SANYO SCROLL COMPRESSORS

Code : 809 963 88

Model : C-SBN453H8D



DALIAN SANYO COMPRESSOR CO.,LTD.

Rev. 2007-5

SANYO Scroll Compressor

Model	C-SBN453H8D	**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)	16400	20300
Power	(W)	5750	6750
Current	(A)	9.77	9.84
COP	(W/W)	2.85	3.01
Mass Flow	(kg/h)	375	465

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)	11.9	
MCC (A)	16.7	
LRA (A)	66	72
RPM (min^{-1})	2900	3450

Compressor

Maximum Discharge Temp(℃)	130
Displacement (cm^3/rev)	66.8
Weight (with oil kg)	40

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-SBN453H8D (809 963 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	9,590	11,580	13,110	16,880	19,920	22,130	24,590	26,520
40.5	8,710	10,550	11,970	15,460	18,290	20,360	22,660	24,460
45.0	8,050	9,770	11,100	14,380	17,050	18,990	21,170	22,870
50.0	7,360	8,960	10,190	13,250	15,750	17,570	19,610	21,210
54.4		8,300	9,460	12,330	14,680	16,400	18,320	19,830
60.0			8,600	11,250	13,420	15,020	16,810	18,210
65.0				10,370	12,400	13,900	15,570	16,890

POWER(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,720	3,720	3,720	3,710	3,690	3,680	3,670	3,660
40.5	4,200	4,200	4,190	4,180	4,160	4,150	4,130	4,120
45.0	4,680	4,670	4,660	4,630	4,610	4,600	4,580	4,560
50.0	5,290	5,270	5,260	5,220	5,190	5,170	5,150	5,140
54.4		5,880	5,850	5,810	5,770	5,750	5,730	5,710
60.0			6,710	6,640	6,600	6,570	6,550	6,530
65.0				7,480	7,420	7,390	7,370	7,350

CURRENT(A) @380V

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8
40.5	7.6	7.7	7.6	7.6	7.6	7.6	7.5	7.5
45.0	8.3	8.3	8.3	8.3	8.2	8.2	8.2	8.2
50.0	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0
54.4		9.9	9.9	9.8	9.8	9.8	9.7	9.7
60.0			11.0	10.9	10.9	10.8	10.8	10.8
65.0				12.0	11.9	11.9	11.8	11.8

