

Quick reference

Light commercial reciprocating compressors **for refrigeration**

R134a 220-240V 50 / 60Hz



Quick reference

R134a 220-240V 50 / 60Hz

Application	Compressor	Code numbers		Capacity (W) at test conditions																Power consumption (W)				Dis- place- ment
		Com- pressor	Com- pressor with oil cooling	Evaporating temperature (°C)																				
				-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20	-35	-25	-10	5	cm3	
HBP / MBP / (LBP)	PL35G	101G0250				28	31.6	39.3	53	69.4	82	89	112	140	153	172	209		48	66.6	90	2.00		
	TL2.5G	102G4251		11	22.4	35.5	40.5	50.9	69	90.4	107	116	145	179	196	219	264		47.6	59.6	83.9	113	2.61	
	TL3G	102G4350			25.3	40.9	46.7	59.1	80.5	106	125	136	170	211	231	258	312			65.8	96.2	133	3.13	
	TL4G	102G4452			40.8	58.3	65.3	80.3	107	140	165	180	226	280	306	342	413			82.7	118	154	3.86	
	TL5G	102G4550			55.6	79	87.9	107	139	178	208	224	278	341	372	414	497			100	149	205	5.08	
	FR6G	103G6660			47.7	83.3	96.5	124	171	226	267	290	365	452	494	552				109	172	241	6.23	
	FR7.5G	103G6680	103G6690		61.7	99	113	142	193	254	299	325	408	505	553	618				126	194	272	6.93	
	FR8.5G	103G6780	103G6790		84.9	123	138	171	228	298	351	381	478	592	647	722				151	231	321	7.95	
	FR10G	103G6880	103G6890		91.9	136	152	188	250	324	380	412	516	638	697	779				179	265	362	9.05	
	FR11G	103G6980			115	170	191	233	307	395	463	501	628	780						202	317	445	11.15	
	SC10G	104G8000		23	60	113	135	183	268	369	445	486	618	764	833	925	1100		93	181	290	383	10.29	
	SC12G	104G8240	104G8250	64.6	113	175	199	252	348	464	553	603	768	960	1054	1182	1437		148	227	355	493	12.87	
	SC15G	104G8520	104G8530			164	206	290	424	568	672	728	908	1110	1207	1340	1600			233	440	595	15.28	
	SC18G	104G8820	104G8830			283	318	394	526	684	804	870	1087	1337	1459	1624	1950			331	507	695	17.69	
SC21G	104G8140				333	370	453	606	792	934	1012	1268	1560	1700	1889	2257			382	575	789	20.95		
SC12/ 12G	104G8280		129	226	350	399	505	696	928	1106	1206	1535	1920	2108	2364	2875		296	454	710	986	2x12.87		
SC15/ 15G	104G8580				328	413	581	847	1137	1344	1457	1815	2220	2415	2679	3201			465	879	1190	2x15.28		
SC18/ 18G	104G8880				566	636	788	1052	1368	1607	1740	2174	2674	2918	3248	3900			662	1014	1390	2x17.69		
SC21/ 21G	104G8180				667	741	907	1212	1584	1868	2025	2536	3120	3400	3778	4511			771	1156	1581	2x20.95		
LBP	PL50F	101G0222		14.2	26.2	40	45.1	55.8	74.1	95.2	111	120	148						43.6	60	85.6		2.50	
	TL53FT	102G4324		21	34	50	56	69	92	120									45	62	92		3.13	
	TL54FT	102G4424		27	43	63	71	88	117	152									68	87	123		3.86	
	TL55FT	102G4524		47.8	70.7	98	109	131	170	216									84.5	114	165		5.08	
	TLES5.7FT.3	102G4615		66.3	90.3	120	132	156	200	253									90	120	170		5.70	
	NL6.1FT	105G6620		60	84	115	127	152	198	253									93	123	184		6.13	
	NL7.3FT	105G6726		71	100	136	150	181	235	299									108	145	220		7.27	
	NL8.4FT	105G6865		87	120	162	178	213	275	350									127	169	252		8.35	
	NL10FT	105G6829	105G6839	115	158	210	235	274	352	444									159	215	316		10.10	
	SC12FT	104G8205	104G8215	103	163	233	259	314	408	517	599	645							184	265	380		12.87	
	SC15FT	104G8505	104G8515	126	197	280	311	376	489	620	718	772							223	311	451		15.28	
	SC18FTX	104G8805		144	229	325	361	437	567	719	833	896							257	365	517		17.69	
	SC21FTX 50 Hz	104G8105		192	296	415	460	553	713	901	1041	1119							296	428	613		20.95	
	SC21FTX 60 Hz	104G8106		240	345	470	518	620	800	1012	1173	1262							342	475	707		20.95	
MBP	NL6.1MF	105G6660						141	189	245	288	312	390	482	527	588	709				187	243	6.13	
	NL7.3MF	105G6772						179	236	304	356	385	480	591	645	719	867				227	298	7.27	
	NL8.4MF	105G6879						213	277	353	412	445	553	679	741	825	994				261	349	8.35	
	NL10MF	105G6885						266	346	441	513	554	687	843	919	1023	1231				323	435	10.10	
	NL11MF	105G6151						292	380	485	565	609	756	927	1011	1125	1354				360	495	11.15	
	NLE10MF	105G6888		88	137	194	216	262	343	440	513	554	688	845	922				134	198	308	426	10.10	
	GS26MFX	107B0700						754	989	1266	1476	1591	1970	2411	2626						696	942	26.30	
	GS34MFX	107B0701						998	1296	1648	1918	2063	2550	3115	3392						909	1234	33.80	
HBP	TL4GH	102G4455						104	140	167	182	230	287	315	353	429					121	159	3.86	
	FR7GH	103G6683	103G6692					199	255	301	327	417	525	580	655	807					192	258	6.93	
	SC10GH	104G8041						233	352	434	478	613	762	832	927	113	1323				281	395	10.29	
	SC12GH	104G8261							429	524	577	752	957	1058	1196	1471	1787				356	487	12.87	
	SC15GH	104G8561							559	664	723	915	1139	1429	1398	1698	2041				424	565	15.28	
	SC18GH	104G8860						539	676	789	855	1077	1340	1469	1645	1990					498	697	17.69	
	SC18GH	104G8861						485	639	758	825	1047	1310	1440	1618	1976	2389				452	605	17.69	
	SC15GHH		104G8571					435	570	670	726	911	1135	1247	1405	1731					377	505	15.28	
GS26GHX	107B0702						937	1198	1400	1510	1880	2316	2531	2826	3417	4098				737	970	26.30		

