Single
Packs

Single Pack SC12CLX.2 220-240V 50/60Hz CSIR

Single pack code number: **195B4020**

Position	Title	Code	Amount
1	Compressor SC12CLX.2	104L2697	1
2	Starting relay	117U6019	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2008	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
SC12CLX.2

Sales code:
104L2697

Compressor Data

Refrigerant(s)	**R404A / R452A / R507**
Refr. charge - tech. limit	**1300g / 45.86oz**
Weight	**13.70 kg / 30.20lbs**
Displacement	**12.87 cm3 / 0.79cu.in**
Compressors on pallet	**80**

General – Configurations With SC12CLX.2

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz	220-240 V/50 Hz	208-230 V/50 Hz
Number of phases	1	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V	198-254 V
Approvals	UL, VDE, CCC, KC, EAC	UL, VDE, CCC, KC, EAC	UL, VDE, CCC, KC, EAC	UL, VDE, CCC, KC, EAC
Starting torque	HST	HST	HST	HST
Refrigerant	R404A	R404A	R452A	R452A
Application	LBP	LBP	LBP	LBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

Model
SC12CLX.2

Sales code:
104L2697

Compressor Design

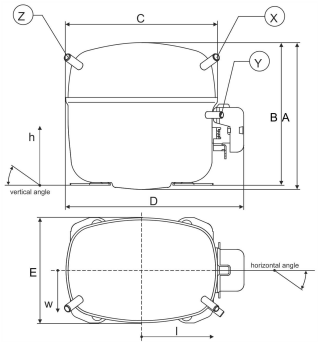
Oil type	**POE**	Winding resistance main	**3.7 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**14 Ohm**
Oil quantity	**500 / 16.91fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,510 cm3 / 51.06fl.oz**	Max. discharge temp.	**135°C / 275°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

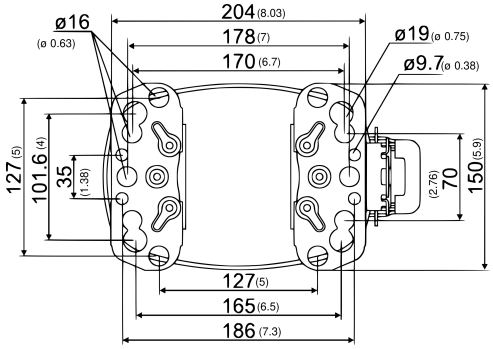
A Height	**219mm / 8.62in**
B Height	**213mm / 8.39in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



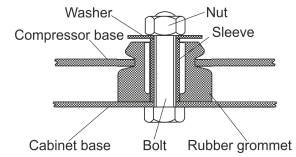
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

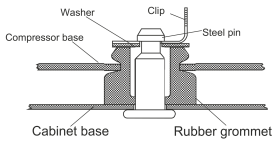


Dimensions in mm [in]

Bolt joint



Snap-on



	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Bolt joint | ø1/4" | ø19mm	118-1949	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Model
SC12CLX.2 Configuration 1

