

Single Pack TLS3FT 220-240V 50Hz CSIR

Single pack code number: **195B4375**

Position	Title	Code	Amount
1	Compressor TLS3FT	102G4325	1
2	Starting relay	117U6004	1
3	Starting capacitor (60 μ F 220V, 6.3mm)	117U5014	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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Model

Designation	TLS3FT	220-240V/50Hz 1~	Sales code:	102G4325
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	15cST	Displacement	3,13cm ³ / 0,19cu.in
Oil quantity	184cm ³ / 6,2fl.oz	Compressors on pallet	125
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1790cm ³ / 60,5fl.oz		
Weight	7,5kg / 16,5lbs		
Motor protection	1# internal		
Winding resistance main	27,5Ω (at 25°C)		
Winding resistance aux	15,1Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with TLS3FT

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

Applications with TLS3FT

	Conf. 1	Conf. 2
Refrigerant	R134a	R134a
Application	LBP	LBP
System cooling	static	static
Hot gas defrost	- / -	- / -
Long interval pull down	- / -	- / -

Electrical data - Configurations with TLS3FT

	Conf. 1	Conf. 2
Starting device type	relay	PTC
Run capacitor	- / -	- / -
Start capacitor	60μF	- / -
LRA (locked rotor amps / 4s)		2,6A
RLA (rated load amps / 1s)	0,5A	0,5A
Cut in current	6,9A	6,9A

Model

Designation

TLS3FT

220-240V/50Hz 1~

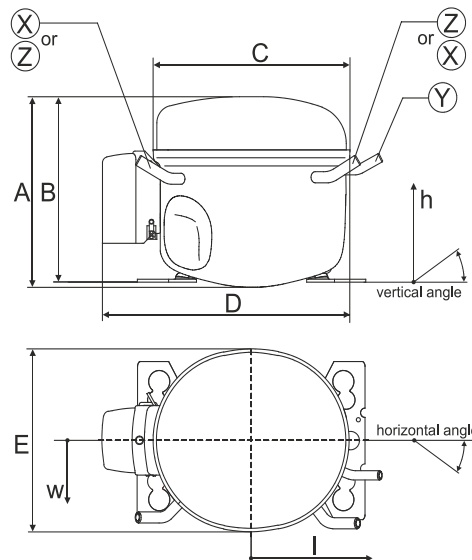
Sales code:

102G4325

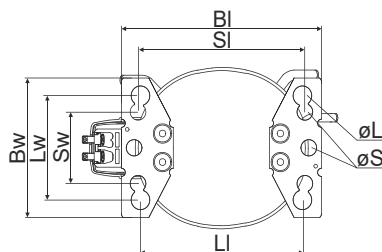
Compressor dimensions

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
Diameter	[mm]	øi 6,11-6,29	øi 5,12-5,22	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
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	96/105/71
	[in]	-4/4,1/2,6	4,6/4,3/1,2	3,8/4,1/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

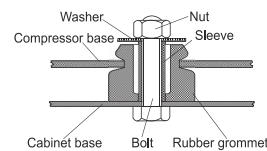


Compressor fixation

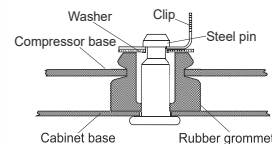


Baseplate	[mm]	[inch]
BI	204	8.03
BW	136	5.35
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63

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	
Snap-on ø7,3 ø16mm	118-1947	118-1919

