SPECIFICATIONS OF COMPRESSOR

Model No: LCF325LA04

Output : 20 HP

Temporary

Sonyo Compressor (Dalian) Co.,Ltd.

28/Jul/25

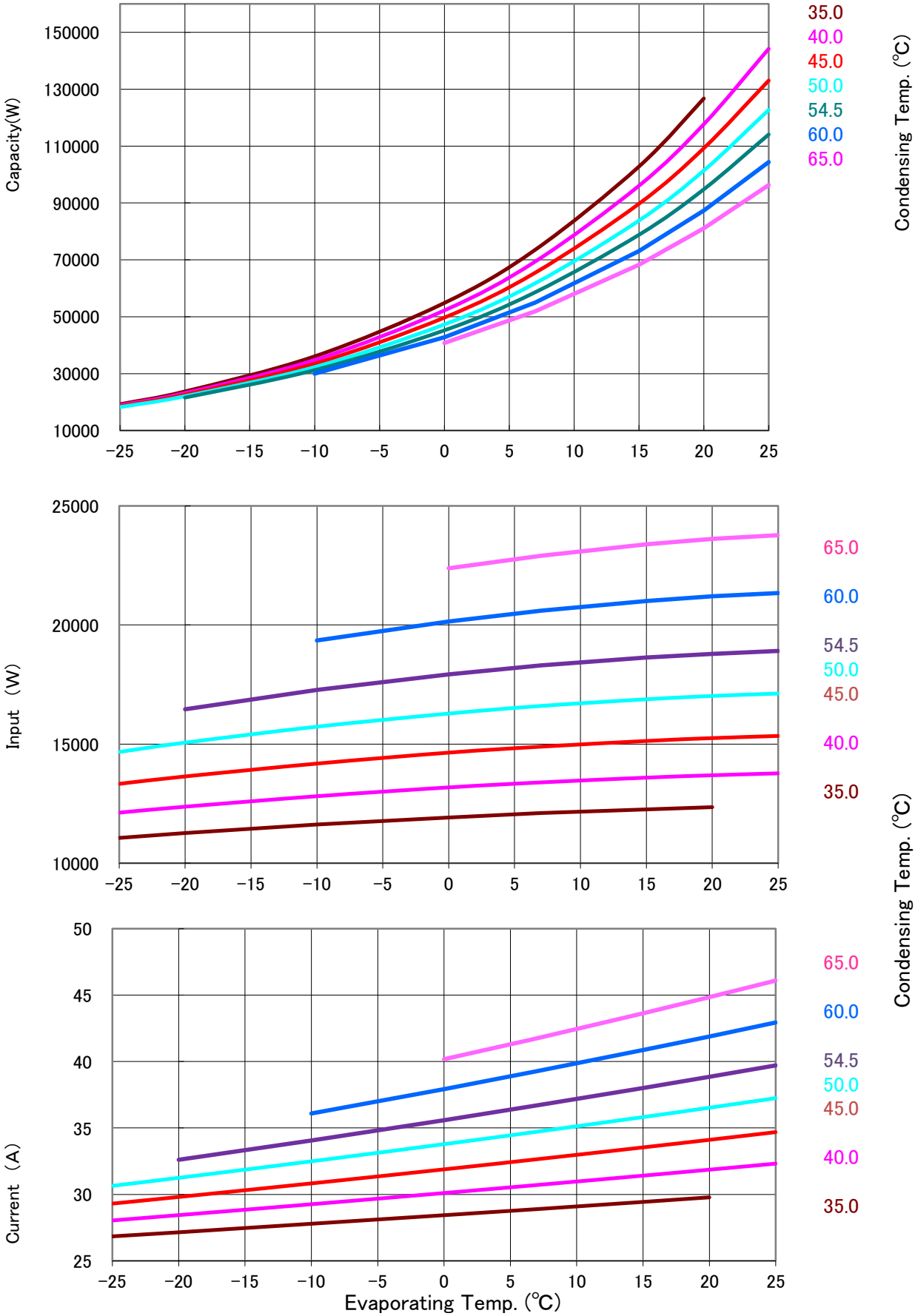
GENERAL SPECIFICATIONS

Model No:		LCF325LA04
Application		
Evaporating Temp Range	(℃)	−25 ～ 25
Refrigerant		R407C
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	58600/69000
Input	(W)	18300/22400
Current	(A)	36.7/44
Revolution	(min^{-1})	2950/3550
Sound Level	(dB(A))	−
Rating Conditions		
Power Source		3-PH 50Hz 380V/60 Hz 440V
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)	325.0
Suction Line Connection	(Φmm 0D)	41.2
Discharge Line Connection	(Φmm 0D)	34.9
Oil	(ml)	4800(FV68S)
Mass(Incl.Oil)	(kg)	102
Motor		
Type		3-PH Induction Motor(3IR)
Pole		2
Rated Power Source		3-PH 50Hz 380-415V/ 60Hz 440-460
Voltage Range	(V)	342～456 /396～506
Starting Current	(A)	−

Sonyo Compressor (Dalian) Co.,Ltd.

PERFORMANCE CURVE

Code No.	LCF325LA04
Power Source	3-PH 50Hz 380V
Condensing Temp.(℃)	35、40、45、50、54.5、60、65
Super Heating (K)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R407C



PERFORMANCE DATA

Code No.	LCF325LA04
Power Source	3-PH 50Hz 380V
Condensing Temp.(℃)	35、40、45、50、54.5、60、65
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Compressor Cooling	Natural Cooling
Refrigerant	R407C

Capacity(W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	19,240	23,730	36,070	54,840	73,530	102,800	126,750	
