

SPECIFICATIONS OF COMPRESSOR

Model No: C-SBN263H8A

Output : 3.5 HP



DALIAN SANYO COMPRESSOR Co.,Ltd.

12-Nov-13

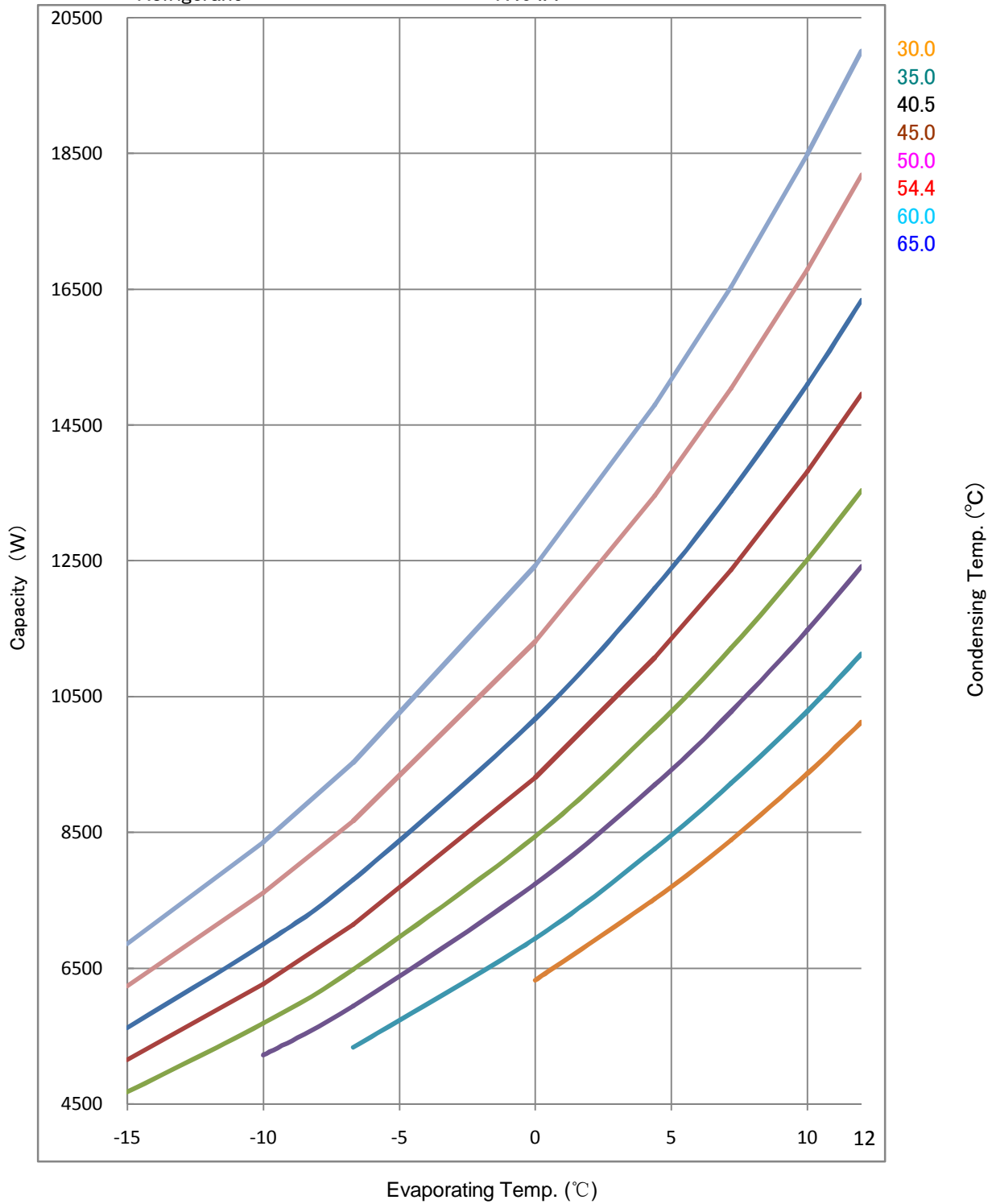
GENERAL SPECIFICATIONS

Model No:	C-SBN263H8A	
Application		
Evaporating Temp Range	(°C)	-15.0 ~ 12.0
Refrigerant	R404A	
Compressor Cooling	Natural Cooling	
Rated Performance		
		50Hz-380V / 60Hz-440V
Capacity	(W)	10280 / 12120
Input	(W)	3560 / 4360
Current	(A)	6.2 / 6.5
Revolution	(min ⁻¹)	2900 / 3450
Sound Level	(dB(A))	62 / 65
Rating Conditions		
Power Source		50Hz-380V / 60Hz-440V
