

## Single Pack TL4G 100-115V 50/60Hz CSIR

Single pack code number: **195B4066**

Position	Title	Code	Amount
1	Compressor TL4G	102G3465	1
2	Bolt joint for one compressor   M6   ø16mm	118-1917	1

## Model

Designation	<b>TL4G</b>	100-115V/50Hz 1~ 100-115V/60Hz 1~	Sales code:	<b>102G3465</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a, R513A, 0</b>
Oil viscosity	15cST	Displacement	3,86cm <sup>3</sup> / 0,24cu.in
Oil quantity	285cm <sup>3</sup> / 9,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1600cm <sup>3</sup> / 54,1fl.oz		
Weight	7,5kg / 16,5lbs		
Motor protection	1# internal		
Winding resistance main	3,2Ω (at 25°C)		
Winding resistance aux	3,4Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with TL4G

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	CSIR
Power supply (nominal)	100-115V/50Hz	115V/60Hz
Number of phases	1	1
Voltage range	90-127V	90-135V
Approvals	UL	UL
Starting torque	HST	HST
Note	Electrical equipment is included and pre-assembled to compressor.	

## Applications with TL4G

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R134a	R134a
Application	LBP+MBP+HBP	LBP+MBP+HBP
System cooling	static	static
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

## Electrical data - Configurations with TL4G

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	240μF	240μF
LRA (locked rotor amps / 4s/ U(N))	14,2A	
RLA (rated load amps / 1s/ U(N))	2,5A	-/-A
Cut in current (U(N))	22,6A	

## Model

Designation

**TL4G**

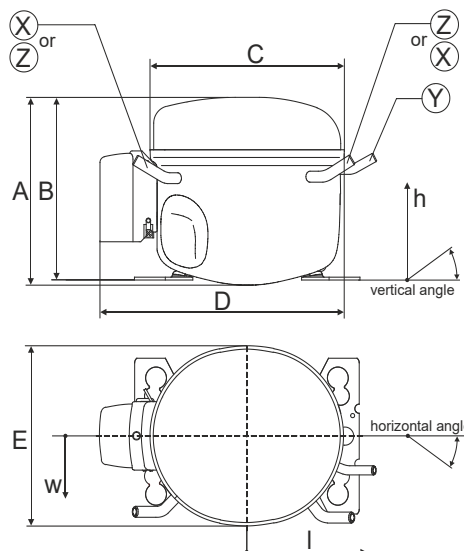
100-115V/50Hz 1~ 100-115V/60Hz 1~

Sales code:

**102G3465**

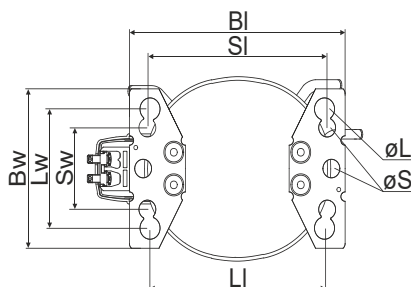
## Compressor dimensions

<b>Housing</b>	A Height	174mm / 6,85in
	B Height	168mm / 6,61in
	C Length shell	176mm / 6,93in
	D Length w. cover	222mm / 8,74in
	E Width	156mm / 6,14in



Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,41-6,59	øi 5,12-5,22	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,25-0,26	øi 0,2-0,21	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	150°	28°	31,5°
Position l/h/w	[mm]	-102/105/66	117/108/30	95/105/71
	[in]	-4/4,1/2,6	4,6/4,3/1,2	3,7/4,1/2,8
Straight tube l.	[mm]	12	12	12
	[in]	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

## Application notes

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

### Model

Designation	<b>TL4G</b>	<b>100-115V/50Hz</b>	Conf. 1	Sales code:	<b>102G3465</b>
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### Configuration

Motorconfiguration	CSIR
Power supply (nominal)	100-115V/50Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	90-127V
Starting torque	HST
Approvals	UL

