

SCROLL COMPRESSORS

Model: C-SWS225H00C

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

SCROLL COMPRESSORS

Model C-SWS225H00C
Refrigerant R407C

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>16500</u>	<u>24500</u>
Power (W)	<u>5200</u>	<u>8400</u>
Current (A)	<u>8.9</u>	<u>14.2</u>
COP (W/W)	<u>3.17</u>	<u>2.92</u>
Mass Flow (kg/h)	<u>385</u>	<u>545</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

Voltage Range(V)	<u> </u>	<u> </u>
RLA (A)	<u> </u>	<u> </u>
MCC (A)	<u> </u>	<u> </u>
LRA (A)	<u> </u>	<u> </u>
RPM (min ⁻¹)	<u> </u>	<u> </u>

Compressor

Maximum Discharge Temp(°C)	<u>115</u>
Displacement (cm ³ /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.

PERFORMANCE DATA

Compressor Model	C-SWS225H00C
Power Source	Inverter, 30Hz
Suction Gas Superheat(°C)	11.1
Sub Cooling(°C)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4,740	5,710	6,460	8,230	9,580	10,520	11,520	12,280
40.5	4,110	5,070	5,800	7,510	8,810	9,710	10,670	11,380
45.0	3,650	4,590	5,300	6,960	8,220	9,090	10,010	10,690
50.0	3,180	4,100	4,790	6,400	7,600	8,440	9,320	9,980
54.4		3,710	4,380	5,930	7,100	7,900	8,750	9,380
60.0			3,910	5,390	6,510	7,270	8,080	8,680
65.0				4,960	6,020	6,750	7,530	8,100

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	1,640	1,630	1,630	1,650	1,670	1,680	1,700	1,720
40.5	1,900	1,890	1,890	1,890	1,910	1,920	1,940	1,950
45.0	2,160	2,140	2,140	2,140	2,150	2,150	2,170	2,180
50.0	2,500	2,480	2,460	2,450	2,450	2,450	2,460	2,470
54.4		2,810	2,790	2,770	2,750	2,750	2,750	2,750
60.0			3,270	3,220	3,190	3,170	3,160	3,150
65.0				3,670	3,630	3,600	3,570	3,550

CURRENT(A)

@190V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5.4	5.3	5.4	5.4	5.5	5.5	5.6	5.6
40.5	6.1	6.0	6.0	6.1	6.1	6.1	6.2	6.2
45.0	6.7	6.7	6.7	6.7	6.7	6.7	6.8	6.8
50.0	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.5
54.4		8.3	8.3	8.2	8.2	8.2	8.2	8.2
60.0			9.4	9.3	9.3	9.2	9.2	9.2
65.0				10.4	10.3	10.2	10.1	10.1

