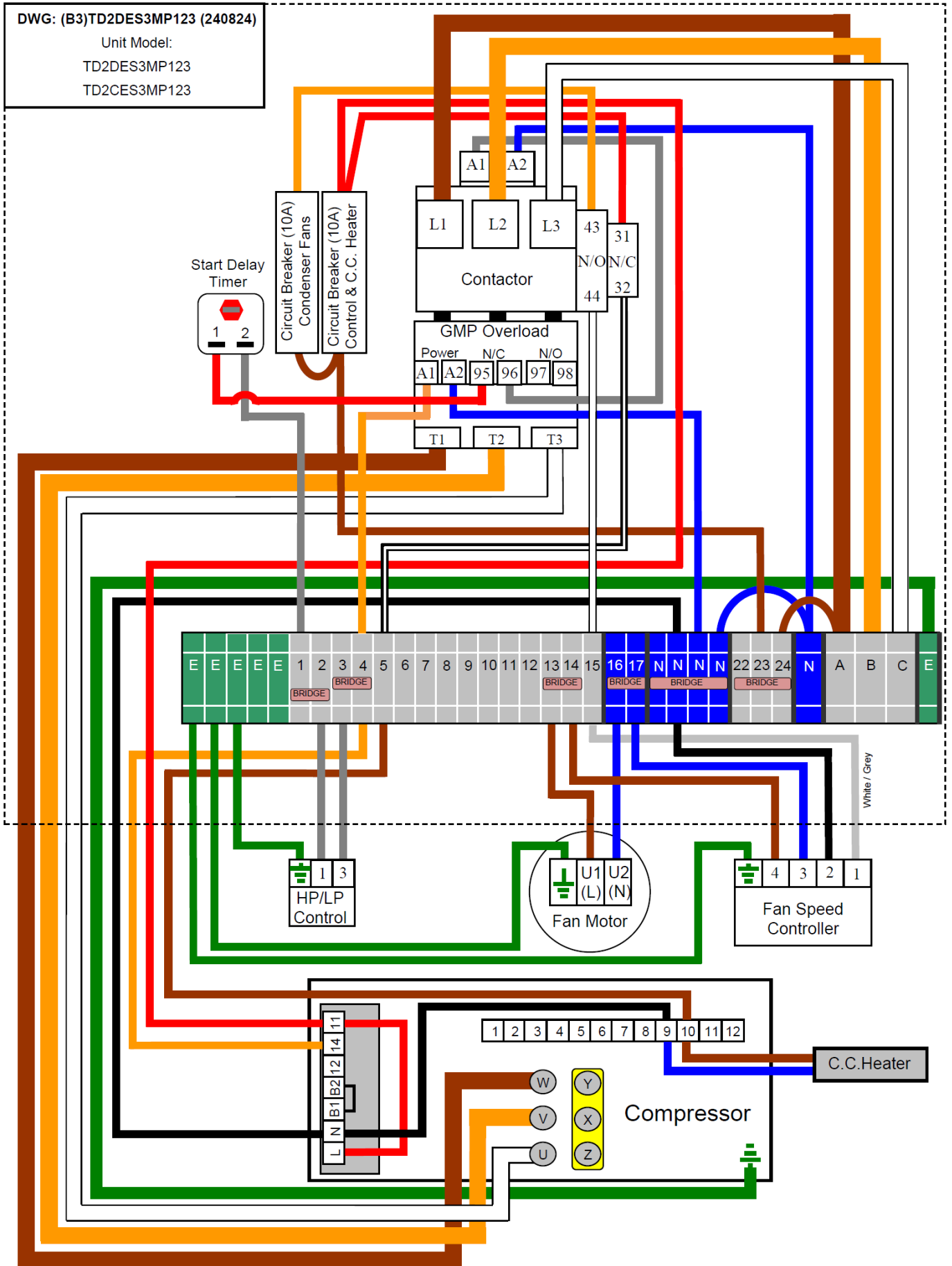
## TD Semi Hermetic Unit Wiring Diagrams