Sales code:
104L2697

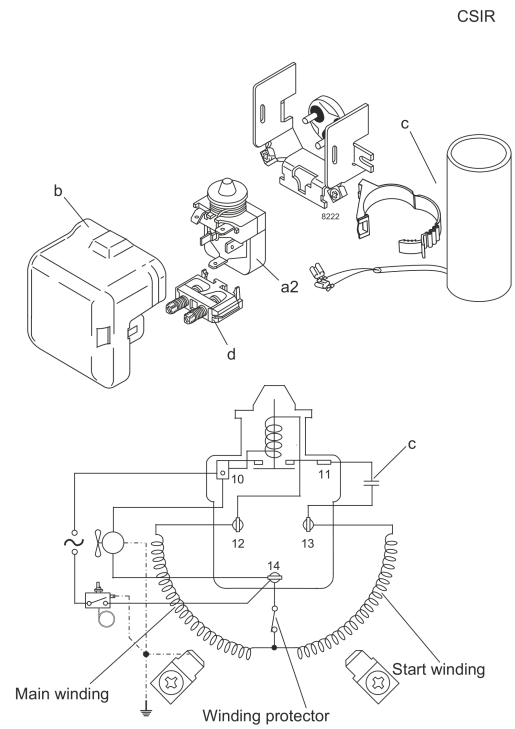
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R404A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, KC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**23.4 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.4 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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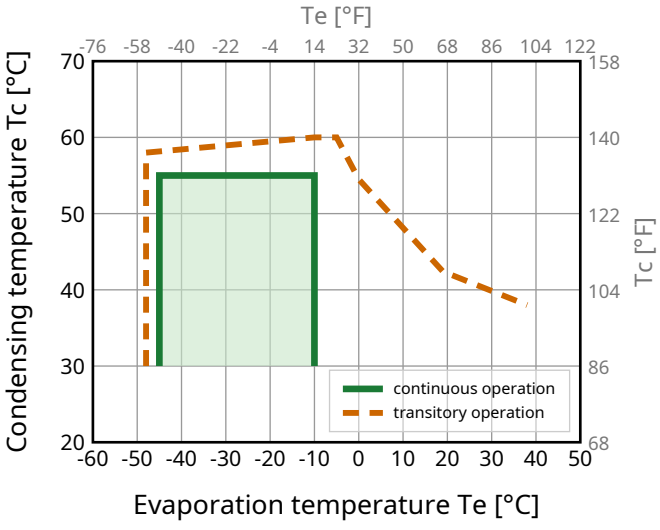
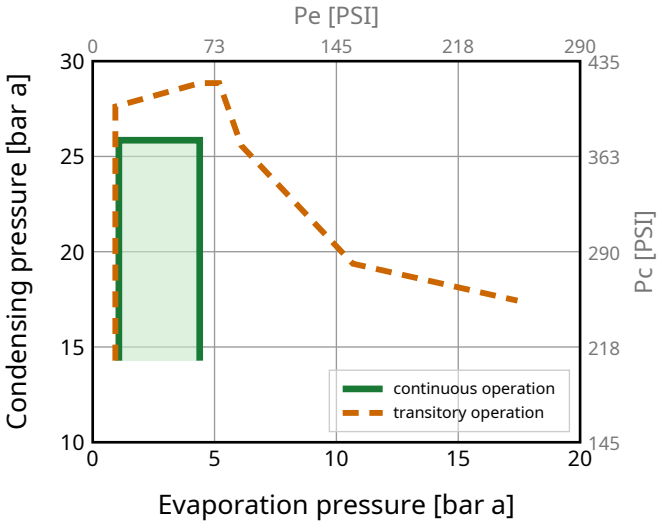
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Alternative components
a2 relay 117U6019
c start capacitor i-pack 40# (80µF) 117U5067
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model

SC12CLX.2 Configuration 1

Sales code:

104L2697

Standard Conditions

R404A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**593**	2025	510	**1.15**	3.92	516	3.35	13.79	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**398**	1360	343	**0.81**	2.75	495	3.28	12.43	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**322**	1097	277	**0.89**	3.03	363	3.02	8.72	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**449**	1533	386	**0.89**	3.05	503	3.35	15.85	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**686**	2339	590	**1.41**	4.81	486	3.33	15.94	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**294**	1002	253	**0.81**	2.75	364	3.00	7.83	**opt LBP**

Performance Tables

R404A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	**130**	444	112	**0.51**	1.75	253	2.77	3.45
-40	-40	**205**	699	176	**0.66**	2.26	310	2.88	5.45
-35	-31	**294**	1002	253	**0.81**	2.75	364	3.00	7.83
-30	-22	**399**	1360	343	**0.95**	3.24	420	3.13	10.68
-25	-13	**522**	1782	449	**1.10**	3.75	476	3.29	14.05
-20	-4	**666**	2274	573	**1.25**	4.26	533	3.46	18.04
-15	5	**834**	2844	717	**1.40**	4.78	594	3.65	22.73
-10	14	**1026**	3500	882	**1.56**	5.31	659	3.86	28.20