### Electrical accessories / wiring diagram



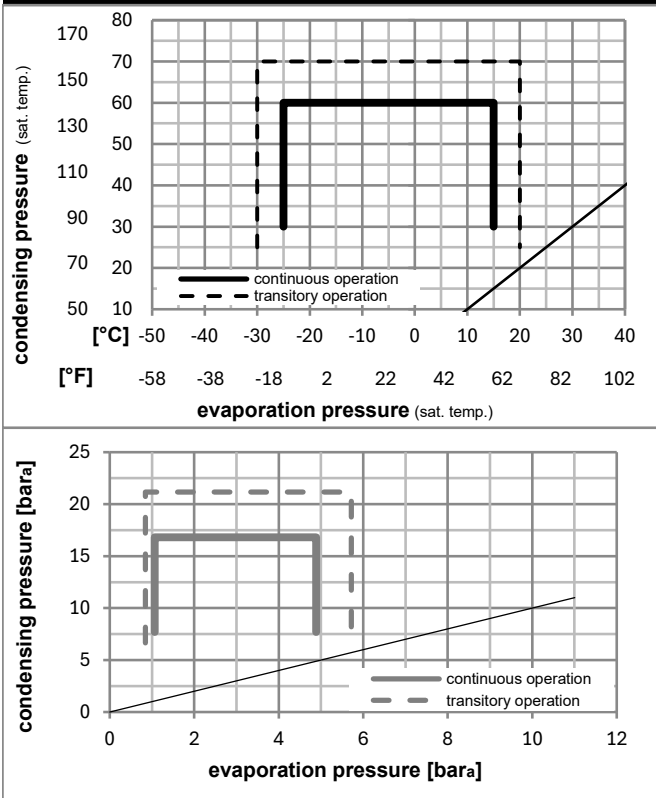
### Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: static

### Operation pressure range



### Components (already pre-assembled)

a2	assy. relay	117U6003
c	start capacitor (240µF)	117U5023
b	plastic cover	103N2011
d	cord relief	103N1010

## Model

Designation	<b>TL4G</b>	<b>100-115V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>102G3465</b>
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## Optimization + standard conditions

R134a, 115V/50Hz, CSIR, static, UL

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity			COP	EER	P1	Power consumption		Ref. mass flow	ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]			[W/W]	[Btu/Wh]	[kcal/Wh]				[W]	I		
[°C]	-23	54	32	32	74,6	255	64,2	0,78	2,66	0,67	95,7	1,75	1,45						
[°F]	-10	130	90	90															
[°C]	-7	54	35	46	179,6	613	154,6	1,22	4,17	1,05	147,3	1,96	3,92					ASHRAE MBP	
[°F]	20	130	95	115															
[°C]	7,2	54	35	46	337,4	1152	290,4	1,71	5,85	1,47	197,0	2,41	7,49					ASHRAE HBP	
[°F]	45	130	95	115															
[°C]	-35	40	20	40	28,3	97	24,4	0,35	1,20	0,30	80,7	1,68	0,62					EN12900 LBP	
[°F]	-31	104	68	104															
[°C]	-10	45	20	45	163,0	557	140,3	1,24	4,25	1,07	130,9	1,89	3,82					EN12900 MBP	
[°F]	14	113	68	113															
[°C]	5	50	20	50	288,8	986	248,6	1,57	5,38	1,35	183,5	2,29	7,28					EN12900 HBP	
[°F]	41	122	68	122															

## Performance tables

R134a, 115V/50Hz, CSIR, static, UL

	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]	-25	-13	68,1	233	58,6	0,73	2,48	0,62	93,9	1,75	1,48			
cond. pressure	-23	-10	76,8	262	66,1	0,79	2,69	0,68	97,4	1,76	1,67			
pc= 45/113	-9	15	173,9	594	149,6	1,31	4,48	1,13	132,5	1,90	3,81			
return gas temp.	-4	25	226,3	773	194,8	1,52	5,19	1,31	148,8	2,00	4,98			
RGT= 32/90	0	32	268,2	916	230,8	1,67	5,70	1,44	160,7	2,09	5,93			
liquid temp	4,4	40	321,7	1099	276,8	1,84	6,30	1,59	174,5	2,22	7,16			
Tliq= 45/113	15	59	474,1	1619	408,0	2,29	7,82	1,97	207,1	2,68	10,74			
[°C / °F]	-25	-13	53,7	183	46,2	0,59	2,01	0,51	91,1	1,73	1,28			
cond. pressure	-23	-10	60,3	206	51,9	0,63	2,16	0,54	95,4	1,75	1,44			
pc= 55/131	-9	15	140,2	479	120,6	1,02	3,47	0,87	137,9	1,91	3,39			
return gas temp	-4	25	185,8	635	159,9	1,18	4,03	1,02	157,3	2,03	4,52			
RGT= 32/90	0	32	222,9	761	191,9	1,30	4,45	1,12	171,2	2,14	5,45			
liquid temp	4,4	40	271,0	925	233,2	1,45	4,94	1,24	187,5	2,30	6,67			
Tliq= 55/131	15	59	410,7	1403	353,5	1,82	6,21	1,56	225,9	2,84	10,32			

