

SPECIFICATIONS OF COMPRESSOR

Model No: 9CC089LA04

Output : 8 HP



Sonyo Compressor (Dalian) Co., Ltd.

1-Jul-24

GENERAL SPECIFICATIONS

Model No:		9CC089LA04			
Application					
Evaporating Temp Range	(°C)	-25.0 ~ 27.0			
Refrigerant		R32			
Compressor Cooling		Natural Cooling			
Rated Performance					
Capacity	(W)	23500/28200			
Input	(W)	8000/9600			
Current	(A)	14.1/16.9			
Revolution	(min ⁻¹)	2900/3450			
Sound Level	(dB(A))	72Max./			
Rating Conditions					
Power Source		3-PH 50Hz	380V/3-PH 60Hz	440V	
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	(cm3)	89.2			
Suction Line Connection	(Φ mm 0D)	34.93			
Discharge Line Connection	(Φ mm 0D)	22.22			
Oil	(ml)	2700 (FW68S)			
Mass(Incl.Oil)	(kg)	68.5			
Motor					
Type		3-PH Induction Motor(3IR)			
Pole		2			
Rated Power Source		3-PH 50Hz	380-415V/3PH 60Hz	440-460V	
Voltage Range	(V)	342 ~ 456 /396 ~ 506			
Starting Current	(A)	-			

Sonyo Compressor (Dalian) Co., Ltd.

PERFORMANCE DATA

Compressor Model	9CC089LA04
Power Source	3PH 50Hz 380-415V
Suction Gas Superheat(°C)	11.1
Sub Cooling(°C)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R32

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	12,350	15,060	17,170	22,410	26,680	29,820	36,080	40,640
40.5	11,820	14,340	16,290	21,110	25,020	27,880	33,570	37,700
45.0	11,390	13,770	15,600	20,090	23,730	26,380	31,640	35,440
50.0	10,940	13,150	14,860	19,020	22,370	24,810	29,610	33,080
54.4		12,640	14,240	18,130	21,240	23,500	27,940	31,130
60.0			13,480	17,050	19,890	21,940	25,950	28,820
65.0				16,140	18,760	20,630	24,300	26,910

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	5,110	5,240	5,280	5,300	5,250	5,190	5,050	4,940
40.5	5,710	5,840	5,900	5,930	5,890	5,840	5,720	5,620
45.0	6,270	6,400	6,470	6,520	6,500	6,460	6,360	6,270
50.0	6,960	7,110	7,170	7,250	7,260	7,240	7,170	7,110
54.4		7,790	7,860	7,970	8,000	8,000	7,980	7,940
60.0			8,830	8,970	9,040	9,080	9,110	9,130
65.0				9,960	10,070	10,140	10,240	10,300

CURRENT(A)

@380V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	10.0	10.1	10.2	10.2	10.1	10.1	9.9	9.7
40.5	10.8	11.0	11.1	11.1	11.1	11.0	10.9	10.7
45.0	11.6	11.8	11.9	12.0	12.0	11.9	11.8	11.7
50.0	12.5	12.7	12.9	13.0	13.1	13.0	13.0	12.9
54.4		13.6	13.8	14.0	14.1	14.1	14.1	14.0
60.0			15.0	15.3	15.5	15.6	15.6	15.6
65.0				16.6	16.9	17.0	17.1	17.2

FLOW (kg/h)

@380V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	161.6	196.0	222.6	288.2	341.5	380.5	457.9	514.1
40.5	161.4	194.8	220.6	283.8	335.0	372.2	445.9	499.2
45.0	161.2	193.9	219.0	280.3	329.7	365.5	436.3	487.3
50.0	161.1	192.9	217.2	276.5	323.9	358.3	425.9	474.5
54.4		192.0	215.6	273.1	318.9	352.0	416.9	463.4
60.0			213.7	268.9	312.7	344.2	405.7	449.7
65.0				265.2	307.2	337.3	396.0	437.8