Applications

LBP = Low Back Pressure
MBP = Medium Back Pressure
HBP = High Back Pressure

Motor types

RSIR = Resistant Start Induction Run
RSIR = Resistant Start Capacitor Run
CSIR = Capacitor Start Induction Run
CSR = Capacitor Start Run

Voltage and frequencies

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

Compressor cooling

S = Static cooling normally sufficient
O = Oil cooling
F₁ = Fan cooling 1.5 m/s
 (compressor compartment temp. equal to ambient temperature)
F₂ = Fan cooling 3.0 m/s necessary
***2** = **O / F₁** possible at 220 V nominal (187-242V)

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.
HST = HST consisting of relay and starting capacitor is used for expansion valve control or for capillary tube control without pressure equalizing.

Electrical Equipment

** Cover, clamp, gasket parts of compressor

Test conditions

Test Conditions	EN 12900 CECOMAF (220 V / 50 Hz)	EN 12900 MBP (220 V / 50 Hz)	EN 12900 HBP (220 V / 50 Hz)
Compressors	PL / TL / TLS / TLES / NL / NLE / FR / SC	GS	GS
Condensing temperature	55°C	45°C	50°C
Ambient temperature	32°C	32°C	32°C
Suction gas temperature	32°C	20°C	20°C
Liquid temperature	55°C	no sub cooling	no sub cooling

