SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS180H00B

Output : 5 HP

Temporary

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

08-Nov-17

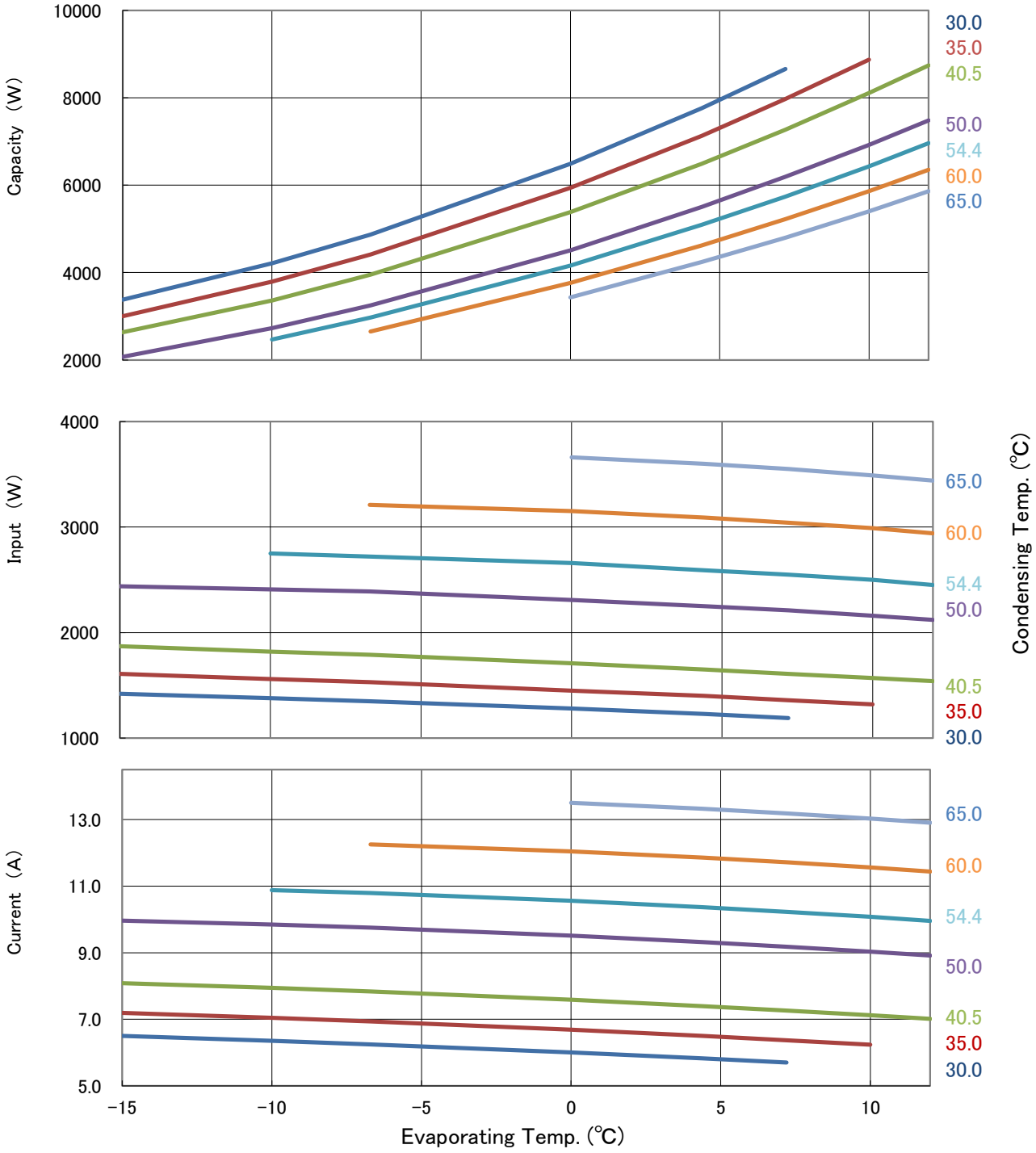
GENERAL SPECIFICATIONS

Model No:		C-SBS180H00B
Application		
Evaporating Temp Range	(℃)	-20 ～ 12.0
Refrigerant		R448A
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	13410
Input	(W)	4550
Current	(A)	10.3
Revolution	(min^{-1})	3600
Sound Level	(dB(A))	76max
Rating Conditions		
Power Source		3-PH 60Hz 265V
Evaporating Temp	(℃)	7.2
Condensing Temp	(℃)	54.4
Suction Gas Temp	(℃)	18.3
Liquid Temp	(℃)	46.1
Ambient Temp	(℃)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm3)	55.7
Suction Line Connection	(Φmm 0D)	22.22
Discharge Line Connection	(Φmm 0D)	12.7
Oil	(ml)	2000 (FV68S)
Mass(Incl.Oil)	(kg)	39
Motor		
Type		Inverter 3-PH Induction Motor(3IR)
Pole		2
Rated Power Source		3-PH 60Hz 265V
Voltage Range	(V)	-
Starting Current	(A)	-
Frequency	(Hz)	30～90

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

PERFORMANCE CURVE

Code No.	C-SBS180H00B
Power Source	Inverter 3-PH 30Hz 150V
Condensing Temp.(℃)	30、35、40.5、50、54.4、60、65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A
Revolution(min^{-1})	1800



PERFORMANCE DATA

Code No.	C-SBS180H00B
Power Source	Inverter 3-PH 30Hz 150V
Condensing Temp.(℃)	30、35、40.5、50、54.4、60、65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A

Capacity （W）

Condensing Temp.(℃) \ Evaporating Temp.(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
30.0	3,380	4,210	4,870	6,490	7,760	8,660		
35.0	3,000	3,790	4,410	5,940	7,130	7,970	8,870	
