



SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS180H38Q

Output : 5 HP



Temporary

DALIAN SANYO COMPRESSOR Co.,Ltd.

06-May-09

GENERAL SPECIFICATIONS

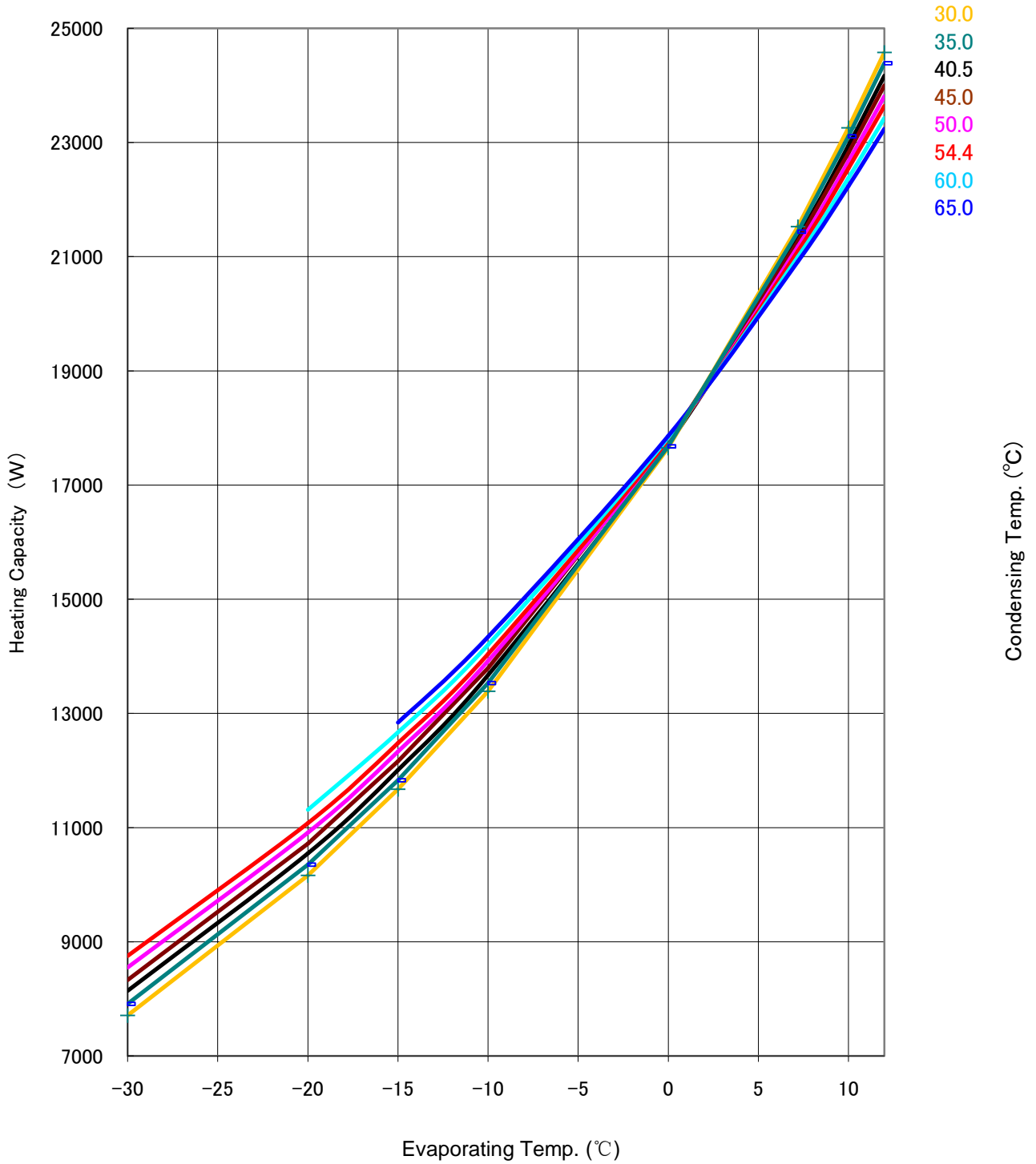
Model No:		C-SBS180H38Q
Application		
Evaporating Temp Range	(°C)	-30.0 ~ 15.0
Refrigerant		R407C
Compressor Cooling		Gas Injection
Rated Performance		
Heating Capacity	(W)	21100
Input	(W)	5150
Current	(A)	9.3
Revolution	(min ⁻¹)	2891
Sound Level	(dB(A))	
Rating Conditions		
Power Source		3-PH 50Hz 380V
Evaporating Temp	(°C)	7.2
Condensing Temp	(°C)	54.4
Suction Gas Temp	(°C)	18.3
Liquid Temp	(°C)	50.4
Ambient Temp	(°C)	35
Test Conditions are Mid point.		
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm ³)	83.2
Suction Line Connection	(Φmm OD)	22.22
Discharge Line Connection	(Φmm OD)	12.7
Oil	(ml)	1700 (FV68S)
Mass(Incl.Oil)	(kg)	42
Motor		
Type		3-PH Induction Motor(3IR)
Pole		2
Rated Power Source		3-PH 50Hz 380-415V
Voltage Range	(V)	342~456
Starting Current	(A)	73

