

Model
GS21MLX

Sales code:
107B0502

Compressor Data

Refrigerant(s)	R404A / R452A
Refr. charge - tech. limit	2000g / 70.55oz
Weight	19.10 kg / 42.11lbs
Displacement	21.20 cm³ / 1.29cu.in
Compressors on pallet	48



General - Configurations With GS21MLX

-	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSCR	CSCR	CSCR	CSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz	220-240 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	VDE, CCC	VDE, CCC	-	-
Starting torque	HST	HST	HST	HST
Refrigerant	R404A	R452A	R448A	R449A
Application	MBP	MBP	MBP	MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

- Cover, clamp, gasket: pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

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Compressor Design

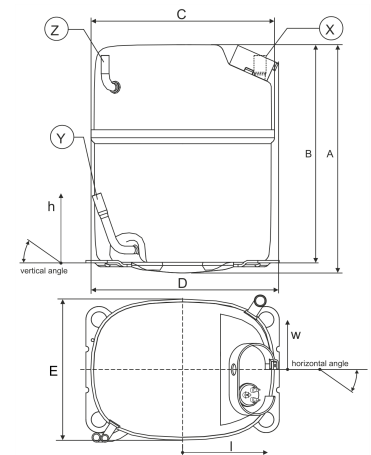
Oil type	POE	Motor protection	internal
Oil viscosity	32,5cSt	Winding resistance main	2.5 Ohm
Oil quantity	902 / 30.50fl.oz	Winding resistance aux	6.7 Ohm
Free gas volume comp.	3,350 cm ³ / 113.28fl.oz	Max. discharge temp.	120°C / 248°F

Compressor Dimensions

Housing

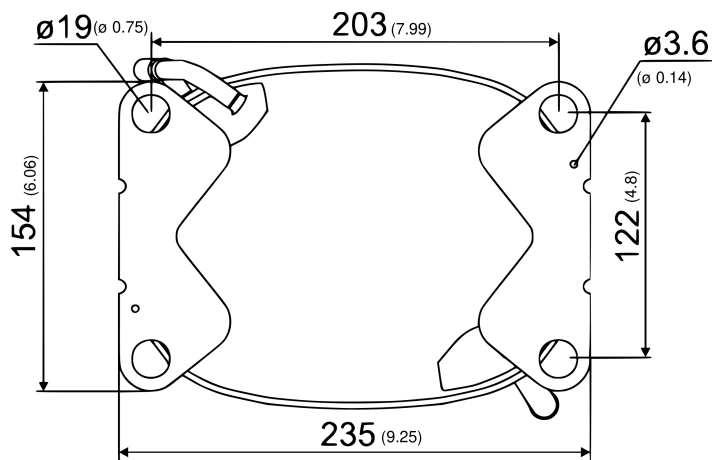
A Height	259mm / 10.20in
B Height	247mm / 9.72in
C Length shell	224mm / 8.82in
D Length w. cover	232mm / 9.13in
E Width	173mm / 6.81in

[Find 3D Model here](#)

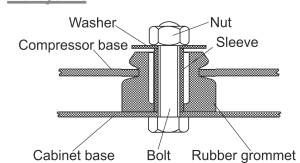


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 12.75–13.05 / 0.50–0.51in	øi 8.15–8.25 / 0.32–0.32in	øi 6.4–6.6 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	90°	71°	90°
Position l/h/w [mm]	-94.5/234/-84 / -3.72/9.21/-3.31in	-105/84/-84 / -4.13/3.31/-3.31in	94.5/234/84 / 3.72/9.21/3.31in
Straight tube l. [mm]	18 / 0.71in	22.5 / 0.89in	15 / 0.59in

Mounting Accessories



Bolt joint



Dimensions in mm [in]

	one comp.	multi pack
Bolt joint M8 ø19mm	107B9150	-

Model
GS21MLX

Configuration 1

Sales code:
107B0502

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC
Starting device type	relay
Run capacitor	20 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	24 A
RLA (rated load amps / 1s/ U(N))	4.7 A
Cut in current (U(N))	24 A