40	18,900	23,160	34,770	52,210	69,390	96,050	117,690	144,210
45.0	18,560	22,600	33,510	49,690	65,470	89,720	109,260	133,040
50	18,230	22,050	32,290	47,290	61,760	83,800	101,400	122,710
55		21,570	31,230	45,220	58,600	78,800	94,810	114,090
60			29,980	42,820	54,960	73,090	87,350	104,380
65				40,760	51,850	68,270	81,080	96,290

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	11,060	11,260	11,620	11,920	12,100	12,260	12,350	
40	12,120	12,370	12,810	13,180	13,390	13,590	13,690	13,770
45.0	13,330	13,640	14,180	14,640	14,890	15,130	15,250	15,340
50	14,670	15,060	15,730	16,280	16,600	16,880	17,020	17,120
55		16,460	17,270	17,930	18,300	18,630	18,790	18,910
60			19,350	20,150	20,600	21,010	21,200	21,340
65				22,380	22,910	23,390	23,610	23,770

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	26.8	27.2	27.8	28.4	28.9	29.4	29.8	
40	28.0	28.4	29.3	30.1	30.7	31.4	31.9	32.3
45.0	29.3	29.8	30.8	31.9	32.6	33.5	34.1	34.7
50	30.6	31.2	32.5	33.8	34.7	35.8	36.5	37.2
55		32.6	34.1	35.6	36.7	38.0	38.8	39.7
60			36.1	37.9	39.3	40.9	41.9	42.9
65				40.2	41.8	43.6	44.8	46.1

Mass Flow(kg/H)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	448	545	807	1,193	1,570	2,147	2,612	
40	449	544	799	1,173	1,536	2,089	2,532	3,068
45.0	449	542	791	1,154	1,502	2,032	2,454	2,964
50	449	541	783	1,134	1,470	1,977	2,379	2,863
55		539	776	1,117	1,441	1,928	2,313	2,774
60			768	1,096	1,407	1,870	2,235	2,670
65				1,078	1,376	1,819	2,166	2,579

