



## SPECIFICATIONS OF COMPRESSOR

Model No: C-SBP235H38B

Output : 7HP



**DALIAN SANYO COMPRESSOR Co.,Ltd.**  
**SANYO Electric Co.,Ltd.**

05-Nov-12

# GENERAL SPECIFICATIONS

Model No:	C-SBP235H38B	
Application		
Evaporating Temp Range	(°C)	-15.0 ~ 12.0
Refrigerant		R410A
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	19900/24200
Input	(W)	6600/7800
Current	(A)	11.3/11.4
Revolution	(min <sup>-1</sup> )	2900/3450
Sound Level	(dB(A))	
Rating Conditions		
Power Source		3Ph-50Hz-380~415V / 3Ph-60Hz-440~460V
Evaporating Temp	(°C)	7.2
Condensing Temp	(°C)	54.4
Suction Gas Temp	(°C)	18.3
Liquid Temp	(°C)	46.1
Ambient Temp	(°C)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm <sup>3</sup> )	76.0
Suction Line Connection	(Φmm OD)	22.22
Discharge Line Connection	(Φmm OD)	12.7
Oil	(ml)	1400 ( FV68S )
Mass(Incl.Oil)	(kg)	40
Motor		
Type		3-PH Induction Motor(3IR)
Pole		2
Rated Power Source		3Ph-50Hz-380~415V / 3Ph-60Hz-440~460V
Voltage Range	(V)	342~456 / 396~506
LRA	(A)	87/90
RLA	(A)	13.6
MCC	(A)	19

**DALIAN SANYO COMPRESSOR Co.,Ltd.**  
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**PERFORMANCE DATA**

Compressor Model	<b>C-SBP235H38B</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>R410A</b>

**CAPACITY(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	11,970	14,350	16,180	20,630	24,200	26,780	29,650	31,880
40.5	11,010	13,200	14,880	18,980	22,260	24,640	27,280	29,330
45.0	10,280	12,320	13,890	17,710	20,780	23,000	25,460	27,380
50.0	9,510	11,410	12,860	16,400	19,240	21,300	23,580	25,350
54.4		10,660	12,010	15,320	17,980	19,900	22,030	23,690
60.0			11,020	14,060	16,490	18,260	20,210	21,730
65.0				13,030	15,280	16,920	18,730	20,140

**POWER(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4,160	4,200	4,230	4,290	4,330	4,360	4,380	4,400
40.5	4,700	4,740	4,760	4,820	4,860	4,880	4,910	4,930
45.0	5,220	5,240	5,260	5,310	5,350	5,380	5,410	5,430
50.0	5,870	5,880	5,890	5,930	5,970	6,000	6,030	6,050
54.4		6,500	6,510	6,540	6,570	6,600	6,630	6,660
60.0			7,380	7,390	7,420	7,450	7,490	7,520
65.0				8,230	8,250	8,290	8,330	8,360

