



SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS145H38Q

Output : 4 HP



Temporary

DALIAN SANYO COMPRESSOR Co.,Ltd.

06-May-09

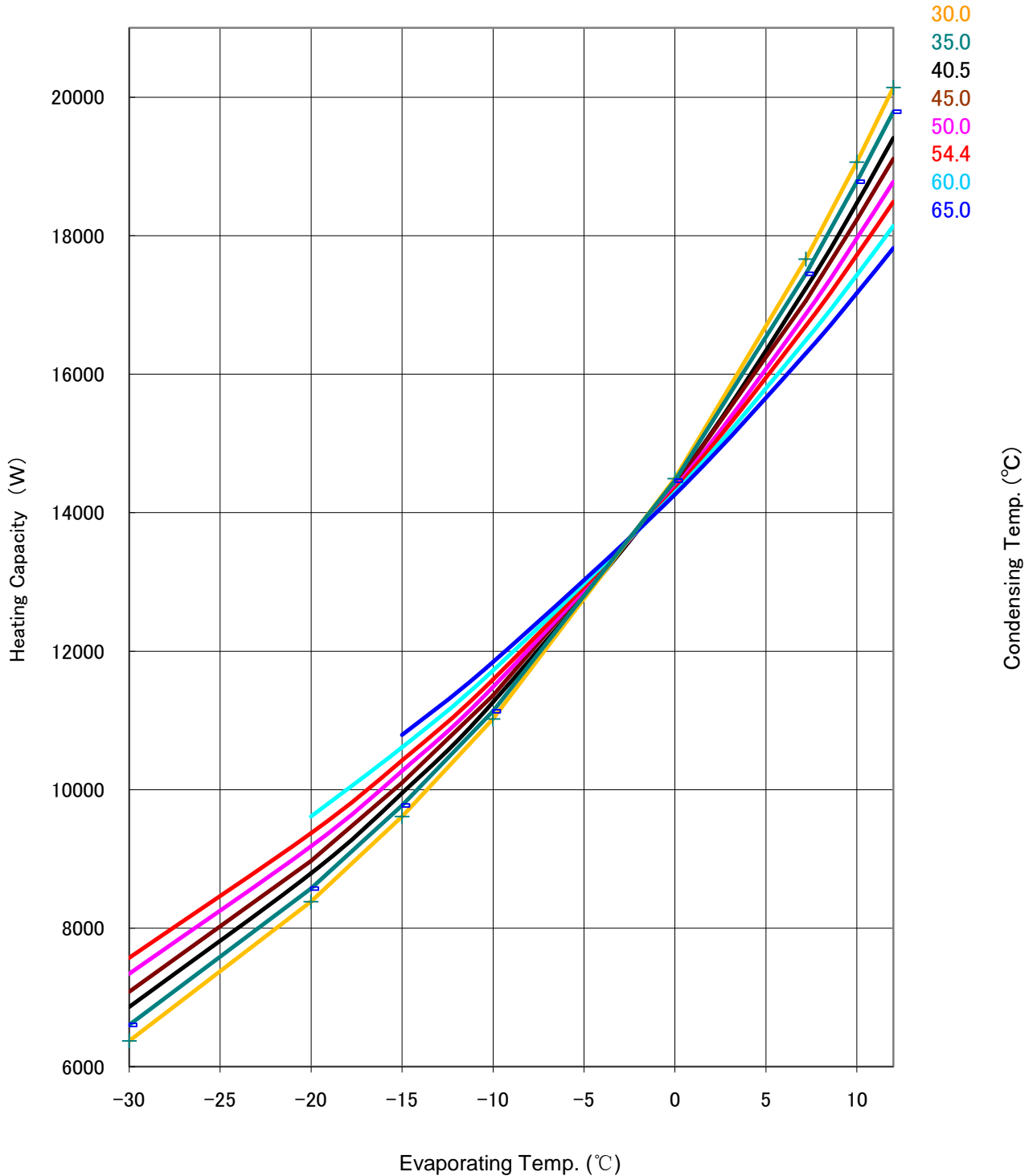
GENERAL SPECIFICATIONS

Model No:		C-SBS145H38Q
Application		
Evaporating Temp Range	(°C)	-30.0 ~ 15.0
Refrigerant		R407C
Compressor Cooling		Gas Injection
Rated Performance		
Heating Capacity	(W)	16700
Input	(W)	4200
Current	(A)	7.4
Revolution	(min ⁻¹)	2900
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)	35.0
Test Conditions are Mid point.		
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm ³)	66.8
Suction Line Connection	(Φmm OD)	22.22
Discharge Line Connection	(Φmm OD)	12.7
Oil	(ml)	1700 (FV68S)
Mass(Incl.Oil)	(kg)	40
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)	66

