SANYO SCROLL COMPRESSORS

Code : 809 948 88

Model : C-SBN353H8D

DALIAN SANYO COMPRESSOR CO.,LTD.

Rev. 2007-5

SANYO Scroll Compressor

Model	C-SBN353H8D	**Electrical**	380-415 Volts 3 Phase 50Hz
Refrigerant	R410A		440-460 Volts 3 Phase 60Hz

Nominal Performance at ARI

Power Source		50Hz-380V	60Hz-440V
Capacity	(W)	13000	16200
Power	(W)	4650	5450
Current	(A)	7.96	8.01
COP	(W/W)	2.80	2.97
Mass Flow	(kg/h)	298	371

Rating Conditions

Condensing Temperature(℃)	54.4
Evaporating Temperature(℃)	7.2
Return Gas temperature(℃)	18.3
Liquid Temperature(℃)	46.1
Ambient Temperature(℃)	35

Motor

	50Hz	60Hz
Voltage Range(V)	342-456	396-506
RLA (A)	9.7	
MCC (A)	13.6	
LRA (A)	63	69
RPM (min^{-1})	2900	3450

Compressor

Maximum Discharge Temp(℃)	130
Displacement (cm^3/rev)	51.8
Weight (with oil kg)	39

Oil

Oil Type	FV68S
Initial Charge (ml)	1700
Re-charge (ml)	1600

Electrical Components

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

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-SBN353H8D (809 948 88)**
Power Source	**3PH 50Hz 380-415V**
Suction Gas Superheat(K)	**11.1**
Sub Cooling(K)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

CAPACITY(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	6,970	8,550	9,790	12,870	15,400	17,260	19,350	21,000
40.5	6,450	7,910	9,050	11,890	14,230	15,950	17,870	19,390
45.0	6,050	7,420	8,480	11,140	13,330	14,930	16,730	18,150
50.0	5,640	6,900	7,890	10,360	12,380	13,870	15,540	16,860
54.4		6,480	7,400	9,710	11,610	13,000	14,560	15,790
60.0			6,830	8,950	10,690	11,970	13,400	14,530
65.0				8,320	9,930	11,120	12,450	13,490

POWER(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,130	3,150	3,140	3,110	3,070	3,030	2,990	2,950
40.5	3,510	3,520	3,520	3,480	3,440	3,400	3,350	3,320
45.0	3,870	3,890	3,880	3,840	3,790	3,750	3,710	3,670
50.0	4,340	4,350	4,340	4,290	4,240	4,200	4,160	4,120
54.4		4,800	4,790	4,740	4,690	4,650	4,600	4,570
60.0			5,430	5,370	5,320	5,280	5,240	5,210
65.0				6,000	5,950	5,910	5,870	5,840

