



SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS120H15Q

Output : 3.5 HP



Temporary

DALIAN SANYO COMPRESSOR Co.,Ltd.

06-May-09

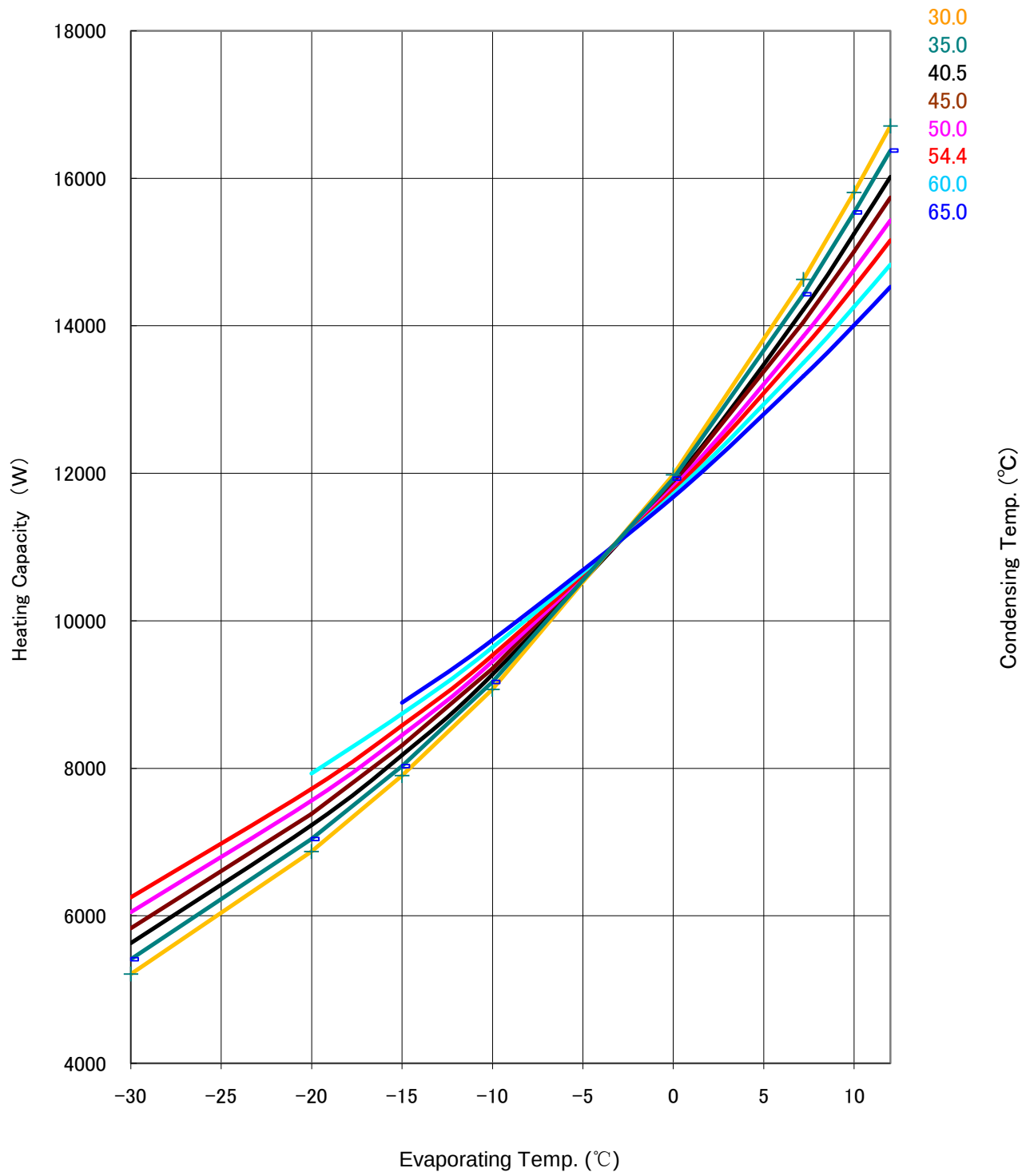
GENERAL SPECIFICATIONS

Model No:		C-SBS120H15Q
Application		
Evaporating Temp Range	(°C)	-30.0 ~ 15.0
Refrigerant		R407C
Compressor Cooling		Gas Injection
Rated Performance		
Heating Capacity	(W)	13700
Input	(W)	3600
Current	(A)	16.7
Revolution	(min ⁻¹)	2910
Sound Level	(dB(A))	
Rating Conditions		
