



SPECIFICATIONS OF COMPRESSOR

Model No: C-SCP510H38B

Output : 15HP

DALIAN SANYO COMPRESSOR Co.,Ltd.

01-Mar-11

GENERAL SPECIFICATIONS

Model No:	C-SCP510H38B	
Application		
Evaporating Temp Range	(°C)	-15.0 ~ 12.0
Refrigerant	R410A	
Compressor Cooling	Natural Cooling	
Rated Performance		
Capacity	(W)	43900
Input	(W)	13800
Current	(A)	24.4
Revolution	(min ⁻¹)	2870
Sound Level	(dB(A))	71
Rating Conditions		
Power Source	3-PH 50Hz 380V	
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)	171.2
Suction Line Connection	(Φ mm OD)	34.9
Discharge Line Connection	(Φ mm OD)	22.3
Oil	(ml)	3500 (FV68S)
Mass(Incl.Oil)	(kg)	76
Motor		
Type	3-PH Induction Motor (3 I R)	
Pole	2	
Rated Power Source	3-PH 50Hz 380-415V	
Voltage Range	(V)	380-415
Starting Current	(A)	158.73
Running Capacitor	(μ F)	-

DALIAN SANYO COMPRESSOR Co.,Ltd.

PERFORMANCE DATA

Compressor Model	C-SCP510H38B
Power Source	3PH 50Hz 380-415V
Suction Gas Superheat(°C)	11.1
Sub Cooling(°C)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R410A

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	29,650	34,230	38,030	47,640	55,320	60,790	66,690	71,180
40.5	25,380	30,130	33,910	43,180	50,420	55,500	60,960	65,080
45.0	22,240	27,080	30,830	39,800	46,680	51,470	56,580	60,430
50.0	19,140	24,010	27,690	36,310	42,820	47,300	52,060	55,620
54.4		21,580	25,180	33,490	39,670	43,900	48,360	51,690
60.0			22,350	30,220	36,000	39,930	44,060	47,120
65.0				27,620	33,050	36,730	40,580	43,440

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	9,120	9,210	9,270	9,380	9,440	9,480	9,510	9,540
40.5	10,040	10,170	10,240	10,380	10,460	10,510	10,560	10,590
45.0	10,890	11,040	11,140	11,310	11,410	11,470	11,530	11,560
50.0	11,920	12,110	12,240	12,460	12,580	12,660	12,720	12,770
54.4		13,150	13,290	13,560	13,710	13,800	13,880	13,930
60.0			14,760	15,090	15,290	15,390	15,500	15,560
65.0				16,590	16,820	16,950	17,070	17,150

CURRENT(A)

