

SANYO

SANYO SCROLL COMPRESSORS

Code : 809 950 88

Model : C-SBN373H8A



DALIAN SANYO COMPRESSOR CO.,LTD.

Rev.2007-5

SANYO Scroll Compressor



Model C-SBN373H8A

Refrigerant R407C

Electrical 380-415 Volts 3 Phase 50Hz

440-460 Volts 3 Phase 60Hz

Nominal Performance at ARI

Power Source	<u>50Hz-380V</u>	<u>60Hz-440V</u>
Capacity (W)	<u>14500</u>	<u>17800</u>
Power (W)	<u>4950</u>	<u>5960</u>
Current (A)	<u>8.5</u>	<u>8.8</u>
COP (W/W)	<u>2.93</u>	<u>2.99</u>
Mass Flow (kg/h)	<u>350</u>	<u>429</u>

Rating Conditions (MID Point)

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>43.8</u>
Ambient Temperature(°C)	<u>35</u>

Motor

	50Hz	60Hz
Voltage Range(V)	<u>342-456</u>	<u>396-506</u>
RLA (A)	<u>10.1</u>	
MCC (A)	<u>14.1</u>	
LRA (A)	<u>48</u>	<u>52</u>
RPM (min ⁻¹)	<u>2900</u>	<u>3450</u>

Compressor

Maximum Discharge Temp(°C)	<u>130</u>
Displacement (cm ³ /rev)	<u>83.2</u>
Weight (with oil kg)	<u>38</u>
VDE File Number	<u>40010537</u>

Oil

Oil Type	<u>FV68S</u>
Initial Charge (ml)	<u>1700</u>
Re-charge (ml)	<u>1600</u>

Electrical Components

Motor Protector Type	<u>Internal</u>
Run Capacitor Rating (MFD/Volts)	<u>n/a</u>

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

Ratings with air over compressor.

Specifications subject to change without notice.



Made by: Dalian **SANYO** Compressor Co., Ltd.

PERFORMANCE DATA

Compressor Model(Code)	C-SBN373H8A (809 950 88)
Power Source	3PH 50Hz 380-415V
Suction Gas Superheat(K)	9
Sub Cooling(K)	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	8,030	9,790	11,150	14,530	17,300	19,320	21,580	23,360
40.5	7,330	8,960	10,220	13,370	15,940	17,830	19,940	21,600
45.0	6,800	8,330	9,510	12,470	14,900	16,680	18,680	20,250
50.0	6,260	7,670	8,780	11,540	13,810	15,480	17,360	18,840
54.4		7,140	8,180	10,780	12,920	14,500	16,270	17,670
60.0			7,480	9,880	11,870	13,340	14,990	16,290
65.0				9,160	11,020	12,400	13,950	15,170

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,100	3,130	3,140	3,160	3,170	3,170	3,170	3,160
40.5	3,530	3,550	3,560	3,580	3,580	3,580	3,580	3,570
45.0	3,940	3,960	3,970	3,980	3,970	3,970	3,960	3,960
50.0	4,470	4,480	4,480	4,480	4,470	4,460	4,460	4,450
54.4		4,990	4,980	4,970	4,960	4,950	4,940	4,930
60.0			5,700	5,670	5,650	5,640	5,620	5,610
65.0				6,370	6,340	6,320	6,300	6,290

CURRENT(A)

