SPECIFICATIONS OF COMPRESSOR

Model No: 7CC220LA01(4)

Output : 12HP

Temporary

Sonyo Compressor (Dalian) Co.,Ltd.

02/Nov/24

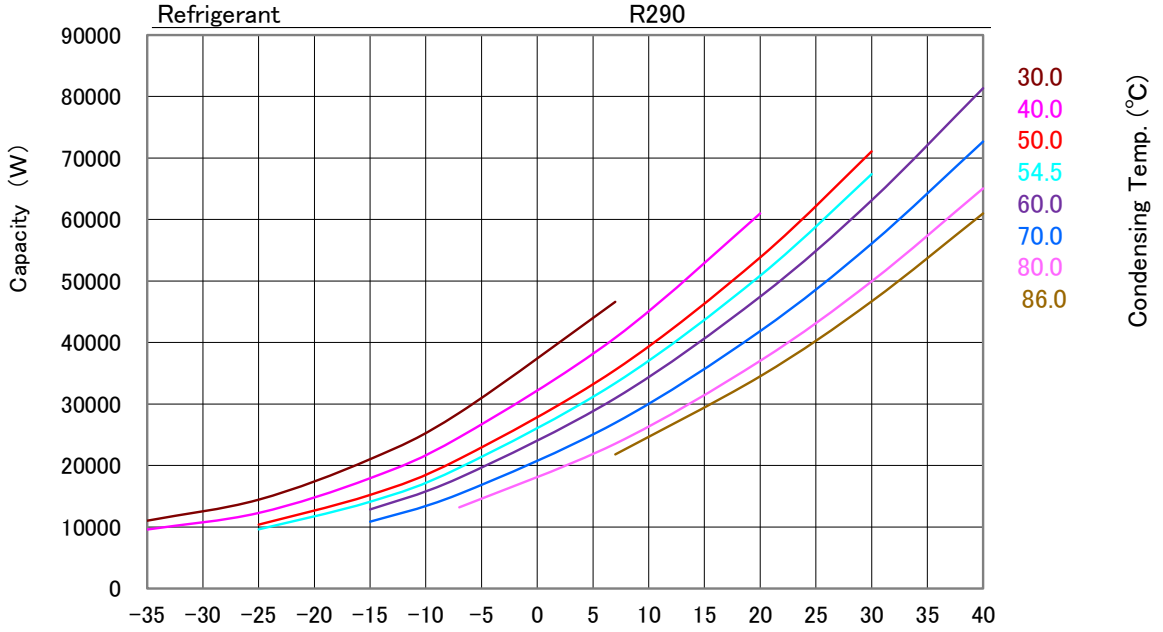
GENERAL SPECIFICATIONS

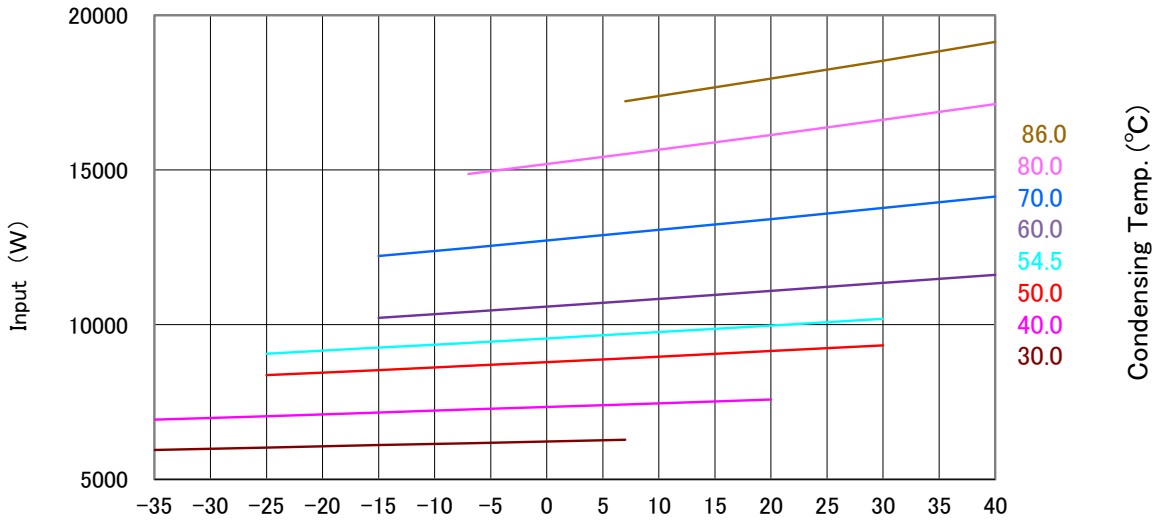
Model No:		7CC220LA01(4)
Application		
Evaporating Temp Range	(℃)	-35 ～ 40
Refrigerant		R290
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	33,400
Input	(W)	9,700
Current	(A)	17.9
Revolution	(min-1)	2900
Sound Level	(dB(A))	-
Rating Conditions		
Power Source		3-PH 50Hz 380V
Evaporating Temp	(℃)	7
Condensing Temp	(℃)	54.5
Suction Gas Temp	(℃)	18.5
Liquid Temp	(℃)	46
Ambient Temp	(℃)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm3)	220.0
Suction Line Connection	(Φmm 0D)	34.93
Discharge Line Connection	(Φmm 0D)	22.23
Oil	(mL)	2800(PZ68S)
Mass(Incl.Oil)	(kg)	74
Motor		
Type		3-PH Induction Motor(3IR)
Pole		2
Rated Power Source		3-PH 50/60Hz 380-415V/440-460V
Voltage Range	(V)	342～506
Starting Current	(A)	-

