

## Single Pack SC15FT 220-240V 50/60Hz CSIR

Single pack code number: **195B4097**

Position	Title	Code	Amount
1	Compressor SC15FT	104G8505	1
2	Starting relay	117U6005	1
3	Starting capacitor (80 $\mu$ F 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2009	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>SC15FT</b>	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code:	<b>104G8505</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	32cST	Displacement	15,28cm <sup>3</sup> / 0,93cu.in
Oil quantity	556cm <sup>3</sup> / 18,8fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1410cm <sup>3</sup> / 47,7fl.oz		
Weight	12,9kg / 28,4lbs		
Motor protection	1# internal		
Winding resistance main	5,13Ω (at 25°C)		
Winding resistance aux	13,51Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	135°C / 275°F		



## General - Configurations with SC15FT

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

## Applications with SC15FT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Refrigerant	R134a	R134a	R134a	R134a
Application	LBP	LBP	LBP	LBP
System cooling	fan 1,5m/s	fan 1,5m/s	fan 1,5m/s	fan 1,5m/s
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

## Electrical data - Configurations with SC15FT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Starting device type	relay	relay	PTC	PTC
Run capacitor	-/-	-/-	-/-	-/-
Start capacitor	80μF	80μF	-/-	-/-
LRA (locked rotor amps / 4s)				
RLA (rated load amps / 1s)	-/-A	-/-A	-/-A	-/-A
Cut in current				

## Model

Designation

**SC15FT**

220-240V/50Hz 1~ 220-240V/60Hz 1~

Sales code:

**104G8505**

## Compressor dimensions

Housing	A Height	209mm / 8,23in
	B Height	203mm / 7,99in
	C Length shell	218mm / 8,58in
	D Length w. cover	255mm / 10,04in
	E Width	151mm / 5,94in

Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55	115/100/63	-107/183/55
[in]	4,2/7,2/2,2	4,5/3,9/2,5	-4,2/7,2/2,2
Straight tube l. [mm]	12	12	12
[in]	0,5	0,5	0,5



## Compressor fixation



### Bolt joint



### Snap-on



## Mounting accessories

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

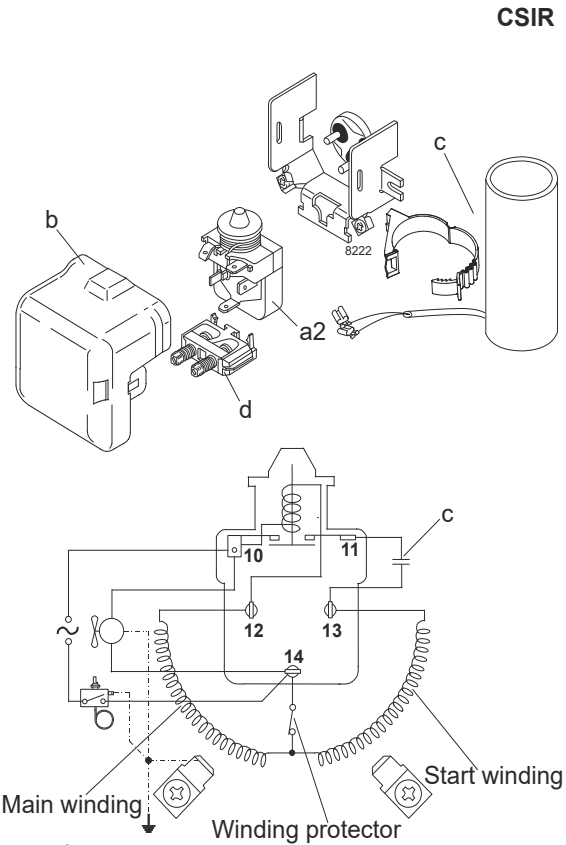
## Model

Designation	<b>SC15FT</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>104G8505</b>
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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	CCC EAC VDE KC

