

Model
SC15MFX

Sales code:
104G8501

Compressor Data

Refrigerant(s)	R134a / R513A
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.20 kg / 29.10lbs
Displacement	15.28 cm3 / 0.93cu.in
Compressors on pallet	80



General – Configurations With SC15MFX

-	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC	-
Starting torque	HST	HST	HST
Refrigerant	R134a	R513A	R1234yf
Application	MBP	MBP	MBP
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Application Notes

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

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Compressor Design

Oil type	POE	Winding resistance main	5.100 Ohm
Oil viscosity	22cSt	Winding resistance aux	13.50 Ohm
Oil quantity	449 / 15.18fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,410 cm³ / 47.68fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

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

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Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in	-107/183/55 / -4.21/7.20/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

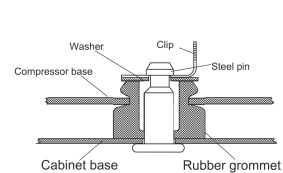
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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

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SC15MFX

Configuration 1

Sales code:

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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC, EAC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	16.2 A
RLA (rated load amps / 1s/ U(N))	3.1 A
Cut in current (U(N))	16.2 A

Ambient/ machine room temperatures minimum /maximum

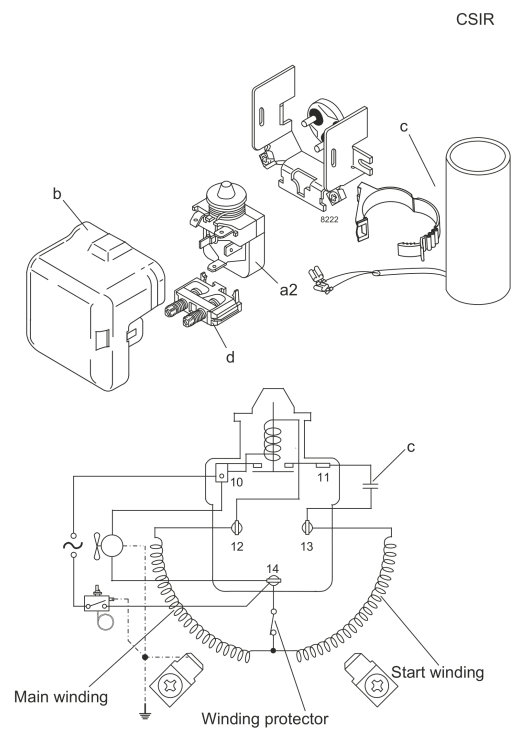
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

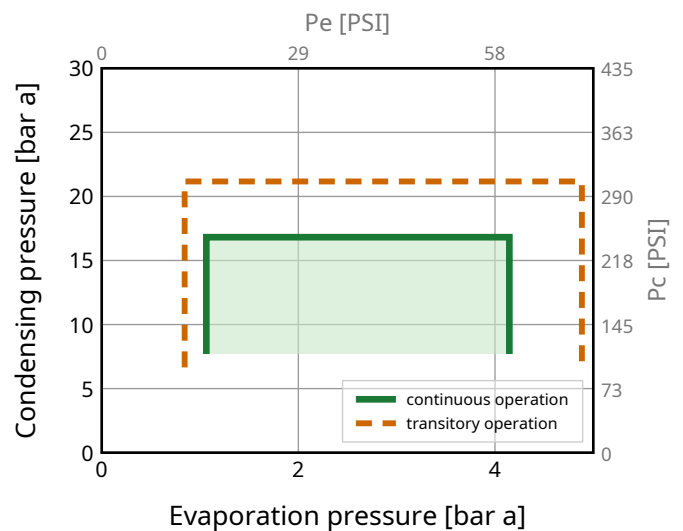
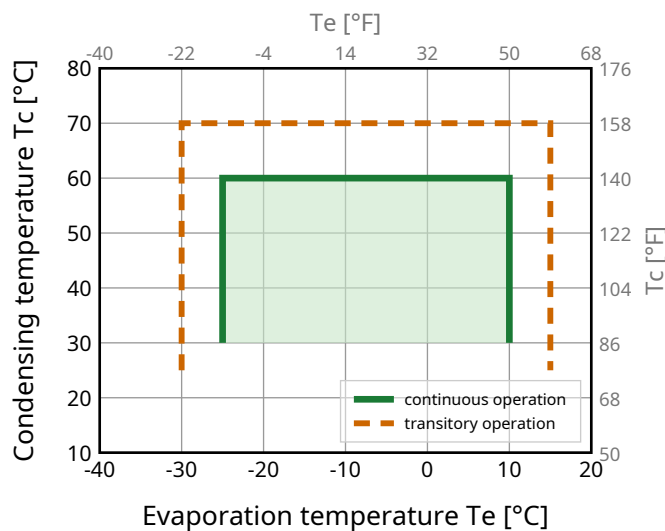
a2 relay 117U6005