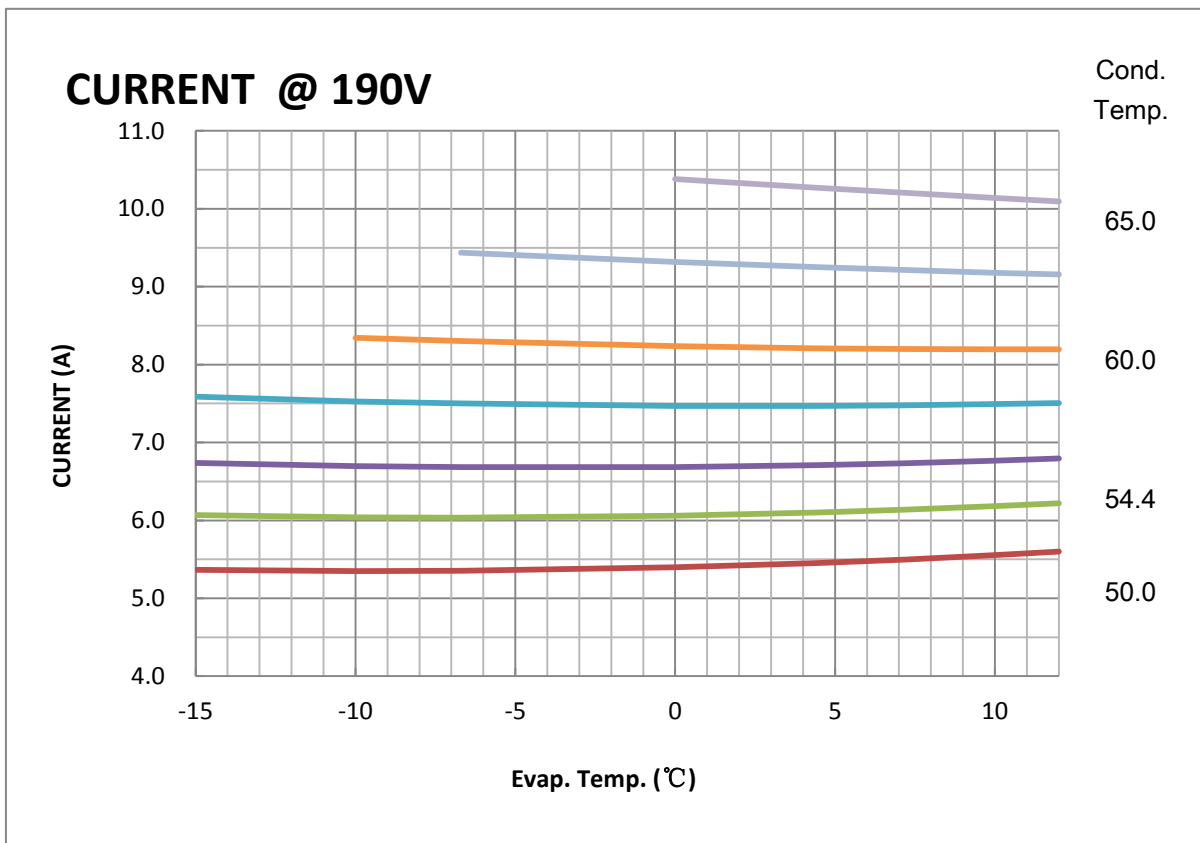
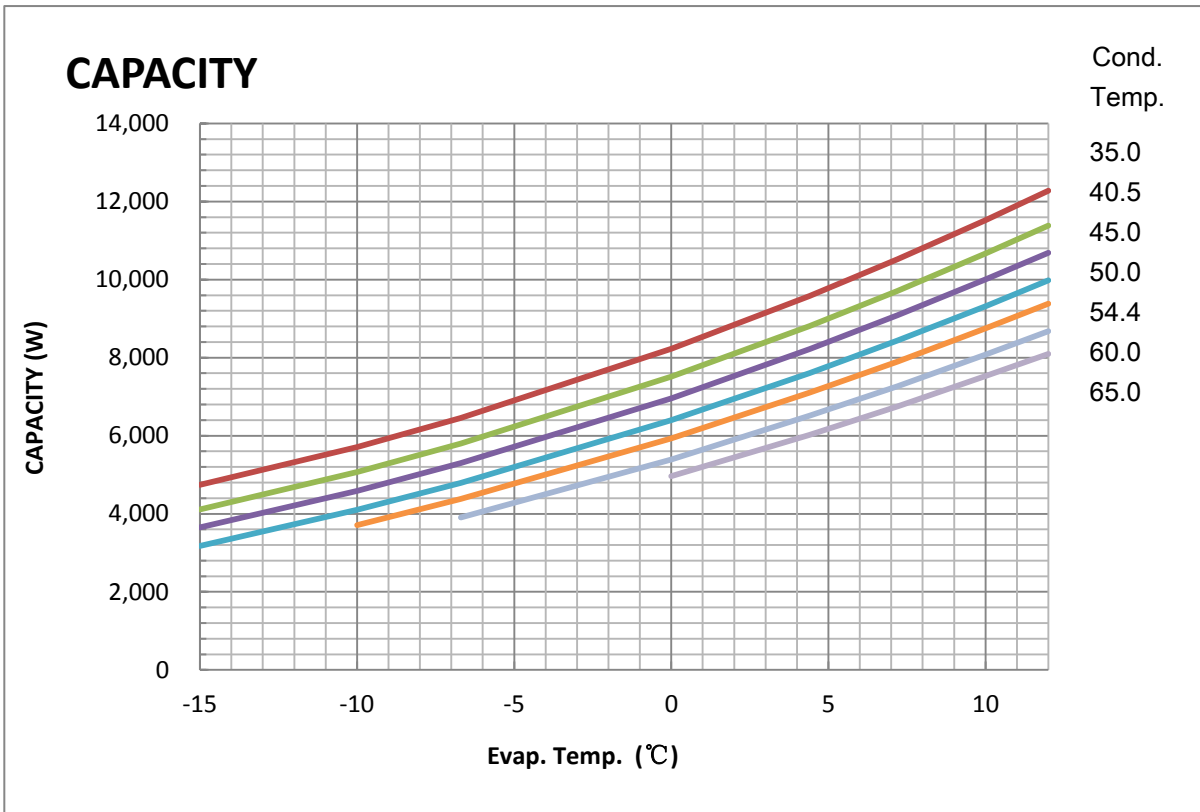
Flow(kg/H)