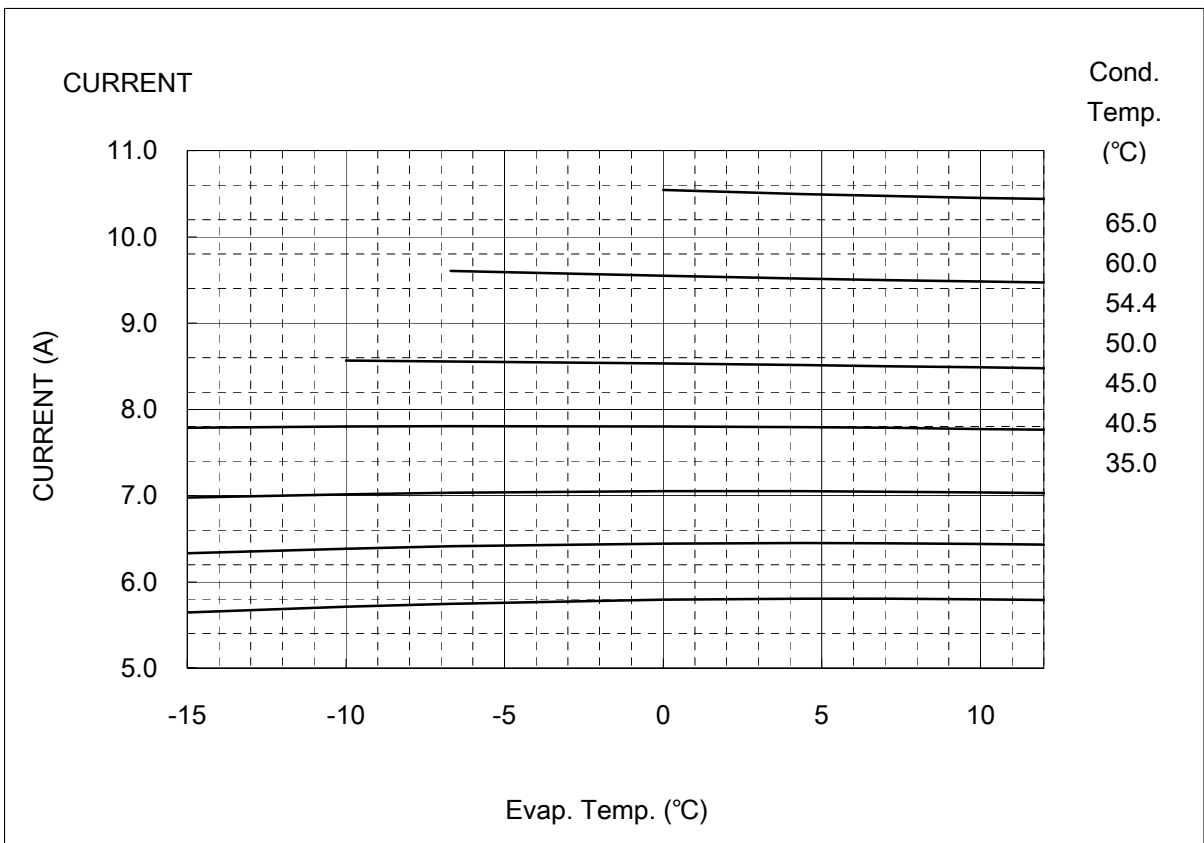
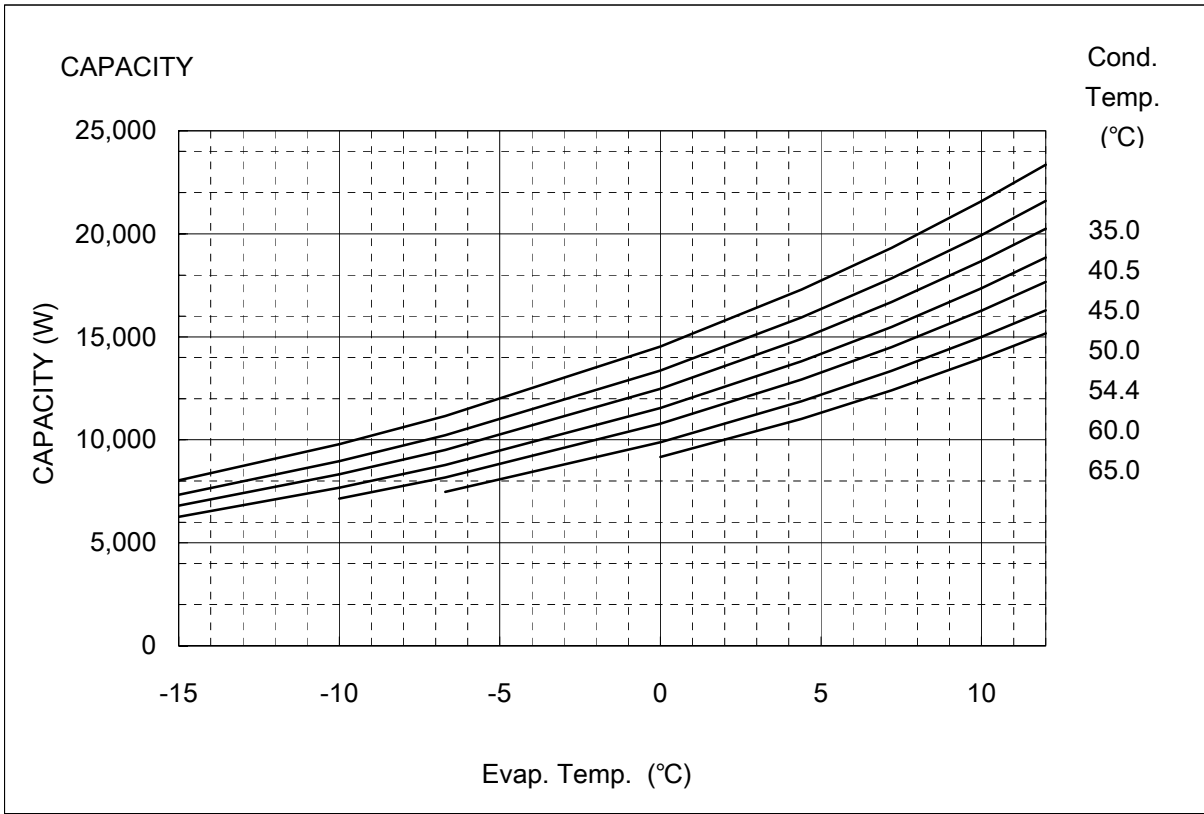
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5.6	5.7	5.7	5.8	5.8	5.8	5.8	5.8
40.5	6.3	6.4	6.4	6.4	6.5	6.4	6.4	6.4
45.0	7.0	7.0	7.0	7.1	7.1	7.0	7.0	7.0
50.0	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
54.4		8.6	8.6	8.5	8.5	8.5	8.5	8.5
60.0			9.6	9.5	9.5	9.5	9.5	9.5
65.0				10.5	10.5	10.5	10.5	10.4