CURRENT(A) @380V

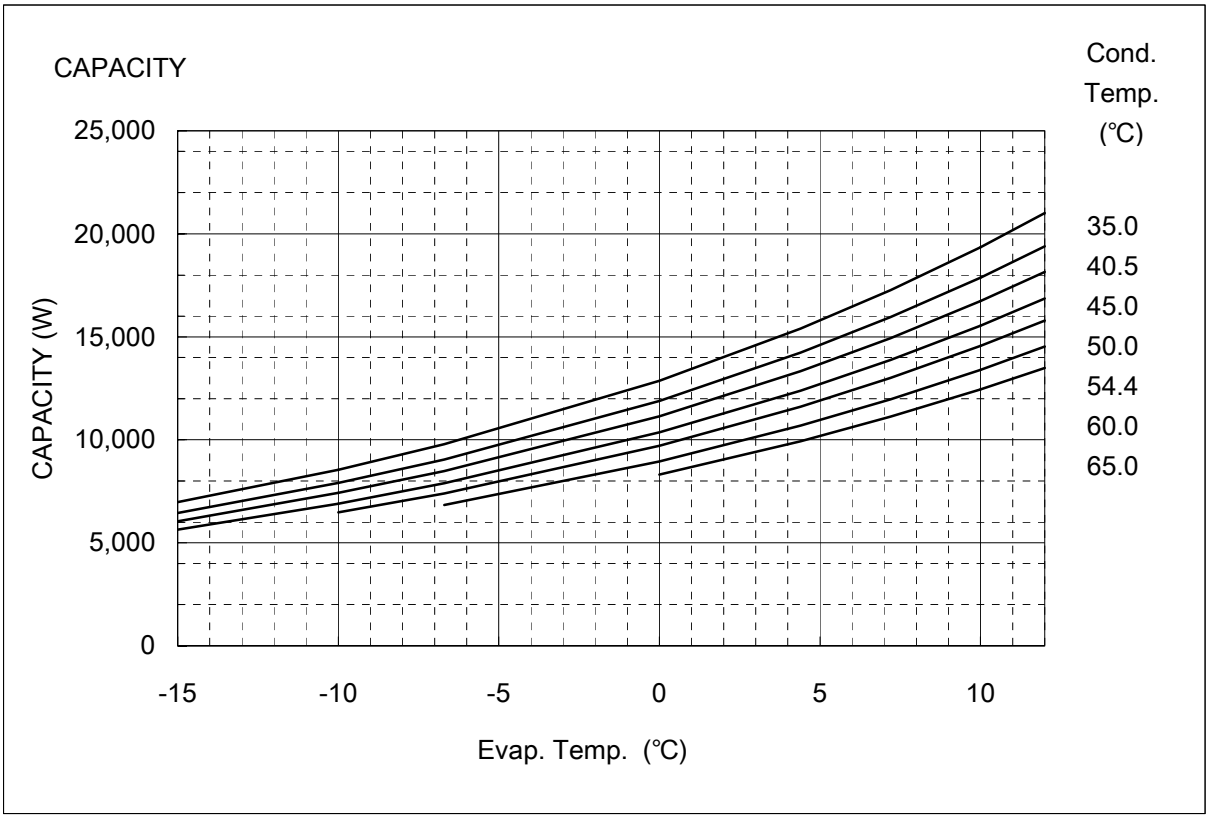
Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	6.0	6.1	6.1	6.1	6.1	6.0	6.0	5.9
40.5	6.5	6.6	6.6	6.6	6.6	6.5	6.4	6.4
45.0	7.0	7.0	7.1	7.0	7.0	6.9	6.9	6.8
50.0	7.5	7.6	7.6	7.6	7.5	7.5	7.4	7.4
54.4		8.1	8.1	8.1	8.0	8.0	7.9	7.9
60.0			8.8	8.7	8.7	8.6	8.6	8.6
65.0				9.4	9.3	9.3	9.2	9.2