@380V

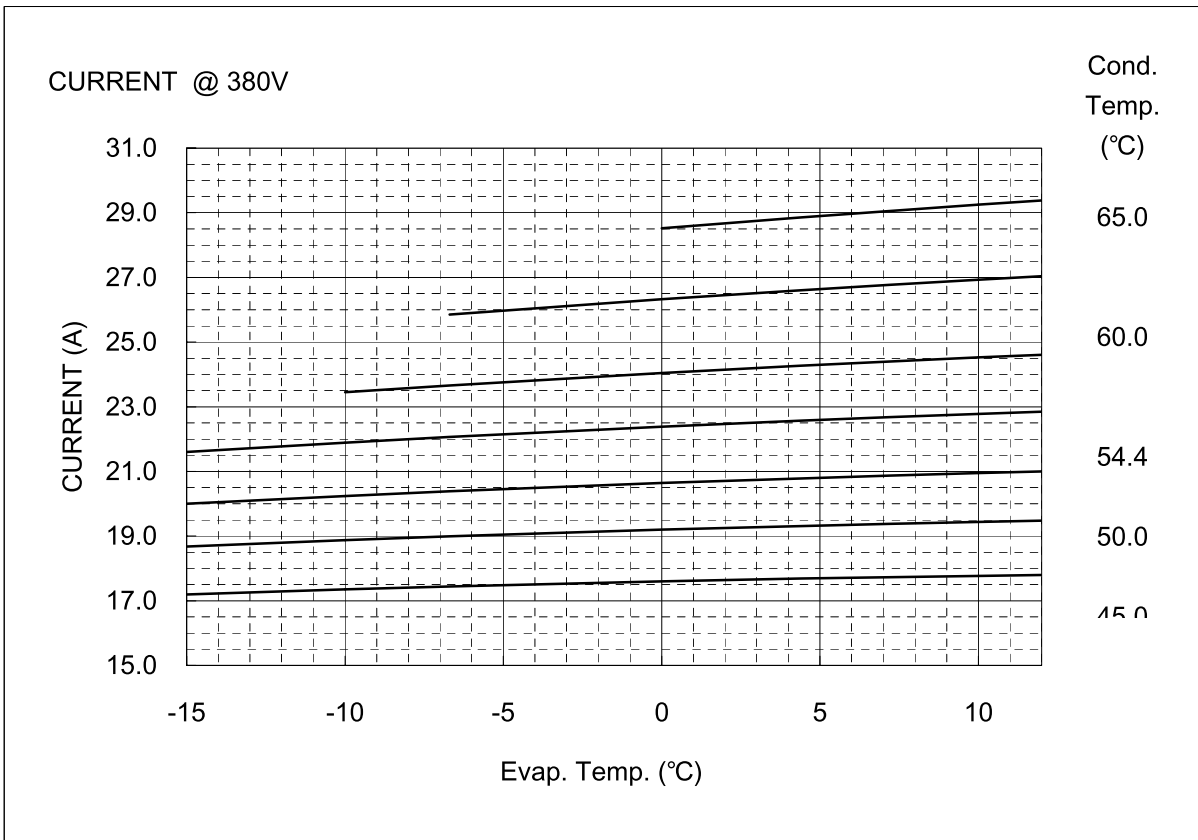
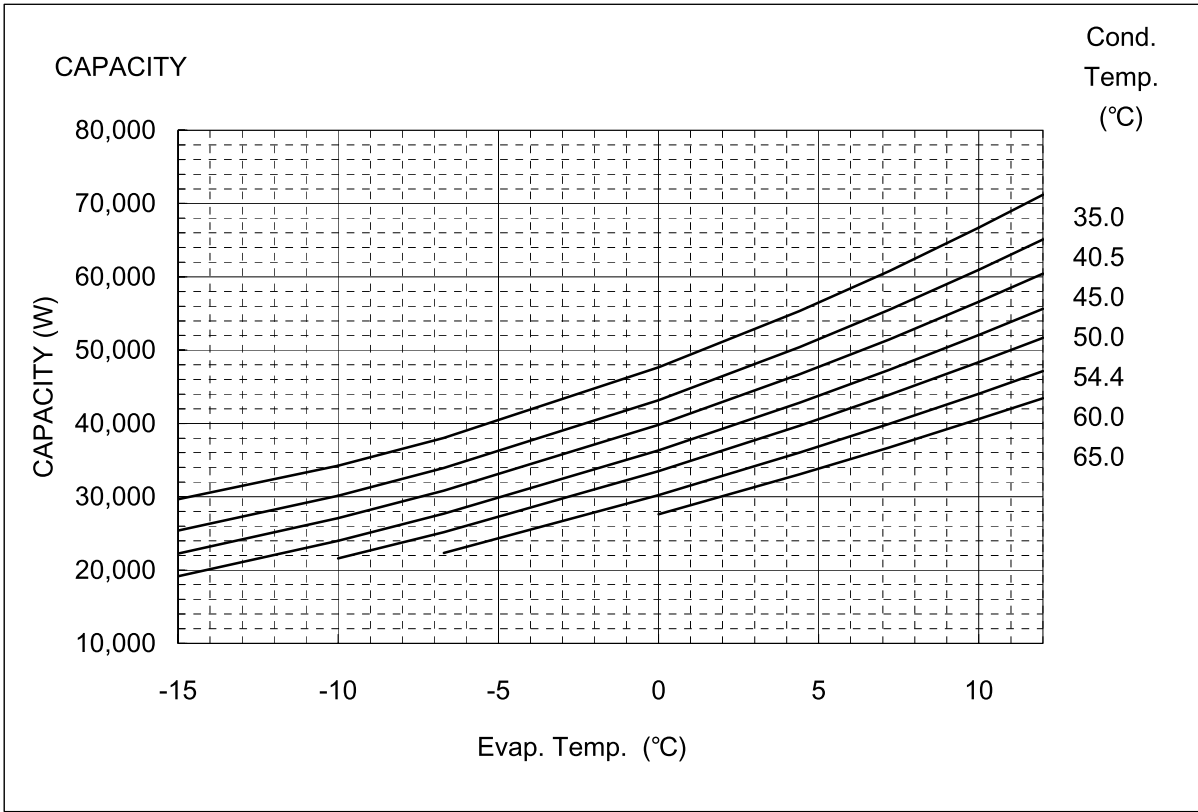
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	17.2	17.4	17.4	17.6	17.7	17.7	17.8	17.8
40.5	18.7	18.9	19.0	19.2	19.3	19.4	19.4	19.5
45.0	20.0	20.2	20.4	20.6	20.8	20.9	20.9	21.0
50.0	21.6	21.9	22.1	22.4	22.6	22.7	22.8	22.8
54.4		23.5	23.7	24.0	24.3	24.4	24.5	24.6
60.0			25.9	26.3	26.6	26.8	26.9	27.0
65.0				28.5	28.9	29.1	29.2	29.4

