

Model

Designation	TL5G	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code:	102G4567
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	32cST	Displacement	5,08cm ³ / 0,31cu.in
Oil quantity	300cm ³ / 10,1fl.oz	Compressors on pallet	125
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1690cm ³ / 57,1fl.oz		
Weight	7,5kg / 16,5lbs		
Motor protection	1# internal		
Winding resistance main	14,5Ω (at 25°C)		
Winding resistance aux	14,8Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with TL5G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	RSIR	CSIR	RSIR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	208-230V/60Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	187-254V	198-254V	198-254V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC	VDE, CCC, EAC	VDE, CCC, EAC
Starting torque	LST	HST	LST	HST
Note	- / -			

Applications with TL5G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R134a	R134a	R134a	R134a
Application	LBP+MBP+HBP	LBP+MBP+HBP	LBP	LBP
System cooling	static	static	static	static
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Electrical data - Configurations with TL5G

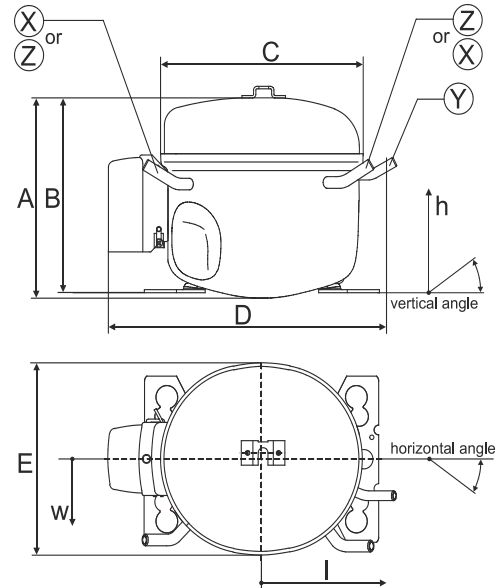
	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	PTC	relay	PTC	relay
Run capacitor	-/-	-/-	-/-	-/-
Start capacitor	-/-	60μF	-/-	60μF
LRA (locked rotor amps / 4s)	5,4A	5,7A	5,4A	5,7A
RLA (rated load amps / 1s)	1,1A	1,1A	1,1A	1,1A
Cut in current	9,7A	9,7A	9,7A	9,7A

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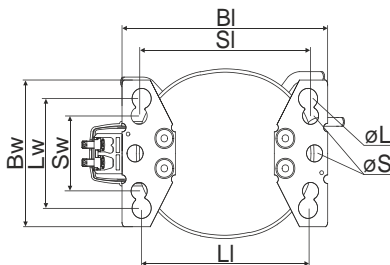
Compressor dimensions

Housing	A Height	174mm / 6,85in
	B Height	170mm / 6,69in
	C Length shell	176mm / 6,93in
	D Length w. cover	222mm / 8,74in
	E Width	157mm / 6,18in



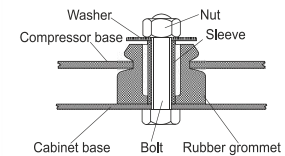
Connectors	Suction		Discharge		Process	
	X	Y	Z	X	Y	Z
Diameter [mm]	øi 6,11-6,29	øi 5,12-5,22	øi 6,11-6,29	øi 6,11-6,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,24-0,25	øi 0,2-0,21	øi 0,24-0,25	øi 0,24-0,25	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper	copper	copper	copper
Horizontal angle	±2°	0°	0°	0°	0°	0°
Vertical angle	±2°	150°	28°	31,5°	31,5°	31,5°
Position l/h/w [mm]	-102/105/66	117/108/30	96/105/71	-102/105/66	117/108/30	96/105/71
[in]	-4/4,1/2,6	4,6/4,3/1,2	3,8/4,1/2,8	-4/4,1/2,6	4,6/4,3/1,2	3,8/4,1/2,8
Straight tube l. [mm]	12	12	12	12	12	12
[in]	0,5	0,5	0,5	0,5	0,5	0,5