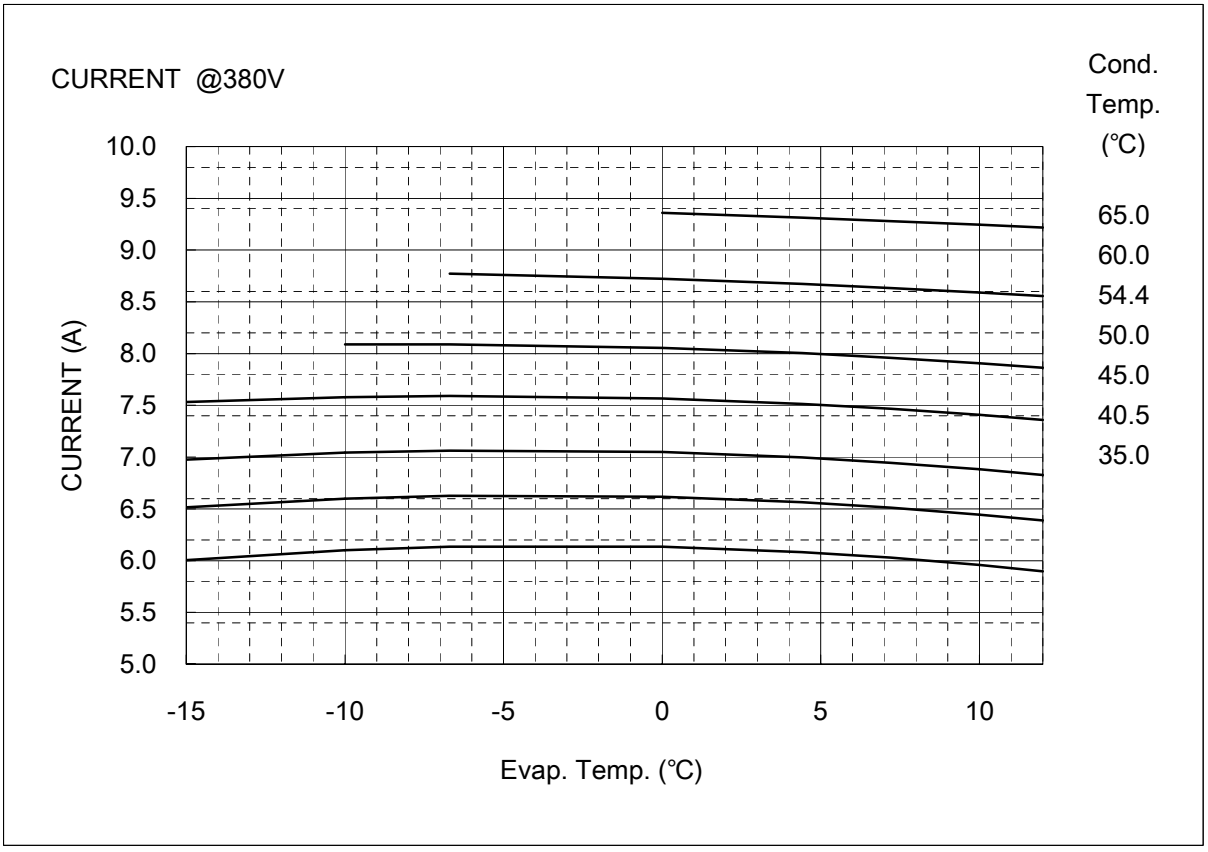
NOTE:

*** The performance values subject to change without notice.**

Compressor Model(Code) **C-SBN353H8D (809 948 88)**

Power Source **3PH 50Hz 380-415V**





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	**C-SBN353H8D (809 948 88)**
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*(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	2.061919E+04	2.444233E+03	4.272055E+00
C2	8.697288E+02	-2.918368E+00	-2.279671E-03
C3	-2.594634E+02	-2.250711E+01	2.408797E-02
C4	1.579889E+01	-6.439763E-01	-2.033789E-03
C5	-1.150012E+01	-1.934688E-01	-1.833053E-04
C6	1.082347E+00	1.188611E+00	8.349304E-04
C7	1.211802E-01	2.694898E-03	1.738676E-06
C8	-1.408486E-01	5.275562E-03	2.687228E-05
C9	4.999002E-02	1.157552E-03	1.095584E-06
C10	-1.765254E-08	-7.837516E-09	-9.511890E-12

Note:The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model(Code)	**C-SBN353H8D (809 948 88)**
Power Source	**3PH 60Hz 440-460V**
Suction Gas Superheat(K)	**11.1**
Sub Cooling(K)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

CAPACITY(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	9,060	10,980	12,470	16,130	19,110	21,280	23,700	25,600
40.5	8,380	10,160	11,540	14,940	17,700	19,720	21,970	23,730
45.0	7,860	9,530	10,820	14,020	16,610	18,510	20,620	22,280
50.0	7,310	8,870	10,070	13,050	15,480	17,250	19,220	20,760
54.4		8,320	9,460	12,260	14,540	16,200	18,060	19,510
60.0			8,730	11,310	13,420	14,960	16,680	18,020
65.0				10,540	12,500	13,940	15,540	16,800

POWER(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,710	3,720	3,710	3,680	3,640	3,610	3,570	3,540
40.5	4,140	4,140	4,140	4,100	4,060	4,030	3,990	3,960
45.0	4,540	4,550	4,550	4,510	4,470	4,440	4,400	4,360
50.0	5,050	5,060	5,060	5,020	4,980	4,950	4,900	4,870
54.4		5,560	5,560	5,530	5,490	5,450	5,410	5,370
60.0			6,270	6,240	6,200	6,160	6,120	6,080
65.0				6,950	6,910	6,870	6,820	6,790