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PERFORMANCE CURVE

Code No.	C-SBS180H38Q
Power Source	3-PH 50Hz 380V
Condensing Temp.(°C)	30, 35, 40.5, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	4
Compressor Cooling	Gas Injection
Refrigerant	R407C

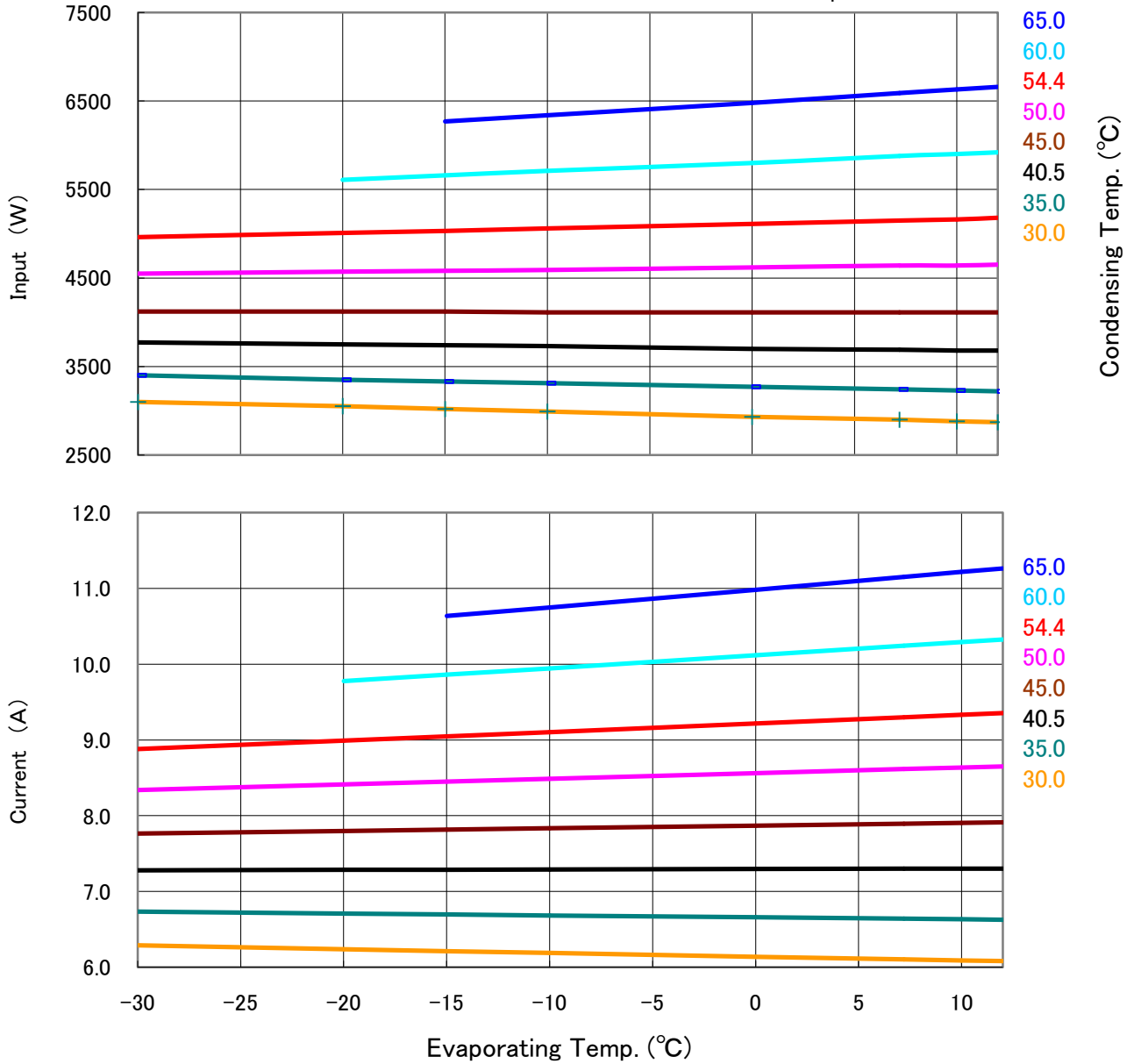
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PERFORMANCE DATA

