

SANYO

SANYO SCROLL COMPRESSORS

Code : 809 940 88

Model : C-SBN303H8A



DALIAN SANYO COMPRESSOR CO.,LTD.

Rev.2007-5

SANYO Scroll Compressor



Model C-SBN303H8A

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>11600</u>	<u>14600</u>
Power (W)	<u>3800</u>	<u>4600</u>
Current (A)	<u>6.77</u>	<u>6.93</u>
COP (W/W)	<u>3.05</u>	<u>3.17</u>
Mass Flow (kg/h)	<u>278</u>	<u>351</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>7.9</u>	
MCC (A)	<u>11.1</u>	
LRA (A)	<u>48</u>	<u>51</u>
RPM (min ⁻¹)	<u>2900</u>	<u>3450</u>

Compressor

Maximum Discharge Temp(°C)	<u>130</u>
Displacement (cm ³ /rev)	<u>66.8</u>
Weight (with oil kg)	<u>37.5</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-SBN303H8A (809 940 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	6,350	7,760	8,860	11,590	13,830	15,470	17,300	18,750
40.5	5,790	7,090	8,110	10,650	12,730	14,270	15,990	17,350
45.0	5,350	6,580	7,530	9,930	11,900	13,350	14,980	16,260
50.0	4,910	6,050	6,940	9,180	11,020	12,390	13,920	15,130
54.4		5,620	6,460	8,560	10,310	11,600	13,050	14,200
60.0			5,890	7,840	9,470	10,670	12,030	13,100
65.0				7,260	8,780	9,910	11,190	12,200

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	2,450	2,460	2,460	2,450	2,430	2,420	2,410	2,400
40.5	2,760	2,770	2,770	2,760	2,750	2,740	2,730	2,710
45.0	3,060	3,070	3,070	3,070	3,050	3,040	3,030	3,020
50.0	3,430	3,450	3,450	3,450	3,430	3,420	3,410	3,400
54.4		3,820	3,820	3,820	3,810	3,800	3,790	3,780
60.0			4,350	4,350	4,340	4,330	4,320	4,310
65.0				4,880	4,870	4,860	4,850	4,840

CURRENT(A)