## Electrical accessories / wiring diagram



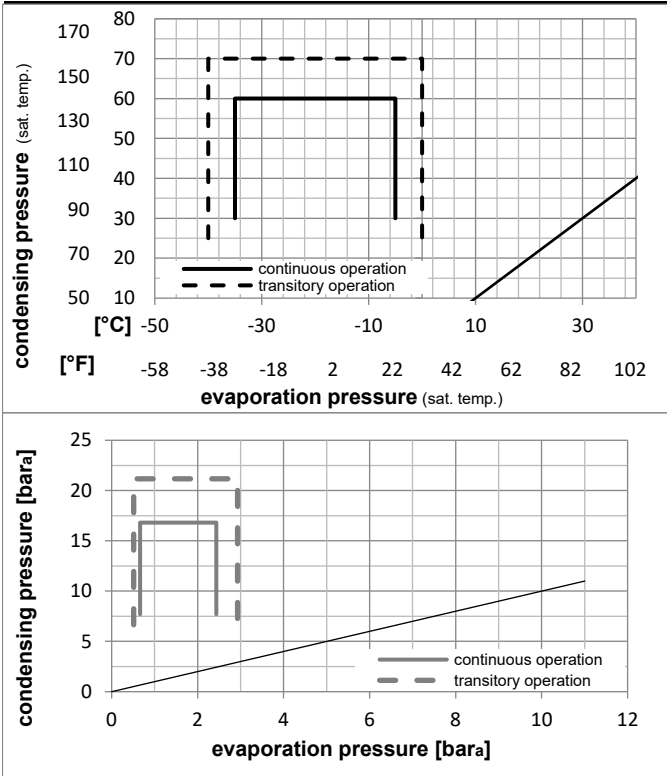
## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

F1 at 43°C ambient temperature possible at 220V nominal (187-242V)

## Operation pressure range



## Components

a2	relay	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

## Model

Designation **SC15FT** **220-240V/50Hz** Conf. 1 Sales code: **104G8505**

## Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, VDE, KC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	Ref. mass flow	
[°C]																
[°F]																
	-23	54	32	32	384,6	1313	331,0	1,18	4,03	1,02	325,9	2,46	7,47			
	-10	130	90	90												
	-25	55	32	55	280,0	956	241,0	0,90	3,08	0,77	311,0	2,42	6,70			
	-13	131	90	131												
	-35	40	20	40	188,5	644	162,2	0,81	2,77	0,70	232,7	2,23	4,14			
	-31	104	68	104												
	-23	49	4,4	49	319,5	1091	274,9	0,99	3,37	0,85	323,7	2,45	8,44			
	-10	120	40	120												
	-23	41	32	32	431,5	1474	371,3	1,37	4,66	1,17	316,1	2,42	8,38			
	-10	105	90	90												
	-35	45	32	45	172,9	590	148,8	0,75	2,55	0,64	231,4	2,23	3,73			
	-31	113	90	113												

## Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, VDE, KC

	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	172,9	590	148,8	0,75	2,55	0,64	231,4	2,23	3,73
cond. pressure	-30	-22	247,7	846	213,2	0,92	3,14	0,79	269,3	2,31	5,35
pc= 45/113	-25	-13	339,4	1159	292,1	1,10	3,77	0,95	307,8	2,40	7,35
return gas temp.	-23	-10	374,8	1280	322,6	1,17	3,99	1,00	321,1	2,44	8,13
RGT= 32/90	-20	-4	450,3	1538	387,5	1,30	4,43	1,12	347,3	2,51	9,78
liquid temp	-15	5	582,9	1991	501,6	1,50	5,13	1,29	388,0	2,65	12,71
Tliq= 45/113	-5	23	922,4	3150	793,8	1,95	6,65	1,67	474,0	2,98	20,28
[°C / °F]	-35	-31	125,8	430	108,3	0,56	1,93	0,49	222,9	2,22	2,99
cond. pressure	-30	-22	197,3	674	169,8	0,74	2,53	0,64	266,6	2,31	4,70
pc= 55/131	-25	-13	280,0	956	241,0	0,90	3,08	0,77	311,0	2,42	6,70
return gas temp	-23	-10	311,1	1063	267,8	0,95	3,26	0,82	326,3	2,46	7,45
RGT= 32/90	-20	-4	376,5	1286	324,0	1,06	3,61	0,91	356,3	2,54	9,03
liquid temp	-15	5	489,0	1670	420,8	1,21	4,15	1,04	402,8	2,69	11,77
Tliq= 55/131	-5	23	771,7	2635	664,1	1,54	5,27	1,33	500,3	3,05	18,76