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PERFORMANCE CURVE

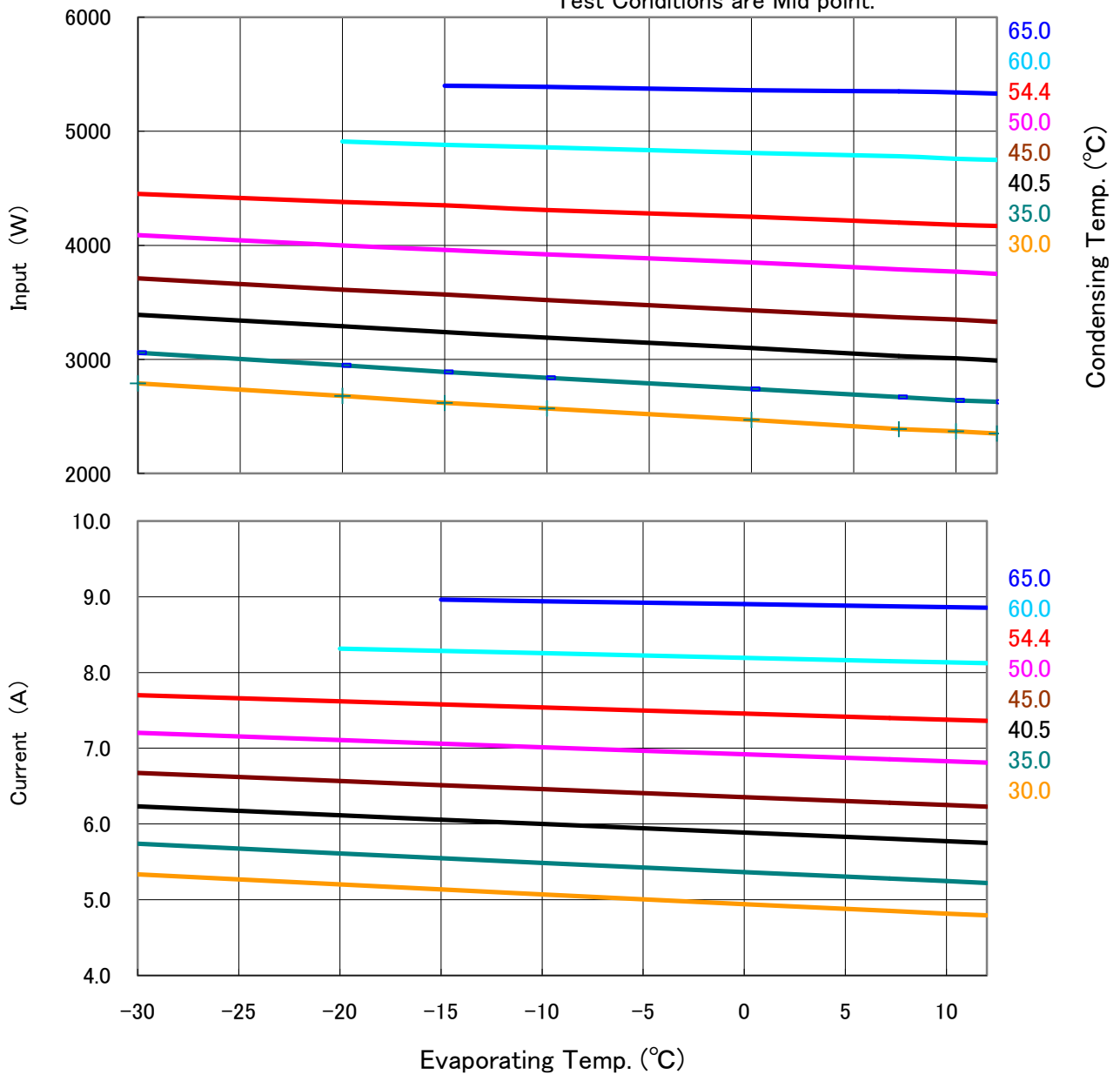
Code No.	C-SBS145H38Q
Power Source	3-PH 50Hz 380V
Condensing Temp.(°C)	30, 35, 40.5, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	4
Compressor Cooling	Gas Injection
Refrigerant	R407C
Test Conditions are Mid point.	



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Test Conditions are Mid point.

Heating Capacity (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	6,370	8,380	9,610	11,020	14,490	17,660	19,060	20,140
	35	6,600	8,570	9,770	11,130	14,460	17,450	18,780	19,790
	40.5	6,860	8,790	9,950	11,260	14,420	17,240	18,470	19,410
	45.0	7,080	8,970	10,100	11,360	14,390	17,060	18,230	19,110
	50.0	7,340	9,180	10,270	11,480	14,360	16,870	17,960	18,780
	54.4	7,570	9,370	10,420	11,590	14,330	16,700	17,720	18,490
	60.0		9,610	10,610	11,720	14,290	16,490	17,430	18,140
	65.0			10,790	11,840	14,260	16,300	17,170	17,820

Input (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	2,790	2,680	2,620	2,570	2,470	2,390	2,370	2,350
	35	3,060	2,950	2,890	2,840	2,740	2,670	2,640	2,630
	40.5	3,390	3,290	3,240	3,190	3,100	3,030	3,010	2,990
	45.0	3,710	3,610	3,570	3,520	3,430	3,370	3,350	3,330
	50.0	4,090	4,000	3,960	3,920	3,850	3,790	3,770	3,750
	54.4	4,450	4,380	4,350	4,310	4,250	4,200	4,180	4,170
	60.0		4,910	4,880	4,860	4,810	4,780	4,760	4,750
	65.0			5,400	5,390	5,360	5,350	5,340	5,330

