

SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS180H38C

Output : 5 HP



Temporary

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

19/Jul/19

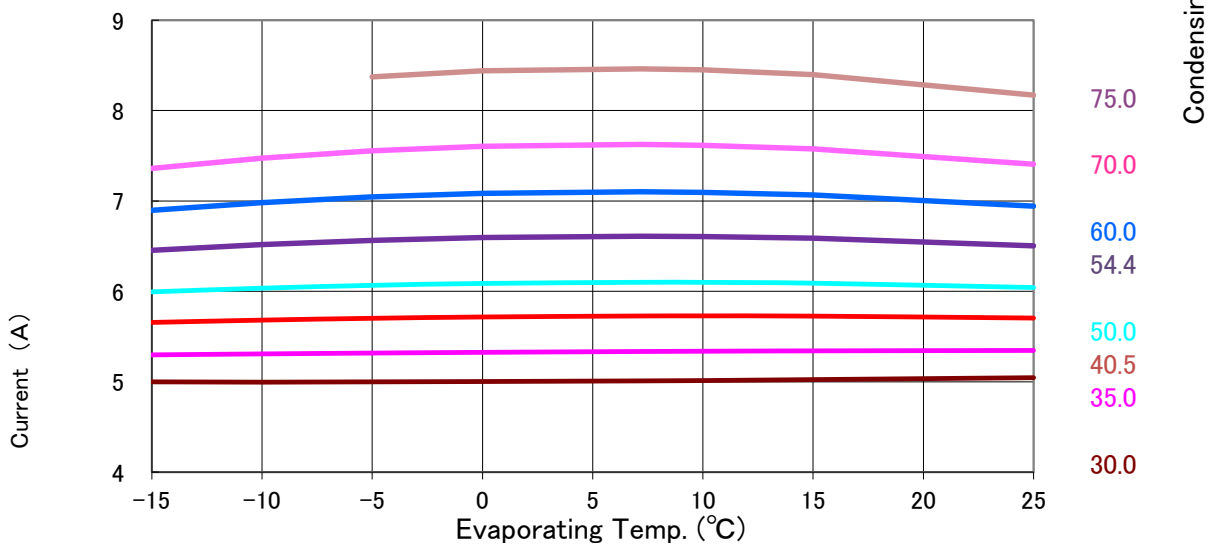
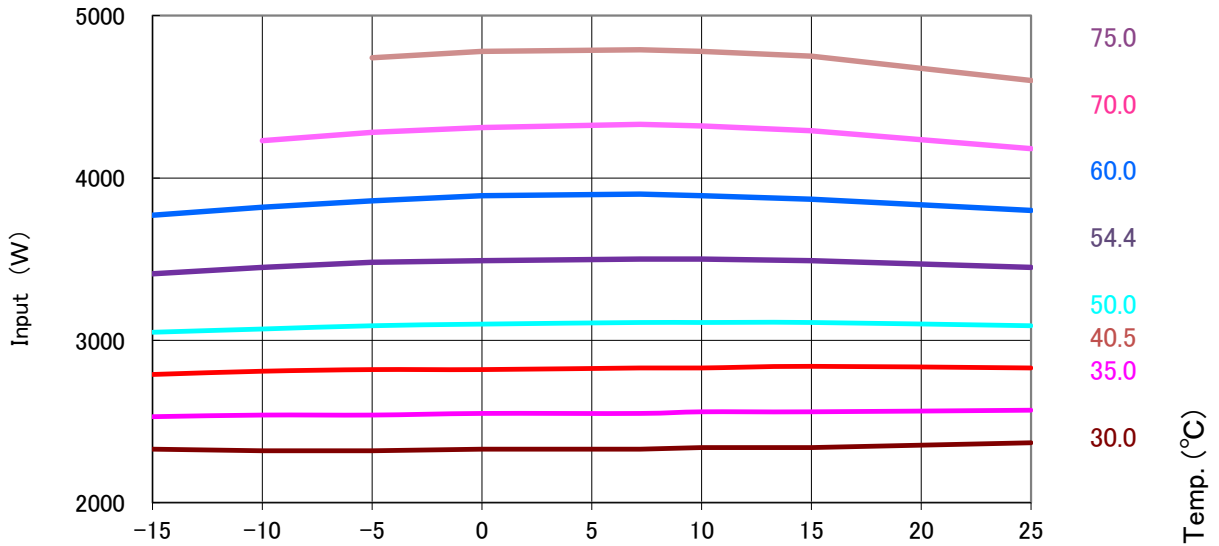
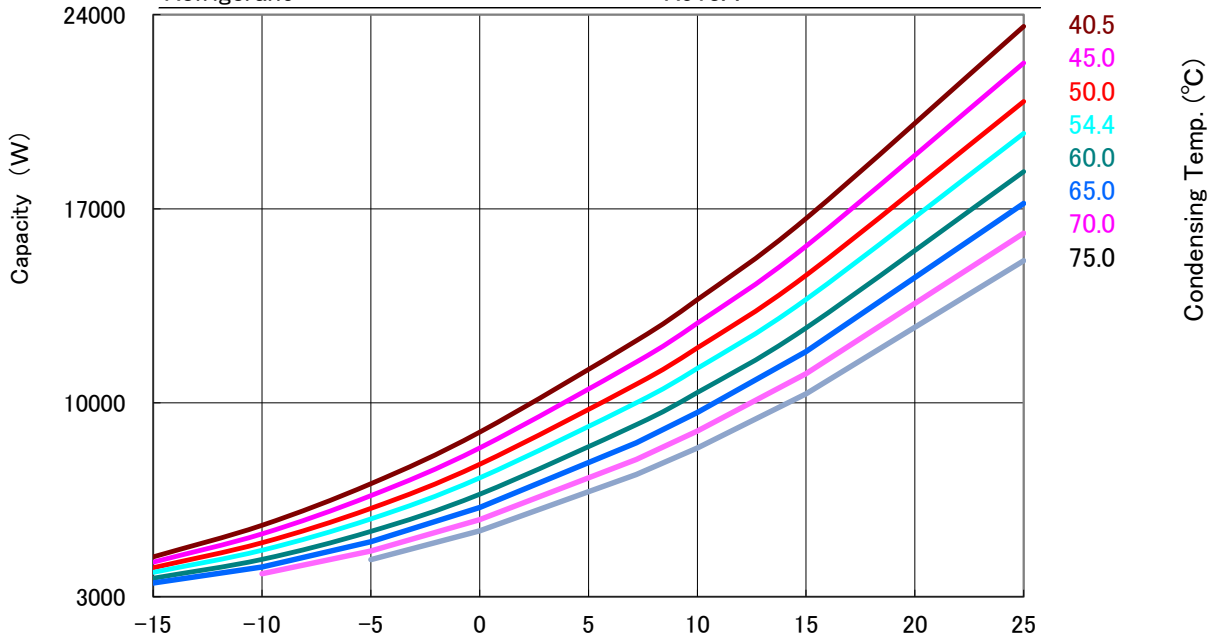
GENERAL SPECIFICATIONS