@190V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	90	110	130	160	180	200	220	230
40.5	90	110	120	150	180	190	210	220
45.0	80	100	120	150	170	190	210	220
50.0	80	100	110	140	170	190	200	220
54.4		90	110	140	170	180	200	210
60.0			100	140	160	180	200	210
65.0				130	160	180	190	210

Compressor Model(Code)
Power Source

C-SWS225H00C
Inverter, 30Hz



COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	C-SWS225H00C
Power Source	Inverter, 30Hz
Suction Gas Superheat (K)	11.1
Sub Cooling (K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

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

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

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

<u>190V-30Hz</u>	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	1.410840E+04	1.374389E+03	3.786588E+00	1.917558E+02
C2	3.581946E+02	-8.928251E+00	-7.984634E-03	7.573488E+00
C3	-1.996079E+02	-2.437863E+01	-1.872267E-02	-9.902857E-01
C4	5.418402E+00	3.510391E-01	9.858412E-04	6.992284E-02
C5	-1.931071E+00	8.058992E-01	1.454278E-03	-1.132359E-01
C6	9.065027E-01	9.185274E-01	1.848166E-03	1.133807E-03
C7	4.058385E-03	5.186058E-05	-1.016575E-06	1.602366E-04
C8	-4.528405E-02	-3.878000E-03	-1.193881E-05	-3.735283E-04
C9	-4.503877E-04	-1.288594E-02	-2.657766E-05	1.333840E-03
C10	-1.360957E-08	7.435006E-09	2.370997E-12	-3.897215E-09

Note: The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model	C-SWS225H00C
Power Source	Inverter, 60Hz
Suction Gas Superheat(°C)	11.1
Sub Cooling(°C)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	8,990	10,950	12,460	16,220	19,290	21,540	24,050	26,020
40.5	8,380	10,190	11,590	15,070	17,910	19,990	22,300	24,120
45.0	7,900	9,600	10,920	14,190	16,840	18,790	20,960	22,660
50.0	7,400	8,990	10,220	13,260	15,730	17,540	19,550	21,130
54.4		8,480	9,640	12,490	14,810	16,500	18,390	19,870
60.0			8,940	11,580	13,710	15,270	17,010	18,370
65.0				10,820	12,810	14,260	15,880	17,150

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,190	3,280	3,350	3,480	3,580	3,630	3,700	3,740
40.5	3,590	3,680	3,740	3,870	3,960	4,010	4,070	4,110
45.0	3,970	4,060	4,110	4,230	4,310	4,360	4,410	4,450
50.0	4,450	4,520	4,570	4,680	4,740	4,790	4,830	4,860
54.4		4,980	5,020	5,110	5,160	5,200	5,240	5,260
60.0			5,650	5,710	5,750	5,770	5,800	5,810
65.0				6,290	6,310	6,330	6,340	6,350

CURRENT(A)

@360V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5.8	5.9	6.0	6.2	6.4	6.5	6.6	6.6
40.5	6.4	6.6	6.7	6.9	7.0	7.1	7.2	7.2
45.0	7.0	7.2	7.2	7.4	7.5	7.6	7.7	7.7
50.0	7.8	7.9	8.0	8.1	8.2	8.3	8.3	8.4
54.4		8.6	8.6	8.8	8.8	8.9	9.0	9.0
60.0			9.6	9.7	9.7	9.8	9.8	9.8
65.0				10.5	10.6	10.6	10.6	10.6