# ENTHALPY TD SERIES CONDENSING UNITS

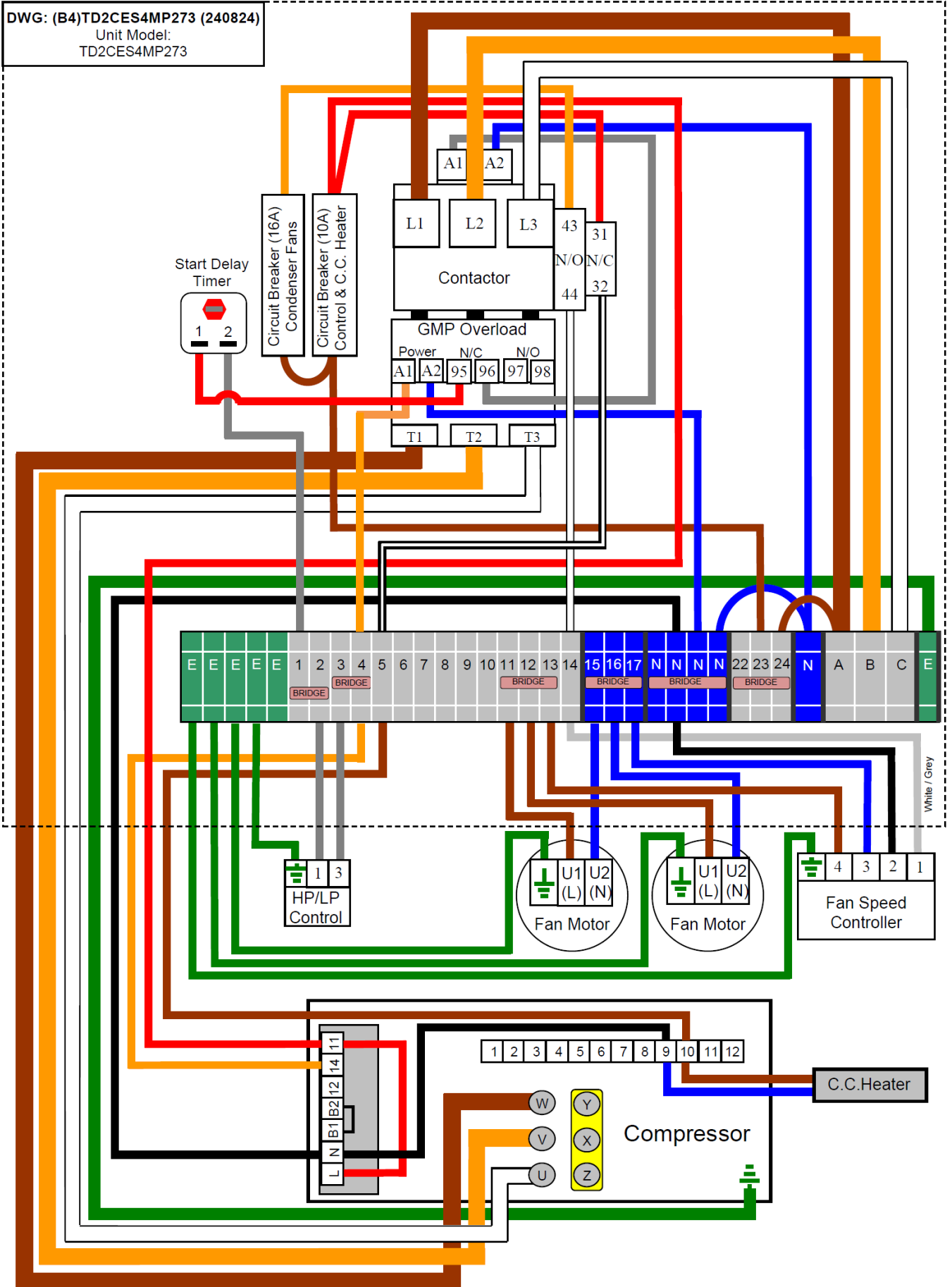
## TD Semi Hermetic Unit Wiring Diagrams (cont'd)



