

Quick reference

Light commercial reciprocating compressors **for freezers**

R404A - R507 - R134a - R290 220 - 240V 50 / 60 Hz



Refrigerant	Frequency	Compressor	Code numbers		Horsepower (approx.)	Capacity (W) at test conditions												Power consumption (W)	Displacement	Recommended compressor cooling at ambient temperatures										
						Evaporating temperature (°C)															32°C			38°C			43°C			
			Compressor	Compressor with oil cooling		-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-5	-25	-10			cm ³	LBP	MBP	HBP	LBP	MBP	HBP	LBP	MBP	HBP	
R134a	50 Hz	PL50F	101G0220		1/12			14	26	40	45	56	74	95		60	86	2.50	S				S							
		TLS3FT	102G4324		1/10			21	34	50	56	69	92	120		62	92	3.13	S				S				S			
		TLS4FT	102G4424		1/8			27	43	63	71	88	117	152		87	123	3.86	S				S				S			
		TLS5FT	102G4524		1/6			48	71	98	109	131	170	216		114	165	5.08	S				S				S			
		NL6FT	105G6628		1/5			60	84	115	127	152	198	253		123	184	6.13	S				S				S			
		NL7FT	105G6728	105G6738	1/4			71	100	136	150	181	235	299		145	220	7.27	S				S				O/F ₁			
		NL9FT	105G6828	105G6838	1/3			87	120	162	178	213	275	350		169	252	8.35	S				O/F ₁				O/F ₁			
		NL10FT	105G6829	105G6839	3/8			113	158	213	235	281	361	455		217	327	10.10	S				O/F ₁				O/F ₁			
		SC12FT	104G8205	104G8215	3/8			103	163	233	259	314	408	517	645	265	380	12.87	O/F ₁				O/F ₁				F ₂			
		SC15FT	104G8505	104G8515	1/2			126	197	280	311	376	489	620	772	311	451	15.28	F ₁				F ₁				F ₂			
		SC18FTX	104G8805		5/8			144	229	325	361	437	567	719	896	365	517	17.69	F ₂				F ₂				F ₂			
		SC21FTX	104G8105		3/4			192	296	415	460	553	713	901	1119	428	613	20.95	F ₂				F ₂				F ₂			
	60 Hz	PL35G	101G0250		1/16				34	39	48	64	82	104	52	79	2.00				S	F ₂	F ₂	S	F ₂	F ₂	S			
		TL2.5G	102G4251		1/16		14		27	42	48	60	80	105	134	67	96	2.61	S			S	S	S	S	S	S	S	F ₂	
		TL3G	102G4350		1/12			30	47	54	69	95	125			70	111	3.13	S			S	S	S	S	S	S	S		
		TL4G	102G4452		1/10			48	70	78	96	127	166			87	135	3.86	S			S	S	S	S	S	S	S		
		TL5G	102G4550		1/8			65	92	102	123	162	207			106	170	5.08	S			S	S	S	S	S	S	S		
		FR6G	103G6660		1/6			51	93	108	141	199	266			119	197	6.23	S		F ₂	F ₂	S	F ₂	F ₂	F ₂	F ₂	F ₂	F ₂	
		FR7.5G	103G6680	103G6690	1/5			67	112	130	166	228	300			138	229	6.93	S		F ₂	F ₂	S	F ₂	F ₂	F ₂	O/F ₁	F ₂	F ₂	
		FR8.5G	103G6780	103G6790	1/4			92	138	156	195	263	345			164	273	7.95	S		F ₂	F ₂	S	F ₂	F ₂	F ₂	O/F ₁	F ₂	F ₂	
		FR10G	103G6880	103G6890	1/3			99	153	173	217	292	381			194	314	9.05	S		F ₂	F ₂	S	F ₂	F ₂	F ₂	O/F ₁	F ₂	F ₂	
		SC12FT	104G8205	104G8215	1/2			125	192	272	302	366	477	608	761	298	458	12.87	O/F ₁				O/F ₁				F ₂			
		SC15FT	104G8505		5/8			154	235	330	365	441	571	724	904	356	537	15.28	F ₁				F ₁				F ₂			
		SC18FTX	104G8805		3/4			187	280	390	432	520	675	857	1071	420	622	17.69	F ₂				F ₂				F ₂			