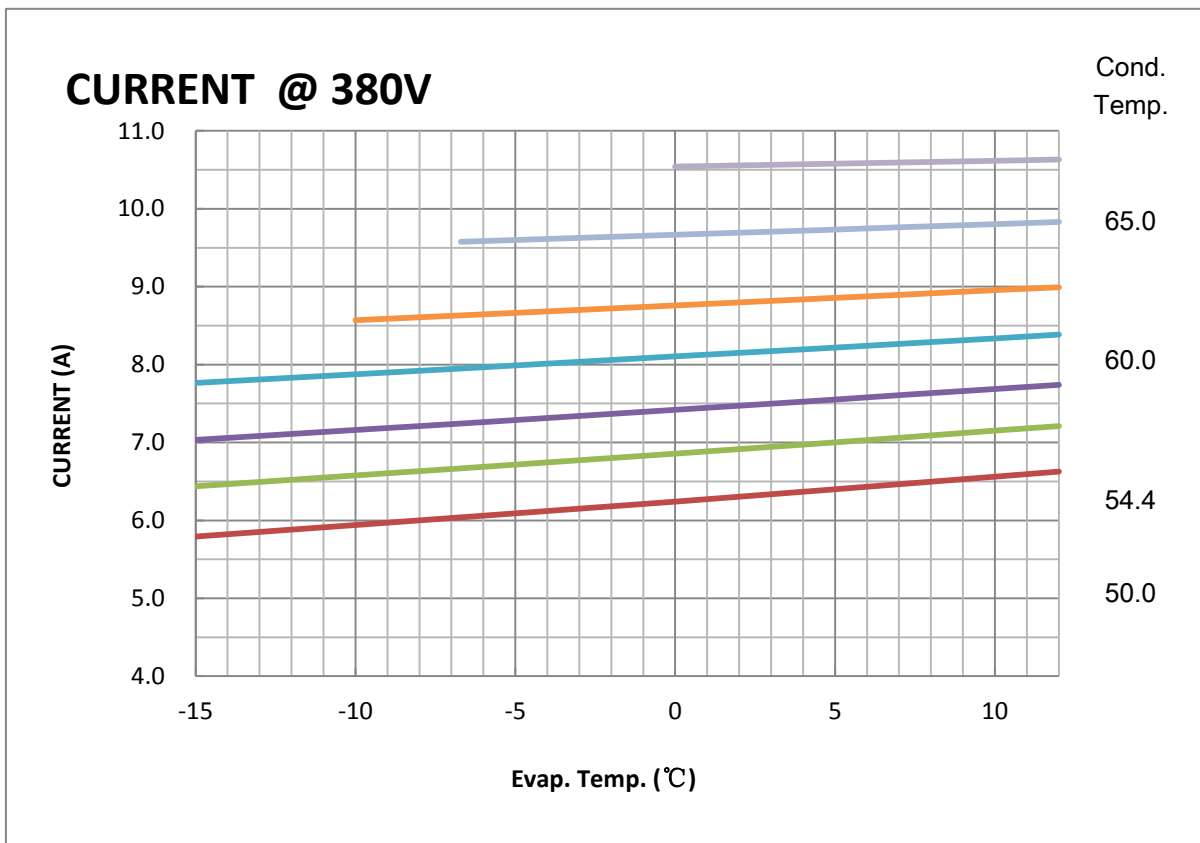
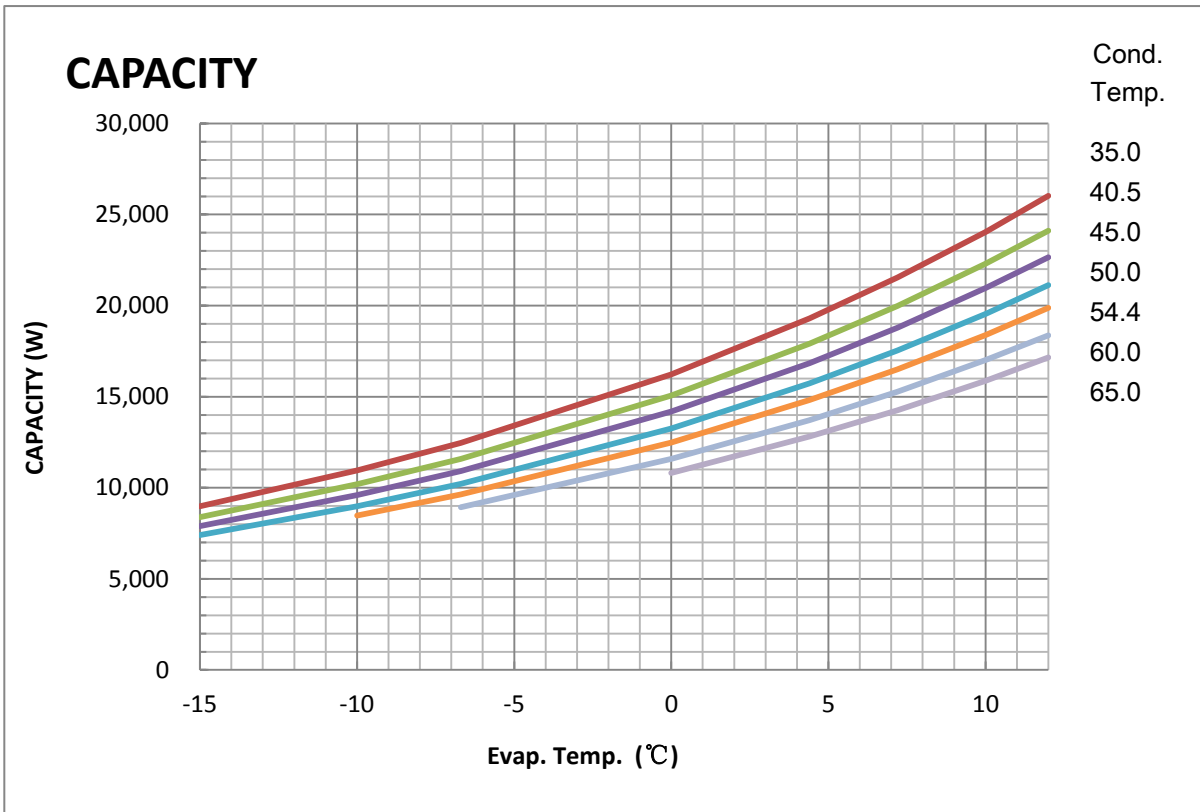
Flow(kg/H)

