SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS145H38A

Output : 4 HP

Temporary

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

19/Jul/19

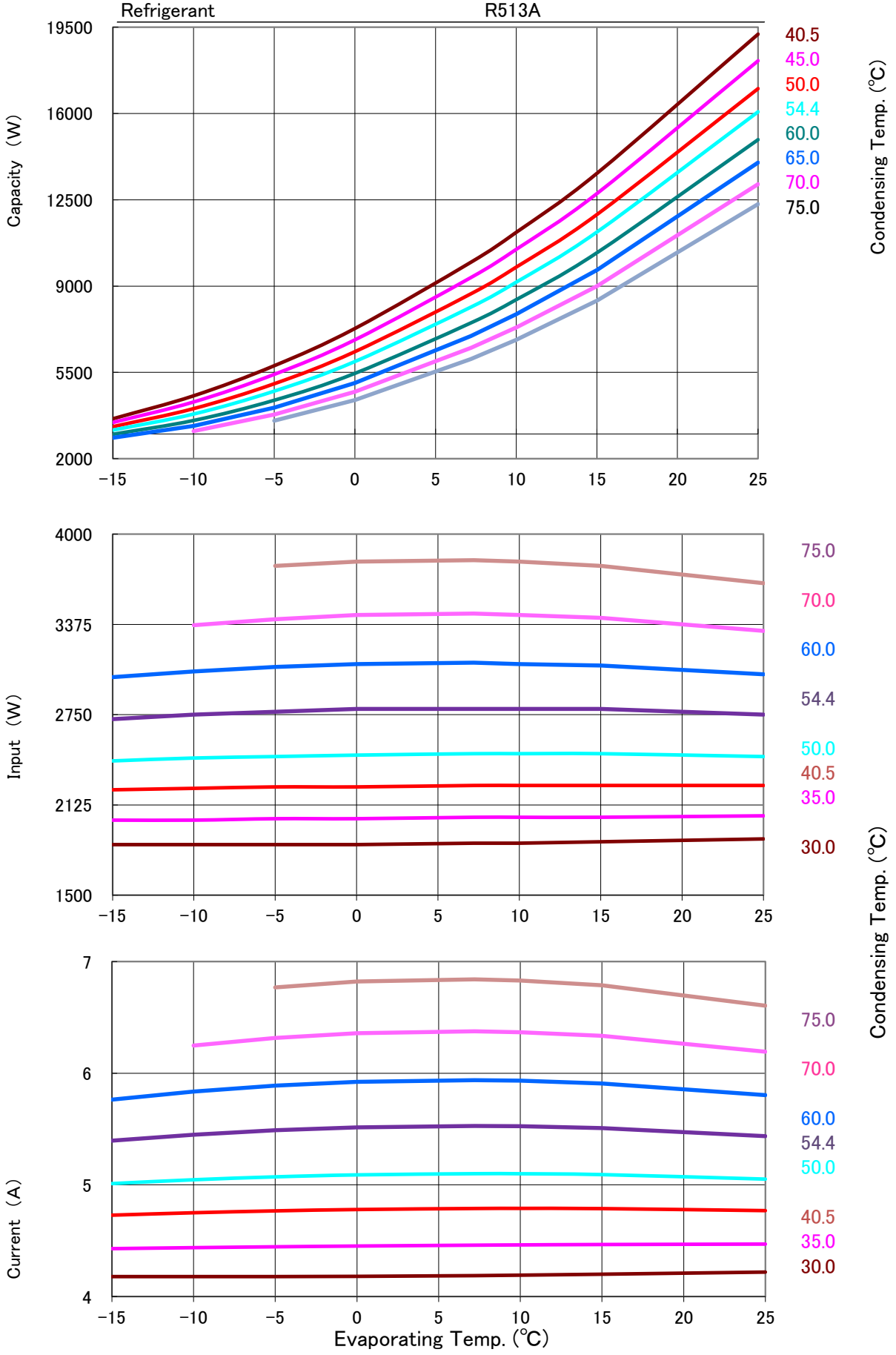
GENERAL SPECIFICATIONS

Model No:		C-SBS145H38A
Application		
Evaporating Temp Range	(℃)	-15 ～ 25
Refrigerant		R513A
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	8150/9780
Input	(W)	2480 /2950
Current	(A)	5.1/ 5.1
Revolution	(min^{-1})	2950 / 3450
Sound Level	(dB(A))	62max / 67max
Rating Conditions		
Power Source		3-PH 50Hz 380V / 60Hz 440V
Evaporating Temp	(℃)	7.2
Condensing Temp	(℃)	54.4
Suction Gas Temp	(℃)	18.3
Liquid Temp	(℃)	46.1
Ambient Temp	(℃)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm3)	66.8
Suction Line Connection	(Φmm 0D)	22.22
Discharge Line Connection	(Φmm 0D)	12.7
Oil	(ml)	1700 (FV68S)
Mass(Incl.Oil)	(kg)	36.5
Motor		
Type		3-PH Induction Motor(3IR)
Pole		2
Rated Power Source		3-PH 50Hz 380-415V / 60Hz 440-460V
Voltage Range	(V)	342～456 / 396～506
Starting Current	(A)	-

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

PERFORMANCE CURVE

Code No.	C-SBS145H38A
Power Source	3-PH 50Hz 380-415V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A



PERFORMANCE DATA

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Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A

Capacity (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	3,620	4,550	5,770	7,280	9,970	11,180	13,570	19,220
45.0	3,470	4,300	5,420	6,820	9,350	10,490	12,750	18,140
50.0	3,300	4,030	5,040	6,340	8,690	9,770	11,900	17,010
54.4	3,160	3,810	4,740	5,940	8,150	9,160	11,190	16,070
60.0	2,990	3,550	4,370	5,460	7,510	8,450	10,350	14,940
65.0	2,850	3,330	4,070	5,070	6,980	7,860	9,650	14,010
70.0		3,120	3,790	4,710	6,490	7,320	9,000	13,130
75.0			3,540	4,380	6,040	6,820	8,410	12,330

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	1,850	1,850	1,850	1,850	1,860	1,860	1,870	1,890
45.0	2,020	2,020	2,030	2,030	2,040	2,040	2,040	2,050
50.0	2,230	2,240	2,250	2,250	2,260	2,260	2,260	2,260
54.4	2,430	2,450	2,460	2,470	2,480	2,480	2,480	2,460
