

# SPECIFICATIONS OF COMPRESSOR

Model No: C-SBN353H8A

Output : 4.5 HP



Temporary

**Panasonic Appliances Compressor (Dalian) Co.,Ltd.**

31/Mar/18

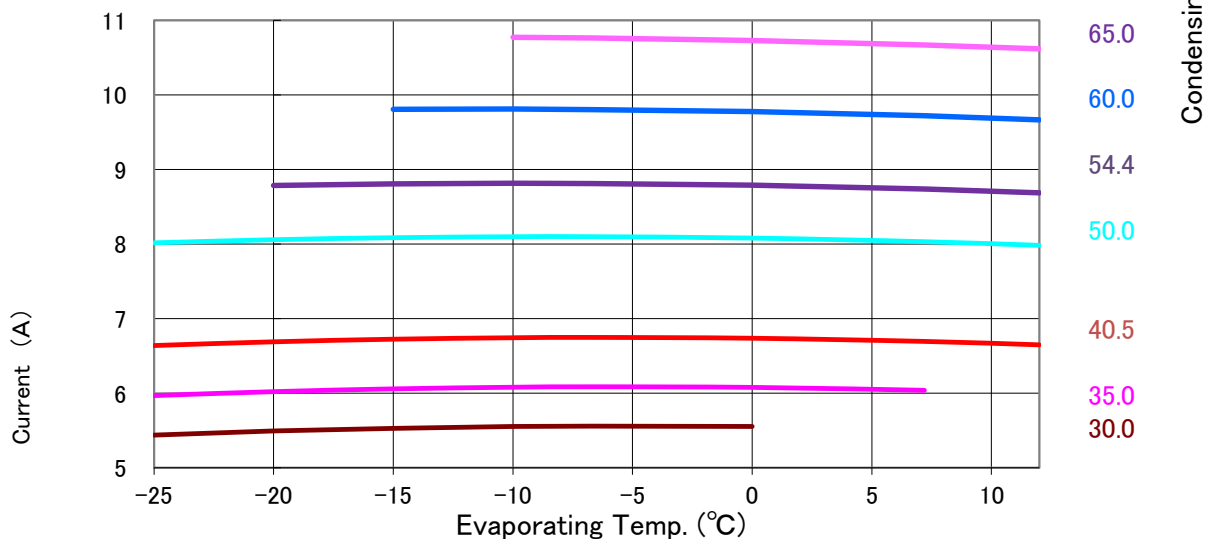
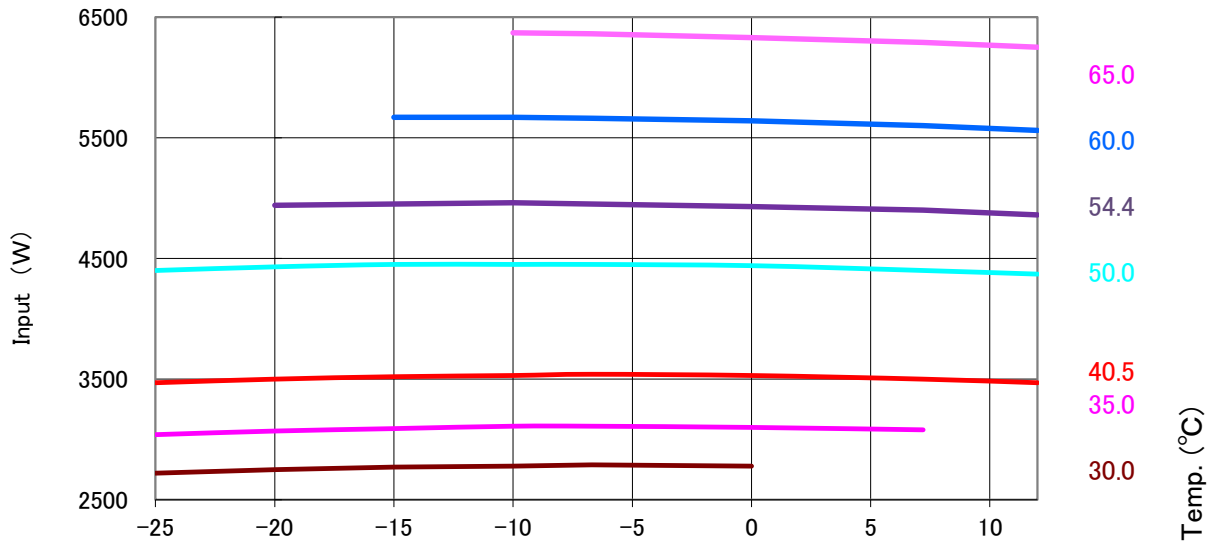
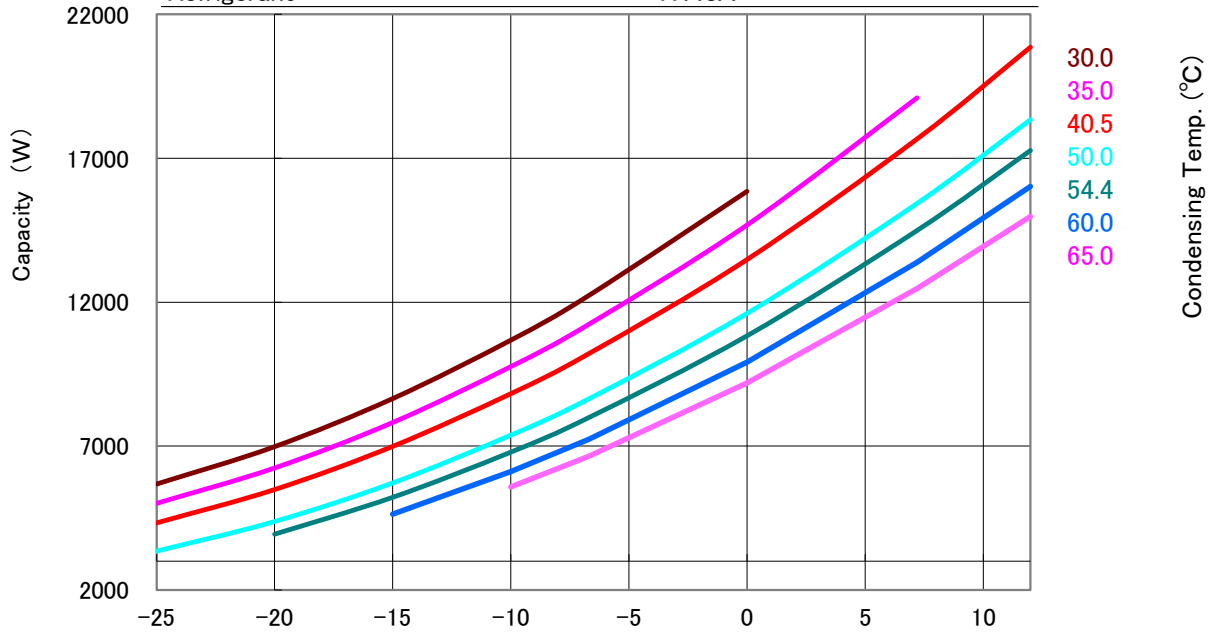
# GENERAL SPECIFICATIONS