# ENTHALPY TD SERIES CONDENSING UNITS

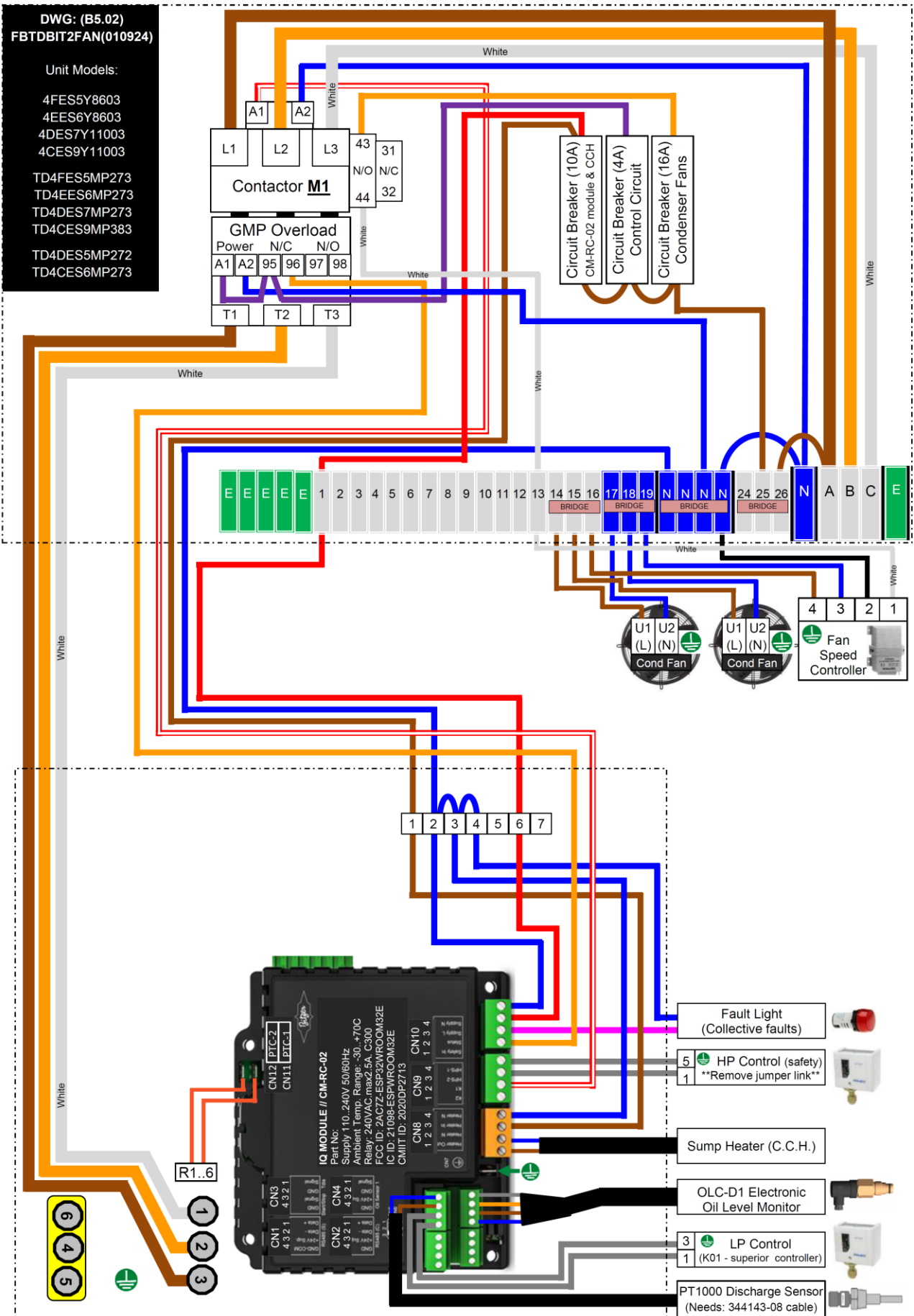
## TD Semi Hermetic Unit Wiring Diagrams (cont'd)

