MAKING MODERN LIVING POSSIBLE

R404A/R507 • R407C

Danfoss Compressors

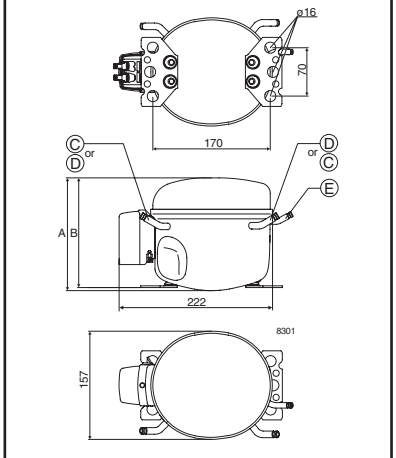
220-240 V • 50 Hz & 60 Hz

REFRIGERATION &
AIR CONDITIONING DIVISION

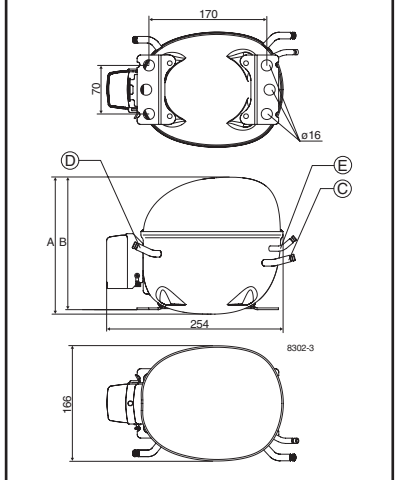
Quick reference

Refrigerant	Application	Frequency	Compressor	Code numbers	EN 12900 (CECOMAF) Capacity [W] Evaporating temperature [°C] -45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	EN 12900 (CECOM Power consumptio Evporating temp. -35	-25	-10
R404A/R507	LBP	50 Hz	TL4CL	102U2071	52	65	84	110	142	155	182	230	286	328	352						105	140	198
			TL4.5CLX	102U2111		80	106	139	181	197	232	294	366								138	181	252
			FR6CL	103U2670	77	108	145	189	243	263	307	383	473	541	578						180	242	353
			FR7.5CL	103U2790	86	114	154	202	262	285	333	418	515	587	630						197	267	395
			FR8.5CL	103U2890	99	126	168	222	290	317	372	468	577								231	315	472
			NL7CLX	105F3710	102	146	199	263	340	369	430	536	657	746	796						214	274	381
			NL8.4CLX ❍	105F3800	111	158	216	287	370	402	468	583	715	812	866						271	305	428
			SC10CL	104L2523			168	258	365	405	489	634	800	923	991						243	350	530
			SC10CLX	104L2533			166	255	360	400	483	625	789	910	977	1190	1430				258	352	508
			SC12CL	104L2623	58	140	237	353	490	541	650	835	1048	1205	1292						316	445	654
			SC12CLX.2	104L2697	130	205	294	399	522	569	666	834	1026								365	475	659
			SC15CLX.2	104L2896	159	250	358	486	637	694	813	1017	1251	1424	1519						433	565	783
			SC18CLX.2	104L2197	194	306	439	595	780	849	995	1245	1532								517	680	949
			SCE18CLX.2	104L2196	194	306	439	595	780	849	995	1245	1532								459	621	888
			SC21CL	104L2322	226	325	455	617	813	887	1042	1306	1606								534	702	989
			GS26CLX ❍	107B0500	325	497	703	949	1240	1348	1580	1974	2427								669	888	1285
			GS34CLX ❍	107B0501	515	740	1008	1318	1686	1825	2122	2620	3192								932	1186	1691
			SC12/12CL	104L4088	115	279	475	706	980	1083	1299	1670	2096	2411	2583						633	891	1308
			SC15/15CL	104L4089		302	599	905	1230	1347	1584	1976	2417	2739	2916						801	1120	1580
			SC18/18CL	104L4090	333	541	789	1083	1430	1562	1836	2307	2849	3249	3469						910	1230	1788
			SC21/21CL	104L4094	452	650	910	1235	1626	1774	2084	2613	3213								1068	1404	1978
		60 Hz	SC10CLX	104L2533			224	335	455	499	588	738	906								304	430	623
			SC12CLX.2	104L2699	141	233	343	473	626	683	804	1011	1248								401	515	705
			SC12CLX.2	104L2697	141	233	343	473	626	683	804	1011	1248								398	541	777
			SC15CLX.2	104L2897	194	305	437	593	776	846	991	1239	1525								469	611	848