Model No:	C-SBN353H8A	
<b>Application</b>		
Evaporating Temp Range	(°C)	-25 ~ 12
Refrigerant	R448A	
Compressor Cooling	Natural Cooling	
<b>Rated Performance</b>		
Capacity	(W)	14490/17830
Input	(W)	4900/5880
Current	(A)	8.7/8.9
Revolution	(min <sup>-1</sup> )	2950 / 3450
Sound Level	(dB(A))	62max / 67max
<b>Rating Conditions</b>		
Power Source	3-PH 50Hz 380-415V / 60Hz 440-460V	
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
<b>Measuring Point of Sound Level</b>		
Distance from the Compressor	(m)	1.0
<b>Compressor</b>		
Design	Hermetic Scroll	
Displacement	(cm <sup>3</sup> )	77.4
Suction Line Connection	(Φ mm OD)	22.22
Discharge Line Connection	(Φ mm OD)	12.7
Oil	(ml)	1700 (FV68S )
Mass(Incl.Oil)	(kg)	35.6
<b>Motor</b>		
Type	3-PH Induction Motor(3IR)	
Pole	2	
Rated Power Source	3-PH 50Hz 380-415V / 60Hz 440-460V	
Voltage Range	(V)	342~456 / 396~506
Starting Current	(A)	-