		SC21FTX	104G8106		7/8			240	345	470	518	620	800	1012	1262	475	707	20.95	F ₂				F ₂				F ₂			
R404A / R507	50 Hz	TL4CL	102U2071		1/8	52	65	84	110	142	155	182	230	286	352	140	198	3.86	F ₂		F ₂		F ₂	F ₂						
		FR6CL	103U2670		1/6	77	108	145	189	243	263	307	383	473	578	242	353	6.23	F ₂		F ₂		F ₂	F ₂						
		FR7.5CL	103U2790		1/5	86	114	154	202	262	285	333	418	515	630	267	395	6.93	F ₂		F ₂		F ₂	F ₂						
		FR8.5CL	103U2890		1/4	99	126	168	222	290	317	372	468	577		315	472	7.95	F ₂		F ₂		F ₂	F ₂						
		NL7CLX	103F3710		1/3	102	146	199	263	340	369	430	536	657	796	274	381	7.27	F ₁		F ₁		F ₁	F ₁			F ₂	F ₂		
		SC10CLX	104L2533		1/3			166	255	360	400	483	625	789	977	352	508	10.29	F ₂		F ₂		F ₂	F ₂						
		SC12CL	104L2623		3/8	58	140	237	353	490	541	650	835	1048	1292	445	654	12.87	F ₂		F ₂		F ₂	F ₂						
		SC12CLX.2	104L2697		1/2	130	205	294	399	522	569	666	834	1026		475	659	12.87	F ₂		F ₂		F ₂	F ₂						
		SC15CL	104L2853		1/2			151	299	452	615	673	792	988	1208	1458	560	790	15.28	F ₂		F ₂		F ₂	F ₂					
		SC15CLX.2	104L2896		1/2	159	250	358	486	637	694	813	1017	1251	1519	565	783	15.28	F ₂		F ₂		F ₂	F ₂			F ₂			
		SC18L	104L2123		5/8	167	271	395	542	715	781	918	1154	1425	1735	615	894	17.69	F ₂		F ₂		F ₂	F ₂			F ₂			
		SC18CLX.2	104L2197		3/4	194	306	439	595	780	849	995	1245	1532		680	949	17.69	F ₂				F ₂	F ₂			F ₂			
		SC21CL	104L2322		7/8	226	325	455	617	813	887	1042	1306	1606		702	989	20.95	F ₂				F ₂	F ₂			F ₂			
	60 Hz	GS26CLX	107B0500		1	325	497	703	949	1240	1348	1580	1974	2427		888	1285	26.30	F ₂				F ₂	F ₂			F ₂			
		GS34CLX	107B0501		1 1/4			729	1003	1330	1715	1857	2165	2687	3289		1196	1721	33.80	F ₂				F ₂	F ₂			F ₂		
		SC10CLX	104L2533		3/8			224	335	455	499	588	738	906	1096	430	623	10.29	F ₂		F ₂		F ₂	F ₂						
		SC12CLX	104L2695		1/2			146	282	429	590	649	770	972	1200		540	748	12.87	F ₂				F ₂	F ₂					
		SC12CLX.2	104L2697		1/2	155	233	343	473	626	683	804	1011	1248		541	777	12.87	F ₂				F ₂	F ₂			F ₂			
		SC15CLX	104L2854		5/8			179	351	530	720	788	928	1158	1417		610	864	15.28	F ₂				F ₂	F ₂					
		SC15CLX.2	104L2897		5/8	194	305	437	593	776	846	991	1239	1525		611	848	15.28	F ₂				F ₂	F ₂						
		SC18CLX.2	102L2195		7/8	113	338	542	737	938	1010	1157	1410	1708		752	990	17.69	F ₂				F ₂	F ₂			F ₂			
		GS21CLX	107B0506		1			475	674	905	1172	1270	1480	1837	2246		868	1180	21.20	F ₂				F ₂	F ₂			F ₂		
R290	50 Hz	TL3CN	102H4380		1/10			38	54	75	99	108	128	161	200	244	108	135	3.13	F ₁		F ₁		F ₁	F ₁			F ₁	F ₁	
		TL4CN	102H4490		1/8			57	77.8	103	132	143	166	205	250	302	127	162	3.86	F ₁		F ₁		F ₁	F ₁			F ₁	F ₁	
		TL5CN	102H4590		1/6			81	109	143	183	198	230	283	345	416	162	211	5.08	F ₁		F ₁ ***		F ₁	F ₁ ***			F ₁	F ₁ ***	
		NL7CN	105H6756</																											