Evaporating Temp	(°C)	7.2
Condensing Temp	(°C)	54.4
Suction Gas Temp	(°C)	18.3
Liquid Temp	(°C)	46.1
Ambient Temp	(°C)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design	Hermetic Scroll	
Displacement	(cm ³)	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)	37.5
Motor		
Type	3-PH Induction Motor(3IR)	
Pole	2	
Rated Power Source	3Ph 50Hz 380-415V/ 3Ph 60Hz 440-460V	
Voltage Range	(V)	342~456/396~506
Starting Current	(A)	48 / 51

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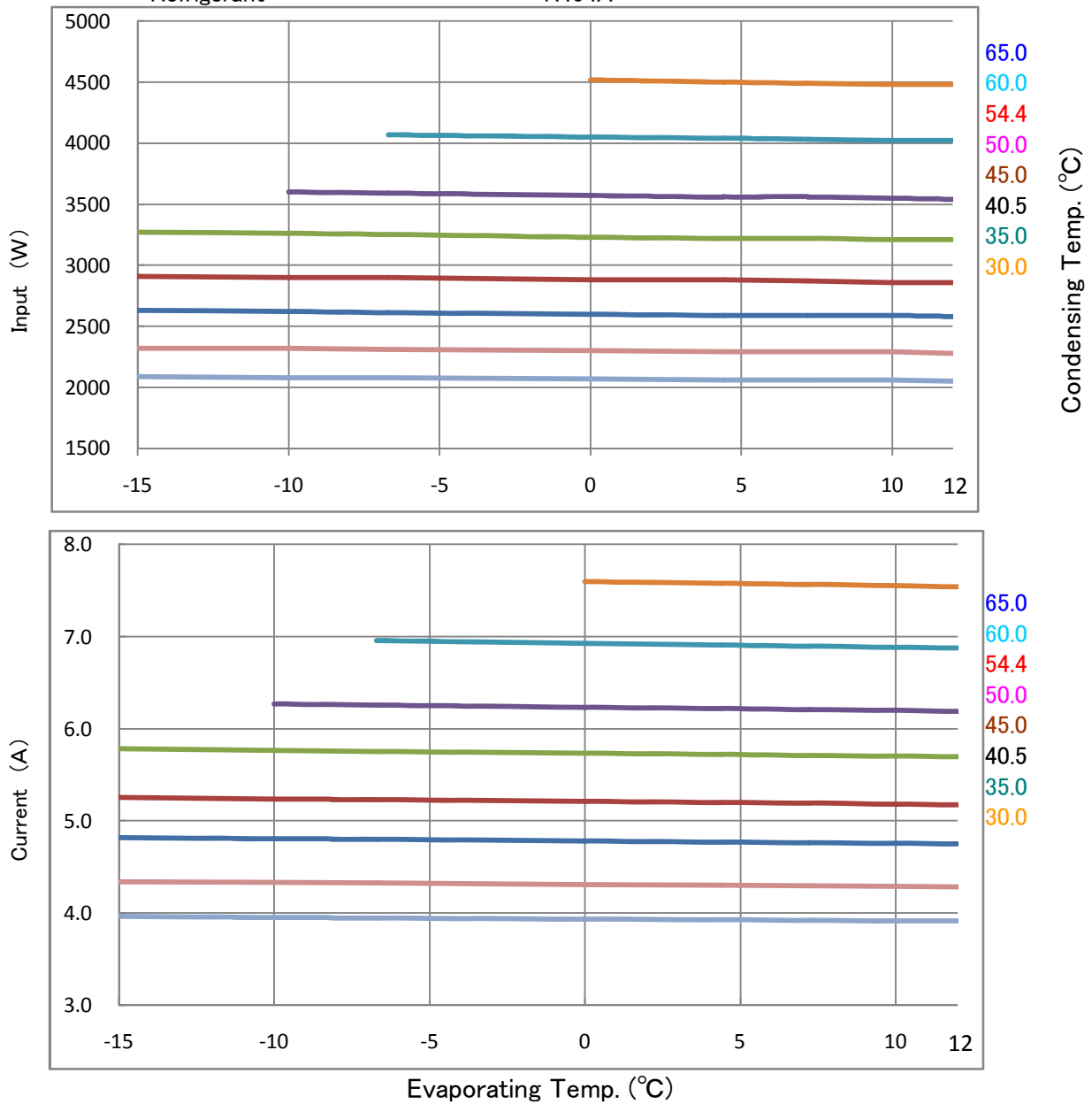
PERFORMANCE CURVE