40.5	2,630	3,360	3,950	5,380	6,490	7,270	8,110	8,740
50.0	2,070	2,730	3,250	4,510	5,500	6,190	6,920	7,480
54.4		2,470	2,970	4,160	5,090	5,740	6,430	6,960
60.0			2,650	3,760	4,620	5,220	5,860	6,350
65.0				3,430	4,240	4,800	5,400	5,860

Input （W）

Condensing Temp.(℃) \ Evaporating Temp.(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
30.0	1,420	1,380	1,350	1,280	1,230	1,190		
35.0	1,610	1,560	1,530	1,450	1,400	1,360	1,320	
40.5	1,870	1,820	1,790	1,710	1,650	1,610	1,570	1,540
50.0	2,440	2,410	2,390	2,310	2,250	2,210	2,160	2,120
54.4		2,750	2,720	2,660	2,590	2,550	2,500	2,450
60.0			3,210	3,150	3,090	3,040	2,990	2,940
65.0				3,660	3,600	3,550	3,490	3,440

Current （A）

Condensing Temp.(℃) \ Evaporating Temp.(℃)	-15	-10	-6.7	0	4.4	7.2	10	12
30.0	6.5	6.4	6.2	6.0	5.8	5.7		
35.0	7.2	7.0	6.9	6.7	6.5	6.4	6.2	
40.5	8.1	7.9	7.8	7.6	7.4	7.3	7.1	7.0
50.0	10.0	9.8	9.8	9.5	9.3	9.2	9.0	8.9
54.4		10.9	10.8	10.6	10.4	10.2	10.1	10.0
60.0			12.3	12.0	11.9	11.7	11.6	11.4
65.0				13.5	13.3	13.2	13.0	12.9

Coefficients of Polynominal Formula

	Capacity （W）	Input （W）	Current （A）
C1	1.064884E+04	1.319567E+03	4.587485E+00
C2	3.849826E+02	-3.819497E-01	-1.548498E-02
C3	-1.621572E+02	-3.356957E+01	-3.005011E-02
C4	5.730966E+00	3.149329E-01	3.342425E-04
C5	-4.297222E+00	-5.060062E-01	-1.158190E-03
C6	7.884000E-01	1.068913E+00	2.571594E-03
C7	2.552859E-03	-1.062655E-03	-1.173099E-06
C8	-5.165973E-02	-1.228603E-02	-2.192446E-05
C9	1.575495E-02	5.174748E-03	1.301928E-05
C10	-3.106997E-08	6.689584E-09	4.408484E-12

Note:The polynomial coefficients subject to change without notice.