Power Source		1-PH 50Hz 220V
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	(cm3)	55.7
Suction Line Connection	(Φ mm OD)	22.22
Discharge Line Connection	(Φ mm OD)	12.7
Oil	(ml)	1700 (FV68S)
Mass(Incl.Oil)	(kg)	40
Motor		
Type		1-PH Induction Motor(PSC)
Pole		2
Rated Power Source		1-PH 50Hz 220-240V
Voltage Range	(V)	198~264
Starting Current	(A)	103

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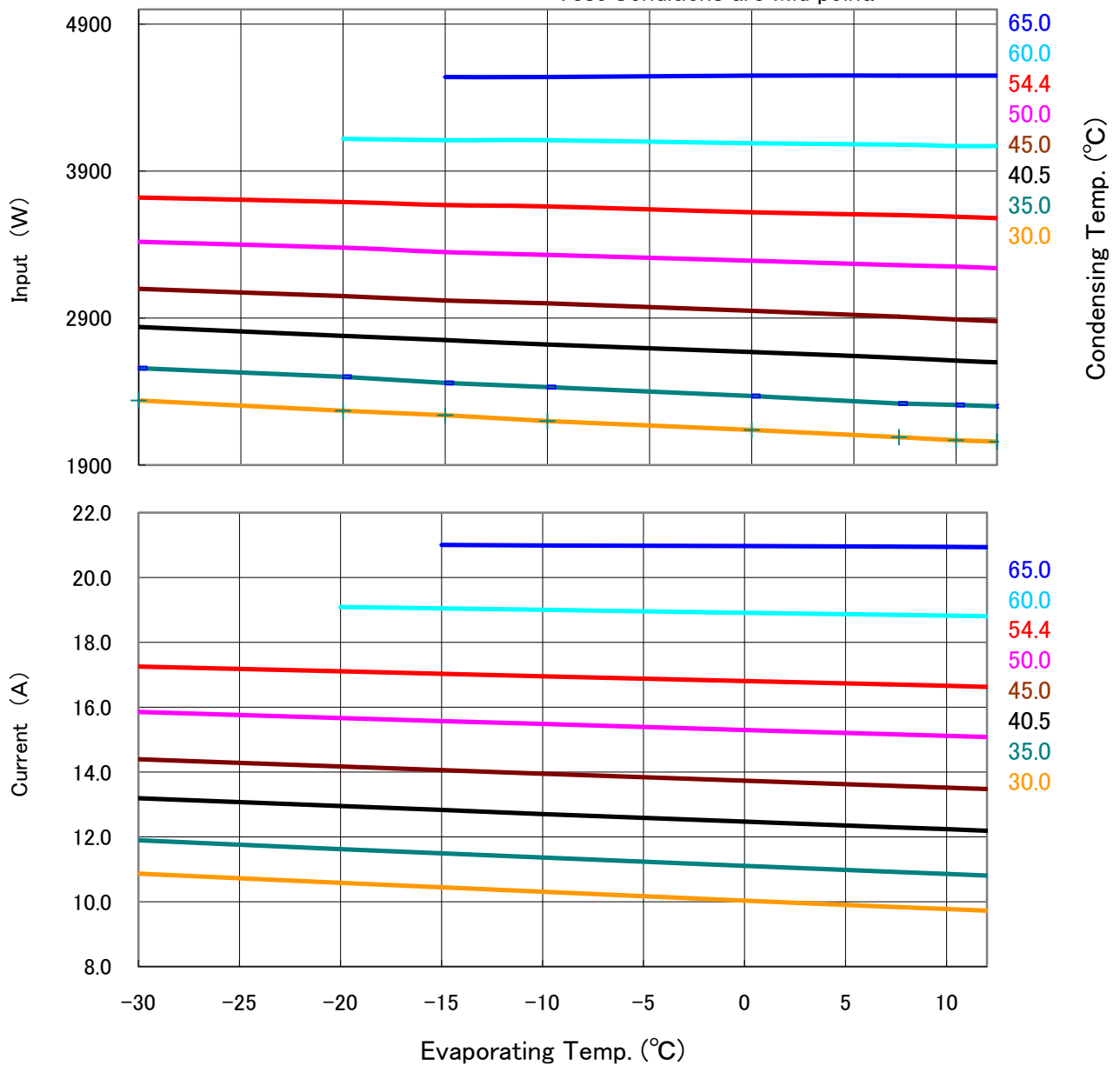
PERFORMANCE CURVE