**CURRENT(A)**

@380V

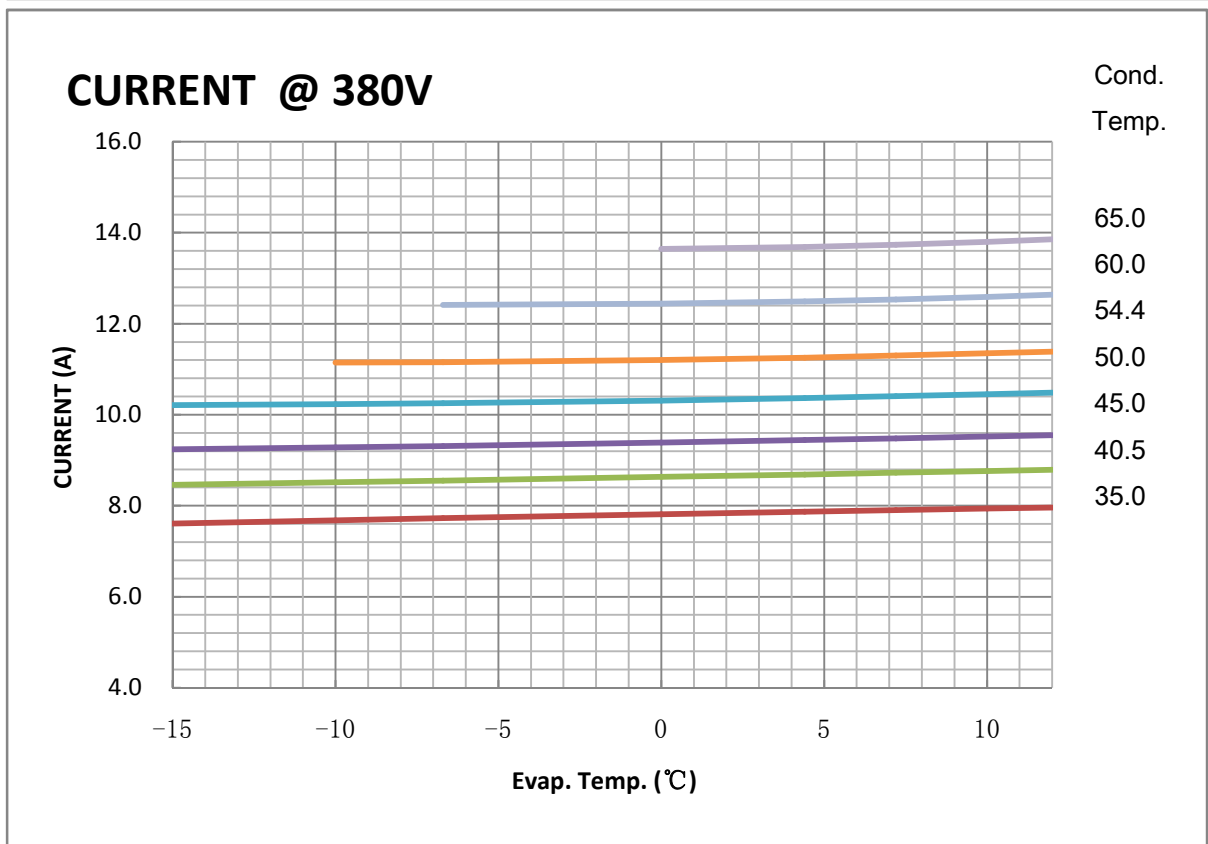
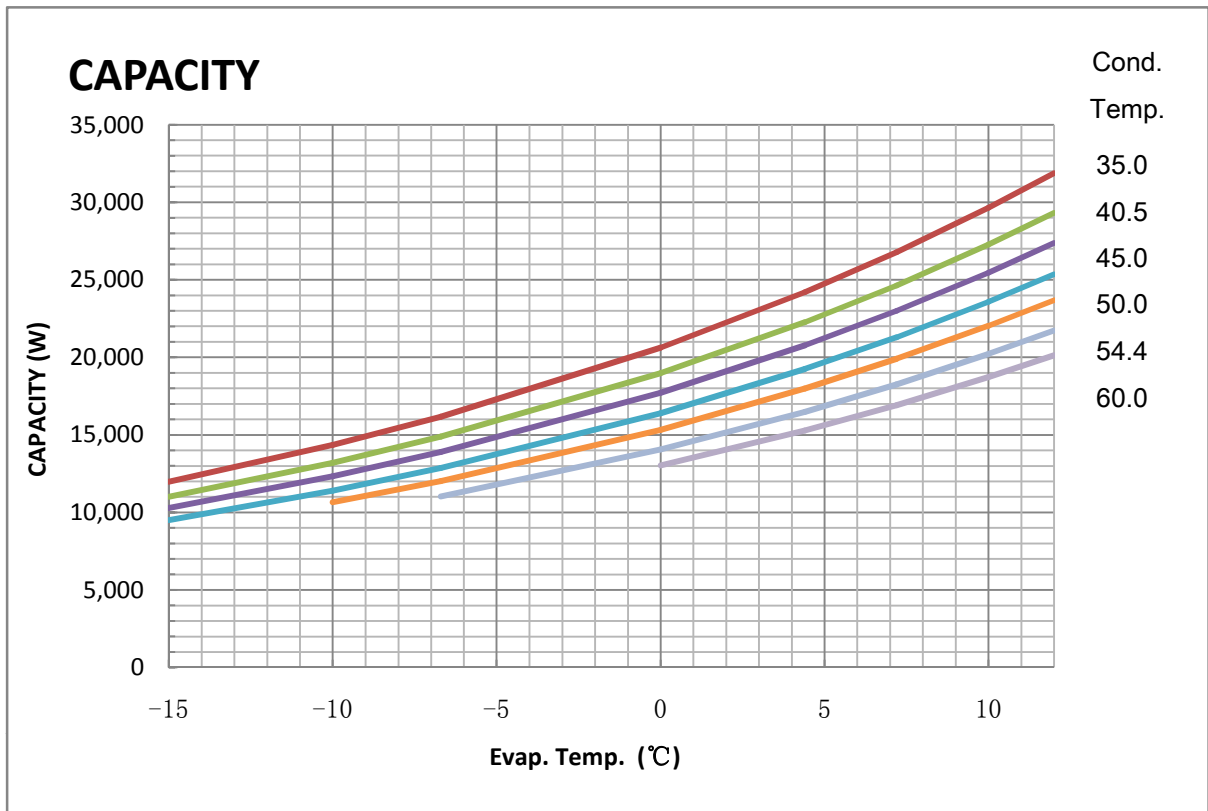
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	7.6	7.7	7.7	7.8	7.9	7.9	7.9	8.0
40.5	8.5	8.5	8.6	8.6	8.7	8.7	8.8	8.8
45.0	9.2	9.3	9.3	9.4	9.4	9.5	9.5	9.6
50.0	10.2	10.2	10.3	10.3	10.4	10.4	10.5	10.5
54.4		11.1	11.2	11.2	11.3	11.3	11.4	11.4
60.0			12.4	12.4	12.5	12.5	12.6	12.6
65.0				13.6	13.7	13.7	13.8	13.9