@360V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	180	220	250	310	370	410	450	490
40.5	180	220	240	310	360	400	440	480
45.0	180	210	240	310	360	400	440	470
50.0	180	210	240	300	350	390	430	460
54.4		210	240	300	350	380	430	460
60.0			230	290	340	380	420	450
65.0				290	340	370	410	440

Compressor Model(Code)
Power Source

C-SWS225H00C
Inverter, 60Hz



COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	C-SWS225H00C
Power Source	Inverter, 60Hz
Suction Gas Superheat (K)	11.1
Sub Cooling (K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

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

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

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

<u>360V-60Hz</u>	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	2.524473E+04	2.360355E+03	4.127545E+00	3.407736E+02
C2	1.049570E+03	1.195312E+01	2.131227E-02	1.351201E+01
C3	-3.001093E+02	-1.123557E+00	1.570022E-02	-7.319730E-01
C4	1.869321E+01	1.570879E-01	1.936765E-04	2.440820E-01
C5	-1.381948E+01	6.744596E-01	8.408054E-04	-6.787997E-02
C6	1.205040E+00	9.484681E-01	1.276722E-03	-1.041012E-03
C7	1.383883E-01	-6.854028E-04	8.049209E-08	2.885598E-03
C8	-1.690485E-01	-2.741249E-03	-3.258462E-06	-7.984168E-04
C9	6.216696E-02	-1.206433E-02	-1.616454E-05	2.187335E-04
C10	-1.347214E-08	-1.144670E-08	-4.883166E-12	-3.456871E-09

Note: The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model	C-SWS225H00C
Power Source	Inverter, 90Hz
Suction Gas Superheat(°C)	11.1
Sub Cooling(°C)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	13,910	16,870	19,160	24,800	29,390	32,740	36,480	39,400
40.5	12,820	15,550	17,660	22,860	27,090	30,190	33,630	36,330
45.0	11,980	14,530	16,500	21,380	25,330	28,220	31,450	33,970
50.0	11,110	13,470	15,310	19,820	23,500	26,180	29,170	31,510
54.4		12,610	14,320	18,550	21,990	24,500	27,300	29,490
60.0			13,160	17,050	20,210	22,520	25,100	27,110
65.0				15,830	18,770	20,910	23,300	25,180

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5,060	5,260	5,400	5,690	5,890	6,020	6,150	6,250
40.5	5,660	5,860	6,000	6,280	6,470	6,600	6,730	6,820
45.0	6,230	6,420	6,550	6,820	7,010	7,130	7,250	7,340
50.0	6,920	7,110	7,230	7,490	7,670	7,780	7,890	7,980
54.4		7,780	7,890	8,130	8,300	8,400	8,510	8,580
60.0			8,810	9,020	9,170	9,260	9,350	9,410
65.0				9,890	10,010	10,080	10,160	10,210

