

**SANYO**

# SANYO SCROLL COMPRESSORS

**Code : 809 940 88**

**Model : C-SBN303H8A**



DALIAN SANYO COMPRESSOR CO.,LTD.

## **SANYO Scroll Compressor**

Made by: Dalian **SANYO** Compressor Co., Ltd.

**Model:** C-SBN303H8A      **Electrical:** 380-415 Volts 3 Phase 50Hz      **R134a**

### **Nominal Performance at ARI and 50Hz-380V**

|           |        |      |
|-----------|--------|------|
| Capacity  | (W)    | 8000 |
| Power     | (W)    | 2540 |
| Current   | (A)    | 5.0  |
| COP       | (W/W)  | 3.15 |
| Mass Flow | (kg/h) | 196  |

### **Rating Conditions at ARI**

|                             |      |
|-----------------------------|------|
| Condensing Temperature(°C)  | 54.4 |
| Evaporating Temperature(°C) | 7.2  |
| Return Gas temperature(°C)  | 18.3 |
| Liquid Temperature(°C)      | 46.1 |
| Ambient Temperature(°C)     | 35   |

### **Motor**

|                               |             |
|-------------------------------|-------------|
|                               | <b>50Hz</b> |
| Operating Voltage Range(V)    | 342-456     |
| Locked Rotor Amps(A)          | 48          |
| Maximum Continuous Current(A) | -           |
| RPM(min <sup>-1</sup> )       | 2900        |

### **Compressor**

|                                     |                  |
|-------------------------------------|------------------|
| Maximum Discharge Temp(°C)          | 130              |
| Displacement (cm <sup>3</sup> /rev) | 66.8             |
| Weight (with oil kg)                | 37               |
| CCC File Number                     | 2002020704000230 |

### **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



**PERFORMANCE DATA**

|                          |                                 |
|--------------------------|---------------------------------|
| Compressor Model(Code)   | <b>C-SBN303H8A (809 940 88)</b> |
| Power Source             | <b>3PH 50Hz 380-415V</b>        |
| Suction Gas Superheat(K) | <b>11.1</b>                     |
| Sub Cooling(K)           | <b>8.3</b>                      |
| Compressor Cooling       | <b>Natural Cooling</b>          |
| Refrigerant              | <b>R134a</b>                    |

**SANYO****CAPACITY(W)**

| Condensing Temperature(°C) | Evaporating Temperature(°C) |       |       |       |       |       |        |        |
|----------------------------|-----------------------------|-------|-------|-------|-------|-------|--------|--------|
|                            | -15                         | -10   | -6.7  | 0     | 4.4   | 7.2   | 10     | 12     |
| 40.5                       | 4,070                       | 4,930 | 5,600 | 7,240 | 8,570 | 9,540 | 10,620 | 11,460 |
| 45.0                       | 3,810                       | 4,630 | 5,260 | 6,820 | 8,080 | 9,010 | 10,050 | 10,860 |
| 50.0                       | 3,540                       | 4,310 | 4,900 | 6,380 | 7,580 | 8,460 | 9,440  | 10,210 |
| 54.4                       | 3,320                       | 4,040 | 4,610 | 6,010 | 7,160 | 8,000 | 8,940  | 9,680  |
| 60.0                       |                             | 3,730 | 4,260 | 5,580 | 6,660 | 7,450 | 8,340  | 9,040  |
| 65.0                       |                             |       | 3,970 | 5,220 | 6,240 | 7,000 | 7,840  | 8,510  |
| 70.0                       |                             |       |       | 4,890 | 5,860 | 6,580 | 7,380  | 8,020  |

**POWER(W)**

| Condensing Temperature(°C) | Evaporating Temperature(°C) |       |       |       |       |       |       |       |
|----------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
|                            | -15                         | -10   | -6.7  | 0     | 4.4   | 7.2   | 10    | 12    |
| 40.5                       | 1,850                       | 1,880 | 1,890 | 1,900 | 1,900 | 1,890 | 1,880 | 1,870 |
| 45.0                       | 2,030                       | 2,060 | 2,080 | 2,090 | 2,080 | 2,080 | 2,070 | 2,060 |
| 50.0                       | 2,260                       | 2,290 | 2,300 | 2,320 | 2,320 | 2,310 | 2,300 | 2,300 |
| 54.4                       | 2,490                       | 2,510 | 2,530 | 2,540 | 2,540 | 2,540 | 2,540 | 2,530 |
| 60.0                       |                             | 2,820 | 2,840 | 2,850 | 2,860 | 2,860 | 2,860 | 2,860 |
| 65.0                       |                             |       | 3,140 | 3,160 | 3,170 | 3,180 | 3,180 | 3,190 |
| 70.0                       |                             |       |       | 3,490 | 3,510 | 3,520 | 3,530 | 3,540 |