CURRENT(A) @440V

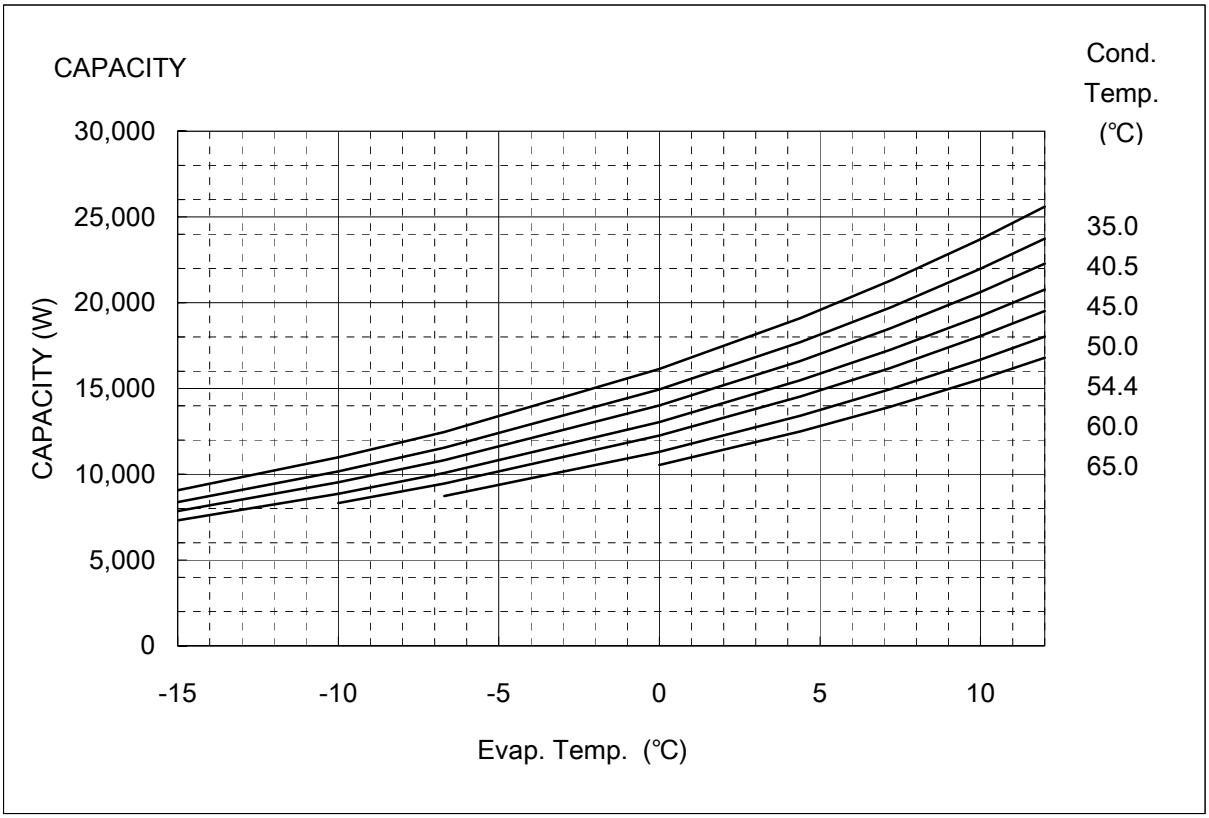
Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	5.6	5.7	5.7	5.6	5.6	5.6	5.5	5.5
40.5	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.0
45.0	6.8	6.8	6.8	6.8	6.7	6.7	6.6	6.6
50.0	7.4	7.5	7.5	7.4	7.4	7.4	7.3	7.3
54.4		8.1	8.1	8.1	8.1	8.0	8.0	7.9
60.0			9.1	9.0	9.0	8.9	8.9	8.8
65.0				9.9	9.9	9.8	9.8	9.7