Current (A)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	5.3	5.2	5.1	5.1	4.9	4.9	4.8	4.8
	35	5.7	5.6	5.5	5.5	5.4	5.3	5.2	5.2
	40.5	6.2	6.1	6.1	6.0	5.9	5.8	5.8	5.8
	45.0	6.7	6.6	6.5	6.5	6.4	6.3	6.3	6.2
	50.0	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.8
	54.4	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.4
	60.0		8.3	8.3	8.3	8.2	8.2	8.1	8.1
	65.0			9.0	8.9	8.9	8.9	8.9	8.9

MassFlow(kg/h)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	128.8	158.6	181.1	233.1	272.1	298.9	327.3	348.5
	35	125.9	155.5	177.6	229.2	267.9	294.5	322.7	343.7
	40.5	122.9	152.0	174.0	225.0	263.4	289.7	317.6	338.5
	45.0	120.5	149.3	171.0	221.7	259.7	285.9	313.6	334.3
	50.0	117.8	146.3	167.8	218.0	255.7	281.7	309.2	329.8
	54.4	115.5	143.7	165.0	214.7	252.2	278.0	305.3	325.8
	60.0		140.5	161.5	210.7	247.8	273.4	300.5	320.8
	65.0			158.5	207.2	244.0	269.4	296.3	316.4

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		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	2.28	3.13	3.67	4.29	5.87	7.39	8.04	8.57
	35	2.16	2.91	3.38	3.92	5.28	6.54	7.11	7.52
	40.5	2.02	2.67	3.07	3.53	4.65	5.69	6.14	6.49
	45.0	1.91	2.48	2.83	3.23	4.20	5.06	5.44	5.74
	50.0	1.79	2.30	2.59	2.93	3.73	4.45	4.76	5.01
	54.4	1.70	2.14	2.40	2.69	3.37	3.98	4.24	4.43
	60.0		1.96	2.17	2.41	2.97	3.45	3.66	3.82
	65.0			2.00	2.20	2.66	3.05	3.22	3.34

Coefficients of Polynomial Formula

	Heating Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	1.492354E+04	1.700681E+03	3.300138E+00	3.130876E+02
C2	5.217004E+02	-4.899096E+00	-9.576553E-03	8.001156E+00
C3	-1.565087E+01	-5.939296E-01	2.829395E-02	-1.529741E+00
C4	7.127418E+00	4.468609E-02	2.770208E-05	5.189118E-03
C5	-4.200106E+00	-3.438056E-01	-2.631495E-04	-9.354209E-02
C6	7.952906E-02	8.727583E-01	8.864671E-04	7.906141E-03
C7	2.937461E-02	-3.173069E-04	-1.908963E-07	-1.740917E-03
C8	-6.652320E-02	-8.806220E-04	-6.548237E-07	-8.660550E-04
C9	3.831696E-03	5.773077E-03	5.376691E-06	7.343433E-04
C10	-4.969552E-08	8.982829E-08	1.330059E-10	-3.489742E-09

Note: The polynomial coefficients subject to change without notice.

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

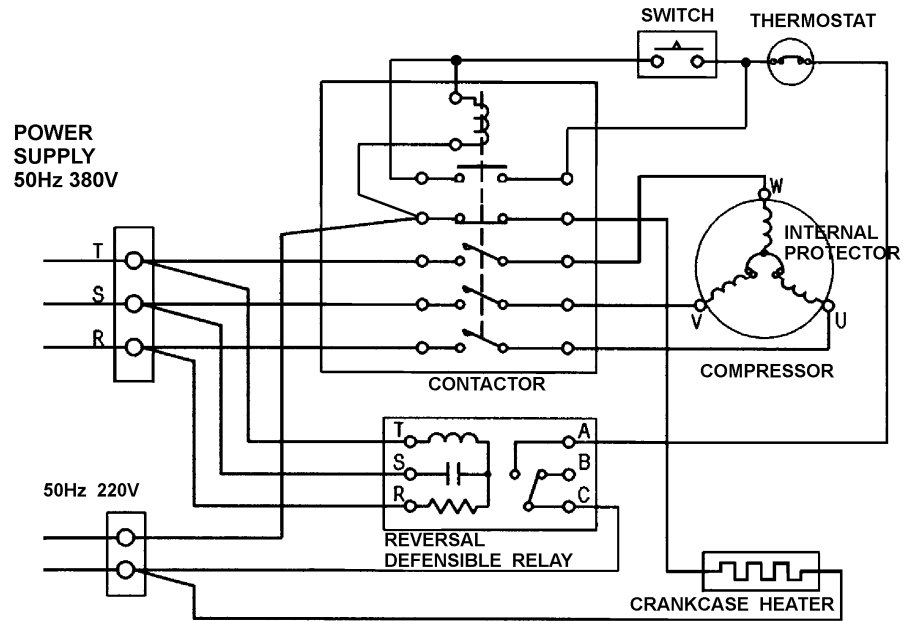
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

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

