

SPECIFICATIONS OF COMPRESSOR

Model No: C-SCS435H38Q

Output : 12 HP



Temporary

DALIAN SANYO COMPRESSOR Co.,Ltd.

06-May-09

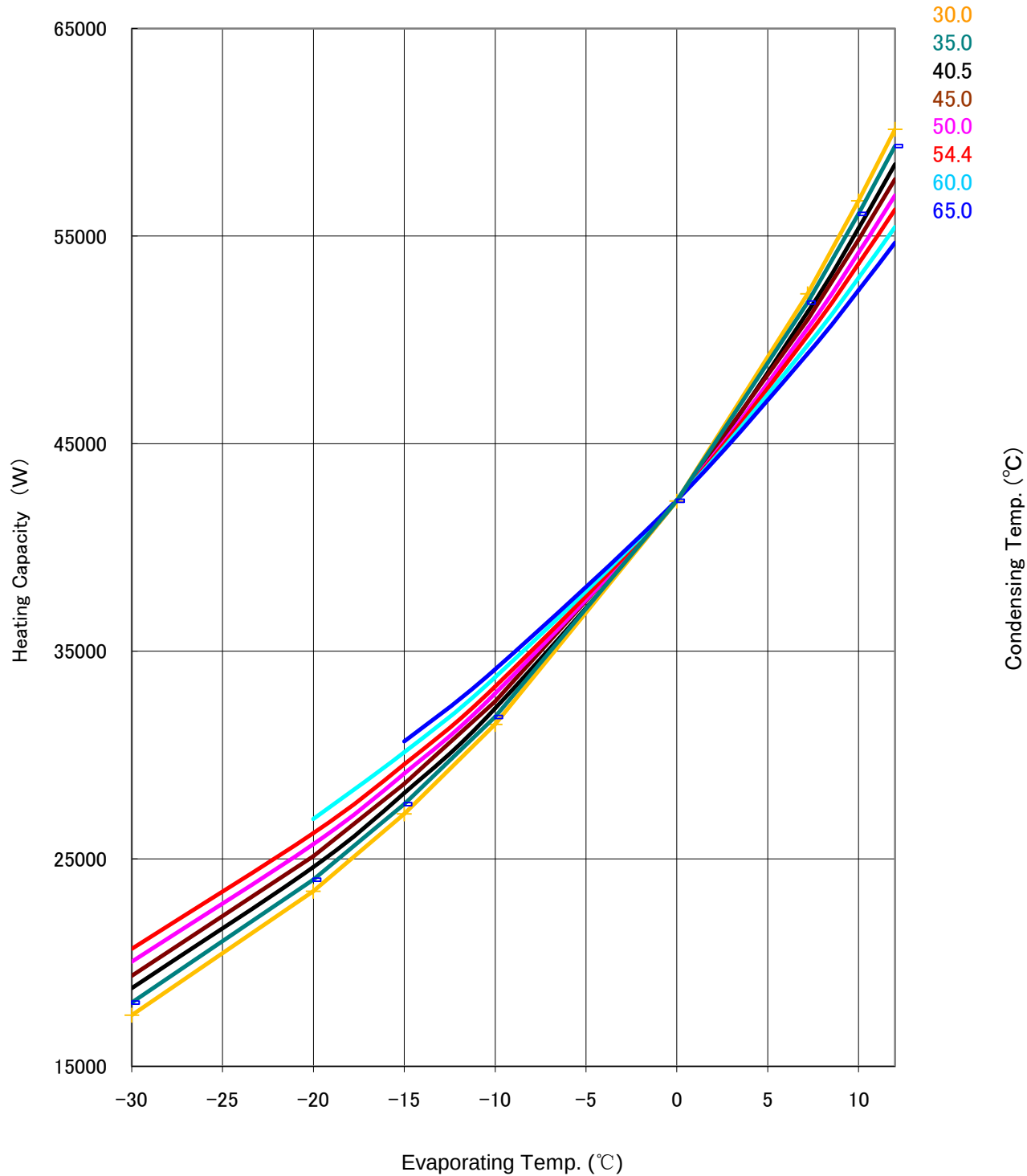
GENERAL SPECIFICATIONS

Model No:		C-SCS435H38Q
Application		
Evaporating Temp Range	(°C)	-30.0 ~ 15.0
Refrigerant		R407C
Compressor Cooling		Gas Injection
Rated Performance		
Heating Capacity	(W)	35500
Input	(W)	11300
Current	(A)	19.0
Revolution	(min ⁻¹)	2900
Sound Level	(dB(A))	
Rating Conditions		Mid-point