CURRENT(A)

@380V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	8.8	9.1	9.4	9.8	10.2	10.4	10.6	10.7
40.5	9.8	10.1	10.3	10.8	11.1	11.3	11.5	11.7
45.0	10.7	11.0	11.2	11.7	12.0	12.2	12.4	12.5
50.0	11.8	12.1	12.3	12.7	13.0	13.2	13.4	13.5
54.4		13.2	13.4	13.8	14.0	14.2	14.4	14.5
60.0			14.8	15.2	15.4	15.6	15.7	15.8
65.0				16.5	16.7	16.9	17.0	17.1

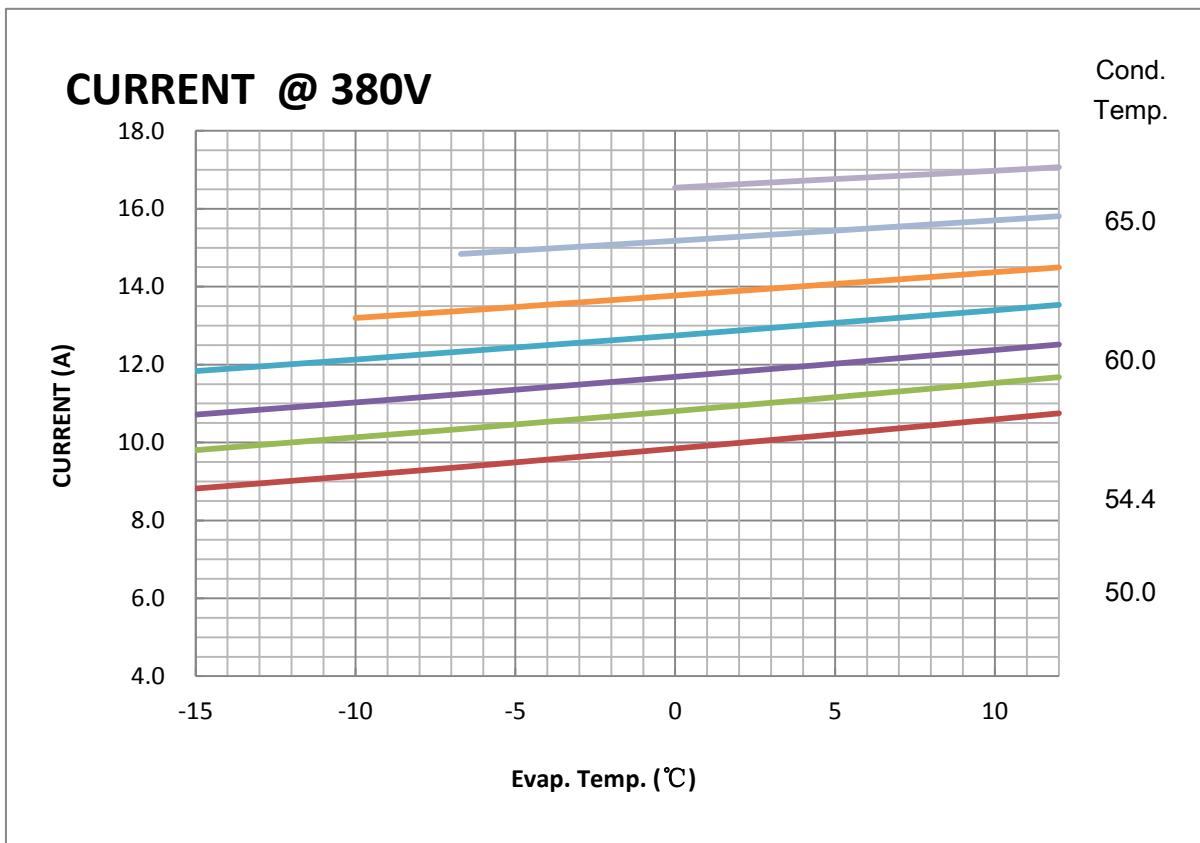
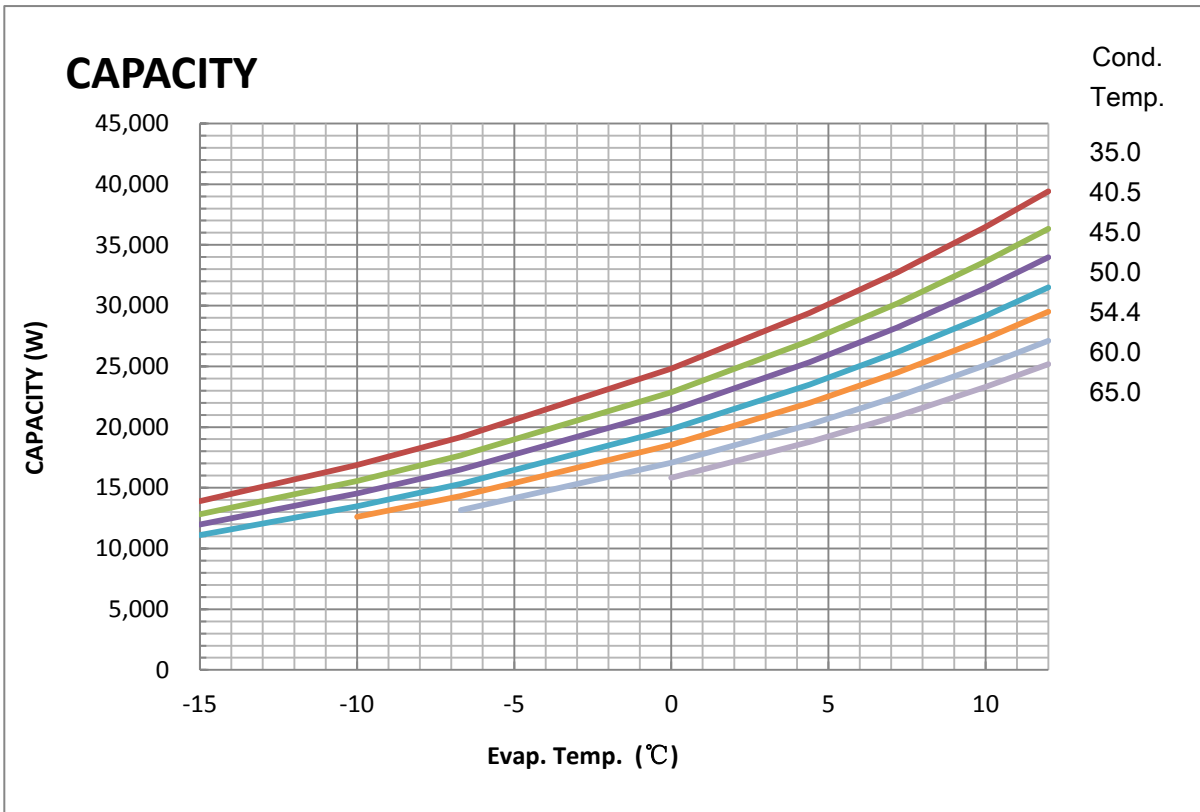
Flow(kg/H)