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	**62**	213	54	**0.27**	0.92	230	2.64	1.91
-40	-40	**128**	436	110	**0.43**	1.46	299	2.78	3.92
-35	-31	**204**	696	176	**0.56**	1.91	365	2.93	6.29
-30	-22	**294**	1001	252	**0.68**	2.33	430	3.10	9.10
-25	-13	**398**	1360	343	**0.81**	2.75	495	3.28	12.43
-20	-4	**521**	1778	448	**0.93**	3.17	561	3.48	16.36
-15	5	**663**	2264	571	**1.05**	3.60	629	3.71	21.00
-10	14	**828**	2825	712	**1.18**	4.04	700	3.94	26.46

Model
SC12CLX.2 Configuration 2

Sales code:
104L2697

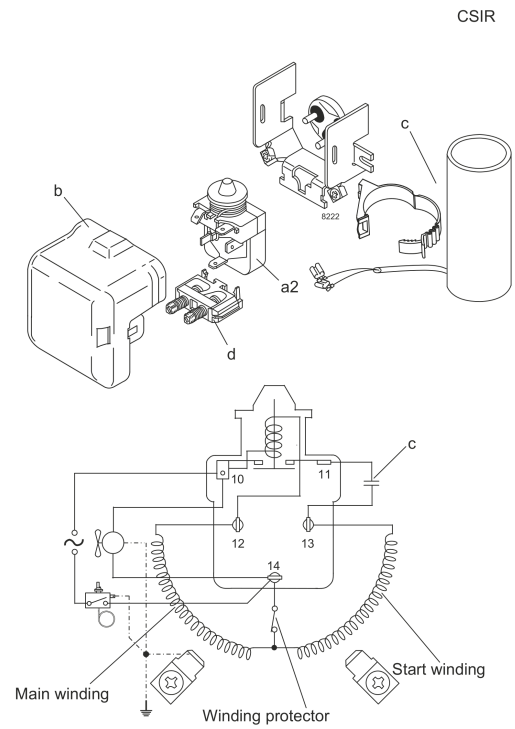
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R404A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, KC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**23.4 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.4 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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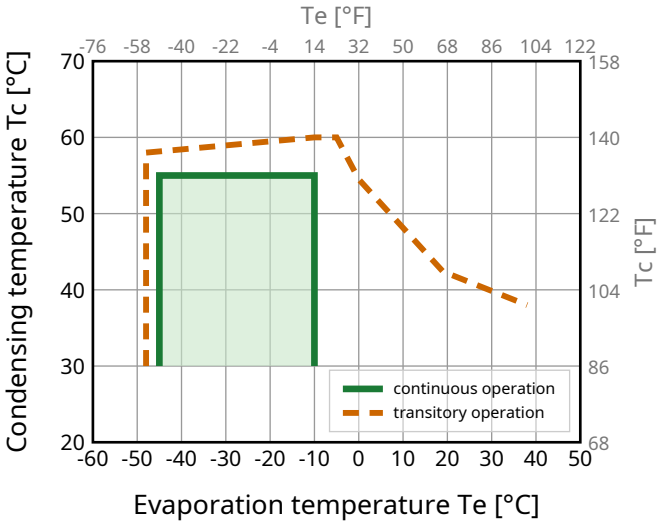
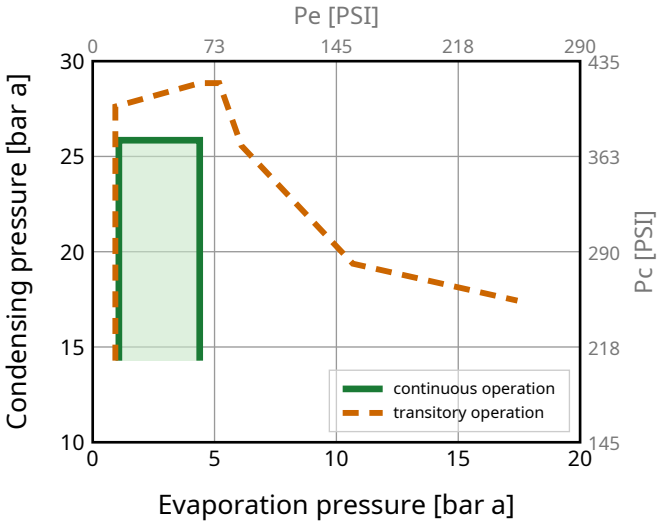
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Alternative components
a2 relay 117U6019
c start capacitor i-pack 40# (80µF) 117U5067
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model