Power Source		3-PH 50Hz 380V
Evaporating Temp	(°C)	-7.0
Condensing Temp	(°C)	50.0
Suction Gas Temp	(°C)	4.1
Liquid Temp	(°C)	46.0
Ambient Temp	(°C)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm3)	205.4
Suction Line Connection	(Φmm OD)	25.4
Discharge Line Connection	(Φmm OD)	19.05
Oil	(ml)	2800 (FV68S)
Mass(Incl.Oil)	(kg)	71
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)	96

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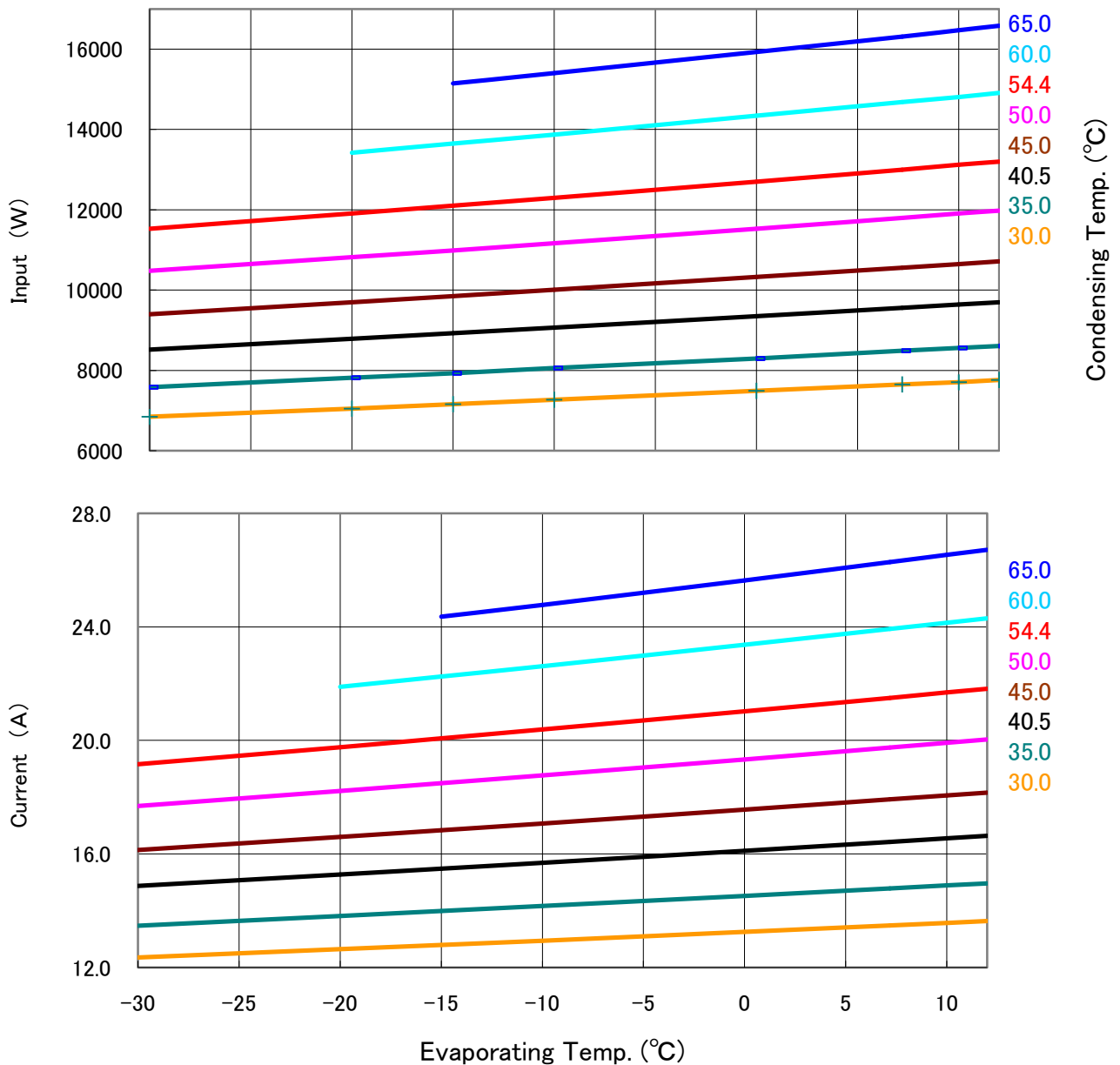
PERFORMANCE CURVE