@380V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	270	320	360	460	540	590	660	700
40.5	260	310	350	450	520	580	640	690
45.0	260	310	350	440	510	570	630	670
50.0	250	300	340	430	500	560	610	660
54.4		300	330	420	490	540	600	650
60.0			330	410	480	530	590	630
65.0				410	470	520	570	620

Compressor Model(Code)
Power Source

C-SWS225H00C
Inverter, 90Hz



COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	C-SWS225H00C
Power Source	Inverter, 90Hz
Suction Gas Superheat (K)	11.1
Sub Cooling (K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

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

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

S—EVAPORATING TEMP, °C

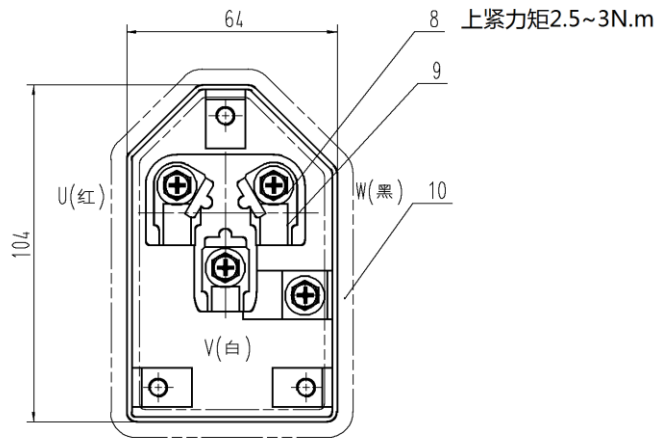
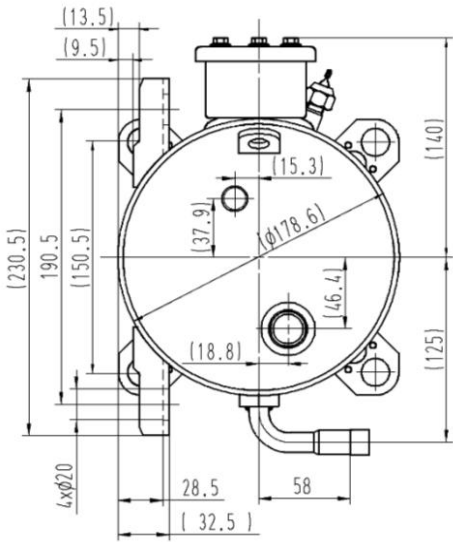
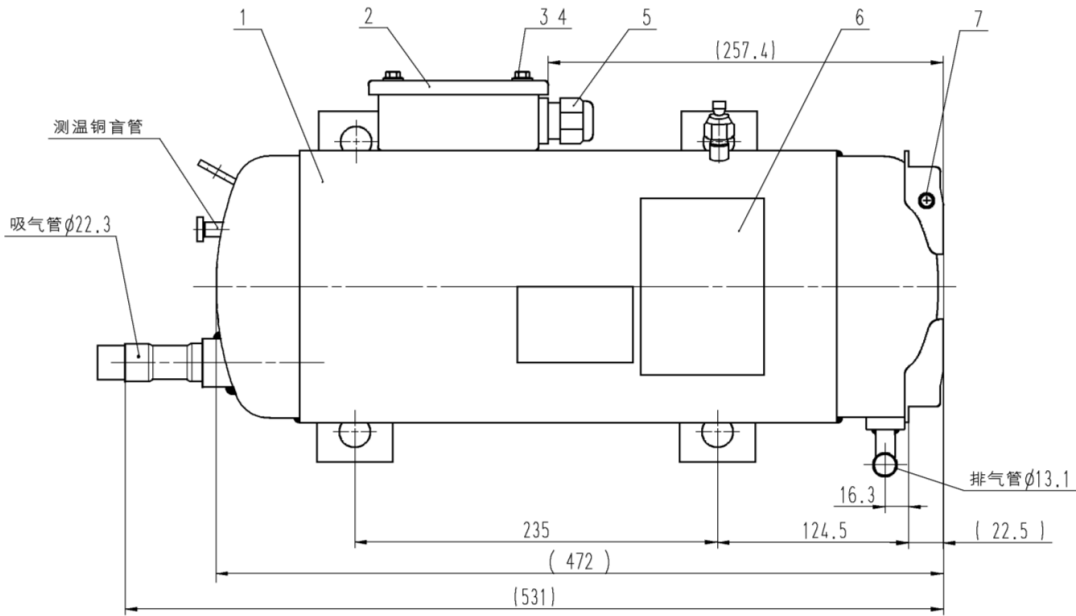
D—CONDENSING TEMP, °C

<u>380V-90Hz</u>	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	4.033086E+04	3.789360E+03	6.501471E+00	5.643672E+02
C2	1.587825E+03	2.939816E+01	5.070830E-02	1.676649E+01
C3	-5.220211E+02	8.081970E+00	2.663001E-02	-3.632045E+00
C4	2.712438E+01	3.715692E-01	5.459335E-04	2.898204E-01
C5	-2.125591E+01	9.788176E-01	1.447637E-03	2.963765E-02
C6	2.234231E+00	1.319391E+00	1.966706E-03	1.826527E-02
C7	2.020708E-01	-5.936706E-04	2.696980E-07	3.722939E-03
C8	-2.395954E-01	-5.668340E-03	-7.873789E-06	5.809142E-05
C9	9.565916E-02	-1.559539E-02	-2.393861E-05	-1.214623E-03
C10	-6.849131E-09	-1.300664E-08	-1.355766E-11	5.695885E-09

Note: The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

C-SW Series



No.	Qty	Name
1	1	Compressor
2	1	Terminal Box Cover
3	3	Screw
4	3	Washer
5	1	Connector
6	1	Nameplate
7	1	Screw Special
8	4	Screw
9	1	Connector Block
10	1	Seal