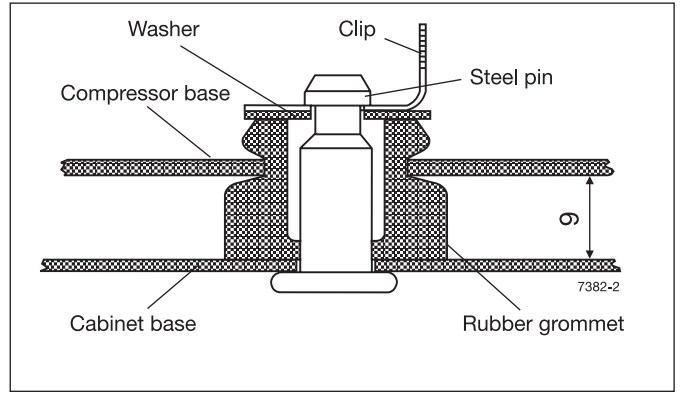
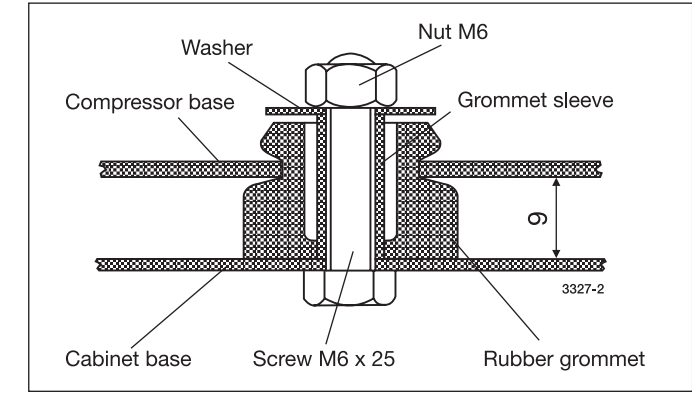