Compressor fixation

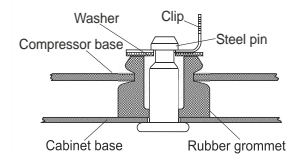


Baseplate	[mm]	[inch]
BI	204	8.03
BW	136	5.35
Large holes		
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63

Bolt joint



Snap-on



Mounting accessories	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

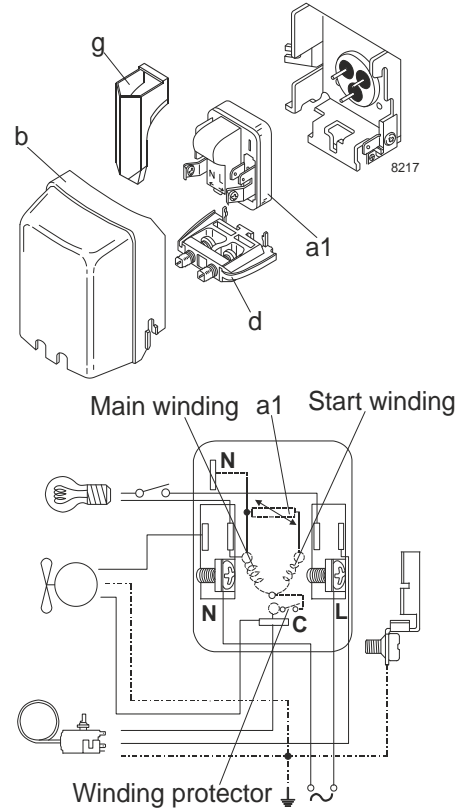
Designation **TL5G** **220-240V/50Hz** Conf. 1 Sales code: **102G4567**

Configuration

Motorconfiguration RSIR
 Power supply (nominal) 220-240V/50Hz 1~
 Refrigerant R134a
 Application LBP+MBP+HBP
 Voltage range 187-254V
 Starting torque LST
 Approvals VDE
 CCC
 EAC

Electrical accessories / wiring diagram

RSIR

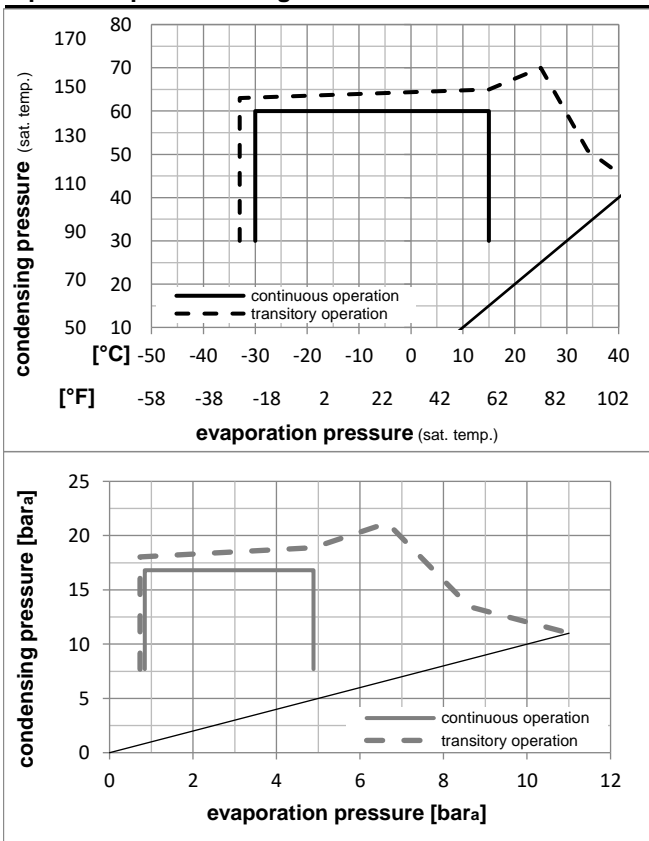


Ambient temperatures / system cooling

Ambient temperature min.: 10°C / 50°F
 Ambient temperature max.: 43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	static	fan 3m/s
38°C / 100°F	static	static	fan 3m/s
43°C / 110°F	static	static	fan 3m/s