60.0	2,720	2,750	2,770	2,790	2,790	2,790	2,790	2,750
65.0	3,010	3,050	3,080	3,100	3,110	3,100	3,090	3,030
70.0		3,370	3,410	3,440	3,450	3,440	3,420	3,330
75.0			3,780	3,810	3,820	3,810	3,780	3,660

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
45.0	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5
50.0	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8
54.4	5.0	5.0	5.1	5.1	5.1	5.1	5.1	5.1
60.0	5.4	5.4	5.5	5.5	5.5	5.5	5.5	5.4
65.0	5.8	5.8	5.9	5.9	5.9	5.9	5.9	5.8
70.0		6.2	6.3	6.4	6.4	6.4	6.3	6.2
75.0			6.8	6.8	6.8	6.8	6.8	6.6

Mass Flow(kg/H)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	99	121	146	178	236	264	321	474
45.0	100	121	147	178	236	263	319	469
50.0	100	121	147	178	235	261	317	464
54.4	101	122	147	178	234	260	315	460
60.0	101	122	147	178	233	259	312	455
65.0	102	123	148	178	232	258	310	450
70.0		123	148	178	231	256	308	445
75.0			148	178	231	255	306	440

COP(W/W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	1.96	2.46	3.12	3.94	5.36	6.01	7.26	10.17
45.0	1.72	2.13	2.67	3.36	4.58	5.14	6.25	8.85
50.0	1.48	1.80	2.24	2.82	3.85	4.32	5.27	7.53
54.4	1.30	1.56	1.93	2.40	3.29	3.69	4.51	6.53
60.0	1.10	1.29	1.58	1.96	2.69	3.03	3.71	5.43
65.0	0.95	1.09	1.32	1.64	2.24	2.54	3.12	4.62
70.0		0.93	1.11	1.37	1.88	2.13	2.63	3.94
75.0			0.94	1.15	1.58	1.79	2.22	3.37

Coefficients of Polynominal Formula

380V-50Hz	Capacity (W)	Input (W)	Current (A)	Mass Flow(kg/H)
C1	1.252296E+04	1.270980E+03	2.664741E+00	1.773401E+02
C2	5.836488E+02	7.161946E-01	-2.552017E-03	7.926345E+00
C3	-1.539263E+02	-8.446705E+00	1.636766E-02	1.957327E-02
C4	6.868906E+00	4.877023E-01	7.579455E-04	1.775433E-01
C5	-7.436247E+00	-5.993632E-02	2.236421E-05	-2.797140E-02
C6	6.046487E-01	5.622180E-01	5.191480E-04	-2.077625E-04
C7	-2.830513E-04	-3.417781E-04	-2.664623E-07	2.020871E-03
C8	-2.525515E-02	-1.077273E-02	-1.739635E-05	-8.132908E-04
C9	2.993544E-02	1.404893E-03	1.393702E-06	9.870547E-05
C10	-4.349562E-09	3.640652E-09	2.996033E-12	-2.182021E-10

Note:The polynomial coefficients subject to change without notice.