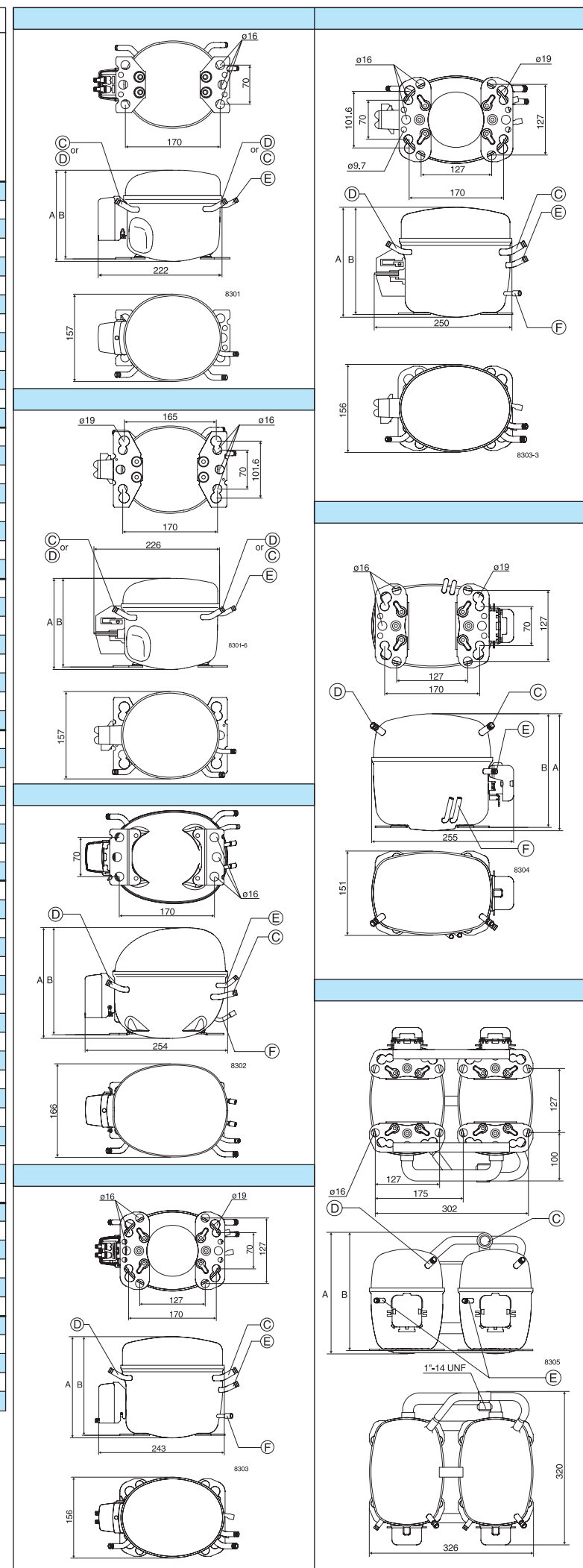
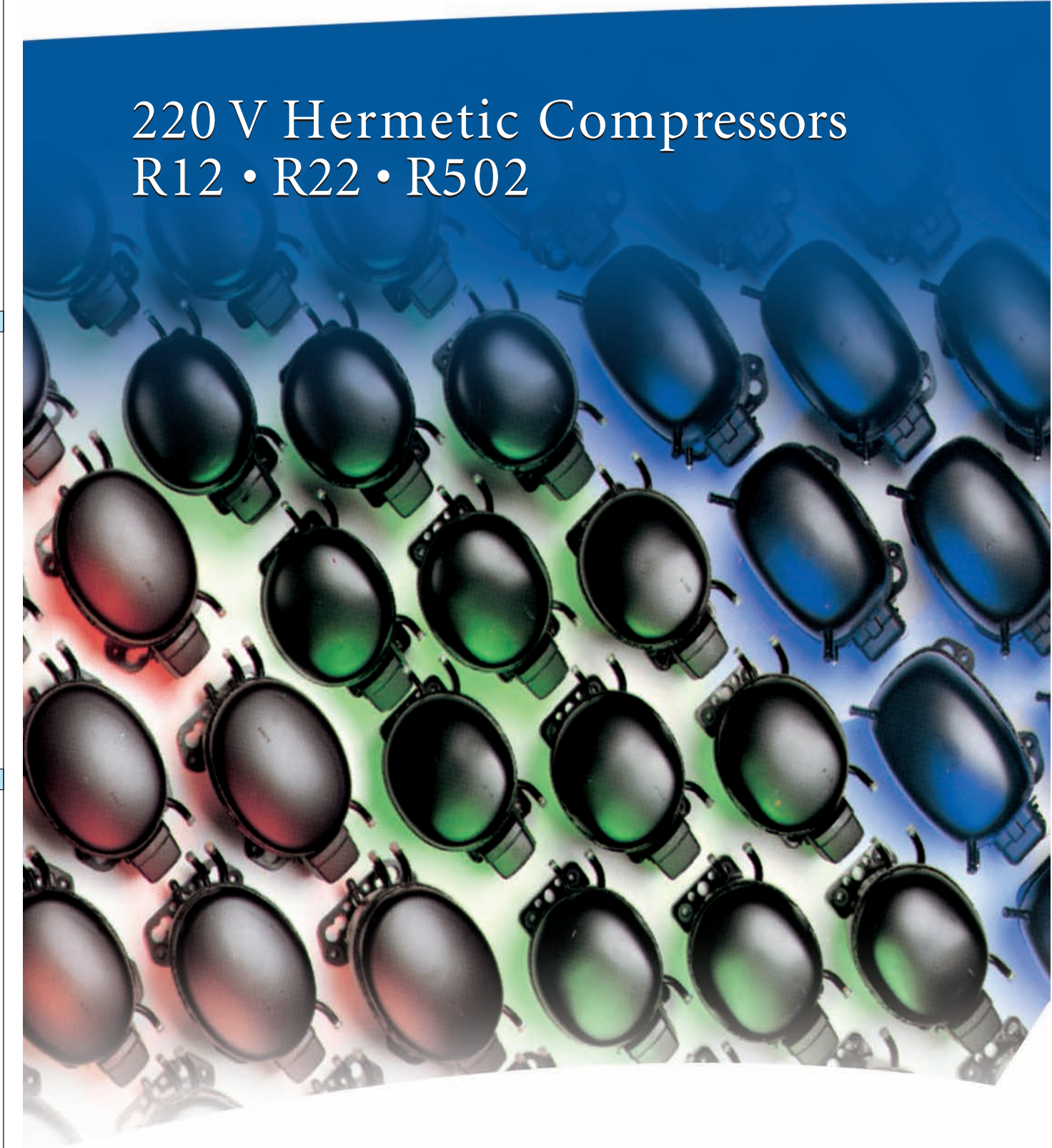




