

**SANYO**

# SANYO SCROLL COMPRESSORS

**Model : C-SBS235H38B**



**DALIAN SANYO COMPRESSOR CO.,LTD.**

Rev. 2008-5

## **SANYO Scroll Compressor**



**Model** C-SBS235H38B

**Refrigerant** R407C

**Electrical** 380-415 Volts 3 Phase 50Hz

440 Volts 3 Phase 60Hz

### **Nominal Performance at ARI**

Power Source	<u>50Hz-380V</u>	<u>60Hz-440V</u>
Capacity (W)	<u>19500</u>	<u>23400</u>
Power (W)	<u>6300</u>	<u>7550</u>
Current (A)	<u>11.2</u>	<u>11.3</u>
COP (W/W)	<u>3.10</u>	<u>3.10</u>
Mass Flow (kg/h)	<u>470</u>	<u>565</u>

### **Rating Conditions (R407C 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**

	<b>50Hz</b>	<b>60Hz</b>
Voltage Range(V)	<u>342-456</u>	<u>396-484</u>
RLA (A)	<u>12.5</u>	
MCC (A)	<u>17.5</u>	
LRA (A)	<u>73</u>	<u>76</u>
RPM (min <sup>-1</sup> )	<u>2900</u>	<u>3450</u>

### **Compressor**

Maximum Discharge Temp(°C)	<u>130</u>
Displacement (cm <sup>3</sup> /rev)	<u>110.2</u>
Weight (with oil kg)	<u>40</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 (PRELIMINARY DATA)**

Compressor Model	<b>C-SBS235H38B</b>
Power Source	<b>3PH 50Hz 380-415V</b>
Suction Gas Superheat(K)	<b>9</b>
Sub Cooling(K)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R407C</b>

**CAPACITY(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	10,890	13,070	14,750	18,840	22,130	24,520	27,160	29,220
40.5	10,220	12,270	13,840	17,670	20,750	22,990	25,460	27,390
45.0	9,700	11,640	13,130	16,760	19,680	21,800	24,140	25,970
50.0	9,150	10,980	12,380	15,800	18,550	20,540	22,750	24,470
54.4		10,420	11,750	15,000	17,610	19,500	21,590	23,220
60.0			11,010	14,040	16,480	18,250	20,210	21,730
65.0				13,250	15,540	17,210	19,050	20,490

**POWER(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	3,930	3,970	4,010	4,100	4,180	4,230	4,290	4,330
40.5	4,340	4,410	4,460	4,580	4,660	4,720	4,780	4,820
45.0	4,710	4,820	4,880	5,020	5,120	5,180	5,240	5,280
50.0	5,170	5,310	5,400	5,580	5,680	5,750	5,810	5,850
54.4		5,800	5,910	6,110	6,230	6,300	6,360	6,400
60.0			6,620	6,870	7,000	7,070	7,140	7,180
65.0				7,610	7,760	7,830	7,900	7,930