Ambient/ machine room temperatures minimum /maximum

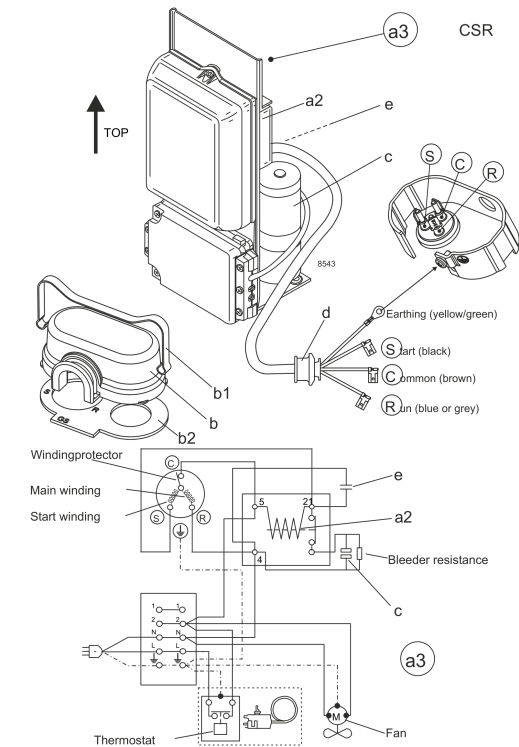
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components (cover, clamp, gasket: pre assembled)

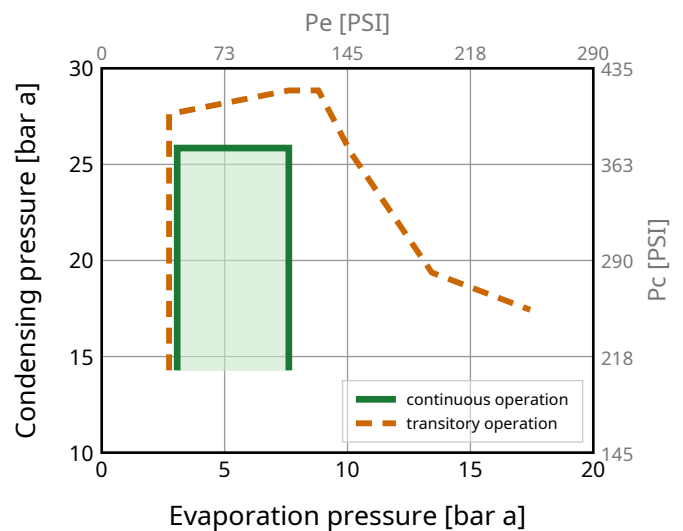
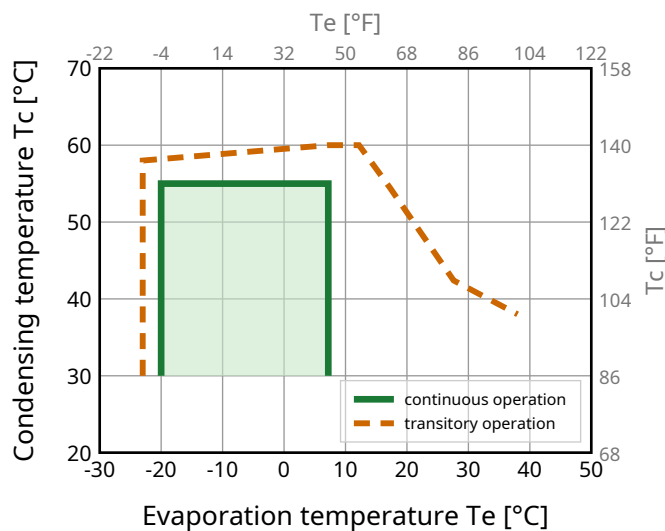
a3 GS starter kit (600mm) 117-7070

b cover 107B9101

b2 gasket 107B9100

b1 clamp 107B9104

Operation Pressure Range



Model
GS21MLX

Configuration 1

Sales code:
107B0502

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1982	6764	1705	1.79	6.10	1108	5.20	54.46	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1466	5002	1261	1.40	4.78	1046	4.91	46.85	CECOMAF MBP
-10 14	45 113	20 68	45 113	1748	5963	1503	1.81	6.18	965	4.56	52.55	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1825	6226	1569	1.73	5.91	1053	4.98	59.46	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1856	6332	1596	1.92	6.56	965	4.56	51.02	opt MBP 1
-25 -13	45 113	32 89.6	45 113	895	3055	770	1.27	4.34	704	3.40	24.10	opt MBP 2