Compressor	Voltage & frequencies	Electrical equipment								Dimensions (mm)					
		LST (RSIR)		HST (CSIR)		HST (CSR)		LST / HST		Height		Connectors location / I.D mm			
		PTC starting device		Starting relay	Starting capacitor	Starting device	Starting kit					Suction	Process	Dis-charge	Oil cooler
		Spades 6.3 mm	Spades 4.8 mm	Spades 6.3 mm	Spades 6.3 mm	Spades 6.3 mm	Spades 6.3 mm	Cord relief	Cover	A	B	C	D	E	F
PL50F	1	103N0011	103N0018					103N1010	103N0491	137	135	6.2	6.2	5.0	
TLS3FT	2	103N0011	103N0018	117U6007	117U5014			103N1010	103N2011	173	169	6.2	6.2	5.0	
TLS4FT	2	103N0011	103N0018	117U6004	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
TLS5FT	2	103N0011	103N0018	117U6000	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
NL6FT	2/3	103N0011	103N0018	117U6000	117U5015			103N1010	103N2010	197	191	6.2	6.2	5.0	
NL7FT	2	103N0011	103N0018	117U6001	117U5015			103N1010	103N2010	197	191	6.2	6.2	5.0	5.0
NL9FT	2	103N0011	103N0018	117U6015	117U5015			103N1010	103N2010	197	191	6.2	6.2	5.0	5.0
NL10FT	2	103N0011	103N0018	117U6002	117U5015			103N1010	103N2010	203	197	8.2	6.2	6.2	6.2
SC12FT	2/3	103N0011		117U6003	117U5017			103N1004	103N2009	209	203	8.2	6.2	6.2	6.2
SC15FT	2/3	103N0011		117U6005	117U5017			103N1004	103N2009	209	203	10.2	6.2	6.2	
SC18FTX	2/3			117U6019	117U5017			103N1004	103N2009	219	213	10.2	6.2	6.2	
SC21FTX	2			117U6019	117U5017			103N1004	103N2009	219	213	10.2	6.2	6.2	
PL35G	1/5	103N0011	103N0018	117U6021	117U5014			103N1010	103N0491	137	135	6.2	6.2	5.0	
TL2.5G	1/2/3/4	103N0011	103N0018	117U6007	117U5014			103N1010	103N2011	163	159	6.2	6.2	5.0	
TL3G	1/2/3	103N0011	103N0018	117U6009	117U5014			103N1010	103N2010	163	159	6.2	6.2	5.0	
TL4G	1/2/3	103N0011	103N0018	117U6004	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
TL5G	1/2/3	103N0011	103N0018	117U6000	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
FR6G	1/2/3	103N0011	103N0018	117U6000	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	
FR7.5G	1/2/3	103N0011	103N0018	117U6001	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	6.2
FR8.5G	1/2/3	103N0011	103N0018	117U6015	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	6.2
FR10G	1/2/3	103N0011	103N0018	117U6010	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	6.2
SC12FT	2/3	103N0011		117U6003	117U5017			103N1004	103N2009	209	203	8.2	6.2	6.2	6.2
SC15FT	2/3	103N0011		117U6005	117U5017			103N1004	103N2009	209	203	10.2	6.2	6.2	
SC18FTX	2/3			117U6019	117U5017			103N1004	103N2009	219	213	10.2	6.2	6.2	
SC21FTX	9					117-7039		103N1004	103N2008	219	213	10.2	6.2	6.2	