NOTE:

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

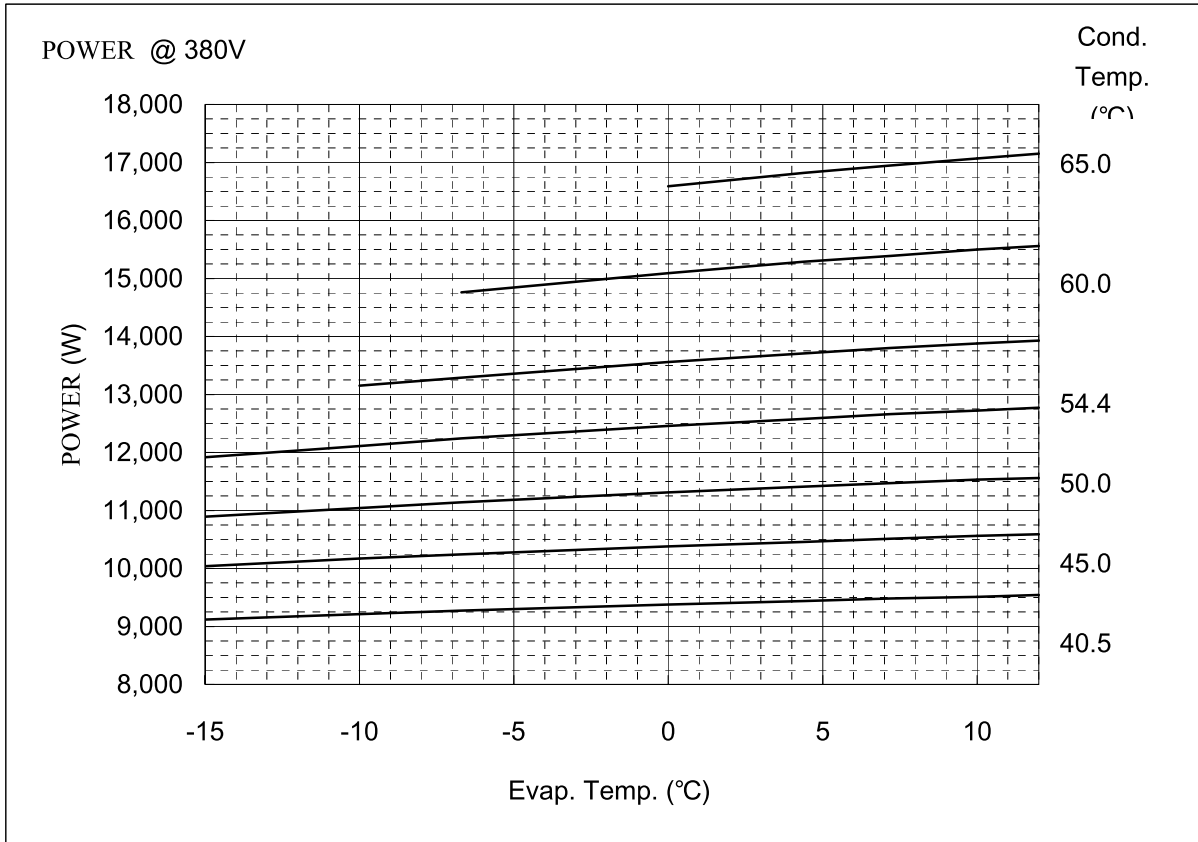
Compressor Model(Code)
Power Source

C-SCP510H38B
3PH 50Hz 380-415V



Compressor Model(Code)
Power Source

C-SCP510H38B
3PH 50Hz 380-415V



COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model **C-SCP510H38B**
 Power Source **3PH 50Hz 380-415V**
 Suction Gas Superheat(K) **11.1**
 Sub Cooling(K) **8.3**
 Compressor Cooling **Natural Cooling**
 Refrigerant **R410A**