Operation pressure range



Components

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components

a1	PTC starter (220V, 250hm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

Designation **TL5G 220-240V/50Hz** Conf. 1 Sales code: **102G4567**

Optimization + standard conditions

R134a, 220V/50Hz, RSIR, static, VDE, CCC, EAC

		Evaporating pressure (saturation temperature)			Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			Ref. mass flow ṁ	ASHRAE LBP
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I							[kg/h]			
[°C]	[°F]											[W]	[A]										
-23	54,4	32,2	32,2	108,5	371	93,4	1,03	3,53	0,89	105,1	0,98	2,11	ASHRAE LBP										
-10	130	90	90																				
-25	55	32	55	79,0	270	68,0	0,79	2,70	0,68	100,0	0,98	1,89	cecomaf LBP										
-13	131	89,6	131																				
-35	40	20	40	53,6	183	46,2	0,74	2,52	0,64	72,6	0,96	1,18	EN12900 LBP										
-31	104	68	104																				
-6,7	54,4	35	46,1	230,4	787	198,3	1,43	4,90	1,23	160,6	1,13	5,03	ASHRAE MBP										
20	130	95	115																				
-10	55	32	55	178,3	609	153,5	1,19	4,07	1,03	149,5	1,09	4,31	cecomaf MBP										
14	131	89,6	131																				
-10	45	20	45	200,4	684	172,4	1,42	4,86	1,23	140,7	1,05	4,69	EN12900 MBP										
14	113	68	113																				

Performance tables

R134a, 220V/50Hz, RSIR, static, VDE, CCC, EAC

	pe	Cooling capacity			COP			EER			P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C / °F]	-30	-22	69,7	238	60,0	0,82	2,81	0,71	84,7	0,95	1,51		
cond. pressure	-25	-13	95,2	325	81,9	0,97	3,32	0,84	98,0	0,97	2,06		
pc= 45/113	-15	5	163,4	558	140,6	1,30	4,43	1,12	126,0	1,02	3,56		
return gas temp.	-10	14	207,9	710	178,9	1,48	5,05	1,27	140,7	1,05	4,55		
RGT= 32/90	0	32	322,3	1101	277,4	1,88	6,41	1,62	171,7	1,15	7,13		
liquid temp	5	41	394,1	1346	339,1	2,10	7,16	1,80	187,9	1,21	8,77		
Tliq= 45/113	15	59	571,5	1952	491,8	2,57	8,79	2,22	222,0	1,36	12,94		
[°C / °F]	-30	-22	55,6	190	47,9	0,66	2,24	0,56	84,8	0,95	1,33		
cond. pressure	-25	-13	79,0	270	68,0	0,79	2,70	0,68	100,0	0,98	1,89		
pc= 55/131	-15	5	139,4	476	120,0	1,05	3,60	0,91	132,4	1,05	3,36		
return gas temp	-10	14	178,3	609	153,5	1,19	4,07	1,03	149,5	1,09	4,31		
RGT= 32/90	0	32	278,1	950	239,4	1,50	5,12	1,29	185,6	1,21	6,80		
liquid temp	5	41	340,9	1164	293,4	1,67	5,69	1,43	204,7	1,28	8,40		
Tliq= 55/131	15	59	496,9	1697	427,6	2,03	6,93	1,75	244,8	1,45	12,48		