@380V

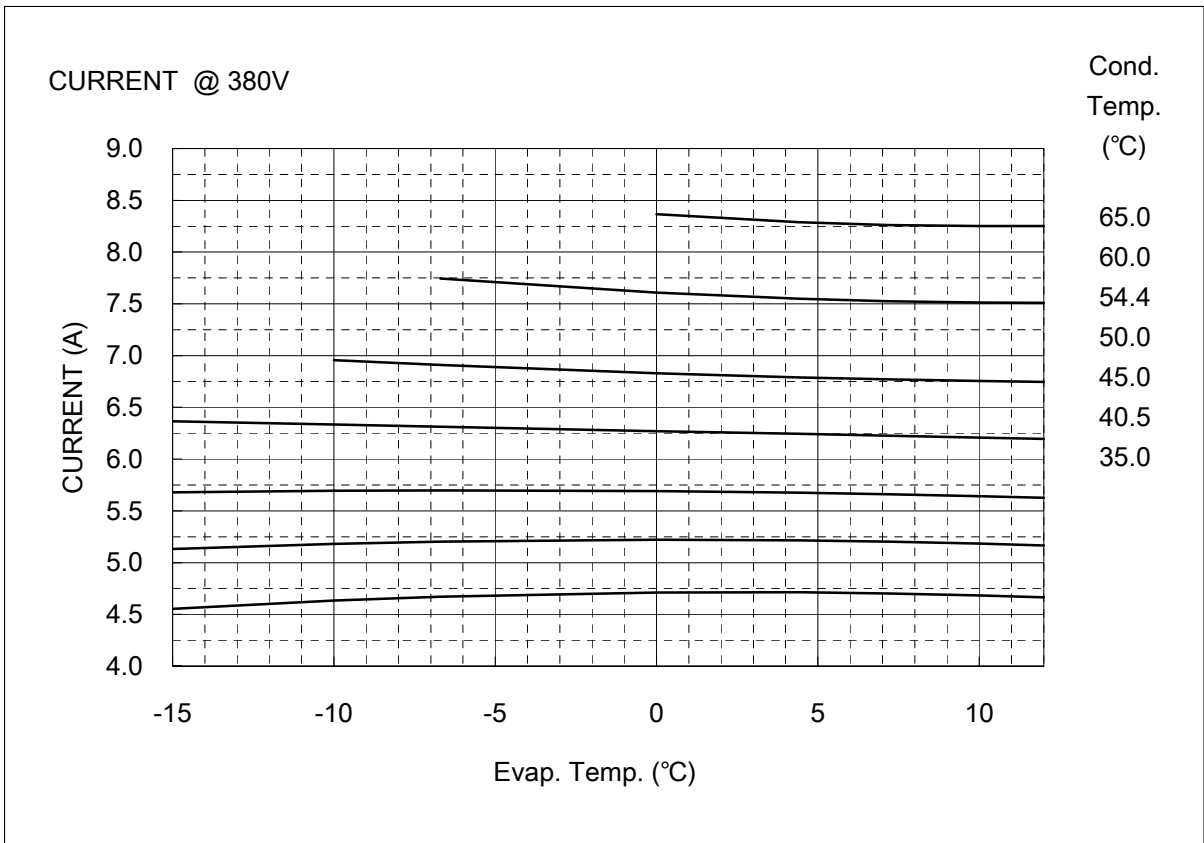
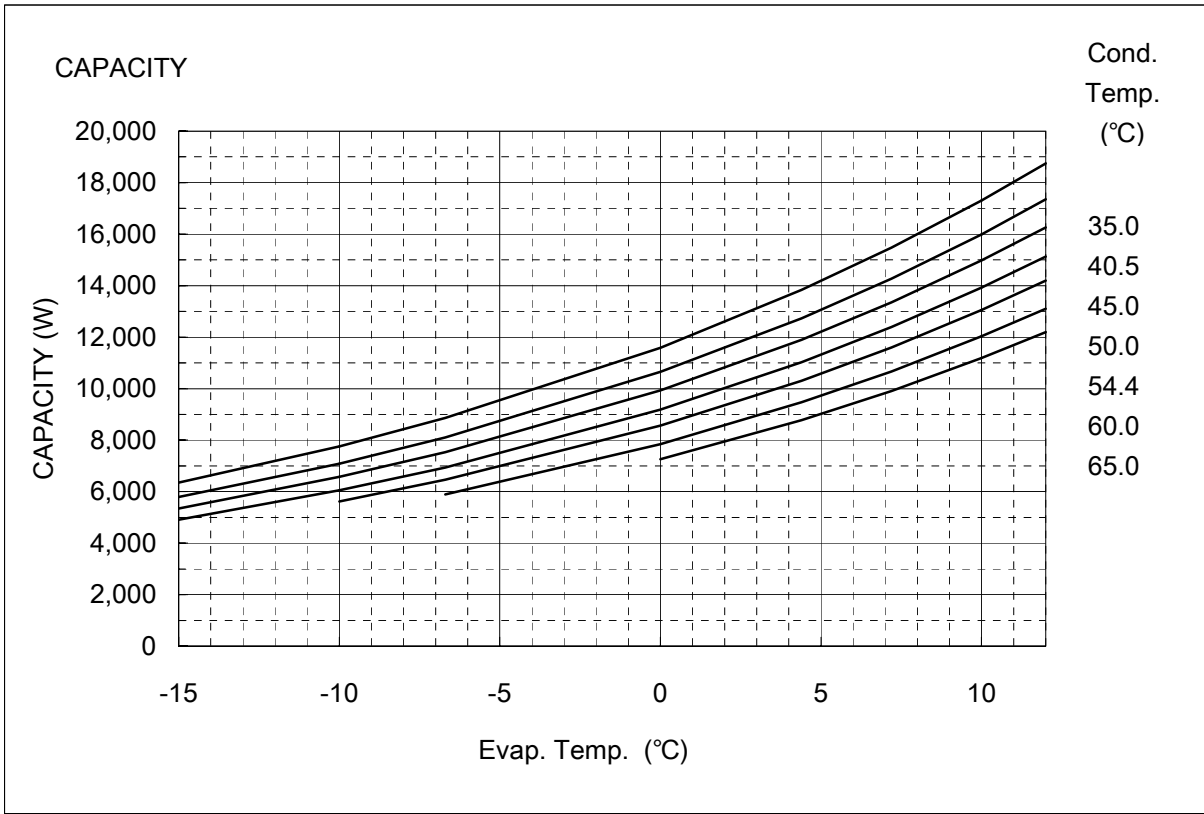
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4.6	4.6	4.7	4.7	4.7	4.7	4.7	4.7
40.5	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2
45.0	5.7	5.7	5.7	5.7	5.7	5.7	5.6	5.6
50.0	6.4	6.3	6.3	6.3	6.2	6.2	6.2	6.2
54.4		7.0	6.9	6.8	6.8	6.8	6.8	6.7
60.0			7.7	7.6	7.6	7.5	7.5	7.5
65.0				8.4	8.3	8.3	8.3	8.3