TL4CL	1			117U6000	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
FR6CL	1			117U6015	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	
FR7.5CL	1			117U6016	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	
FR8.5CL	1			117U6010	117U5015			103N1010	103N2010	196	191	8.2	6.2	6.2	
NL7CLX	1	103N0011	103N0018	117U6002	117U5015			103N1010	103N2010	203	197	8.2	6.2	6.2	
SC10CLX	1/3			117U6005	117U5017			103N1004	103N2008	209	203	8.2	6.2	6.2	
SC12CL	1			117U6005	117U5017			103N1004	103N2009	209	203	8.2	6.2	6.2	
SC12CLX.2	1/3			117U6019	117U5017			103N1004	103N2008	219	213	8.2	6.2	6.2	
SC15CL	1			117U6019	117U5017			103N1004	103N2009	219	213	10.2	6.2	6.2	
SC15CLX.2	1			117U6019	117U5017			103N1004	103N2009	219	213	8.2	6.2	6.2	
SC18L	1					117-7027		103N1004	103N2009	219	213	10.2	6.2	6.2	
SC18CLX.2	1			117U6013	117U5012			103N1004	103N2009	219	213	10.2	6.2	6.2	
SC21CL	1					117-7027		103N1004	103N2009	219	213	10.2	6.2	6.2	
GS26CLX	1					117-7056		107B9100/9101/9104*		259	247	12.9	6.5	8.2	
GS34CLX	1					117-7074		107B9100/9101/9104*		279	267	12.9	6.5	8.2	
SC10CLX	3/4			117U6005	117U5017			103N1004	103N2008	209	203	8.2	6.2	6.2	
SC12CLX	3			117U6019	117U5017			103N1004	103N2008	219	213	8.2	6.2	6.2	
SC12CLX.2	1/3			117U6019	117U5017			103N1004	103N2008	219	213	8.2	6.2	6.2	
SC15CLX	3					117-7039		103N1004	103N2008	219	213	10.2	6.2	6.2	
SC15CLX.2	9					117-7039		103N1004	103N2008	219	213	9.7	6.5	6.5	
SC18CLX.2	9					117-7066		103N1004	103N2008	219	213	9.7	6.5	6.5	
GS21CLX	9					117-7073		107B9100/9101/9104*		279	247	12.9	6.5	8.2	
TL3CN	1	103N0011	103N0018	117U7004	117U5014			103N1010	103N2010	163	159	6.2	6.2	5.0	
TL4CN	1	103N0011	103N0018	117U7004	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
TL5CN	1	103N0011	103N0018	117U7000	117U5014			103N1010	103N2010	173	169	6.2	6.2	5.0	
NL7CN	1	103N0011	103N0018	117U7002	117U5015			103N1010	103N2010	203	197	8.2	6.2	6.2	
NL9CN	1	103N0011	103N0018	117U7002	117U5015			103N1010	103N2010	203	197	8.2	6.2	6.2	
SC10CNX	1					117-7025	117-9719	103N1004	103N2009	209	203	8.2	6.2	6.2	
SC12CNX	1					117-7025	117-9719	103N1004	103N2009	209	203	8.2	6.2	6.2	
SC12CNX.2	1			117U7003	117U5017			103N1004	103N2009	209	203	8.2	6.2	6.2	
SC15CNX	1					117-7031	117-9711	103N1004	103N2009	209	203	10.2	6.2	6.2	
SC15CNX.2	1			117U7005	117U5017			103N1004	103N2009	209	203	8.2	6.2	6.2	
SC18CNX	1					117-7052	117-9718	103N1004	103N2009	209	203	10.2	6.2	6.2	
SC18CNX.2	1			117U7011	117U5017			103N1004	103N2009	209	203	10.2	6.2	6.2	
SC21CNX.2	1			117U7013	117U5012			103N1004	103N2009	219	213	10.2	6.2	6.2	