			SC18CLX.2	104L2195	113	338	542	737	938	1010	1157	1410	1708								563	752	990
			SC10/10CLX	104L4033			448	670	910	998	1176	1476	1812								608	860	1246
			SC12/12CLX	104L4034		292	564	858	1180	1298	1540	1944	2400								752	1080	1568
			SC15/15CLX	104L4097		358	702	1060	1440	1576	1856	2316	2834								828	1220	1728
	MBP	50Hz	NF7MLX	105F3720								526	645	733	781	936	1110	1193	1305				398
			SC10MLX	104L2506						465	546	687	855	981	1051	1278	1537						518
			SC12MLX	104L2606						572	669	838	1038	1188	1272	1542	1852	2001					620
			SC15MLX	104L2869						710	829	1038	1285	1471	1574	1909	2293	2478					780
			SC18MLX	104L2139						710	829	1038	1285	1471	1574	1909	2293	2478					780
			SC18MLX.3	104L2146						876	1018	1266	1557	1779	1898	2292	2743	2964					878
			GS21MLX ❍	107B0502							1141	1463	1841	2122	2277	2759	3275						997
			GS26MLX ❍	107B0503							1435	1815	2270	2595	2776	3354	3990						1210
			GS34MLX ❍	107B0504							1869	2340	2900	3312	3543	4260	5060						1550
		60Hz	NF7MLX	105F3720						431	502	623	763	867	923	1105	1310	1408					473
			SC10MLX	104L2506						547	646	816	1015	1164	1246	1510	1812						612
			SC12MLX	104L2606						659	773	970	1199	1370	1465	1770	2118	2286					729
			SC15MLX.2	104L2803						784	915	1145	1418	1623	1737	2107	2531	2735					860
			SC18MLX	104L2138						986	1140	1412	1732	1972	2106	2538	3034	3273					1131
	HBP	50Hz	TL4DL	102U2038							196	229	281	329	349	432	527	527	631				203
			FR6DL	103U2680							317	385	471	538	576	698	840	907	999	1177			354
			SC10DL	104L2525							471	611	775	899	968	1192	1450	1576	1747	2085			479
			SC12DL	104L2625							609	806	1028	1190	1279	1565	1890	2046	2258	2674			624
			SC15DL	104L2856							759	964	1207	1391	1493	1825	2210	2397	2652	3156			722
			SC10/10DL	104L4091							943	1222	1550	1798	1935	2383	2900	3152	3494	4169			957
			SC12/12DL	104L4092							1217	1612	2055	2380	2559	3130	3780	4092	4516	5348			1248
			SC15/15DL	104L4093							1518	1928	2414	2781	2985	3651	4420	4795	5304	6311			1445
R407C	MBP / HBP	50Hz	SC10DL	104L2525								480	636	755	821	1039	1293	1417	1588	1927			394
			SC12DL	104L2625								632	831	981	1065	1340	1660	1817	2031	2456			512
			SC15DL	104L2856								777	1011	1192	1293	1629	2023	2217	2483	3014			590
			SC10/10DL	104L4091								961	1272	1509	1642	2077	2586	2835	3176	3855			788
			SC12/12DL	104L4092								1263	1662	1962	2130	2680	3321	3634	4062	4913			1025
			SC15/15DL	104L4093								1554	2022	2383	2586	3257	4047	4434	4966	6027			1180

TL



NL



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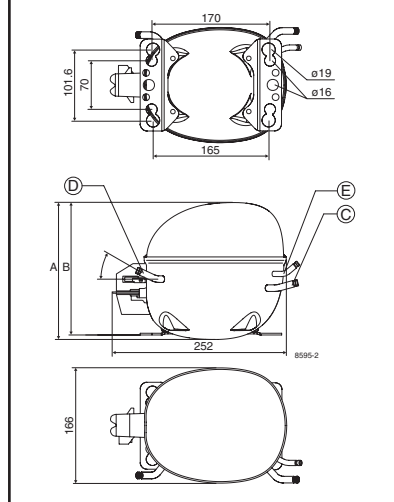