Compressor	Recommended compressor cooling at ambient temperatures									Voltage and frequency	Electrical equipment							Dimensions (mm)								
	32°C			38°C			43°C				LST (RSIR)		HST (CSIR)		HST(CSIR)	LST / HST		Height	Connectors location / I.D							
	LBP	MBP	HBP	LBP	MBP	HBP	LBP	MBP	HBP		PTC starting device		Starting relay	Starting capacitor	Starting device	Cord relief	Cover		A	B	C	D	E	F		
											Spades 6.3 mm	Spades 4.8 mm													Spades 6.3 mm	Spades 6.3 mm
PL35G		F ₂	F ₂		F ₂	F ₂				1/5	103N0011	103N0018	117U6021	117U5014		103N1010	103N0491	137	135	6.2	6.2	5.0				
TL2.5G	S	S	S	S	S	S	S	S	F ₂	1/2/3/6	103N0011	103N0018	117U6007	117U5014		103N1010	103N2011	163	159	6.2	6.2	5.0				
TL3G	S	S	F ₂	S	S	F ₂	S	S	F ₂	1/2/3	103N0011	103N0018	117U6009	117U5014		103N1010	103N2010	163	159	6.2	6.2	5.0				
TL4G	S	S	F ₂	S	S	F ₂	S	S	F ₂	1/2/3	103N0011	103N0018	117U6004	117U5014		103N1010	103N2010	173	169	6.2	6.2	5.0				
TL5G	S	S	F ₂	S	S	F ₂	S	S	F ₂	1/2/3	103N0011	103N0018	117U6000	117U5014		103N1010	103N2010	173	169	6.2	6.2	5.0				
FR6G	S	F ₂	F ₂	S	F ₂	F ₂	S	F ₂	F ₂	1/2/3	103N0011	103N0018	117U6000	117U5015		103N1010	103N2010	196	191	8.2	6.2	6.2				
FR7.5G	S	F ₂	F ₂	S	F ₂	F ₂	O/F ₁	F ₂	F ₂	1/2/3	103N0011	103N0018	117U6001	117U5015		103N1010	103N2010	196	191	8.2	6.2	6.2		6.2		
FR8.5G	S	F ₂	F ₂	S	F ₂	F ₂	O/F ₁	F ₂	F ₂	1/2/3	103N0011	103N0018	117U6015	117U5015		103N1010	103N2010	196	191	8.2	6.2	6.2		6.2		
FR10G	S	F ₂	F ₂	S	F ₂	F ₂	O/F ₁	F ₂	F ₂	1/2/3	103N0011	103N0018	117U6010	117U5015		103N1010	103N2010	196	191	8.2	6.2	6.2		6.2		
FR11G	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	1/2	103N0011	103N0018	117U6010	117U5015		103N1010	103N2010	196	191	8.2	6.2	6.2				
SC10G	F ₁	F ₂	F ₂	F ₁	F ₂	F ₂	F ₁	F ₂	F ₂	1/2/3	103N0011		117U6002	117U5017		103N1004	103N2009	199	193	8.2	6.2	6.2				
SC12G	O/F ₁	F ₂	F ₂	O/F ₁	F ₂	F ₂	O/F ₁	F ₂	F ₂	1/2/3	103N0011		117U6003	117U5017		103N1004	103N2009	209	203	8.2	6.2	6.2		6.2		
SC15G	O/F ₁	F ₂	F ₂	O/F ₁	F ₂	F ₂	O/F ₁	F ₂	F ₂	1/2/3			117U6005	117U5017		103N1004	103N2009	209	203	10.2	6.2	6.2		6.2		
SC18G	O/F ₁	F ₂	F ₂	O/F ₁	F ₂	F ₂	O/F ₁	F ₂	F ₂	1/2/3			117U6019	117U5017		103N1004	103N2009	219	213	10.2	6.2	6.2		6.2		
SC21G	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	1/2/3					117-7029	103N1004	103N2009	219	213	10.2	6.2	6.2				
SC12/ 12G	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	1			117U6003	117U5017		103N1004	103N2009	249	244	12	6.2	6.2				
SC15/ 15G	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	1			117U6005	117U5017		103N1004	103N2009	249	244	12	6.2	6.2				
SC18/ 18G	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	1			117U6019	117U5017		103N1004	103N2009	259	254	16	6.2	6.2				
SC21/ 21G	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	1					117-7029	103N1004	103N2009	259	254	16	6.2	6.2				
PL50F		F ₂			F ₂				F ₂	1			117U6021	117U5014		103N1010	103N0491	137	135	6.2	6.2	5.0				
TL35FT	S			S			S			2	103N0011	103N0018	117U6007	117U5014		103N1010	103N2010	173	169	6.2	6.2	5.0				