220 V Hermetic Compressors R12 • R22 • R502



Hermetic Compressors 220 V

Application	Compressor	Code numbers		Capacity [Watt]								Power consumption [Watt]		Displacement cm ³
		Compressor	Compressor with oil cooling	Evaporating temperature [°C]								-25°C	5°C	
				-45	-35	-25	-15	-10	-5	5	15			
R12 LBP	TL2A	102U2002		12	33	64	81	100			52	2.13		
	TL2.5A	102U2003		20	45	80	100	122			62	2.61		
	TL3A	102U2004		27	56	97	121	147			74	3.13		
	TL4A	102U2005		39	73	120	148	178			91	3.86		
	TL5A	102U2010		56	96	158	194	235			114	5.08		
	NL6A	105F3607		73	127	204	255				138	6.1		
	NL7A	105F3707		85	146	237	295				157	7.3		
	FR10A	103U2904	103U2914	85	158	255	315				180	9.05		
	FR11A	103U2104	103U2114	110	205	335	415				245	11.15		
	SC12A	104L2660	104L2680	95	230	395	495	600			260	12.9		
	SC15A	104L2820	104L2810	130	275	485	600	725			305	15.3		
SC18A	104L2100		170	340	575	715	860			365	17.7			
SC21A	104L2300		220	400	660	820	980			455	20.95			
R12 LBP	TFS3AT	102U2083		32	60	98	120			80	3.13			
	TFS4AT	102U2081		42	79	128	160			95	3.86			
	TFS5AT	102U2080		62	104	175	215			125	5.08			
	FF7.5AT	103U2750		65	132	220	280			147	6.93			
	FF8.5AT	103U2850	103U2760	65	132	220	280			147	6.93			
	FF8.5AT	103U2850	103U2860	77	152	255	315			169	7.95			
	FF10AT	103U2950		86	165	275	350			190	9.05			
R22 LBP	SC10C	104L2516		50	155	325	560	700	850		300	10.3		
	SC12C	104L2674		95	220	415	680	840	1020		380	12.9		
	SC15CM	104L2848		115	270	510	840	1050	1280		470	15.3		
	SC18CM	104L2120		130	310	585	980	1230	1500		510	17.7		
	SC10/10C*	104L4076		100	310	650	1120	1400	1700		600	2x10.3		
	SC12/12C*	104L4077		190	440	830	1360	1680	2040		760	2x12.9		
	SC15/15CM*	104L4079		230	540	1020	1680	2100	2560		940	2x15.3		
	SC18/18CM**	104L4081		260	620	1170	1960	2460	3000		1020	2x17.7		
R502 LBP	SC10C	104L2516		80	215	365	590	710	870		335	10.3		
	SC12C	104L2674		110	270	470	770	950	1140		420	12.9		
	SC15CM	104L2848		150	325	590	920	1120	1390		535	15.3		
	SC18CM	104L2120		180	400	685	1080	1330	1600		580	17.7		
	SC10/10C*	104L4076		160	230	730	1180	1420	1740		670	2x10.3		
	SC12/12C*	104L4077		220	540	940	1540	1900	2280		840	2x12.9		
	SC15/15CM*	104L4079		300	650	1180	1840	2240	2780		1070	2x15.3		
SC18/18CM**	104L4081		360	800	1370	2160	2660	3200		1160	2x17.7			
R12 LBP	TL2.5B	102U2021		20	45	80	102	126	182	248		112	2.61	
	TL3B	102U2023		27	56	96	120	148	215	296		141	3.13	
	TL4B	102U2016		39	73	116	145	182	264	364		157	3.86	
	FR6B	103U2654		55	110	190	235	295	438	620		243	6.24	
	FR7.5B	103U2754	103U2764	65	127	210	275	340	495	695		280	6.93	
	FR8.5B	103U2854	103U2864	72	146	240	300	375	555	770		326	7.95	
	FR10B	103U2954	103U2964	85	158	268	340	420	620	860		375	9.05	
	FR11B	103U2154		110	205	340	420	520	758	1050		485	11.15	
	SC10B	104L2510	104L2511	70	170	310	400	490	760	1080		390	10.3	
	SC12B	104L2670	104L2671	95	230	410	520	630	950	1330		500	12.9	
	SC15B	104L2830	104L2831	130	275	490	615	760	1090	1590		595	15.3	
SC18B	104L2110		170	340	575	715	870	1280	1820		720	17.7		
SC21B	104L2310		220	400	670	840	1010	1450	2080		730	20.95		
SC12/12B*	104L4072		190	460	820	1040	1260	1900	2660		1000	2x12.9		
SC15/15B*	104L4073		260	550	980	1230	1520	2180	3180		1190	2x15.3		
SC18/18B**	104L4074		340	680	1150	1430	1740	2560	3640		1440	2x17.7		
SC21/21B**	104L4075		440	800	1340	1680	2020	2900	4160		1460	2x20.95		
R22 HBP	SC10D	104L2529	104L2517			510	655	835	1295	1895		545	10.3	
	SC12D	104L2694	104L2684			650	840	1070	1615	2290		660	12.9	
	SC15D	104L2859	104L2839			800	1045	1325	1975	2750		715	15.3	
	SC10/10D*	104L4084				1020	1310	1670	2590	3790		1090	2x10.3	
	SC12/12D**	104L4085				1300	1680	2140	3230	4580		1320	2x12.9	
	SC15/15D**	104L4086				1600	2090	2650	3950	5500		1430	2x15.3	
R12 HBP Heat pump compressors	FR7H		103U2763			215	280	355	520	770		260	6.93	
	SC10H		104L2515			260	345	455	730	1060		350	10.3	
	SC10HH		104L2514			260	345	455	730	1060		320	10.3	
	SC15H		104L2836			455	610	765	1120	1560		5500	15.3	
	SC15HH		104L2835			455	610	765	1120	1560		510	15.3	

Testing conditions (CECOMAF)

Application	R12	R502 / R22
Condensing temperature	55°C	45°C
Ambient temperature	32°C	32°C
Suction gas temperature	32°C	32°C
Liquid temperature	55°C	45°C
220 V / 50 Hz		

Conversion of capacity

If a stated capacity is required at 32°C liquid temperature, multiply the capacity with one of the following factors.