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Refrigerant	R407C

Test Conditions are Mid point.

Heating Capacity (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	7,710	10,160	11,670	13,390	17,650	21,530	23,260	24,580
	35	7,910	10,350	11,830	13,530	17,680	21,440	23,110	24,390
	40.5	8,140	10,550	12,010	13,670	17,710	21,340	22,950	24,170
	45.0	8,330	10,720	12,160	13,790	17,740	21,270	22,820	24,000
	50.0	8,550	10,910	12,330	13,920	17,770	21,180	22,670	23,810
	54.4	8,750	11,080	12,480	14,040	17,790	21,100	22,550	23,640
	60.0		11,310	12,670	14,200	17,830	21,000	22,380	23,430
	65.0			12,840	14,340	17,860	20,920	22,240	23,240

Input (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	3,100	3,050	3,020	2,990	2,930	2,900	2,880	2,870
	35	3,400	3,350	3,330	3,310	3,270	3,240	3,230	3,220
	40.5	3,770	3,750	3,740	3,730	3,700	3,690	3,680	3,680
	45.0	4,120	4,120	4,120	4,110	4,110	4,110	4,110	4,110
	50.0	4,550	4,570	4,580	4,590	4,620	4,640	4,640	4,650
	54.4	4,960	5,010	5,030	5,060	5,110	5,150	5,160	5,180
	60.0		5,610	5,660	5,710	5,800	5,880	5,900	5,920
	65.0			6,270	6,340	6,480	6,590	6,630	6,660

Current (A)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	6.3	6.2	6.2	6.2	6.1	6.1	6.1	6.1
	35	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.6
	40.5	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
	45.0	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9
	50.0	8.3	8.4	8.4	8.5	8.6	8.6	8.6	8.7
	54.4	8.9	9.0	9.0	9.1	9.2	9.3	9.3	9.4
	60.0		9.8	9.9	9.9	10.1	10.2	10.3	10.3
	65.0			10.6	10.7	11.0	11.2	11.2	11.3

MassFlow(kg/h)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	153.4	190.0	218.0	283.8	333.7	368.2	404.9	432.4
	35	149.3	185.4	213.1	278.6	328.5	363.0	399.7	427.2
	40.5	145.9	181.7	209.2	274.5	324.2	358.7	395.4	423.0
	45.0	142.4	177.7	205.0	269.9	319.6	354.1	390.8	418.4
	50.0	139.3	174.3	201.3	266.0	315.5	350.0	386.7	414.4
	54.4	135.4	170.0	196.8	261.1	310.5	344.9	381.6	409.3
	60.0		166.2	192.8	256.8	306.1	340.4	377.1	404.8
	65.0			190.5	254.2	303.5	337.8	374.5	402.1