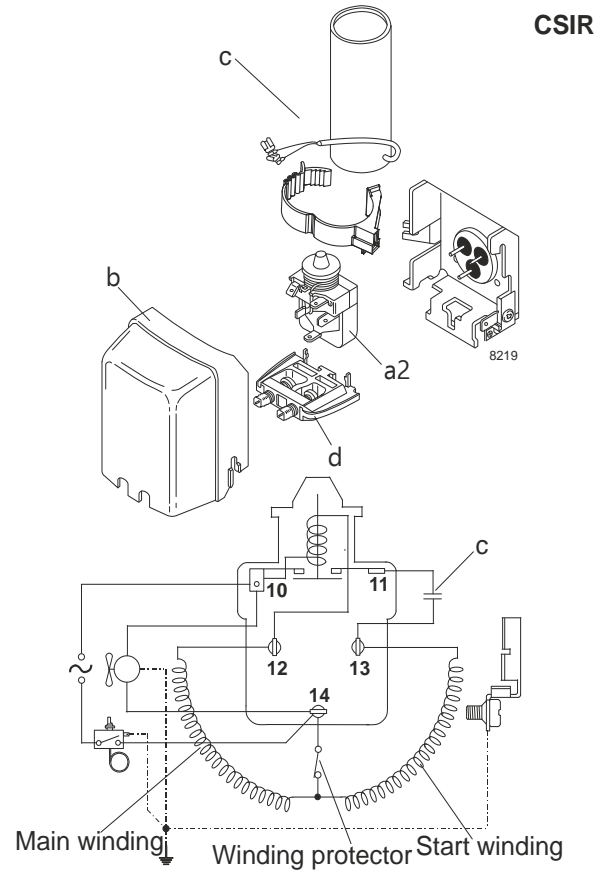
Model

Designation **TL5G** **220-240V/50Hz** **Conf. 2** Sales code: **102G4567**

Configuration

Motorconfiguration CSIR
 Power supply (nominal) 220-240V/50Hz 1~
 Refrigerant R134a
 Application LBP+MBP+HBP
 Voltage range 187-254V
 Starting torque HST
 Approvals VDE
 CCC
 EAC

Electrical accessories / wiring diagram

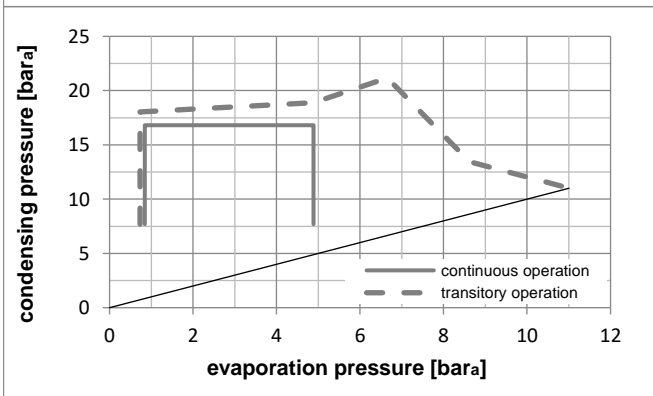
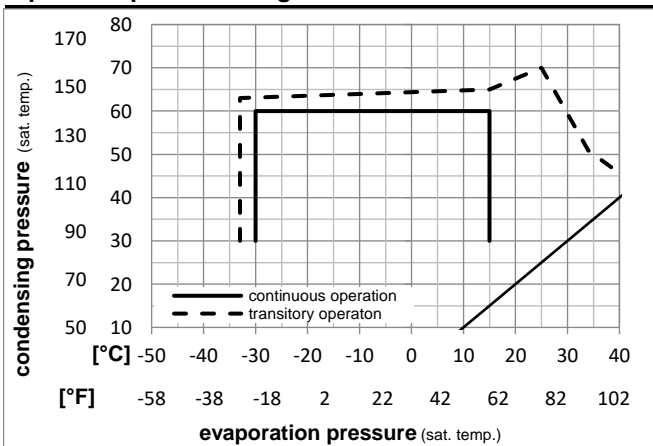


Ambient temperatures / system cooling

Ambient temperature min.: 10°C / 50°F
 Ambient temperature max.: 43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	static	fan 3m/s
38°C / 100°F	static	static	fan 3m/s
43°C / 110°F	static	static	fan 3m/s

Operation pressure range



Components

a2	relay	117U6000
c	start capacitor (60µF)	117U5014
d	cord relief	103N1010
b	plastic cover	103N2010

Alternative components

b	plastic cover	103N2011
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Model