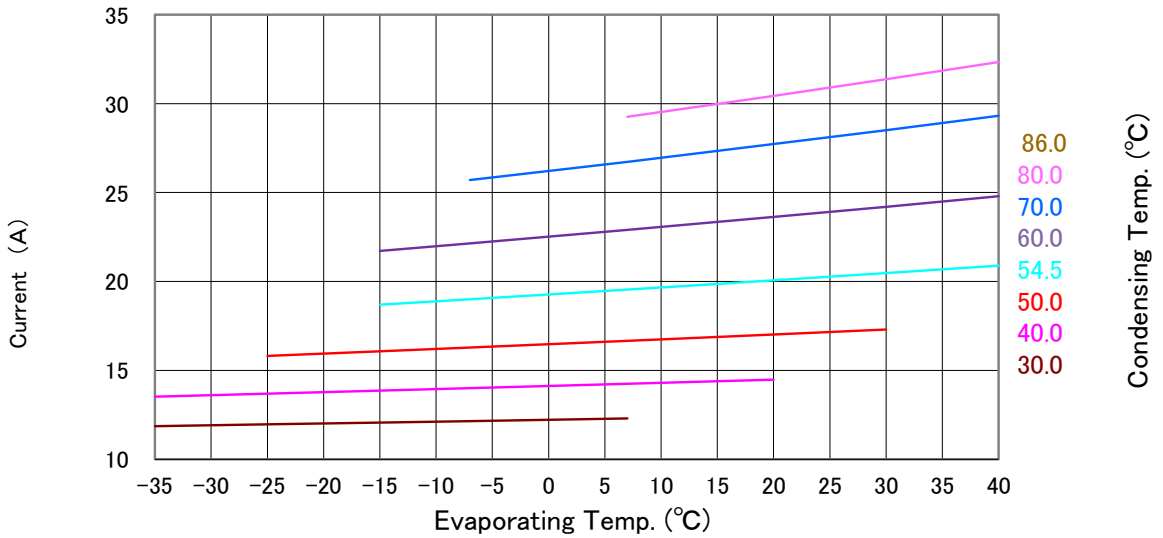
Sonyo Compressor (Dalian) Co.,Ltd.

PERFORMANCE CURVE

Code No.	7CC220LA01(4)
Power Source	3-PH 50Hz 380V
Condensing Temp.(℃)	30、40、50、54.5、60、70、80、86
Suction Gas Superheat(K)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R290







PERFORMANCE DATA

Code No.	7CC220LA01(4)
Power Source	3-PH 50Hz 380V
Condensing Temp.(℃)	30、40、50、54.5、60、70、80、86
Suction Gas Temp.(℃)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R290

Capacity (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	11,030	14,450	21,030	28,560	46,620			
40.0	9,590	12,290	17,940	24,590	40,780	60,990		
50.0		10,390	15,220	21,070	35,550	53,840	71,080	
54.5		9,620	14,110	19,630	33,400	50,870	67,380	
60.0			12,860	18,000	30,940	47,460	63,120	81,350
70.0			10,870	15,370	26,940	41,860	56,080	72,680
80.0				13,200	23,550	37,030	49,940	65,060
86.0					21,810	34,510	46,690	60,990