Model No:		C-SBS180H38C
Application		
Evaporating Temp Range	(°C)	-15 ~ 25
Refrigerant		R513A
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	10000/12430
Input	(W)	3110 / 3780
Current	(A)	6.1/ 6.1
Revolution	(min ⁻¹)	2950 / 3450
Sound Level	(dB(A))	62max / 67max
Rating Conditions		
Power Source		3-PH 50Hz 380V / 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	(cm ³)	83.7
Suction Line Connection	(Φ mm OD)	22.22
Discharge Line Connection	(Φ mm OD)	12.7
Oil	(ml)	1700 (FV68S)
Mass(Incl.Oil)	(kg)	38
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-SBS180H38C
Power Source	3-PH 50Hz 380V
Condensing Temp.(°C)	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-SBS180H38C
Power Source	3-PH 50Hz 380V
Condensing Temp.(°C)	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)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	4,440	5,580	7,080	8,940	12,240	13,720	16,650	23,580
	45.0	4,250	5,270	6,650	8,370	11,470	12,870	15,650	22,260
	50.0	4,050	4,950	6,190	7,780	10,670	11,980	14,600	20,870
	54.4	3,880	4,680	5,810	7,290	10,000	11,240	13,730	19,720
	60.0	3,670	4,350	5,360	6,700	9,210	10,370	12,700	18,340
	65.0	3,500	4,080	4,990	6,220	8,560	9,650	11,840	17,190
	70.0		3,830	4,650	5,780	7,960	8,980	11,050	16,120
	75.0			4,340	5,380	7,410	8,370	10,320	15,120