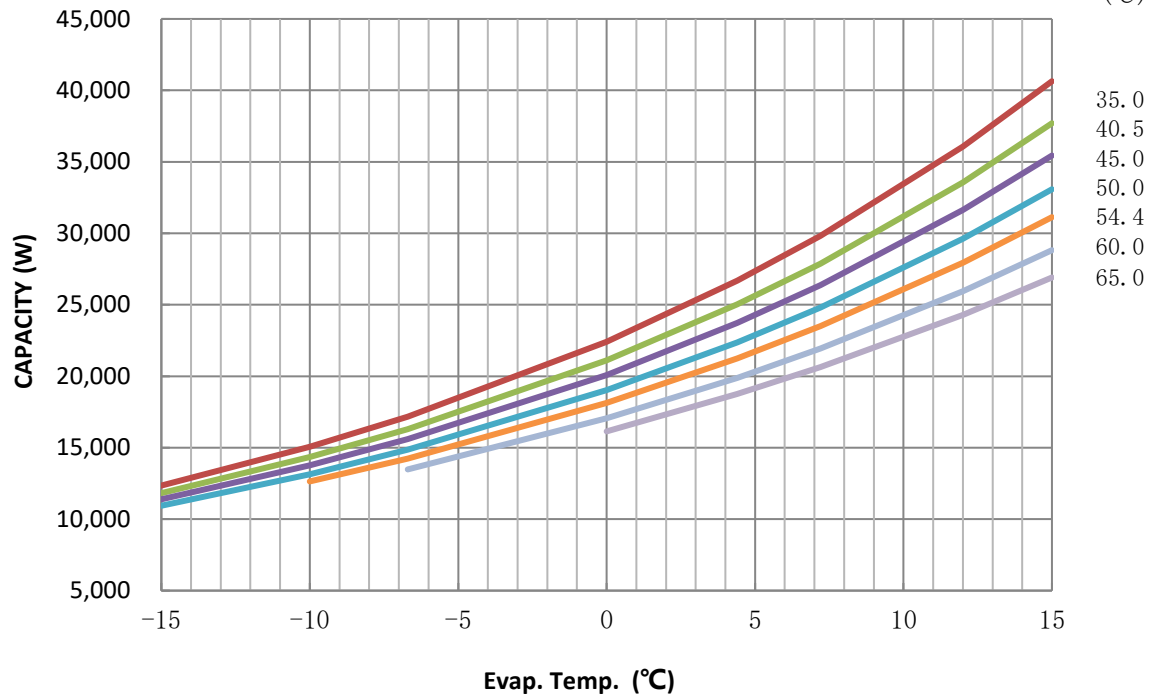
Compressor Model(Code)