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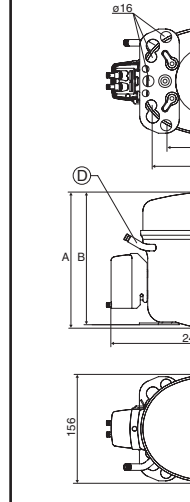
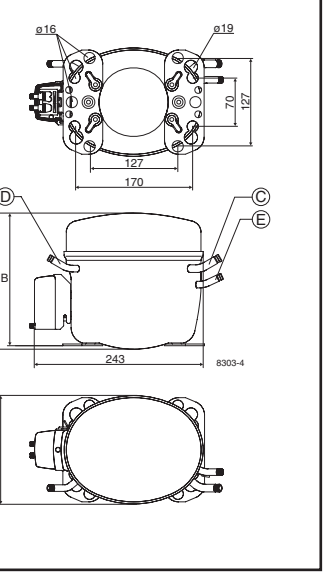
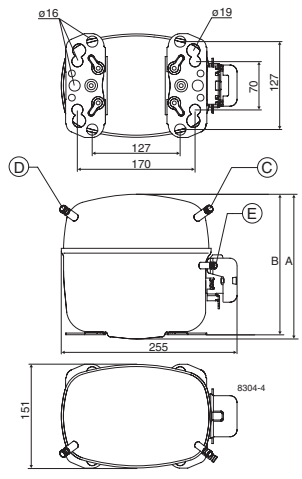