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	2,330	2,320	2,320	2,330	2,330	2,340	2,340	2,370
	45.0	2,530	2,540	2,540	2,550	2,550	2,560	2,560	2,570
	50.0	2,790	2,810	2,820	2,820	2,830	2,830	2,840	2,830
	54.4	3,050	3,070	3,090	3,100	3,110	3,110	3,110	3,090
	60.0	3,410	3,450	3,480	3,490	3,500	3,500	3,490	3,450
	65.0	3,770	3,820	3,860	3,890	3,900	3,890	3,870	3,800
	70.0		4,230	4,280	4,310	4,330	4,320	4,290	4,180
	75.0			4,740	4,780	4,790	4,780	4,750	4,600

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	45.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
	50.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
	54.4	6.0	6.0	6.1	6.1	6.1	6.1	6.1	6.0
	60.0	6.5	6.5	6.6	6.6	6.6	6.6	6.6	6.5
	65.0	6.9	7.0	7.0	7.1	7.1	7.1	7.1	6.9
	70.0	7.4	7.5	7.6	7.6	7.6	7.6	7.6	7.4
	75.0			8.4	8.4	8.5	8.4	8.4	8.2

Mass Flow(kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	120.3	146.3	177.9	216.4	286.7	319.9	389.1	575.3
	45.0	120.9	146.8	178.2	216.3	285.9	318.6	386.7	569.8
	50.0	121.6	147.3	178.4	216.1	284.9	317.2	384.2	563.7
	54.4	122.2	147.8	178.7	216.0	284.0	315.9	381.9	558.4
	60.0	123.0	148.4	179.0	215.9	282.9	314.2	379.1	551.8
	65.0	123.7	148.9	179.2	215.8	281.9	312.8	376.6	545.9
	70.0	124.4	149.4	179.5	215.7	280.9	311.4	374.1	540.0
	75.0			179.8	215.6	280.0	309.9	371.6	534.2

COP(W/W)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	1.91	2.41	3.05	3.84	5.25	5.86	7.12	9.95
	45.0	1.68	2.07	2.62	3.28	4.50	5.03	6.11	8.66
	50.0	1.45	1.76	2.20	2.76	3.77	4.23	5.14	7.37
	54.4	1.27	1.52	1.88	2.35	3.22	3.61	4.41	6.38
	60.0	1.08	1.26	1.54	1.92	2.63	2.96	3.64	5.32
	65.0	0.93	1.07	1.29	1.60	2.19	2.48	3.06	4.52
	70.0		0.91	1.09	1.34	1.84	2.08	2.58	3.86
	75.0			0.92	1.13	1.55	1.75	2.17	3.29

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	Mass Flow(kg/H)
C1	1.539044E+04	1.625940E+03	3.176743E+00	2.170186E+02
C2	7.189976E+02	1.443437E+00	-5.629542E-04	9.538452E+00
C3	-1.895889E+02	-1.178438E+01	1.995975E-02	-4.373827E-02
C4	8.341497E+00	6.514120E-01	9.322885E-04	2.123384E-01
C5	-9.224920E+00	-1.047229E-01	-6.747640E-05	-3.032624E-02
C6	7.466428E-01	7.161143E-01	6.177051E-04	3.663887E-04
C7	-2.594524E-04	-6.874695E-04	-8.660020E-07	2.440172E-03
C8	-2.937096E-02	-1.443438E-02	-2.140361E-05	-9.221443E-04
C9	3.760002E-02	2.121539E-03	2.567278E-06	8.088676E-05
C10	9.040972E-10	3.356353E-09	-1.054569E-12	-1.260041E-10

Note: The polynomial coefficients subject to change without notice.