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

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

S—EVAPORATING TEMP, °C

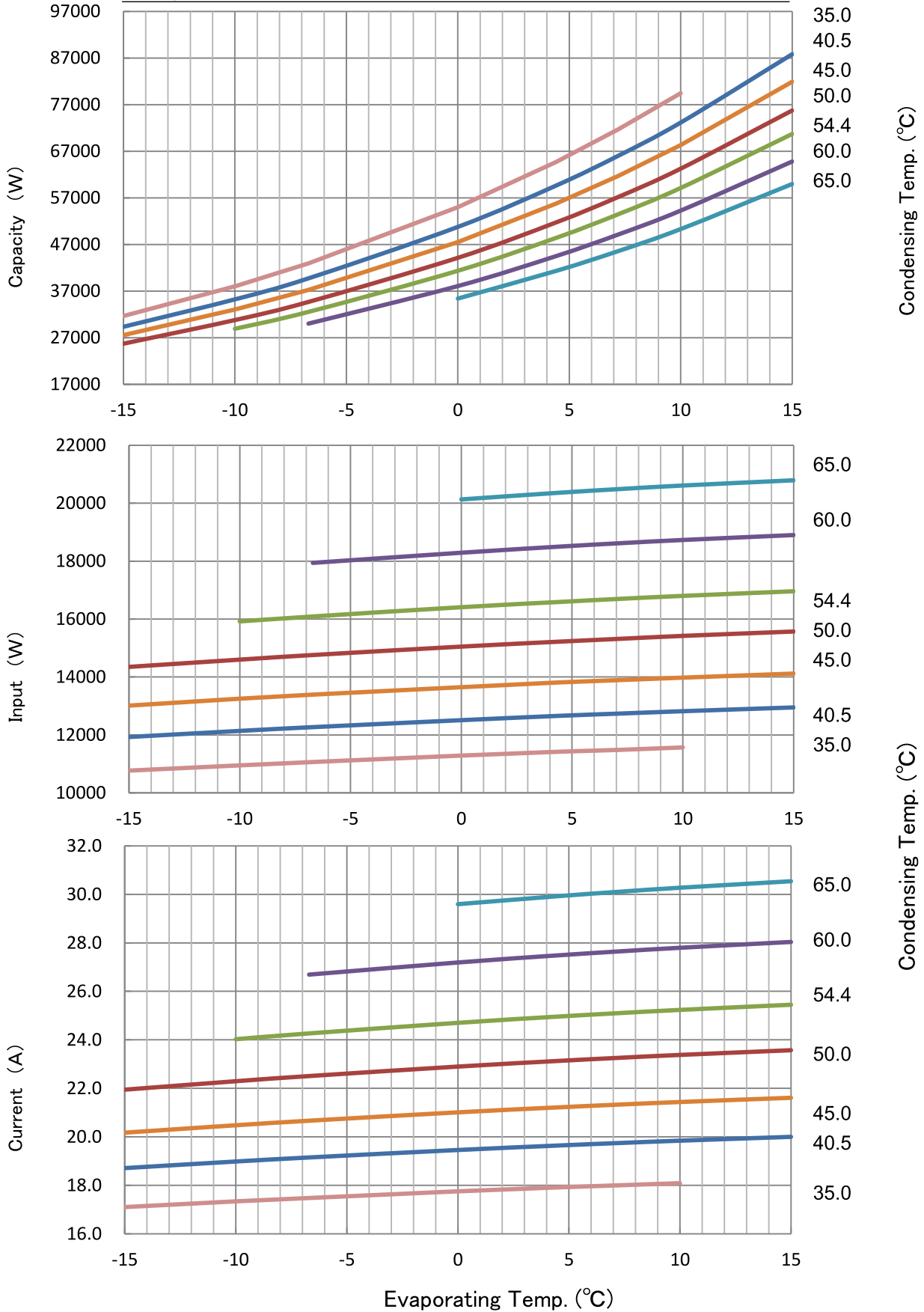
D—CONDENSING TEMP, °C

380V-50Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	8.543251E+04	6.264453E+03	1.166631E+01
C2	2.209375E+03	1.600072E+01	1.181247E-02
C3	-1.299962E+03	7.232038E+00	6.479076E-02
C4	5.030378E+01	5.003542E-01	-8.832781E-05
C5	-1.851165E+01	-7.458890E-01	-6.457245E-04
C6	6.333724E+00	2.332098E+00	2.991409E-03
C7	3.232164E-02	-7.287552E-04	-1.392311E-07
C8	-6.507441E-01	-1.751960E-02	-8.469108E-06
C9	4.640627E-02	2.067642E-02	2.594574E-05
C10	-1.621833E-07	-1.065587E-09	1.981788E-12

Note:The polynomial coefficients subject to change without notice.

PERFORMANCE CURVE

Code No.	C-SCP510H38B
Power Source	3-PH 60Hz 440V
Condensing Temp.(°C)	35, 40.5, 45, 50, 54.4, 60, 65
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R410A



PERFORMANCE DATA

Code No.	C-SCP510H38B
Power Source	3-PH 60Hz 440V
Condensing Temp.(°C)	35, 40.5, 45, 50, 54.4, 60, 65
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R410A

Capacity (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	15
Condensing Temp. (°C)	35.0	31,640	38,040	42,960	54,990	64,670	71,690	79,480	
	40.5	29,350	35,230	39,740	50,770	59,620	66,040	73,160	87,820
	45.0	27,570	33,060	37,270	47,520	55,750	61,710	68,310	81,900
	50.0	25,720	30,790	34,680	44,140	51,720	57,200	63,270	75,750
	54.4		28,920	32,540	41,360	48,400	53,500	59,130	70,710
	60.0			30,030	38,080	44,500	49,150	54,270	64,800
	65.0				35,400	41,320	45,590	50,310	59,980