Designation **TL5G 220-240V/50Hz** Conf. 2 Sales code: **102G4567**

Optimization + standard conditions

R134a, 220V/50Hz, CSIR, static, VDE, CCC, EAC

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)			Cooling capacity							Power consumption		Ref. mass flow ṁ	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	COP	EER	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I		
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
[°C]	-23	54,4	32,2	32,2	108,5	371	93,4	1,03	3,53	0,89	105,1	0,98	2,11	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	79,0	270	68,0	0,79	2,70	0,68	100,0	0,98	1,89	cecomaf LBP	
[°F]	-13	131	89,6	131											
[°C]	-35	40	20	40	53,6	183	46,2	0,74	2,52	0,64	72,6	0,96	1,18	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-6,7	54,4	35	46,1	230,4	787	198,3	1,43	4,90	1,23	160,6	1,13	5,03	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	178,3	609	153,5	1,19	4,07	1,03	149,5	1,09	4,31	cecomaf MBP	
[°F]	14	131	89,6	131											
[°C]	-10	45	20	45	200,4	684	172,4	1,42	4,86	1,23	140,7	1,05	4,69	EN12900 MBP	
[°F]	14	113	68	113											

Performance tables

R134a, 220V/50Hz, CSIR, static, VDE, CCC, EAC

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-30	-22	69,7	238	60,0	0,82	2,81	0,71	84,7	0,95	1,51
cond. pressure	-25	-13	95,2	325	81,9	0,97	3,32	0,84	98,0	0,97	2,06
pc= 45/113	-15	5	163,4	558	140,6	1,30	4,43	1,12	126,0	1,02	3,56
return gas temp.	-10	14	207,9	710	178,9	1,48	5,05	1,27	140,7	1,05	4,55
RGT= 32/90	0	32	322,3	1101	277,4	1,88	6,41	1,62	171,7	1,15	7,13
liquid temp	5	41	394,1	1346	339,1	2,10	7,16	1,80	187,9	1,21	8,77
Tliq= 45/113	15	59	571,5	1952	491,8	2,57	8,79	2,22	222,0	1,36	12,94
[°C / °F]	-30	-22	55,6	190	47,9	0,66	2,24	0,56	84,8	0,95	1,33
cond. pressure	-25	-13	79,0	270	68,0	0,79	2,70	0,68	100,0	0,98	1,89
pc= 55/131	-15	5	139,4	476	120,0	1,05	3,60	0,91	132,4	1,05	3,36
return gas temp	-10	14	178,3	609	153,5	1,19	4,07	1,03	149,5	1,09	4,31
RGT= 32/90	0	32	278,1	950	239,4	1,50	5,12	1,29	185,6	1,21	6,80
liquid temp	5	41	340,9	1164	293,4	1,67	5,69	1,43	204,7	1,28	8,40
Tliq= 55/131	15	59	496,9	1697	427,6	2,03	6,93	1,75	244,8	1,45	12,48

Model

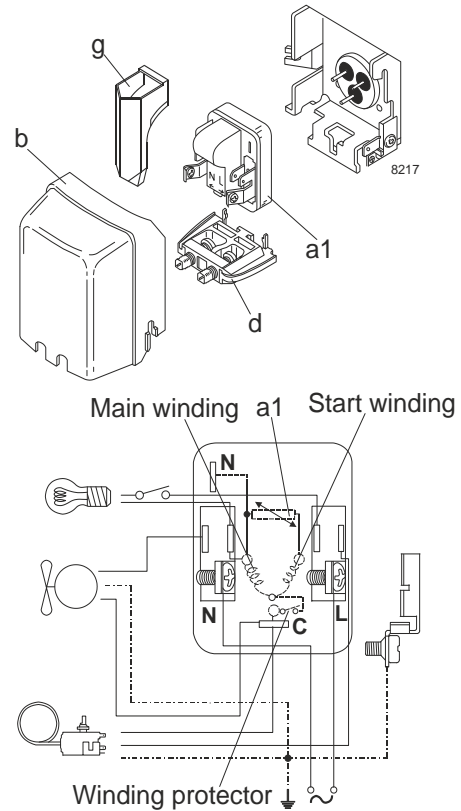
Designation	TL5G	208-230V/60Hz	Conf. 3	Sales code:	102G4567
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE
	CCC
	EAC