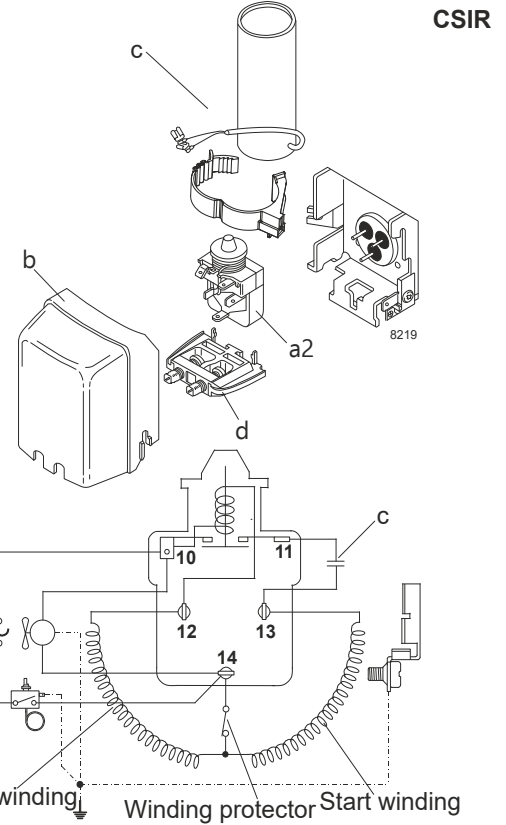
Model

Designation	TLS3FT	220-240V/50Hz	Conf. 1	Sales code:	102G4325
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Configuration

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

Electrical accessories / wiring diagram

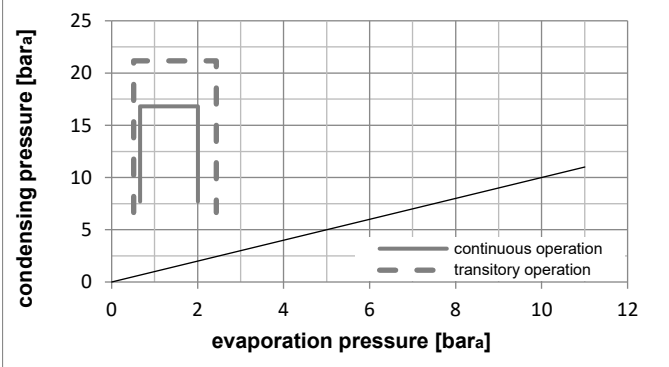
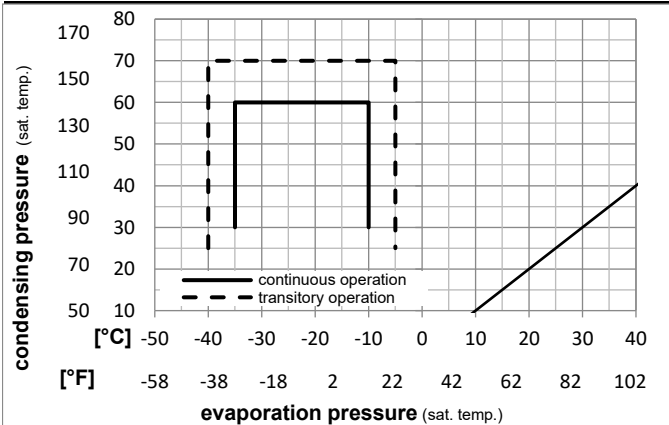


Ambient temperatures / system cooling

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	current relay	117U6007
c	start capacitor (60μF)	117U5014
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components

b	plastic cover	103N2011
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Model

Designation **TLS3FT** **220-240V/50Hz** Conf. 1 Sales code: **102G4325**

Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			
	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	32	32	69,0	236	59,3	1,06	3,64	0,92	64,8	0,46	1,34									
[°F]	-10	130	90	90																ASHRAE LBP		
[°C]	-25	55	32	55	49,6	170	42,7	0,80	2,74	0,69	61,9	0,45	1,19							cecomaf LBP		
[°F]	-13	131	90	131																		
[°C]	-35	40	20	40	32,1	110	27,7	0,71	2,42	0,61	45,3	0,40	0,70							EN12900 LBP		
[°F]	-31	104	68	104																		
[°C]	-23	49	4,4	49	57,6	197	49,6	0,90	3,07	0,77	64,0	0,46	1,52							ARI540 LBP		
[°F]	-10	120	40	120																		
[°C]	-23	41	32	32	80,2	274	69,1	1,26	4,29	1,08	63,8	0,45	1,56							AHAM LBP		
[°F]	-10	105	90	90																		
[°C]	-35	45	32	45	28,2	96	24,3	0,63	2,17	0,55	44,5	0,40	0,61							opt		
[°F]	-31	113	90	113																		