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	5,950	6,030	6,110	6,170	6,280			
40.0	6,930	7,040	7,160	7,260	7,420	7,580		
50.0		8,370	8,530	8,670	8,910	9,150	9,330	
54.5		9,060	9,260	9,410	9,700	9,970	10,190	
60.0			10,220	10,410	10,760	11,090	11,350	11,610
70.0			12,220	12,480	12,960	13,410	13,770	14,140
80.0				14,870	15,510	16,130	16,620	17,130
86.0					17,220	17,950	18,530	19,140

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	11.9	12.0	12.1	12.2	12.3			
40.0	13.5	13.7	13.9	14.0	14.2	14.5		
50.0		15.8	16.1	16.3	16.7	17.0	17.3	
54.5		16.9	17.2	17.5	17.9	18.3	18.7	
60.0			18.7	19.0	19.5	20.1	20.5	20.9
70.0			21.7	22.1	22.9	23.6	24.2	24.8
80.0				25.7	26.7	27.7	28.5	29.3
86.0					29.3	30.4	31.4	32.3

PERFORMANCE DATA

MassFlow(kg/H)

Condensing Temp.(℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	129	164	226	295	459			
40.0	116	152	216	285	448	646		
50.0		142	206	276	438	635	815	
54.5		137	202	272	434	629	809	
60.0			197	267	429	623	802	1,005
70.0			188	258	419	612	788	989
80.0				250	410	600	775	974
86.0					404	594	767	964

COP

Condensing Temp.(℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	1.85	2.40	3.44	4.63	7.42			
40.0	1.38	1.75	2.51	3.39	5.50	8.05		
50.0		1.24	1.78	2.43	3.99	5.88	7.62	
54.5		1.06	1.52	2.09	3.44	5.10	6.61	
60.0			1.26	1.73	2.88	4.28	5.56	7.01
70.0			0.89	1.23	2.08	3.12	4.07	5.14
80.0				0.89	1.52	2.30	3.00	3.80
86.0					1.27	1.92	2.52	3.19

Coefficients of Polynominal Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow(kg/H)
C1	5.479206E+04	4.960377E+03	9.271329E+00	4.032393E+02
C2	1.757918E+03	9.038000E+00	9.124374E-03	1.166647E+01
C3	-6.803784E+02	-9.017828E+00	3.075790E-02	-1.163482E+00
C4	1.861028E+01	-3.835579E-02	-6.355261E-05	1.459415E-01
C5	-1.735374E+01	-3.167312E-01	-3.961280E-04	1.726063E-03
C6	2.735249E+00	1.711439E+00	2.263360E-03	2.206780E-03
C7	4.434974E-04	4.931739E-05	5.810698E-08	9.557889E-06
C8	-9.547477E-02	1.251767E-03	1.877643E-06	-3.196242E-04
C9	5.762749E-02	9.631724E-03	1.493870E-05	-6.444670E-05
C10	-4.348690E-10	-1.748976E-08	-4.903491E-12	-5.592343E-10

Note:The polynomial coefficients subject to change without notice.

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

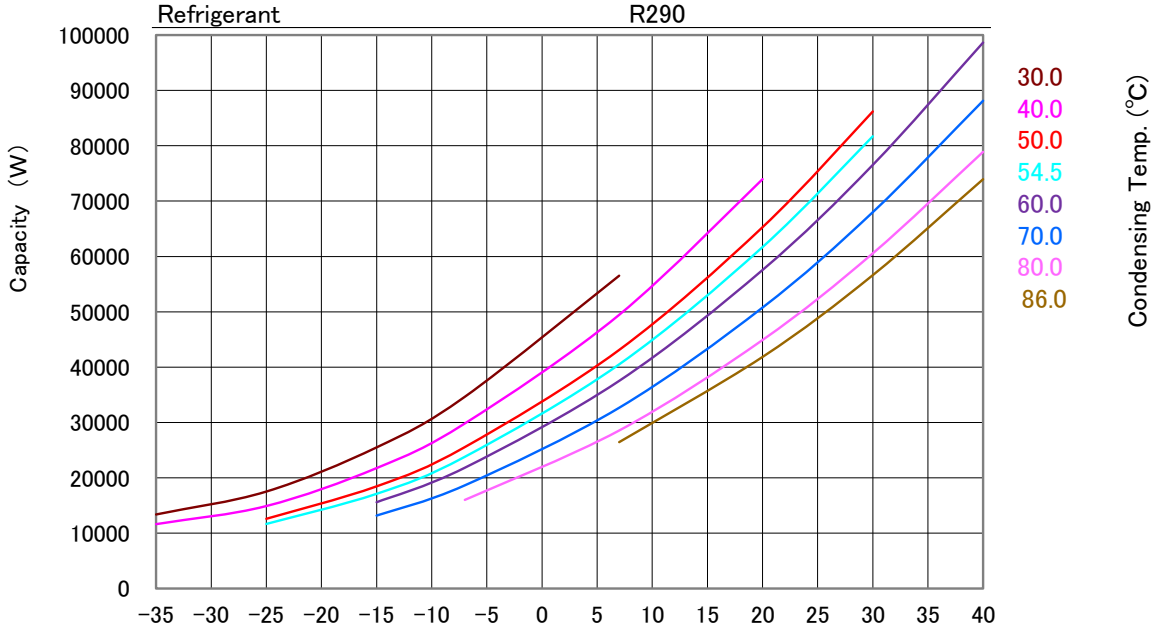
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