Performance Tables

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

pc= 45/113 | RGT= 20/68 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	1096	3739	942	1.38	4.69	797	3.79	32.33
-15	5	1394	4755	1199	1.58	5.39	883	4.17	41.48
-10	14	1748	5963	1503	1.81	6.18	965	4.56	52.55
-5	23	2164	7384	1861	2.07	7.06	1046	4.95	65.87
0	32	2650	9041	2279	2.35	8.02	1128	5.34	81.84
5	41	3211	10955	2761	2.65	9.03	1212	5.74	100.91
7.2	45	3483	11885	2996	2.78	9.50	1252	5.91	110.44

pc= 55/131 | RGT= 20/68 | Tliq= 55/131 | °C/°F

-20	-4	847	2889	728	1.02	3.49	827	3.97	29.39
-15	5	1082	3692	931	1.15	3.93	939	4.44	37.94
-10	14	1360	4639	1169	1.30	4.44	1046	4.91	48.26
-5	23	1686	5752	1450	1.47	5.01	1149	5.39	60.71
0	32	2067	7053	1778	1.65	5.64	1250	5.87	75.74
5	41	2510	8564	2159	1.85	6.33	1353	6.35	93.90
7.2	45	2726	9301	2344	1.95	6.65	1400	6.56	103.06

Model
GS21MLX

Configuration 2

Sales code:
107B0502

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC
Starting device type	relay
Run capacitor	20 µF
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	24 A
RLA (rated load amps / 1s/ U(N))	4.7 A
Cut in current (U(N))	24 A

Ambient/ machine room temperatures minimum /maximum

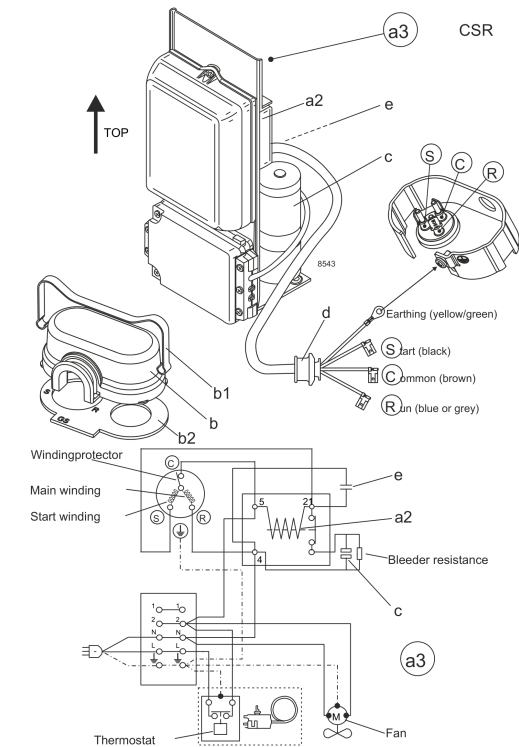
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components (cover, clamp, gasket: pre assembled)