**CURRENT(A)**

@380V

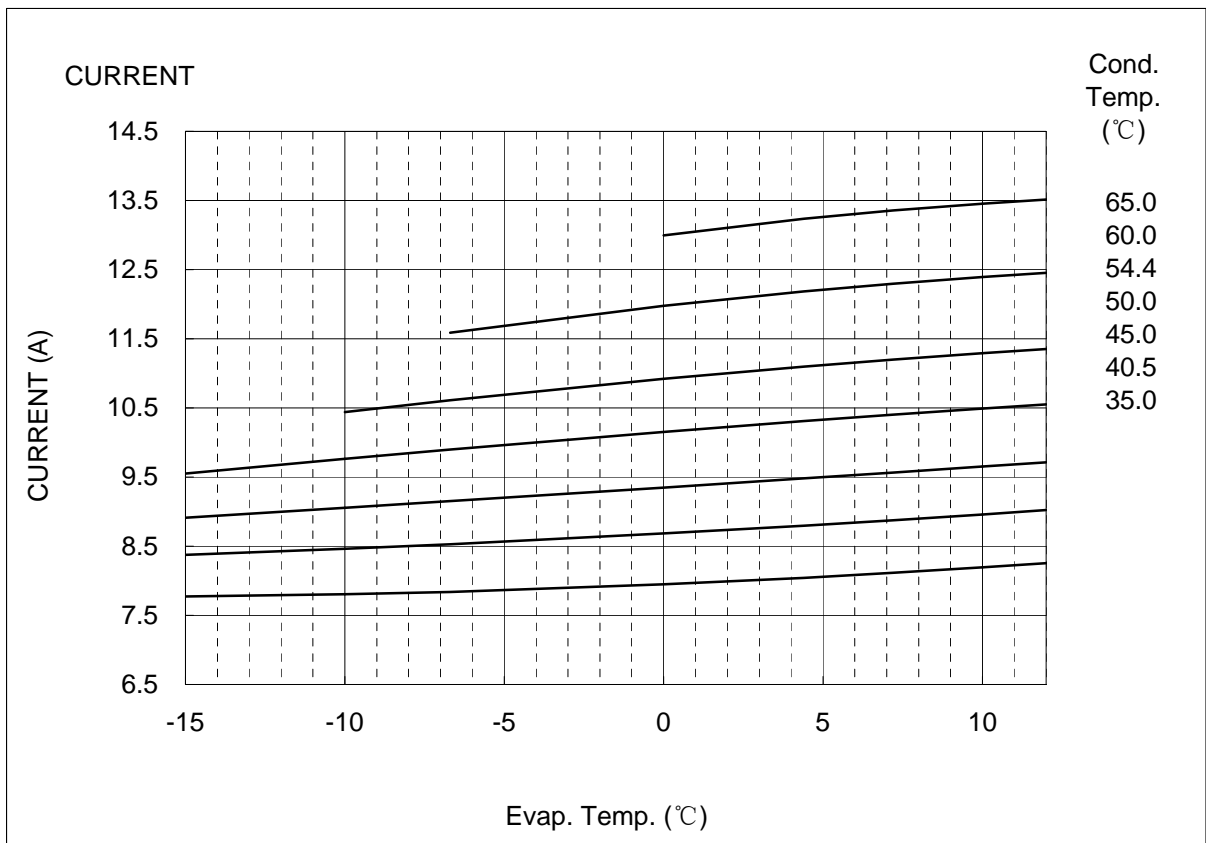
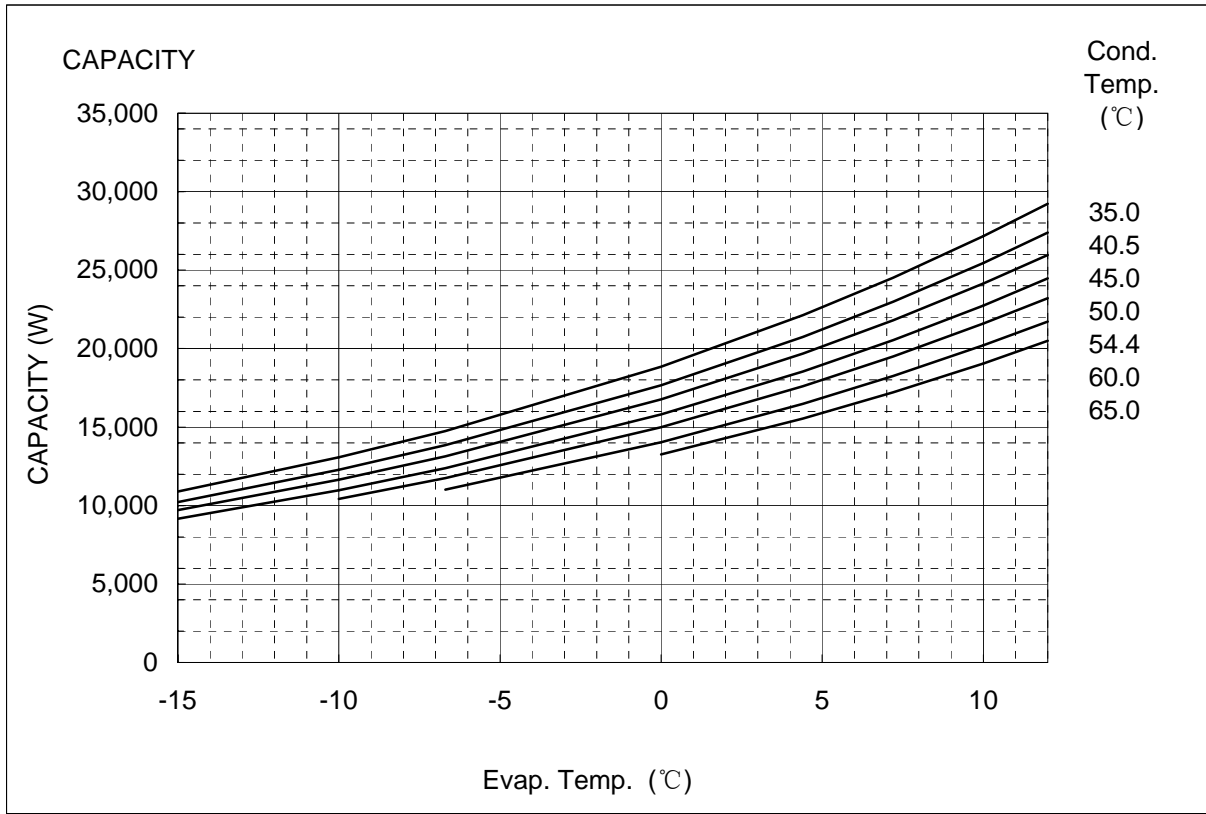
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	7.8	7.8	7.8	7.9	8.0	8.1	8.2	8.3
40.5	8.4	8.5	8.5	8.7	8.8	8.9	9.0	9.0
45.0	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.7
50.0	9.6	9.8	9.9	10.2	10.3	10.4	10.5	10.6
54.4		10.4	10.6	10.9	11.1	11.2	11.3	11.4
60.0			11.6	12.0	12.2	12.3	12.4	12.5
65.0				13.0	13.2	13.4	13.5	13.5

