

# SCROLL COMPRESSORS

Model : C-SWS225H00C



(Temporary)

Panasonic Appliances Compressor(Dalian) Co.,Ltd.

Date: 2018.5.15

## PAPCDL SCROLL COMPRESSORS

**Model** C-SWS225H00C  
**Refrigerant** R513A

**Electrical** AC 3 Phase 180~380V  
30~100Hz

### Nominal Performance at ARI

Power Source	<u>60Hz-360V</u>	<u>90Hz-380V</u>
Capacity (W)	<u>11170</u>	<u>15830</u>
Power (W)	<u>3440</u>	<u>5700</u>
Current (A)	<u>6.3</u>	<u>9.5</u>
COP (W/W)	<u>3.25</u>	<u>2.78</u>
Mass Flow (kg/h)	<u>-</u>	<u>-</u>

### Rating Conditions

Condensing Temperature(°C)	<u>54.4</u>
Evaporating Temperature(°C)	<u>7.2</u>
Return Gas temperature(°C)	<u>18.3</u>
Liquid Temperature(°C)	<u>46.1</u>
Ambient Temperature(°C)	<u>35</u>

### Motor

	<b>60Hz</b>	<b>90Hz</b>
Voltage Range(V)	<u>360V</u>	<u>380V</u>
RLA (A)	<u>-</u>	<u>-</u>
MCC (A)	<u>20</u>	<u>-</u>
LRA (A)	<u>-</u>	<u>-</u>
RPM (min <sup>-1</sup> )	<u>3510</u>	<u>5180</u>

### Compressor

Maximum Discharge Temp(°C)	<u>115</u>
Displacement (cm <sup>3</sup> /rev)	<u>74.4</u>
Weight (with oil kg)	<u>45</u>

### Oil

Oil Type	<u>FV68S</u>
Initial Charge (ml)	<u>1600</u>
Re-charge (ml)	<u>1500</u>

### Electrical Components

Motor Protector Type	<u>-</u>
Run Capacitor Rating (MFD/Volts)	<u>-</u>

Nominal performance values +/-5% with 1 hr run-in.

Ratings with air over compressor.

Specifications subject to change without notice.



Made by: Panasonic Appliances Compressor(Dalian) Co.,Ltd.

**PERFORMANCE DATA**

Compressor Model	<b>C-SWS225H00C</b>
Power Source	<b>Inverter Drive, 30Hz</b>
Suction Gas Superheat(K)	<b>11.1</b>
Sub Cooling(K)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R513A</b>

**CAPACITY(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	2,480	3,330	3,930	5,260	6,200	6,830	7,480	8,710
40.5	2,400	3,140	3,690	4,910	5,800	6,400	7,030	8,230
45.0	2,330	3,000	3,490	4,640	5,490	6,070	6,680	7,860
50.0	2,260	2,840	3,290	4,350	5,160	5,720	6,310	7,460
54.4	2,200	2,710	3,120	4,110	4,890	5,420	6,000	7,130
60.0	2,120	2,560	2,920	3,830	4,560	5,070	5,630	6,730
65.0	2,050	2,430	2,750	3,600	4,290	4,780	5,320	6,390
70.0		2,308	2,597	3,379	4,034	4,509	5,030	6,073

**POWER(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	1,060	1,050	1,050	1,060	1,080	1,090	1,100	1,130
40.5	1,220	1,210	1,210	1,210	1,220	1,230	1,240	1,270
45.0	1,390	1,370	1,370	1,360	1,370	1,370	1,380	1,400
50.0	1,610	1,580	1,570	1,550	1,550	1,550	1,560	1,570
54.4	1,830	1,790	1,770	1,750	1,730	1,730	1,730	1,730
60.0	2,150	2,100	2,070	2,020	2,000	1,980	1,970	1,960
65.0	2,470	2,410	2,370	2,300	2,260	2,240	2,220	2,180
70.0		2,746	2,696	2,602	2,546	2,512	2,481	2,428