SC12CLX.2 Configuration 2

Sales code:

104L2697

Standard Conditions

R404A, 220 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**707**	2412	608	**1.19**	4.07	592	3.09	16.43	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**473**	1613	406	**0.84**	2.85	566	3.00	14.74	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**379**	1292	326	**0.96**	3.27	396	2.62	10.26	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**538**	1836	463	**0.93**	3.19	576	3.10	18.99	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**826**	2817	710	**1.49**	5.08	554	3.07	19.19	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**343**	1171	295	**0.86**	2.94	398	2.60	9.15	**opt LBP**

Performance Tables

R404A, 220 V/60 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	**141**	481	121	**0.55**	1.89	255	2.28	3.74
-40	-40	**233**	796	201	**0.71**	2.43	327	2.43	6.20
-35	-31	**343**	1171	295	**0.86**	2.94	398	2.60	9.15
-30	-22	**473**	1614	407	**1.01**	3.44	469	2.79	12.66
-25	-13	**626**	2135	538	**1.16**	3.95	541	3.01	16.84
-20	-4	**804**	2743	691	**1.31**	4.46	615	3.25	21.77
-15	5	**1010**	3448	869	**1.46**	4.97	693	3.52	27.55
-10	14	**1248**	4259	1074	**1.61**	5.48	777	3.81	34.32

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	**57**	195	49	**0.25**	0.86	226	2.10	1.75
-40	-40	**138**	471	119	**0.44**	1.50	314	2.29	4.24
-35	-31	**232**	793	200	**0.58**	1.99	398	2.50	7.17
-30	-22	**343**	1170	295	**0.71**	2.43	482	2.74	10.63
-25	-13	**473**	1613	406	**0.84**	2.85	566	3.00	14.74
-20	-4	**624**	2129	537	**0.96**	3.28	650	3.28	19.60
-15	5	**800**	2730	688	**1.08**	3.70	738	3.59	25.33
-10	14	**1004**	3425	863	**1.21**	4.13	829	3.92	32.08