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	15
Condensing Temp. (°C)	35.0	10,770	10,950	11,070	11,290	11,420	11,490	11,570	
	40.5	11,930	12,140	12,270	12,510	12,660	12,740	12,820	12,950
	45.0	13,010	13,250	13,390	13,650	13,810	13,900	13,980	14,120
	50.0	14,350	14,600	14,760	15,050	15,220	15,320	15,420	15,570
	54.4		15,920	16,090	16,410	16,590	16,700	16,800	16,960
	60.0			17,940	18,290	18,500	18,620	18,730	18,900
	65.0				20,130	20,360	20,490	20,610	20,790

Current (A) @440V

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	15
Condensing Temp. (°C)	35.0	17.1	17.3	17.5	17.7	17.9	18.0	18.1	
	40.5	18.7	19.0	19.1	19.5	19.6	19.7	19.8	20.0
	45.0	20.2	20.5	20.7	21.0	21.2	21.3	21.4	21.6
	50.0	21.9	22.3	22.5	22.9	23.1	23.3	23.4	23.6
	54.4		24.0	24.3	24.7	25.0	25.1	25.2	25.4
	60.0			26.7	27.2	27.5	27.6	27.8	28.0
	65.0				29.6	29.9	30.1	30.3	30.5

Coefficients of Polynomial Formula

440V-60Hz	Capacity (W)	Input (W)	Current (A)
C1	8.851391E+04	7.611057E+03	1.173360E+01
C2	3.554670E+03	1.654767E+01	2.282347E-02
C3	-1.125067E+03	2.750607E+00	5.174492E-02
C4	5.938333E+01	1.059146E-01	2.755877E-04
C5	-5.243867E+01	2.199048E-01	-4.836731E-05
C6	4.746476E+00	2.921631E+00	3.431295E-03
C7	3.979957E-01	-1.389846E-03	-6.328842E-07
C8	-6.035390E-01	-1.072627E-02	-1.807380E-05
C9	2.598829E-01	5.324840E-03	1.356433E-05
C10	-9.801575E-08	-1.948095E-09	-1.105612E-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)