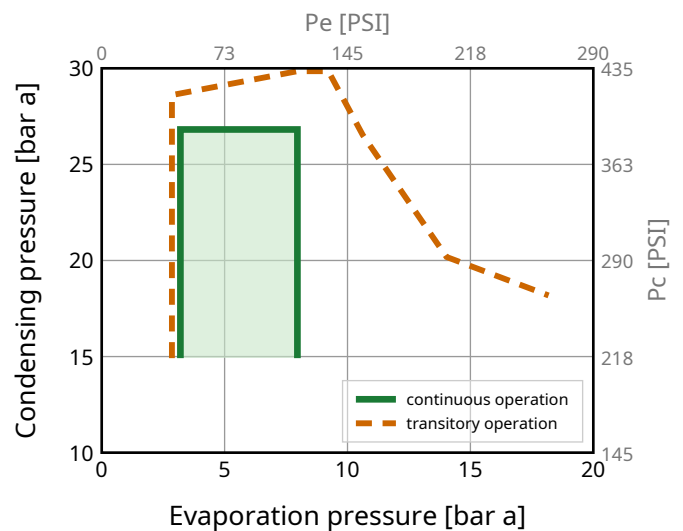
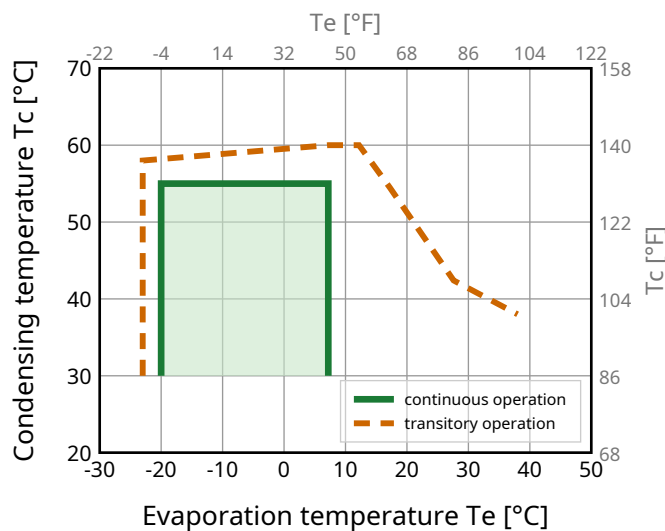
a3 GS starter kit (600mm) 117-7070

b cover 107B9101

b2 gasket 107B9100

b1 clamp 107B9104

Operation Pressure Range



Model
GS21MLX

Configuration 2

Sales code:
107B0502

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	2021	6896	1738	1.92	6.56	1051	5.88	57.65	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1492	5092	1283	1.51	5.15	988	5.61	49.33	CECOMAF MBP
-10 14	45 113	20 68	45 113	1746	5958	1502	1.91	6.52	914	5.29	54.47	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1847	6302	1589	1.85	6.30	1001	5.67	62.34	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1852	6319	1593	2.03	6.91	914	5.29	52.88	opt MBP 1
-25 -13	45 113	32 89.6	45 113	870	2968	748	1.33	4.53	655	4.18	24.32	opt MBP 2

Performance Tables

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

pc= 45/113 | RGT= 20/68 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	1076	3673	926	1.44	4.93	746	4.57	32.95
-15	5	1381	4712	1188	1.66	5.67	831	4.94	42.64
-10	14	1746	5958	1502	1.91	6.52	914	5.29	54.47
-5	23	2180	7440	1875	2.19	7.47	996	5.65	68.85
0	32	2692	9187	2316	2.49	8.51	1080	6.01	86.25
5	41	3291	11228	2830	2.82	9.62	1167	6.38	107.26
7.2	45	3583	12226	3082	2.97	10.12	1208	6.56	117.83

pc= 55/131 | RGT= 20/68 | Tliq= 55/131 | °C/°F

-20	-4	846	2886	727	1.10	3.74	771	4.68	30.32
-15	5	1092	3727	939	1.24	4.22	882	5.16	39.55
-10	14	1386	4731	1192	1.40	4.79	988	5.61	50.81
-5	23	1737	5927	1494	1.59	5.43	1092	6.06	64.57
0	32	2152	7344	1851	1.80	6.14	1196	6.51	81.38
5	41	2641	9010	2271	2.03	6.92	1302	6.96	101.92
7.2	45	2881	9830	2478	2.13	7.28	1350	7.17	112.35

Model
GS21MLX

Configuration 3

Sales code:
107B0502

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R448A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Starting device type	relay
Run capacitor	20 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	24 A
RLA (rated load amps / 1s/ U(N))	4.7 A
Cut in current (U(N))	24 A