NOTE:

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

Compressor Model(Code)
Power Source

C-SBN373H8A (809 950 88)
3PH 50Hz 380-415V



COEFFICIENTS OF PERFORMANCE CURVES



Compressor Model	C-SBN373H8A (809 950 88)
Power Source	3PH 50Hz 380-415V
Suction Gas Superheat (K)	9
Sub Cooling (K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407C

$$X=C1+C2*(S)+C3*D+C4*(S2)+C5*(S*D)+C6*(D2)+C7*(S3)+C8*(D*S2)+C9*(S*D2) +C10*(D3)$$

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	2.393620E+04	2.354472E+03	3.997399E+00
C2	8.977231E+02	-9.447593E-02	4.632066E-04
C3	-3.171122E+02	-2.194115E+01	-6.277482E-03
C4	1.555728E+01	-3.163111E-01	-1.025817E-03
C5	-1.063516E+01	2.429827E-01	4.325318E-04
C6	1.381446E+00	1.287573E+00	1.646924E-03
C7	1.326935E-01	-1.861264E-04	1.465522E-06
C8	-1.138737E-01	4.329727E-03	1.785544E-05
C9	4.196070E-02	-5.237536E-03	-9.419194E-06
C10	7.894790E-09	6.462307E-09	-1.038949E-11

Note:The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model(Code)	C-SBN373H8A (809 950 88)
Power Source	3PH 60Hz 440-460V
Suction Gas Superheat(K)	9
Sub Cooling(K)	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	9,870	11,990	13,640	17,710	21,020	23,450	26,150	28,270
40.5	9,060	11,030	12,560	16,350	19,440	21,710	24,230	26,220
45.0	8,440	10,290	11,730	15,300	18,220	20,360	22,750	24,630
50.0	7,800	9,530	10,870	14,210	16,950	18,960	21,210	22,970
54.4		8,900	10,160	13,320	15,900	17,800	19,930	21,600
60.0			9,330	12,260	14,660	16,430	18,420	19,980
65.0				11,400	13,650	15,310	17,180	18,650