**NOTE:**

\* The performance values subject to change without notice.

Compressor Model(Code)  
Power Source

C-SBP235H38B  
3PH 50Hz 380~415V



## COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model           **C-SBP235H38B**  
 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

<b>380V-50Hz</b>	<b>CAPACITY (W)</b>	<b>POWER (W)</b>	<b>CURRENT (A)</b>
C1	3.389613E+04	3.071095E+03	5.283579E+00
C2	1.252816E+03	5.175467E+00	8.796146E-03
C3	-4.471770E+02	-1.692748E+01	6.684366E-03
C4	2.000461E+01	-6.616824E-01	-1.050546E-03
C5	-1.701728E+01	2.520695E-01	2.589702E-04
C6	1.942382E+00	1.481925E+00	1.877082E-03
C7	1.391224E-01	3.006541E-04	1.660518E-06
C8	-1.793388E-01	1.816040E-02	2.779766E-05
C9	7.695381E-02	-4.126915E-03	-4.319969E-06
C10	-2.816592E-08	-2.786955E-09	-1.222090E-11

Note:The polynomial coefficients subject to change without notice.



**PERFORMANCE DATA (Preliminary Data)**

Compressor Model	<b>C-SBP235H38B</b>
Power Source	<b>3PH 60Hz 440~460V</b>
Suction Gas Superheat(K)	<b>11.1</b>
Sub Cooling(K)	<b>8.3</b>
Compressor Cooling	<b>Natural Cooling</b>
Refrigerant	<b>R410A</b>

**CAPACITY(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	14,560	17,450	19,670	25,080	29,420	32,570	36,050	38,770
40.5	13,390	16,060	18,100	23,080	27,070	29,970	33,170	35,670
45.0	12,500	14,990	16,890	21,540	25,270	27,980	30,970	33,300
50.0	11,570	13,870	15,640	19,940	23,400	25,900	28,670	30,830
54.4		12,960	14,610	18,630	21,860	24,200	26,790	28,810
60.0			13,400	17,090	20,060	22,200	24,580	26,430
65.0				15,840	18,590	20,580	22,780	24,500

**POWER(W)**

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	4,920	4,970	5,000	5,070	5,120	5,150	5,180	5,200
40.5	5,550	5,600	5,630	5,690	5,740	5,770	5,800	5,820
45.0	6,160	6,190	6,220	6,280	6,320	6,350	6,390	6,410
50.0	6,930	6,950	6,960	7,010	7,050	7,090	7,120	7,150
54.4		7,690	7,690	7,720	7,770	7,800	7,840	7,870
60.0			8,720	8,730	8,770	8,800	8,850	8,880
65.0				9,720	9,760	9,790	9,840	9,880