Coefficients of Polynominal Formula

	Capacity(W)	Input （W）	Current （A）	Mass Flow(kg/H)
C1	7.482073E+04	8.324924E+03	2.012150E+01	1.306520E+03
C2	4.633846E+03	2.112251E+01	-1.732875E-02	6.576331E+01
C3	-6.610064E+02	-3.012873E+01	1.272938E-01	-3.443614E+00
C4	9.059385E+01	6.450460E-01	-1.835830E-03	1.397971E+00
C5	-8.148415E+01	-7.112381E-01	-1.884014E-03	-6.191365E-01
C6	2.175268E+00	3.787648E+00	2.623264E-03	-9.185402E-04
C7	5.575740E-01	-9.073631E-04	4.150304E-06	1.112996E-02
C8	-1.079957E+00	-2.560847E-02	5.130182E-05	-1.142853E-02
C9	4.798000E-01	2.554609E-02	1.263133E-04	2.672915E-03
C10	-5.683656E-07	1.179584E-08	-3.287282E-11	-5.798101E-10

Note:The polynomial coefficients subject to change without notice.

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

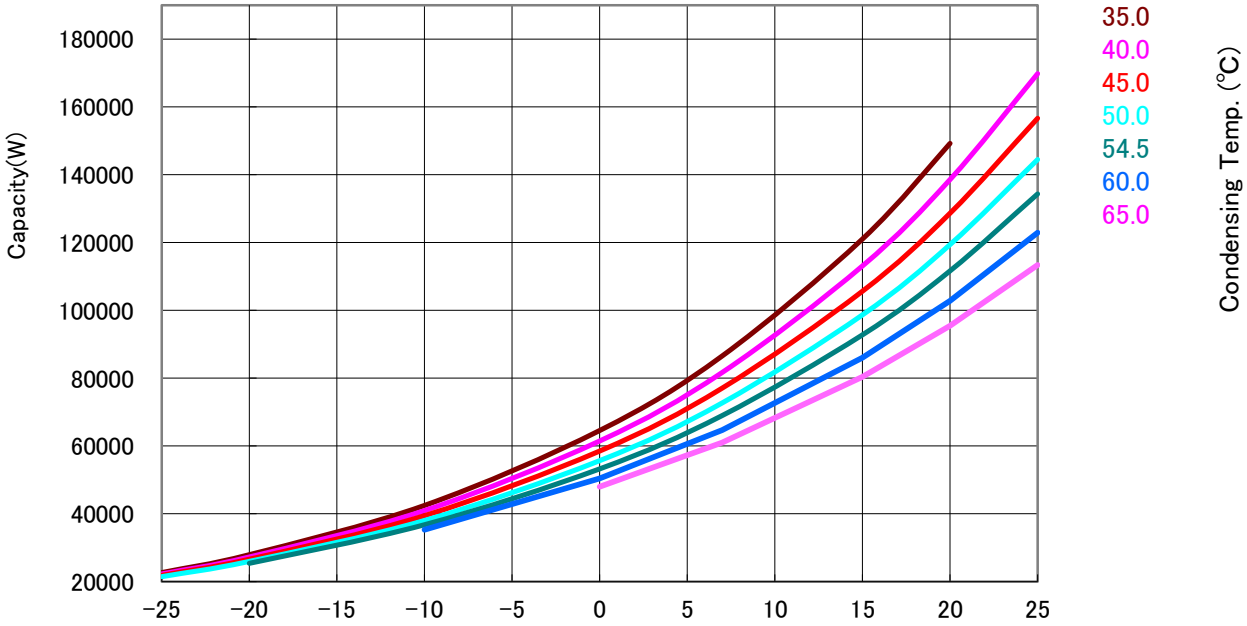
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