Code No.	C-SCS435H38Q
Power Source	3-PH 50Hz 380V
Condensing Temp.(°C)	30, 35, 40.5, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	9
Sub Cooled(K)	2
Compressor Cooling	Gas Injection
Refrigerant	R407C



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PERFORMANCE DATA

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Sub Cooled(K)	2
Compressor Cooling	Gas Injection
Refrigerant	R407C

Heating Capacity (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	17,460	23,440	27,160	31,470	42,240	52,220	56,710	60,150
	35	18,070	23,990	27,630	31,830	42,250	51,800	56,070	59,340
	40.5	18,770	24,600	28,170	32,240	42,260	51,340	55,380	58,460
	45.0	19,360	25,120	28,610	32,580	42,260	50,970	54,820	57,750
	50.0	20,040	25,700	29,110	32,960	42,270	50,560	54,210	56,970
	54.4	20,660	26,230	29,550	33,300	42,280	50,200	53,670	56,290
	60.0		26,920	30,130	33,740	42,280	49,750	52,990	55,440
	65.0			30,660	34,120	42,280	49,340	52,390	54,690

Input (W)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	6,850	7,050	7,160	7,270	7,490	7,650	7,710	7,760
	35	7,580	7,820	7,930	8,060	8,300	8,490	8,560	8,610
	40.5	8,520	8,790	8,930	9,070	9,350	9,560	9,640	9,700
	45.0	9,400	9,700	9,850	10,010	10,330	10,560	10,650	10,720
	50.0	10,480	10,820	10,990	11,170	11,530	11,800	11,910	11,980
	54.4	11,530	11,910	12,100	12,300	12,700	13,000	13,120	13,200
	60.0		13,420	13,650	13,870	14,340	14,680	14,810	14,910
	65.0			15,150	15,400	15,930	16,310	16,470	16,580

Current (A)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	12.4	12.6	12.8	12.9	13.3	13.5	13.6	13.6
	35	13.5	13.8	14.0	14.2	14.5	14.8	14.9	15.0
	40.5	14.9	15.3	15.5	15.7	16.1	16.4	16.5	16.6
	45.0	16.1	16.6	16.8	17.1	17.6	17.9	18.1	18.2
	50.0	17.7	18.2	18.5	18.8	19.3	19.7	19.9	20.0
	54.4	19.2	19.8	20.1	20.4	21.0	21.5	21.7	21.8
	60.0		21.9	22.3	22.6	23.4	23.9	24.1	24.3
	65.0			24.4	24.8	25.6	26.3	26.5	26.7

MassFlow(kg/H)

		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	190.3	289.3	361.5	448.9	669.0	865.0	949.7	1,013.1
	35	187.0	284.3	355.0	440.5	655.6	846.9	929.6	991.4
	40.5	183.5	278.9	348.0	431.4	641.1	827.4	907.8	968.1
	45.0	180.7	274.5	342.3	424.1	629.4	811.7	890.5	949.4
	50.0	177.6	269.7	336.1	416.1	616.7	794.7	871.5	929.0
	54.4	174.9	265.6	330.8	409.2	605.7	780.0	855.2	911.4
	60.0		260.4	324.1	400.6	592.1	761.7	834.8	889.6
	65.0			318.3	393.1	580.2	745.7	817.1	870.5