**NOTE:**

\* The performance values subject to change without notice.

Compressor Model  
Power Source

**C-SBS235H38B**  
**3PH 50Hz 380-415V**



## COEFFICIENTS OF PERFORMANCE CURVES



Compressor Model           **C-SBS235H38B**  
 Power Source               **3PH 50Hz 380-415V**  
 Suction Gas Superheat (K) **9**  
 Sub Cooling (K)           **8.3**  
 Compressor Cooling       **Natural Cooling**  
 Refrigerant                 **R407C**

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

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

S—EVAPORATING TEMP, °C

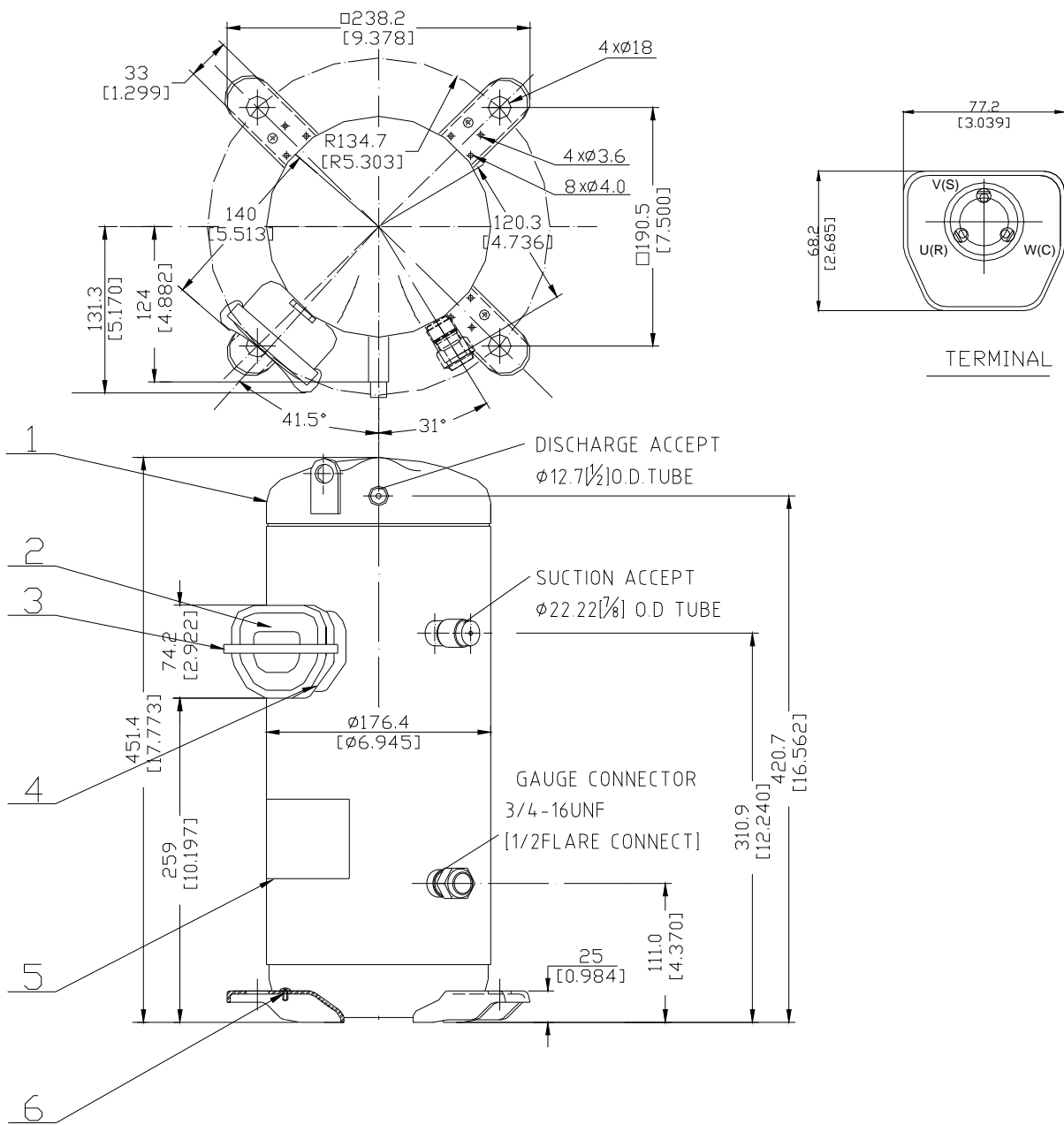
D—CONDENSING TEMP, °C