NOTE:

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

Compressor Model(Code)
Power Source

C-SBN303H8A (809 940 88)
3PH 50Hz 380-415V



COEFFICIENTS OF PERFORMANCE CURVES



Compressor Model **C-SBN303H8A (809 940 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	1.916163E+04	1.808081E+03	3.290266E+00
C2	7.202814E+02	-3.193687E+00	7.648197E-04
C3	-2.553445E+02	-1.550027E+01	-2.871118E-03
C4	1.258140E+01	-6.540259E-02	-2.184296E-03
C5	-8.419394E+00	-7.825852E-03	4.618564E-04
C6	1.111233E+00	9.648189E-01	1.247811E-03
C7	1.114984E-01	1.988501E-03	3.360060E-06
C8	-8.815895E-02	-1.969905E-03	4.496256E-05
C9	3.321622E-02	6.293578E-04	-1.216166E-05
C10	1.905245E-09	3.412306E-09	-1.577383E-11

Note:The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model(Code)	C-SBN303H8A (809 940 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	8,020	9,750	11,090	14,420	17,130	19,110	21,320	23,060
40.5	7,330	8,940	10,200	13,310	15,850	17,720	19,810	21,450
45.0	6,800	8,320	9,510	12,460	14,870	16,650	18,640	20,200
50.0	6,260	7,680	8,790	11,570	13,850	15,530	17,410	18,890
54.4		7,160	8,210	10,840	13,000	14,600	16,400	17,810
60.0			7,520	9,970	12,000	13,500	15,190	16,530
65.0				9,270	11,190	12,610	14,210	15,470

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,050	3,050	3,050	3,040	3,030	3,020	3,010	3,010
40.5	3,390	3,400	3,400	3,400	3,400	3,390	3,380	3,380
45.0	3,690	3,720	3,730	3,740	3,740	3,740	3,730	3,720
50.0	4,070	4,120	4,150	4,170	4,180	4,170	4,170	4,160
54.4		4,510	4,550	4,590	4,600	4,600	4,590	4,580
60.0			5,110	5,180	5,200	5,200	5,190	5,180
65.0				5,760	5,790	5,790	5,780	5,770

CURRENT(A)