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		Evaporating Temp. (°C)							
		-30	-20	-15	-10	0	7.2	10	12
Condensing Temp. (°C)	30	2.55	3.32	3.79	4.33	5.64	6.83	7.36	7.75
	35	2.38	3.07	3.48	3.95	5.09	6.10	6.55	6.89
	40.5	2.20	2.80	3.15	3.55	4.52	5.37	5.74	6.03
	45.0	2.06	2.59	2.90	3.25	4.09	4.83	5.15	5.39
	50.0	1.91	2.38	2.65	2.95	3.67	4.28	4.55	4.76
	54.4	1.79	2.20	2.44	2.71	3.33	3.86	4.09	4.26
	60.0		2.01	2.21	2.43	2.95	3.39	3.58	3.72
	65.0			2.02	2.22	2.65	3.03	3.18	3.30

Coefficients of Polynomial Formula

	Heating Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	4.279232E+04	5.121021E+03	8.834270E+00	7.590333E+02
C2	1.563029E+03	1.711916E+01	2.232089E-02	2.882370E+01
C3	-2.016844E+01	4.967774E+00	5.352997E-02	-3.225441E+00
C4	2.289185E+01	-2.367424E-02	-5.627735E-05	3.495255E-01
C5	-1.063919E+01	-1.641752E-01	-3.155464E-04	-1.340710E-01
C6	1.737072E-01	2.474282E+00	3.141335E-03	7.443972E-03
C7	1.083749E-01	-5.356761E-04	-4.920159E-07	1.701708E-05
C8	-1.846285E-01	9.909841E-04	2.173730E-06	-1.555892E-03
C9	8.581582E-03	1.106174E-02	2.026191E-05	2.575001E-04
C10	-6.435244E-08	2.700964E-07	4.086849E-10	-3.359931E-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-SC Series 3 phase

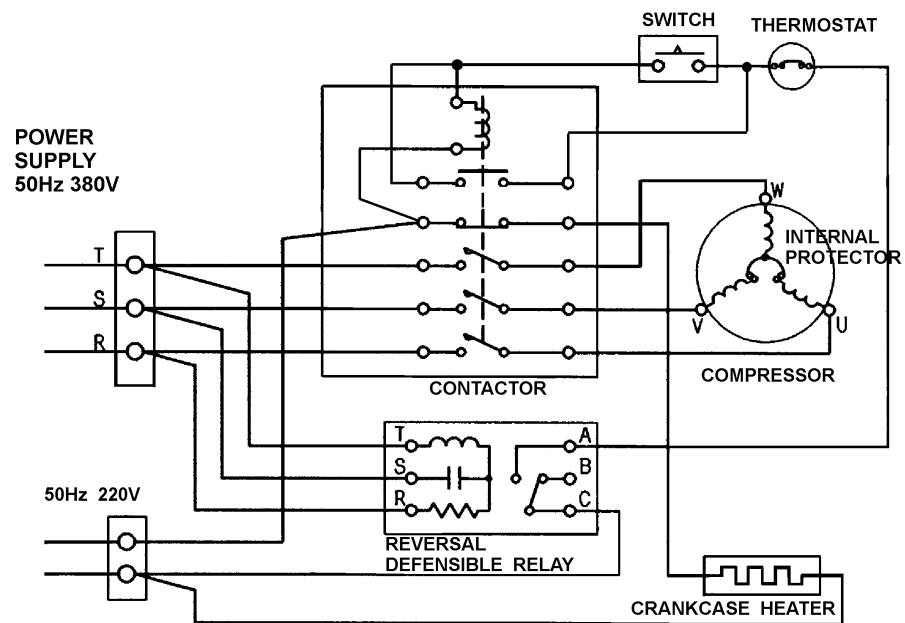
5.8-9kw

European & Chinese

power supply

specifications

models



Operating Envelope

Suction Gas Superheat: 9K
Refrigerant: R407C

--- Liquid Injection
— Gas Injection