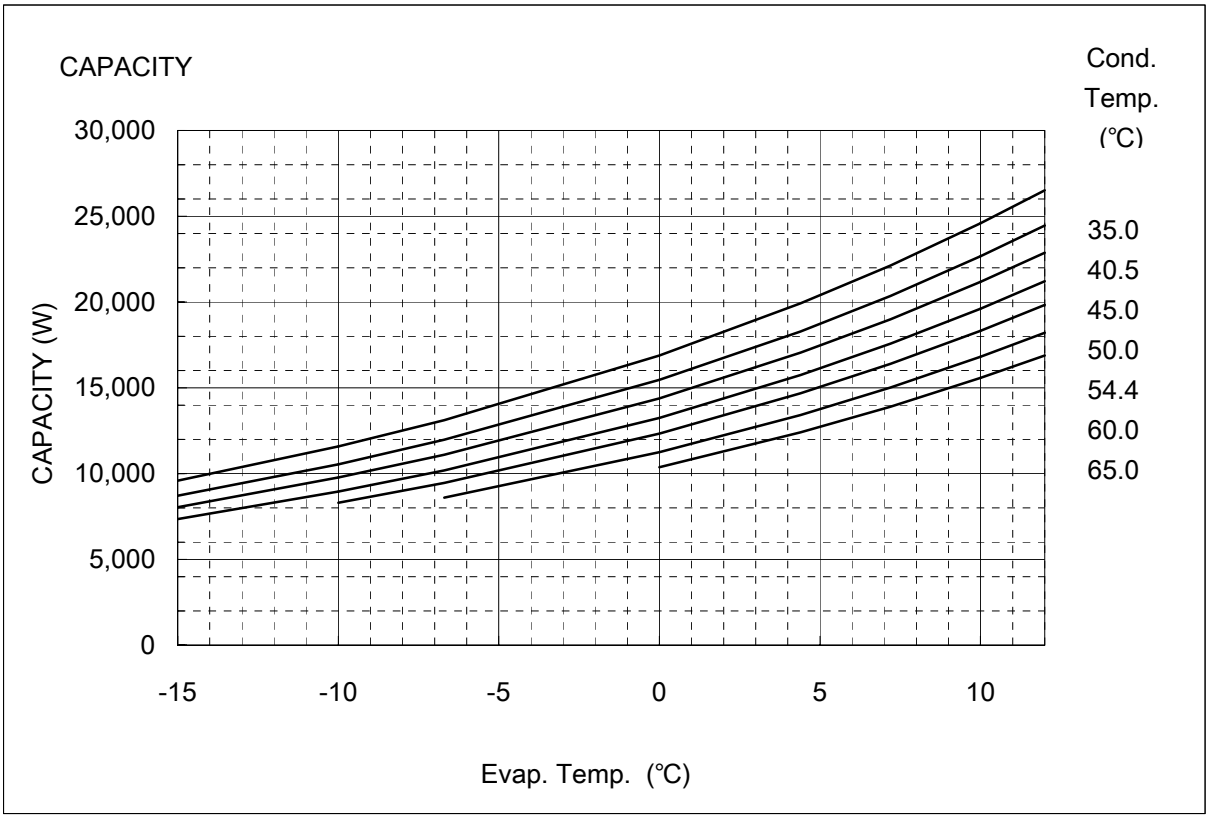
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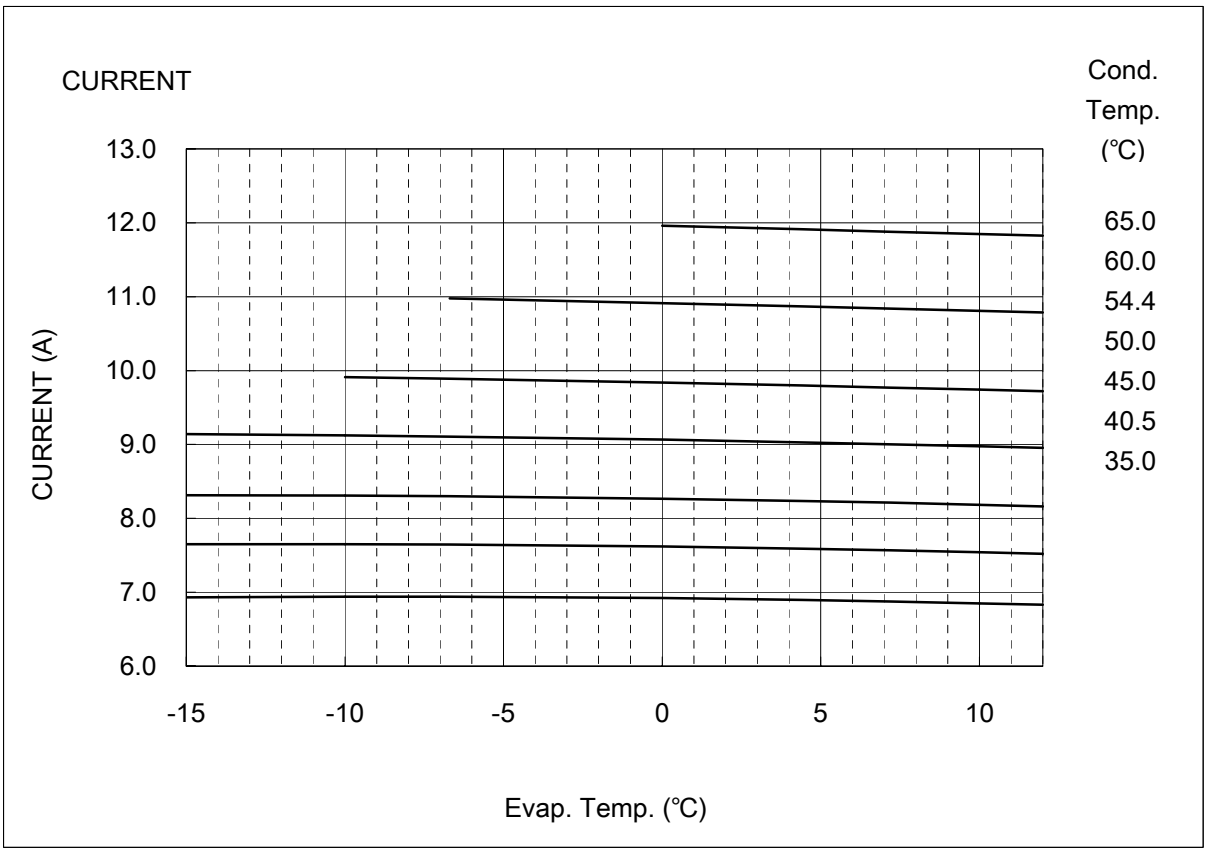
*** The performance values subject to change without notice.**