TL34FT	S			S			S			2	103N0011	103N0018	117U6004	117U5014		103N1010	103N2010	173	169	6.2	6.2	5.0				
TL55FT	S			S			S			2	103N0011	103N0018	117U6000	117U5014		103N1010	103N2010	173	169	6.2	6.2	5.0				
TLES5.7FT.3	S			S			S			2	103N0011	103N0018	117U6004	117U5014		103N1010	103N2010	173	169	6.2	6.2	5.0				
NL6.1FT	S			S			S			2/3	103N0011	103N0018	117U6000	117U5015		103N1010	103N2010	188	182	6.2	6.2	5.0				
NL7.3FT	S			S			F ₁			2	103N0011	103N0018	117U6001	117U5015		103N1010	103N2010	188	182	6.2	6.2	5.0				
NL8.4FT	S			F ₁			F ₁			2	103N0011	103N0018	117U6001	117U5015		103N1010	103N2010	190	184	6.2	6.2	5.0				
NL10FT	S			O/F ₁			O/F ₁			2	103N0011	103N0018	117U6002	117U5015		103N1010	103N2010	203	197	8.2	6.2	6.2		6.2		
SC12FT	O/F ₁			O/F ₁			F ₂ *			2/3	103N0011		117U6003	117U5017		103N1004	103N2009	209	203	8.2	6.2	6.2		6.2		
SC15FT	F ₁			F ₁			F ₂ *			2/3	103N0011		117U6005	117U5017		103N1004	103N2009	209	203	10.2	6.2	6.2		6.2		
SC18FTX	F ₂			F ₂			F ₂			2/3			117U6019	117U5017		103N1004	103N2009	219	213	10.2	6.2	6.2				
SC21FTX 50Hz	F ₂			F ₂			F ₂			2			117U6019	117U5017		103N1004	103N2009	219	213	10.2	6.2	6.2				
SC21FTX 60Hz	F ₂			F ₂			F ₂			8					117-7039	103N1004	103N2008	219	213	10.2	6.2	6.2				
NL6.1MF		F ₁	F ₁		F ₁	F ₁		F ₁	F ₁	5/7	103N0011	103N0018	117U6015	117U5015		103N1010	103N2011	190	184	8.2	6.2	6.2				
NL7.3MF		F ₁	F ₁		F ₁	F ₁		F ₁	F ₁	5/7	103N0011	103N0018	117U6016	117U5015		103N1010	103N2011	197	191	8.2	6.2	6.2				
NL8.4MF		F ₁	F ₁		F ₁	F ₁		F ₁	F ₁	5/7	103N0011	103N0018	117U6016	117U5015		103N1010	103N2011	197	191	8.2	6.2	6.2				
NL10MF		F ₁	F ₁		F ₁	F ₁		F ₁	F ₁	5/7	103N0011	103N0018	117U6022	117U5018		103N1010	103N2011	203	197	8.2	6.2	6.2				
NL11MF		F ₂	F ₂		F ₂	F ₂		F ₂	F ₂	7	103N0011	103N0018	117U6022	117U5018		103N1010	103N2011	203	197	8.2	6.2	6.2				
NLE10MF	F ₁	F ₁		F ₁	F ₁		F ₁	F ₁		1	103N0011	103N0018	117U6003	117U5015		103N1010	103N2011	203	197	8.2	6.2	6.2				
GS26MFX		F ₂			F ₂			F ₂		1	Starting device (start relay, start & run capacitor):117-7070						107B9100/9101/9104**	259	247	12.9	6.5	8.2				
GS34MFX		F ₂			F ₂			F ₂		1	Starting device (start relay, start & run capacitor):117-7056						107B9100/9101/9104**	259	247	12.9	6.5	8.2				
TL4GH									F ₂	1/4			117U6000	117U5014		103N1010	103N2011	173	169	6.2	6.2	5.0				
FR7GH		O/F ₁			O/F ₁			O/F ₁		1/4			117U6016	117U5015		103N1010	103N2011	196	191	8.2	6.2	8.2		8.2		
SC10GH			F ₂			F ₂			F ₂	1/4			117U6005	117U5017		103N1004	103N2008	199	193	10.2	6.2	8.2				
SC12GH			F ₂			F ₂			F ₂	1/4			117U6011	117U5017		103N1004	103N2008	209	203	10.2	6.2	8.2				
SC15GH			F ₂			F ₂			F ₂	1/4			117U6011	117U5017		103N1004	103N2008	209	203	10.2	6.2	8.2				
SC18GH			F ₂			F ₂			F ₂	1			117U6019	117U5017		103N1004	103N2009	219	213	10.2	6.2	8.2				
SC18GH			F ₂			F ₂			F ₂	1/4					117-7039	103N1004	103N2008	219	213	10.2	6.2	8.2				
SC15GHH			O			O			O	1					117-7027	103N1004	103N2009	209	203	10.2	6.2	8.2			8.2	
GS26GHX			F ₂			F ₂			F ₂	1	Starting device (start relay, start & run capacitor):117-707															