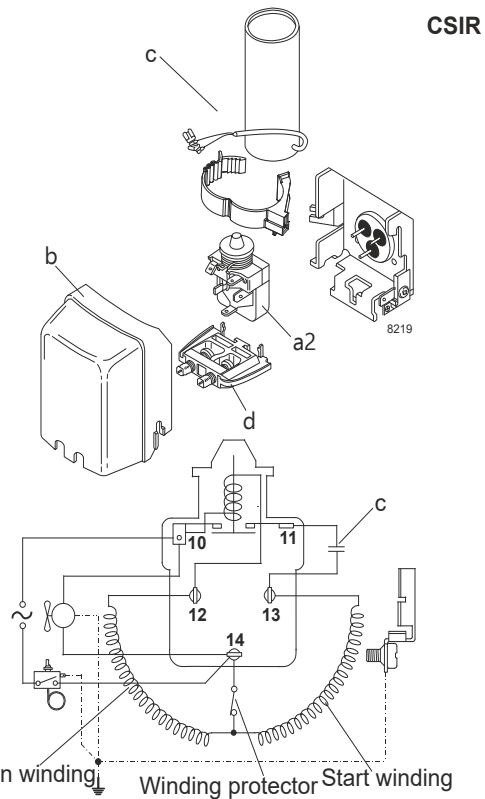
## Model

Designation	<b>TL4G</b>	<b>115V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>102G3465</b>
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	90-135V
Starting torque	HST
Approvals	UL

## Electrical accessories / wiring diagram



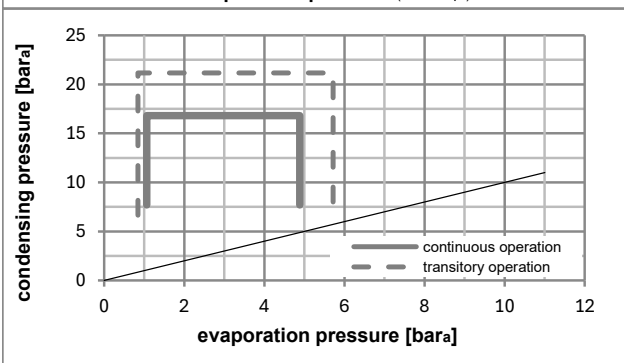
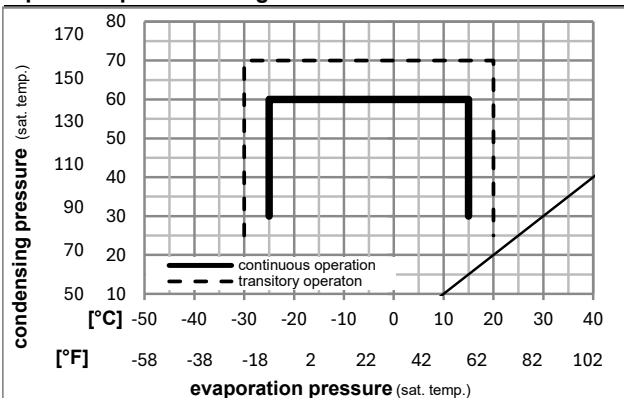
## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: static

## Operation pressure range



## Components (already pre-assembled)

a2	assy. relay	117U6003
c	start capacitor (240μF)	117U5023
b	plastic cover	103N2011
d	cord relief	103N1010

## Model

Designation	<b>TL4G</b>	<b>115V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>102G3465</b>
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## Optimization + standard conditions