Performance tables

R134a, 220V/50Hz, CSIR, static, VDE, 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]	-35	-31	28,2	96	24,3	0,63	2,17	0,55	44,5	0,40	0,61
cond. pressure	-30	-22	43,0	147	37,0	0,81	2,78	0,70	52,9	0,42	0,93
pc= 45/113	-25	-13	61,3	209	52,8	1,00	3,43	0,86	61,1	0,44	1,33
return gas temp.	-23	-10	68,4	234	58,9	1,07	3,66	0,92	63,9	0,45	1,48
RGT= 32/90	-20	-4	83,7	286	72,1	1,21	4,12	1,04	69,5	0,47	1,82
liquid temp	-15	5	110,8	378	95,4	1,41	4,83	1,22	78,4	0,51	2,42
Tliq= 45/113	-10	14	143,1	489	123,1	1,62	5,54	1,40	88,2	0,54	3,13
[°C / °F]	-35	-31	20,7	71	17,8	0,46	1,57	0,39	45,2	0,39	0,49
cond. pressure	-30	-22	33,7	115	29,0	0,63	2,15	0,54	53,4	0,42	0,80
pc= 55/131	-25	-13	49,6	170	42,7	0,80	2,74	0,69	61,9	0,45	1,19
return gas temp	-23	-10	55,8	191	48,0	0,86	2,94	0,74	64,9	0,46	1,34
RGT= 32/90	-20	-4	69,1	236	59,4	0,97	3,32	0,84	71,0	0,48	1,66
liquid temp	-15	5	92,5	316	79,6	1,14	3,90	0,98	81,0	0,52	2,23
Tliq= 55/131	-10	14	120,4	411	103,6	1,30	4,46	1,12	92,3	0,56	2,91

Model

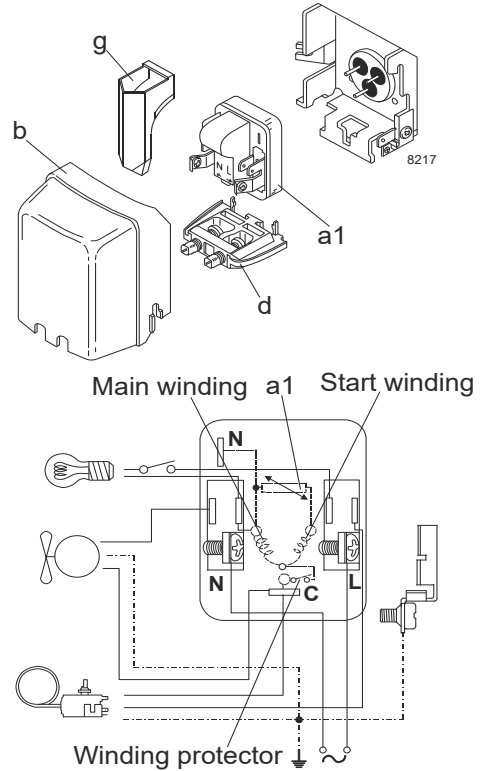
Designation	TLS3FT	220-240V/50Hz	Conf. 2	Sales code:	102G4325
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Configuration

