



SANYO SCROLL COMPRESSORS

Model : C-SBP120H38B



DALIAN SANYO COMPRESSOR CO.,LTD.

Rev. 2009-2

SANYO Scroll Compressor

Model	<u>C-SBP120H38B</u>
Refrigerant	<u>R410A</u>

Electrical	<u>380-415 Volts 3 Phase 50Hz</u>
	<u>440-460 Volts 3 Phase 60Hz</u>

Nominal Performance at ARI

Power Source	<u>50Hz-380V</u>	<u>60Hz-440V</u>
Capacity (W)	<u>10000</u>	<u>12200</u>
Power (W)	<u>3450</u>	<u>4100</u>
Current (A)	<u>6.38</u>	<u>6.4</u>
COP (W/W)	<u>2.90</u>	<u>2.98</u>
Mass Flow (kg/h)	<u>230</u>	<u>285</u>

Rating Conditions

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>46.1</u>
Ambient Temperature(°C)	<u>35</u>

Motor

	50Hz	60Hz
Voltage Range(V)	<u>342-456</u>	<u>396-506</u>
RLA (A)	<u>9.6</u>	
MCC (A)	<u>13.42</u>	
LRA (A)	<u>63</u>	<u>-</u>
RPM (min ⁻¹)	<u>2900</u>	<u>3500</u>

Compressor

Maximum Discharge Temp(°C)	<u>130</u>
Displacement (cm ³ /rev)	<u>39.93</u>
Weight (with oil kg)	<u>39</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	C-SBP120H38B
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	5,620	6,840	7,790	10,150	12,080	13,490	15,070	16,310
40.5	5,180	6,310	7,180	9,350	11,110	12,410	13,850	14,980
45.0	4,840	5,890	6,710	8,730	10,370	11,570	12,920	13,970
50.0	4,490	5,460	6,220	8,080	9,600	10,710	11,950	12,920
54.4		5,110	5,810	7,550	8,970	10,000	11,150	12,060
60.0			5,340	6,930	8,220	9,170	10,220	11,050
65.0				6,420	7,620	8,490	9,470	10,230

POWER(W)

Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	2,290	2,290	2,290	2,280	2,260	2,240	2,220	2,200
40.5	2,580	2,580	2,580	2,560	2,540	2,520	2,500	2,480
45.0	2,870	2,860	2,850	2,830	2,800	2,790	2,770	2,750
50.0	3,230	3,210	3,190	3,160	3,140	3,120	3,100	3,090
54.4		3,550	3,530	3,490	3,460	3,450	3,440	3,430
60.0			4,000	3,950	3,920	3,910	3,910	3,900
65.0				4,400	4,380	4,370	4,370	4,380

CURRENT(A)