**CURRENT(A)**

@440V

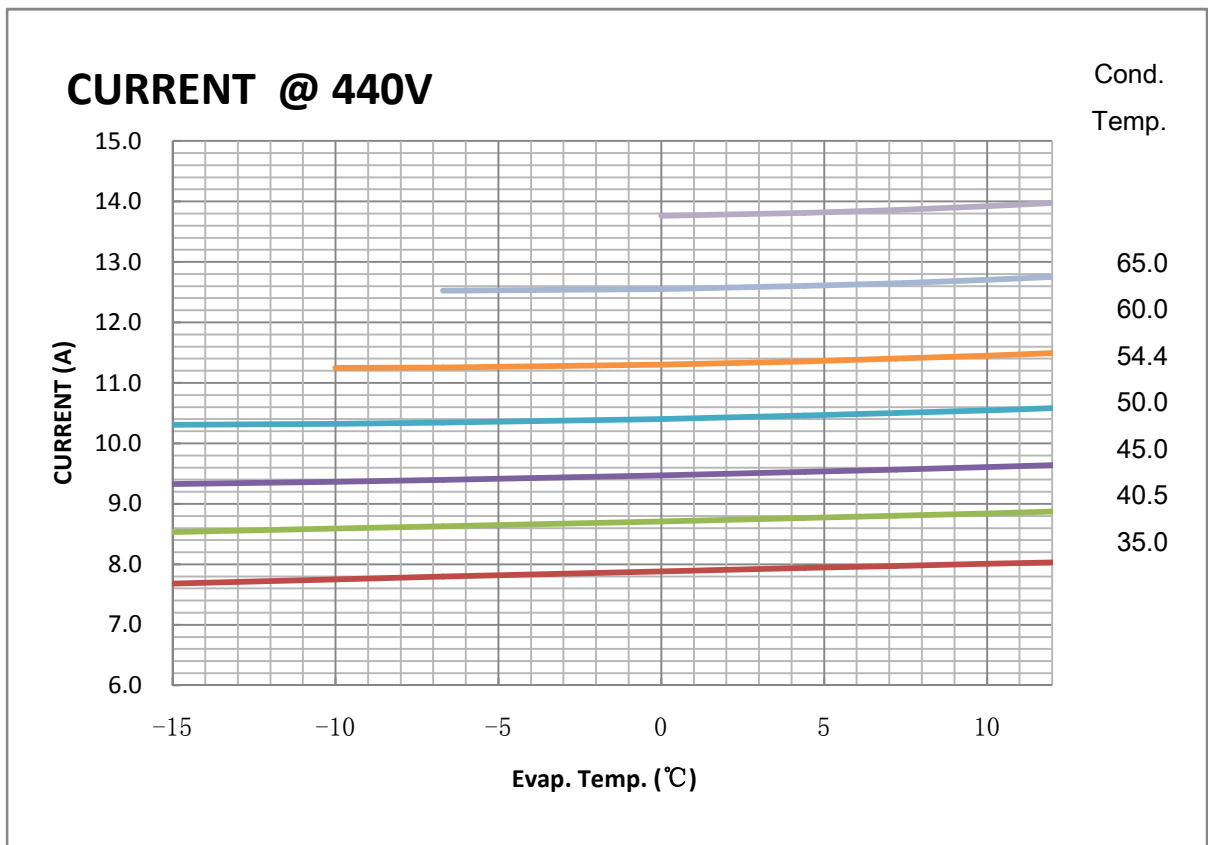
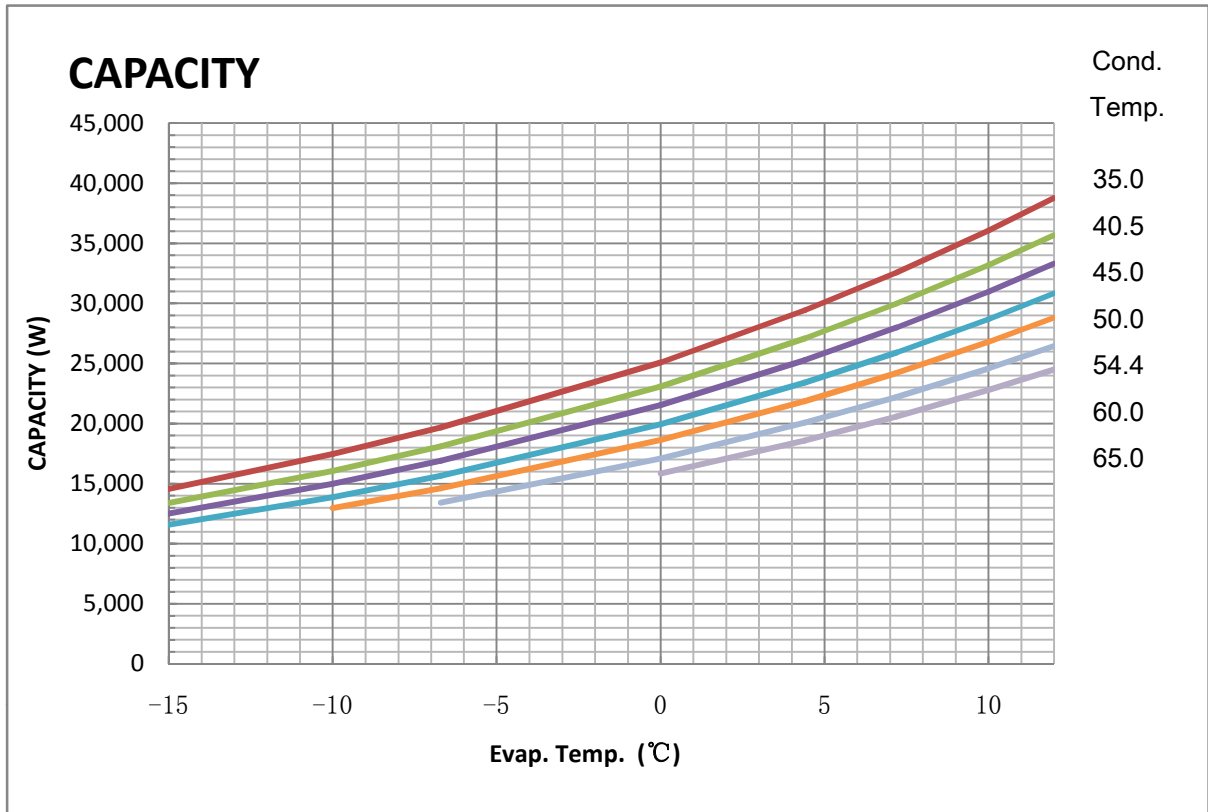
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	10	12
35.0	7.7	7.7	7.8	7.9	7.9	8.0	8.0	8.0
40.5	8.5	8.6	8.6	8.7	8.8	8.8	8.8	8.9
45.0	9.3	9.4	9.4	9.5	9.5	9.6	9.6	9.6
50.0	10.3	10.3	10.3	10.4	10.5	10.5	10.5	10.6
54.4		11.2	11.3	11.3	11.4	11.4	11.5	11.5
60.0			12.5	12.6	12.6	12.6	12.7	12.8
65.0				13.8	13.8	13.9	13.9	14.0