12900 (CECOMAF) er consumption [W]			Displacement	Recommended compressor cooling at ambient temperature									Voltage and frequencies	Electrical Equipment							Compressor
														LST (RSIR)		HST (CSIR)		HST (CSR)	LST/HST		
														PTC Starting device		Starting relay	Starting capacitor	Starting device	Cord relief	Cover	
orating temp. [°C]				32°C			38°C			43°C				spades		spades		spades			
-25	-10	5	[cm³]	LBP	MBP	HBP	LBP	MBP	HBP	LBP	MBP	HBP		6.3 mm	4.8 mm	6.3 mm	6.3 mm	6.3 mm			
140	198		3.86	F2	F2		F2	F2					1			117U6000	117U5014		103N1010	103N2010	**TL4CL**
181	252		4.63	F2			F2			F2			7			117U6001	117U5014		103N1004	117U1022	**TL4.5CLX**
242	353		6.23	F2	F2		F2	F2					1			117U6015	117U5015		103N1010	103N2010	**FR6CL**
267	395		6.93	F2	F2		F2	F2					1			117U6016	117U5015		103N1010	103N2010	**FR7.5CL**
315	472		7.95	F2			F2						1			117U6010	117U5015		103N1010	103N2010	**FR8.5CL**
274	381		7.27	F1	F1		F1	F1		F2	F2		1	103N0011	103N0018	117U6002	117U5015		103N1010	103N2010	**NL7CLX**
305	428		8.35	F2	F2		F2	F2		F2	F2		7			117U6003	117U5015		103N1010	103N2010	❍ **NL8.4CLX**
350	530		10.29	F2	F2		F2	F2					1			117U6003	117U5017		103N1004	103N2009	**SC10CL**
352	508		10.29	F2	F2		F2	F2					1/3			117U6005	117U5019		103N1004	103N2008	**SC10CLX**
445	654		12.87	F2	F2		F2	F2					1			117U6005	117U5017		103N1004	103N2009	**SC12CL**
475	659		12.87	F2			F2						1/4			117U6019	117U5019		103N1004	103N2008	**SC12CLX.2**
565	783		15.28	F2			F2			F2			1			117U6019	117U5017		103N1004	103N2009	**SC15CLX.2**
680	949		17.68	F2			F2			F2			1			117U6013	117U5012		103N1004	103N2009	**SC18CLX.2**
621	888		17.68	F2			F2			F2			1					117-7012	103N1004	103N2009	**SCE18CLX.2**
702	989		20.95	F2			F2						1					117-7012	103N1004	103N2009	**SC21CL**
888	1285		26.30	F2			F2			F2			1	Starting device (start. relay, start. & run capacitor): 117-7056					107B9100/9101/9104		❍ **GS26CLX**
1186	1691		33.80	F2			F2						1	Starting device (start. relay, start. & run capacitor): 117-7074					107B9100/9101/9104		❍ **GS34CLX**
891	1308		2 x 12.87	F2	F2		F2	F2					1			117U6005	117U5017		103N1004	103N2009	**SC12/12CL**
1120	1580		2 x 15.28	F2	F2		F2	F2					1			117U6019	117U5017		103N1004	103N2009	**SC15/15CL**
1230	1788		2 x 17.69	F2	F2		F2	F2					1					117-7012	103N1004	103N2009	**SC18/18CL**
1404	1978		2 x 20.95	F2			F2						1					117-7012	103N1004	103N2009	**SC21/21CL**
430	623		10.29	F2	F2		F2	F2					1/3			117U6005	117U5019		103N1004	103N2008	**SC10CLX**
515	705		12.87	F2			F2			F2			8					117-7012	103N1004	103N2008	**SC12CLX.2**
541	777		12.87	F2			F2			F2			1/4			117U6019	117U5019		103N1004	103N2008	**SC12CLX.2**
611	848		15.28	F2			F2						8					117-7038	103N1004	103N2008	**SC15CLX.2**
752	990		17.68	F2			F2			F2			4					117-7066	103N1004	103N2008	**SC18CLX.2**
860	1246		2 x 10.29	F2	F2		F2	F2					4			117U6005	117U5019		103N1004	103N2009	**SC10/10CLX**
1080	1568		2 x 12.87	F2			F2						4			117U6019	117U5019		103N1004	103N2009	**SC12/12CLX**
1220	1728		2 x 15.28	F2			F2						4					117-7028	103N1004	103N2009	**SC15/15CLX**
	398	556	7.27		F2			F2			F2		7			117U4139	117U5018		2x 117U0349	117U1021	**NF7MLX**
	518	633	10.29		F2			F2			F2		7			117U6011	117U5019		103N1004	103N2008	**SC10MLX**
	620	762	12.87		F2			F2			F2		7			117U6011	117U5019		103N1004	103N2008	**SC12MLX**
	780	979	15.28		F2			F2					1			117U6013	117U5012		103N1004	103N2009	**SC15MLX**
	780	979	15.28		F2			F2					1			117U6013	117U5012		103N1004	103N2009	**SC18MLX**
	878	1096	17.68		F2			F2					1					117-7012	103N1004	103N2009	**SC18MLX.3**
	997	1230	21.20		F2			F2			F2		1	Starting device (start. relay, start. & run capacitor): 117-7070					107B9100/9101/9104		❍ **GS21MLX**
	1210	1480	26.30		F2			F2					1	Starting device (start. relay, start. & run capacitor): 117-7072					107B9100/9101/9104		❍ **GS26MLX**
	1550	1890	33.80		F2			F2					1	Starting device (start. relay, start. & run capacitor): 117-7073					107B9100/9101/9104		❍ **GS34MLX**
	473	629	7.27		F2			F2			F2		8			117U4139	117U5018		2x 117U0349	117U1021	**NF7MLX**
	612	817	10.29		F2			F2			F2		8			117U6011	117U5019		103N1004	103N2008	**SC10MLX**
	729	975	12.87		F2			F2			F2		8			117U6011	117U5019		103N1004	103N2008	**SC12MLX**
	860	1080	15.28		F2			F2					8					117-7058	103N1004	103N2008	**SC15MLX.2**
	1131	1429	17.69		F2			F2					8					117-7012	103N1004	103N2009	**SC18MLX**
	203	256	3.86		F2	F2		F2	F2				1			117U6001	117U5014		103N1010	103N2010	**TL4DL**
	354	456	6.23		F2	F2		F2	F2				1			117U6010	117U5015		103N1010	103N2010	**FR6DL**
	479	590	10.29		F2	F2		F2	F2				1			117U6005	117U5017		103N1004	103N2009	**SC10DL**
	624	750	12.87		F2	F2		F2	F2				1			117U6019	117U5017		103N1004	103N2009	**SC12DL**
	722	865	15.28		F2	F2		F2	F2				1					117-7028	103N1004	103N2009	**SC15DL**
	957	1180	2 x 10.29		F2	F2		F2	F2				1			117U6005	117U5017		103N1004	103N2009	**SC10/10DL**
	1248	1500	2 x 12.87		F2	F2		F2	F2				1			117U6019	117U5017		103N1004	103N2009	**SC12/12DL**
	1445	1730	2 x 15.28		F2	F2		F2	F2				1					117-7028	103N1004	103N2009	**SC15/15DL**
	394	510	10.29		F2	F2		F2	F2				1			117U6005	117U5017		103N1004	103N2009	**SC10DL**
	512	643	12.87		F2	F2		F2	F2				1			117U6019	117U5017		103N1004	103N2009	**SC12DL**
	590	726	15.28		F2	F2		F2	F2				1					117-7028	103N1004	103N2009	**SC15DL**
	788	1020	2 x 10.29		F2	F2		F2	F2				1			117U6005	117U5017		103N1004	103N2009	**SC10/10DL**
	1025	1287	2 x 12.87		F2	F2		F2	F2				1			117U6019	117U5017		103N1004	103N2009	**SC12/12DL**
	1180	1452	2 x 15.28		F2	F2		F2	F2				1					117-7028	103N1004	103N2009	**SC15/15DL**