Code No.	C-SBS120H15Q
Power Source	1-PH 50Hz 220V
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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Test Conditions are Mid point.

Heating Capacity (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	5,210	6,870	7,900	9,070	11,980	14,630	15,810	16,710
	35	5,410	7,040	8,030	9,170	11,930	14,430	15,540	16,380
	40.5	5,630	7,230	8,180	9,270	11,890	14,220	15,250	16,020
	45.0	5,830	7,380	8,310	9,350	11,850	14,050	15,010	15,740
	50.0	6,050	7,560	8,450	9,450	11,810	13,860	14,760	15,430
	54.4	6,250	7,720	8,580	9,530	11,770	13,700	14,530	15,160
	60.0		7,930	8,740	9,640	11,720	13,500	14,260	14,830
	65.0			8,890	9,740	11,680	13,320	14,010	14,530

Input (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	2,340	2,270	2,240	2,200	2,140	2,090	2,070	2,060
	35	2,560	2,500	2,460	2,430	2,370	2,320	2,310	2,300
	40.5	2,840	2,780	2,750	2,720	2,670	2,630	2,610	2,600
	45.0	3,100	3,050	3,020	3,000	2,950	2,910	2,890	2,880
	50.0	3,420	3,380	3,350	3,330	3,290	3,260	3,250	3,240
	54.4	3,720	3,690	3,670	3,660	3,620	3,600	3,590	3,580
	60.0		4,120	4,110	4,110	4,090	4,080	4,070	4,070
	65.0			4,540	4,540	4,550	4,550	4,550	4,550

Current (A)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	10.9	10.6	10.4	10.3	10.0	9.8	9.8	9.7
	35	11.9	11.6	11.5	11.4	11.1	10.9	10.9	10.8
	40.5	13.2	13.0	12.8	12.7	12.5	12.3	12.2	12.2
	45.0	14.4	14.2	14.1	14.0	13.7	13.6	13.5	13.5
	50.0	15.9	15.7	15.6	15.5	15.3	15.2	15.1	15.1
	54.4	17.3	17.1	17.0	17.0	16.8	16.7	16.7	16.6
	60.0		19.1	19.0	19.0	18.9	18.8	18.8	18.8
	65.0			21.0	21.0	21.0	20.9	20.9	20.9

MassFlow(kg/h)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	105.0	130.8	149.7	192.6	224.2	245.7	268.3	285.1
	35	101.8	126.5	144.8	186.7	217.9	239.1	261.5	278.2
	40.5	98.3	121.9	139.5	180.4	211.0	232.0	254.2	270.8
	45.0	95.6	118.3	135.4	175.4	205.6	226.4	248.4	264.9
	50.0	92.7	114.3	130.9	170.0	199.7	220.3	242.1	258.5
	54.4	90.2	111.0	127.0	165.3	194.6	215.0	236.7	253.0
	60.0		106.8	122.3	159.6	188.4	208.5	230.0	246.2
	65.0			118.2	154.6	183.0	202.9	224.2	240.3