Test conditions

Test Conditions	EN 12900 CECOMAF (220 V / 50 & 60 Hz)	EN 12900 CECOMAF (220 V / 50 & 60 Hz)	EN 12900 CECOMAF (220 V / 50 & 60 Hz)
Compressors	PL/TL/TLS/NL/FR/SC	TL/NL/FR/SC	GS
Refrigerant	R134a	R404A/R507 - R290	R404A/R507
Condensing temperature	55°C	45°C	40°C
Ambient temperature	32°C	32°C	32°C
Suction gas temperature	32°C	32°C	20°C
Liquid temperature	no sub cooling	no sub cooling	no sub cooling

Warnings

R290 is flammable in concentrations of air between approximately 2.1% and 9.5% by volume (LEL lower explosion limit and UEL upper explosion limit). An ignition source at a temperature higher than 470°C is needed for combustion to occur.



Model designation

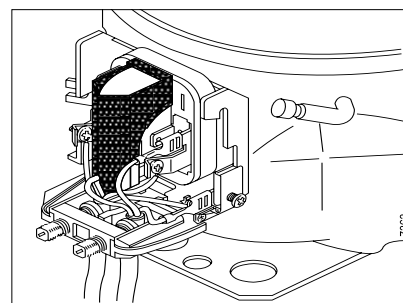
Compressor design	Optimization level	Compressor size	Application range	Start characteristics	Generation
PL	Blank: Standard energy level S: Semi direct intake	Nominal displacement in cm ³	CN: R290 / LBP CL: R404A/R507 LBP F: R134a LBP / (MBP) FT: R134a LBP tropical G: R134a LBP / MBP / HBP	Blank: Universal (principal rule) X = HST Characteristics (expansion valve)	Blank > first generation .2 > Second generation .3 > third generation etc...
TL					
NL					
FR					
SC					
GS		Exception: For PL compressors the capacity at rating point is stated			

Examples

Compressor design	Optimization level	Compressor size	Application range	Start characteristics	Generation
PL	S	35	G		
TL		5	FT		
NL		7	CL	X	
SC		15	CN	X	.2
GS		26	CL	X	

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.

**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.

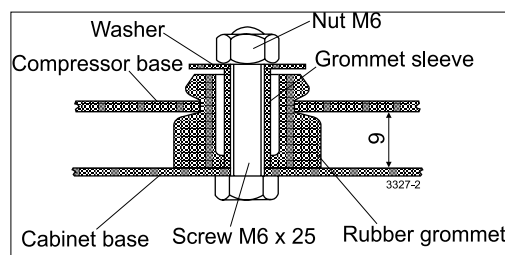


Code number	Description
130N2020	Back cover
117U5117**	IP44 starting capacitor 80µF
** replaces standard capacitor 117U5017	

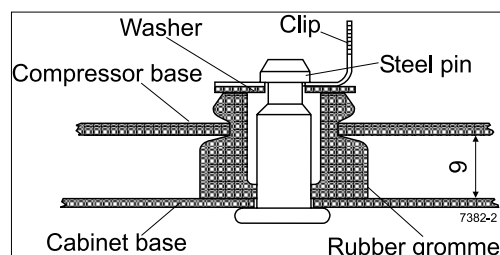
Mounting accessories

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.