R12: From 55°C to 32°C liquid: 1.20
 R22: From 45°C to 32°C liquid: 1.11
 R502: From 45°C to 32°C liquid: 1.41

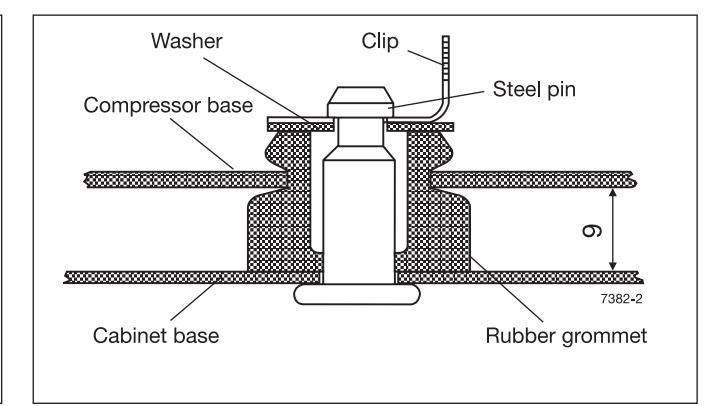
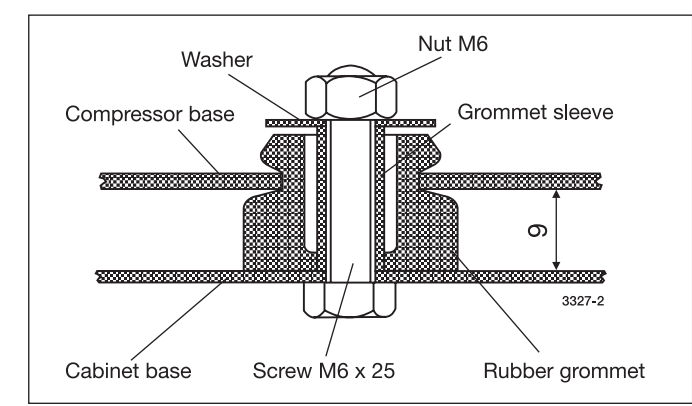
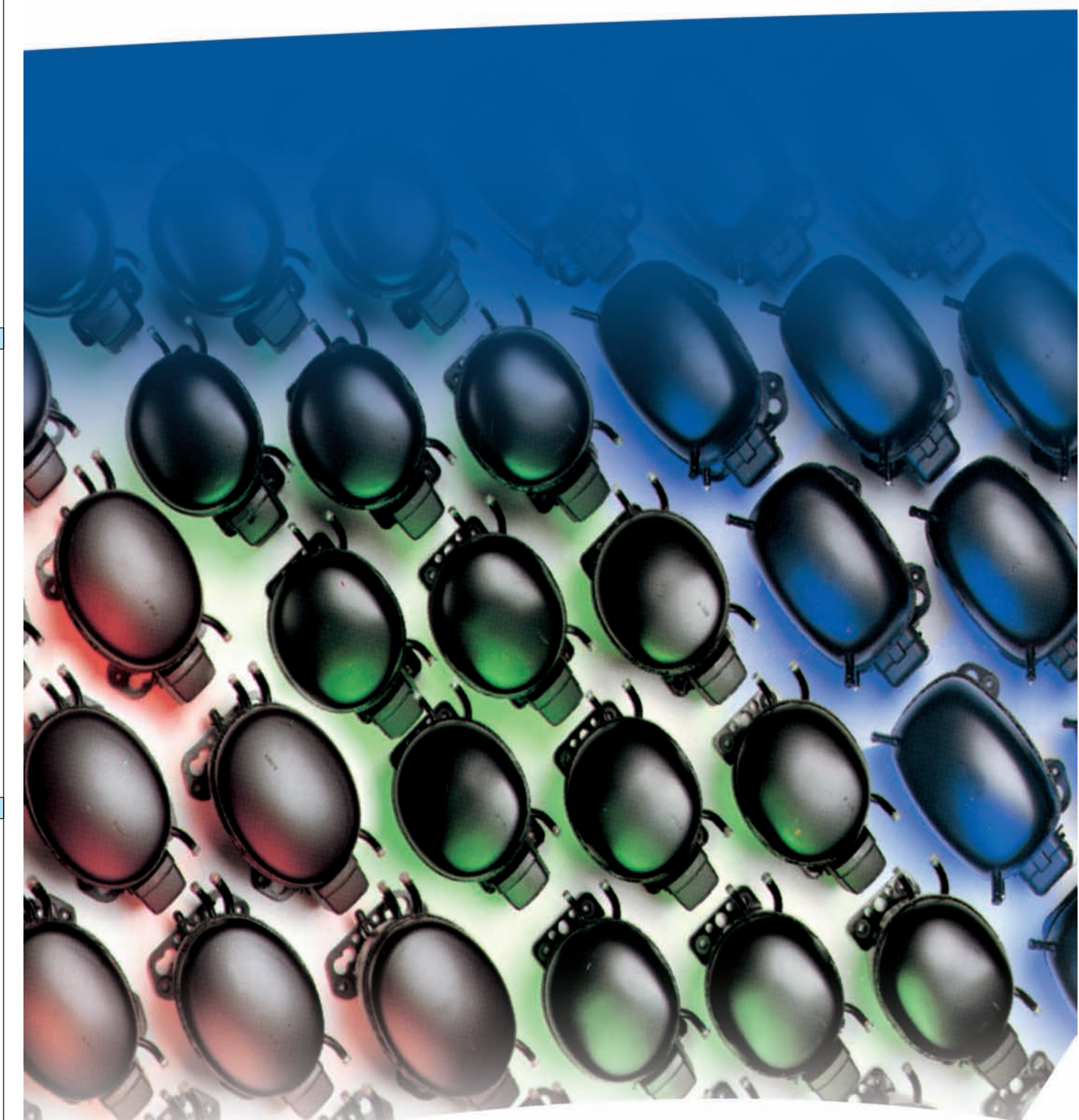
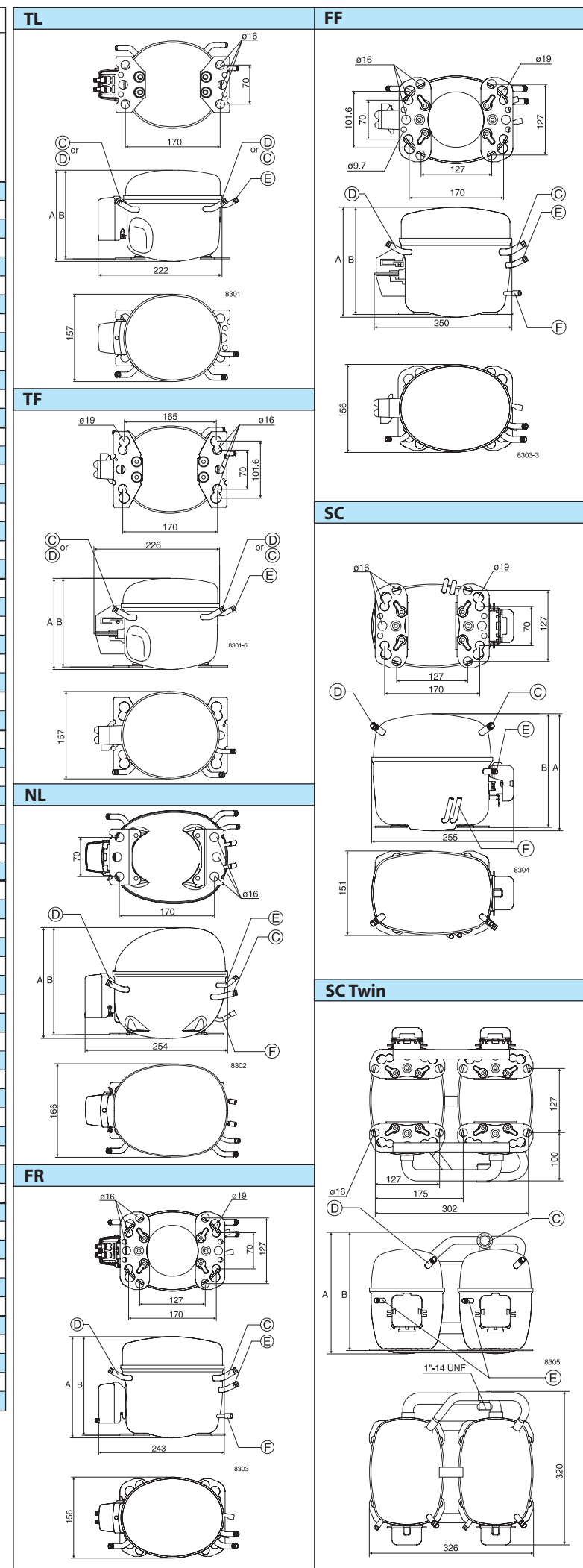
Conversion of units