@440V

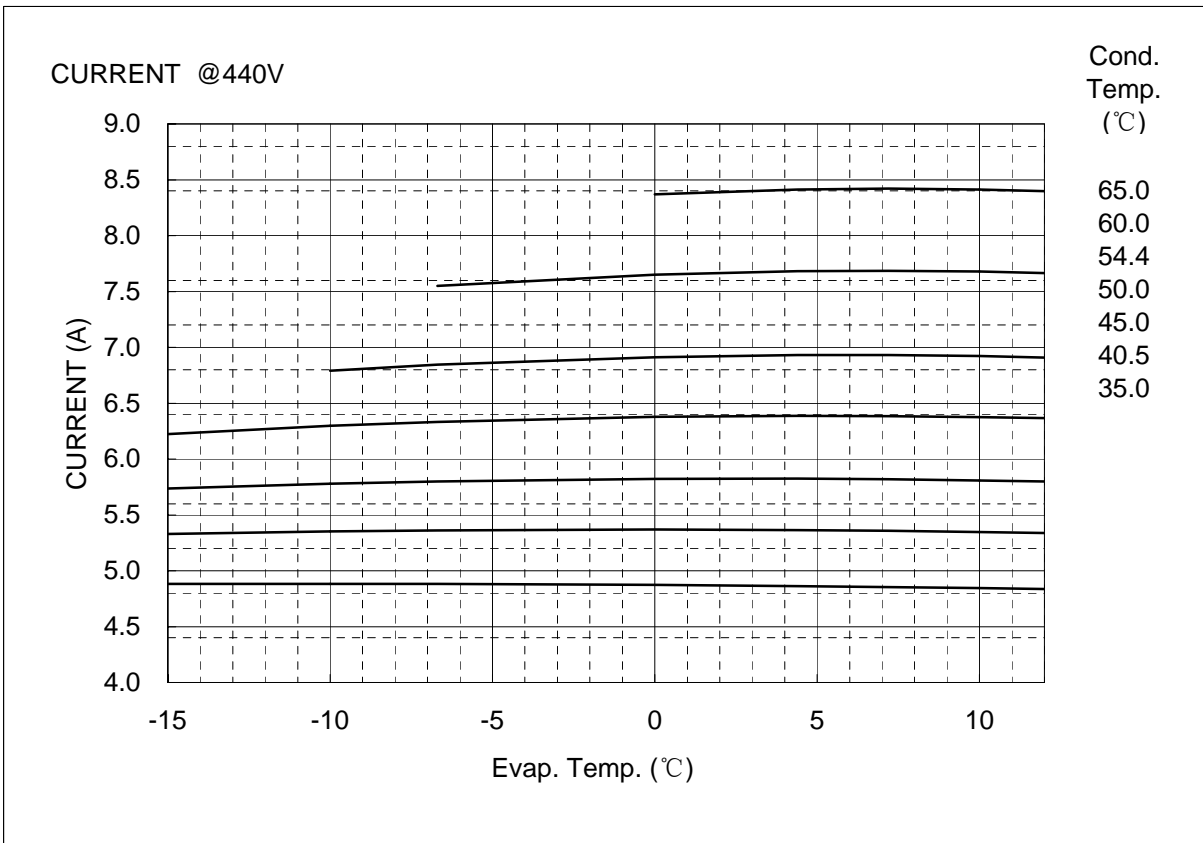
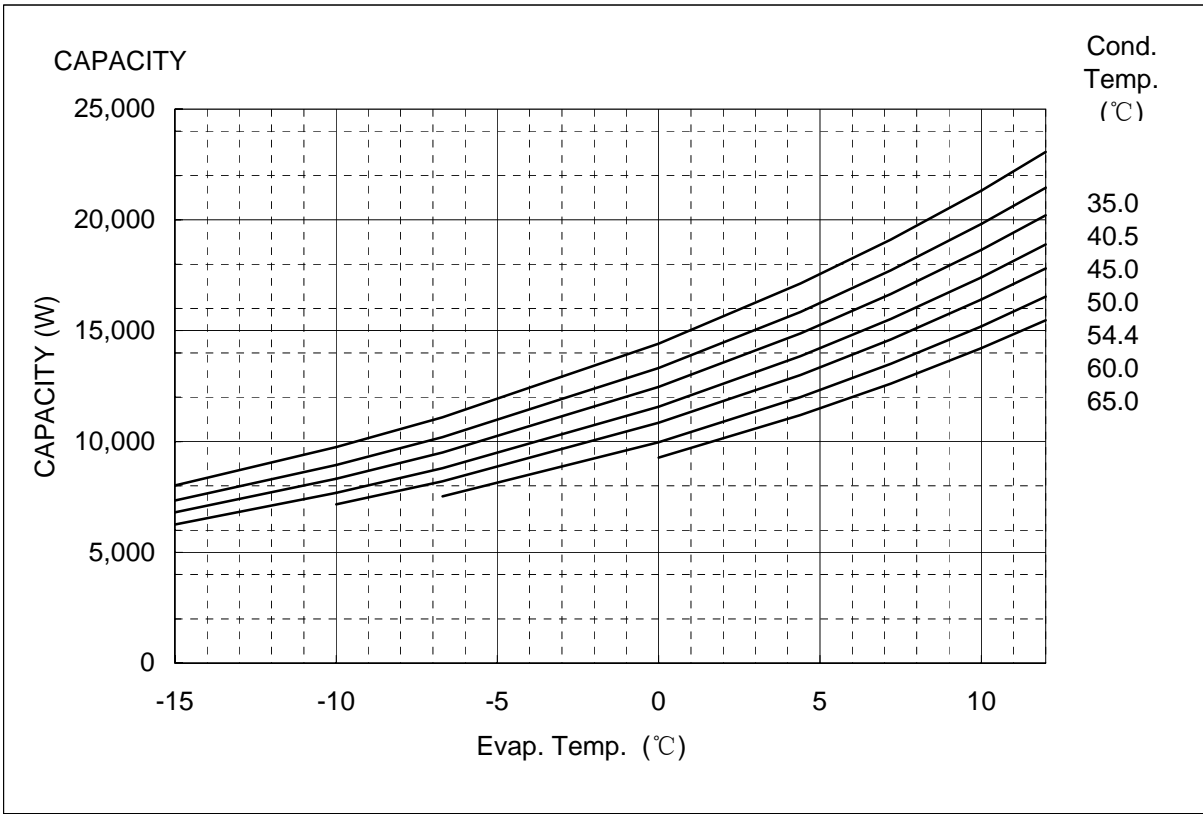
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4.9	4.9	4.9	4.9	4.9	4.9	4.8	4.8
40.5	5.3	5.4	5.4	5.4	5.4	5.4	5.3	5.3
45.0	5.7	5.8	5.8	5.8	5.8	5.8	5.8	5.8
50.0	6.2	6.3	6.3	6.4	6.4	6.4	6.4	6.4
54.4		6.8	6.8	6.9	6.9	6.9	6.9	6.9
60.0			7.6	7.7	7.7	7.7	7.7	7.7
65.0				8.4	8.4	8.4	8.4	8.4