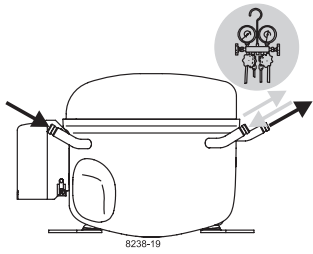
R134a, 115V/60Hz, CSIR, static, UL

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m		
	[°C]	[°C]	[°C]	[°C]				[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	89,5	306	77,0	0,94	3,19	0,81	95,7	1,75	1,74	ASHRAE LBP
	[°F]													
	-10	130	90	90										
	[°C]													
	-7	54	35	46	215,6	736	185,5	1,46	5,00	1,26	147,3	1,96	4,70	ASHRAE MBP
	[°F]													
	20	130	95	115										
	[°C]													
	7,2	54	35	46	404,9	1383	348,5	2,06	7,02	1,77	197,0	2,41	8,98	ASHRAE HBP
	[°F]													
	45	130	95	115										
	[°C]													
	-35	40	20	40	34,0	116	29,2	0,42	1,44	0,36	80,7	1,68	0,75	EN12900 LBP
	[°F]													
	-31	104	68	104										
	[°C]													
	-10	45	20	45	195,6	668	168,3	1,49	5,10	1,29	130,9	1,89	4,58	EN12900 MBP
	[°F]													
	14	113	68	113										
	[°C]													
	5	50	20	50	346,6	1184	298,3	1,89	6,45	1,63	183,5	2,29	8,73	EN12900 HBP
	[°F]													
	41	122	68	122										
	[°C]													

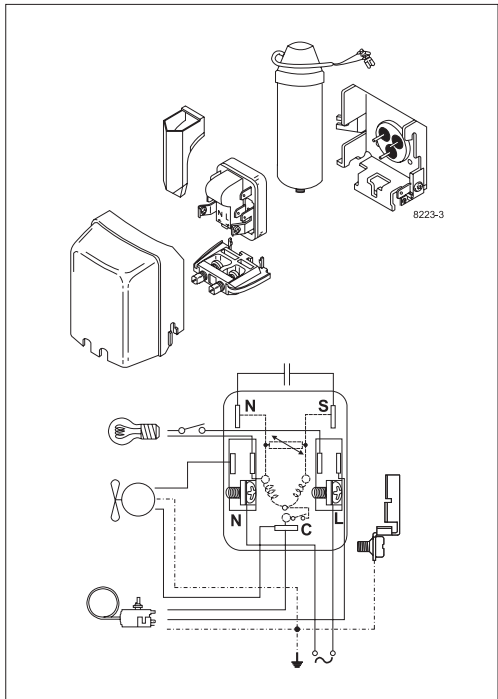
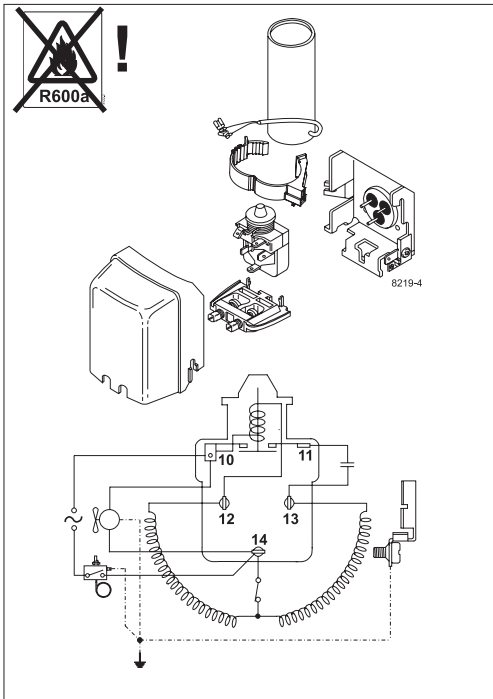
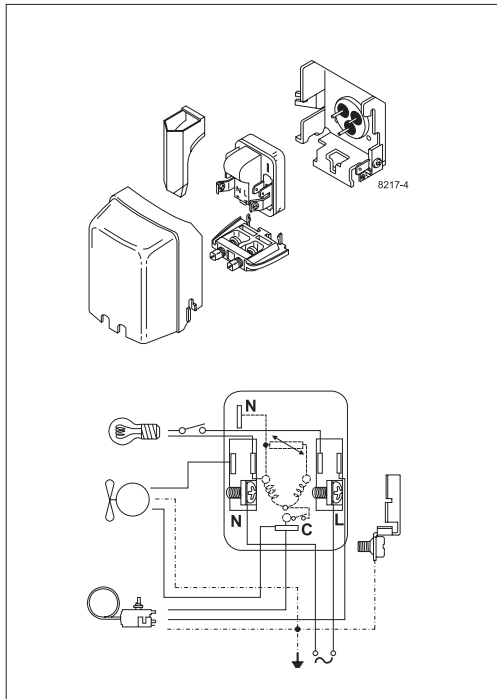
## Performance tables