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

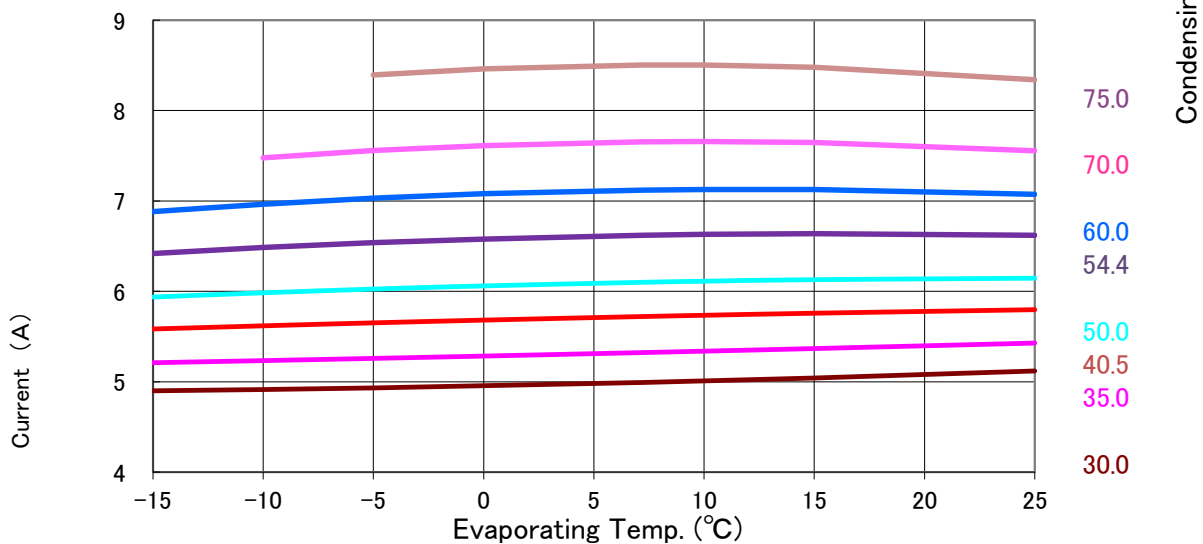
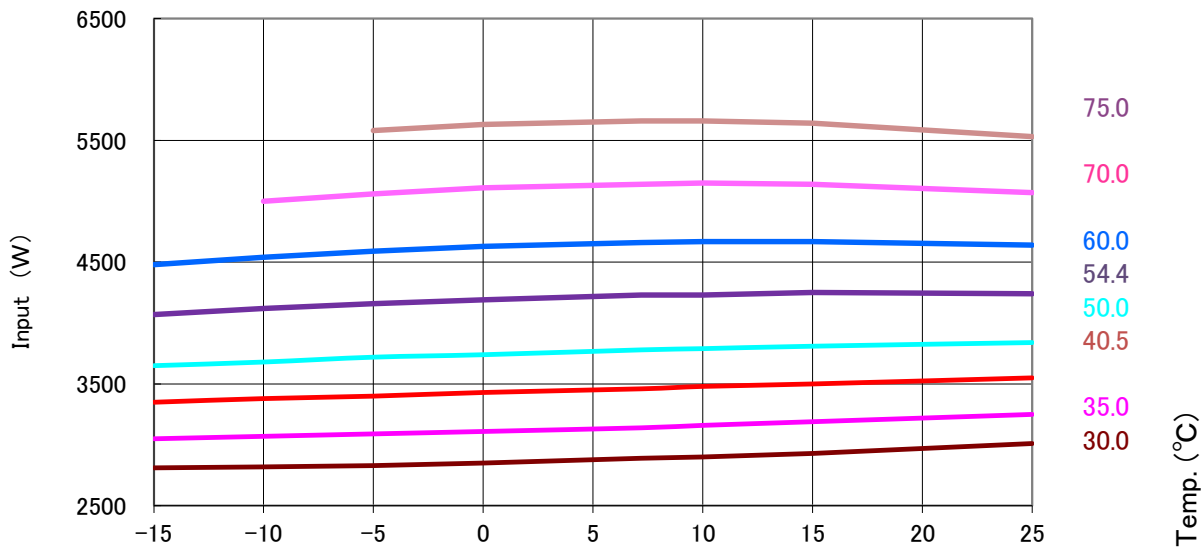
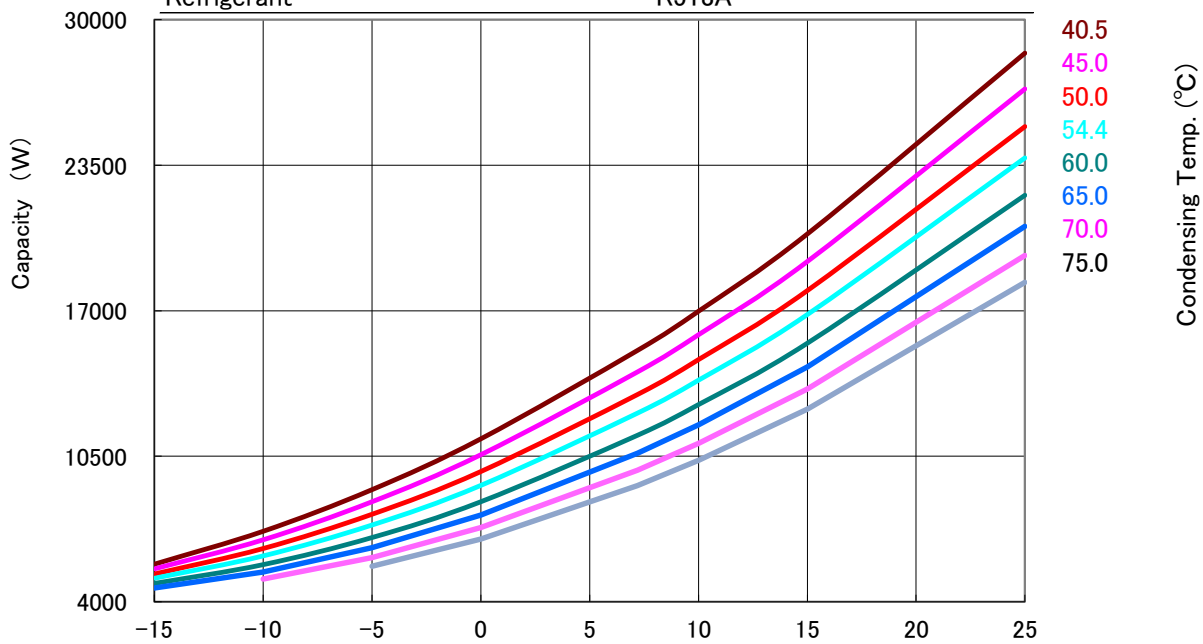
X—CAPACITY(W) OR POWER(W) OR CURRENT(A)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBS180H38C
Power Source	3-PH 60Hz 440V
Condensing Temp.(°C)	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-SBS180H38C
Power Source	3-PH 60Hz 440V
Condensing Temp.(°C)	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)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	5,680	7,150	9,010	11,280	15,230	16,980	20,430	28,510
	45.0	5,470	6,770	8,470	10,570	14,270	15,930	19,200	26,910
	50.0	5,240	6,380	7,910	9,820	13,260	14,820	17,900	25,230
	54.4	5,050	6,050	7,430	9,200	12,430	13,900	16,830	23,830
	60.0	4,820	5,660	6,870	8,470	11,440	12,810	15,550	22,160
	65.0	4,610	5,330	6,410	7,870	10,630	11,910	14,490	20,770
	70.0		5,020	5,980	7,320	9,880	11,080	13,510	19,470
	75.0			5,590	6,810	9,190	10,320	12,610	18,270