**CURRENT(A)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	4.2	4.1	4.1	4.1	4.2	4.2	4.3	4.3
40.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.7
45.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
50.0	5.6	5.5	5.5	5.4	5.4	5.4	5.4	5.5
54.4	6.1	6.0	6.0	5.9	5.9	5.9	5.8	5.8
60.0	6.8	6.7	6.6	6.5	6.5	6.4	6.4	6.4
65.0	7.5	7.4	7.3	7.1	7.1	7.0	7.0	6.9
70.0		8.1	8.0	7.8	7.7	7.6	7.5	7.4

**NOTE:**

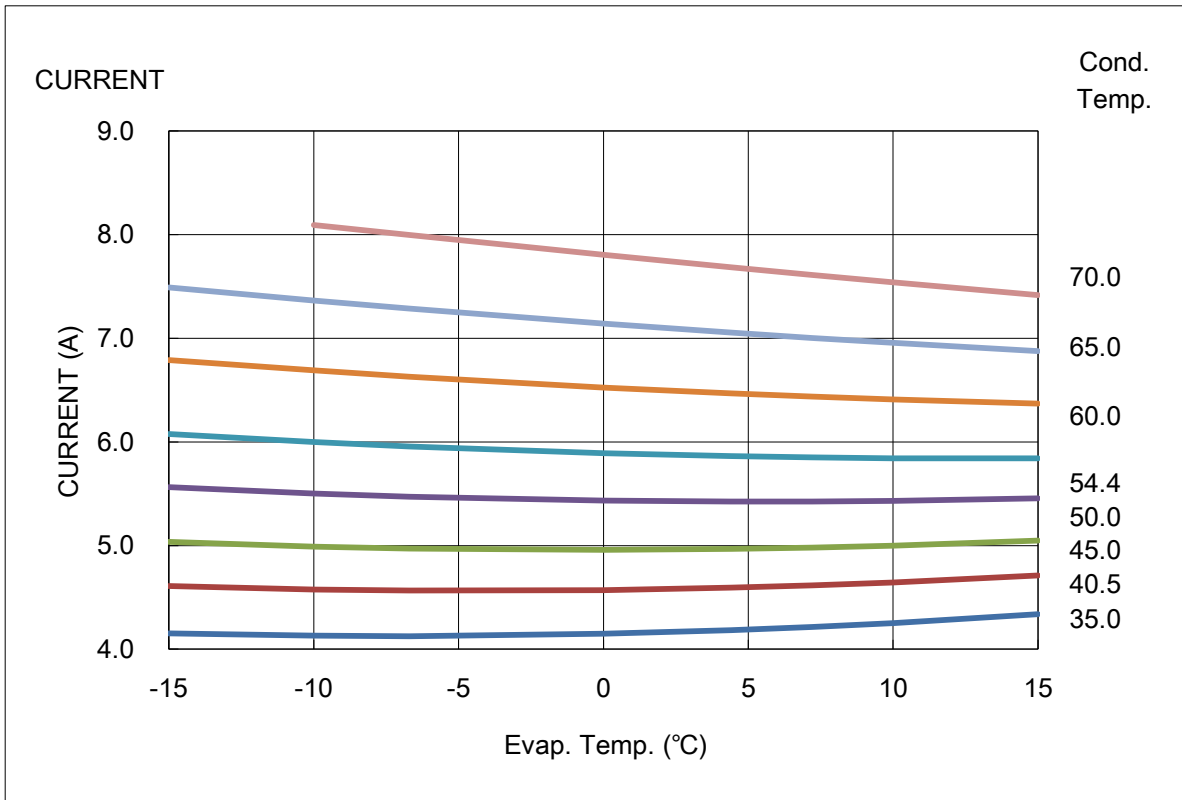
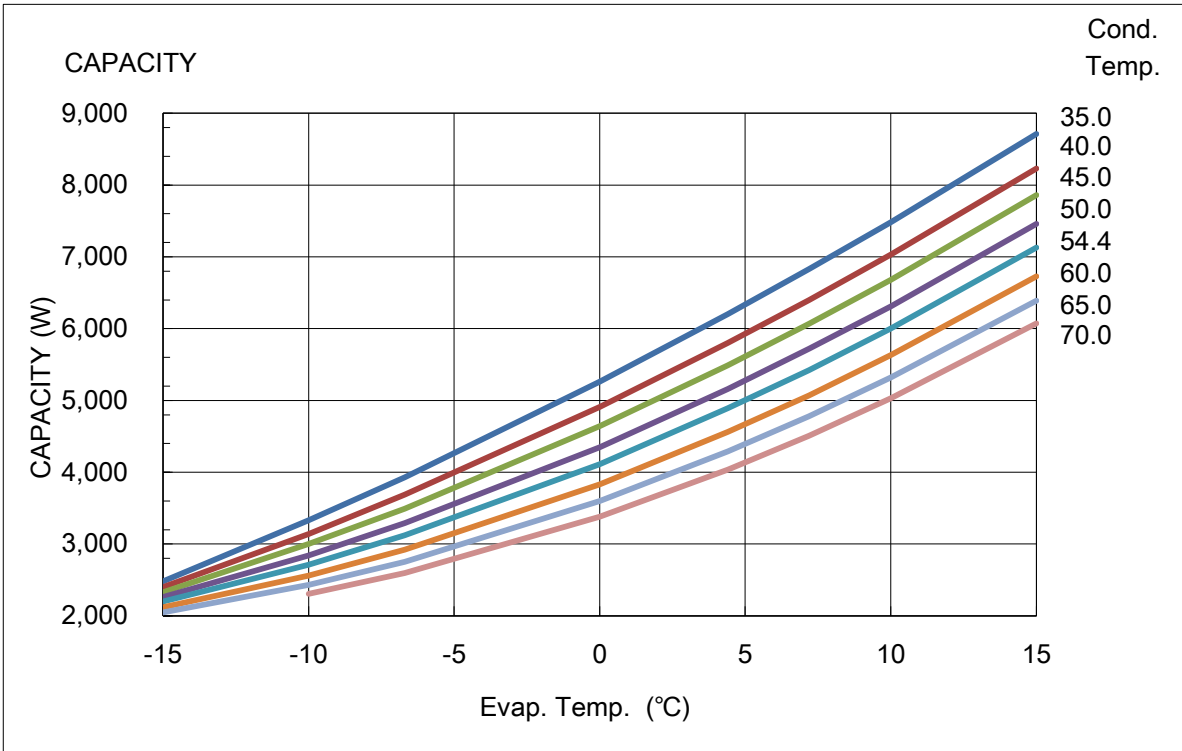
- \* The performance values are based on MID point method.
- \* The performance values subject to change without notice.