NOTE:

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

Compressor Model(Code)
Power Source

C-SBN303H8A (809 940 88)
3PH 60Hz 440-460V



COEFFICIENTS OF PERFORMANCE CURVES



Compressor Model **C-SBN303H8A (809 940 88)**
 Power Source **3PH 60Hz 440-460V**
 Suction Gas Superheat (K) **9**
 Sub Cooling (K) **8.3**
 Compressor Cooling **Natural Cooling**
 Refrigerant **R407C**

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

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

S—EVAPORATING TEMP, °C

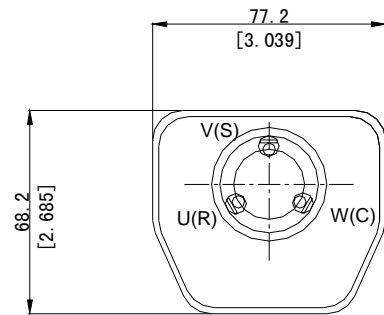
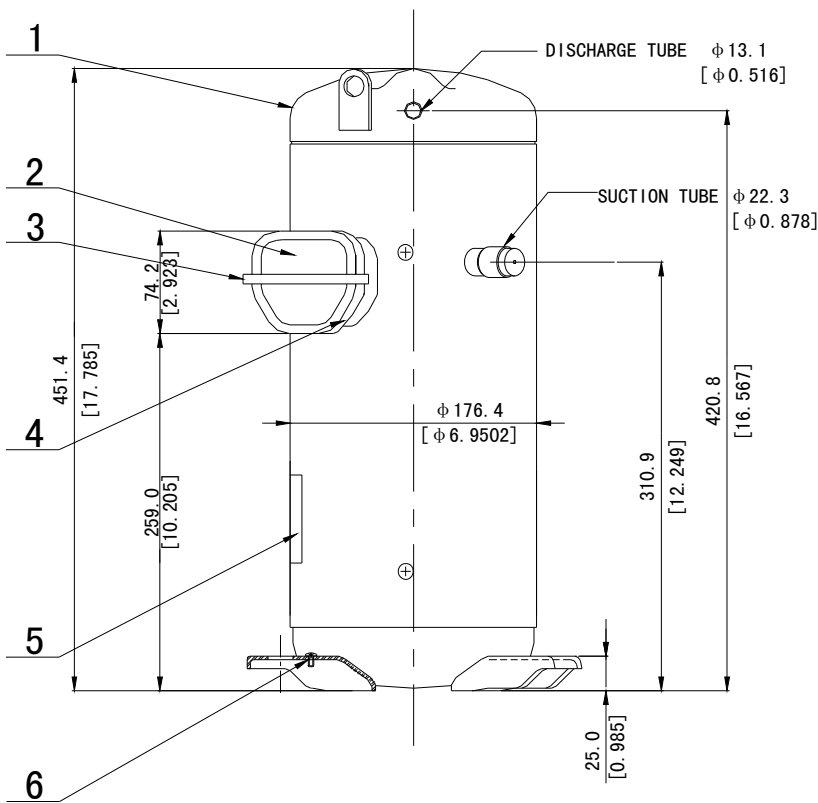
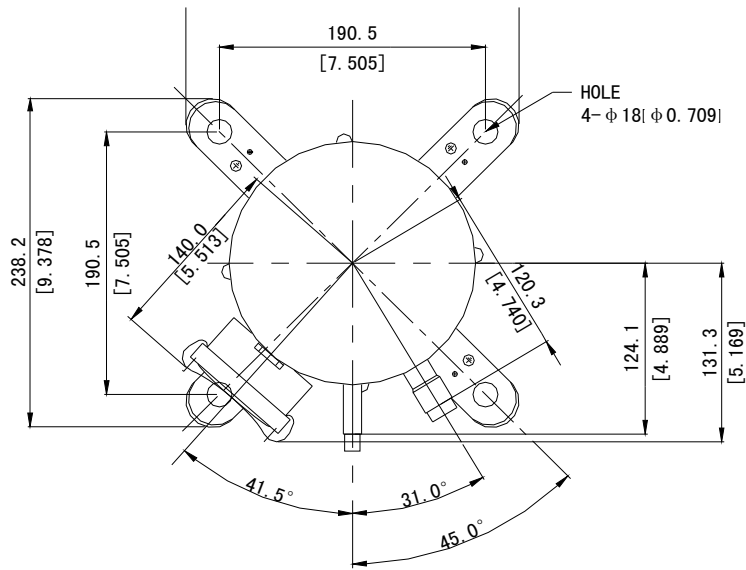
D—CONDENSING TEMP, °C