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,820	3,850	3,870	3,910	3,920	3,930	3,940	3,950
40.5	4,270	4,310	4,340	4,380	4,400	4,410	4,420	4,420
45.0	4,690	4,750	4,780	4,830	4,850	4,860	4,860	4,860
50.0	5,220	5,290	5,330	5,390	5,410	5,410	5,420	5,410
54.4		5,820	5,870	5,930	5,950	5,960	5,960	5,950
60.0			6,620	6,700	6,720	6,730	6,720	6,710
65.0				7,460	7,480	7,480	7,470	7,460

CURRENT(A)

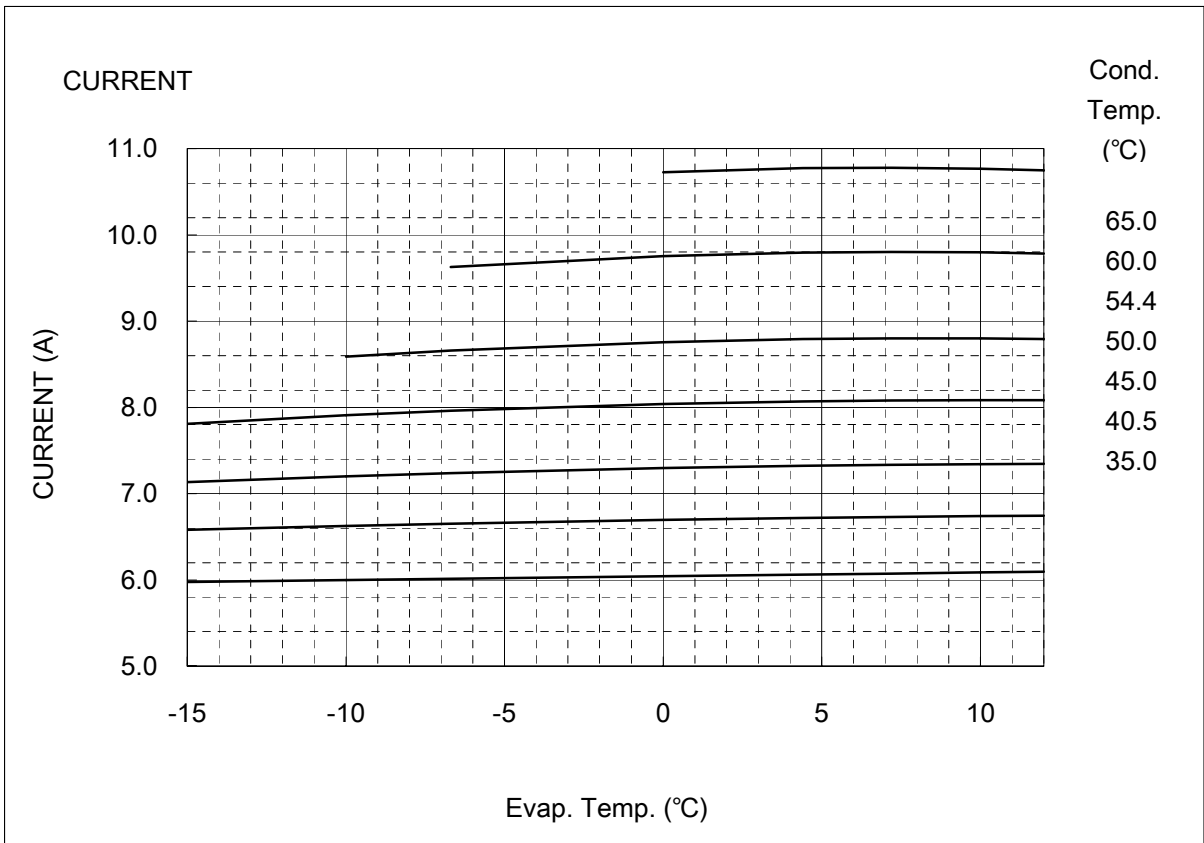
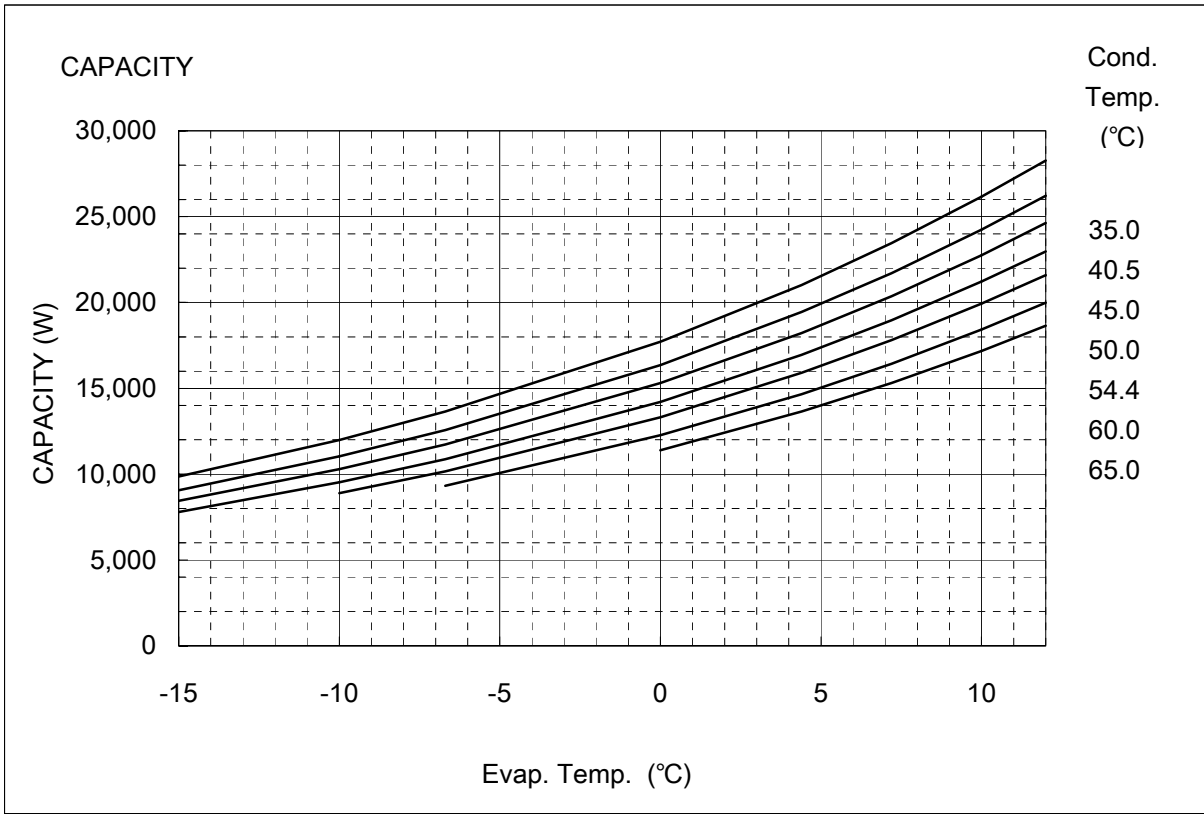
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	6.0	6.0	6.0	6.0	6.1	6.1	6.1	6.1
40.5	6.6	6.6	6.7	6.7	6.7	6.7	6.7	6.7
45.0	7.1	7.2	7.2	7.3	7.3	7.3	7.3	7.3
50.0	7.8	7.9	8.0	8.0	8.1	8.1	8.1	8.1
54.4		8.6	8.7	8.8	8.8	8.8	8.8	8.8
60.0			9.6	9.8	9.8	9.8	9.8	9.8
65.0				10.7	10.8	10.8	10.8	10.7