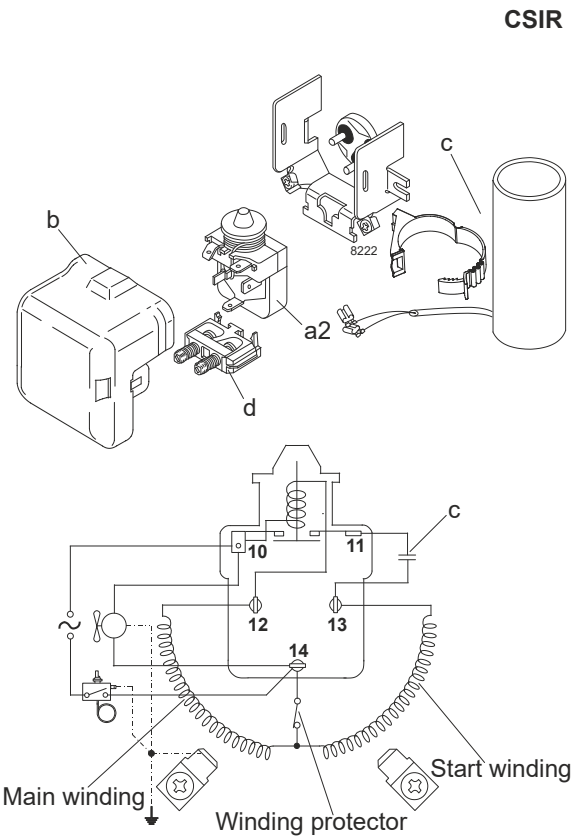
## Model

Designation	<b>SC15FT</b>	<b>208-230V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104G8505</b>
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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	CCC EAC VDE KC

## Electrical accessories / wiring diagram



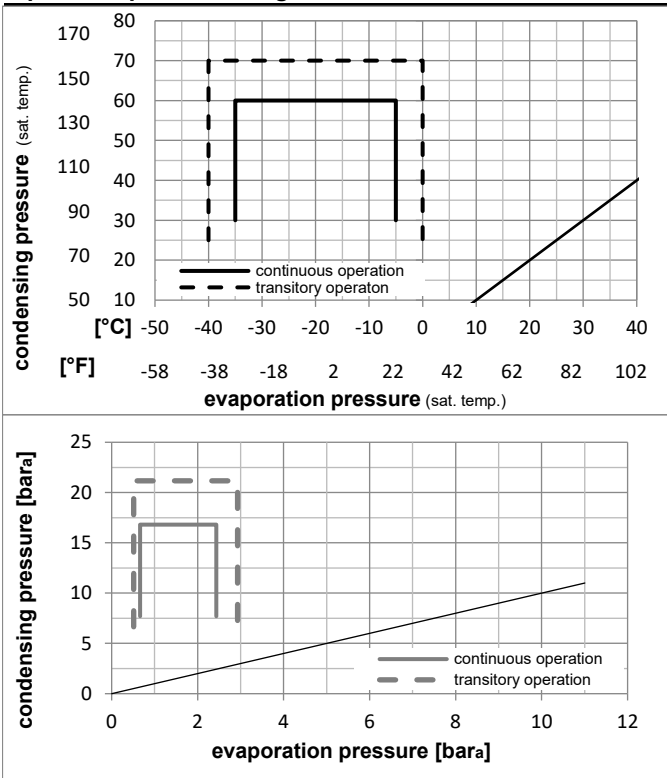
## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