**CURRENT(A)**

@380V

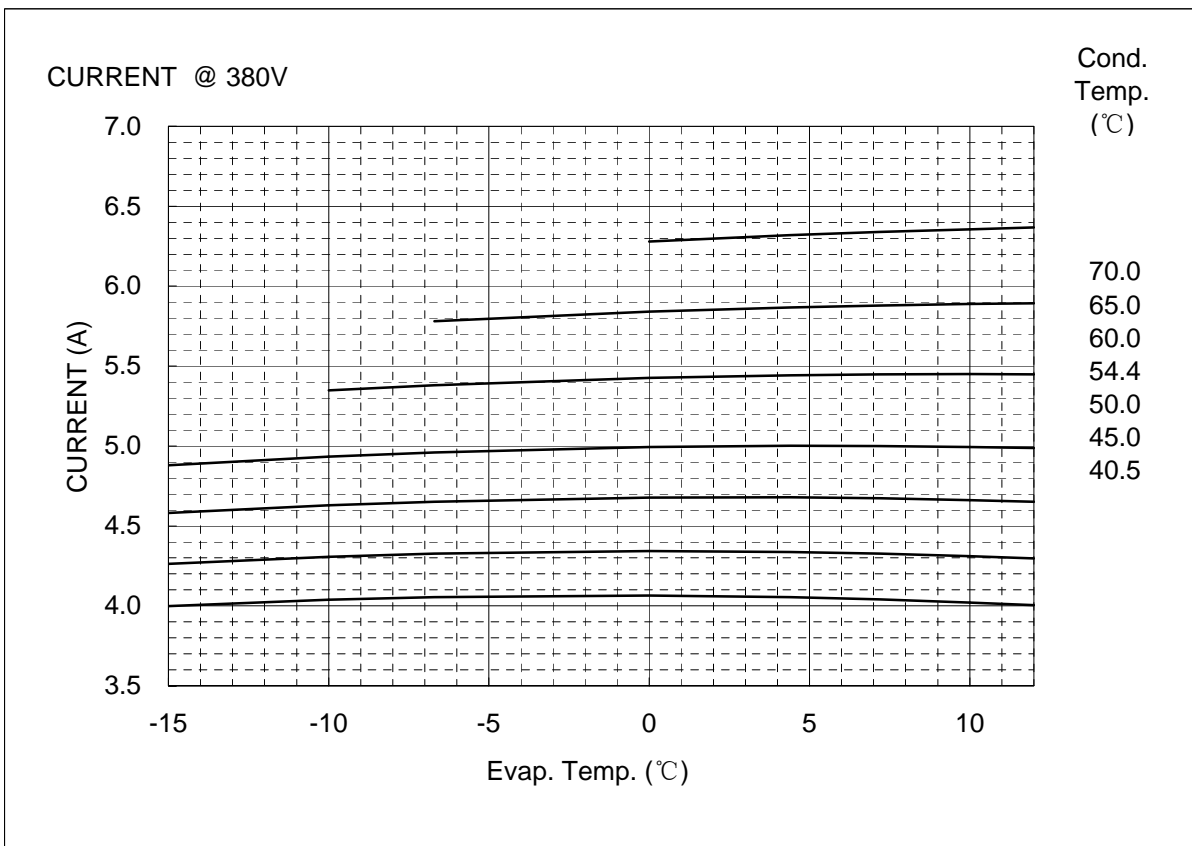
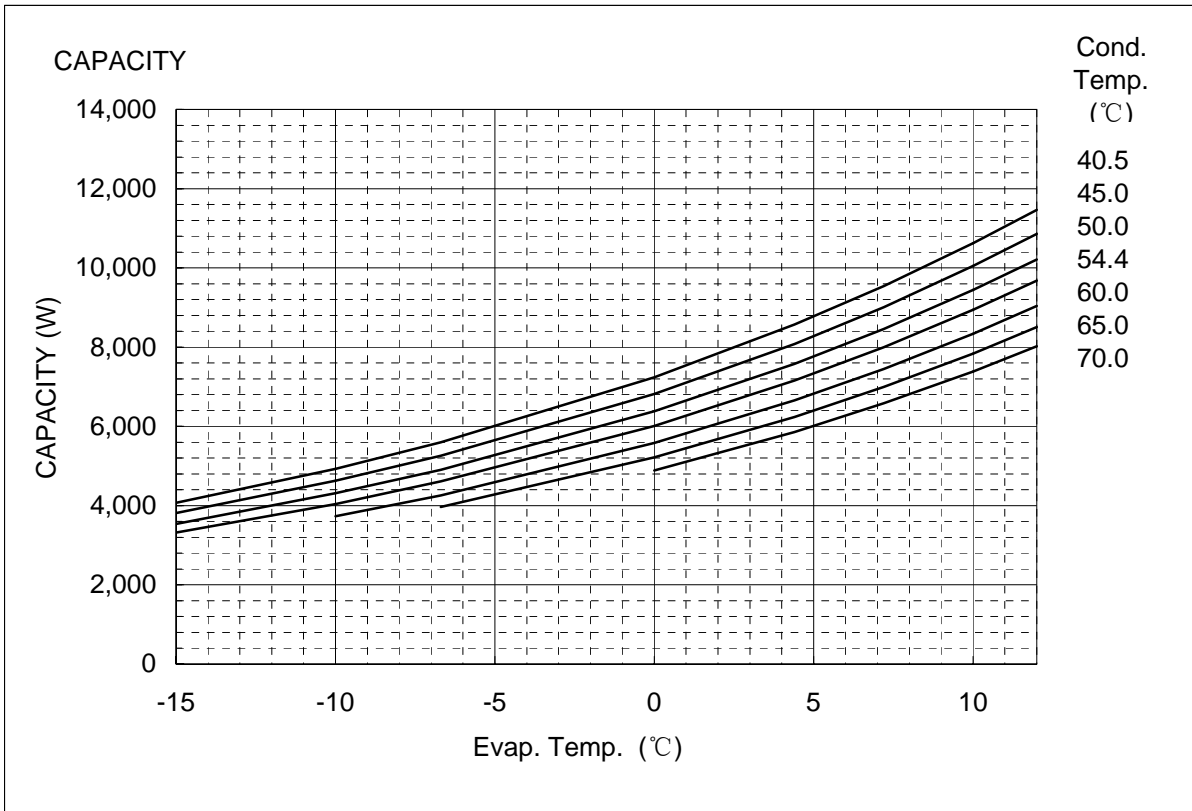
| Condensing Temperature(°C) | Evaporating Temperature(°C) |     |      |     |     |     |     |     |
|----------------------------|-----------------------------|-----|------|-----|-----|-----|-----|-----|
|                            | -15                         | -10 | -6.7 | 0   | 4.4 | 7.2 | 10  | 12  |
| 40.5                       | 4.0                         | 4.0 | 4.1  | 4.1 | 4.1 | 4.0 | 4.0 | 4.0 |
| 45.0                       | 4.3                         | 4.3 | 4.3  | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| 50.0                       | 4.6                         | 4.6 | 4.7  | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |
| 54.4                       | 4.9                         | 4.9 | 5.0  | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| 60.0                       |                             | 5.3 | 5.4  | 5.4 | 5.4 | 5.4 | 5.5 | 5.4 |
| 65.0                       |                             |     | 5.8  | 5.8 | 5.9 | 5.9 | 5.9 | 5.9 |
| 70.0                       |                             |     |      | 6.3 | 6.3 | 6.3 | 6.4 | 6.4 |