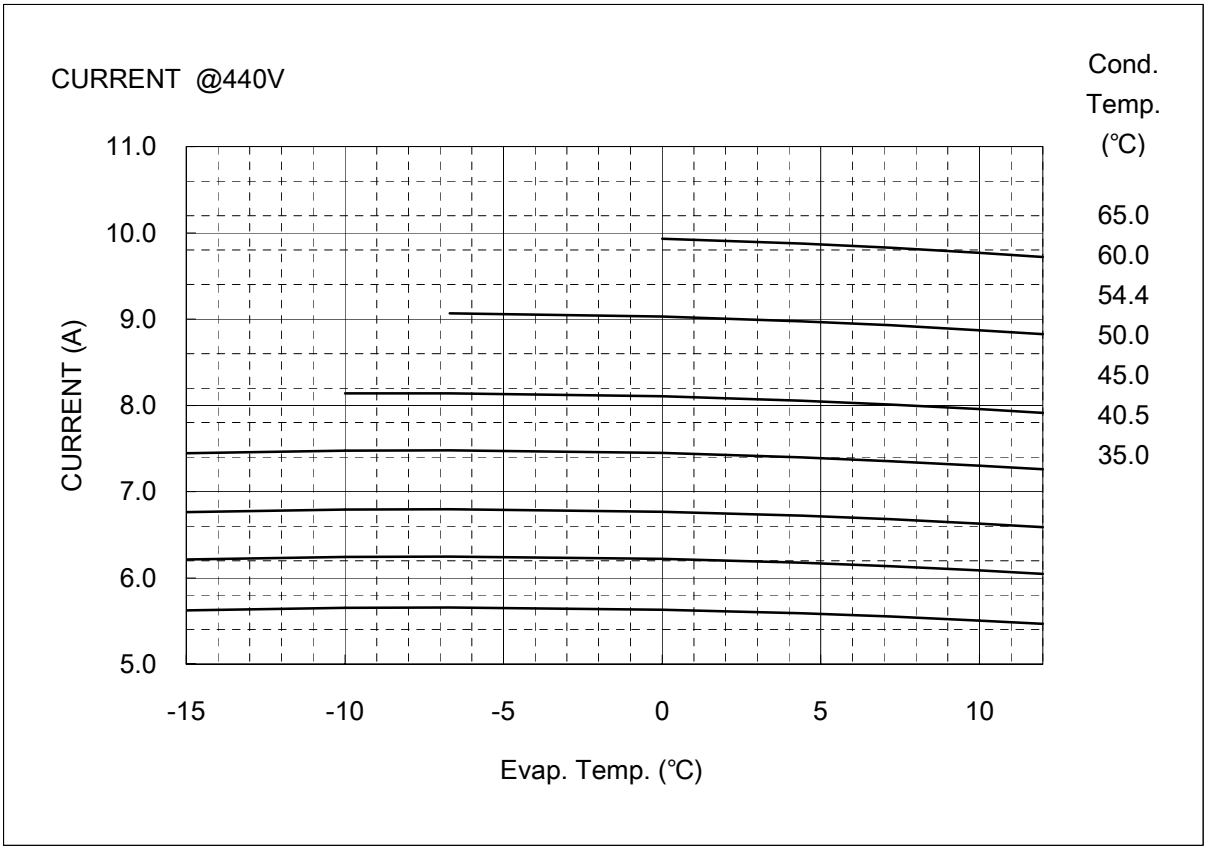
NOTE:

*** The performance values subject to change without notice.**

Compressor Model(Code) **C-SBN353H8D (809 948 88)**

Power Source **3PH 60Hz 440-460V**





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	**C-SBN353H8D (809 948 88)**
Power Source	**3PH 60Hz 440-460V**
Suction Gas Superheat (K)	**11.1**
Sub Cooling (K)	**8.3**
Compressor Cooling	**Natural Cooling**
Refrigerant	**R410A**