SC



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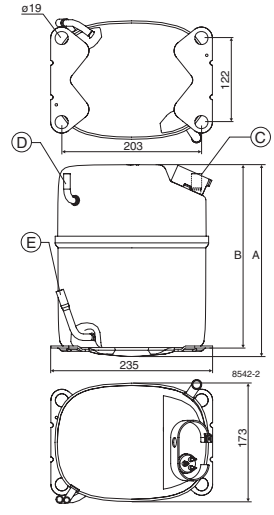
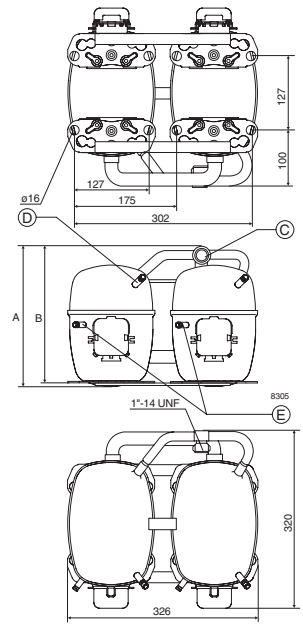


SC Twin



Hermetic Compressors type TL, NL, NF, FR, SC, GS and SC Twin
R404A/R507 • R407C • 220-240 V • 50 Hz & 60 Hz

Dimensions				
Height [mm]		Connectors location/I.D. [mm]		
A	B	Suction C	Process D	Discharge E
173	169	6.2	6.2	5.0
173	169	6.2	6.2	5.0
196	191	8.2	6.2	6.2
196	191	8.2	6.2	6.2
196	191	8.2	6.2	6.2
203	197	8.2	6.2	6.2
203	197	8.2	6.2	6.2
209	203	8.2	6.2	6.2
209	203	8.2	6.2	6.2
209	203	8.2	6.2	6.2
219	213	8.2	6.2	6.2
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
259	247	12.9	6.5	8.2
259	247	12.9	6.5	8.2
249	244	12	6.2	6.2
259	254	12	6.2	6.2
259	254	16	6.2	6.2
259	254	16	6.2	6.2
209	203	8.2	6.2	6.2
219	213	8.2	6.2	6.2
219	213	9.7	6.5	6.5
219	213	9.7	6.5	6.5
219	213	9.7	6.5	6.5
249	244	12	6.2	6.2
259	254	12	6.2	6.2
259	254	12	6.2	6.2
203	197	9.7	6.5	6.5
209	203	8.2	6.5	6.5
219	213	8.2	6.5	6.5
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
259	247	16.1	6.5	9.7
259	247	16.1	6.5	9.7
259	247	16.1	6.5	9.7
203	197	9.7	6.5	6.5
209	203	8.2	6.5	6.5
219	213	9.7	6.5	6.5
219	213	9.7	6.5	6.5
219	213	9.7	6.5	6.5
173	169	6.2	6.2	5.0
196	191	8.2	6.2	6.2
209	203	8.2	6.2	6.2
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
249	244	12	6.2	6.2
249	244	12	6.2	6.2
259	254	16	6.2	6.2
209	203	8.2	6.2	6.2
219	213	10.2	6.2	6.2
219	213	10.2	6.2	6.2
249	244	12	6.2	6.2
249	244	12	6.2	6.2
259	254	16	6.2	6.2