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
SC18/18 and SC21/21	
Service valve for 16mm tube	118-7351
Solder connector for 16mm 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

Optional IP44 equipment for SC compressors

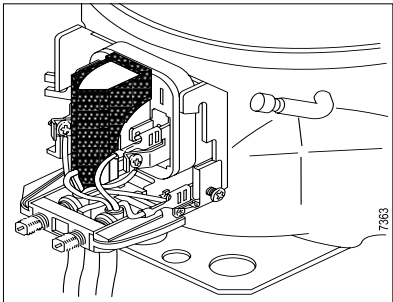
Danfoss now offers special accessories, which provide a better IP protection class for a major part of the SC compressor models. All SC models for 220-240V/50Hz or 208-230V/60Hz and CSIR motor can be IP upgraded. The equipment consists of one additional part, the so called “back cover”, and a special starting capacitor. Both are used instead of the normal starting capacitor. When using this equipment, the protection class is increased to IP44, i.e. the compressor and its electrical parts are splash-proof.



Code number	Description
130N2020	Back cover
117U5117**	IP44 starting capacitor 80µF
** replaces standard capacitor 117U5017	

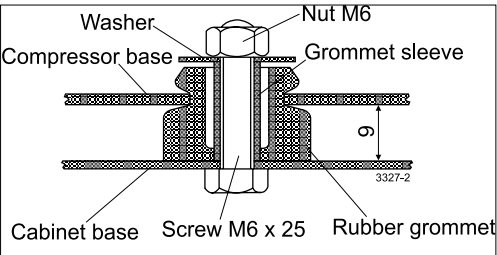
Protection screen for PTC

Note: To fulfil the requirements of EN 60355-2-34 the protection screen 103N0476 must be applied to the PTC starting device.

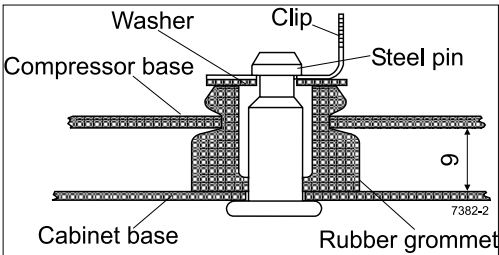


Mounting accessories

The mounting accessories for the compressors are available in two versions, with bolt joint or snap-on joint. The rubber grommets are designed for the 16 mm holes of the baseplate.