Dalian SANYO Compressor Co.,Ltd.

Compressor Model(Code) **C-SBN453H8D (809 963 88)**

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





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	**C-SBN453H8D (809 963 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	2.823288E+04	3.107887E+03	4.874416E+00
C2	9.920518E+02	-4.646101E+00	-3.094213E-03
C3	-3.828095E+02	-4.119326E+01	-4.648906E-04
C4	1.634620E+01	-3.575238E-01	-5.653556E-04
C5	-1.167522E+01	2.441604E-01	5.480116E-05
C6	1.662223E+00	1.668164E+00	1.685091E-03
C7	1.356103E-01	1.668817E-03	7.090240E-07
C8	-1.189308E-01	6.171949E-03	8.445868E-06
C9	4.419290E-02	-5.468468E-03	-2.821311E-06
C10	8.740077E-09	3.208391E-10	-2.743916E-12

Note:The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model(Code)	**C-SBN453H8D (809 963 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	12,180	14,640	16,540	21,170	24,890	27,590	30,590	32,930
40.5	11,080	13,350	15,090	19,370	22,820	25,330	28,110	30,290
45.0	10,240	12,360	13,990	18,000	21,240	23,590	26,210	28,260
50.0	9,380	11,340	12,850	16,570	19,590	21,780	24,230	26,140
54.4		10,510	11,920	15,410	18,240	20,300	22,600	24,400
60.0			10,830	14,040	16,650	18,560	20,680	22,340
65.0				12,930	15,360	17,140	19,120	20,670

POWER(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4,450	4,380	4,350	4,310	4,310	4,320	4,330	4,340
40.5	5,010	4,940	4,910	4,870	4,860	4,860	4,870	4,880
45.0	5,550	5,490	5,460	5,410	5,400	5,390	5,390	5,400
50.0	6,250	6,200	6,160	6,110	6,090	6,070	6,060	6,060
54.4		6,900	6,870	6,810	6,770	6,750	6,730	6,710
60.0			7,880	7,810	7,760	7,720	7,680	7,650
65.0				8,820	8,740	8,690	8,620	8,570

CURRENT(A) @440V

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	6.7	6.5	6.5	6.4	6.5	6.5	6.6	6.6
40.5	7.4	7.3	7.3	7.2	7.2	7.3	7.3	7.4
45.0	8.2	8.1	8.1	8.0	8.0	8.0	8.0	8.0
50.0	9.2	9.1	9.1	9.0	8.9	8.9	8.9	8.9
54.4		10.1	10.0	10.0	9.9	9.8	9.8	9.7
60.0			11.5	11.4	11.2	11.1	11.0	10.9
65.0				12.7	12.6	12.4	12.2	12.1