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

# PERFORMANCE CURVE

Code No.	C-SBN353H8A
Power Source	3-PH 50Hz 380-415V
Condensing Temp.(°C)	30、35、40.5、50、54.4、60、65
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A



# PERFORMANCE DATA

Code No.	C-SBN353H8A
Power Source	3-PH 50Hz 380-415V
Condensing Temp.(°C)	30、35、40.5、50、54.4、60、65
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A

Capacity (W)

		Evaporating Temp. (°C)							
		-25	-20	-15	-10	-6.7	0	7.2	12
Condensing Temp. (°C)	30.0	5,680	6,980	8,650	10,680	12,230	15,850		
	35.0	5,010	6,240	7,820	9,760	11,230	14,680	19,100	
	40.5	4,330	5,490	6,990	8,820	10,210	13,480	17,670	20,860
	50.0	3,350	4,380	5,720	7,380	8,640	11,610	15,430	18,340
	54.4		3,940	5,220	6,790	7,990	10,830	14,490	17,270
	60.0			4,640	6,110	7,240	9,920	13,380	16,020
	65.0				5,580	6,650	9,190	12,470	14,980

Input (W)

		Evaporating Temp. (°C)							
		-25	-20	-15	-10	-6.7	0	7.2	12
Condensing Temp. (°C)	30.0	2,720	2,750	2,770	2,780	2,790	2,780		
	35.0	3,040	3,070	3,090	3,110	3,110	3,100	3,080	
	40.5	3,470	3,500	3,520	3,530	3,540	3,530	3,500	3,470
	50.0	4,400	4,430	4,450	4,450	4,450	4,440	4,400	4,370
	54.4		4,940	4,950	4,960	4,950	4,930	4,900	4,860
	60.0			5,670	5,670	5,660	5,640	5,600	5,560
	65.0				6,370	6,360	6,330	6,290	6,250

Current (A)

		Evaporating Temp. (°C)							
		-25	-20	-15	-10	-6.7	0	7.2	12
Condensing Temp. (°C)	30.0	5.4	5.5	5.5	5.6	5.6	5.6		
	35.0	6.0	6.0	6.1	6.1	6.1	6.1	6.0	
	40.5	6.6	6.7	6.7	6.7	6.7	6.7	6.7	6.6
	50.0	8.0	8.1	8.1	8.1	8.1	8.1	8.0	8.0
	54.4		8.8	8.8	8.8	8.8	8.8	8.7	8.7
	60.0			9.8	9.8	9.8	9.8	9.7	9.7
	65.0				10.8	10.8	10.7	10.7	10.6

## Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)
C1	2.441614E+04	2.181999E+03	3.939724E+00
C2	7.672313E+02	-3.273183E+00	-3.463781E-03
C3	-3.294640E+02	-1.757194E+01	1.038381E-02
C4	8.943764E+00	-1.932020E-01	-3.483068E-04
C5	-6.359107E+00	1.009450E-01	7.022718E-05
C6	1.465841E+00	1.253301E+00	1.448015E-03
C7	1.807152E-03	2.260105E-04	2.850751E-07
C8	-5.353785E-02	2.746160E-04	1.410652E-06
C9	1.463670E-02	-2.032939E-03	-1.870137E-06
C10	-1.509556E-08	-1.403708E-09	-1.068221E-11

Note: The polynomial coefficients subject to change without notice.