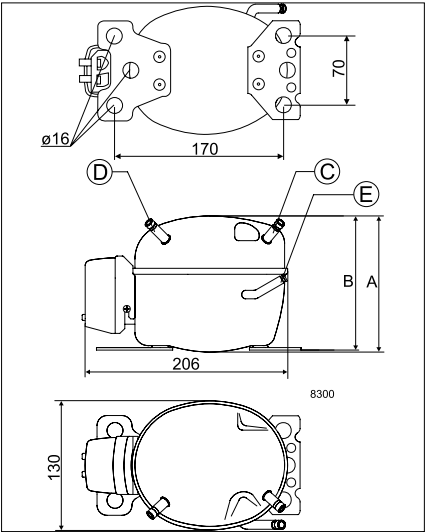


Bolt joint for
one compressor: 118-1917
in quantities: 118-1918

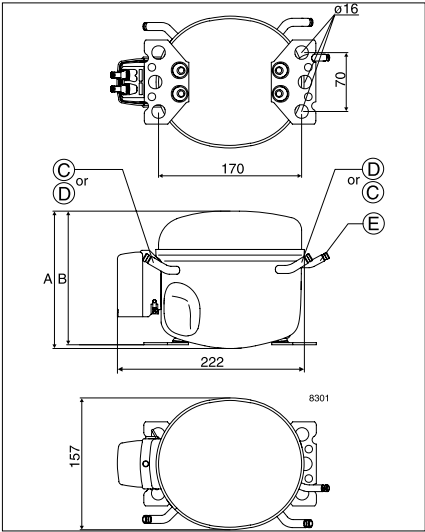


Snap-on
in quantities: 118-1919

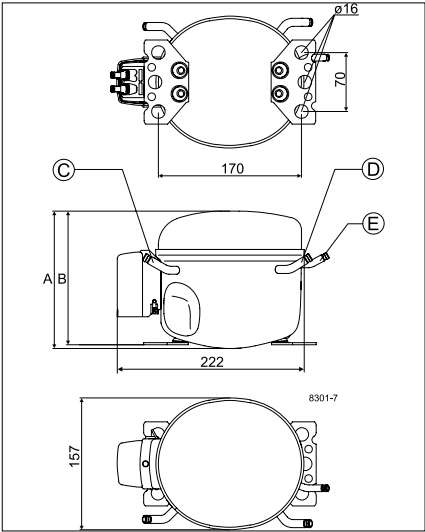
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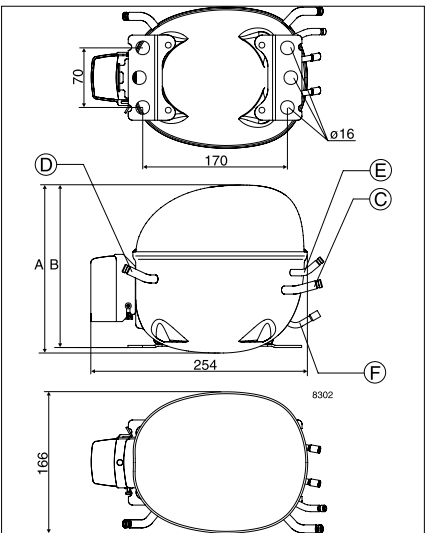
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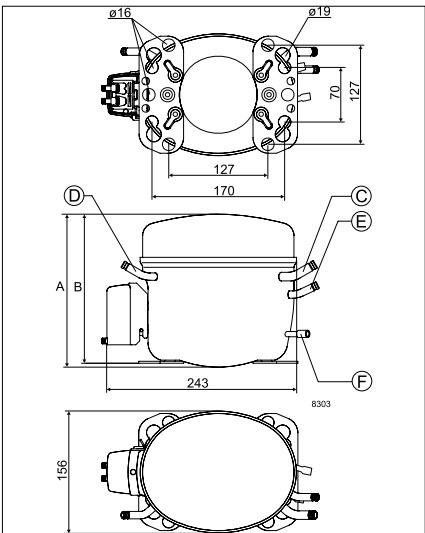
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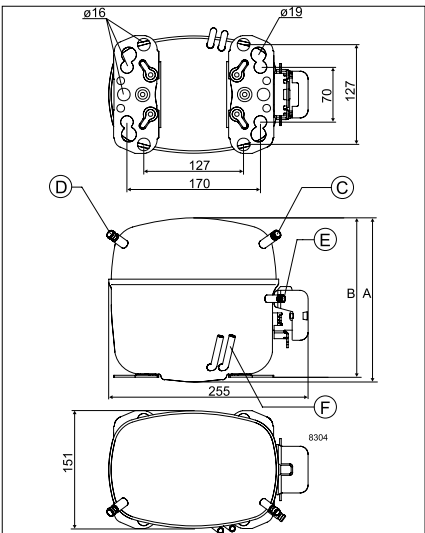
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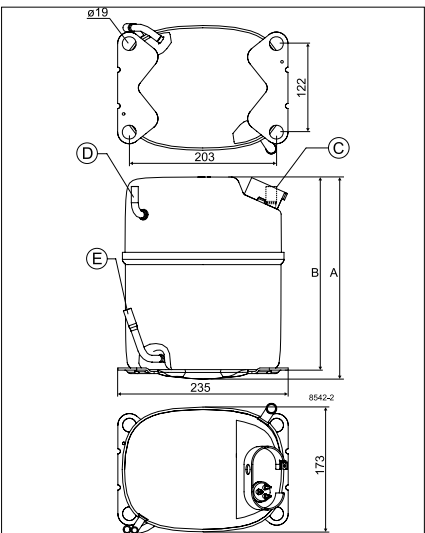
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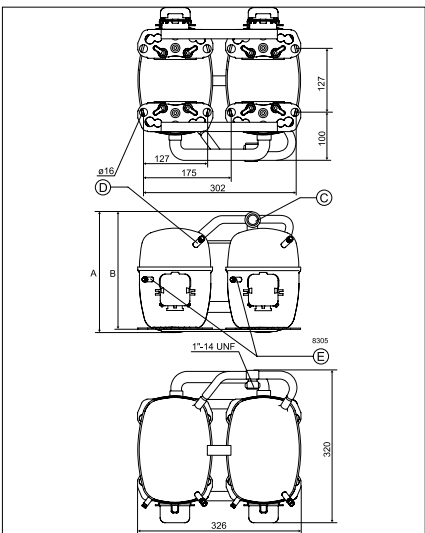
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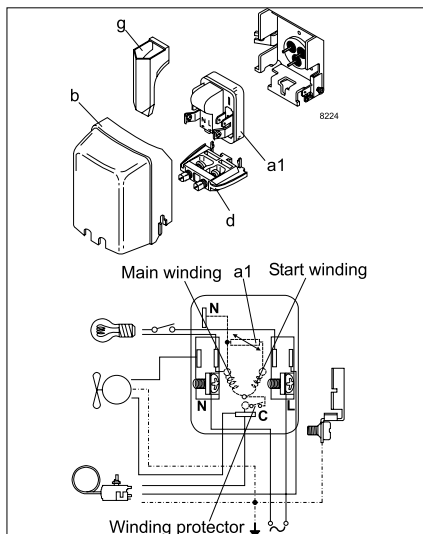
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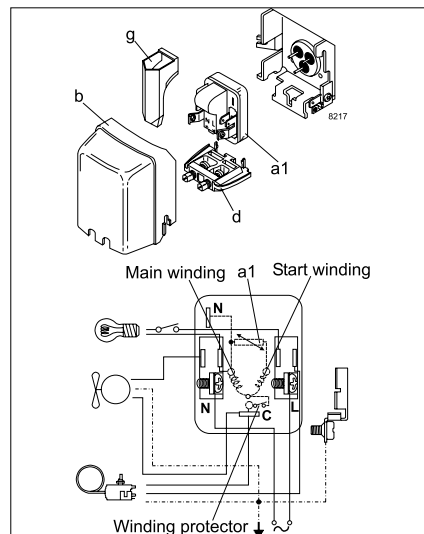
SC Twin