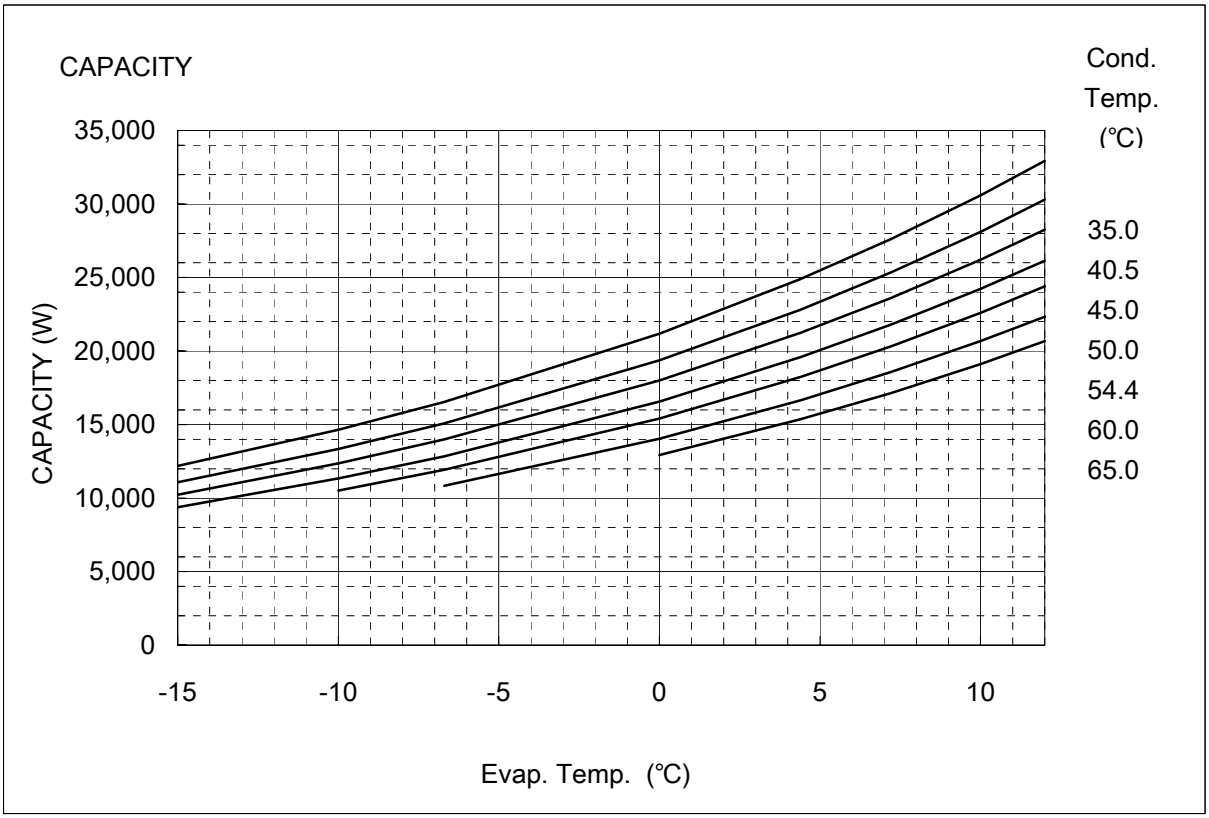
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