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model

SC15MFX

Configuration 1

Sales code:

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Standard Conditions

R134a, 220 V/50 Hz, CSIR, 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	784	2676	674	1.66	5.67	472	2.90	17.08	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	602	2053	517	1.38	4.69	437	2.78	14.50	CECOMAF MBP
-10 14	45 113	20 68	45 113	677	2311	583	1.64	5.58	414	2.70	15.80	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	748	2550	643	1.63	5.58	458	2.85	18.37	ARI540 MBP
-10 14	45 113	32 89.6	45 113	702	2394	603	1.69	5.78	414	2.70	15.32	opt MBP
-23.3 -10	45 113	32.2 90	32.2 90	364	1241	313	1.27	4.33	287	2.30	7.06	opt LBP

Performance Tables

R134a, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | 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]
-25	-13	290	989	249	1.07	3.66	270	2.25	6.27
-20	-4	404	1378	347	1.27	4.32	319	2.40	8.76
-15	5	541	1845	465	1.47	5.02	367	2.55	11.76
-10	14	702	2394	603	1.69	5.78	414	2.70	15.32
-5	23	889	3032	764	1.94	6.61	459	2.85	19.50
0	32	1104	3766	949	2.21	7.54	500	2.99	24.35
5	41	1348	4600	1160	2.52	8.60	535	3.13	29.95
10	50	1624	5542	1397	2.88	9.83	564	3.25	36.36

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-25	-13	226	770	194	0.81	2.77	278	2.29	5.38
-20	-4	333	1136	286	1.01	3.45	330	2.44	7.96
-15	5	458	1561	394	1.20	4.08	383	2.61	10.99
-10	14	602	2053	517	1.38	4.69	437	2.78	14.50
-5	23	766	2615	659	1.56	5.32	491	2.97	18.58
0	32	954	3256	821	1.75	5.99	544	3.16	23.27
5	41	1166	3979	1003	1.97	6.71	593	3.35	28.65
10	50	1405	4793	1208	2.20	7.51	638	3.55	34.80

Model

SC15MFX

Configuration 2

Sales code:

104G8501

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R513A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC, EAC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	16.2 A
RLA (rated load amps / 1s/ U(N))	3.1 A
Cut in current (U(N))	16.2 A

Ambient/ machine room temperatures minimum /maximum

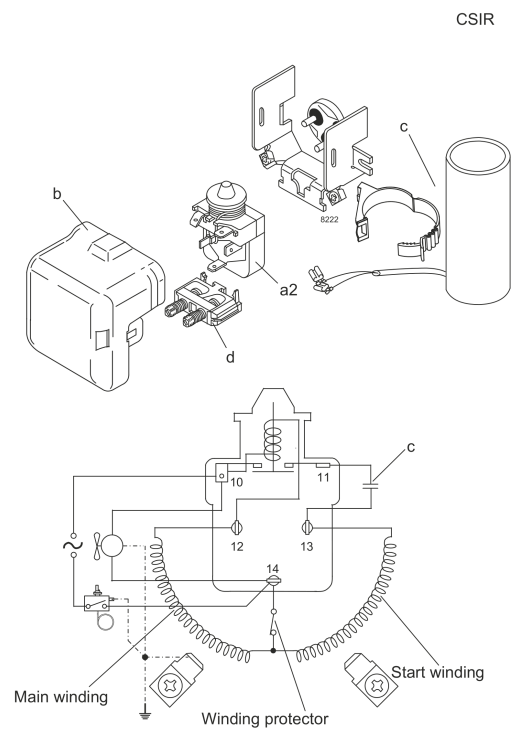
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram


Components

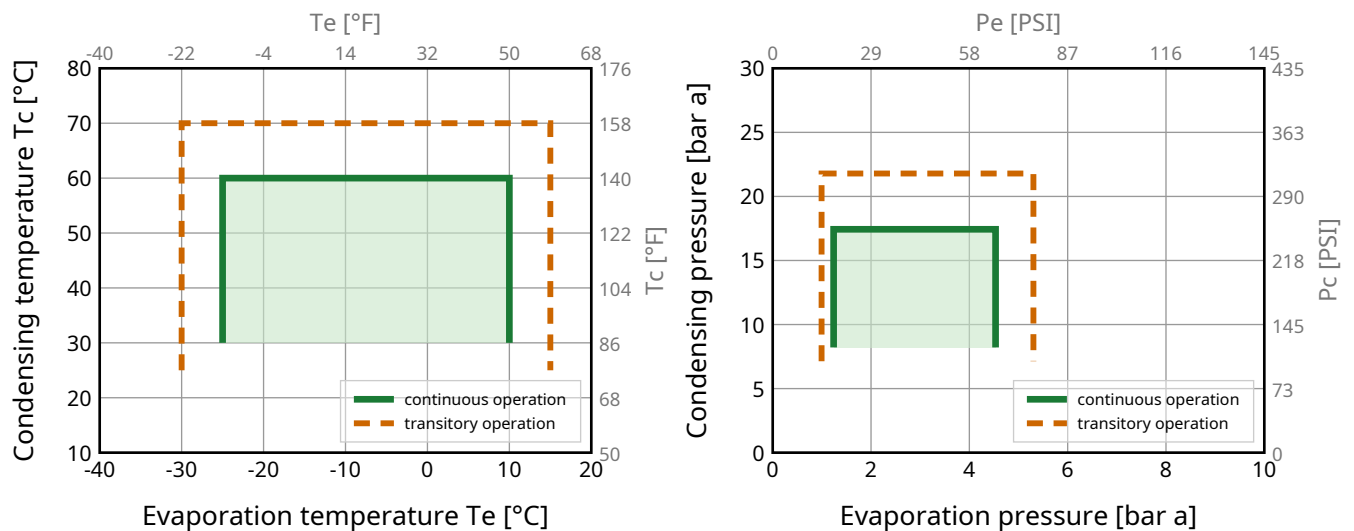
a2 relay 117U6005

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model

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Configuration 2

Sales code:

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Standard Conditions

R513A, 220 V/50 Hz, CSIR, 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	824	2811	709	1.65	5.62	501	3.01	20.54	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	625	2134	538	1.34	4.59	465	2.89	17.55	CECOMAF MBP
-10 14	45 113	20 68	45 113	706	2408	607	1.61	5.49	439	2.80	19.11	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	768	2619	660	1.58	5.41	484	2.95	22.10	ARI540 MBP
-10 14	45 113	32 89.6	45 113	740	2526	637	1.69	5.76	439	2.80	18.53	opt MBP
-23.3 -10	45 113	32.2 90	32.2 90	402	1371	346	1.32	4.51	304	2.36	8.80	opt LBP

Performance Tables

R513A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | 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]
-25	-13	318	1083	273	1.11	3.79	286	2.30	7.85
-20	-4	436	1487	375	1.29	4.40	338	2.47	10.82
-15	5	576	1966	496	1.48	5.05	390	2.64	14.36
-10	14	740	2526	637	1.69	5.76	439	2.80	18.53
-5	23	930	3171	799	1.92	6.55	484	2.95	23.39
0	32	1145	3908	985	2.18	7.44	525	3.09	29.02
5	41	1390	4742	1195	2.48	8.48	560	3.20	35.47
10	50	1664	5678	1431	2.84	9.68	587	3.29	42.86

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-25	-13	245	836	211	0.82	2.81	297	2.34	6.78
-20	-4	355	1211	305	1.01	3.44	352	2.52	9.86
-15	5	481	1642	414	1.18	4.01	409	2.71	13.43
-10	14	625	2134	538	1.34	4.59	465	2.89	17.55
-5	23	789	2693	679	1.52	5.18	520	3.07	22.28
0	32	974	3325	838	1.70	5.81	572	3.25	27.71
5	41	1183	4035	1017	1.91	6.50	620	3.40	33.91
10	50	1415	4828	1217	2.13	7.28	663	3.54	41.00

Model
SC15MFX

Configuration 3

Sales code:
104G8501

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R1234yf
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC, EAC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	16.2 A
RLA (rated load amps / 1s/ U(N))	3.1 A
Cut in current (U(N))	16.2 A

Ambient/ machine room temperatures minimum /maximum

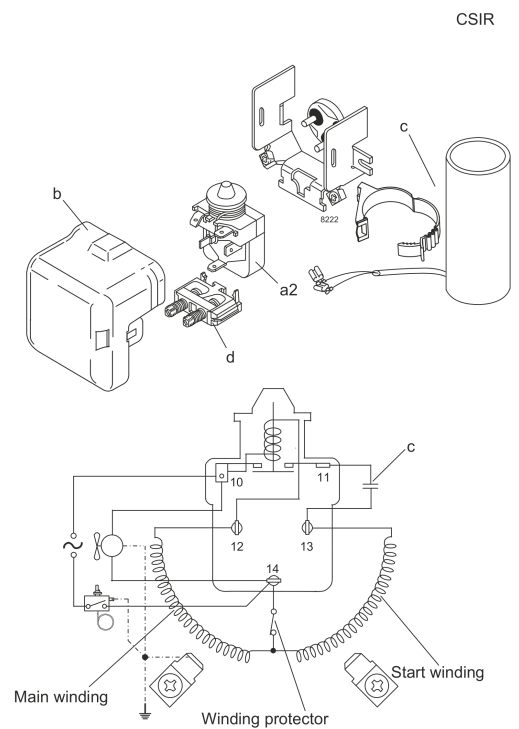
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