F1 at 43°C ambient temperature possible at 220V nominal (187-242V)

## Operation pressure range



## Components

a2	relay	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

### Model

Designation **SC15FT** **208-230V/60Hz** Conf. 2 Sales code: **104G8505**

### Optimization + standard conditions

R134a, 220V/60Hz, CSIR, fan 3m/s, CCC, EAC, VDE, KC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	451,7	1543	388,7	1,20	4,09	1,03	376,9	2,34	8,77	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	329,5	1125	283,6	0,92	3,16	0,80	356,4	2,27	7,88	cecomaf LBP	
[°F]	-13	131	90	131											
[°C]	-35	40	20	40	233,7	798	201,2	0,91	3,11	0,78	256,9	1,96	5,13	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-23	49	4,4	49	377,7	1290	325,1	1,00	3,43	0,86	376,0	2,33	9,98	ARI540 LBP	
[°F]	-10	120	40	120											
[°C]	-23	41	32	32	524,7	1792	451,5	1,41	4,82	1,21	372,1	2,32	10,19	AHAM LBP	
[°F]	-10	105	90	90											
[°C]	-35	45	32	45	211,2	721	181,8	0,85	2,89	0,73	249,5	1,94	4,56	opt	
[°F]	-31	113	90	113											

### Performance tables

R134a, 220V/60Hz, CSIR, fan 3m/s, CCC, EAC, VDE, KC

	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	211,2	721	181,8	0,85	2,89	0,73	249,5	1,94	4,56
cond. pressure	-30	-22	298,4	1019	256,8	0,98	3,36	0,85	303,6	2,10	6,45
pc= 45/113	-25	-13	405,9	1386	349,3	1,14	3,88	0,98	356,9	2,27	8,79
return gas temp.	-23	-10	447,6	1529	385,2	1,19	4,08	1,03	374,9	2,33	9,71
RGT= 32/90	-20	-4	536,8	1833	462,0	1,31	4,48	1,13	409,5	2,45	11,66
liquid temp	-15	5	694,5	2372	597,7	1,51	5,14	1,30	461,4	2,64	15,14
Tliq= 45/113	-5	23	1102,6	3766	948,9	1,96	6,68	1,68	563,4	3,04	24,25
[°C / °F]	-35	-31	153,5	524	132,1	0,66	2,27	0,57	230,9	1,87	3,65
cond. pressure	-30	-22	235,0	802	202,2	0,80	2,73	0,69	294,2	2,07	5,60
pc= 55/131	-25	-13	329,5	1125	283,6	0,92	3,16	0,80	356,4	2,27	7,88
return gas temp	-23	-10	365,3	1247	314,4	0,97	3,31	0,83	377,3	2,34	8,74
RGT= 32/90	-20	-4	440,5	1504	379,1	1,05	3,60	0,91	417,6	2,48	10,57
liquid temp	-15	5	571,0	1950	491,4	1,19	4,08	1,03	477,9	2,70	13,75
Tliq= 55/131	-5	23	903,6	3086	777,7	1,52	5,18	1,30	596,0	3,16	21,97

## Model

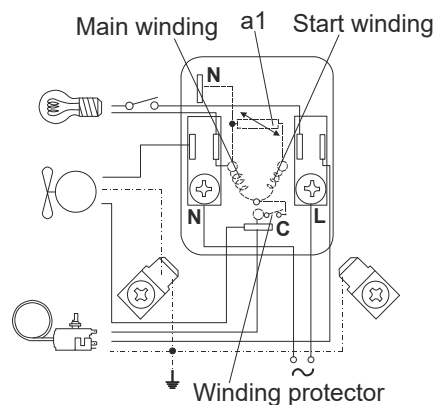
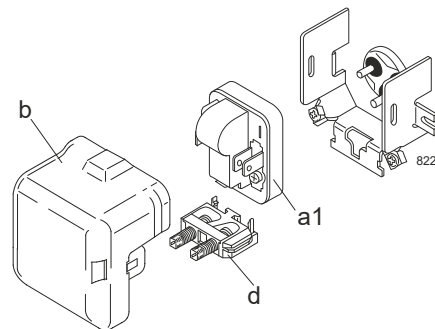
Designation	<b>SC15FT</b>	<b>220-240V/50Hz</b>	<b>Conf. 3</b>	Sales code:	<b>104G8505</b>
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## Configuration