Ambient/ machine room temperatures minimum /maximum

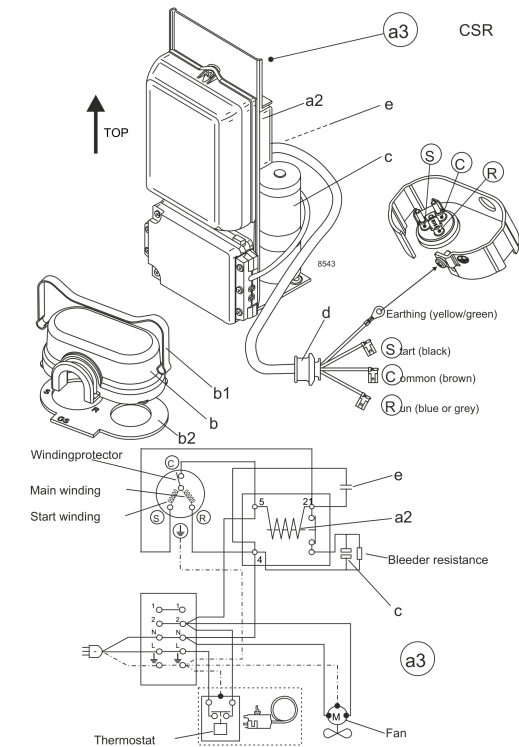
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Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components (cover, clamp, gasket: pre assembled)

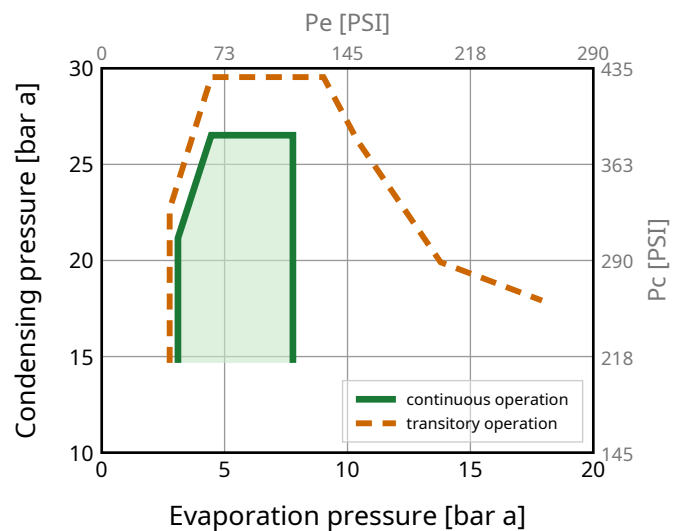
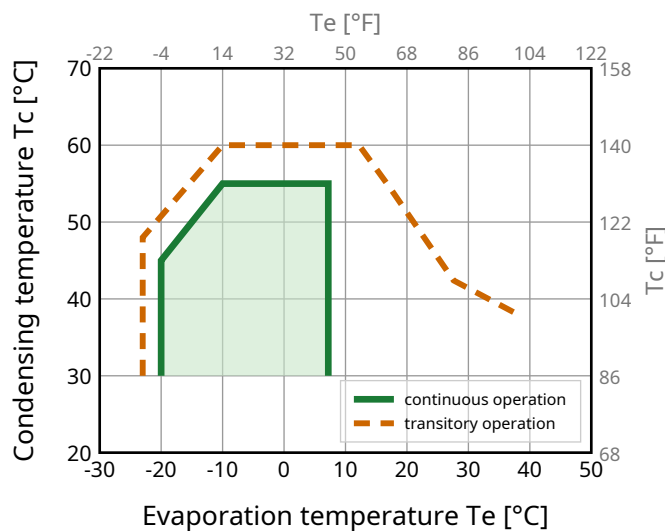
a3 GS starter kit (600mm) 117-7070

b cover 107B9101

b2 gasket 107B9100

b1 clamp 107B9104

Operation Pressure Range



Model
GS21MLX

Configuration 3

Sales code:
107B0502

Standard Conditions

R448A, 220 V/50 Hz, CSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1892	6457	1628	1.89	6.45	1001	4.73	41.89	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1435	4896	1234	1.53	5.22	938	4.45	35.65	CECOMAF MBP
-10 14	45 113	20 68	45 113	1672	5706	1438	1.93	6.58	867	4.14	39.69	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1800	6142	1548	1.89	6.45	952	4.51	45.49	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1741	5941	1497	2.01	6.85	867	4.14	38.53	opt MBP 1
-25 -13	45 113	32 89.6	45 113	795	2714	684	1.30	4.43	612	3.02	17.27	opt MBP 2