NOTE:

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

Compressor Model(Code)
Power Source

C-SBN373H8A (809 950 88)
3PH 60Hz 440-460V



COEFFICIENTS OF PERFORMANCE CURVES



Compressor Model **C-SBN373H8A (809 950 88)**
 Power Source **3PH 60Hz 440-460V**
 Suction Gas Superheat (K) **9**
 Sub Cooling (K) **8.3**
 Compressor Cooling **Natural Cooling**
 Refrigerant **R407C**

$$X=C1+C2*(S)+C3*D+C4*(S2)+C5*(S*D)+C6*(D2)+C7*(S3)+C8*(D*S2)+C9*(S*D2) +C10*(D3)$$

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

S—EVAPORATING TEMP, °C

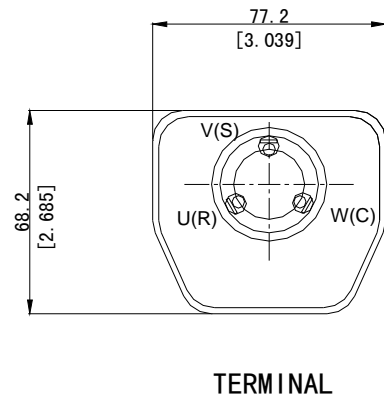
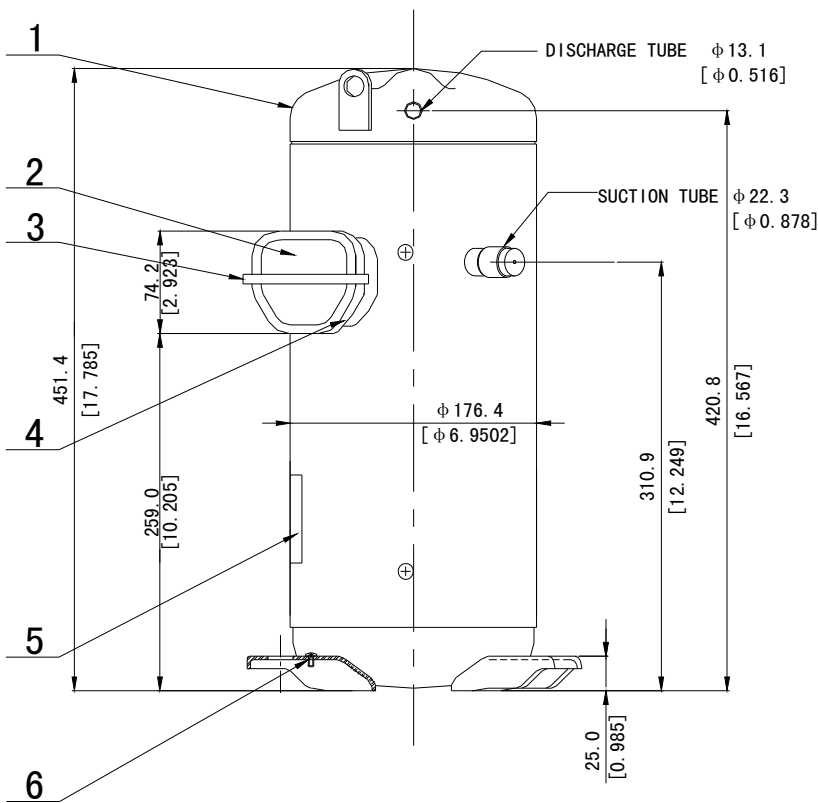
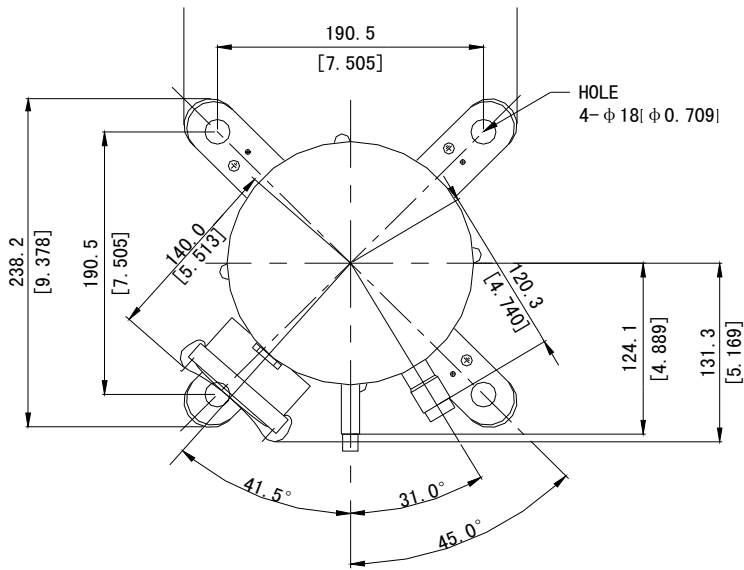
D—CONDENSING TEMP, °C