**NOTE:**

\* The performance values subject to change without notice.

Compressor Model(Code)  
Power Source

C-SBP235H38B  
3PH 60Hz 440~460V



## COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model           **C-SBP235H38B**  
 Power Source               **3PH 60Hz 440~460V**  
 Suction Gas Superheat (K) **11.1**  
 Sub Cooling (K)           **8.3**  
 Compressor Cooling       **Natural Cooling**  
 Refrigerant                 **R410A**

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

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

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

<b>440V-60Hz</b>	CAPACITY (W)	POWER (W)	CURRENT (A)
C1	4.117438E+04	3.649308E+03	5.330093E+00
C2	1.527070E+03	5.025888E+00	8.843992E-03
C3	-5.419763E+02	-2.078373E+01	6.752506E-03
C4	2.442199E+01	-7.671413E-01	-1.059532E-03
C5	-2.086881E+01	3.225781E-01	2.625450E-04
C6	2.344192E+00	1.758666E+00	1.893613E-03
C7	1.701044E-01	2.193274E-03	1.675876E-06
C8	-2.198141E-01	2.087628E-02	2.803812E-05
C9	9.561399E-02	-5.038340E-03	-4.371427E-06
C10	-9.669665E-09	-1.495208E-08	-1.176042E-11

Note:The polynomial coefficients subject to change without notice.