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

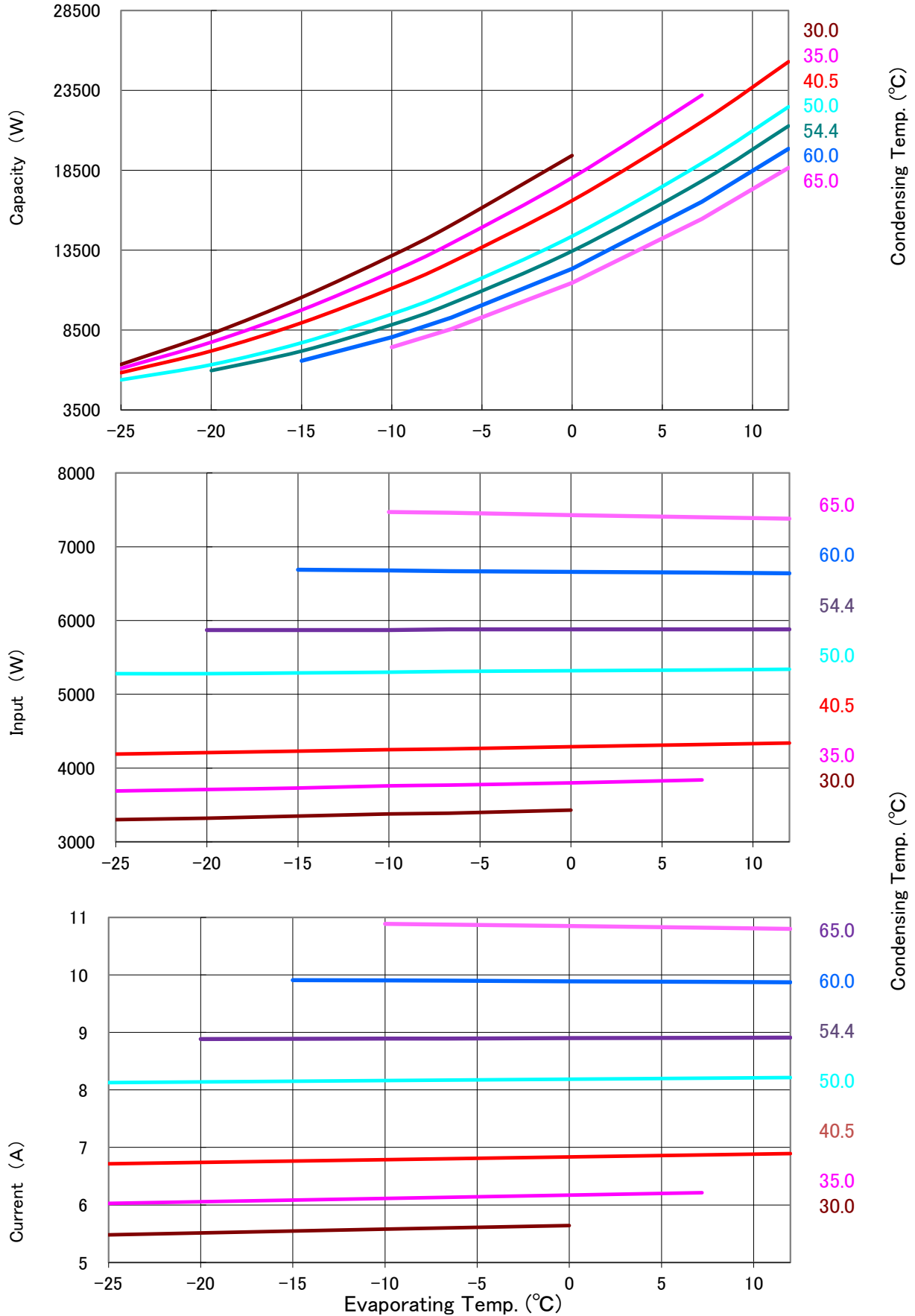
X—CAPACITY(W) OR POWER(W) OR CURRENT(A)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