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

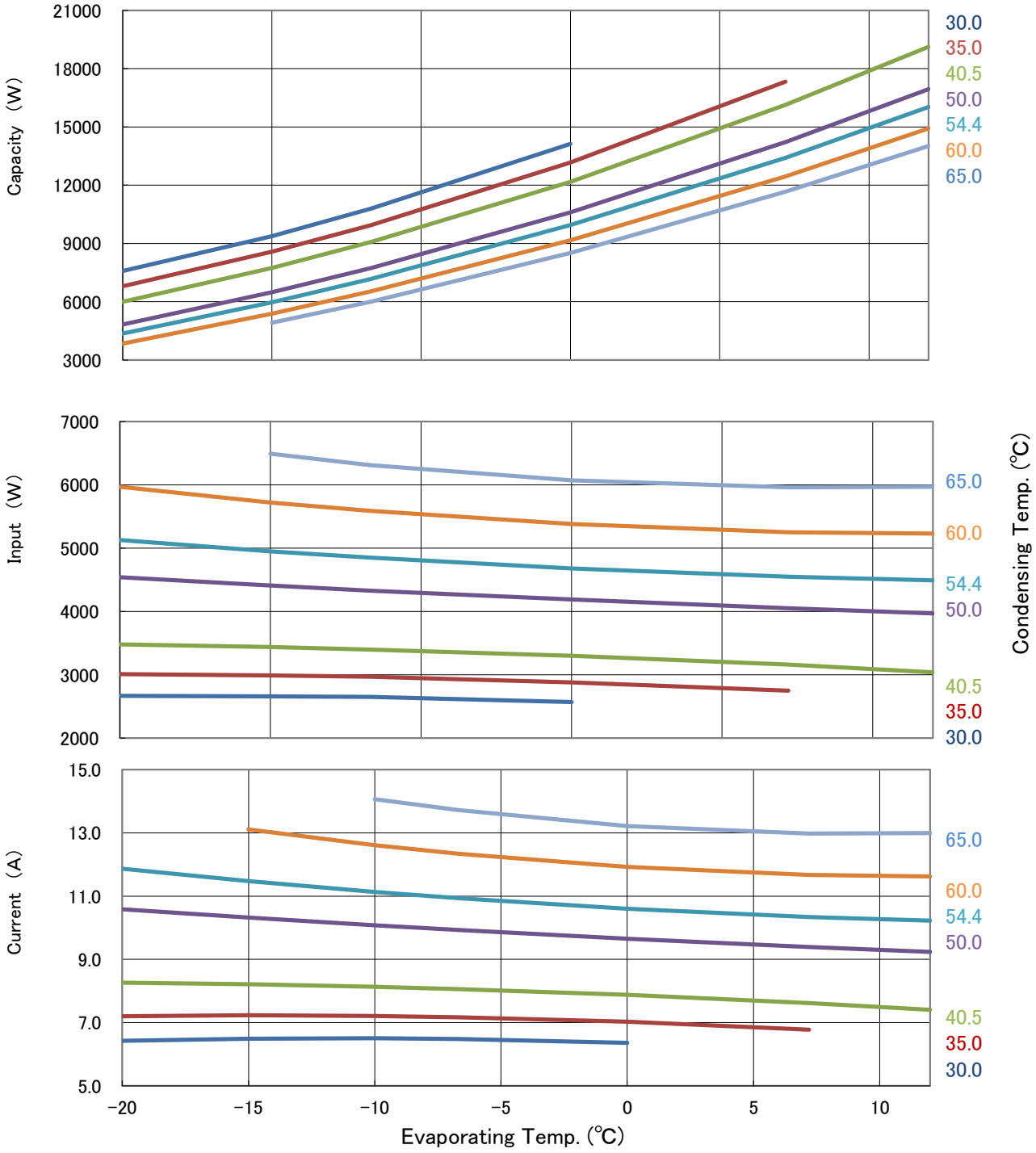
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBS180H00B
Power Source	Inverter 3-PH 60Hz 265V
Condensing Temp.(℃)	30、35、40.5、50、54.4、60、65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A
Revolution(min^{-1})	3600



PERFORMANCE DATA

Code No.	C-SBS180H00B
Power Source	Inverter 3-PH 60Hz 265V
Condensing Temp.(℃)	30、35、40.5、50、54.4、60、65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A