Compressor Model(Code)

C-SWS225H00C

Power Source

Inverter Drive, 30Hz



## COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	<b>C-SWS225H00C</b>
Power Source	<b>Inverter Drive, 30Hz</b>
Suction Gas Superheat (K)	<b>11.1</b>
Sub Cooling (K)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R513A</b>

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

X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	7.869181E+03	9.033392E+02	2.773388E+00
C2	3.146679E+02	-4.565242E+00	2.543551E-03
C3	-8.513899E+01	-1.526542E+01	6.654516E-03
C4	3.077796E-02	1.568942E-01	7.313353E-04
C5	-3.552072E+00	5.291255E-01	6.395471E-04
C6	2.976204E-01	5.652199E-01	9.313852E-04
C7	-3.080983E-03	-8.176634E-04	-4.386683E-07
C8	4.290896E-02	-2.677271E-04	-8.209259E-06
C9	1.454248E-02	-9.270472E-03	-1.525823E-05
C10	9.096035E-09	1.720403E-09	2.465270E-12

Note:The polynomial coefficients subject to change without notice.

**PERFORMANCE DATA**

Compressor Model	<b>C-SWS225H00C</b>
Power Source	<b>Inverter Drive, 60Hz</b>
Suction Gas Superheat(°C)	<b>11.1</b>
Sub Cooling(°C)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R513A</b>

**CAPACITY(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	6,260	7,470	8,470	10,960	12,940	14,340	15,850	18,830
40.5	5,700	6,860	7,810	10,170	12,040	13,370	14,790	17,600
45.0	5,260	6,390	7,300	9,560	11,350	12,610	13,970	16,640
50.0	4,820	5,900	6,770	8,930	10,630	11,820	13,110	15,640
54.4	4,450	5,500	6,330	8,400	10,020	11,170	12,400	14,800
60.0	4,030	5,030	5,820	7,780	9,310	10,380	11,540	13,800
65.0	3,690	4,640	5,400	7,260	8,720	9,740	10,830	12,980
70.0		4,299	5,021	6,789	8,168	9,137	10,176	12,205

**POWER(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	2,150	2,180	2,210	2,300	2,370	2,420	2,480	2,600
40.5	2,420	2,450	2,470	2,550	2,620	2,670	2,720	2,830
45.0	2,670	2,690	2,720	2,790	2,850	2,900	2,950	3,050
50.0	2,980	3,000	3,020	3,080	3,140	3,170	3,220	3,310
54.4	3,290	3,310	3,320	3,370	3,410	3,440	3,480	3,550
60.0	3,730	3,730	3,740	3,770	3,790	3,810	3,840	3,890
65.0	4,170	4,160	4,150	4,150	4,160	4,170	4,190	4,210
70.0		4,613	4,598	4,576	4,566	4,562	4,560	4,560

**CURRENT(A)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	4.3	4.4	4.4	4.5	4.6	4.7	4.8	5.0
40.5	4.7	4.8	4.8	4.9	5.0	5.1	5.2	5.4
45.0	5.1	5.2	5.2	5.3	5.4	5.5	5.5	5.7
50.0	5.6	5.7	5.7	5.8	5.8	5.9	6.0	6.1
54.4	6.1	6.1	6.1	6.2	6.3	6.3	6.4	6.5
60.0	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.0
65.0	7.4	7.4	7.4	7.3	7.4	7.4	7.4	7.4
70.0		8.0	8.0	8.0	7.9	7.9	7.9	8.0