**NOTE:**

\* 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          | <b>C-SBN303H8A (809 940 88)</b> |
| Power Source              | <b>3PH 50Hz 380-415V</b>        |
| Suction Gas Superheat (K) | <b>11.1</b>                     |
| Sub Cooling (K)           | <b>8.3</b>                      |
| Compressor Cooling        | <b>Natural Cooling</b>          |
| Refrigerant               | <b>R134a</b>                    |

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

X—CAPACITY(W) OR POWER(W) OR CURRENT(A)

S—EVAPORATING TEMP, °C

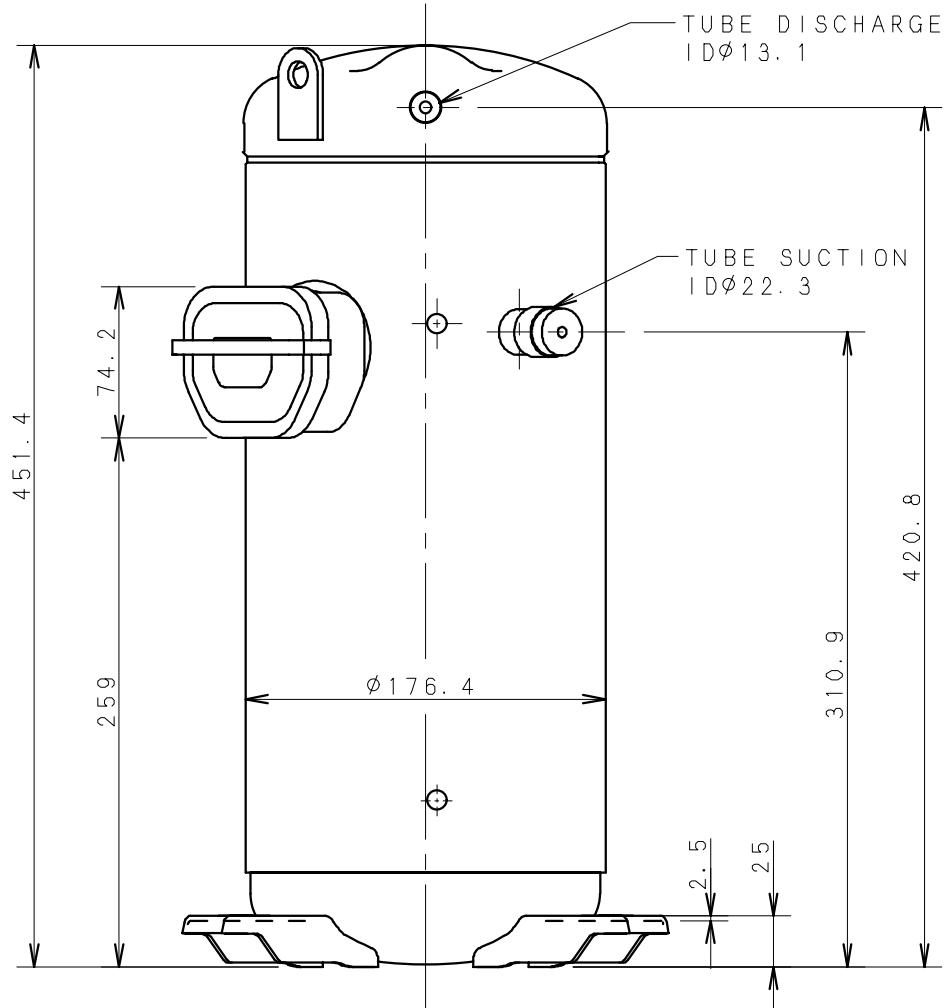
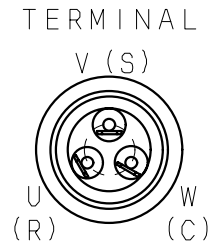
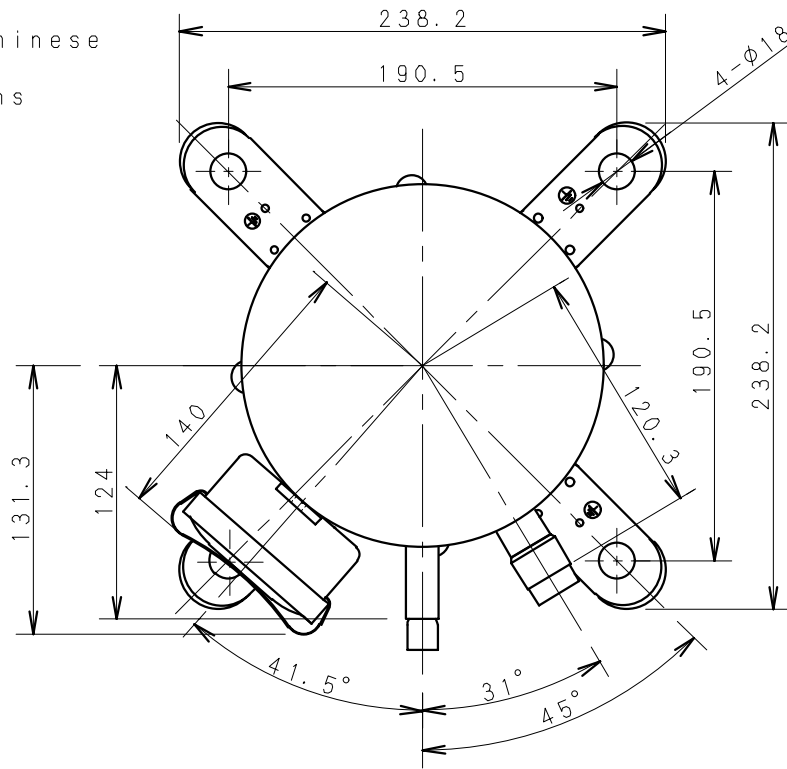
D—CONDENSING TEMP, °C