Model
SC12CLX.2 Configuration 3

Sales code:
104L2697

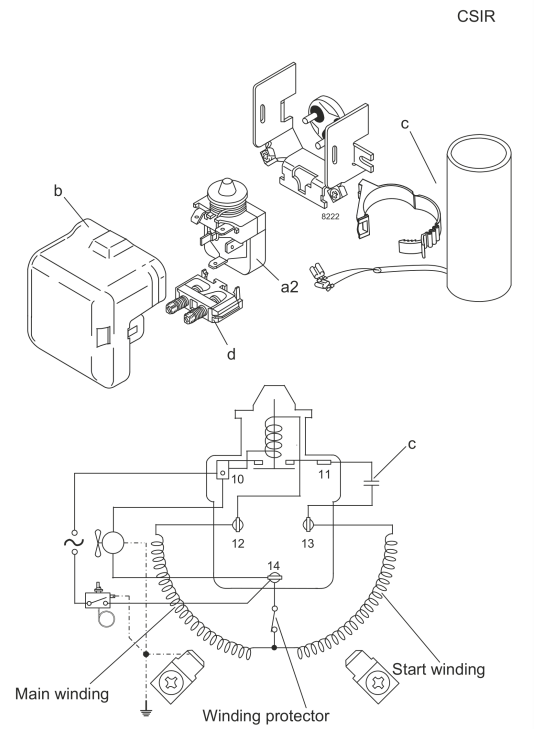
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R452A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, KC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**23.4 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.4 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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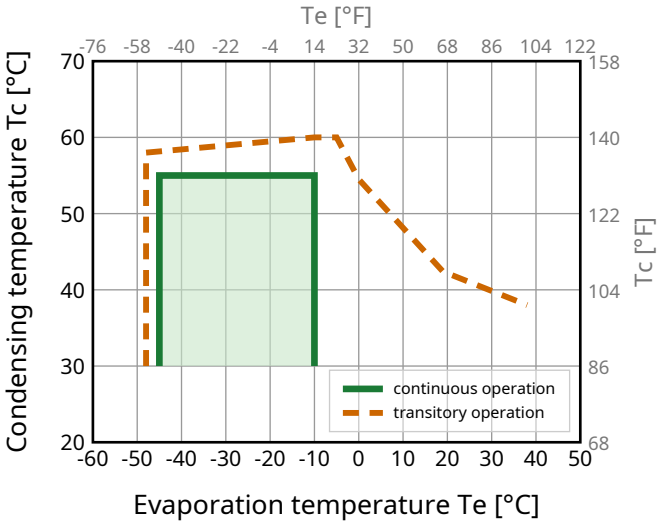
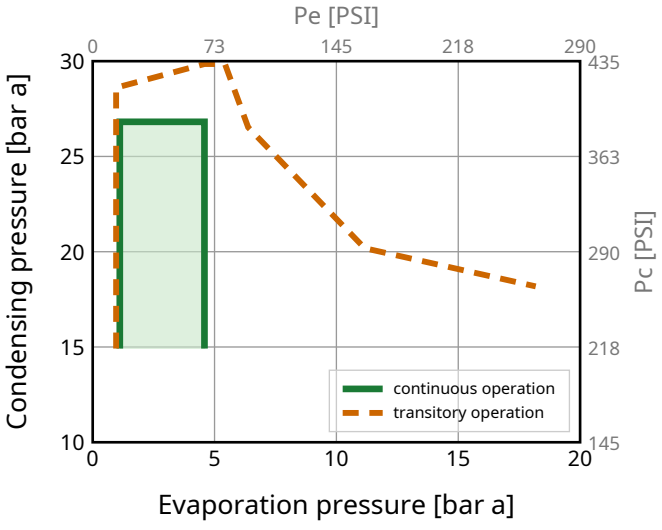
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Alternative components
a2 relay 117U6019
c start capacitor i-pack 40# (80µF) 117U5067
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model

SC12CLX.2 Configuration 3

Sales code:

104L2697

Standard Conditions

R452A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**546**	1863	469	**1.14**	3.89	478	3.32	13.21	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**367**	1253	316	**0.80**	2.74	457	3.25	11.85	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**290**	989	249	**0.88**	2.99	331	2.88	8.17	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**417**	1422	358	**0.89**	3.04	468	3.28	15.21	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**632**	2157	544	**1.40**	4.76	453	3.24	15.30	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**264**	901	227	**0.80**	2.72	332	2.88	7.32	**opt LBP**

Performance Tables

R452A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	**111**	378	95	**0.50**	1.71	221	2.54	3.05
-40	-40	**181**	617	155	**0.65**	2.22	277	2.71	4.99
-35	-31	**264**	901	227	**0.80**	2.72	332	2.88	7.32
-30	-22	**363**	1240	313	**0.94**	3.21	386	3.04	10.11
-25	-13	**481**	1641	414	**1.09**	3.72	442	3.21	13.45
-20	-4	**619**	2113	533	**1.24**	4.23	499	3.38	17.41
-15	5	**780**	2663	671	**1.40**	4.76	559	3.56	22.10
-10	14	**967**	3300	832	**1.55**	5.29	624	3.75	27.62