**NOTE:**

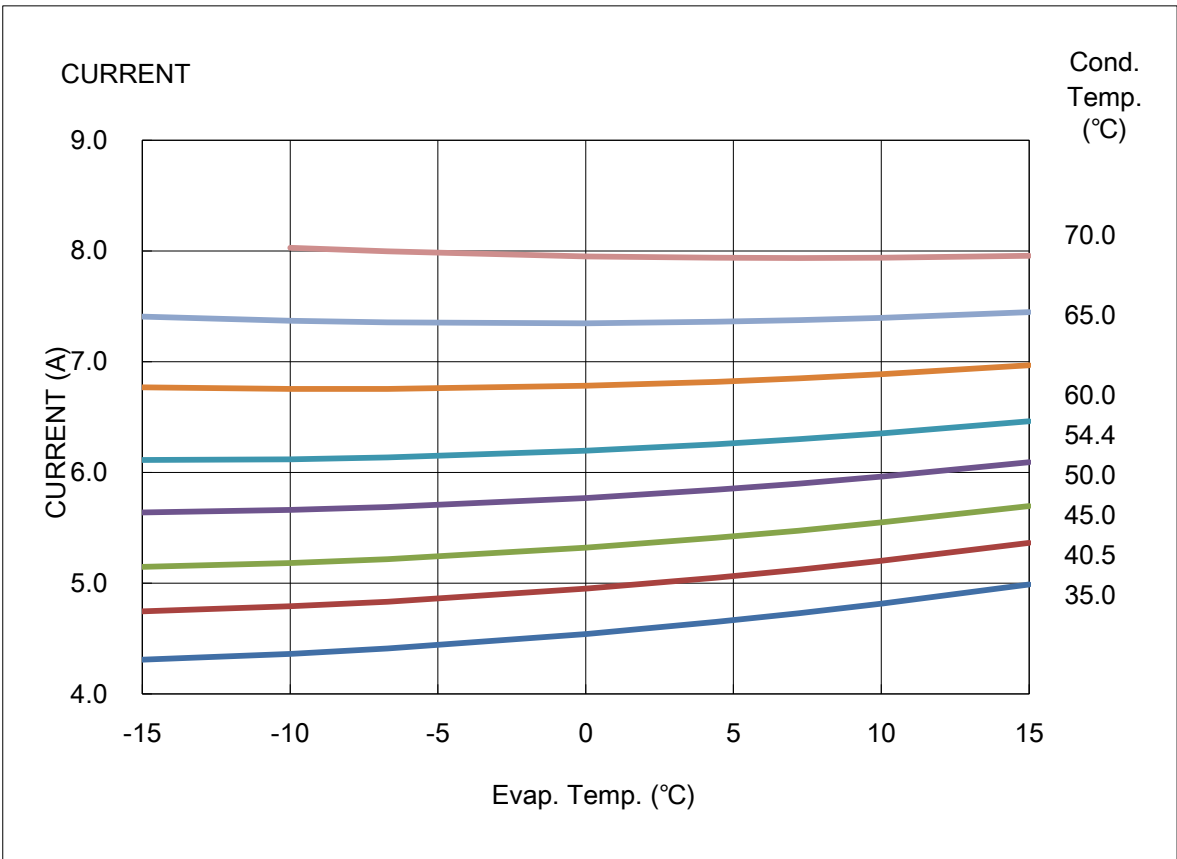
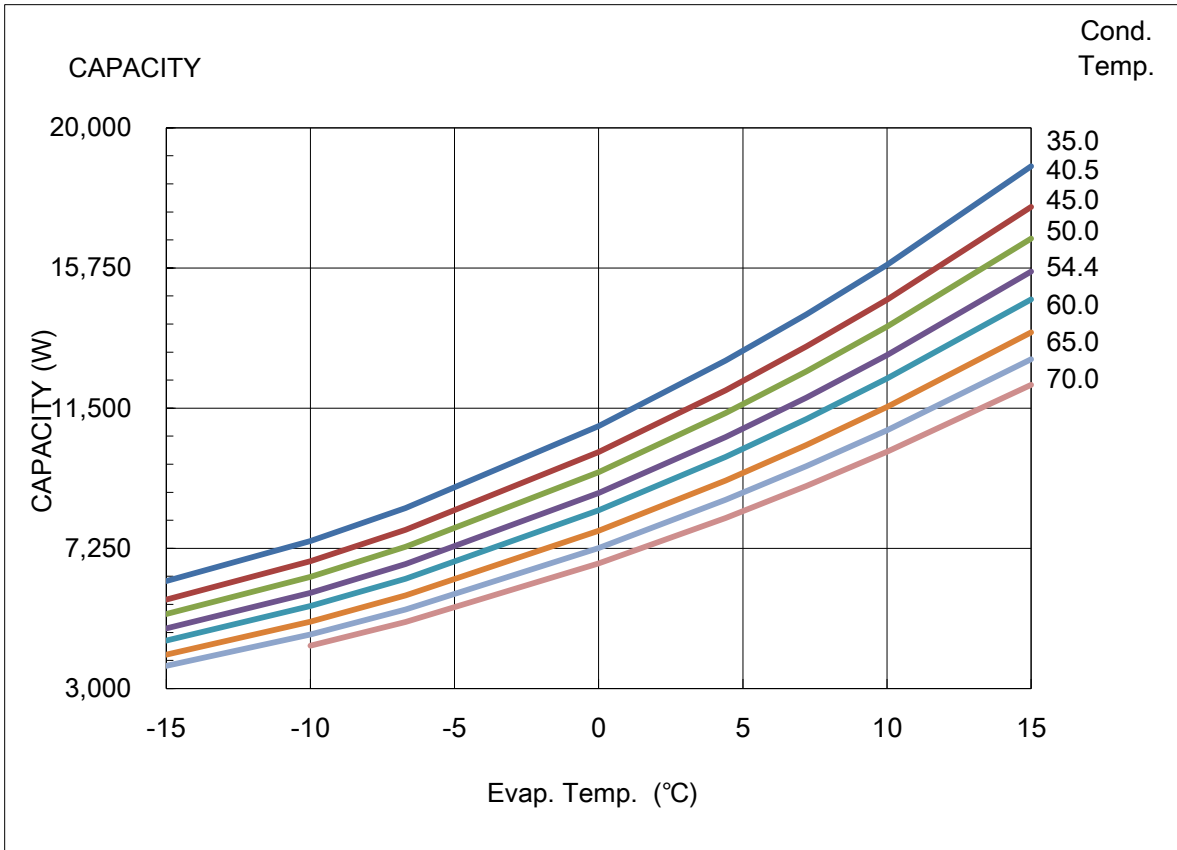
- \* The performance values are based on MID point method.
- \* The performance values subject to change without notice.