Capacity （W）

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-20	-15	-10	-6.7	0	7.2	12
30.0	6,170	7,580	9,380	10,780	14,120		
35.0	5,360	6,790	8,570	9,930	13,160	17,330	
40.5	4,570	6,000	7,740	9,070	12,170	16,130	19,120
50.0	3,420	4,820	6,480	7,730	10,600	14,220	16,940
54.4	3,000	4,360	5,970	7,170	9,940	13,410	16,020
60.0		3,840	5,380	6,520	9,160	12,450	14,920
65.0			4,910	6,000	8,510	11,660	14,020

Input （W）

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-20	-15	-10	-6.7	0	7.2	12
30.0	2,650	2,670	2,660	2,650	2,570		
35.0	3,010	3,010	2,990	2,970	2,880	2,750	
40.5	3,510	3,480	3,440	3,400	3,300	3,160	3,040
50.0	4,670	4,540	4,410	4,330	4,190	4,050	3,970
54.4	5,330	5,130	4,950	4,850	4,680	4,550	4,490
60.0		5,970	5,720	5,590	5,380	5,250	5,230
65.0			6,490	6,310	6,070	5,960	5,970

Current （A）

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-20	-15	-10	-6.7	0	7.2	12
30.0	6.4	6.5	6.5	6.5	6.4		
35.0	7.2	7.2	7.2	7.2	7.0	6.8	
40.5	8.3	8.2	8.1	8.1	7.9	7.6	7.4
50.0	10.6	10.3	10.1	9.9	9.7	9.4	9.2
54.4	11.9	11.5	11.1	10.9	10.6	10.3	10.2
60.0		13.1	12.6	12.3	11.9	11.7	11.6
65.0			14.1	13.7	13.2	13.0	13.0

Coefficients of Polynominal Formula

	Capacity （W）	Input （W）	Current （A）
C1	2.128875E+04	2.323035E+03	5.050862E+00
C2	6.695621E+02	-3.003586E+01	-5.713914E-02
C3	-2.751066E+02	-3.374694E+01	-2.651945E-02
C4	1.066828E+01	-2.038013E+00	-4.192677E-03
C5	-3.981649E+00	8.315274E-01	1.733931E-03
C6	1.218666E+00	1.414536E+00	2.357265E-03
C7	5.446839E-03	4.320512E-03	8.557985E-06
C8	-1.030071E-01	4.808767E-02	9.830461E-05
C9	-1.912047E-03	-1.242496E-02	-2.689298E-05
C10	-1.494794E-07	-1.148562E-07	-2.079052E-10

Note: The polynomial coefficients subject to change without notice.