<b>380V-50Hz</b>	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	2.785714E+04	2.760579E+03	5.150769E+00
C2	1.047761E+03	7.714436E+00	6.212155E-03
C3	-2.961493E+02	-4.054090E+00	3.211921E-02
C4	1.761241E+01	1.533474E+00	2.690169E-03
C5	-1.186673E+01	-4.897943E-03	-1.037790E-04
C6	1.098713E+00	1.208405E+00	1.360911E-03
C7	1.327423E-01	-3.056640E-03	-2.925073E-06
C8	-1.378937E-01	-3.450038E-02	-6.008830E-05
C9	4.829365E-02	7.012657E-03	1.419595E-05
C10	5.986822E-09	1.371784E-08	1.013548E-11

Note:The polynomial coefficients subject to change without notice.

# DIMENSIONAL SKETCH

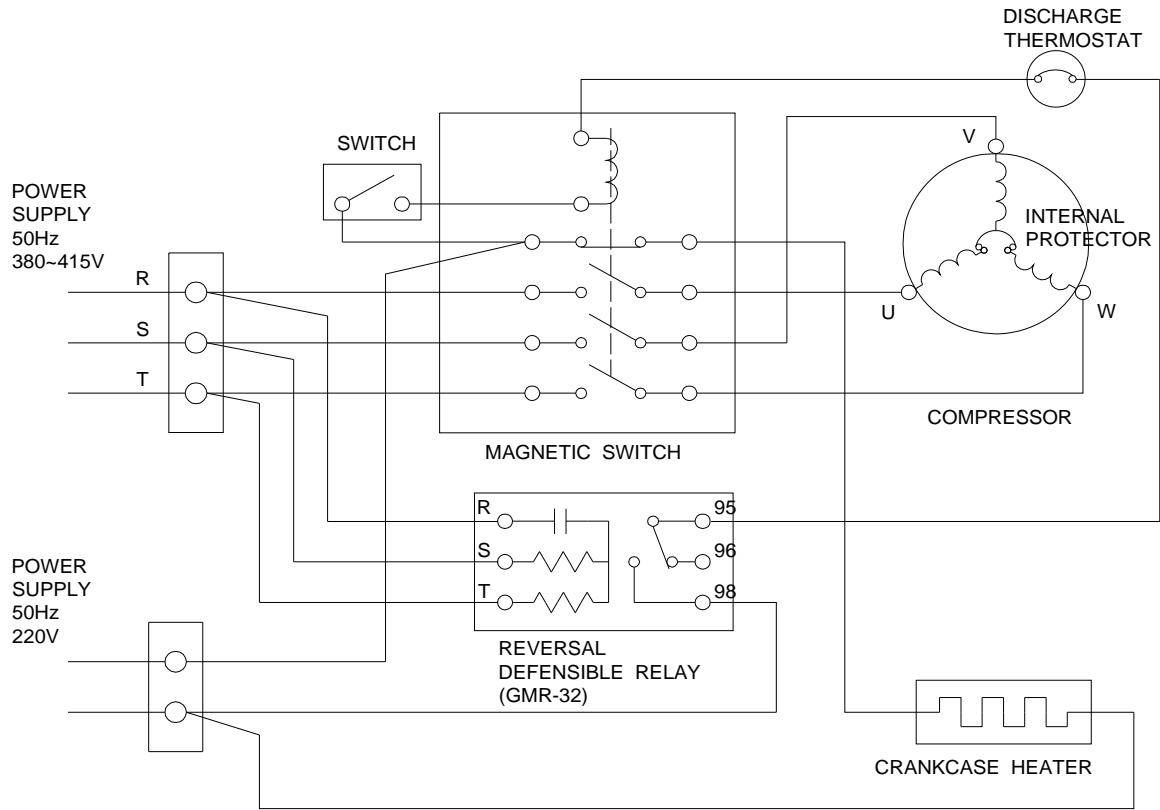
## C-SB Tandem Series



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