@380V

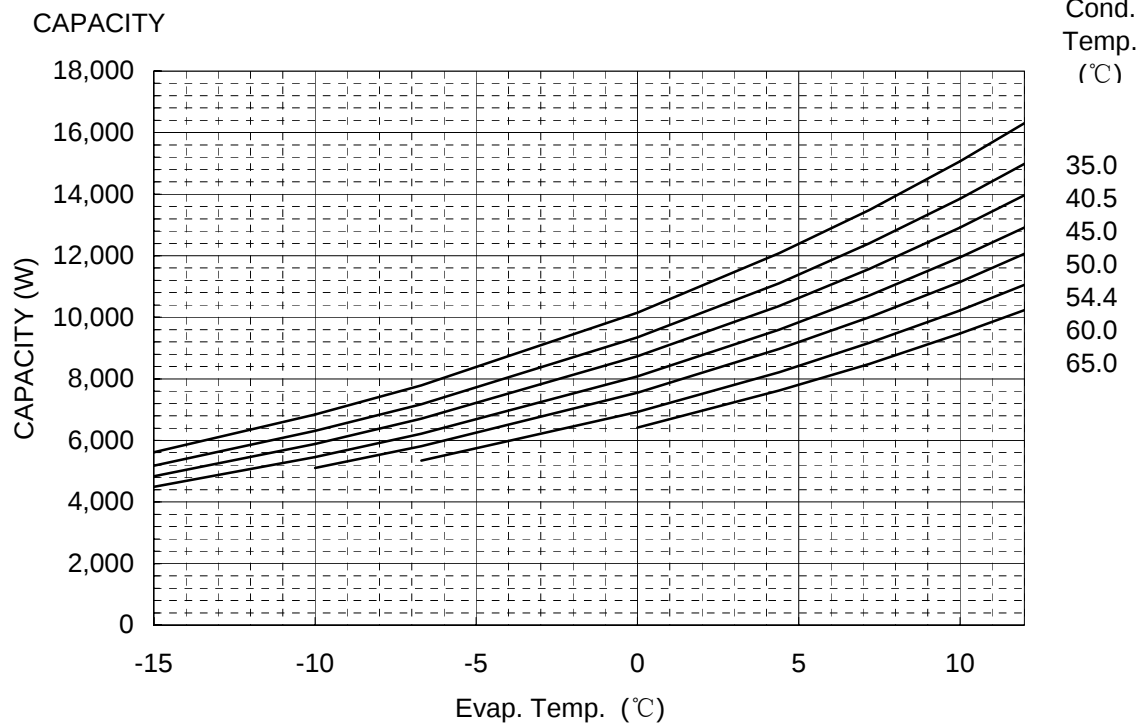
Condensing Temperature(℃)	Evaporating Temperature(℃)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4.7	4.7	4.7	4.7	4.7	4.6	4.6	4.6
40.5	5.1	5.1	5.1	5.1	5.1	5.1	5.0	5.0
45.0	5.6	5.5	5.5	5.5	5.5	5.5	5.4	5.4
50.0	6.1	6.0	6.0	6.0	5.9	5.9	5.9	5.9
54.4		6.5	6.5	6.4	6.4	6.4	6.4	6.4
60.0			7.1	7.0	7.0	7.0	7.0	7.0
65.0				7.6	7.6	7.6	7.6	7.6

NOTE:

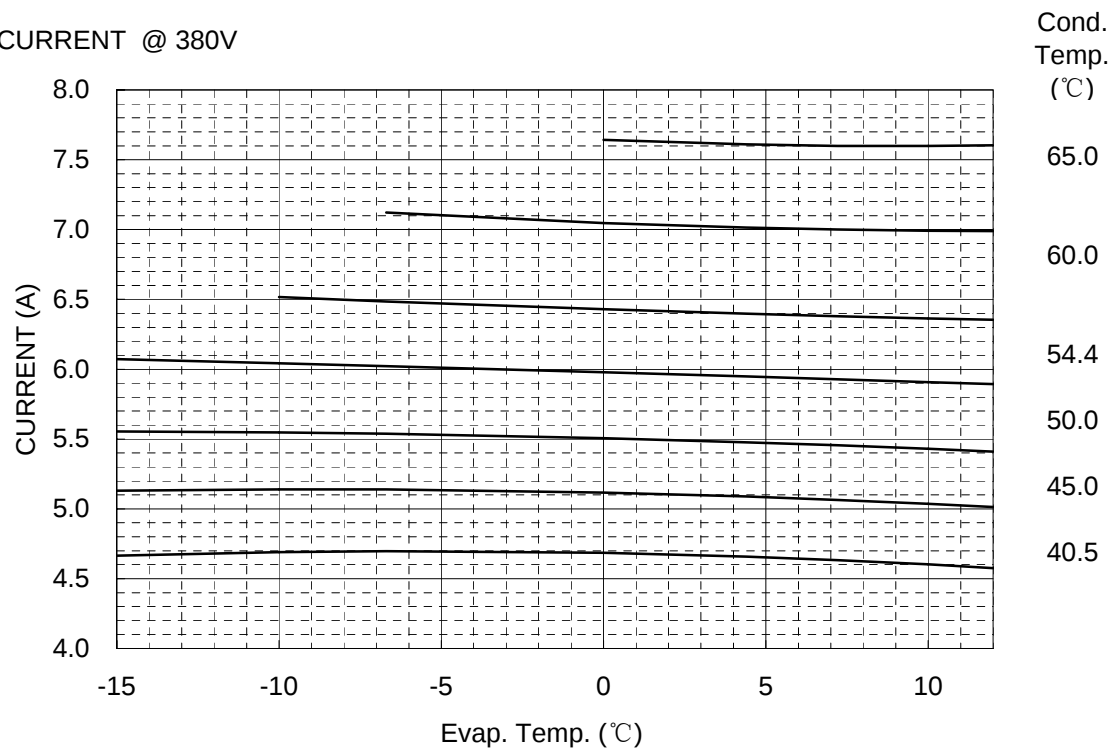
* The performance values subject to change without notice.