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

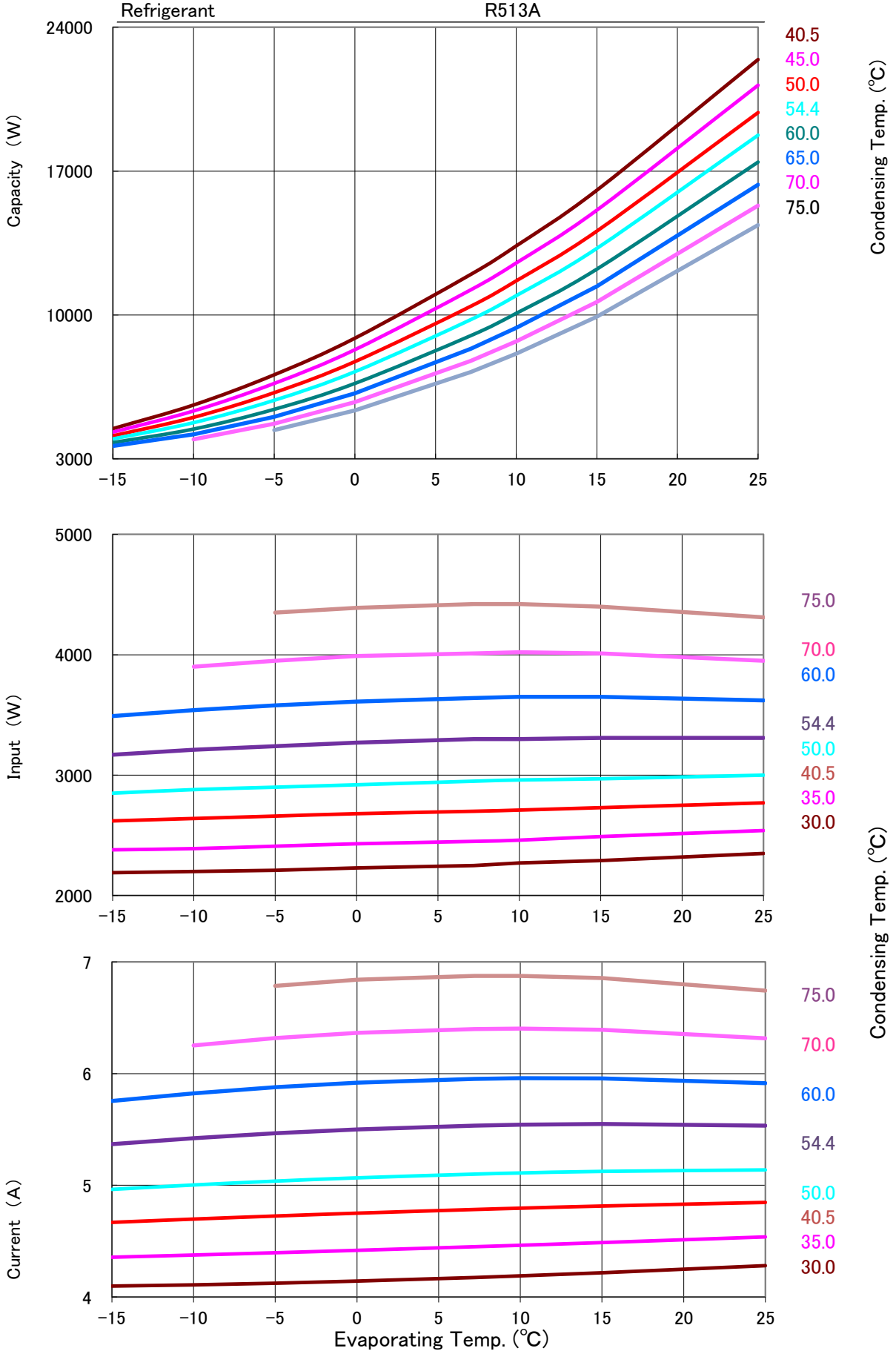
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBS145H38A
Power Source	3-PH 60Hz 440-460V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A