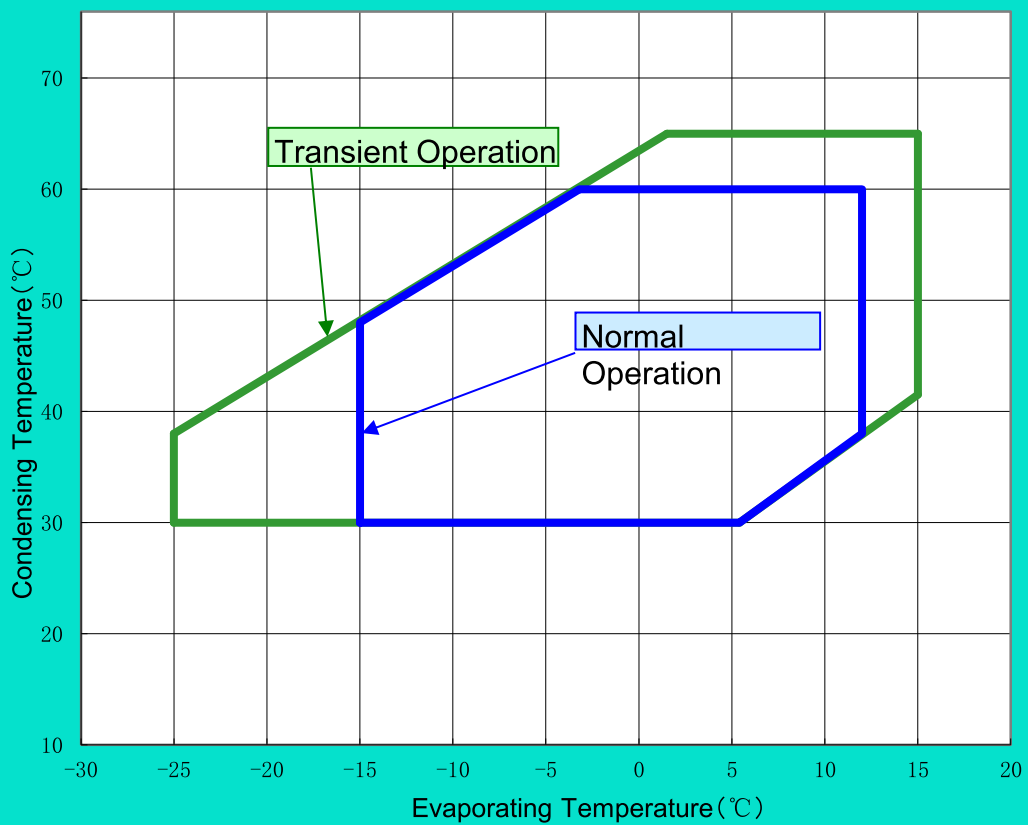
S—EVAPORATING TEMP, °C