9CC089LA04

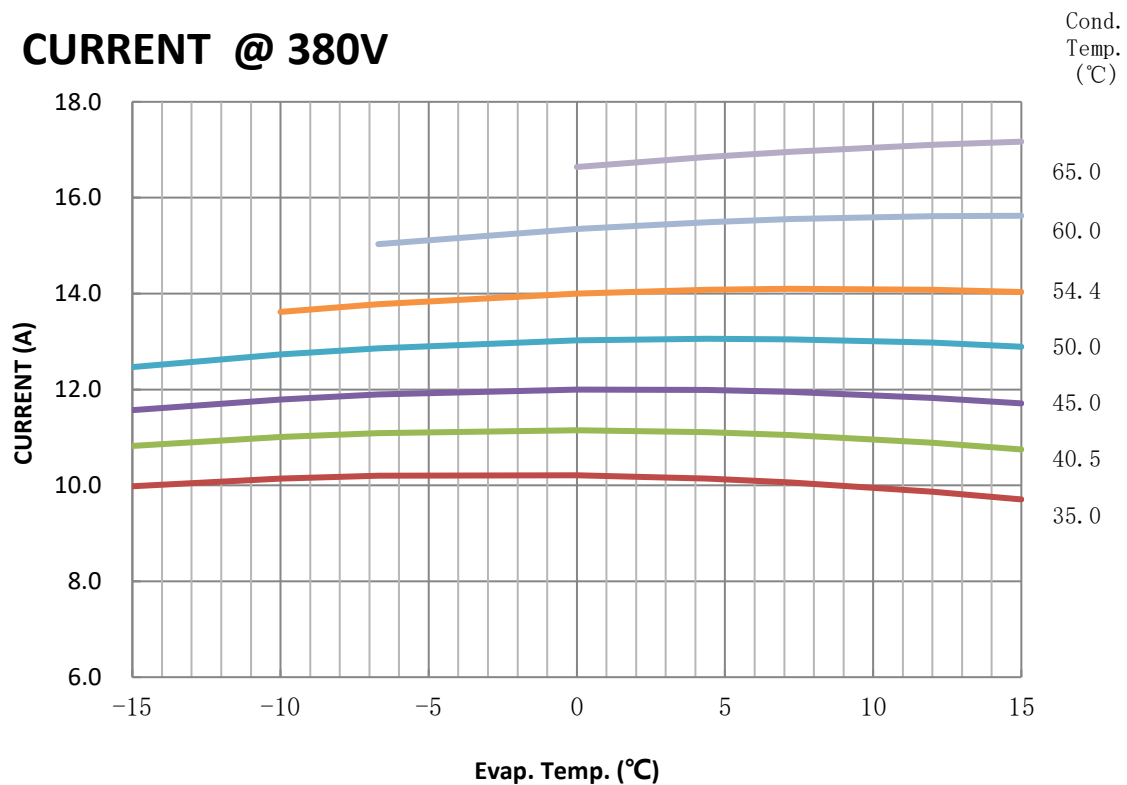
Power Source

3PH 50Hz 380-415V

CAPACITY



CURRENT @ 380V



COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model 9CC089LA04
 Power Source 3PH 50Hz 380-415V
 Suction Gas Superheat (K) 11.1
 Sub Cooling (K) 8.3
 Compressor Cooling Natural Cooling
 Refrigerant R32

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

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

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

<u>380V-50Hz</u>	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	3.226086E+04	3.786590E+03	6.834981E+00	3.162351E+02
C2	1.572682E+03	2.190098E+01	1.262183E-03	1.475489E+01
C3	-3.224921E+02	-1.686701E+01	3.318039E-02	-8.392702E-01
C4	2.976266E+01	-2.206420E+00	-2.071569E-03	3.132027E-01
C5	-2.343763E+01	-1.862428E+00	-1.607373E-03	-1.143866E-01
C6	1.152951E+00	1.721988E+00	1.811390E-03	8.629072E-04
C7	1.922328E-01	3.150678E-03	1.663900E-06	2.404408E-03
C8	-3.314814E-01	2.576021E-02	1.137918E-05	-2.616086E-03
C9	1.185625E-01	3.027689E-02	3.722444E-05	3.553320E-04
C10	-6.247791E-08	-2.577598E-08	-1.139128E-11	-3.240304E-11

Note: The polynomial coefficients subject to change without notice.

PERFORMANCE DATA

Compressor Model	9CC089LA04
Power Source	3PH 60Hz 440-460V
Suction Gas Superheat(°C)	11.1
Sub Cooling(°C)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R32

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	14,820	18,080	20,610	26,890	32,020	35,780	43,300	48,770
40.5	14,180	17,210	19,550	25,330	30,030	33,460	40,280	45,240
45.0	13,670	16,520	18,720	24,110	28,480	31,660	37,960	42,530
50.0	13,130	15,790	17,830	22,830	26,850	29,770	35,540	39,700
54.4		15,170	17,080	21,750	25,490	28,200	33,530	37,360
60.0			16,180	20,460	23,860	26,320	31,140	34,590
65.0				19,370	22,510	24,760	29,160	32,300

POWER(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	6,140	6,280	6,340	6,360	6,300	6,230	6,060	5,930
40.5	6,850	7,010	7,080	7,110	7,070	7,010	6,870	6,740
45.0	7,520	7,690	7,760	7,820	7,800	7,750	7,630	7,530
50.0	8,350	8,530	8,610	8,700	8,710	8,690	8,610	8,530
54.4		9,340	9,440	9,560	9,600	9,600	9,570	9,530
60.0			10,590	10,770	10,850	10,890	10,940	10,950
65.0				11,950	12,080	12,160	12,290	12,360

CURRENT(A)