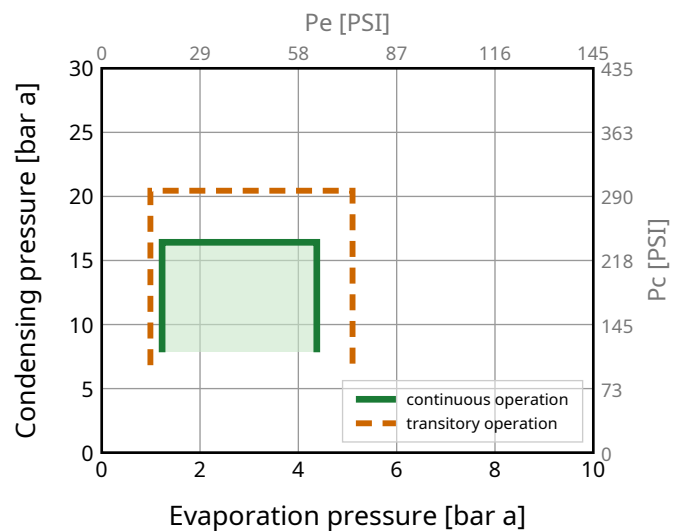
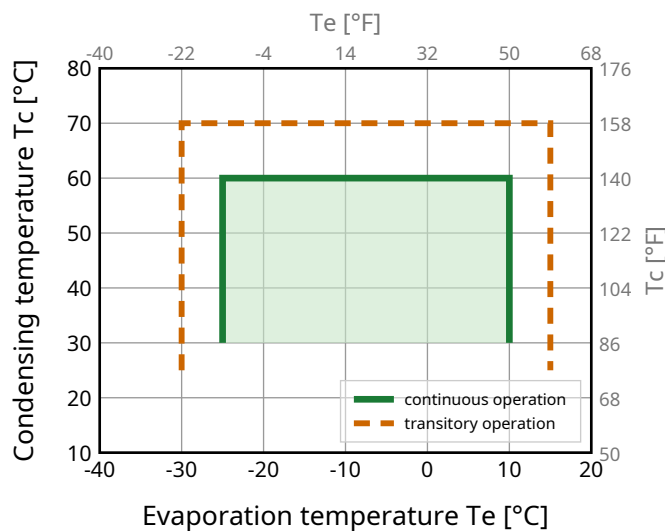
a2 relay 117U7005

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model
SC15MFX

Configuration 3

Sales code:
104G8501

Standard Conditions

R1234yf, 220 V/50 Hz, CSIR, 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	792	2704	681	1.66	5.66	477	3.43	21.40	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	598	2042	515	1.34	4.58	446	3.35	18.37	CECOMAF MBP
-10 14	45 113	20 68	45 113	672	2291	577	1.59	5.43	422	3.29	19.90	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	725	2472	623	1.57	5.35	462	3.39	22.96	ARI540 MBP
-10 14	45 113	32 89.6	45 113	711	2426	612	1.69	5.75	422	3.29	19.31	opt MBP
-23.3 -10	45 113	32.2 90	32.2 90	397	1354	341	1.32	4.50	301	3.04	9.35	opt LBP

Performance Tables

R1234yf, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | 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]
-25	-13	312	1064	268	1.10	3.74	285	3.01	8.37
-20	-4	425	1449	365	1.28	4.37	332	3.09	11.43
-15	5	557	1902	479	1.47	5.03	378	3.18	15.06
-10	14	711	2426	612	1.69	5.75	422	3.29	19.31
-5	23	887	3027	763	1.92	6.55	462	3.39	24.22
0	32	1087	3708	935	2.18	7.44	498	3.49	29.87
5	41	1311	4474	1128	2.48	8.47	528	3.58	36.32
10	50	1562	5330	1343	2.83	9.66	552	3.66	43.66

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-25	-13	240	819	206	0.81	2.77	295	3.02	7.26
-20	-4	344	1175	296	1.00	3.41	345	3.11	10.47
-15	5	464	1581	399	1.17	4.00	396	3.22	14.15
-10	14	598	2042	515	1.34	4.58	446	3.35	18.37
-5	23	750	2560	645	1.52	5.18	495	3.48	23.18
0	32	921	3141	792	1.70	5.80	541	3.62	28.65
5	41	1111	3790	955	1.90	6.49	584	3.76	34.86
10	50	1322	4509	1136	2.12	7.25	622	3.89	41.91