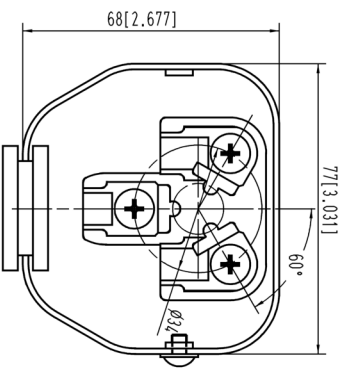
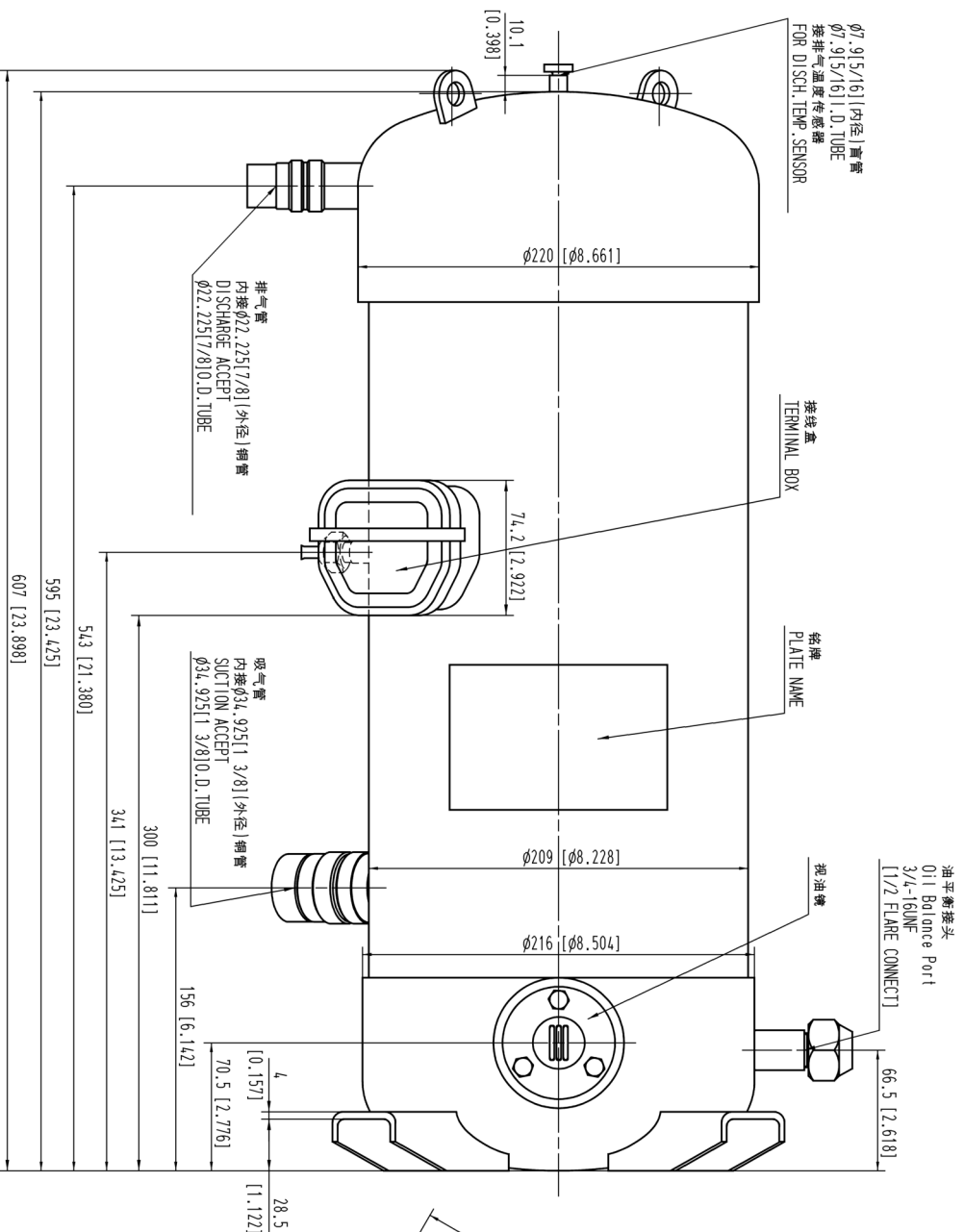
D—CONDENSING TEMP, °C