Model designation

Compressor design	Optimization level	Compressor size	Application range	Start characteristics	Generation
TL	Blank Standard energy level	Nominal displacement in cm^3	CL R404A/R507 LBP	Blank => universal (principal rule)	Blank => first generation
NL, NF	S Semi-direct intake		ML R404A/R507 MBP	X = HST characteristics (expansion valve)	.2 => second generation
FR	E Energy-optimized (optimized motor)		DL R404A/R507 HBP		.3 => third generation
SC					etc.
GS					

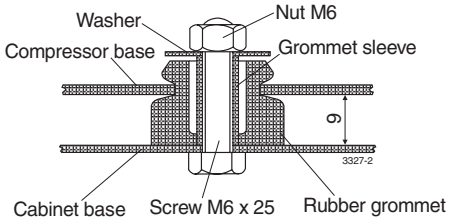
Examples

TL		4	DL		
NF		7	ML	X	
SC	E	18	CL	X	.2
GS		26	CL	X	

Accessories for SC Twin

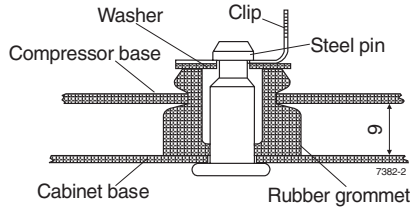
SC10/10, SC12/12 and SC15/15:	
Service valve for 12 mm tube	118-7350
Solder connector for 12 mm tube	104B0584
SC15/15DL, SC18/18 and SC21/21:	
Service valve for 16 mm tube	118-7351
Solder connector for 16 mm tube	118-7405
SC10/10, SC12/12, SC15/15, SC18/18 and SC21/21:	
Seal ring for service valve and solder connector	118-3638
Time-delay relay	117N0001
Check valve (to be used with time-delay relay)	020-1014

Mounting accessories



Bolt joint for
one compressor: 118-1917
in quantities: 118-1918

Bolt joint for
one GS compressor: 107B9150



Snap-on
in quantities: 118-1919

Applications
LBP: Low Back Pressure
HBP: High Back Pressure
MBP: Medium Back Pressure

Motor types
RSIR: Resistant Start Induction Run
RSCR: Resistant Start Capacitor Run
CSIR: Capacitor Start Induction Run
CSR: Capacitor Start Run

Starting devices
LST: Low Starting Torque
LST is used with capillary tube control and pressure equalizing. (Pressure equalizing may exceed 10 minutes). The PTC starting device requires 5 minutes cooling before each start.
Note: To fulfil the requirements of EN 60355-2-34 the protection screen 103N0476 must be applied to the PTC starting device.

HST: High Starting Torque
HST consisting of relay and starting capacitor, is used for expansion valve control or for capillary tube control without pressure equalizing.