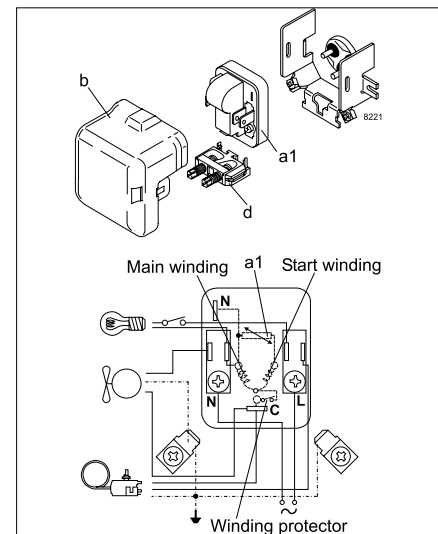
LST - RSIR



PL

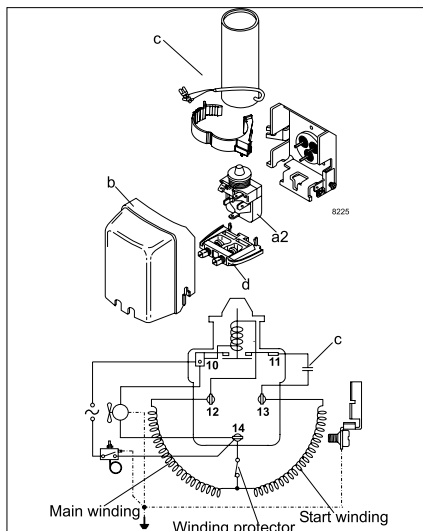


TL-TLS-TLES-NL-NLE-FR

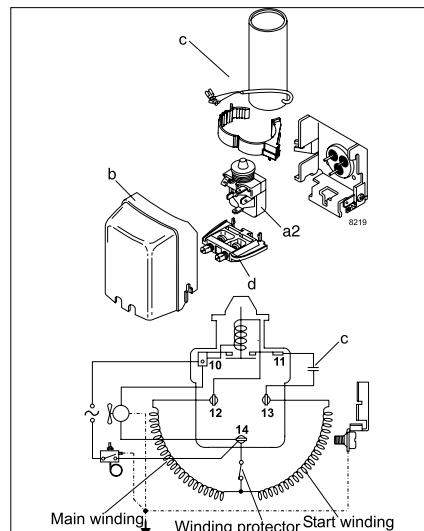


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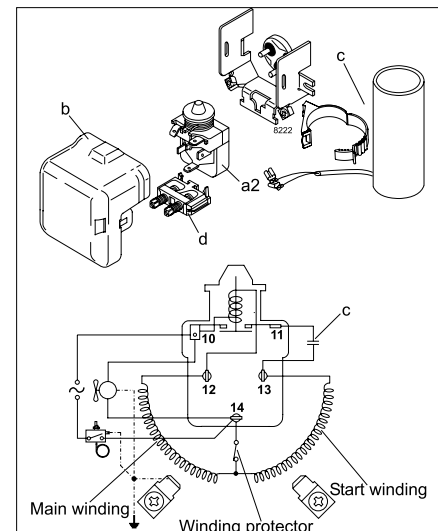
HST - CSIR



PL

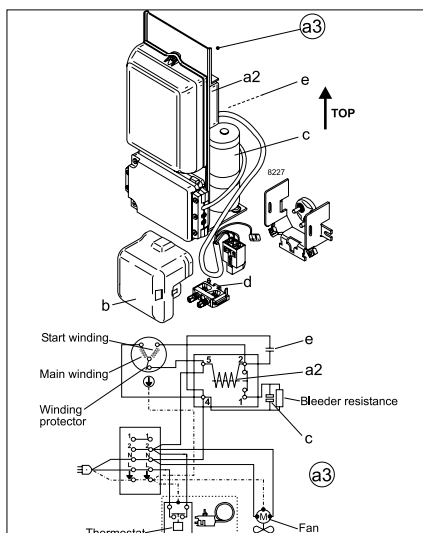


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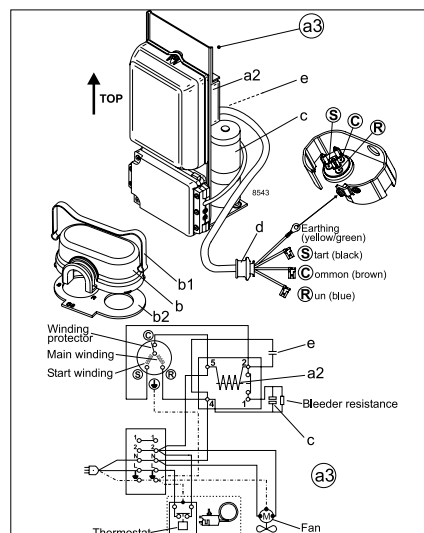