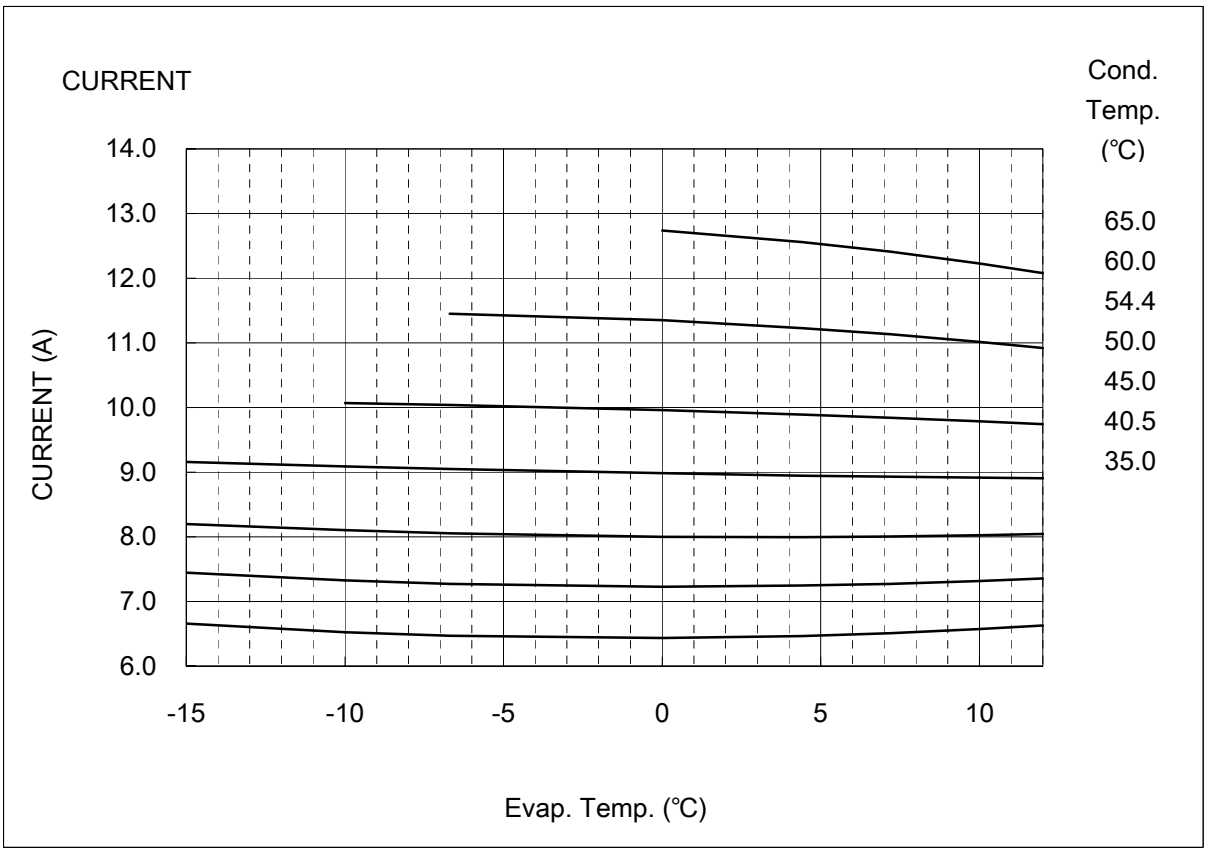
*** The performance values subject to change without notice.**