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		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	2.23	3.03	3.53	4.12	5.60	7.00	7.64	8.11
	35	2.11	2.82	3.26	3.77	5.03	6.22	6.73	7.12
	40.5	1.98	2.60	2.97	3.41	4.45	5.41	5.84	6.16
	45.0	1.88	2.42	2.75	3.12	4.02	4.83	5.19	5.47
	50.0	1.77	2.24	2.52	2.84	3.59	4.25	4.54	4.76
	54.4	1.68	2.09	2.34	2.60	3.25	3.81	4.05	4.23
	60.0		1.92	2.13	2.35	2.87	3.31	3.50	3.64
	65.0			1.96	2.15	2.57	2.93	3.08	3.19

Coefficients of Polynomial Formula

	Heating Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	1.245707E+04	1.463059E+03	6.805697E+00	2.775667E+02
C2	4.467805E+02	-3.092925E+00	-1.283023E-02	6.597661E+00
C3	-1.741459E+01	1.361841E+00	1.463775E-02	-1.985096E+00
C4	6.113847E+00	1.303316E-02	5.627411E-05	-7.936610E-03
C5	-3.878526E+00	-2.486939E-01	-9.797130E-04	-8.043297E-02
C6	8.141328E-02	7.061211E-01	3.115050E-03	8.746476E-03
C7	2.418978E-02	-2.819507E-04	-5.347126E-07	-1.379363E-03
C8	-5.990080E-02	-4.605139E-04	-1.484334E-06	-4.047040E-04
C9	4.205566E-03	4.528902E-03	1.737719E-05	5.973331E-04
C10	-3.656278E-08	6.950951E-08	3.522604E-10	-3.247188E-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 1 phase

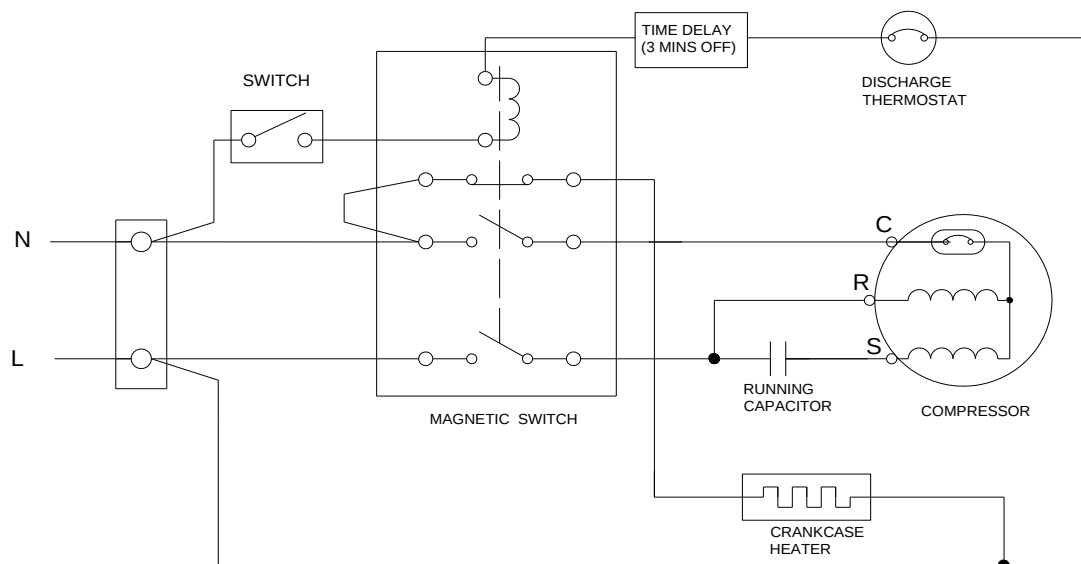
2.6-4.5kw

European & Chinese

power supply

specifications

models



Operating Envelope

Suction Gas Superheat: 11.1K

Refrigerant: R407C