@440V

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	12.0	12.2	12.2	12.2	12.2	12.1	11.8	11.6
40.5	13.0	13.2	13.3	13.4	13.3	13.2	13.1	12.9
45.0	13.9	14.1	14.3	14.4	14.4	14.3	14.2	14.0
50.0	14.9	15.3	15.4	15.6	15.7	15.6	15.6	15.5
54.4		16.3	16.5	16.8	16.9	16.9	16.9	16.8
60.0			18.0	18.4	18.6	18.6	18.7	18.7
65.0				19.9	20.2	20.3	20.5	20.6

FLOW (kg/h)

@440V

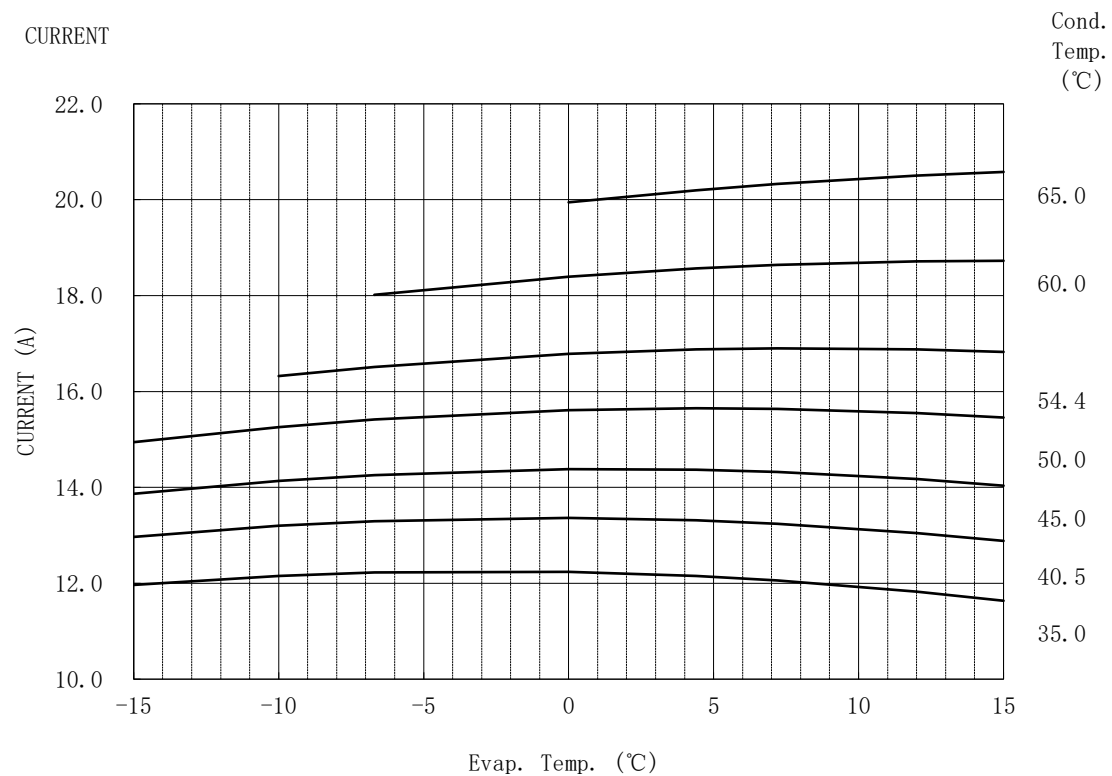
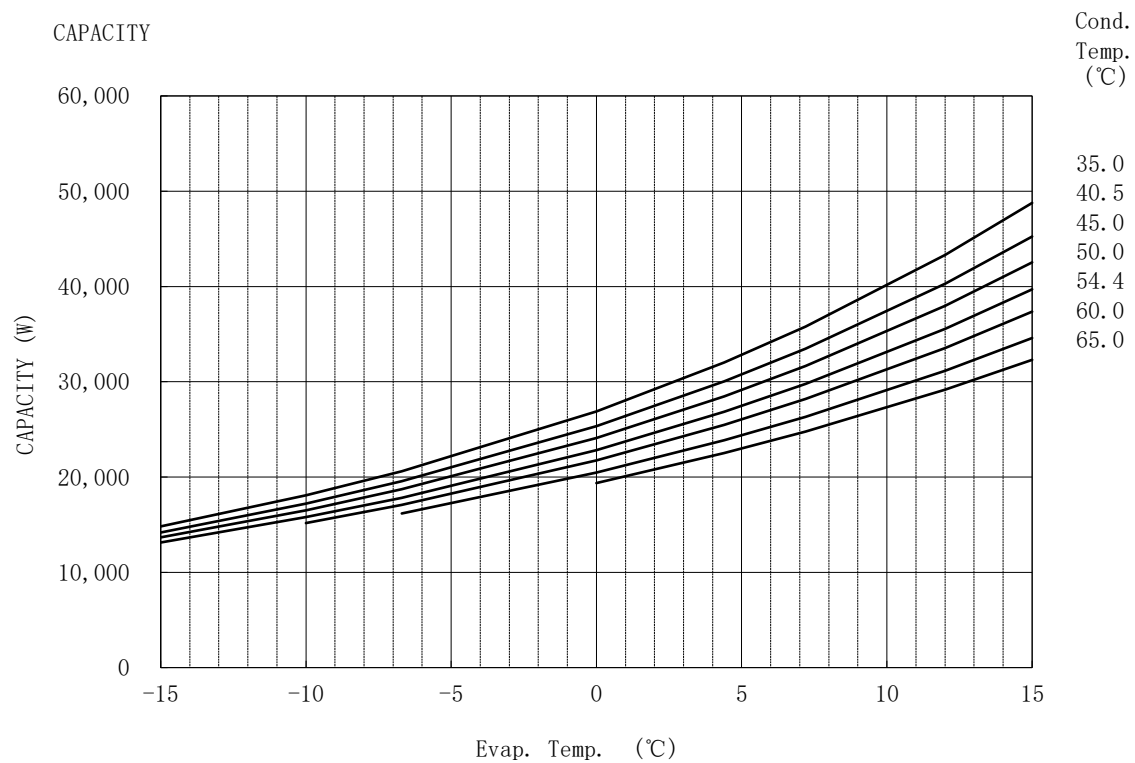
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-15	-10	-6.7	0	4.4	7.2	12	15
35.0	193.7	234.9	266.8	345.5	409.5	456.2	549.0	616.3
40.5	193.5	233.6	264.4	340.3	401.6	446.2	534.6	598.5
45.0	193.3	232.4	262.5	336.1	395.3	438.2	523.1	584.2
50.0	193.1	231.2	260.4	331.4	388.3	429.5	510.6	568.8
54.4		230.1	258.5	327.4	382.3	422.0	499.8	555.6
60.0			256.2	322.4	374.8	412.6	486.4	539.1
65.0				317.9	368.3	404.4	474.8	524.8

Compressor Model(Code)

9CC089LA04

Power Source

3PH 60Hz 440-460V



COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model	9CC089LA04
Power Source	3PH 60Hz 440-460V
Suction Gas Superheat (K)	11.1
Sub Cooling (K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R32

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

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

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

<u>440V-60Hz</u>	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	3.874553E+04	4.522859E+03	8.190800E+00	3.792753E+02
C2	1.885048E+03	2.703240E+01	1.585000E-03	1.770179E+01
C3	-3.881536E+02	-1.931912E+01	3.982981E-02	-1.011965E+00
C4	3.562064E+01	-2.590759E+00	-2.480972E-03	3.751086E-01
C5	-2.803448E+01	-2.279895E+00	-1.930032E-03	-1.373856E-01
C6	1.393614E+00	2.056529E+00	2.170505E-03	1.082753E-03
C7	2.313995E-01	4.370463E-03	2.004924E-06	2.863348E-03
C8	-3.956147E-01	2.966164E-02	1.359375E-05	-3.127786E-03
C9	1.412911E-01	3.692283E-02	4.465630E-05	4.273793E-04
C10	-8.994694E-08	-3.054411E-08	-9.653165E-12	-1.761745E-10

Note:The polynomial coefficients subject to change without notice.