Dalian SANYO Compressor Co.,Ltd.

Compressor Model(Code) **C-SBN453H8D (809 963 88)**

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





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	**C-SBN453H8D (809 963 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

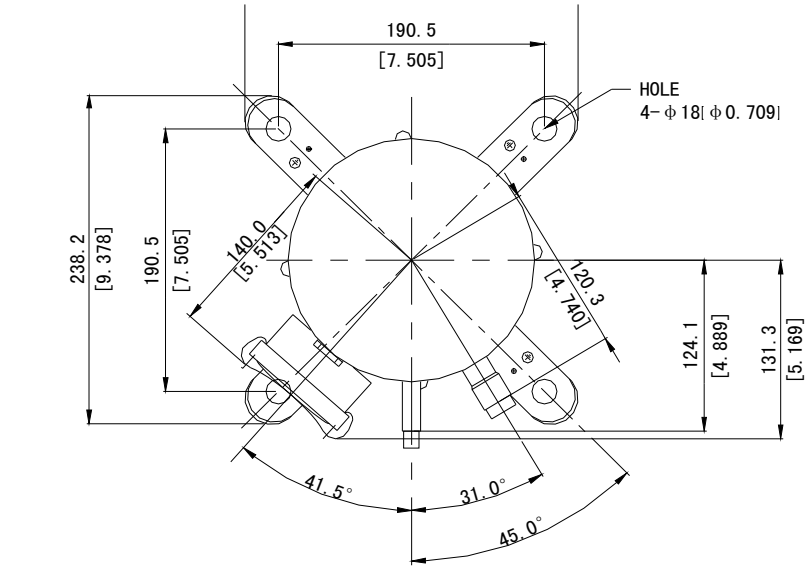
D——CONDENSING TEMP, °C

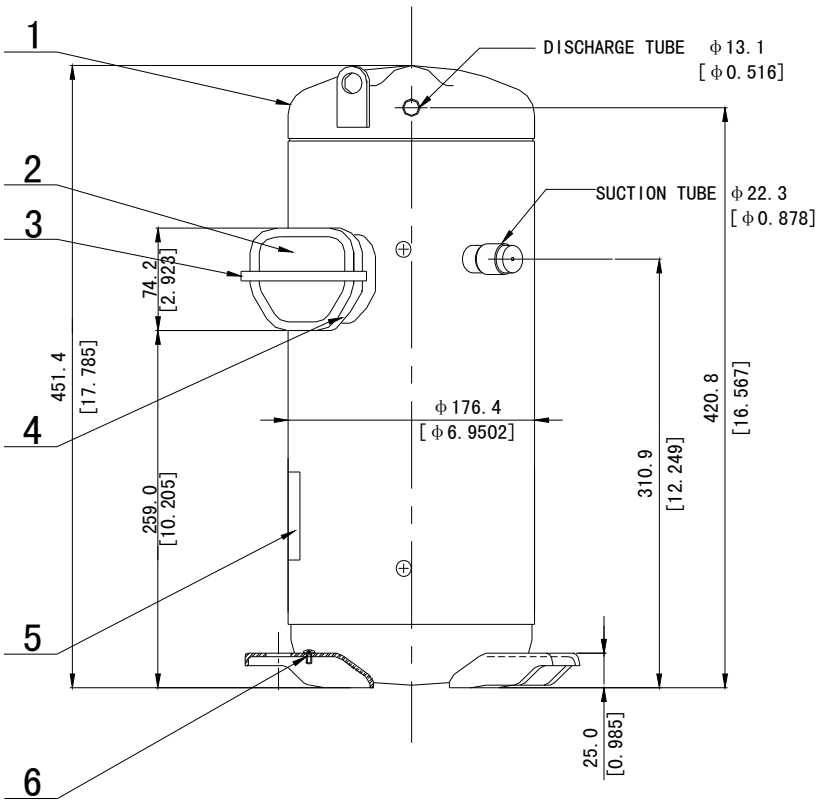
440V-60Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	3.560882E+04	3.546232E+03	4.888367E+00
C2	1.253271E+03	-1.349277E+01	-2.789683E-02
C3	-4.875311E+02	-4.727489E+01	-4.559113E-02
C4	2.010815E+01	1.321264E+00	4.287888E-03
C5	-1.570348E+01	7.380648E-01	2.062702E-03
C6	2.134221E+00	1.972999E+00	2.553987E-03
C7	1.545323E-01	-2.715958E-03	-7.729223E-06
C8	-1.579575E-01	-2.381017E-02	-8.487648E-05
C9	6.430304E-02	-1.191626E-02	-3.336508E-05
C10	-1.094152E-08	1.569176E-08	3.470229E-11