Code No.	C-SBN263H8A
Power Source	3Ph 50Hz 380V
Condensing Temp.(°C)	30, 35, 40.5, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R404A



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Refrigerant	R404A

Capacity (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	6,860	8,360	9,530	12,430	14,800	16,540	18,490	20,010
	35	6,240	7,610	8,670	11,310	13,460	15,040	16,800	18,190
	40.5	5,620	6,850	7,800	10,170	12,100	13,520	15,100	16,340
	45.0	5,150	6,270	7,140	9,310	11,080	12,370	13,820	14,960
	50.0	4,670	5,690	6,480	8,440	10,040	11,210	12,520	13,540
	54.4		5,220	5,940	7,740	9,200	10,280	11,480	12,420
	60.0			5,330	6,940	8,260	9,220	10,290	11,130
	65.0				6,320	7,520	8,390	9,370	10,130

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	2,090	2,080	2,080	2,070	2,060	2,060	2,060	2,050
	35	2,320	2,320	2,310	2,300	2,290	2,290	2,290	2,280
	40.5	2,630	2,620	2,610	2,600	2,590	2,590	2,590	2,580
	45.0	2,910	2,900	2,900	2,880	2,880	2,870	2,860	2,860
	50.0	3,270	3,260	3,250	3,230	3,220	3,220	3,210	3,210
	54.4		3,600	3,590	3,570	3,560	3,560	3,550	3,540
	60.0			4,070	4,050	4,040	4,030	4,020	4,020
	65.0				4,520	4,500	4,490	4,480	4,480

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	4.0	4.0	3.9	3.9	3.9	3.9	3.9	3.9
	35	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	40.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	45.0	5.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	50.0	5.8	5.8	5.8	5.7	5.7	5.7	5.7	5.7
	54.4		6.3	6.3	6.2	6.2	6.2	6.2	6.2
	60.0			7.0	6.9	6.9	6.9	6.9	6.9
	65.0				7.6	7.6	7.6	7.6	7.5

MassFlow (kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	180	210	230	290	340	370	400	430
	35	170	200	230	290	330	360	400	420
	40.5	160	200	220	280	320	360	390	410
	45.0	150	190	220	270	320	350	380	400
	50.0	150	180	210	270	310	340	370	400
	54.4		180	200	260	310	340	370	390
	60.0			200	260	300	330	360	380
	65.0				250	290	320	350	380

EER

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	3.28	4.02	4.58	6.00	7.18	8.03	8.98	9.76
	35	2.69	3.28	3.75	4.92	5.88	6.57	7.34	7.98
	40.5	2.14	2.61	2.99	3.91	4.67	5.22	5.83	6.33
	45.0	1.77	2.16	2.46	3.23	3.85	4.31	4.83	5.23
	50.0	1.43	1.75	1.99	2.61	3.12	3.48	3.90	4.22
	54.4		1.45	1.65	2.17	2.58	2.89	3.23	3.51
	60.0			1.31	1.71	2.04	2.29	2.56	2.77
	65.0				1.40	1.67	1.87	2.09	2.26