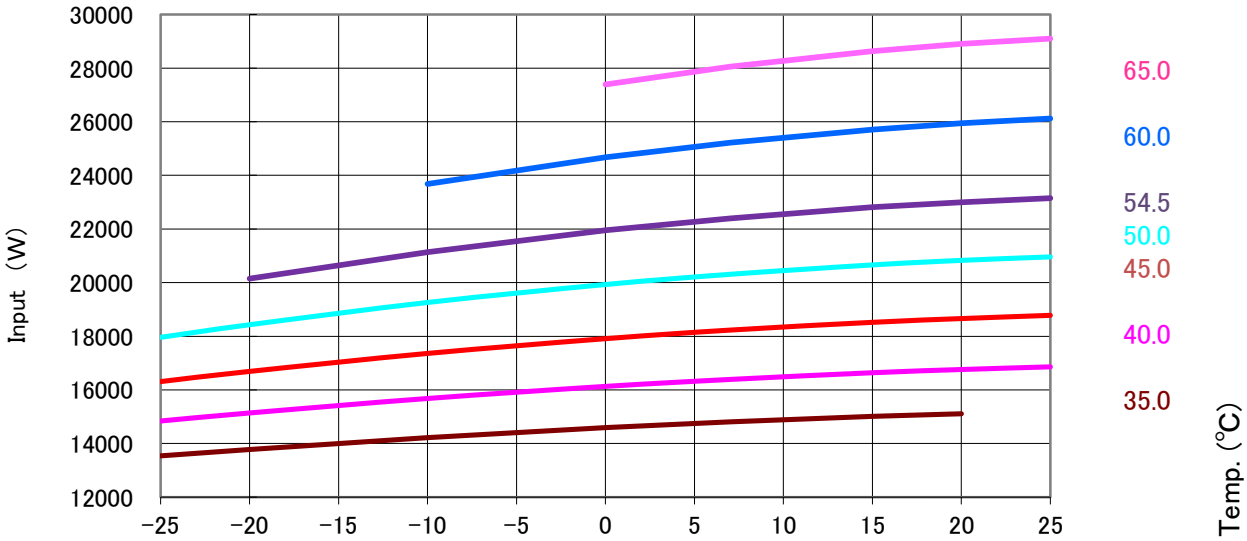
S——EVAPORATING TEMP, °C

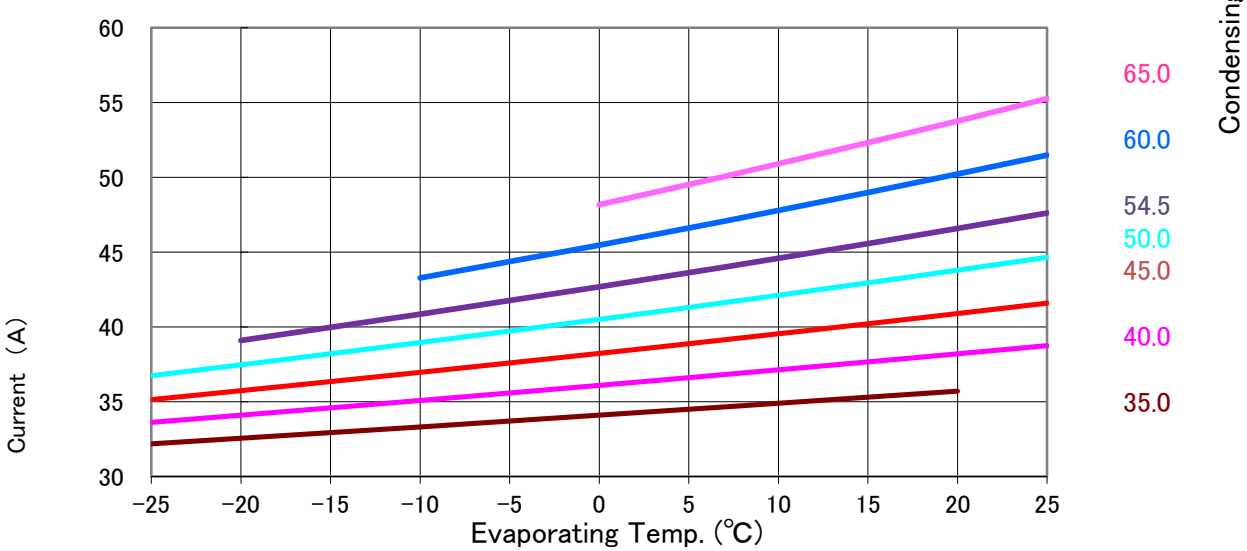
D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	LCF325LA04
Power Source	3-PH 60Hz 440V
Condensing Temp.(℃)	35、40、45、50、54.5、60、65
Super Heating (K)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R407C