Operating Envelope

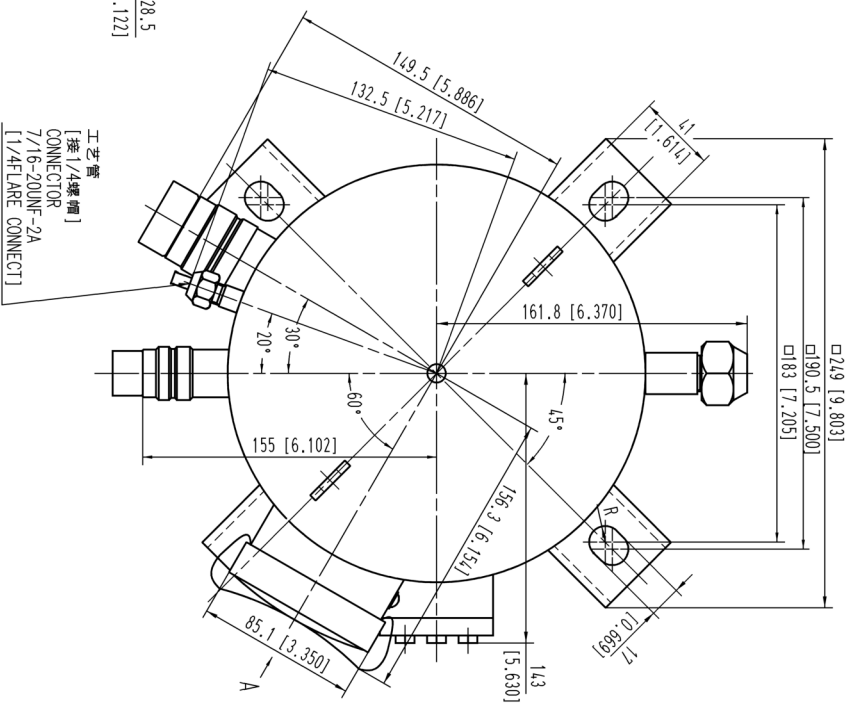
Suction Gas Superheat: 11.1K

Refrigerant:R410A





A | 去掉接线盒盖 | 1:1



设计		审核		工艺		更改文件号		签名		年、月、日		阶段标记		重量		比例		COMP DIM SKETCH SCR		D01-0-0650-015-00-0	
设计	审核	工艺	更改文件号	签名	年、月、日	阶段标记	重量	比例	COMP DIM SKETCH SCR		D01-0-0650-015-00-0										
S		A		B		76.5		1:2		D01-0-0650-015-00-0											

大连三洋压缩机有限公司

外观图

COMP DIM SKETCH SCR

D01-0-0650-015-00-0