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		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	2.49	3.33	3.86	4.48	6.02	7.42	8.08	8.56
	35	2.33	3.09	3.55	4.09	5.41	6.62	7.15	7.57
	40.5	2.16	2.81	3.21	3.66	4.79	5.78	6.24	6.57
	45.0	2.02	2.60	2.95	3.36	4.32	5.18	5.55	5.84
	50.0	1.88	2.39	2.69	3.03	3.85	4.56	4.89	5.12
	54.4	1.76	2.21	2.48	2.77	3.48	4.10	4.37	4.56
	60.0		2.02	2.24	2.49	3.07	3.57	3.79	3.96
	65.0			2.05	2.26	2.76	3.17	3.35	3.49

Coefficients of Polynomial Formula

	Heating Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	1.760697E+04	2.049941E+03	4.109541E+00	3.799794E+02
C2	5.760004E+02	-1.728043E+00	-6.676366E-03	1.000476E+01
C3	1.400082E+00	-3.223927E+00	3.565086E-02	-1.716499E+00
C4	8.017303E+00	-1.059007E-02	-1.716154E-05	8.162962E-03
C5	-2.940098E+00	-4.397411E-01	-2.833790E-04	-1.111066E-01
C6	3.135057E-02	1.095039E+00	1.072832E-03	8.654712E-03
C7	4.057674E-02	-1.060835E-04	-2.266190E-07	-2.207623E-03
C8	-5.162960E-02	2.109651E-04	1.880342E-07	-9.918164E-04
C9	1.874024E-03	1.049097E-02	1.134852E-05	9.377199E-04
C10	8.418244E-09	1.058347E-07	1.627839E-10	-4.680974E-09

Note: The polynomial coefficients subject to change without notice.

$$X = C1 + C2*(S) + C3*D + C4*(S^2) + C5*(S*D) + C6*(D^2) + C7*(S^3) + C8*(D*S^2) + C9*(S*D^2) + C10*(D^3)$$

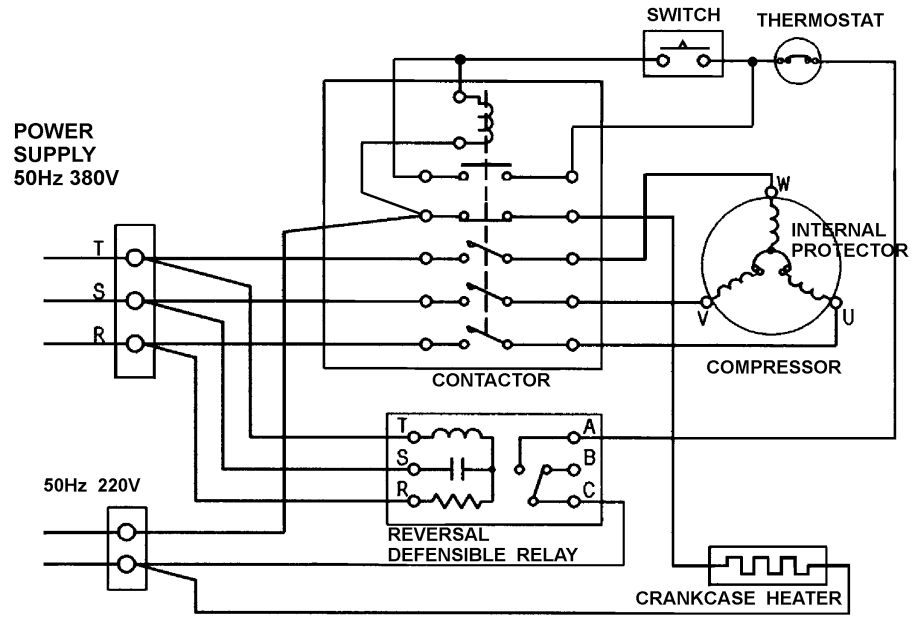
X—CAPACITY(W) OR POWER(W) OR CURRENT(A)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

WIRING DIAGRAM

C-SB Series 3 phase
2.6-4.5kw
European & Chinese
power supply
specifications
models



Operating Envelope

Suction Gas Superheat: 11.1K
Refrigerant: R407C