DWG: (B4)TD2CES4MP273 (240824)  
 Unit Model:  
 TD2CES4MP273



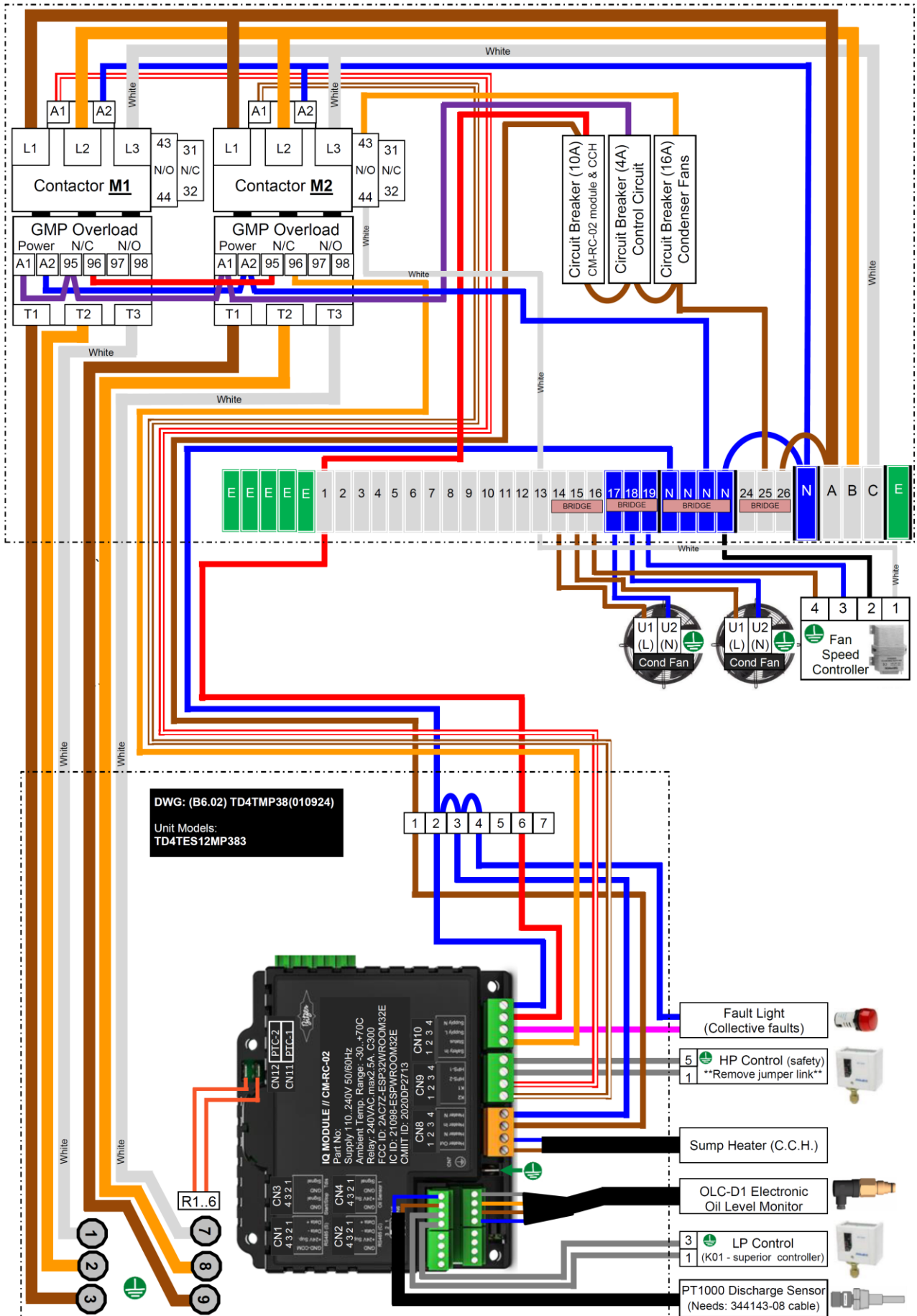
# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Wiring Diagrams (cont'd)



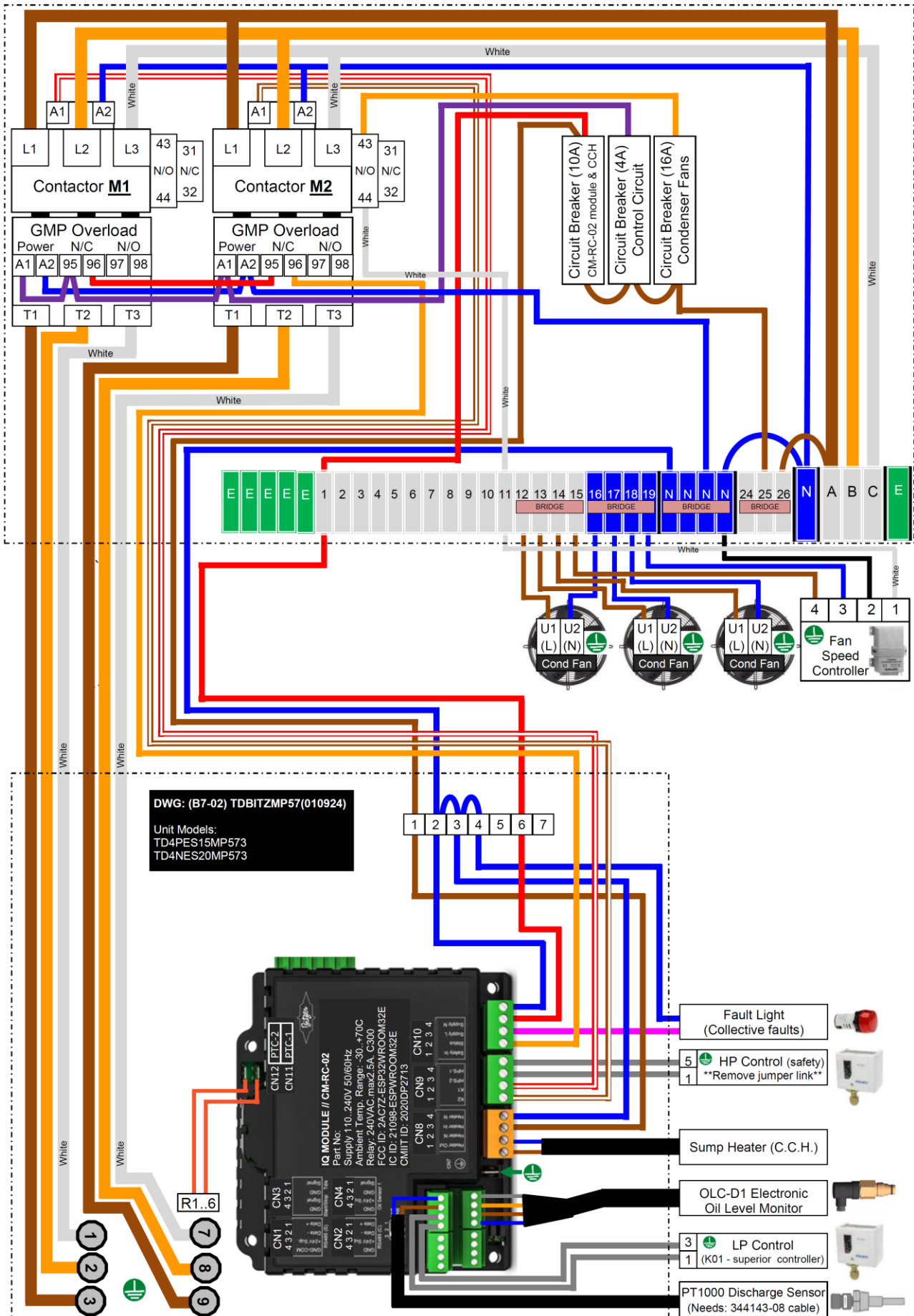
# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Wiring Diagrams (cont'd)