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

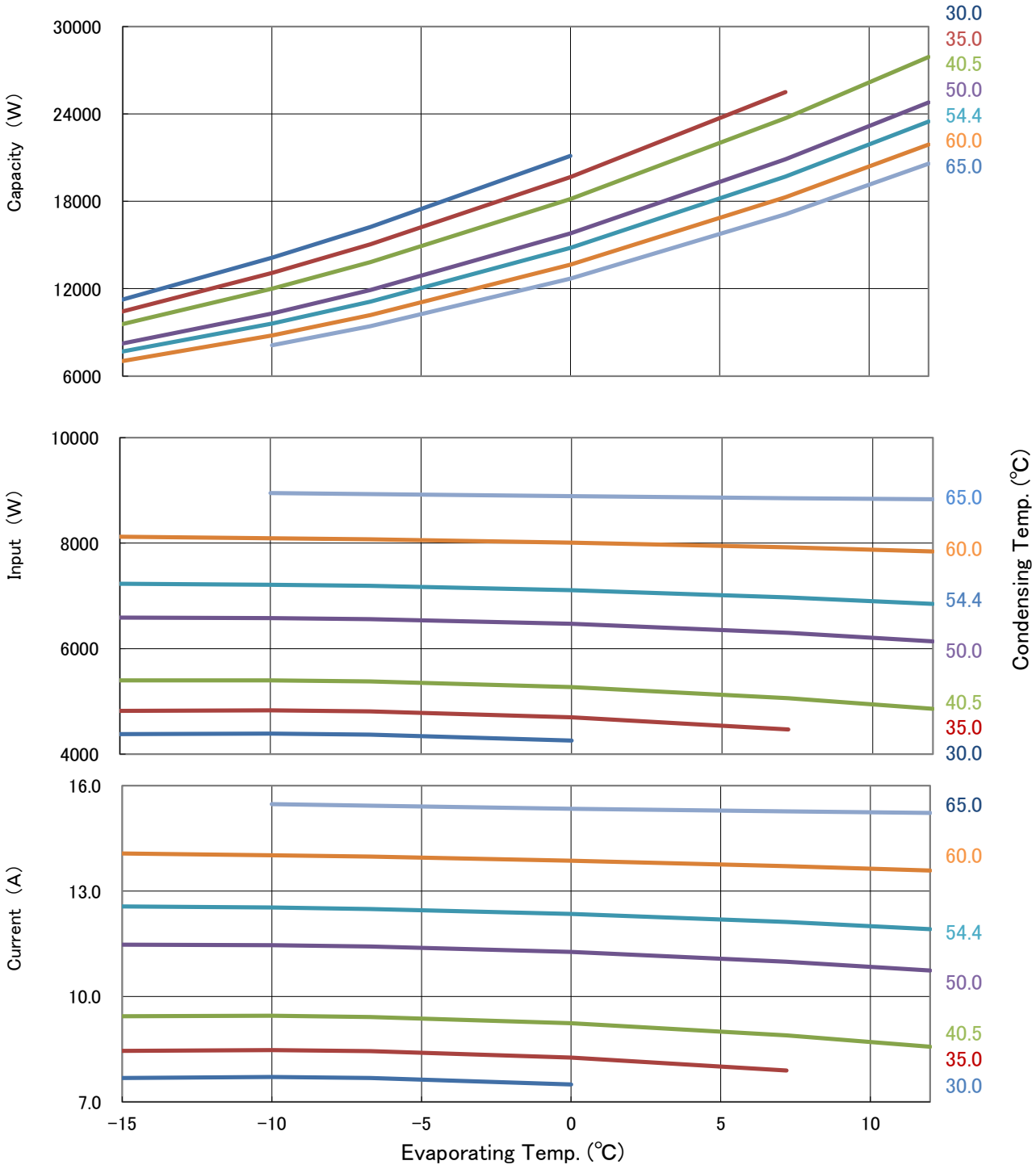
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBS180H00B
Power Source	Inverter 3-PH 90Hz 380V
Condensing Temp.(℃)	30、35、40.5、50、54.4、60、65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A
Revolution(min^{-1})	5400



PERFORMANCE DATA

Code No.	C-SBS180H00B
Power Source	Inverter 3-PH 90Hz 380V
Condensing Temp.(℃)	30、35、40.5、50、54.4、60、65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A

Capacity （W）

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-15	-10	-6.7	0	7.2	12
30.0	6,820	8,830	11,260	14,120	16,240	21,120		
35.0	6,460	8,230	10,430	13,070	15,050	19,660	25,490	
40.5	6,090	7,610	9,570	11,990	13,820	18,150	23,700	27,910
50.0	5,490	6,630	8,240	10,300	11,910	15,790	20,880	24,790
54.4		6,230	7,680	9,600	11,110	14,800	19,690	23,470
60.0			7,030	8,780	10,180	13,640	18,270	21,890
65.0				8,120	9,430	12,690	17,110	20,580

Input （W）

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-15	-10	-6.7	0	7.2	12
30.0	4,190	4,310	4,380	4,390	4,370	4,260		
35.0	4,640	4,760	4,820	4,830	4,810	4,700	4,470	
40.5	5,240	5,340	5,400	5,400	5,380	5,270	5,060	4,860
50.0	6,490	6,560	6,590	6,580	6,560	6,470	6,300	6,140
54.4		7,210	7,230	7,210	7,190	7,110	6,970	6,850
60.0			8,120	8,090	8,070	8,010	7,920	7,840
65.0				8,950	8,930	8,890	8,850	8,830