Performance Tables

R448A, 220 V/50 Hz, CSCR, fan 3m/s

pc= 45/113 | RGT= 20/68 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	1012	3455	871	1.44	4.93	701	3.41	23.63
-15	5	1311	4473	1128	1.67	5.69	785	3.78	30.84
-10	14	1672	5706	1438	1.93	6.58	867	4.14	39.69
-5	23	2105	7181	1810	2.22	7.57	949	4.50	50.50
0	32	2618	8932	2251	2.54	8.66	1032	4.87	63.64
5	41	3220	10987	2769	2.88	9.81	1120	5.25	79.51
7.2	45	3516	11997	3024	3.03	10.34	1160	5.43	87.50

pc= 55/131 | RGT= 20/68 | Tliq= 55/131 | °C/°F

-20	-4	816	2785	702	1.12	3.84	725	3.52	21.52
-15	5	1065	3635	916	1.28	4.36	834	3.99	28.34
-10	14	1366	4660	1175	1.46	4.97	938	4.45	36.72
-5	23	1727	5892	1485	1.66	5.66	1041	4.91	47.00
0	32	2157	7359	1855	1.88	6.43	1145	5.36	59.57
5	41	2665	9094	2292	2.13	7.26	1252	5.83	74.93
7.2	45	2916	9949	2508	2.24	7.65	1300	6.04	82.72

Model
GS21MLX

Configuration 4

Sales code:
107B0502

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R449A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Starting device type	relay
Run capacitor	20 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	24 A
RLA (rated load amps / 1s/ U(N))	4.7 A
Cut in current (U(N))	24 A

Ambient/ machine room temperatures minimum /maximum

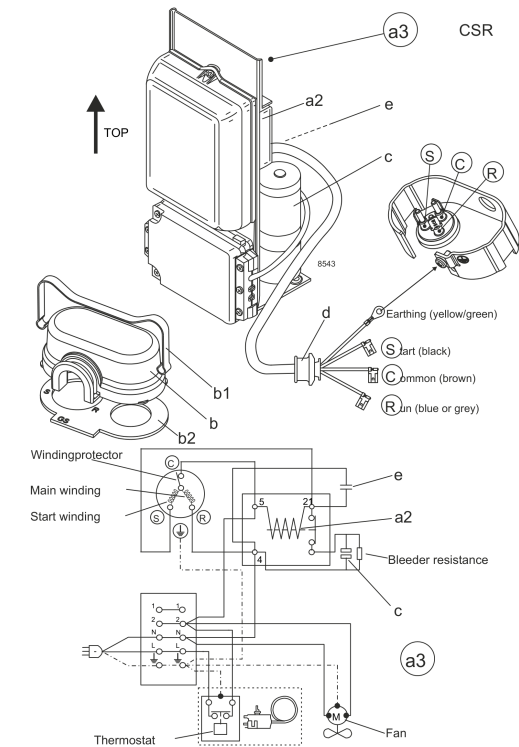
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Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components (cover, clamp, gasket: pre assembled)