Compressor Model(Code)

C-SWS225H00C

Power Source

Inverter Drive,60Hz



## COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	<b>C-SWS225H00C</b>
Power Source	<b>Inverter Drive, 60Hz</b>
Suction Gas Superheat (K)	<b>11.1</b>
Sub Cooling (K)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R513A</b>

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

X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	1.722014E+04	1.552215E+03	3.030271E+00
C2	5.784232E+02	3.970632E+00	1.675843E-02
C3	-2.087673E+02	-6.296717E-01	1.595925E-02
C4	9.717489E+00	5.580798E-01	6.344584E-04
C5	-5.061089E+00	7.139297E-01	6.399040E-04
C6	8.561694E-01	6.249620E-01	7.759893E-04
C7	1.848499E-03	5.506309E-04	-1.383282E-07
C8	-7.736608E-02	-5.681362E-03	-4.202039E-06
C9	1.410605E-02	-1.156106E-02	-1.347773E-05
C10	3.635512E-09	5.656263E-09	2.101839E-12

Note:The polynomial coefficients subject to change without notice.



**PERFORMANCE DATA**

Compressor Model	<b>C-SWS225H00C</b>
Power Source	<b>Inverter Drive , 90Hz</b>
Suction Gas Superheat(°C)	<b>11.1</b>
Sub Cooling(°C)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R513A</b>

**CAPACITY(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	8,410	10,420	11,990	15,780	18,700	20,740	22,930	27,180
40.5	7,800	9,620	11,060	14,580	17,310	19,230	21,290	25,290
45.0	7,330	9,010	10,350	13,660	16,240	18,060	20,020	23,840
50.0	6,830	8,370	9,610	12,690	15,130	16,840	18,690	22,310
54.4	6,430	7,840	9,000	11,900	14,200	15,830	17,590	21,050
60.0	5,940	7,220	8,280	10,970	13,110	14,640	16,290	19,550
65.0	5,550	6,710	7,690	10,200	12,220	13,660	15,220	18,300
70.0		6,249	7,157	9,497	11,396	12,755	14,229	17,152

**POWER(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	3,584	3,661	3,730	3,913	4,066	4,177	4,298	4,540
40.5	3,981	4,055	4,122	4,300	4,447	4,554	4,670	4,903
45.0	4,351	4,421	4,484	4,653	4,793	4,894	5,005	5,226
50.0	4,809	4,873	4,930	5,085	5,214	5,307	5,409	5,614
54.4	5,255	5,310	5,361	5,499	5,615	5,700	5,793	5,979
60.0	5,878	5,919	5,960	6,072	6,169	6,240	6,318	6,476
65.0	6,487	6,514	6,543	6,628	6,704	6,761	6,824	6,952
70.0		7,156	7,172	7,226	7,278	7,318	7,363	7,457