SC

HST - CSR



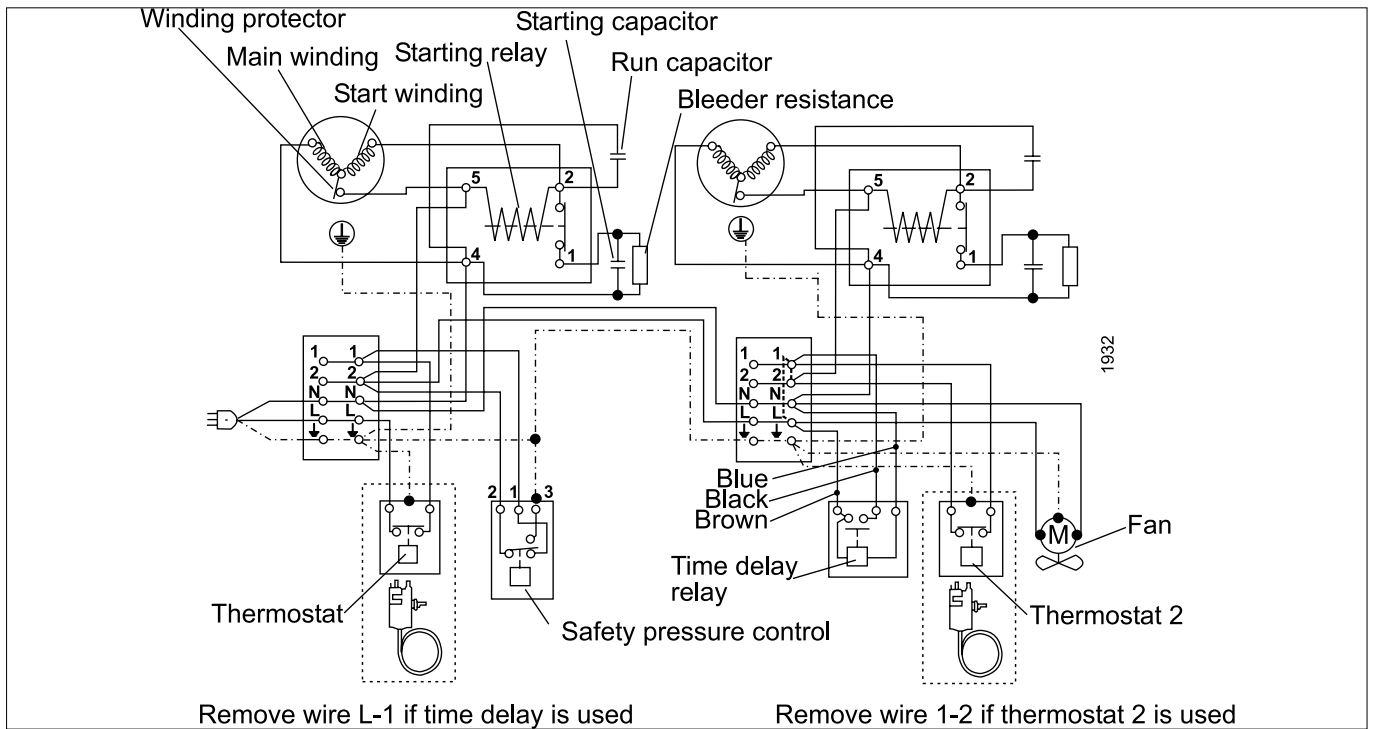
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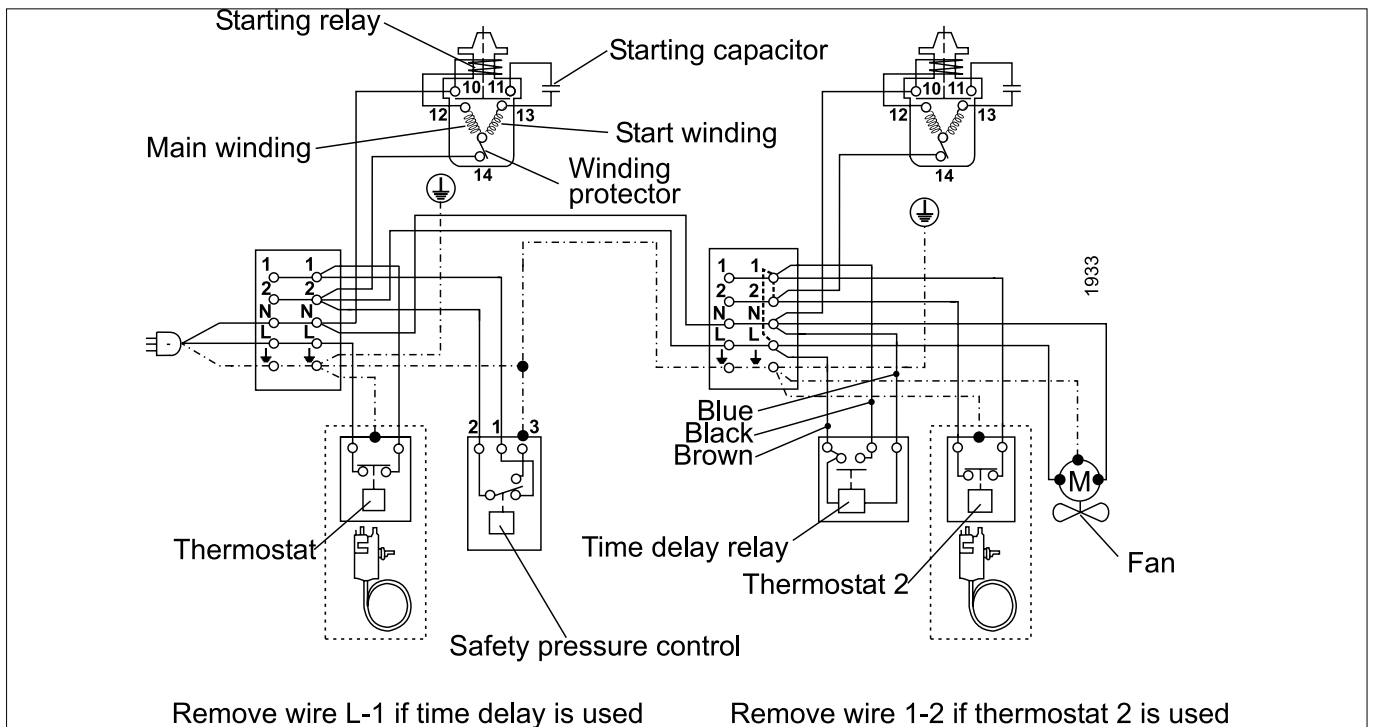
GS

Legend :

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

HST - CSR

SC Twin

HST - CSIR

SC Twin

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Danfoss Maneurop Reciprocating Compressors



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