440V-60Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	2.854562E+04	2.697574E+03	3.991103E+00
C2	1.072308E+03	2.746123E+00	8.683915E-04
C3	-3.634029E+02	-1.069015E+01	5.975340E-03
C4	1.846543E+01	6.161379E-01	1.217319E-03
C5	-1.261062E+01	2.239853E-02	-1.277238E-05
C6	1.532031E+00	1.290073E+00	1.501011E-03
C7	1.541534E-01	-1.206156E-03	-1.929850E-06
C8	-1.361263E-01	-1.935476E-02	-3.378355E-05
C9	5.063741E-02	9.891219E-04	3.476208E-06
C10	3.372306E-09	1.131066E-08	9.506551E-12

Note:The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

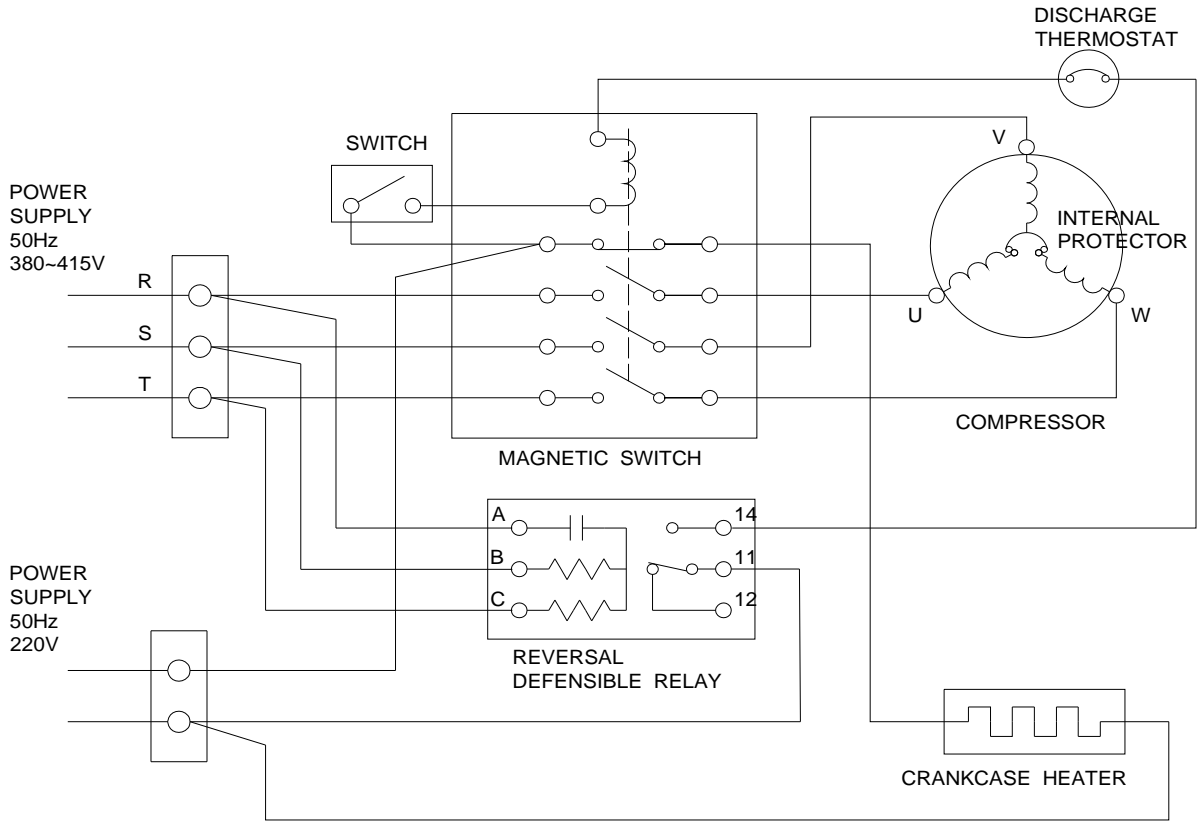
C-SB Series



No.	Qty	Name
1	1	Compressor
2	1	Terminal Box Cover
3	1	Terminal Box Clip
4	1	Insulating Grommet
5	1	Nameplate
6	1	Screw Special

WIRING & MOUNTING SKETCH

WIRING DIAGRAM C-SB Series 3phase B8



MOUNTING SKETCH