Current （A）

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-15	-10	-6.7	0	7.2	12
30.0	7.4	7.6	7.7	7.7	7.7	7.5		
35.0	8.2	8.3	8.5	8.5	8.4	8.3	7.9	
40.5	9.2	9.3	9.4	9.5	9.4	9.2	8.9	8.6
50.0	11.3	11.4	11.5	11.5	11.4	11.3	11.0	10.7
54.4		12.5	12.6	12.5	12.5	12.4	12.1	11.9
60.0			14.1	14.0	14.0	13.9	13.7	13.6
65.0				15.5	15.4	15.3	15.3	15.2

Coefficients of Polynominal Formula

	Capacity （W）	Input （W）	Current （A）
C1	3.150689E+04	3.273041E+03	5.666111E+00
C2	1.059334E+03	-1.999167E+01	-3.264919E-02
C3	-3.949653E+02	-1.316314E+01	-1.424181E-02
C4	7.850016E+00	-1.905150E+00	-3.140528E-03
C5	-1.019306E+01	-5.049144E-01	-7.560392E-04
C6	1.617683E+00	1.536872E+00	2.518316E-03
C7	-3.288458E-03	2.398179E-03	4.324032E-06
C8	2.323449E-02	2.619607E-02	4.391996E-05
C9	3.616868E-02	1.088972E-02	1.621864E-05
C10	7.659742E-08	-7.839866E-08	-1.109263E-10

Note: The polynomial coefficients subject to change without notice.

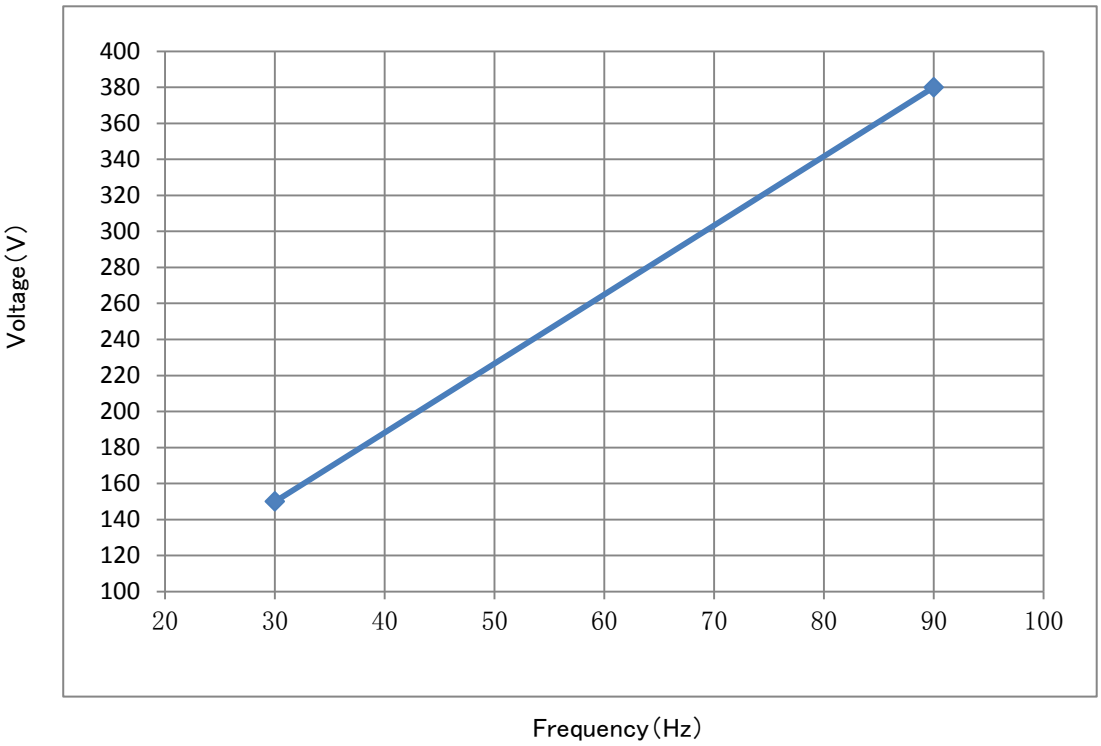
$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$

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

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

Voltage-Frequency　Curve



Operating Envelope

Suction Gas Superheat： **11.1K**
Sub cooled: **8.3 k**
Refrigerant： **R448A**