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

Electrical accessories / wiring diagram

RSIR

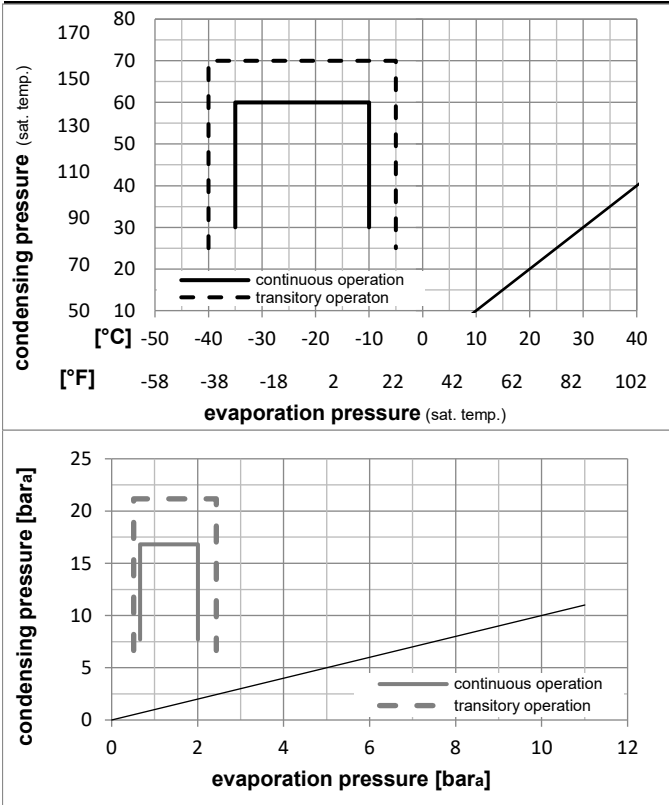


Ambient temperatures / system cooling

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

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Optimization + standard conditions

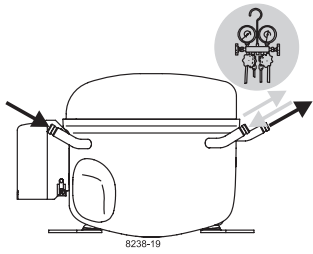
R134a, 220V/50Hz, RSIR, static, VDE, EAC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			COP	EER	P1	Power consumption		Ref. mass flow	
	pe	pc	RGT	Tliq	W	[Btu/h]	[kcal/h]				[W/W]	[Btu/Wh]		
[°C]	-23	54	32	32	69,0	236	59,3	1,06	3,64	0,92	64,8	0,46	1,34	ASHRAE LBP
[°F]	-10	130	90	90										
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[°F]	-31	104	68	104										
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[°C]	-35	45	32	45	28,2	96	24,3	0,63	2,17	0,55	44,5	0,40	0,61	opt
[°F]	-31	113	90	113										

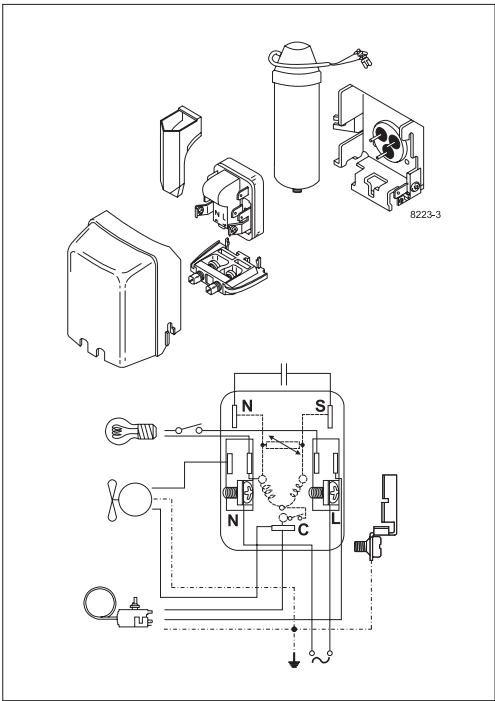
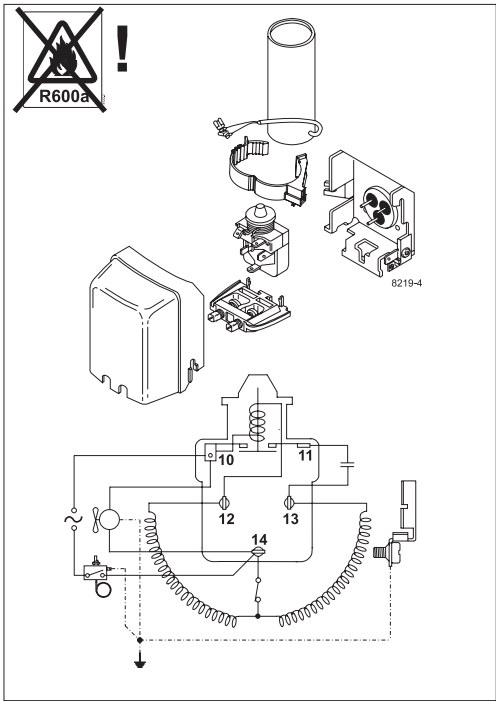
Performance tables