1 Watt = 0.86 kcal/h
 1 Watt = 3.41 Btu/h



Compressor	Dimensions					
	Height		Suction	Discharge	Oil cooler	Process
	A	B				
TL2A	163	159	6.2	5.0		6.2
TL2.5A	163	159	6.2	5.0		6.2
TL3A	163	159	6.2	5.0		6.2
TL4A	173	169	6.2	5.0		6.2
TL5A	173	169	6.2	5.0		6.2
NL6A	197	175	6.2	5.0		6.2
NL7A	197	178	6.2	5.0		6.2
FR10A	196	191	8.2	6.2	6.2	6.2
FR11A	196	191	8.2	6.2	6.2	6.2
SC12A	209	203	8.2	6.2	6.2	6.2
SC15A	209	203	8.2	6.2	6.2	6.2
SC18A	219	213	10.2	6.2		6.2
SC21A	219	213	10.2	6.2		6.2
TFS3AT	173	169	6.5	5.0		6.5
TFS4AT	173	169	6.5	5.0		6.5
TFS5AT	173	169	6.5	5.0		6.5
FF7.5AT	196	191	8.2	6.5	6.5	6.5
FF7.5AT	196	191	8.2	6.5	6.5	6.5
FF8.5AT	196	191	8.2	6.5	6.5	6.5
FF8.5AT	196	191	8.2	6.5	6.5	6.5
FF10AT	196	191	8.2	6.5	6.5	6.5
SC10C	199	193	8.2	6.2		6.2
SC12C	209	203	8.2	6.2		6.2
SC15CM	209	203	10.2	6.2		6.2
SC18CM	219	213	10.2	6.2		6.2
SC10/10C	249	244	*	6.2		6.2
SC12/12C	249	244	*	6.2		6.2
SC15/15CM	259	254	*	6.2		6.2
SC18/18CM	259	254	**	6.2		6.2
SC10C	199	193	8.2	6.2		6.2
SC12C	209	203	8.2	6.2		6.2
SC15CM	209	203	10.2	6.2		6.2
SC18CM	219	213	10.2	6.2		6.2
SC10/10C	249	244	*	6.2		6.2
SC12/12C	249	244	*	6.2		6.2
SC15/15CM	259	254	*	6.2		6.2
SC18/18CM	259	254	**	6.2		6.2
TL2.5B	163	159	6.2	5.0		6.2
TL3B	163	159	6.2	5.0		6.2
TL4B	173	169	6.2	5.0		6.2
FR6B	196	191	8.2	6.2		6.2
FR7.5B	196	191	8.2	6.2	6.2	6.2
FR8.5B	196	191	8.2	6.2	6.2	6.2
FR10B	196	191	8.2	6.2	6.2	6.2
FR11B	196	191	8.2	6.2	6.2	6.2
SC10B	199	193	8.2	6.2	6.2	6.2
SC12B	209	203	8.2	6.2	6.2	6.2
SC15B	209	203	10.2	6.2	6.2	6.2
SC18B	219	213	10.2	6.2	6.2	6.2
SC21B	219	213	10.2	6.2	6.2	6.2
SC12/12B	249	244	*	6.2		6.2
SC15/15B	249	244	*	6.2		6.2
SC18/18B	259	254	**	6.2		6.2
SC21/21B	259	254	**	6.2		6.2
SC10D	199	193	10.2	8.2	8.2	6.2
SC12D	209	203	10.2	8.2	8.2	6.2
SC15D	209	203	10.2	8.2	8.2	6.2
SC10/10D	249	244	*	8.2		6.2
SC12/12D	249	244	**	8.2		6.2
SC15/15D	259	254	**	8.2		6.2
FR7H	196	191	8.2	6.2	6.2	6.2
SC10H	199	193	10.2	8.2	8.2	6.2
SC10HH	199	193	10.2	8.2	8.2	6.2
SC15H	209	203	10.2	8.2	8.2	6.2
SC15HH	209	203	10.2	8.2	8.2	6.2

For Twin compressors
 Time delay relay: 117N0001
 * Service valve for 12 mm tube: 118-7350
 * Solder connector for 12 mm tube: 104B0584
 ** Service valve for 16 mm tube: 118-7351
 ** Solder connector for 16 mm tube: 118-7405
 Seal ring: 118-3638