PERFORMANCE DATA

Code No.	C-SBS145H38A
Power Source	3-PH 60Hz 440-460V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Super Heating (K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A

Capacity (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	4,470	5,620	7,090	8,870	11,980	13,360	16,070	22,430
45.0	4,300	5,330	6,670	8,310	11,230	12,530	15,100	21,180
50.0	4,120	5,020	6,220	7,730	10,430	11,660	14,080	19,850
54.4	3,970	4,760	5,850	7,240	9,780	10,940	13,240	18,750
60.0	3,790	4,450	5,410	6,670	9,000	10,080	12,230	17,440
65.0	3,630	4,190	5,040	6,190	8,360	9,370	11,400	16,340
70.0		3,950	4,710	5,760	7,770	8,720	10,630	15,320
75.0			4,400	5,360	7,230	8,120	9,920	14,380

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	2,190	2,200	2,210	2,230	2,250	2,270	2,290	2,350
45.0	2,380	2,390	2,410	2,430	2,450	2,460	2,490	2,540
50.0	2,620	2,640	2,660	2,680	2,700	2,710	2,730	2,770
54.4	2,850	2,880	2,900	2,920	2,950	2,960	2,970	3,000
60.0	3,170	3,210	3,240	3,270	3,300	3,300	3,310	3,310
65.0	3,490	3,540	3,580	3,610	3,640	3,650	3,650	3,620
70.0		3,900	3,950	3,990	4,010	4,020	4,010	3,950
75.0			4,350	4,390	4,420	4,420	4,400	4,310

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	4.1	4.1	4.1	4.1	4.2	4.2	4.2	4.3
45.0	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5
50.0	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8
54.4	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1
60.0	5.4	5.4	5.5	5.5	5.5	5.5	5.5	5.5
65.0	5.8	5.8	5.9	5.9	6.0	6.0	6.0	5.9
70.0		6.3	6.3	6.4	6.4	6.4	6.4	6.3
75.0			6.8	6.8	6.9	6.9	6.9	6.7

Mass Flow(kg/H)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	129	156	188	227	298	331	400	582
45.0	128	154	187	226	298	332	402	589
50.0	125	152	185	225	298	333	404	597
54.4	123	150	184	224	298	333	406	605
60.0	121	148	181	222	298	334	409	614
65.0	119	146	180	221	298	335	412	623
70.0		144	178	220	298	335	414	631
75.0			176	219	298	336	416	640

COP(W/W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	2.04	2.55	3.21	3.98	5.32	5.89	7.02	9.54
45.0	1.81	2.23	2.77	3.42	4.58	5.09	6.06	8.34
50.0	1.57	1.90	2.34	2.88	3.86	4.30	5.16	7.17
54.4	1.39	1.65	2.02	2.48	3.32	3.70	4.46	6.25
60.0	1.20	1.39	1.67	2.04	2.73	3.05	3.69	5.27
65.0	1.04	1.18	1.41	1.71	2.30	2.57	3.12	4.51
70.0		1.01	1.19	1.44	1.94	2.17	2.65	3.88
75.0			1.01	1.22	1.64	1.84	2.25	3.34

Coefficients of Polynominal Formula

440V-60Hz	Capacity (W)	Input (W)	Current (A)	Mass Flow(kg/H)
C1	1.519100E+04	1.500422E+03	2.645311E+00	2.375333E+02
C2	6.925710E+02	3.788545E+00	4.686290E-04	7.081888E+00
C3	-1.853029E+02	-6.227334E+00	1.473784E-02	-2.567302E-01
C4	6.808937E+00	5.110297E-01	6.532063E-04	1.148941E-01
C5	-9.007747E+00	-7.256002E-02	6.719404E-05	3.645702E-02
C6	7.209877E-01	5.955891E-01	5.478662E-04	5.571831E-06
C7	2.086840E-04	2.039042E-04	-2.276587E-07	2.580211E-03
C8	-1.418677E-02	-1.072524E-02	-1.418572E-05	1.263543E-03
C9	3.593706E-02	1.439518E-03	4.507929E-07	-6.683828E-05
C10	4.074622E-09	4.587557E-09	4.596792E-12	2.555170E-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