Test conditions EN 12900 (CECOMAF) TL/NL/NF/FR/SC

Application	**R404A/R507**
Condensing temperature	45°C
Ambient temperature	32°C
Suction gas temperature	32°C
No subcooling	
220 V / 50 Hz	

Test conditions EN 12900 (CECOMAF) GS (LBP)

Application	**R404A/R507**
Condensing temperature	40°C
Ambient temperature	32°C
Suction gas temperature	20°C
Liquid temperature	no subcooling
220 V / 50 Hz	

Test conditions EN 12900 (CECOMAF) GS (MBP)

Application	**R404A/R507**
Condensing temperature	45°C
Ambient temperature	32°C
Suction gas temperature	20°C
Liquid temperature	no subcooling
220 V / 50 Hz	

Test conditions EN 12900 (CECOMAF) SC

Application	**R407C**
Condensing temperature	45°C
Ambient temperature	32°C
Suction gas temperature	32°C
No subcooling	
220 V / 50 Hz	

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

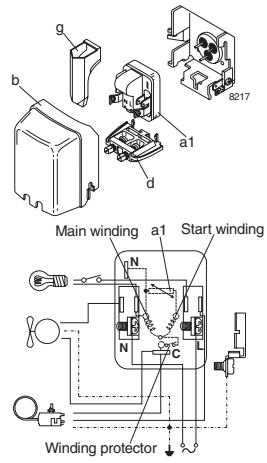
Compressor cooling
S = Static cooling normally sufficient
O = Oil cooling
F_1 = Fan cooling 1.5 m/s (compressor compartment temp. equal to ambient temperature)
F_2 = Fan cooling 3.0 m/s necessary

Voltages and frequencies
1 = 198-254 V, 50 Hz
2 = 187-254 V, 50 Hz, LBP
3 = 198-254 V, 60 Hz, LBP
4 = 198-254 V, 60 Hz
5 = 198-254 V, 60 Hz, MBP
6 = 207-254 V, 60 Hz, HBP
7 = 187-254 V, 50 Hz,
8 = 187-254 V, 60 Hz