Electrical accessories / wiring diagram

RSIR



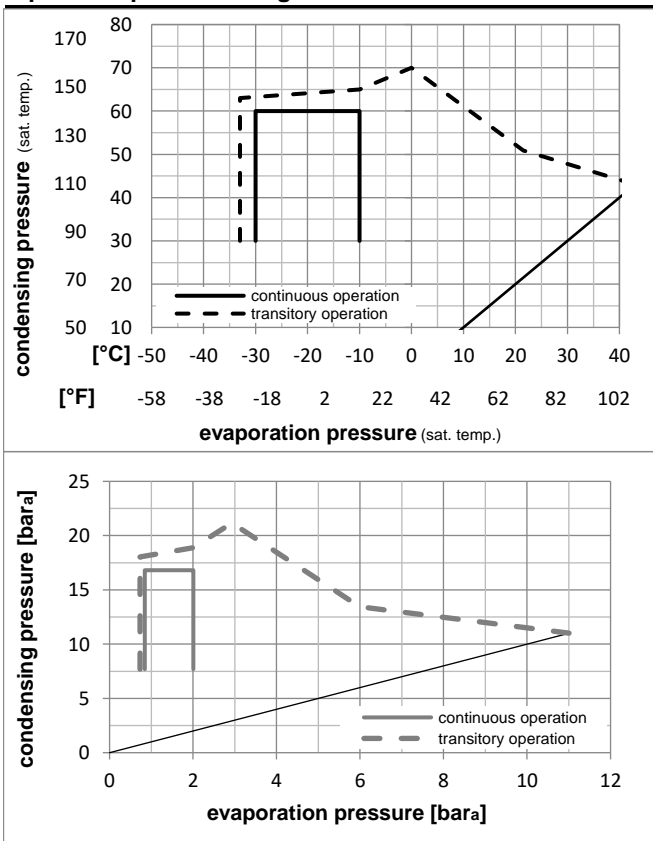
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)

T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	static	n/a	n/a

Operation pressure range



Components

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components

a1	PTC starter (220V, 250hm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

Designation **TL5G 208-230V/60Hz** Conf. 3 Sales code: **102G4567**

Optimization + standard conditions

R134a, 220V/60Hz, RSIR, static, VDE, CCC, EAC

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP		EER		Power consumption		Current consumption		Ref. mass flow	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]						
[°C]	-23	54,4	32,2	32,2	125,8	429	108,2	1,12	3,84	0,97	111,9	0,90	2,44	ASHRAE LBP							
[°F]	-10	130	90	90																	
[°C]	-25	55	32	55	91,5	312	78,7	0,87	2,95	0,74	105,7	0,88	2,19	cecomaf LBP							
[°F]	-13	131	89,6	131																	
[°C]	-35	40	20	40	64,1	219	55,1	0,85	2,90	0,73	75,5	0,81	1,41	EN12900 LBP							
[°F]	-31	104	68	104																	
[°C]	-6,7	54,4	35	46,1	267,0	912	229,8	1,45	4,94	1,24	184,8	1,13	5,83	ASHRAE MBP							
[°F]	20	130	95	115																	
[°C]	-10	55	32	55	206,8	706	178,0	1,22	4,16	1,05	169,8	1,08	5,00	cecomaf MBP							
[°F]	14	131	89,6	131																	
[°C]	-10	45	20	45	230,7	788	198,5	1,45	4,95	1,25	159,2	1,04	5,40	EN12900 MBP							
[°F]	14	113	68	113																	