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	**49**	168	42	**0.25**	0.86	195	2.47	1.56
-40	-40	**110**	377	95	**0.42**	1.43	263	2.67	3.51
-35	-31	**182**	622	157	**0.56**	1.89	328	2.87	5.82
-30	-22	**267**	911	230	**0.68**	2.32	393	3.06	8.57
-25	-13	**367**	1253	316	**0.80**	2.74	457	3.25	11.85
-20	-4	**485**	1656	417	**0.93**	3.17	523	3.45	15.77
-15	5	**624**	2128	536	**1.06**	3.60	591	3.65	20.42
-10	14	**785**	2678	675	**1.19**	4.05	662	3.87	25.94

Model
SC12CLX.2 Configuration 4

Sales code:
104L2697

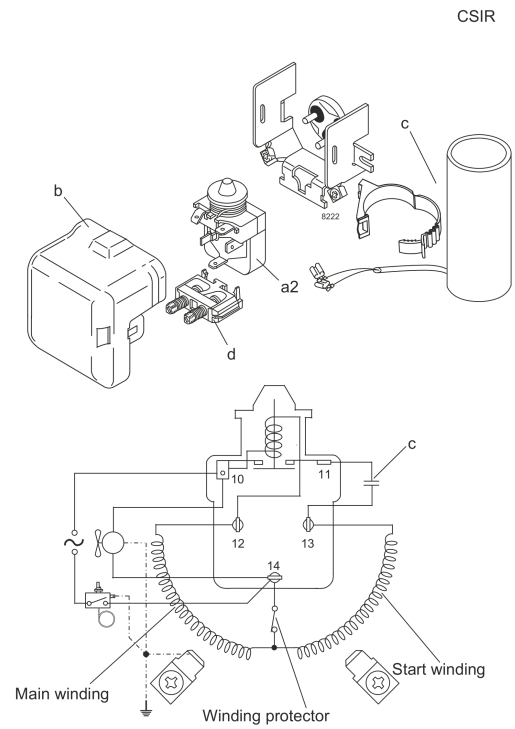
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/50 Hz 1~**
Refrigerant	**R452A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, KC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**23.4 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.4 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram

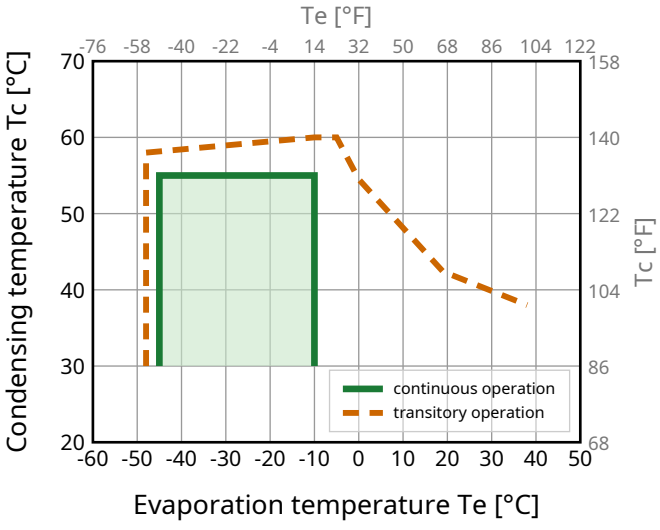


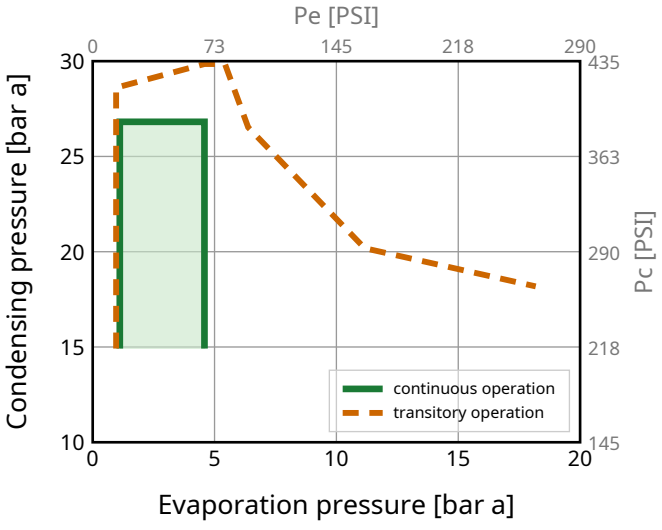
View full size

Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Alternative components
a2 relay 117U6019
c start capacitor i-pack 40# (80µF) 117U5067
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model

SC12CLX.2 Configuration 4

Sales code:

104L2697

Standard Conditions

R452A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**650**	2216	559	**1.18**	4.02	552	3.09	15.72	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**435**	1485	374	**0.83**	2.83	525	3.00	14.04	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**341**	1163	293	**0.94**	3.19	364	2.47	9.60	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**498**	1701	429	**0.93**	3.16	538	3.04	18.19	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**760**	2594	654	**1.47**	5.00	519	2.98	18.40	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**308**	1051	265	**0.84**	2.88	365	2.47	8.54	**opt LBP**

Performance Tables

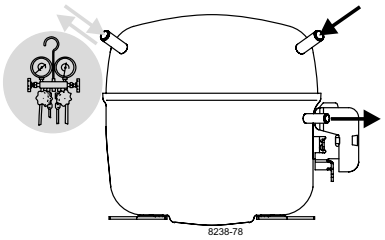
R452A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	**120**	408	103	**0.53**	1.79	227	2.01	3.29
-40	-40	**205**	701	177	**0.69**	2.36	297	2.24	5.67
-35	-31	**308**	1051	265	**0.84**	2.88	365	2.47	8.54
-30	-22	**430**	1469	370	**0.99**	3.38	434	2.70	11.98
-25	-13	**576**	1964	495	**1.14**	3.89	504	2.93	16.09
-20	-4	**746**	2545	642	**1.29**	4.41	578	3.17	20.98
-15	5	**945**	3224	813	**1.44**	4.92	655	3.43	26.76
-10	14	**1175**	4010	1011	**1.59**	5.43	738	3.70	33.56

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	**44**	151	38	**0.23**	0.77	195	1.91	1.40
-40	-40	**119**	406	102	**0.43**	1.45	280	2.19	3.79
-35	-31	**207**	707	178	**0.57**	1.95	362	2.46	6.61
-30	-22	**312**	1063	268	**0.70**	2.40	443	2.73	9.99
-25	-13	**435**	1485	374	**0.83**	2.83	525	3.00	14.04
-20	-4	**581**	1981	499	**0.95**	3.26	609	3.27	18.86
-15	5	**751**	2563	646	**1.08**	3.68	696	3.56	24.59
-10	14	**950**	3240	817	**1.21**	4.12	787	3.86	31.39



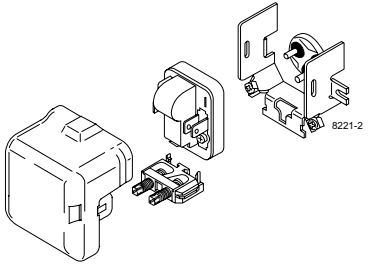
SC Compressors

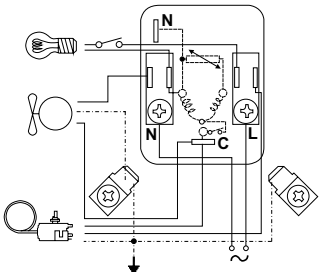
SECOP

Keep electrical equipment clear from oil, chemicals, and water

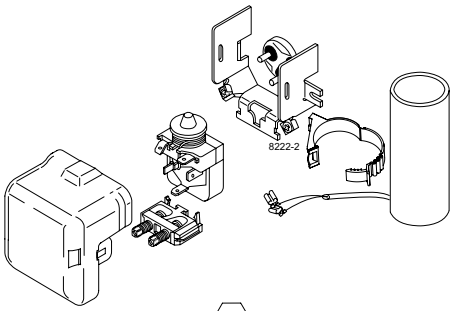
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