Compressor Model(Code)
Power Source

C-SBP120H38B
3PH 50Hz 380~415V



CURRENT @ 380V



COEFFICIENTS OF PERFORMANCE CURVES



Compressor Model **C-SBP120H38B**
 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

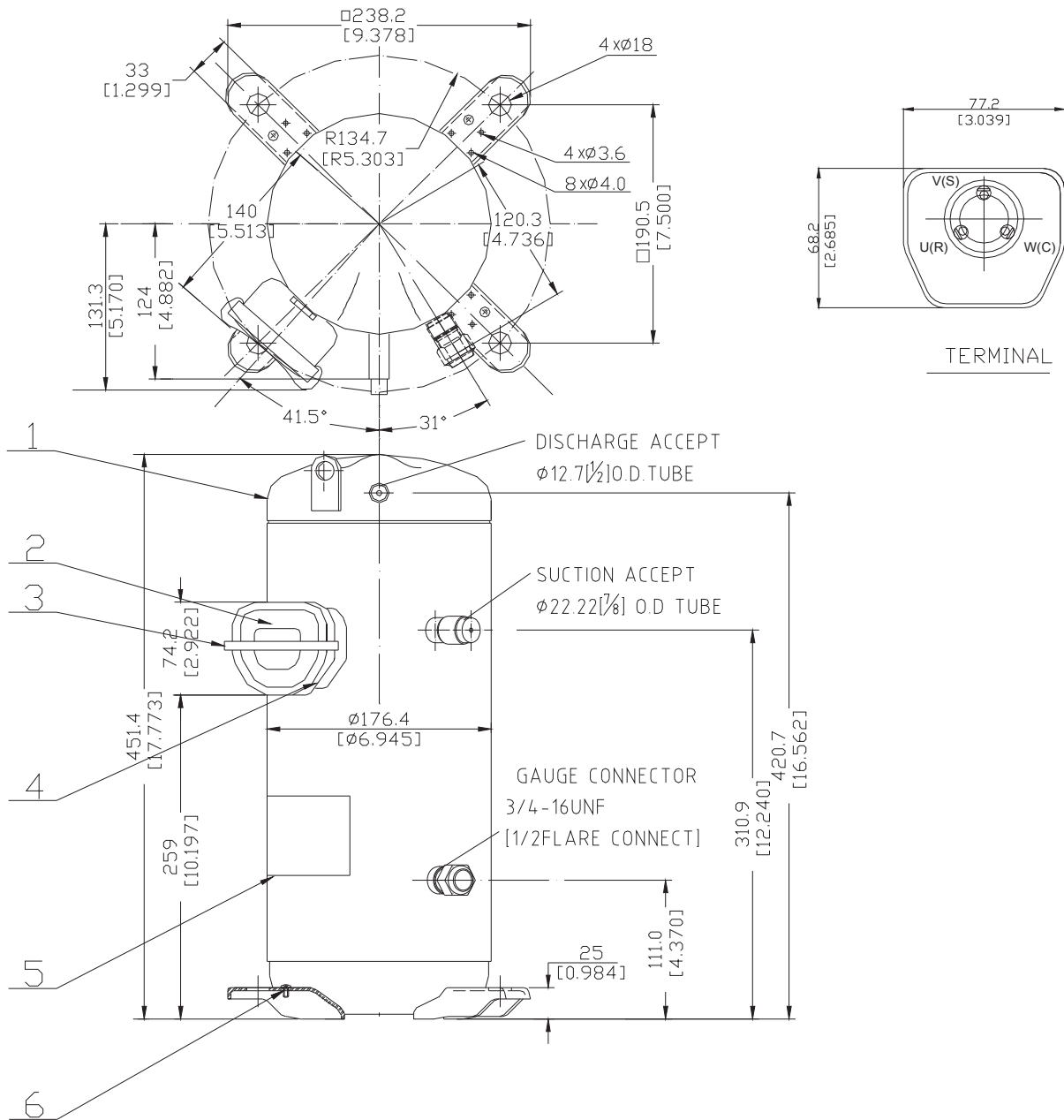
D—CONDENSING TEMP, °C

380V-50Hz	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	1.663543E+04	1.687794E+03	3.163491E+00
C2	6.906839E+02	9.386166E-01	-5.508508E-04
C3	-2.182177E+02	-1.197959E+01	1.386442E-02