Coefficients of Polynominal Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	2.115619E+04	1.496328E+03	2.716336E+00	3.244546E+02
C2	8.357878E+02	-1.076060E+00	-1.392188E-03	9.064490E+00
C3	-3.432757E+02	-4.470245E+00	1.123936E-02	-1.020962E+00
C4	1.334824E+01	2.842606E-02	-9.369467E-07	1.973829E-01
C5	-1.323797E+01	1.606229E-02	2.050869E-05	3.135170E-02
C6	1.771808E+00	7.836456E-01	9.827325E-04	-1.926247E-03
C7	8.617055E-02	1.492169E-03	4.391166E-09	3.574713E-04
C8	-1.289880E-01	-5.822295E-05	3.973937E-08	-1.914036E-03
C9	6.387789E-02	-8.258094E-04	-1.133339E-06	-4.307635E-04
C10	-6.886341E-10	-1.042675E-08	2.985623E-12	-1.224555E-09

Note: The polynomial coefficients subject to change without notice.

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

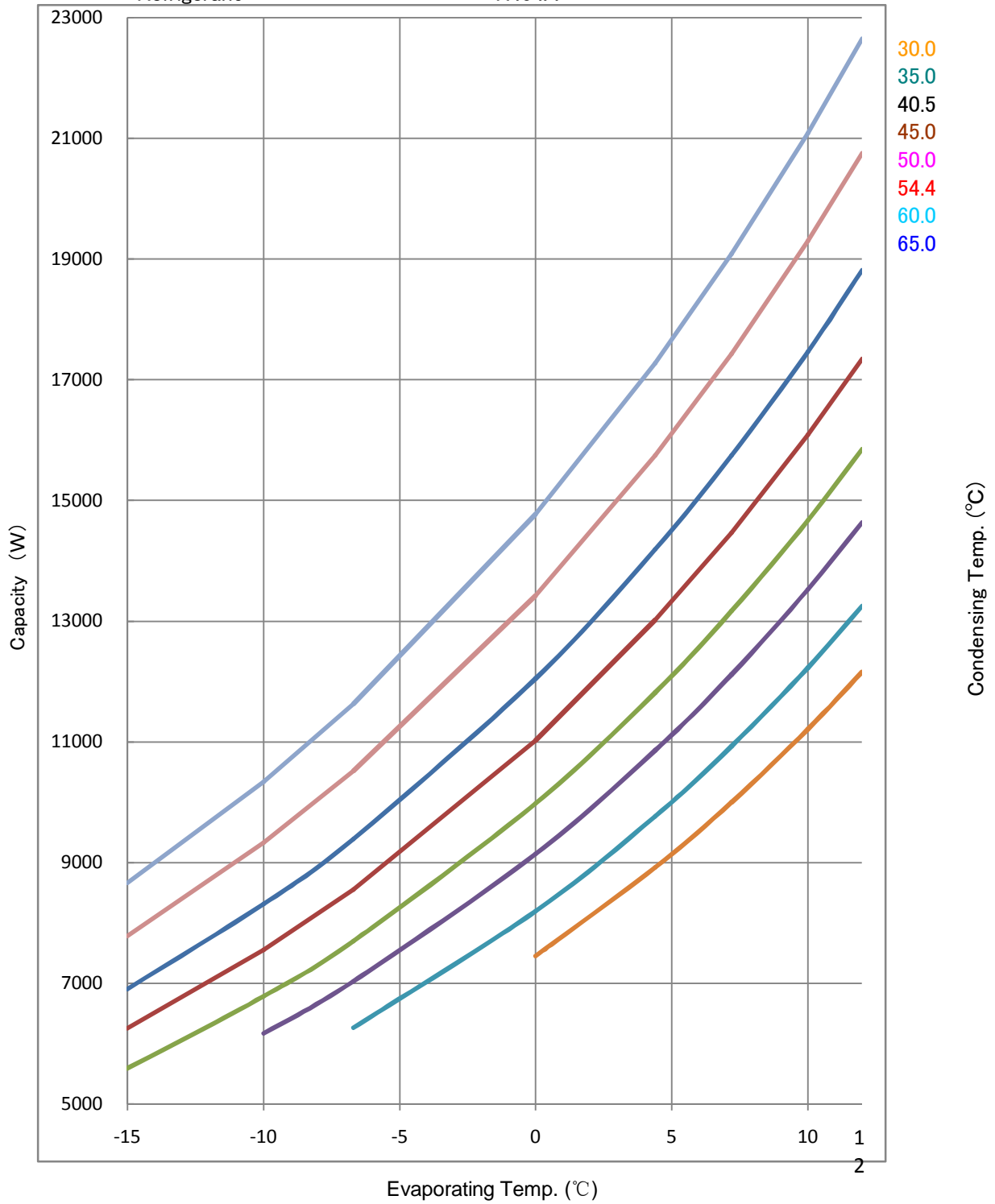
X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR MassFlow(kg/H)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