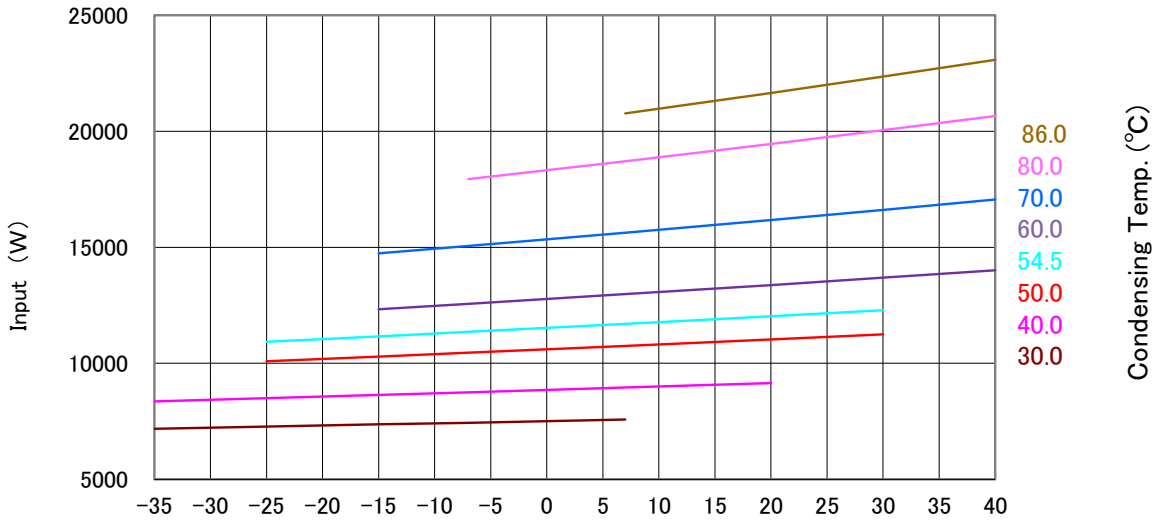
S——EVAPORATING TEMP, °C

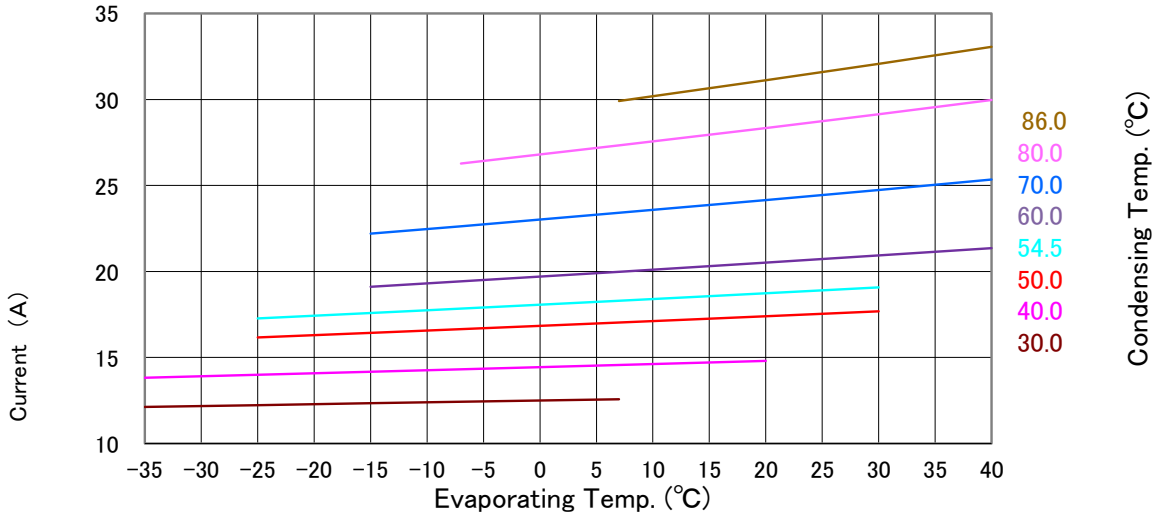
D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	7CC220LA01(4)
Power Source	3-PH 60Hz 440V
Condensing Temp.(℃)	30、40、50、54.5、60、70、80、86
Suction Gas Superheat(K)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R290