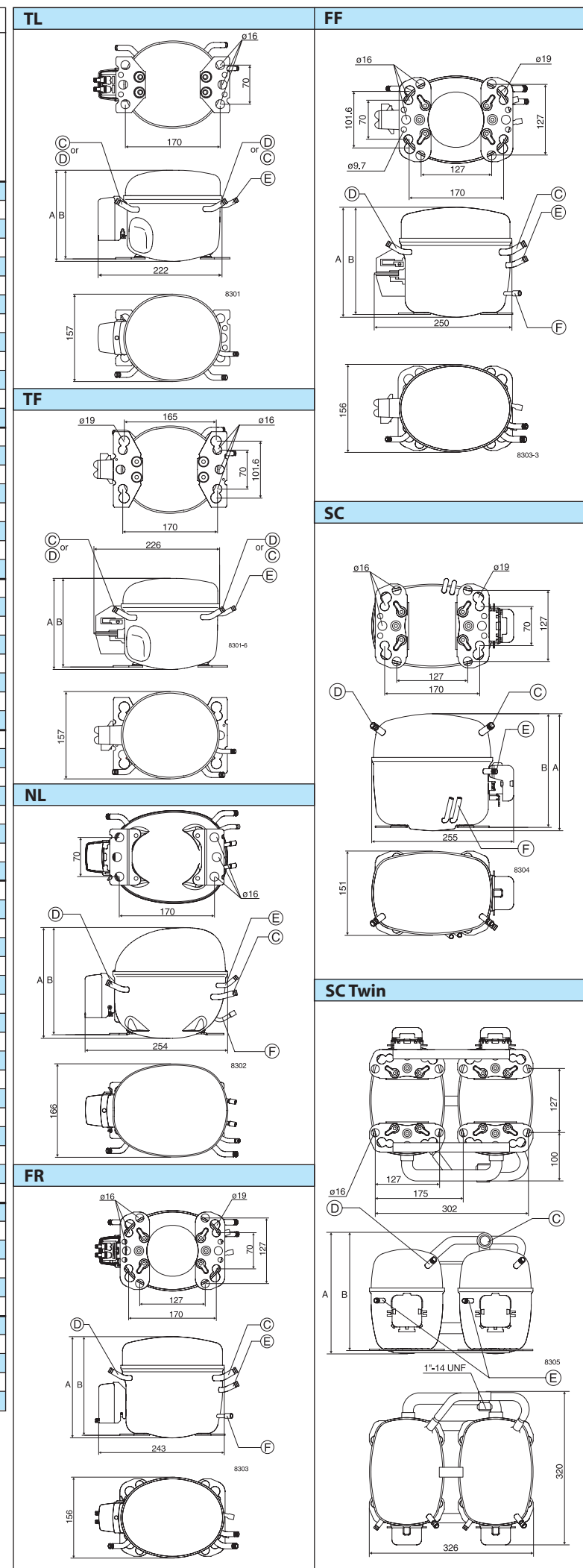


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Compressor	Dimensions					
	Height		Suction	Discharge	Oilcooler	Process
	A	B				
TL2A	163	159	6.2	5.0		6.2
TL2.5A	163	159	6.2	5.0		6.2
TL3A	163	159	6.2	5.0		6.2
TL4A	173	169	6.2	5.0		6.2
TL5A	173	169	6.2	5.0		6.2
NL6A	197	175	6.2	5.0		6.2
NL7A	197	178	6.2	5.0		6.2
FR10A	196	191	8.2	6.2	6.2	6.2
FR11A	196	191	8.2	6.2	6.2	6.2
SC12A	209	203	8.2	6.2	6.2	6.2
SC15A	209	203	8.2	6.2	6.2	6.2
SC18A	219	213	10.2	6.2	6.2	6.2
SC21A	219	213	10.2	6.2	6.2	6.2
TFS3AT	173	169	6.5	5.0		6.5
TFS4AT	173	169	6.5	5.0		6.5
TFS5AT	173	169	6.5	5.0		6.5
FF7.5AT	196	191	8.2	6.5	6.5	6.5
FF7.5AT	196	191	8.2	6.5	6.5	6.5
FF8.5AT	196	191	8.2	6.5	6.5	6.5
FF8.5AT	196	191	8.2	6.5	6.5	6.5
FF10AT	196	191	8.2	6.5	6.5	6.5
SC10C	199	193	8.2	6.2		6.2
SC12C	209	203	8.2	6.2		6.2
SC15CM	209	203	10.2	6.2		6.2
SC18CM	219	213	10.2	6.2		6.2
SC10/10C	249	244	*	6.2		6.2
SC12/12C	249	244	*	6.2		6.2
SC15/15CM	259	254	*	6.2		6.2
SC18/18CM	259	254	**	6.2		6.2
SC10C	199	193	8.2	6.2		6.2
SC12C	209	203	8.2	6.2		6.2
SC15CM	209	203	10.2	6.2		6.2
SC18CM	219	213	10.2	6.2		6.2
SC10/10C	249	244	*	6.2		6.2
SC12/12C	249	244	*	6.2		6.2
SC15/15CM	259	254	*	6.2		6.2
SC18/18CM	259	254	**	6.2		6.2
TL2.5B	163	159	6.2	5.0		6.2
TL3B	163	159	6.2	5.0		6.2
TL4B	173	169	6.2	5.0		6.2
FR6B	196	191	8.2	6.2		6.2
FR7.5B	196	191	8.2	6.2	6.2	6.2
FR8.5B	196	191	8.2	6.2	6.2	6.2
FR10B	196	191	8.2	6.2	6.2	6.2
FR11B	196	191	8.2	6.2	6.2	6.2
SC10B	199	193	8.2	6.2	6.2	6.2
SC12B	209	203	8.2	6.2	6.2	6.2
SC15B	209	203	10.2	6.2	6.2	6.2
SC18B	219	213	10.2	6.2	6.2	6.2
SC21B	219	213	10.2	6.2	6.2	6.2
SC12/12B	249	244	*	6.2	6.2	6.2
SC15/15B	249	244	*	6.2	6.2	6.2
SC18/18B	259	254	**	6.2	6.2	6.2
SC21/21B	259	254	**	6.2	6.2	6.2
SC10D	199	193	10.2	8.2	8.2	6.2
SC12D	209	203	10.2	8.2	8.2	6.2
SC15D	209	203	10.2	8.2	8.2	6.2
SC10/10D	249	244	*	8.2	8.2	6.2
SC12/12D	249	244	**	8.2	8.2	6.2
SC15/15D	259	254	**	8.2	8.2	6.2
FR7H	196	191	8.2	6.2	6.2	6.2
SC10H	199	193	10.2	8.2	8.2	6.2
SC10HH	199	193	10.2	8.2	8.2	6.2
SC15H	209	203	10.2	8.2	8.2	6.2
SC15HH	209	203	10.2	8.2	8.2	6.2