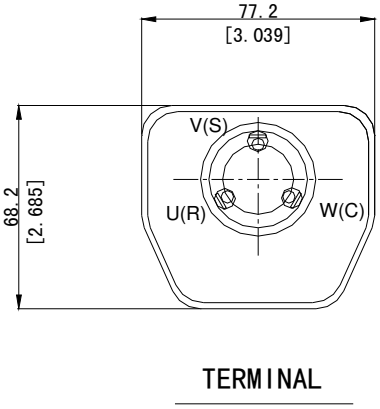
Note:The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

C-SB Series







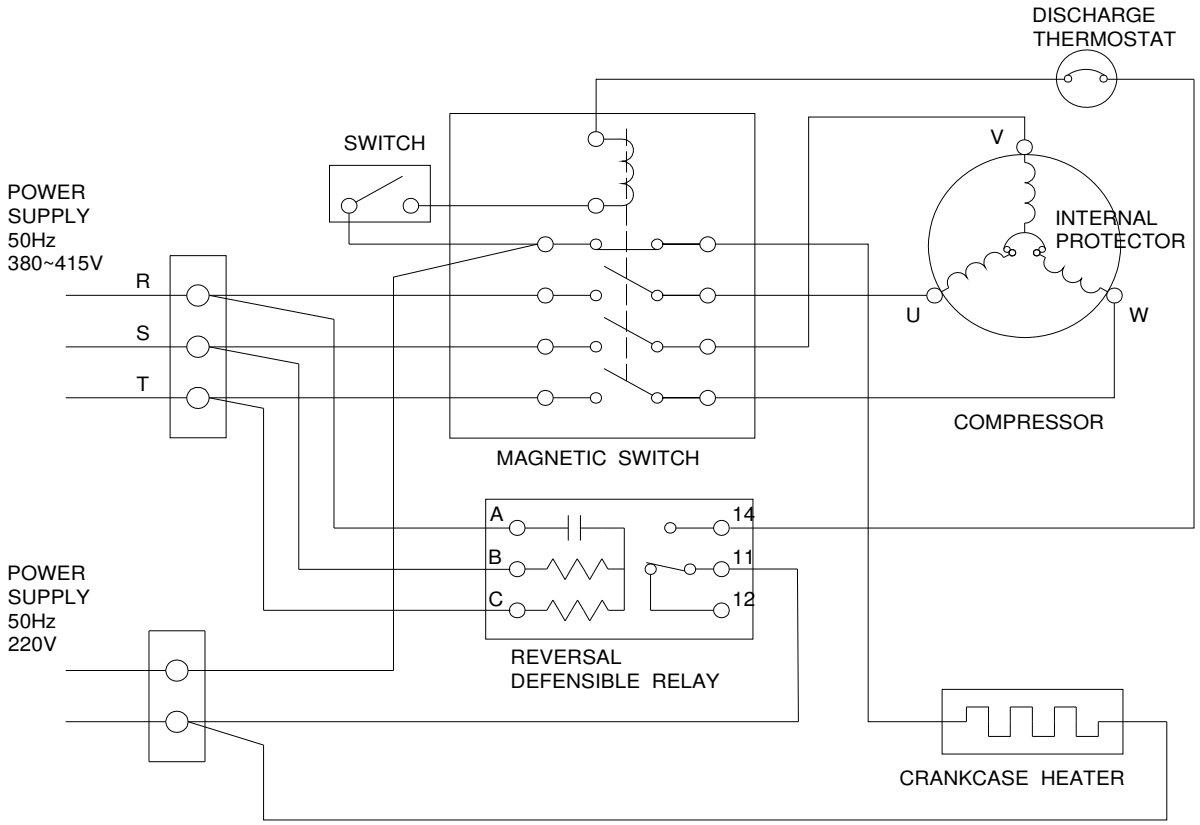
TERMINAL

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