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

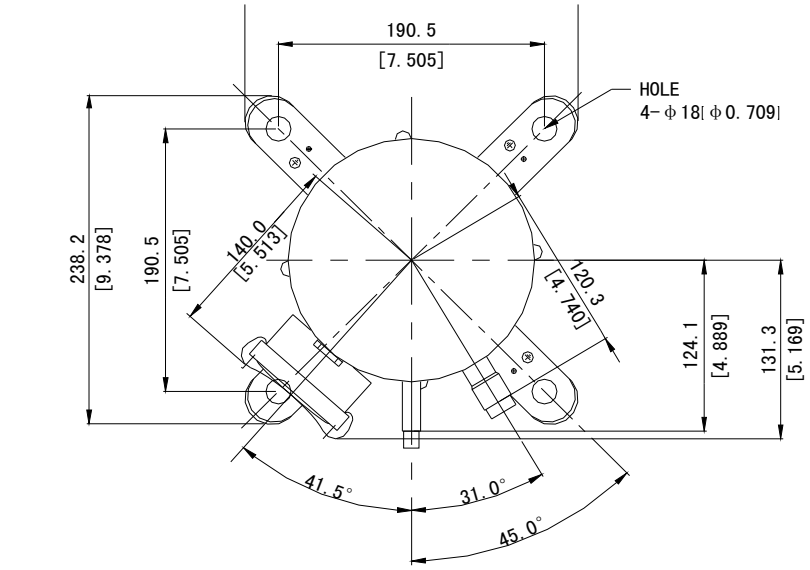
D——CONDENSING TEMP, °C

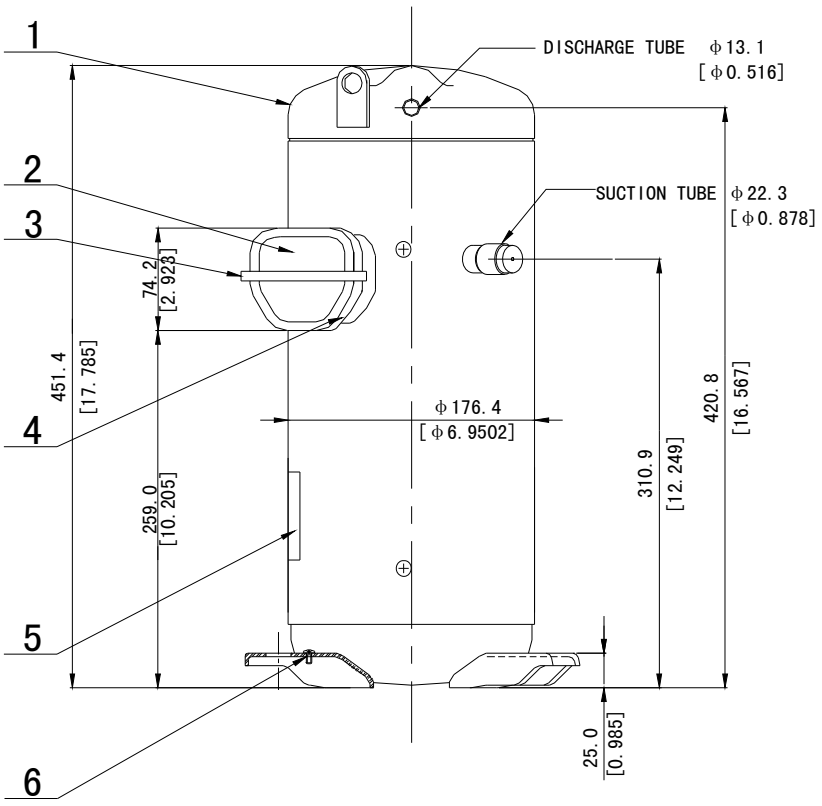
440V-60Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	2.554336E+04	2.779221E+03	4.002947E+00
C2	9.914916E+02	-1.993497E+00	-4.169245E-03
C3	-3.136283E+02	-1.920153E+01	-5.528356E-03
C4	1.712446E+01	-1.450962E-01	-4.228117E-04
C5	-1.230546E+01	-2.278955E-01	-9.288955E-05
C6	1.274719E+00	1.282084E+00	1.488137E-03
C7	1.308756E-01	-1.098205E-03	1.875324E-07
C8	-1.425026E-01	-5.528632E-03	-3.131136E-06
C9	5.121541E-02	2.275632E-03	4.100715E-08
C10	-1.573633E-08	8.932268E-10	-3.592280E-12