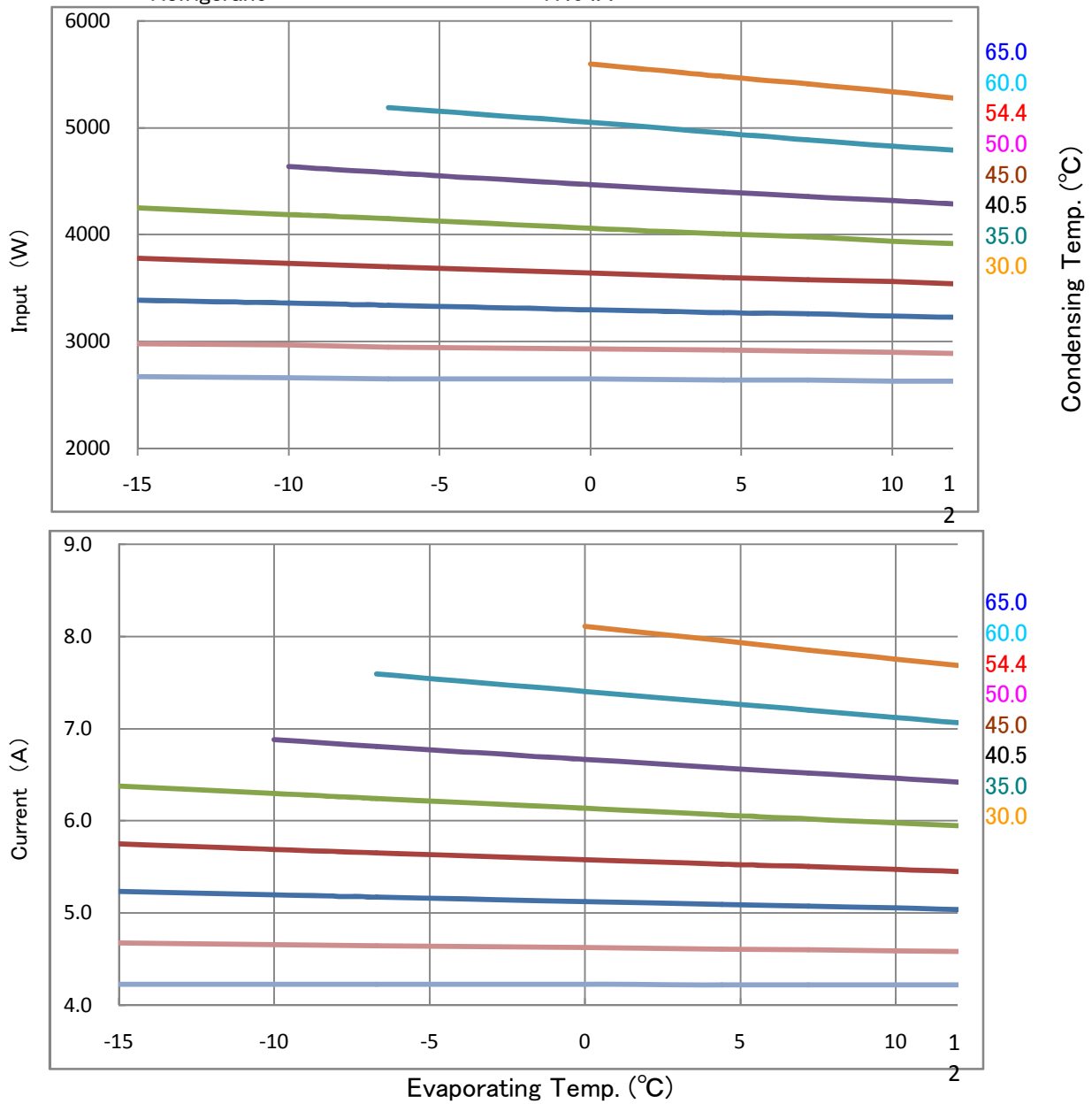
PERFORMANCE CURVE

Code No.	C-SBN263H8A
Power Source	3Ph 60Hz 440V
Condensing Temp.(°C)	30, 35, 40.5, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
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Compressor Cooling	Natural Cooling
Refrigerant	R404A