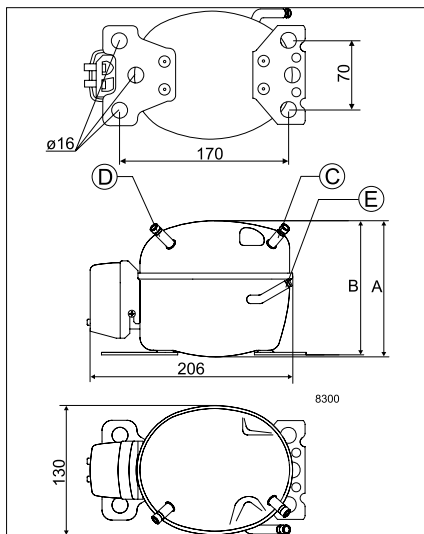


Bolt joint for
one compressor : 118-1917
in quantities : 118-1918

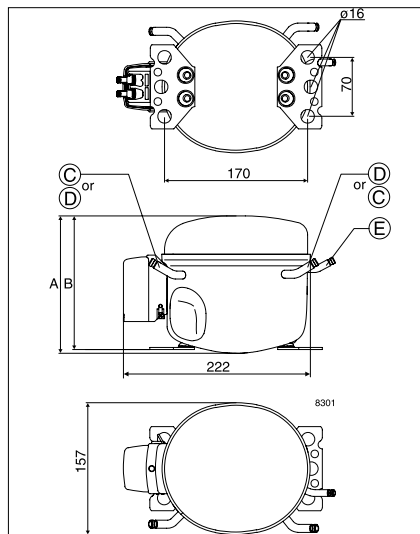


Snap-on
in quantities: 118-1919

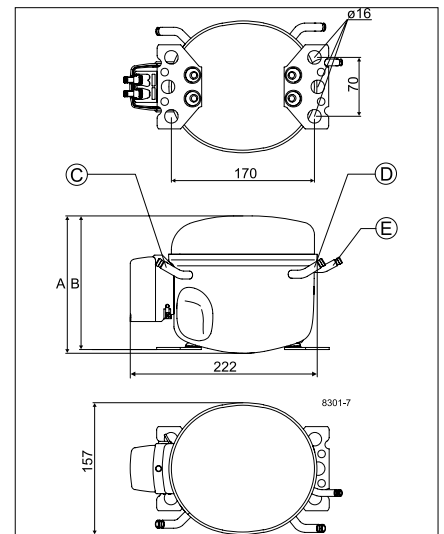
PL



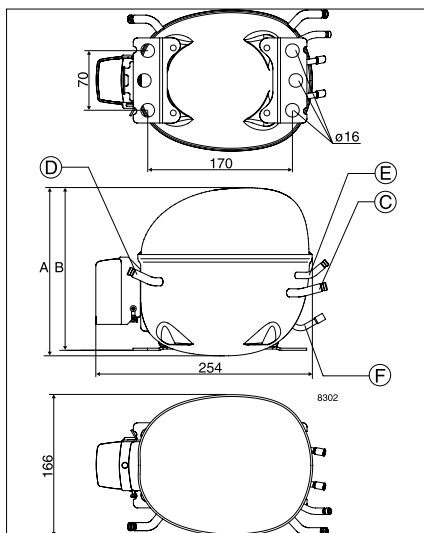
TL



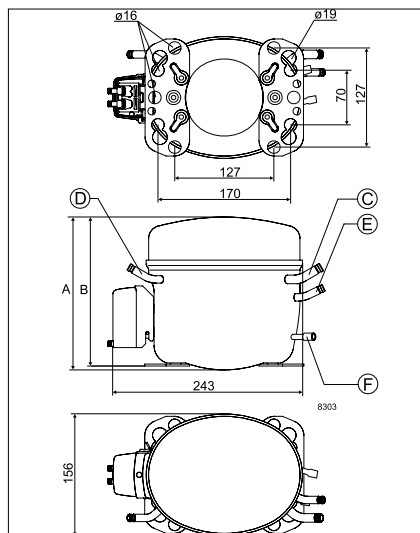
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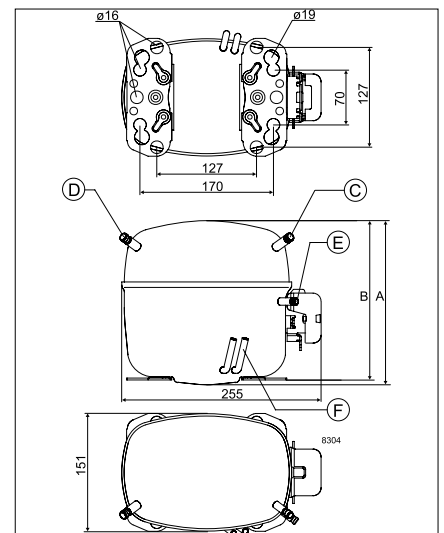
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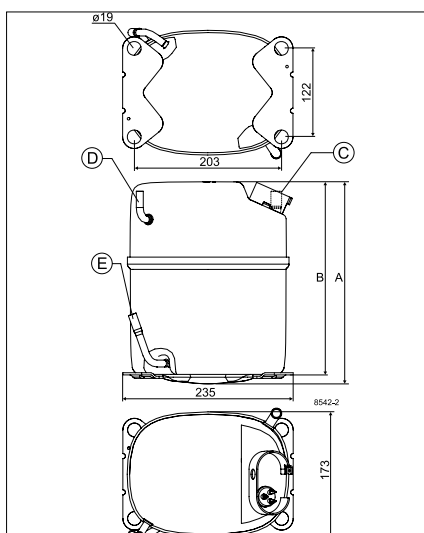
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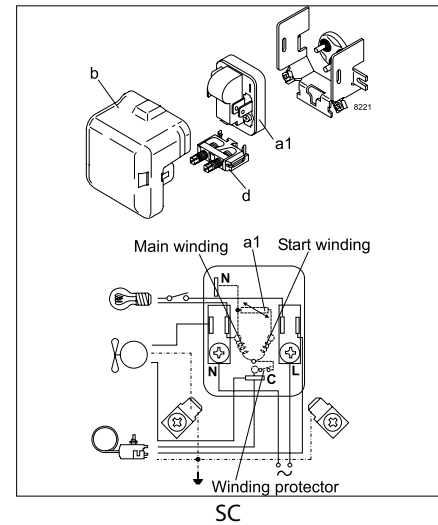
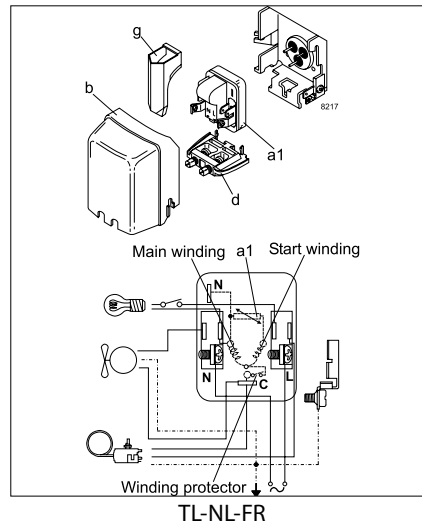
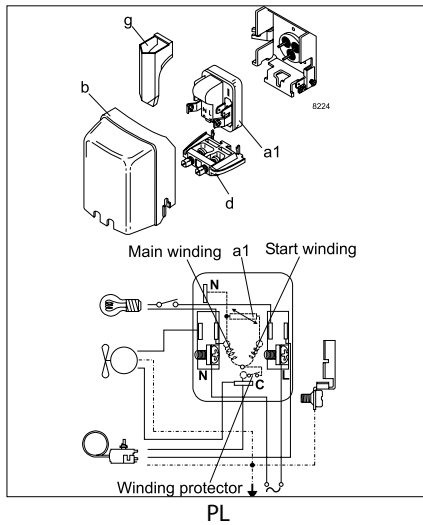
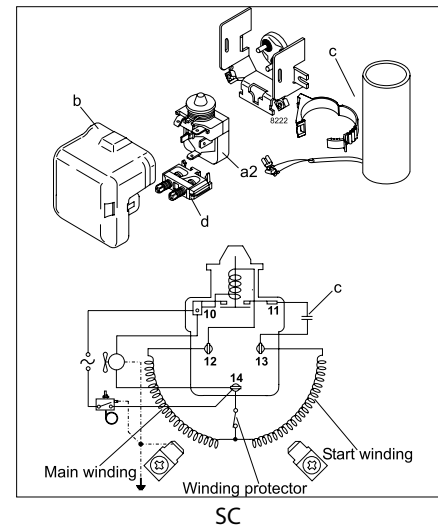