440V-60Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	2.324554E+04	2.101664E+03	3.193413E+00
C2	8.397243E+02	-1.061887E+00	-2.264466E-03
C3	-2.959260E+02	-7.797472E+00	1.097199E-02
C4	1.447189E+01	6.815236E-01	8.489583E-04
C5	-8.983816E+00	-2.230173E-01	-2.514906E-04
C6	1.244805E+00	9.851375E-01	1.055430E-03
C7	1.312189E-01	-1.894537E-04	-1.274008E-06
C8	-9.150226E-02	-2.001465E-02	-2.589241E-05
C9	3.304986E-02	5.768258E-03	7.556718E-06
C10	2.777160E-09	6.812635E-09	5.852858E-12

Note:The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

C-SB Series

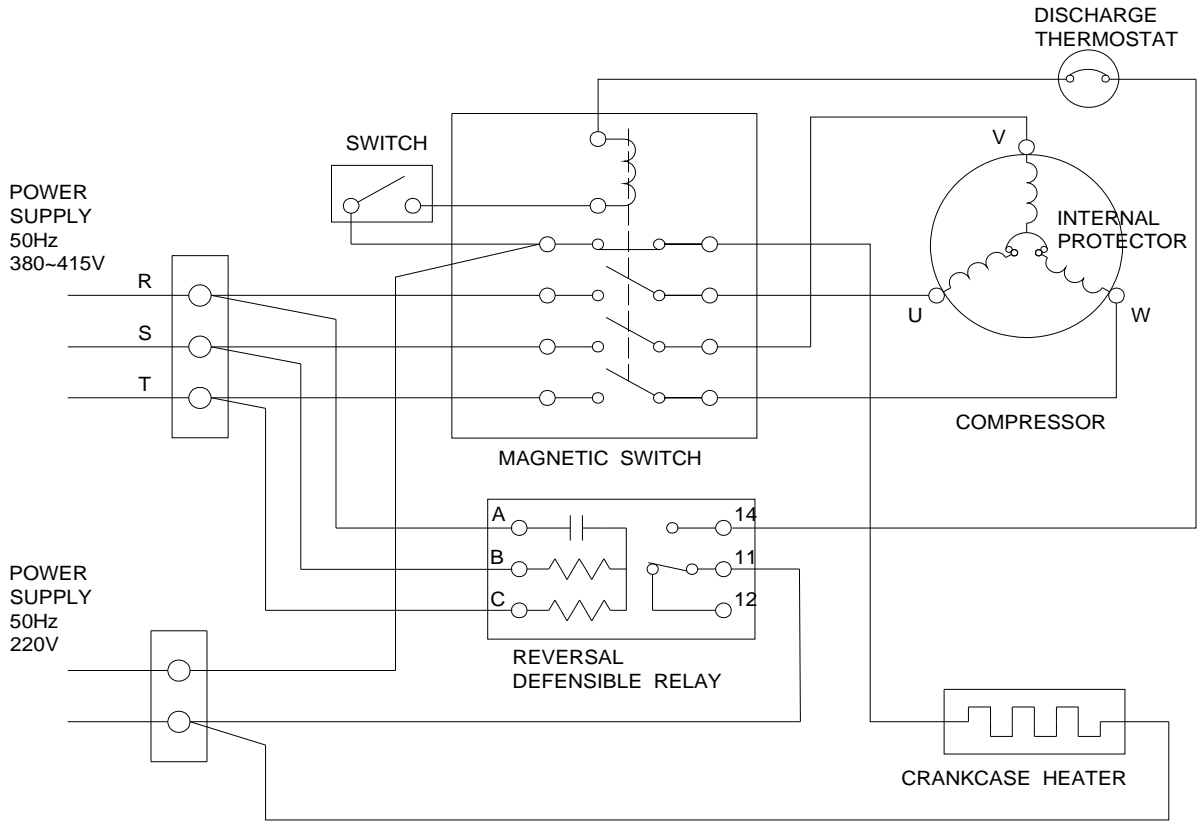


TERMINAL

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