PERFORMANCE DATA

Code No.	LCF325LA04
Power Source	3-PH 60Hz 440V
Condensing Temp.(℃)	35、40、45、50、54.5、60、65
Super Heating (K)	11.5
Sub Cooled(K)	8.5
Compressor Cooling	Natural Cooling
Refrigerant	R407C

Capacity(W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	22,660	27,940	42,470	64,570	86,580	121,040	149,250	
40	22,260	27,270	40,950	61,480	81,710	113,100	138,580	169,810
45	21,860	26,610	39,460	58,510	77,090	105,650	128,650	156,650
50	21,460	25,970	38,030	55,680	72,720	98,670	119,400	144,490
54.5		25,400	36,780	53,250	69,000	92,780	111,640	134,340
60			35,310	50,420	64,710	86,060	102,850	122,910
65				47,990	61,060	80,390	95,470	113,380

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	13,540	13,780	14,220	14,590	14,810	15,010	15,110	
40	14,840	15,140	15,680	16,130	16,390	16,640	16,760	16,860
45	16,310	16,690	17,360	17,910	18,230	18,520	18,660	18,780
50	17,960	18,430	19,260	19,930	20,310	20,660	20,830	20,960
54.5		20,150	21,140	21,950	22,400	22,810	23,000	23,150
60			23,680	24,670	25,220	25,710	25,950	26,120
65				27,390	28,050	28,630	28,900	29,100

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	32.2	32.6	33.3	34.1	34.6	35.3	35.7	
40	33.6	34.1	35.1	36.1	36.8	37.7	38.2	38.7
45	35.1	35.7	37.0	38.2	39.1	40.2	40.9	41.6
50	36.7	37.5	39.0	40.5	41.6	42.9	43.8	44.7
54.5		39.1	40.8	42.7	44.0	45.6	46.6	47.6
60			43.3	45.5	47.1	49.0	50.2	51.5
65				48.2	50.1	52.3	53.8	55.3

Mass Flow(kg/H)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-25	-20	-10	0	7	15	20	25
35	529	643	952	1,408	1,852	2,533	3,081	
40	529	642	942	1,384	1,812	2,464	2,987	3,620
45	530	640	933	1,361	1,772	2,397	2,895	3,496
50	530	638	924	1,338	1,734	2,332	2,806	3,377
54.5		636	916	1,318	1,700	2,275	2,728	3,273
60			906	1,293	1,659	2,206	2,636	3,150
65				1,272	1,623	2,146	2,555	3,042

Coefficients of Polynominal Formula

	Capacity(W)	Input （W）	Current （A）	Mass Flow(kg/H)
C1	8.808599E+04	1.018889E+04	2.412543E+01	1.541049E+03
C2	5.456371E+03	2.542770E+01	-2.095522E-02	7.760422E+01
C3	-7.776932E+02	-3.694072E+01	1.525458E-01	-4.049899E+00
C4	1.066750E+02	7.952475E-01	-2.201862E-03	1.649598E+00
C5	-9.595991E+01	-8.526263E-01	-2.250672E-03	-7.315353E-01
C6	2.555298E+00	4.637757E+00	3.145768E-03	-1.212057E-03
C7	6.567976E-01	-1.073874E-03	4.970301E-06	1.313577E-02
C8	-1.271700E+00	-3.143189E-02	6.152819E-05	-1.349037E-02
C9	5.651162E-01	3.108943E-02	1.513508E-04	3.166192E-03
C10	-6.595476E-07	1.850081E-08	-2.287926E-11	-8.546190E-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

Section 5. Operating Envelope

Refrigerant: R407C

Suction Gas Temp. : 18.5℃