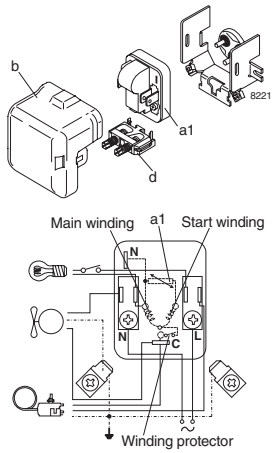
❍ = **preliminary data**

LST - RSIR

TL-NL-FR

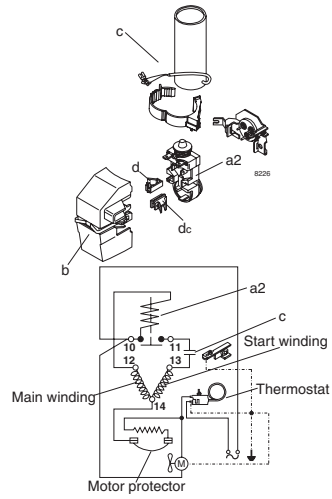


SC



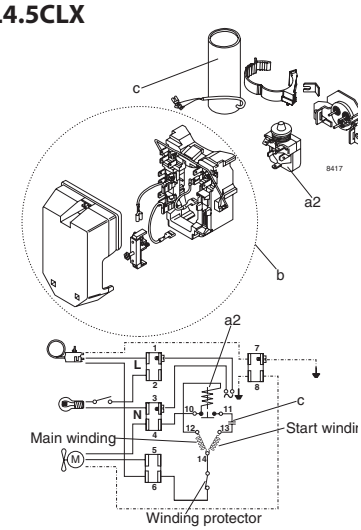
HST - CSIR

NF

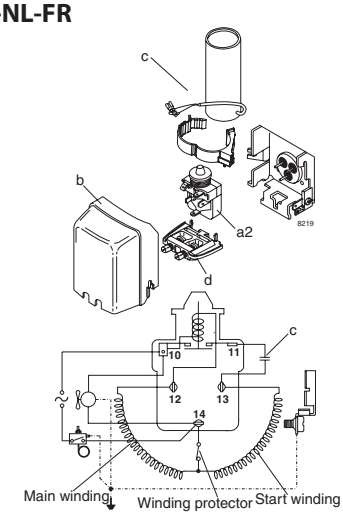


HST - CSIR

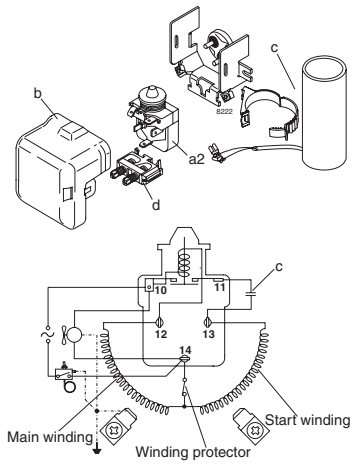
TL4.5CLX



TL-NL-FR

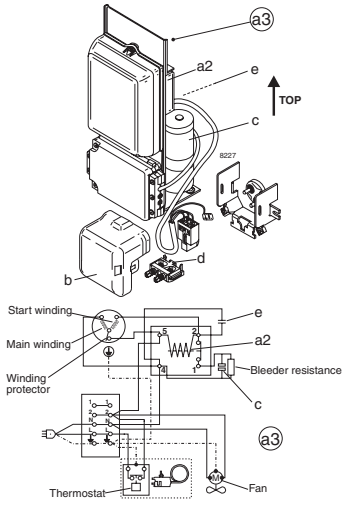


SC

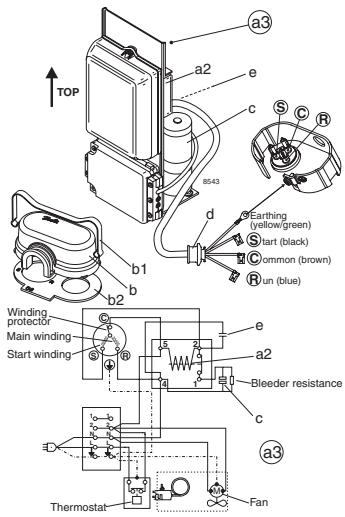


HST - CSR

SC



GS

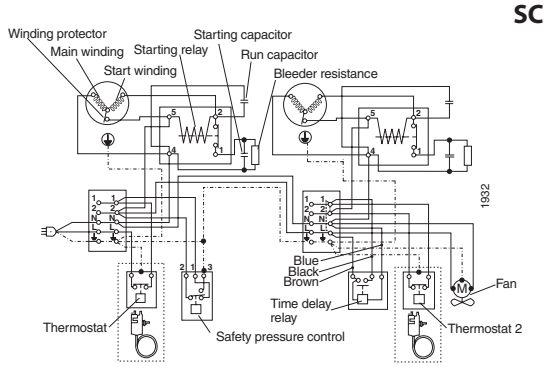


Legend

a1: PTC starting device
a2: Starting relay
a3: Starting device
b: Cover
b1/b2: Clamp/Gasket (parts of compressor)
c: Starting capacitor
d: Cord relief
dc: Cord relief for capacitor
e: Run capacitor
g: Protection screen for PTC

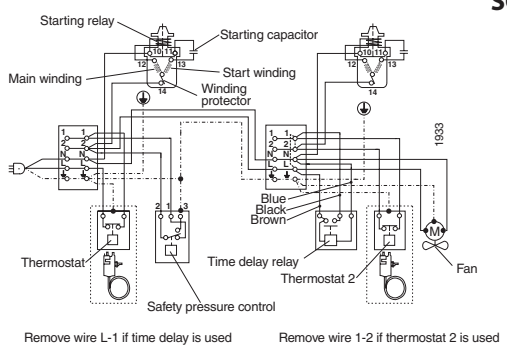
HST - CSR

SC Twin



HST - CSIR

SC Twin



Applications

This new compressor range will perfectly fit various applications like:

- Laboratory and medical equipment
- Clip-on units and condensing units
- Compressed air dryers
- Glass door merchandisers
- Bakery refrigeration equipment
- Ice cream cabinets
- Display cabinets – low temperature
- Vending machines
- Soft ice cream machines
- Ice making machines (ML/DL)
- Blast freezers
- Slush/frozen beverage makers
- Small coolers for trucks, working only stationary
- Heat pumps
- Milk cooling tanks
- Bottle coolers

Refrigeration Controls programme consists of:

Hermetic filter drier with solid core

Direct or servo operated solenoid valve

Sight glass with moisture indicator

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