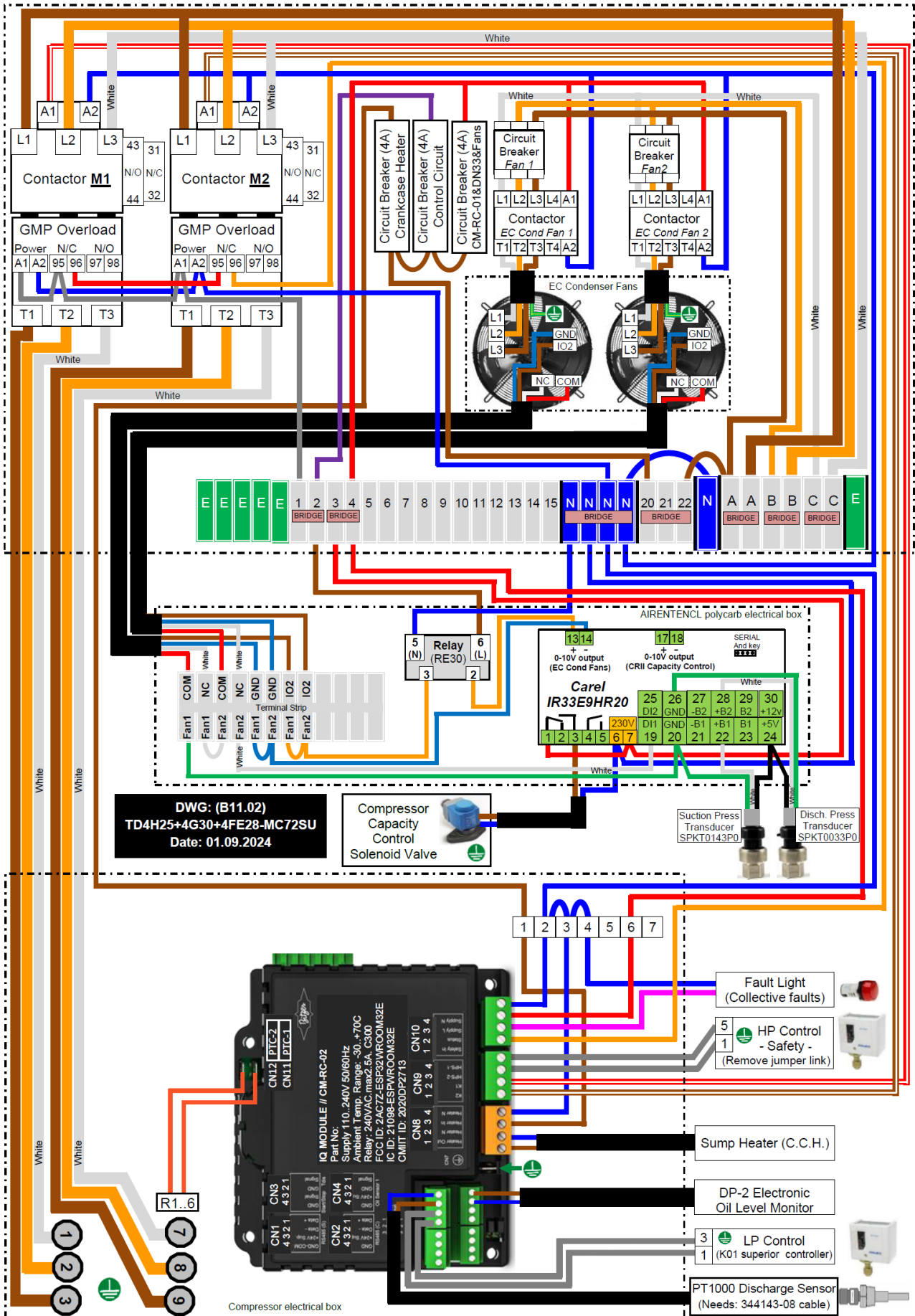
# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Wiring Diagrams (cont'd)



# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Wiring Diagrams (cont'd)



# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Spare Parts

Part Description	Unit Model			
	TD2JES07ML3003	TD2GES2ML4003	TD2FES3ML4003	TD2DES3MP123
Compressor - Bitzer	2JES07Y	2GES2Y	2FES3Y	2DES3Y
ebm Fan Motor	S4E300AS7244 (x1)	S4E400AP0244 (x1)	S4E400AP0244 (x1)	S4E450AU0337 (x1)
Fan Speed Control - Saginomiya	RGEZ1N45MFQ1	RGEZ1N45MFQ1	RGEZ1N45MFQ1	RGEZ1N45MFQ1
Pressure Controls	DNSD306X	DNSD306X	DNSD306X	DNSD306X
Compressor Contactor	MC12B240V	MC12B240V	MC12B240V	MC12B240V
Thermal Overload Block	GMP223P5A	GMP223P22A	GMP223P22A	GMP223P22A
Control & Fan Circuit Breaker	PLSMD10	PLSMD10	PLSMD10	PLSMD10
Oil Separator	EOS1004L	EOS1004L	EOS1004L	EOS1005
Liquid Receiver	1300134B	1300134B	1300134B	1320315A
Receiver Outlet Valve	R051FA8DS	R051FA8DS	R051FA8DS	R051FB2DS
Receiver Valve Gasket	020002800	020002800	020002800	020002800
Liquid Drier & Sight Glass	CSG084S (combo)	CSG084S (combo)	CSG084S (combo)	CSG165S (combo)
Electrical Box	AIRENTENCL	AIRENTENCL	AIRENTENCL	AIR50650
Suction Accumulator	PA5083116C	PA5083116C	PA5083116C	PA5083157C

Part Description	Unit Model			
	TD2CES4MP273	TD4FES5MP273	TD4EES6MP273	TD4DES7MP273
Compressor - Bitzer	2CES4Y	4FES5Y	4EES6Y	4DES7Y
ebm Fan Motor	S4E500AM0301 (x2)	S4E500AM0301 (x2)	S4E500AM0301 (x2)	S4E500AM0301 (x2)
Fan Speed Control - Saginomiya	RGEZ1Q45MFQ1	RGEZ1Q45MFQ1	RGEZ1Q45MFQ1	RGEZ1Q45MFQ1
Pressure Control(s)	DNSD306X	1x SNSC106X (LP) 1x SNSC130X (HP)	1x SNSC106X (LP) 1x SNSC130X (HP)	1x SNSC106X (LP) 1x SNSC130X (HP)
Compressor Contactor	MC12B240V	MC22B240V	MC22B240V	MC22B240V
Thermal Overload Block	GMP223P22A	GMP223P22A	GMP223P22A	GMP223P22A
Control Circuit Breaker(s)	PLSMD10	PLSMD4 (x1) PLSMD10 (x1)	PLSMD4 (x1) PLSMD10 (x1)	PLSMD4 (x1) PLSMD10 (x1)
Fan Circuit Breaker	PLSMD16	PLSMD16	PLSMD16	PLSMD16
Oil Separator	EOS1007	EOS1007	EOS1007	EOS1007
Liquid Receiver	1320620A	1320620A	1320620A	1320620A
Receiver Outlet Valve	R051FB2DS	R051FB2DS	R051FB2DS	R051FB2DS
Receiver Valve Gasket	020002800	020002800	020002800	020002800
Liquid Drier & Sight Glass	CSG165S (combo)	CSG165S (combo)	CSG165S (combo)	CSG165S (combo)
Electrical Box	AIR50650	AIR50650	AIR50650	AIR50650
Suction Accumulator	1010853P	1010853P	1010853P	1010853P
Oil Level Monitor	N/A	34770246 (OLC-D1)	34770246 (OLC-D1)	34770246 (OLC-D1)