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

## Electrical accessories / wiring diagram

RSIR



## Ambient/ machine room temperatures minimum /maximum

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

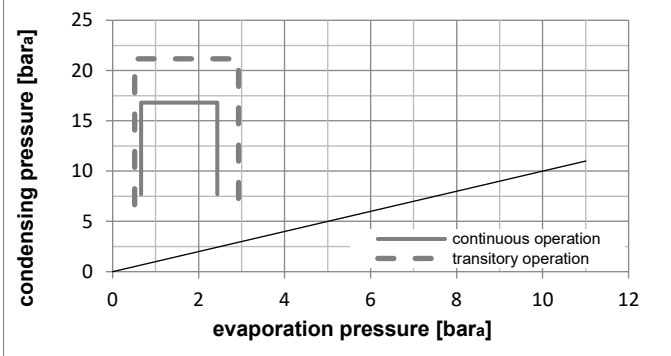
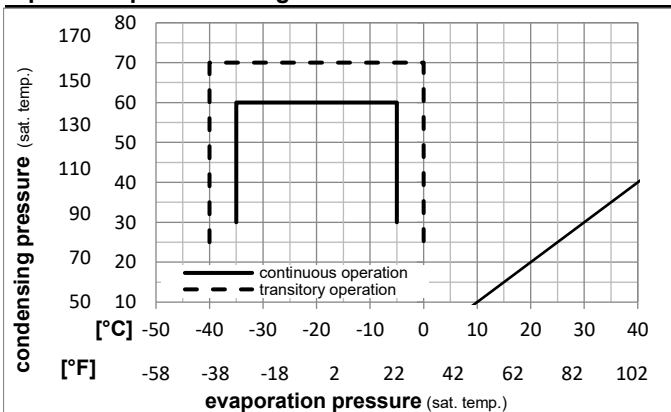
Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

## Operation Limits

F1 at 43°C ambient temperature possible at 220V nominal (187-242V)

## Operation pressure range



## Components

a1	PTC starter (220V, 25Ohm, 6.3mm)	103N0011
d	cord relief	103N1004
b	plastic cover	103N2009



### Model

Designation **SC15FT** **220-240V/50Hz** Conf. 3 Sales code: **104G8505**

### Optimization + standard conditions

R134a, 220V/50Hz, RSIR, fan 3m/s, CCC, EAC, VDE, KC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.				Liquid temp.						Current consumption			Ref. mass flow
		Cooling capacity				COP	EER		P1	I	m				
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	384,6	1313	331,0	1,18	4,03	1,02	325,9	2,46	7,47	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	280,0	956	241,0	0,90	3,08	0,77	311,0	2,42	6,70	cecomaf LBP	
[°F]	-13	131	90	131											
[°C]	-35	40	20	40	188,5	644	162,2	0,81	2,77	0,70	232,7	2,23	4,14	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-23	49	4,4	49	319,5	1091	274,9	0,99	3,37	0,85	323,7	2,45	8,44	ARI540 LBP	
[°F]	-10	120	40	120											
[°C]	-23	41	32	32	431,5	1474	371,3	1,37	4,66	1,17	316,1	2,42	8,38	AHAM LBP	
[°F]	-10	105	90	90											
[°C]	-35	45	32	45	172,9	590	148,8	0,75	2,55	0,64	231,4	2,23	3,73	opt	
[°F]	-31	113	90	113											