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	2,810	2,820	2,830	2,850	2,890	2,900	2,930	3,010
	45.0	3,050	3,070	3,090	3,110	3,140	3,160	3,190	3,250
	50.0	3,350	3,380	3,400	3,430	3,460	3,480	3,500	3,550
	54.4	3,650	3,680	3,720	3,740	3,780	3,790	3,810	3,840
	60.0	4,070	4,120	4,160	4,190	4,230	4,230	4,250	4,240
	65.0	4,480	4,540	4,590	4,630	4,660	4,670	4,670	4,640
	70.0		5,000	5,060	5,110	5,140	5,150	5,140	5,070
	75.0			5,580	5,630	5,660	5,660	5,640	5,530

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	4.9	4.9	4.9	5.0	5.0	5.0	5.0	5.1
	45.0	5.2	5.2	5.3	5.3	5.3	5.3	5.4	5.4
	50.0	5.6	5.6	5.7	5.7	5.7	5.7	5.8	5.8
	54.4	5.9	6.0	6.0	6.1	6.1	6.1	6.1	6.1
	60.0	6.4	6.5	6.5	6.6	6.6	6.6	6.6	6.6
	65.0	6.9	7.0	7.0	7.1	7.1	7.1	7.1	7.1
	70.0		7.5	7.6	7.6	7.7	7.7	7.6	7.6
	75.0			8.4	8.5	8.5	8.5	8.5	8.3

Mass Flow(kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	155	187	225	272	356	396	477	695
	45.0	152	184	223	270	356	396	480	704
	50.0	150	182	221	269	356	397	483	714
	54.4	147	180	219	267	356	398	485	722
	60.0	144	177	217	266	356	399	489	734
	65.0	142	175	215	264	356	400	492	744
	70.0		172	213	263	356	400	495	754
	75.0			211	261	356	401	497	764

GOP(W/W)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	2.02	2.54	3.18	3.96	5.27	5.86	6.97	9.47
	45.0	1.79	2.21	2.74	3.40	4.54	5.04	6.02	8.28
	50.0	1.56	1.89	2.33	2.86	3.83	4.26	5.11	7.11
	54.4	1.38	1.64	2.00	2.46	3.29	3.67	4.42	6.21
	60.0	1.18	1.37	1.65	2.02	2.70	3.03	3.66	5.23
	65.0	1.03	1.17	1.40	1.70	2.28	2.55	3.10	4.48
	70.0		1.00	1.18	1.43	1.92	2.15	2.63	3.84
	75.0			1.00	1.21	1.62	1.82	2.24	3.30

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	Mass Flow(kg/H)
C1	1.931043E+04	1.903576E+03	3.154963E+00	2.849558E+02
C2	8.849554E+02	3.391846E+00	2.663953E-03	8.636346E+00
C3	-2.355752E+02	-7.352771E+00	1.795697E-02	-3.480313E-01
C4	8.701890E+00	6.729562E-01	8.030817E-04	1.380433E-01
C5	-1.161676E+01	-2.866476E-02	7.803056E-07	3.761249E-02
C6	9.165286E-01	7.581992E-01	6.525049E-04	3.683073E-04
C7	-1.342716E-03	-5.821888E-04	-7.373905E-07	2.993131E-03
C8	-1.886446E-02	-1.401229E-02	-1.747204E-05	1.482487E-03
C9	4.723918E-02	1.213385E-03	1.299554E-06	-2.628959E-05
C10	-3.940553E-09	-3.322210E-10	2.678559E-13	-1.285157E-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