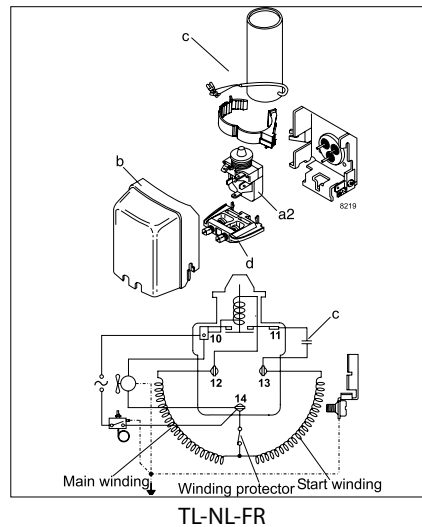
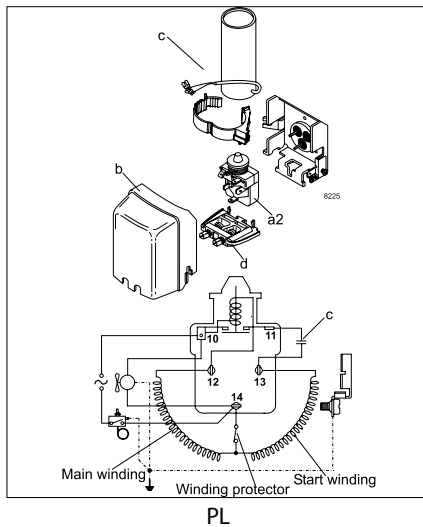
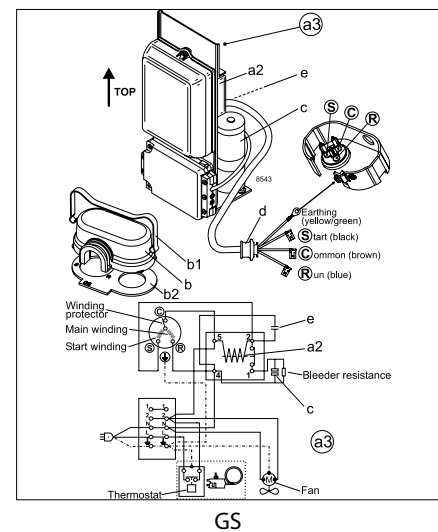
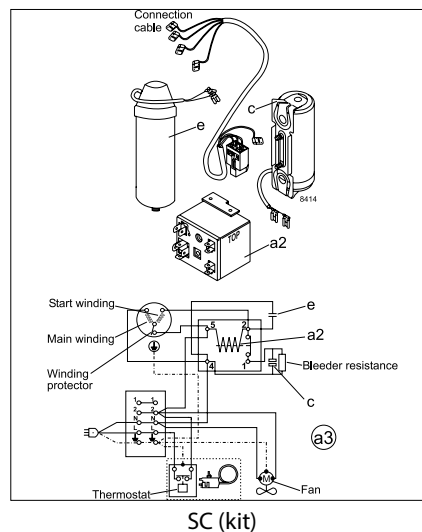
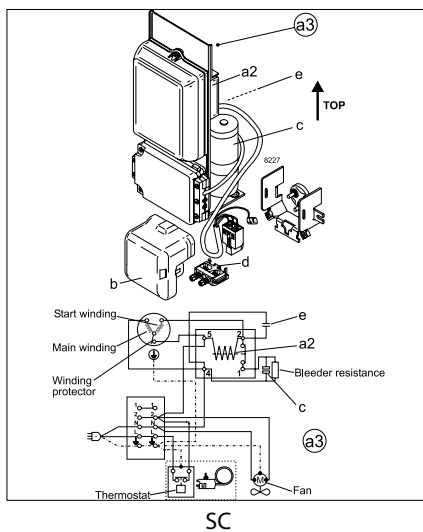
SC



GS



Note: On GS34CLX compressors
suction and process connectors are
interchanged

LST - RSIR**HST - CSIR****HST - CSR****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

Danfoss Commercial Compressors

is a worldwide manufacturer of compressors and condensing units for refrigeration and HVAC applications. With a wide range of high quality and innovative products we help your company to find the best possible energy efficient solution that respects the environment and reduces total life cycle costs.

We have 40 years of experience within the development of hermetic compressors which has brought us amongst the global leaders in our business, and positioned us as distinct variable speed technology specialists. Today we operate from engineering and manufacturing facilities spread across three continents.



Danfoss Scrolls



Danfoss Inverter Scrolls



Danfoss Maneurop Reciprocating Compressors



Secop Compressors for Danfoss



Danfoss Turbocor Compressors



Danfoss Optyma Condensing Units

Our products can be found in a variety of applications such as rooftops, chillers, residential air conditioners, heatpumps, coldrooms, supermarkets, milk tank cooling and industrial cooling processes.

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