**CURRENT(A)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	15
35.0	6.0	6.1	6.3	6.5	6.8	7.0	7.2	7.6
40.5	6.7	6.8	6.9	7.2	7.4	7.6	7.8	8.2
45.0	7.3	7.4	7.5	7.8	8.0	8.2	8.3	8.7
50.0	8.0	8.1	8.2	8.5	8.7	8.8	9.0	9.3
54.4	8.8	8.9	8.9	9.2	9.4	9.5	9.6	10.0
60.0	9.8	9.9	9.9	10.1	10.3	10.4	10.5	10.8
65.0	10.8	10.8	10.9	11.0	11.1	11.2	11.3	11.6
70.0		11.9	11.9	12.0	12.1	12.2	12.2	12.4

**NOTE:**

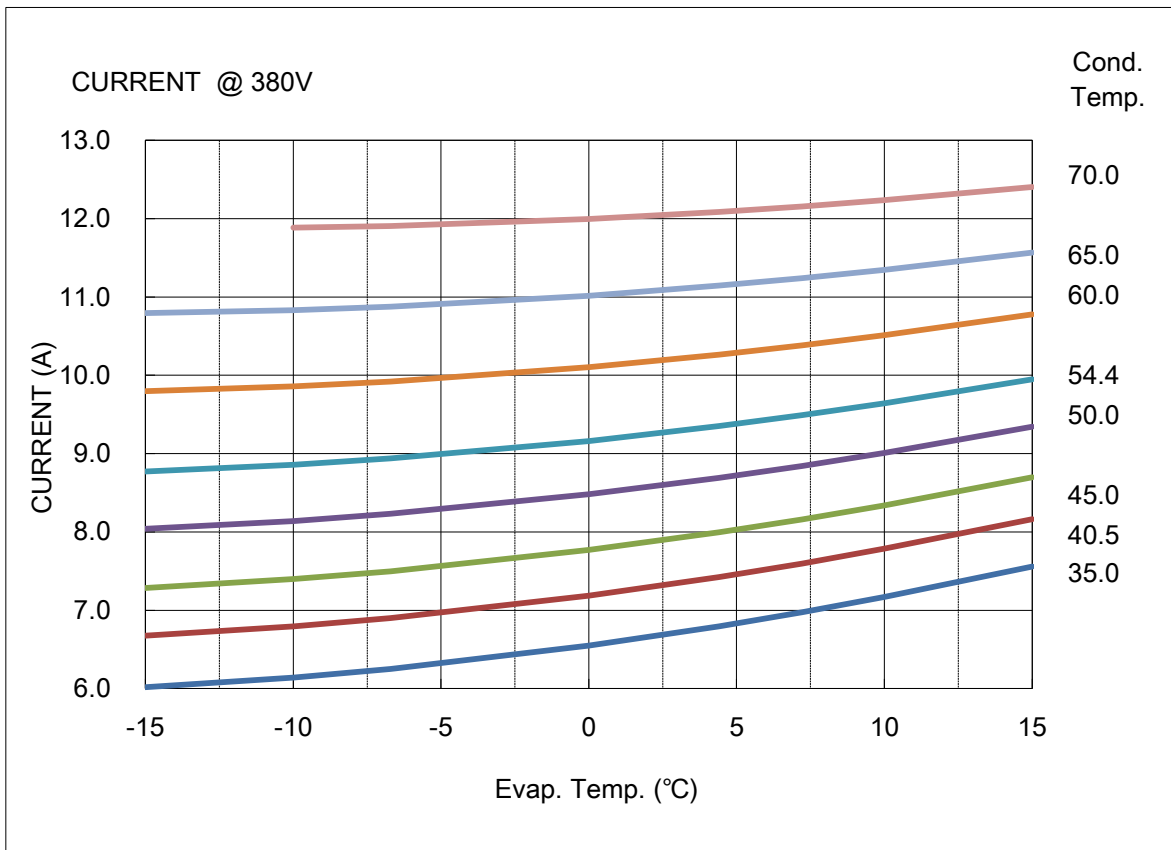
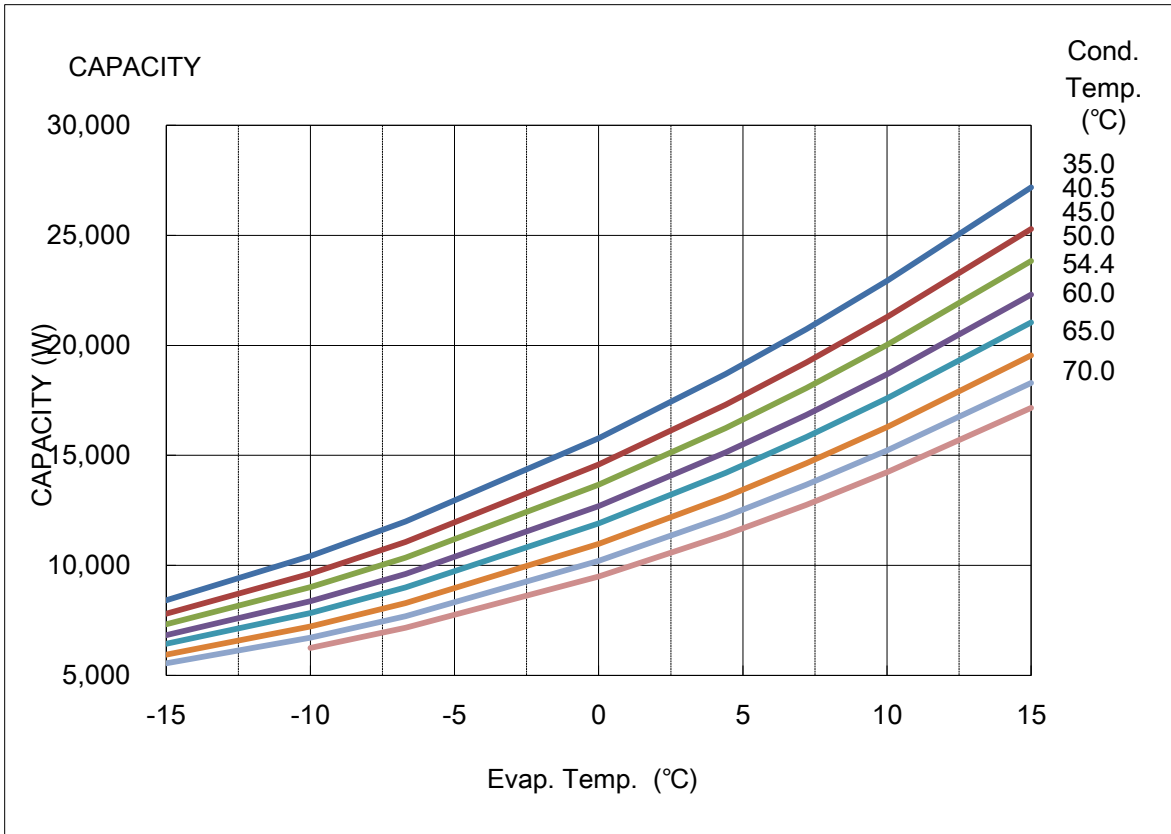
- \* The performance values are based on MID point method.
- \* The performance values subject to change without notice.

Compressor Model(Code)

C-SWS225H00C

Power Source

Inverter Drive , 90Hz



## COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	<b>C-SWS225H00C</b>
Power Source	<b>Inverter Drive , 90Hz</b>
Suction Gas Superheat (K)	<b>11.1</b>
Sub Cooling (K)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R513A</b>

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

X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	2.521307E+04	2.604697E+03	4.360745E+00
C2	9.552068E+02	2.056098E+01	3.352821E-02
C3	-3.147552E+02	8.755704E+00	1.587835E-02
C4	1.047202E+01	9.593955E-01	1.462403E-03
C5	-1.089058E+01	7.928488E-01	1.245143E-03
C6	1.288362E+00	8.173559E-01	1.330751E-03
C7	-5.239170E-04	-4.076824E-04	-5.598131E-07
C8	-4.282777E-02	-8.282694E-03	-1.088650E-05
C9	4.213039E-02	-1.336996E-02	-2.096555E-05
C10	6.708916E-09	3.428091E-11	2.258577E-12

Note:The polynomial coefficients subject to change without notice.