### Performance tables

R134a, 220V/50Hz, RSIR, fan 3m/s, CCC, EAC, VDE, KC

	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	172,9	590	148,8	0,75	2,55	0,64	231,4	2,23	3,73
cond. pressure	-30	-22	247,7	846	213,2	0,92	3,14	0,79	269,3	2,31	5,35
pc= 45/113	-25	-13	339,4	1159	292,1	1,10	3,77	0,95	307,8	2,40	7,35
return gas temp.	-23	-10	374,8	1280	322,6	1,17	3,99	1,00	321,1	2,44	8,13
RGT= 32/90	-20	-4	450,3	1538	387,5	1,30	4,43	1,12	347,3	2,51	9,78
liquid temp	-15	5	582,9	1991	501,6	1,50	5,13	1,29	388,0	2,65	12,71
Tliq= 45/113	-5	23	922,4	3150	793,8	1,95	6,65	1,67	474,0	2,98	20,28
[°C / °F]	-35	-31	125,8	430	108,3	0,56	1,93	0,49	222,9	2,22	2,99
cond. pressure	-30	-22	197,3	674	169,8	0,74	2,53	0,64	266,6	2,31	4,70
pc= 55/131	-25	-13	280,0	956	241,0	0,90	3,08	0,77	311,0	2,42	6,70
return gas temp	-23	-10	311,1	1063	267,8	0,95	3,26	0,82	326,3	2,46	7,45
RGT= 32/90	-20	-4	376,5	1286	324,0	1,06	3,61	0,91	356,3	2,54	9,03
liquid temp	-15	5	489,0	1670	420,8	1,21	4,15	1,04	402,8	2,69	11,77
Tliq= 55/131	-5	23	771,7	2635	664,1	1,54	5,27	1,33	500,3	3,05	18,76

## Model

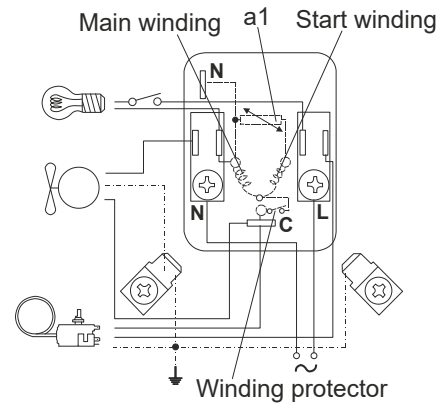
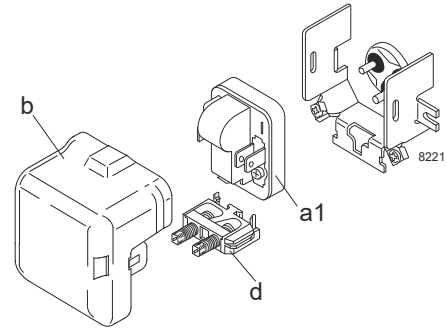
Designation	<b>SC15FT</b>	<b>208-230V/60Hz</b>	<b>Conf. 4</b>	Sales code:	<b>104G8505</b>
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## Configuration

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

## Electrical accessories / wiring diagram

RSIR



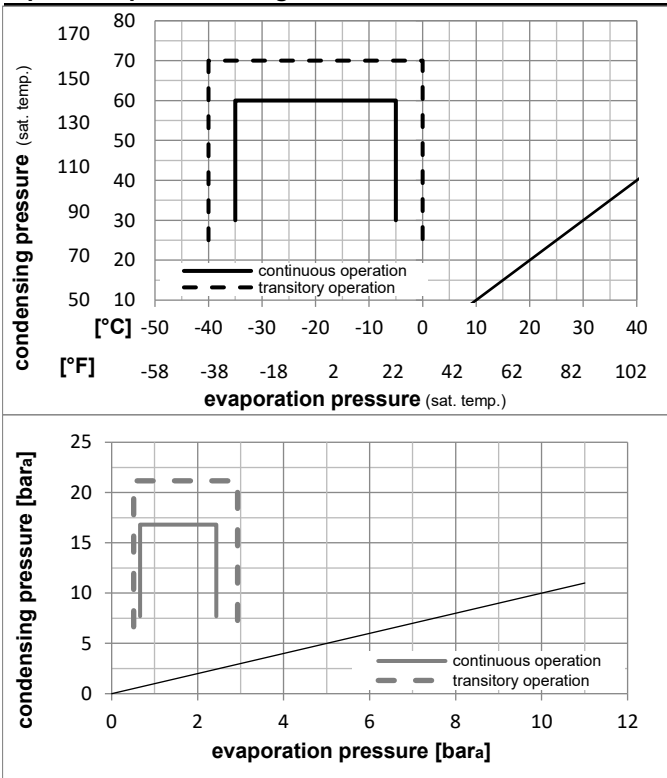
## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