Performance tables

R134a, 220V/60Hz, RSIR, static, VDE, CCC, EAC

	pe	Cooling capacity			COP		EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-30	-22	82,5	282	71,0	0,93	3,16	0,80	89,1	0,84	1,78
cond. pressure	-25	-13	111,9	382	96,3	1,06	3,64	0,92	105,1	0,87	2,43
pc= 45/113	-23	-10	123,3	421	106,1	1,11	3,79	0,96	110,9	0,89	2,67
return gas temp.	-20	-4	147,3	503	126,8	1,20	4,10	1,03	122,6	0,92	3,20
RGT= 32/90	-18	0	165,0	564	142,0	1,26	4,32	1,09	130,6	0,95	3,59
liquid temp	-15	5	189,5	647	163,1	1,35	4,60	1,16	140,8	0,98	4,13
Tliq= 45/113	-10	14	239,3	817	206,0	1,50	5,13	1,29	159,2	1,04	5,24
[°C / °F]	-30	-22	64,7	221	55,7	0,73	2,49	0,63	88,7	0,83	1,54
cond. pressure	-25	-13	91,5	312	78,7	0,87	2,95	0,74	105,7	0,88	2,19
pc= 55/131	-23	-10	101,7	347	87,5	0,91	3,10	0,78	112,1	0,90	2,43
return gas temp	-20	-4	123,5	422	106,3	0,99	3,36	0,85	125,3	0,94	2,96
RGT= 32/90	-18	0	139,5	476	120,0	1,04	3,54	0,89	134,6	0,97	3,35
liquid temp	-15	5	161,6	552	139,1	1,10	3,76	0,95	146,9	1,01	3,89
Tliq= 55/131	-10	14	206,8	706	178,0	1,22	4,16	1,05	169,8	1,08	5,00

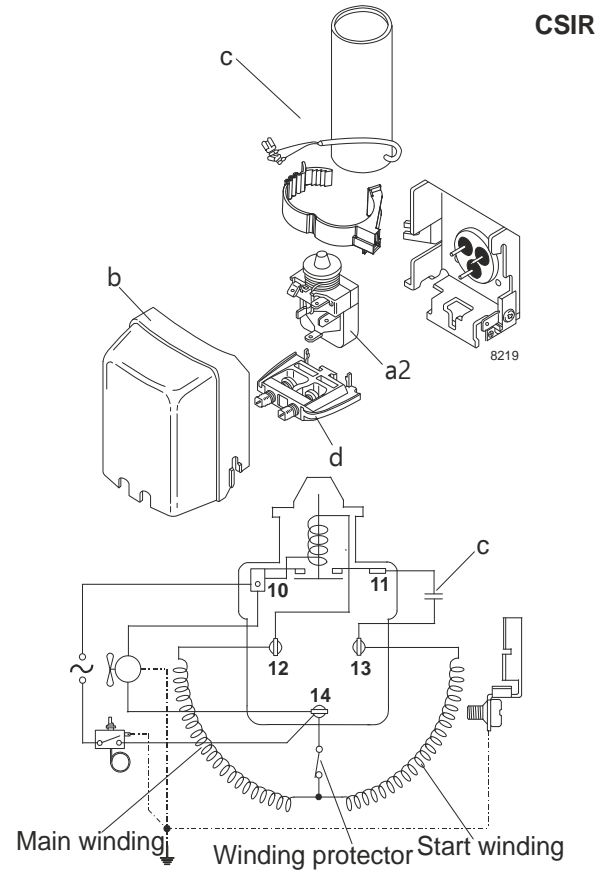
Model

Designation	TL5G	208-230V/60Hz	Conf. 4	Sales code:	102G4567
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE
	CCC
	EAC

Electrical accessories / wiring diagram



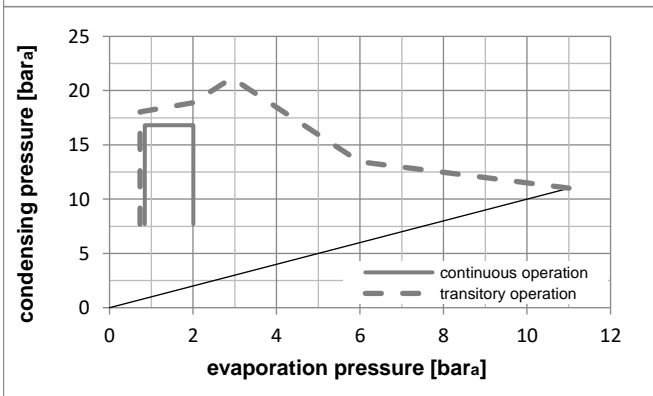
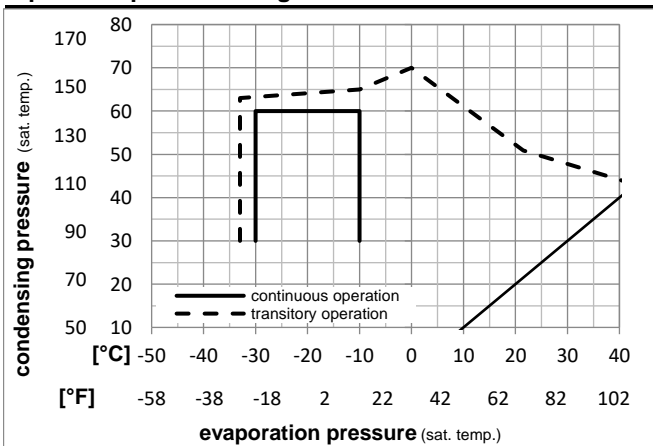
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)