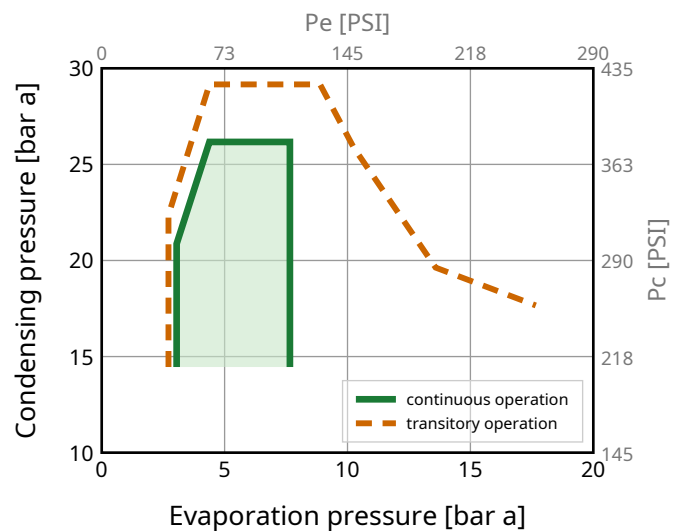
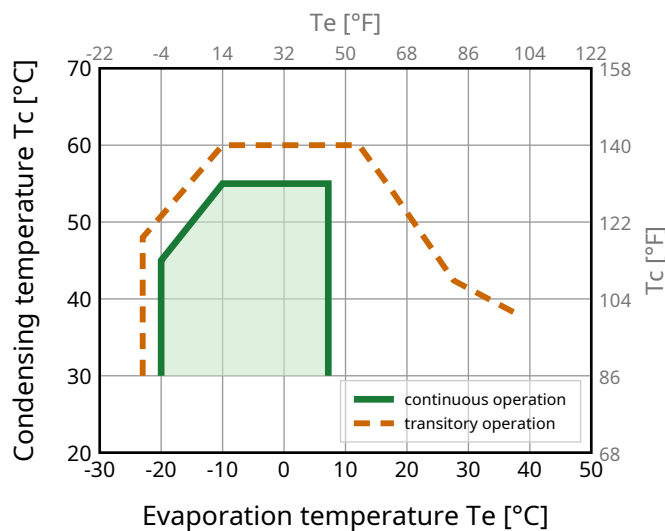
a3 GS starter kit (600mm) 117-7070

b cover 107B9101

b2 gasket 107B9100

b1 clamp 107B9104

Operation Pressure Range



Model
GS21MLX

Configuration 4

Sales code:
107B0502

Standard Conditions

R449A, 220 V/50 Hz, CSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1884	6427	1620	1.89	6.46	995	4.70	42.12	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1427	4869	1227	1.53	5.22	933	4.43	35.86	CECOMAF MBP
-10 14	45 113	20 68	45 113	1663	5675	1430	1.93	6.57	863	4.12	39.92	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1789	6105	1539	1.89	6.45	947	4.49	45.74	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1733	5914	1491	2.01	6.85	863	4.12	38.75	opt MBP 1
-25 -13	45 113	32 89.6	45 113	793	2705	682	1.30	4.43	610	3.01	17.40	opt MBP 2

Performance Tables

R449A, 220 V/50 Hz, CSCR, fan 3m/s

pc= 45/113 | RGT= 20/68 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	1008	3439	867	1.44	4.92	699	3.40	23.79
-15	5	1305	4452	1122	1.67	5.69	782	3.77	31.02
-10	14	1663	5675	1430	1.93	6.57	863	4.12	39.92
-5	23	2093	7141	1800	2.22	7.56	944	4.48	50.77
0	32	2602	8879	2238	2.54	8.65	1026	4.84	63.96
5	41	3201	10920	2753	2.88	9.82	1112	5.22	79.90
7.2	45	3494	11923	3005	3.03	10.35	1152	5.39	87.92

pc= 55/131 | RGT= 20/68 | Tliq= 55/131 | °C/°F

-20	-4	812	2770	698	1.12	3.83	723	3.50	21.67
-15	5	1059	3613	911	1.28	4.35	830	3.98	28.52
-10	14	1357	4631	1167	1.45	4.96	933	4.43	36.93
-5	23	1715	5852	1475	1.66	5.65	1035	4.88	47.25
0	32	2142	7308	1842	1.88	6.43	1137	5.33	59.88
5	41	2646	9029	2276	2.13	7.27	1242	5.79	75.31
7.2	45	2895	9878	2490	2.25	7.66	1289	6.00	83.13