C4	1.202623E+01	-8.972080E-01	-1.386734E-03
C5	-9.873281E+00	-1.638846E-01	-9.735592E-05
C6	9.410983E-01	8.274858E-01	8.480277E-04
C7	8.674338E-02	6.337072E-05	1.620557E-06
C8	-1.141202E-01	1.781752E-02	2.760609E-05
C9	4.735885E-02	8.455684E-04	-5.787005E-07
C10	-1.061178E-08	-9.417026E-09	-7.172650E-12

Note: The polynomial coefficients subject to change without notice.

DIMENSIONAL SKETCH

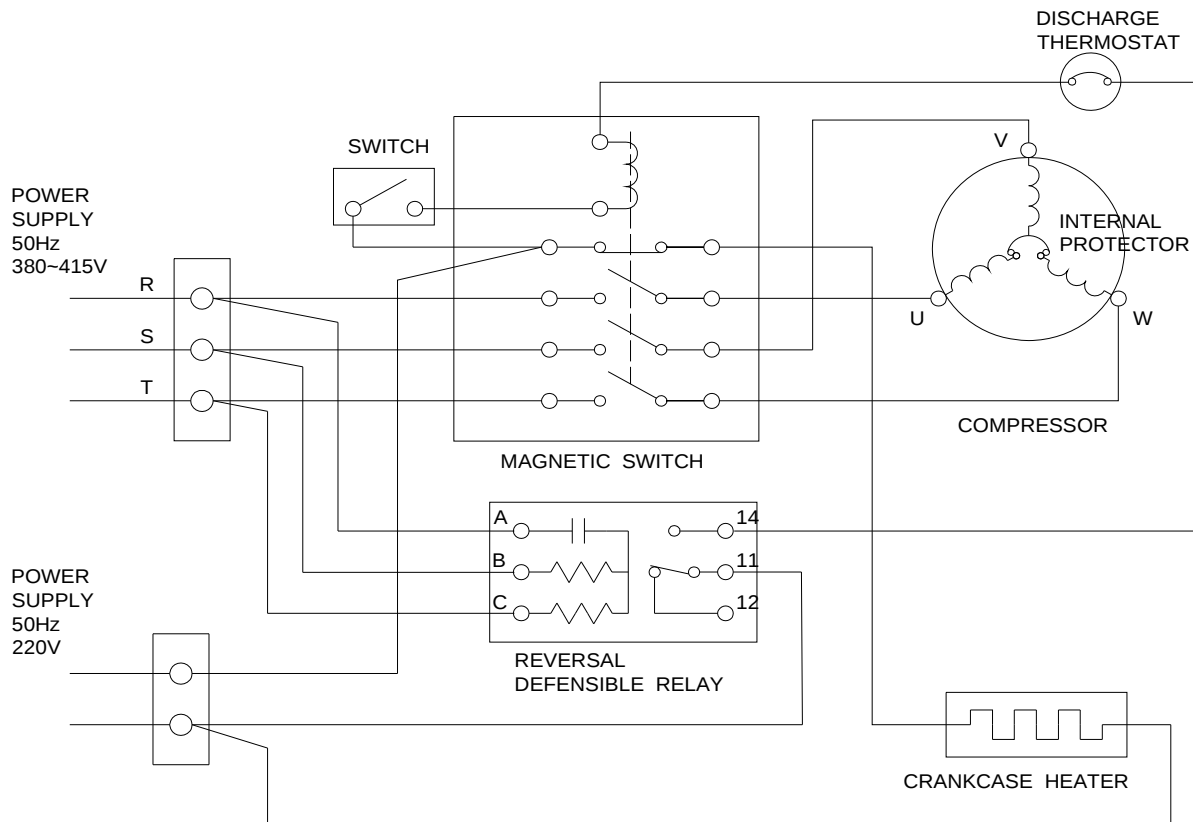
C-SB Series



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