For Twin compressors

- * Time delay relay: 117N0001
- * Service valve for 12 mm tube: 118-7350
- * Solder connector for 12 mm tube: 104B0584
- ** Service valve for 16 mm tube: 118-7351
- ** Solder connector for 16 mm tube: 118-7405
- Seal ring: 118-3638



220 V Hermetic Compressors

R12 • R22 • R502



220 V hermetic compressors type TL, NL, TF, FR, FF, SC, and Twin

Application range

- Refrigerators, refrigerated display counters
- Refrigerated storage compartments
- Freezers, freezing compartments
- Liquid coolers
- Dehumidifiers
- Heat pumps

Electrical equipment

- With 6.3 mm spade connectors
- Winding protector in TL, NL, FR, and SC
- Motor protector in TF and FF

Starting device LST and HST

- LST** is used with capillary tube control and pressure equalizing. The PTC starting device for TL, NL, FR and SC requires 5 minutes cooling before each start. Relay and external motor protector for TF and FF.
- HST** consisting of relay and starting capacitor is used for expansion valve control or for capillary tube control without pressure equalizing.

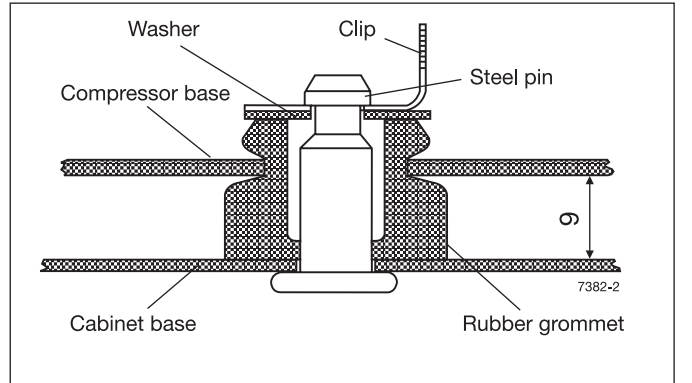
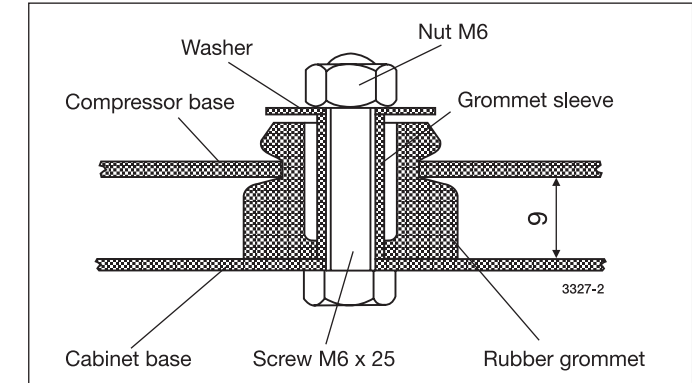
Model designation

- TF54AT (example)
- TF = compressor type
 - S = semi-direct intake
 - 4 = nominal displacement in cm³ (12/12 = Twin 2 x 12)
 - A = R12, LBP
 - B = R12, HBP / LBP
 - C = R502 (R22), LBP
 - CL = R404A, LBP
 - CM = R22 / R502, LBP
 - D = R22 / R502, HBP
 - F = R134a, LBP
 - G = R134a, HBP / LBP
 - GH = R134a, heat pump
 - T = tropical version

Further programme

- Refrigeration compressors for 115 V / 60 Hz
- Refrigeration compressors for 12 and 24 V battery connection
- Refrigeration compressors for refrigerants R134a and R404A
- Fan-cooled condensing units
- Automatic controls

Mounting accessories



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