PERFORMANCE DATA

Code No.	7CC220LA01(4)
Power Source	3-PH 60Hz 440V
Condensing Temp.(℃)	30、40、50、54.5、60、70、80、86
Suction Gas Temp.(℃)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R290

Capacity (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	13,380	17,520	25,500	34,640	56,520			
40.0	11,630	14,900	21,760	29,820	49,450	73,960		
50.0		12,600	18,460	25,550	43,110	65,280	86,190	
54.5		11,670	17,110	23,800	40,500	61,690	81,710	
60.0			15,590	21,820	37,520	57,550	76,540	98,640
70.0			13,180	18,640	32,660	50,760	68,000	88,130
80.0				16,010	28,550	44,900	60,560	78,890
86.0					26,450	41,840	56,620	73,950

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	7,180	7,270	7,370	7,440	7,580			
40.0	8,360	8,500	8,640	8,750	8,960	9,150		
50.0		10,090	10,290	10,460	10,750	11,030	11,250	
54.5		10,930	11,160	11,360	11,700	12,030	12,290	
60.0			12,330	12,560	12,980	13,370	13,690	14,010
70.0			14,740	15,060	15,630	16,180	16,610	17,060
80.0				17,940	18,710	19,450	20,050	20,660
86.0					20,770	21,650	22,360	23,080

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	12.1	12.2	12.3	12.4	12.6			
40.0	13.8	14.0	14.2	14.3	14.6	14.8		
50.0		16.2	16.4	16.6	17.0	17.4	17.7	
54.5		17.3	17.6	17.8	18.3	18.7	19.1	
60.0			19.1	19.4	20.0	20.5	20.9	21.4
70.0			22.2	22.6	23.4	24.2	24.7	25.3
80.0				26.3	27.3	28.3	29.1	30.0
86.0					29.9	31.1	32.1	33.1

PERFORMANCE DATA

MassFlow(kg/H)

Condensing Temp.(℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	155	198	273	356	554			
40.0	140	184	260	345	541	780		
50.0		171	249	333	529	766	984	
54.5		166	244	328	524	760	977	
60.0			238	322	518	752	968	1,214
70.0			227	312	506	738	952	1,195
80.0				302	494	725	936	1,176
86.0					488	717	926	1,164

COP

Condensing Temp.(℃) \ Evaporating Temp. (℃)	-35	-25	-15	-7	7	20	30	40
30.0	1.86	2.41	3.46	4.66	7.46			
40.0	1.39	1.75	2.52	3.41	5.52	8.08		
50.0		1.25	1.79	2.44	4.01	5.92	7.66	
54.5		1.07	1.53	2.10	3.46	5.13	6.65	
60.0			1.26	1.74	2.89	4.30	5.59	7.04
70.0			0.89	1.24	2.09	3.14	4.09	5.17
80.0				0.89	1.53	2.31	3.02	3.82
86.0					1.27	1.93	2.53	3.20

Coefficients of Polynominal Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow(kg/H)
C1	6.643879E+04	5.988967E+03	9.478563E+00	4.869091E+02
C2	2.131030E+03	1.082065E+01	9.331568E-03	1.414162E+01
C3	-8.249573E+02	-1.105308E+01	3.144351E-02	-1.394362E+00
C4	2.256544E+01	-4.753225E-02	-6.499426E-05	1.751214E-01
C5	-2.102449E+01	-3.780720E-01	-4.051039E-04	-4.761756E-05
C6	3.316044E+00	2.066123E+00	2.313951E-03	2.467955E-03
C7	6.245796E-04	2.005107E-05	5.923183E-08	5.947981E-06
C8	-1.157276E-01	1.483363E-03	1.919911E-06	-3.663439E-04
C9	6.972378E-02	1.157935E-02	1.527364E-05	-5.723885E-05
C10	5.174101E-09	-9.299375E-09	-8.001279E-12	-8.918610E-10

Note:The polynomial coefficients subject to change without notice.

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

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

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C