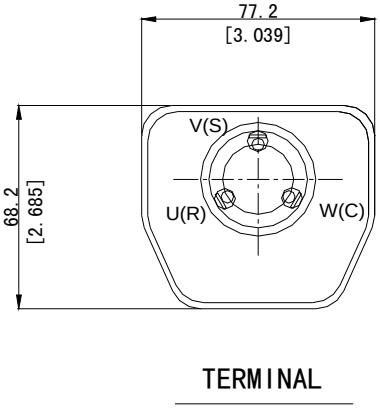
Note:The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

C-SB Series







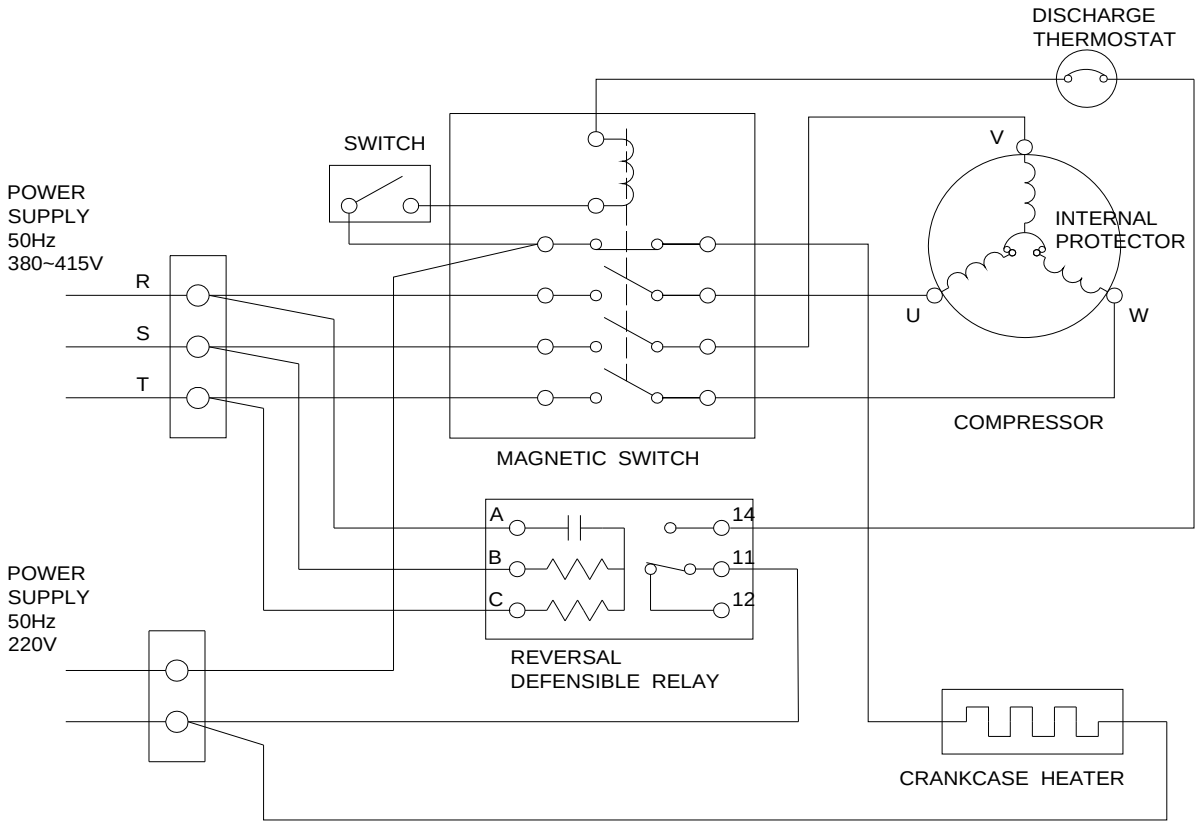
TERMINAL

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