R134a, 115V/60Hz, CSIR, static, UL

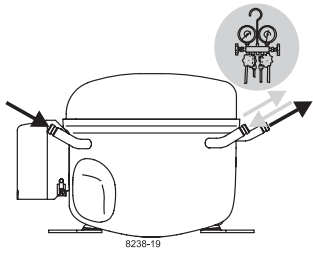
	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						
[°C / °F]	-25	-13	81,7	279	70,3	0,87	2,97	0,75	93,9	1,75	1,77
cond. pressure	-23	-10	92,2	315	79,3	0,95	3,23	0,81	97,4	1,76	2,00
pc= 45/113	-9	15	208,7	713	179,6	1,57	5,38	1,36	132,5	1,90	4,57
return gas temp.	-4	25	271,6	928	233,7	1,82	6,23	1,57	148,8	2,00	5,98
RGT= 32/90	0	32	321,9	1099	277,0	2,00	6,84	1,72	160,7	2,09	7,12
liquid temp	4,4	40	386,0	1318	332,2	2,21	7,55	1,90	174,5	2,22	8,59
Tliq= 45/113	15	59	569,0	1943	489,7	2,75	9,38	2,36	207,1	2,68	12,89
[°C / °F]	-25	-13	64,4	220	55,4	0,71	2,41	0,61	91,1	1,73	1,54
cond. pressure	-23	-10	72,4	247	62,3	0,76	2,59	0,65	95,4	1,75	1,73
pc= 55/131	-9	15	168,2	574	144,7	1,22	4,16	1,05	137,9	1,91	4,07
return gas temp	-4	25	222,9	761	191,9	1,42	4,84	1,22	157,3	2,03	5,43
RGT= 32/90	0	32	267,5	914	230,2	1,56	5,34	1,34	171,2	2,14	6,54
liquid temp	4,4	40	325,2	1110	279,8	1,73	5,92	1,49	187,5	2,30	8,01
Tliq= 55/131	15	59	492,9	1683	424,2	2,18	7,45	1,88	225,9	2,84	12,38



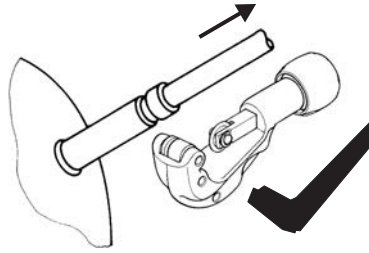
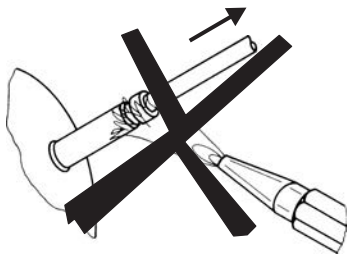
# TL Compressors







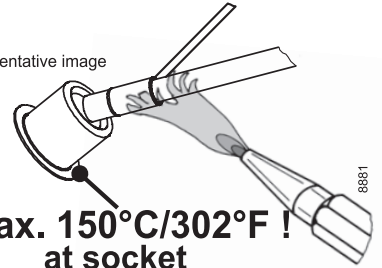
## Service/Repair – R600a, R290



8545

## Brazing on Suction Connectors (Direct Intake)

representative image



**! max. 150°C/302°F !  
at socket**

brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:  
**Brazing on Suction Connectors  
(Compressors with Direct Suction Intake)**

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