| <b><u>380V-50Hz</u></b> | CAPACITY (W)  | POWER (W)     | CURRENT (A)   |
|-------------------------|---------------|---------------|---------------|
| C1                      | 1.225922E+04  | 1.255796E+03  | 2.621591E+00  |
| C2                      | 3.878669E+02  | -4.648071E+00 | -1.600879E-02 |
| C3                      | -1.494229E+02 | -5.858634E+00 | 1.322192E-02  |
| C4                      | 6.538025E+00  | -6.607302E-01 | -9.610975E-04 |
| C5                      | -2.723770E+00 | 1.093801E-01  | 3.578500E-04  |
| C6                      | 6.324768E-01  | 5.408880E-01  | 5.562789E-04  |
| C7                      | 5.871157E-02  | 4.690639E-04  | -3.091136E-07 |
| C8                      | -2.982575E-02 | 9.741953E-03  | 1.412732E-05  |
| C9                      | -1.296535E-06 | -2.354876E-07 | -1.498759E-09 |
| C10                     | -1.830838E-06 | -3.879770E-07 | -2.199556E-10 |

Note: The polynomial coefficients subject to change without notice.

# DIMENSIONAL SKETCH

C-SB Series  
 2.6-4.5kW  
 European & Chinese  
 power supply  
 specifications  
 models



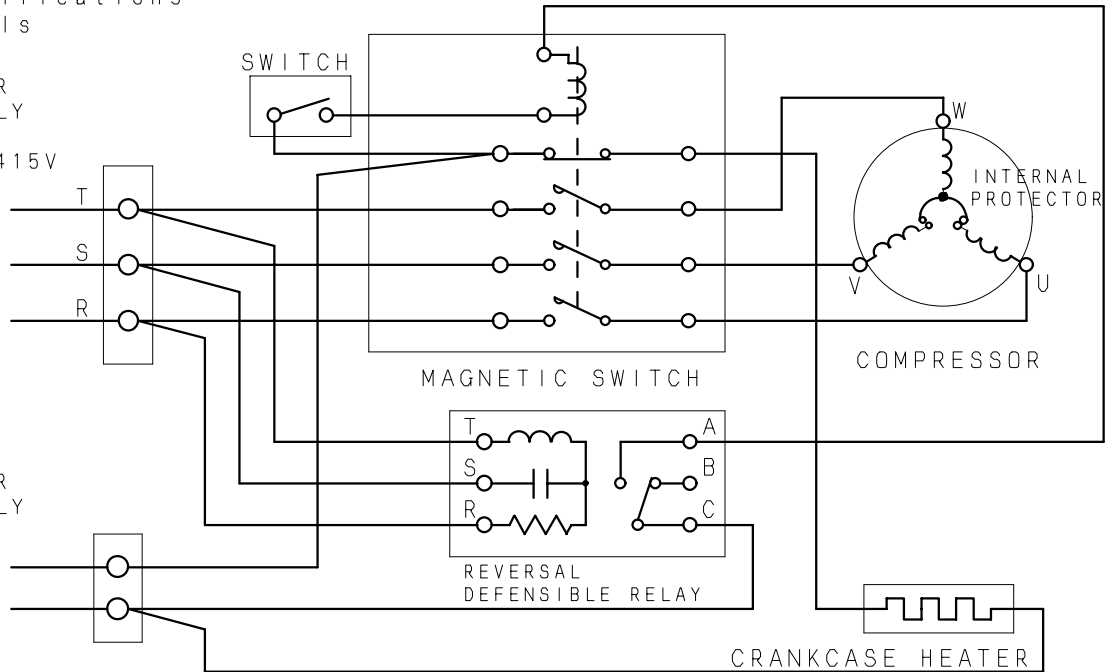
# WIRING & MOUNTING SKETCH

## WIRING DIAGRAM

C-SB Series 3 phase  
 2.6-4.5kW  
 European & Chinese  
 power supply  
 specifications  
 models

POWER  
 SUPPLY  
 50Hz  
 380-415V

POWER  
 SUPPLY  
 50Hz  
 220V



## MOUNTING SKETCH