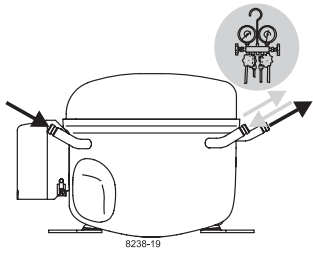
R134a, 220V/50Hz, RSIR, static, VDE, EAC

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						[W/W]
[°C / °F]	-35	-31	28,2	96	24,3	0,63	2,17	0,55	44,5	0,40	0,61
cond. pressure	-30	-22	43,0	147	37,0	0,81	2,78	0,70	52,9	0,42	0,93
pc= 45/113	-25	-13	61,3	209	52,8	1,00	3,43	0,86	61,1	0,44	1,33
return gas temp.	-23	-10	68,4	234	58,9	1,07	3,66	0,92	63,9	0,45	1,48
RGT= 32/90	-20	-4	83,7	286	72,1	1,21	4,12	1,04	69,5	0,47	1,82
liquid temp	-15	5	110,8	378	95,4	1,41	4,83	1,22	78,4	0,51	2,42
Tliq= 45/113	-10	14	143,1	489	123,1	1,62	5,54	1,40	88,2	0,54	3,13
[°C / °F]	-35	-31	20,7	71	17,8	0,46	1,57	0,39	45,2	0,39	0,49
cond. pressure	-30	-22	33,7	115	29,0	0,63	2,15	0,54	53,4	0,42	0,80
pc= 55/131	-25	-13	49,6	170	42,7	0,80	2,74	0,69	61,9	0,45	1,19
return gas temp	-23	-10	55,8	191	48,0	0,86	2,94	0,74	64,9	0,46	1,34
RGT= 32/90	-20	-4	69,1	236	59,4	0,97	3,32	0,84	71,0	0,48	1,66
liquid temp	-15	5	92,5	316	79,6	1,14	3,90	0,98	81,0	0,52	2,23
Tliq= 55/131	-10	14	120,4	411	103,6	1,30	4,46	1,12	92,3	0,56	2,91

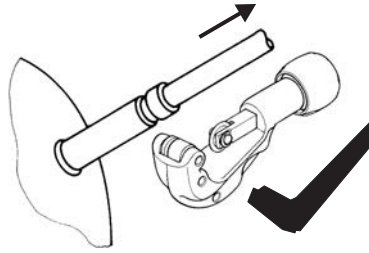
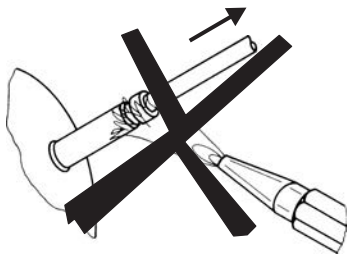


TL Compressors





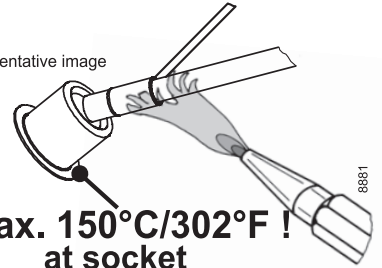
Service/Repair – R600a, R290



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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