T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	static	n/a	n/a

Operation pressure range



Components

a2	relay	117U6000
c	start capacitor (60µF)	117U5014
d	cord relief	103N1010
b	plastic cover	103N2010

Alternative components

b	plastic cover	103N2011
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Model

Designation **TL5G 208-230V/60Hz** Conf. 4 Sales code: **102G4567**

Optimization + standard conditions

R134a, 220V/60Hz, CSIR, static, VDE, CCC, EAC

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Power consumption									ASHRAE LBP			
		Return gas temp.		Liquid temp.		Cooling capacity			COP		EER		P1			Current consumption		Ref. mass flow ṁ
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]						
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]					
-23	54,4	32,2	32,2	125,8	429	108,2	1,12	3,84	0,97	111,9	0,90	2,44						
-10	130	90	90															
-25	55	32	55	91,5	312	78,7	0,87	2,95	0,74	105,7	0,88	2,19	cecomaf LBP					
-13	131	89,6	131															
-35	40	20	40	64,1	219	55,1	0,85	2,90	0,73	75,5	0,81	1,41	EN12900 LBP					
-31	104	68	104															
-6,7	54,4	35	46,1	267,0	912	229,8	1,45	4,94	1,24	184,8	1,13	5,83	ASHRAE MBP					
20	130	95	115															
-10	55	32	55	206,8	706	178,0	1,22	4,16	1,05	169,8	1,08	5,00	cecomaf MBP					
14	131	89,6	131															
-10	45	20	45	230,7	788	198,5	1,45	4,95	1,25	159,2	1,04	5,40	EN12900 MBP					
14	113	68	113															

Performance tables

R134a, 220V/60Hz, CSIR, static, VDE, CCC, EAC

	pe	Cooling capacity			COP		EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-30	-22	82,5	282	71,0	0,93	3,16	0,80	89,1	0,84	1,78
cond. pressure	-25	-13	111,9	382	96,3	1,06	3,64	0,92	105,1	0,87	2,43
pc= 45/113	-23	-10	123,3	421	106,1	1,11	3,79	0,96	110,9	0,89	2,67
return gas temp.	-20	-4	147,3	503	126,8	1,20	4,10	1,03	122,6	0,92	3,20
RGT= 32/90	-18	0	165,0	564	142,0	1,26	4,32	1,09	130,6	0,95	3,59
liquid temp	-15	5	189,5	647	163,1	1,35	4,60	1,16	140,8	0,98	4,13
Tliq= 45/113	-10	14	239,3	817	206,0	1,50	5,13	1,29	159,2	1,04	5,24
[°C / °F]	-30	-22	64,7	221	55,7	0,73	2,49	0,63	88,7	0,83	1,54
cond. pressure	-25	-13	91,5	312	78,7	0,87	2,95	0,74	105,7	0,88	2,19
pc= 55/131	-23	-10	101,7	347	87,5	0,91	3,10	0,78	112,1	0,90	2,43
return gas temp	-20	-4	123,5	422	106,3	0,99	3,36	0,85	125,3	0,94	2,96
RGT= 32/90	-18	0	139,5	476	120,0	1,04	3,54	0,89	134,6	0,97	3,35
liquid temp	-15	5	161,6	552	139,1	1,10	3,76	0,95	146,9	1,01	3,89
Tliq= 55/131	-10	14	206,8	706	178,0	1,22	4,16	1,05	169,8	1,08	5,00