# ENTHALPY TD SERIES CONDENSING UNITS

## TD Semi Hermetic Unit Spare Parts (cont'd)

Part Description	Unit Model		
	TD4CES9MP383	TD4TES12MP383	TD4PES15MP573
Compressor - Bitzer	4CES9Y	4TES12Y	4PES15Y
ebm Fan Motor	S6E630AN0101 (x2)	S6E630AN0101 (x2)	S6E630AN0101 (x3)
Fan Speed Control - Saginomiya	RGEZ1Q45MFQ1	RGEZ1Q45MFQ1	RGEZ1Q45MFQ1
Pressure Control(s)	1x SNSC106X (LP) 1x SNSC130X (HP)	1x SNSC106X (LP) 1x SNSC130X (HP)	1x SNSC106X (LP) 1x SNSC130X (HP)
Compressor Contactor	MC32A240V	MC22B240V (x2)	MC22B240V (x2)
Thermal Overload Block	GMP403P40A	GMP223P22A (x2)	GMP223P22A (x2)
Control Circuit Breaker(s)	PLSMD4 (x1) PLSMD10 (x1)	PLSMD4 (x1) PLSMD10 (x1)	PLSMD4 (x1) PLSMD10 (x1)
Fan Circuit Breaker	PLSMD16	PLSMD16	PLSMD16
Oil Separator	EOS1007	EOS1007	EOS1011
Liquid Receiver	1320620A	1320620A	HHR018
Receiver Outlet Valve	R051FB2DS	R051FB2DS	R052FB4DS
Receiver Outlet Valve Gasket	020002800	020002800	020002802
Receiver Inlet Valve	N/A	N/A	R052FB7DS
Receiver Inlet Valve Gasket	N/A	N/A	020002802
Liquid Drier & Sight Glass	C305S & SA15S	C305S & SA15S	C416S & SA16S
Electrical Box	AIR50650	BM40515G	BM40515G
Suction Accumulator	1010854P	1010854P	1010854P
Oil Level Monitor	34770246 (OLC-D1)	34770246 (OLC-D1)	34770246 (OLC-D1)

Part Description	Unit Model		
	TD4NES20MP573	TD4HE25MC723SU	TD4GE30MC723SU
Compressor - Bitzer	4NES20Y	4HE25Y	4GE30Y
ebm Fan Motor	S6E630AN0101 (x3)	W3G800KS3903 (x2)	W3G800KS3903 (x2)
Fan Speed Control - Saginomiya	RGEZ1Q45MFQ1	N/A	N/A
Fan Speed Control - Carel	N/A	IR33E9HR20	IR33E9HR20
LP Pressure Transducer - Carel	N/A	SPKT0143P0	SPKT0143P0
HP Pressure Transducer - Carel	N/A	SPKT0033P0	SPKT0033P0
Pressure Control(s)	1x SNSC106X (LP) 1x SNSC130X (HP)	1x SNSC106X (LP) 1x SNSC130X (HP)	1x SNSC106X (LP) 1x SNSC130X (HP)
Compressor Contactor	MC22B240V (x2)	MC32A240V (x2)	MC32A240V (x2)
Compressor Overload Block	GMP223P22A (x2)	GMP403P40A (x2)	GMP403P40A (x2)
EC Condenser Fan Contactor	N/A	GMC9M10 (x2)	GMC9M10 (x2)
Control Circuit Breaker(s)	PLSMD4 (x1) PLSMD10 (x1)	PLSMD4 (x3)	PLSMD4 (x3)
Fan Circuit Breaker	PLSMD16	BKN63P10D (x2)	BKN63P10D (x2)
Oil Separator	EOS1011	1030122U	1030122U
Liquid Receiver	HHR018	HHR018	HHR018
Receiver Outlet Valve	R052FB4DS	R052FB7DS	R052FB7DS
Receiver Outlet Valve Gasket	020002802	020002802	020002802
Receiver Inlet Valve	R052FB7DS	R053FB7DS	R053FB7DS
Receiver Inlet Valve Gasket	020002802	020002803	020002803
Liquid Drier	C416S	RC4864 (Core Drier)	RC4864 (Core Drier)
Sight Glass	SA16S	SA17S	SA17S
Electrical Box	BM40515G	EUR705020	EUR705020
Suction Accumulator	1010854P	3100348615	3100348615
Oil Level Monitor	34770246 (OLC-D1)	34731908 (DP-2)	34731908 (DP-2)