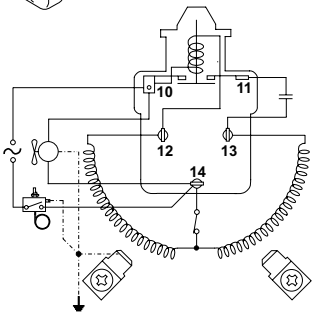
RSIR



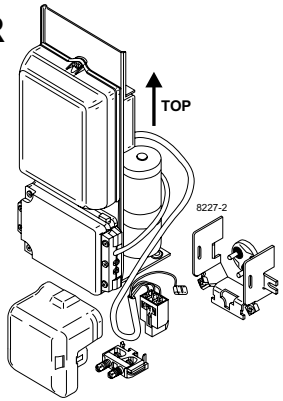


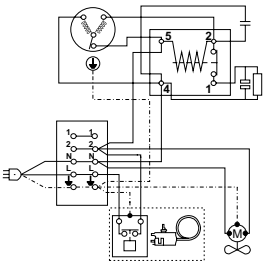
CSIR

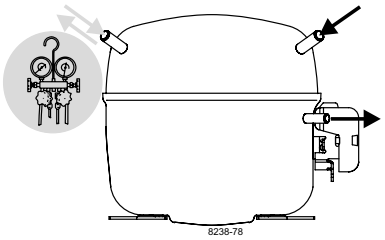




CSCR







SC Compressors

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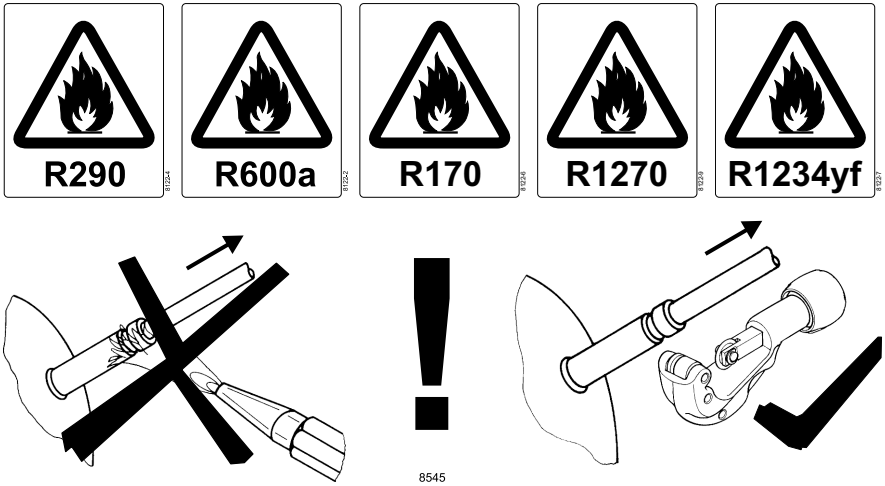
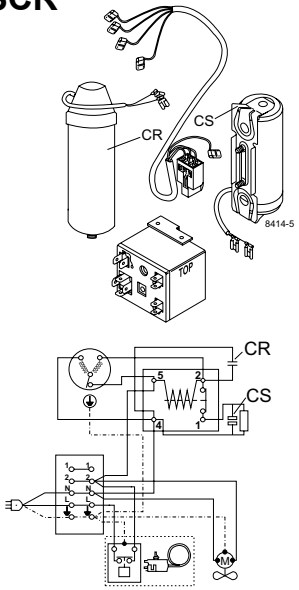
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



CSCR



Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**