# PERFORMANCE CURVE

Code No.	C-SBN353H8A
Power Source	3-PH 60Hz 440-460V
Condensing Temp.(°C)	30、35、40.5、50、54.4、60、65
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A



# PERFORMANCE DATA

Code No.	C-SBN353H8A
Power Source	3-PH 60Hz 440-460V
Condensing Temp.(°C)	30、35、40.5、50、54.4、60、65
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R448A

Capacity (W)

		Evaporating Temp. (°C)							
		-25	-20	-15	-10	-6.7	0	7.2	12
Condensing Temp. (°C)	30.0	6,350	8,270	10,540	13,150	15,060	19,420		
	35.0	6,100	7,740	9,750	12,140	13,920	18,030	23,200	
	40.5	5,830	7,190	8,950	11,100	12,740	16,600	21,540	25,290
	50.0	5,380	6,330	7,700	9,500	10,920	14,370	18,940	22,470
	54.4		5,960	7,180	8,830	10,160	13,440	17,830	21,270
	60.0			6,570	8,050	9,270	12,340	16,530	19,840
	65.0				7,430	8,560	11,460	15,460	18,650

Input (W)

		Evaporating Temp. (°C)							
		-25	-20	-15	-10	-6.7	0	7.2	12
Condensing Temp. (°C)	30.0	3,300	3,320	3,350	3,380	3,390	3,430		
	35.0	3,690	3,710	3,730	3,760	3,770	3,800	3,840	
	40.5	4,190	4,210	4,230	4,250	4,260	4,290	4,320	4,340
	50.0	5,280	5,280	5,290	5,300	5,310	5,320	5,330	5,340
	54.4		5,870	5,870	5,870	5,880	5,880	5,880	5,880
	60.0			6,690	6,680	6,670	6,660	6,650	6,640
	65.0				7,470	7,460	7,430	7,400	7,380

Current (A)

		Evaporating Temp. (°C)							
		-25	-20	-15	-10	-6.7	0	7.2	12
Condensing Temp. (°C)	30.0	5.5	5.5	5.5	5.6	5.6	5.6		
	35.0	6.0	6.1	6.1	6.1	6.1	6.2	6.2	
	40.5	6.7	6.7	6.8	6.8	6.8	6.8	6.9	6.9
	50.0	8.1	8.1	8.2	8.2	8.2	8.2	8.2	8.2
	54.4		8.9	8.9	8.9	8.9	8.9	8.9	8.9
	60.0			9.9	9.9	9.9	9.9	9.9	9.9
	65.0				10.9	10.9	10.8	10.8	10.8

## Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)
C1	2.924814E+04	2.574147E+03	3.980344E+00
C2	9.383179E+02	1.243197E+00	4.338731E-03
C3	-3.739023E+02	-1.107119E+01	1.233746E-02
C4	5.047821E+00	-5.338589E-03	1.519000E-05
C5	-8.981771E+00	3.228253E-01	2.405344E-04
C6	1.533149E+00	1.319881E+00	1.435522E-03
C7	-3.961528E-03	-6.449849E-04	2.373314E-08
C8	6.609093E-02	-7.595992E-05	-3.205396E-07
C9	3.302337E-02	-6.207231E-03	-5.619792E-06
C10	8.762886E-08	5.121856E-09	-1.718767E-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

# Operating Envelope

Suction Gas Superheat: **11.1K**

Sub cooled: **8.3 k**

Refrigerant: **R448A**