# ENTHALPY CONDENSING UNITS

## Sound Data

Airefrig Part Number	High Speed dB(A)	Speed Controlled dB(A)
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### Hermetic - Flat Base Series Units

CS10100A1	58	no speed controller on this unit
CS14260A1/3	58	53
CS18260A1/3	58	57
CS20260A4503	62	58
CS2736053	64	63
CS3336053	64	62

### Semi-Hermetic - Flat Base Series Units

2JES07Y1003	60	58
2GES2Y2603	63	62
2FES3Y260453	62	58
2DES3Y3603	60	59
2CES4Y5203	62	57
4EES6Y8603	61	54
4DES7Y11003	62	55
4CES9Y11003	63	56

### Hermetic - TD Series Units

TDCS10ML3001	54	50
TDCS14ML4001/3	61	53
TDCS18ML4001/3	60	53
TDCS20ML4003	61	53
TDCS27MP123	59	57
TDCS33MP123	60	58
TDMTZ72MP273	65	61
TDMTZ100MP383	66	65
TDMTZ125MP383	67	64
TDMTZ144MP383	67	66

### Semi-Hermetic - TD Series Units

TD2JES07ML3003	52	50
TD2GES2ML4003	58	55
TD2FES3ML4003	57	55
TD2DES3MP123	60	57
TD2CES4MP273	60	56
TD4FES5MP273	63	57
TD4EES6MP273	64	55
TD4DES7MP273	63	58
TD4CES9MP383	61	58
TD4TES12MP383	62	60
TD4PES15MP573	64	61
TD4NES20MP573	63	61
TD4HE25MC723SU	73	62
TD4GE30MC723SU	72	62

- Sound Power level measurements in accordance with AS1217.5:1985 / ISO 3744:2010 on each unit model.
- Data was calculated to sound pressure @ 3 metres in accordance with AS1217.5:1985 / ISO 3744:2010
- Speed controlled data is based on an ambient temperature of 25 degree Celsius.

# ENTHALPY CONDENSING UNITS

## Shipping Dimensions & Weights

Unit Model	Overall Dimensions (mm)			Shipping Weight (KG)
	Depth	Width	Height	

### Hermetic - Flat Base Series Units

CS10100A1	790	620	610	80
CS14260A1/3	810	860	830	105
CS18260A1/3	810	860	830	110
CS20260A4503	810	860	830	110
CS2736053	895	1100	885	140
CS3336053	895	1100	885	145

### Semi-Hermetic - Flat Base Series Units

2JES07Y1003	790	620	610	95
2GES2Y2603	810	860	830	120
2FES3Y260453	810	860	830	120
2DES3Y3603	895	1100	885	190
2CES4Y5203	895	1100	885	195
4EES6Y8603	1100	1600	1120	325
4DES7Y11003	1100	1600	1120	335
4CES9Y11003	1100	1600	1120	335

### Hermetic - TD Series Units

TDCS10ML3001	700	1210	1250	180
TDCS14ML4001/3	700	1210	1250	180
TDCS18ML4001/3	700	1210	1250	180
TDCS20ML4003	700	1210	1250	180
TDCS27MP123	800	1300	1670	235
TDCS33MP123	800	1300	1670	235
TDMTZ72MP273	800	1600	1670	320
TDMTZ100MP383	1000	1900	1670	400
TDMTZ125MP383	1000	1900	1670	405
TDMTZ144MP383	1000	1900	1670	410

### Semi-Hermetic - TD Series Units

TD2JES07ML3003	700	1210	1250	200
TD2GES2ML4003	700	1210	1250	200
TD2FES3ML4003	700	1210	1250	200
TD2DES3MP123	800	1300	1670	280
TD2CES4MP273	800	1600	1670	365
TD4FES5MP273	800	1600	1670	380
TD4EES6MP273	800	1600	1670	380
TD4DES7MP273	800	1600	1670	385
TD4CES9MP383	1000	1900	1670	440
TD4TES12MP383	1000	1900	1670	495
TD4PES15MP573	900	2500	1680	650
TD4NES20MP573	900	2500	1680	655
TD4HE25MC723SU	1280	2750	2485	890
TD4GE30MC723SU	1280	2750	2485	900