Capacity (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	8,660	10,340	11,630	14,770	17,280	19,090	21,090	22,650
	35	7,780	9,330	10,520	13,420	15,750	17,430	19,300	20,760
	40.5	6,900	8,310	9,390	12,050	14,190	15,750	17,470	18,820
	45.0	6,250	7,550	8,550	11,020	13,020	14,470	16,090	17,350
	50.0	5,590	6,780	7,700	9,980	11,820	13,170	14,670	15,850
	54.4		6,170	7,030	9,140	10,860	12,120	13,530	14,640
	60.0			6,260	8,190	9,770	10,930	12,230	13,250
	65.0				7,450	8,920	10,000	11,210	12,160

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	2,670	2,660	2,650	2,650	2,640	2,640	2,630	2,630
	35	2,980	2,970	2,950	2,930	2,920	2,910	2,900	2,890
	40.5	3,390	3,360	3,340	3,300	3,270	3,260	3,240	3,230
	45.0	3,780	3,730	3,700	3,640	3,600	3,580	3,560	3,540
	50.0	4,250	4,190	4,150	4,060	4,010	3,980	3,940	3,920
	54.4		4,640	4,580	4,470	4,400	4,360	4,320	4,290
	60.0			5,190	5,050	4,950	4,890	4,830	4,790
	65.0				5,600	5,480	5,410	5,340	5,280

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
	35	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.6
	40.5	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.0
	45.0	5.8	5.7	5.7	5.6	5.5	5.5	5.5	5.5
	50.0	6.4	6.3	6.2	6.1	6.1	6.0	6.0	5.9
	54.4		6.9	6.8	6.7	6.6	6.5	6.5	6.4
	60.0			7.6	7.4	7.3	7.2	7.1	7.1
	65.0				8.1	8.0	7.9	7.8	7.7

MassFlow (kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	280	280	290	340	390	420	460	500
	35	250	260	280	330	380	420	460	490
	40.5	220	240	270	330	380	410	450	480
	45.0	190	230	250	320	370	410	450	470
	50.0	170	210	240	310	370	400	440	470
	54.4		200	230	310	360	400	440	460
	60.0			220	300	360	390	430	460
	65.0				300	350	390	420	450

EER

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30	3.24	3.89	4.39	5.57	6.55	7.23	8.02	8.61
	35	2.61	3.14	3.57	4.58	5.39	5.99	6.66	7.18
	40.5	2.04	2.47	2.81	3.65	4.34	4.83	5.39	5.83
	45.0	1.65	2.02	2.31	3.03	3.62	4.04	4.52	4.90
	50.0	1.32	1.62	1.86	2.46	2.95	3.31	3.72	4.04
	54.4		1.33	1.53	2.04	2.47	2.78	3.13	3.41
	60.0			1.21	1.62	1.97	2.24	2.53	2.77
	65.0				1.33	1.63	1.85	2.10	2.30

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	2.509907E+04	1.887672E+03	2.926355E+00	3.975031E+02
C2	8.100563E+02	-5.606463E+00	-2.455740E-03	1.560719E+00
C3	-4.062878E+02	-2.061160E+00	1.221242E-02	-2.176156E+00
C4	1.192558E+01	-4.171884E-02	-8.015821E-05	5.601081E-01
C5	-1.075304E+01	5.402091E-01	5.664471E-04	3.213274E-01
C6	2.073687E+00	9.111618E-01	1.040268E-03	9.690330E-03
C7	8.814716E-02	9.773257E-04	-1.117090E-07	-1.532762E-03
C8	-8.654668E-02	1.713408E-03	2.208102E-06	-8.524688E-03
C9	4.537460E-02	-1.351126E-02	-1.673511E-05	-2.341807E-03
C10	7.910310E-09	1.698947E-10	5.232131E-12	8.829926E-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) OR MassFlow(kg/H)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

WIRING DIAGRAM
C-SB/C Series 3 phase