F1 at 43°C ambient temperature possible at 220V nominal (187-242V)

## Operation pressure range



## Components

a1	PTC starter (220V, 25Ohm, 6.3mm)	103N0011
d	cord relief	103N1004
b	plastic cover	103N2009

## Model

Designation **SC15FT** **208-230V/60Hz** Conf. 4 Sales code: **104G8505**

## Optimization + standard conditions

R134a, 220V/60Hz, RSIR, fan 3m/s, CCC, EAC, VDE, KC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	Ref. mass flow				
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	451,7	1543	388,7	1,20	4,09	1,03	376,9	2,34	8,77	ASHRAE LBP
	[-10]	[130]	[90]	[90]										
	-25	55	32	55	329,5	1125	283,6	0,92	3,16	0,80	356,4	2,27	7,88	cecomaf LBP
	[-13]	[131]	[90]	[131]										
	-35	40	20	40	233,7	798	201,2	0,91	3,11	0,78	256,9	1,96	5,13	EN12900 LBP
	[-31]	[104]	[68]	[104]										
	-23	49	4,4	49	377,7	1290	325,1	1,00	3,43	0,86	376,0	2,33	9,98	ARI540 LBP
	[-10]	[120]	[40]	[120]										
	-23	41	32	32	524,7	1792	451,5	1,41	4,82	1,21	372,1	2,32	10,19	AHAM LBP
	[-10]	[105]	[90]	[90]										
	-35	45	32	45	211,2	721	181,8	0,85	2,89	0,73	249,5	1,94	4,56	opt
	[-31]	[113]	[90]	[113]										

## Performance tables

R134a, 220V/60Hz, RSIR, fan 3m/s, CCC, EAC, VDE, KC

	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	211,2	721	181,8	0,85	2,89	0,73	249,5	1,94	4,56
cond. pressure	-30	-22	298,4	1019	256,8	0,98	3,36	0,85	303,6	2,10	6,45
pc= 45/113	-25	-13	405,9	1386	349,3	1,14	3,88	0,98	356,9	2,27	8,79
return gas temp.	-23	-10	447,6	1529	385,2	1,19	4,08	1,03	374,9	2,33	9,71
RGT= 32/90	-20	-4	536,8	1833	462,0	1,31	4,48	1,13	409,5	2,45	11,66
liquid temp	-15	5	694,5	2372	597,7	1,51	5,14	1,30	461,4	2,64	15,14
Tliq= 45/113	-5	23	1102,6	3766	948,9	1,96	6,68	1,68	563,4	3,04	24,25
[°C / °F]	-35	-31	153,5	524	132,1	0,66	2,27	0,57	230,9	1,87	3,65
cond. pressure	-30	-22	235,0	802	202,2	0,80	2,73	0,69	294,2	2,07	5,60
pc= 55/131	-25	-13	329,5	1125	283,6	0,92	3,16	0,80	356,4	2,27	7,88
return gas temp	-23	-10	365,3	1247	314,4	0,97	3,31	0,83	377,3	2,34	8,74
RGT= 32/90	-20	-4	440,5	1504	379,1	1,05	3,60	0,91	417,6	2,48	10,57
liquid temp	-15	5	571,0	1950	491,4	1,19	4,08	1,03	477,9	2,70	13,75
Tliq= 55/131	-5	23	903,6	3086	777,7	1,52	5,18	1,30	596,0	3,16	21,97



# SC Compressors





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## Service/Repair – R290



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