

SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS180H00B

Output : 5 HP



Temporary

Panasonic Appliances Compressor (Dalian) Co., Ltd.

19-Jul-16

GENERAL SPECIFICATIONS

Model No:	C-SBS180H00B	
Application		
Evaporating Temp Range	(°C)	-15.0 ~ 12.0
Refrigerant	R407A	
Compressor Cooling	Natural Cooling	
Rated Performance		
Capacity	(W)	17440
Input	(W)	6570
Current	(A)	11.1
Revolution	(min ⁻¹)	5220
Sound Level	(dB(A))	
Rating Conditions		
Power Source	Inverter 3-PH 90Hz 380V	
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)	55.7
Suction Line Connection	(Φ mm OD)	22.22
Discharge Line Connection	(Φ mm OD)	12.7
Oil	(ml)	2000 (FV68S)
Mass(Incl.Oil)	(kg)	39
Motor		
Type	Inverter 3-PH Induction Motor(3IR)	
Pole	2	
Frequency	(Hz)	30~90
Rated Power Source	3-PH 90Hz 380V	
Voltage Range	(V)	342~418

Panasonic Appliances Compressor (Dalian) Co., Ltd.

MassFlow(kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0			62	90	114	133	155	173
	35.0			62	88	111	129	149	166
	40.0			62	87	108	125	143	158
	45.0				86	106	121	139	153
	50.0				85	103	118	134	147
	54.4					101	115	129	141
	60.0								
	65.0								

EER

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0			1.70	2.78	3.86	4.75	5.82	6.78
	35.0			1.47	2.35	3.18	3.86	4.67	5.38
	40.0			1.24	1.90	2.54	3.03	3.64	4.14
	45.0				1.61	2.10	2.48	2.93	3.31
	50.0				1.33	1.70	1.99	2.32	2.59
	54.4					1.41	1.64	1.89	2.10
	60.0								
	65.0								

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	5.602377E+03	1.097030E+03	5.030913E+00	9.776612E+01
C2	5.497715E+02	-4.802468E+00	-9.678679E-03	7.313439E+00
C3	-6.224286E+01	-1.189458E+01	5.597166E-02	-2.973081E-01
C4	1.552625E+01	1.306040E-01	1.932137E-04	2.109520E-01
C5	-1.170439E+01	-3.552840E-01	-6.441253E-04	-8.923006E-02
C6	2.941694E-01	7.737513E-01	6.704835E-04	6.546247E-04
C7	1.160006E-01	-1.232337E-03	1.539704E-07	1.809204E-03
C8	-2.339447E-01	-1.554423E-03	-4.346082E-06	-2.421921E-03
C9	7.531475E-02	2.338575E-03	7.979450E-06	3.898132E-04
C10	-1.942984E-07	7.684582E-08	1.710485E-10	-1.183720E-09

Note: The polynomial coefficients subject to change without notice.

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

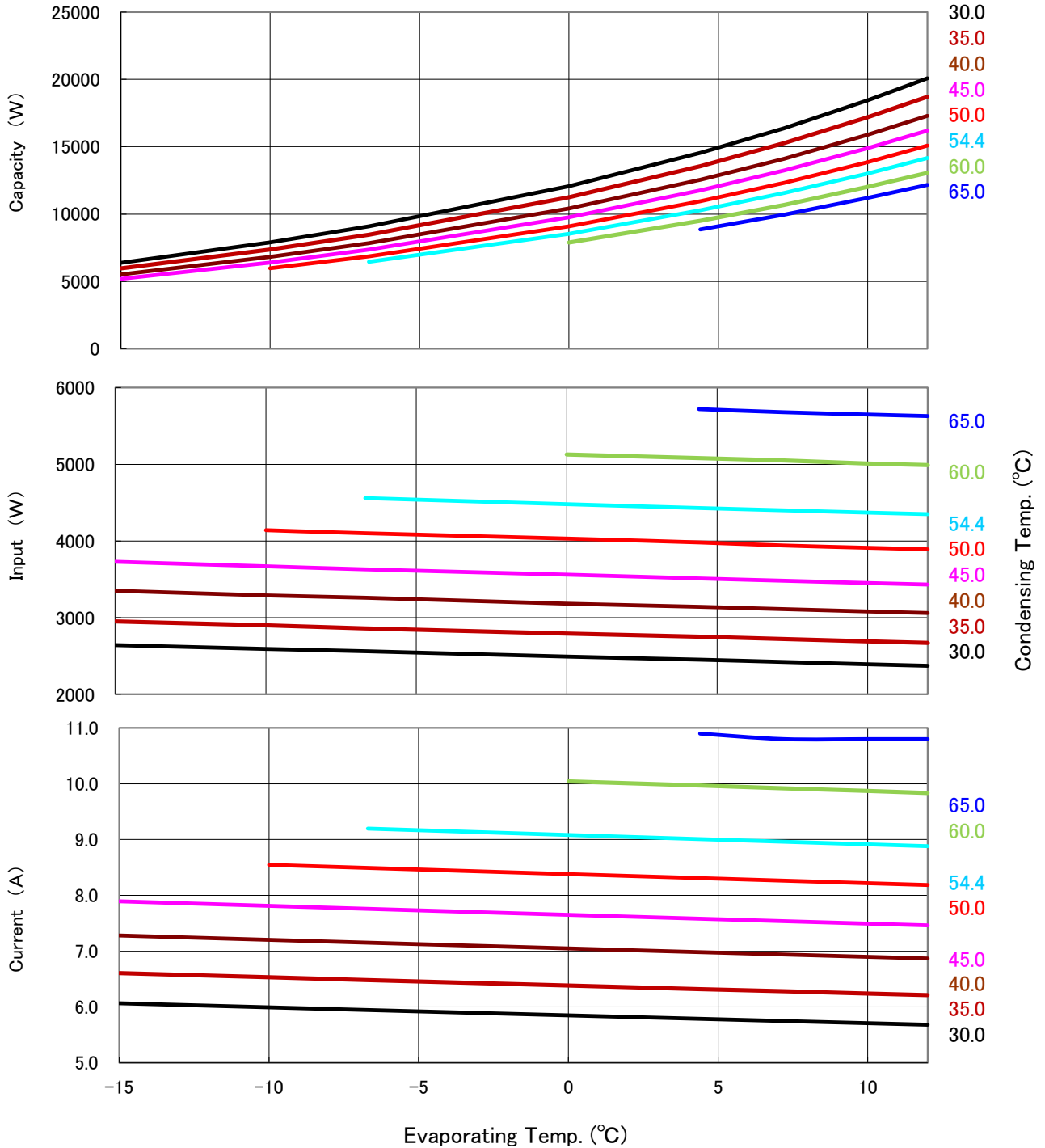
X—CAPACITY(W) OR POWER(W) OR CURRENT(A)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBS180H00B
Power Source	3-PH 60Hz 265V
Condensing Temp.(°C)	30, 35, 40, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407A
Revolution(min ⁻¹)	3600



PERFORMANCE DATA

Code No.	C-SBS180H00B
Power Source	3-PH 60Hz 265V
Condensing Temp.(°C)	30, 35, 40, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407A

Capacity (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	6,380	7,890	9,080	12,060	14,540	16,370	18,440	20,070
	35.0	5,960	7,360	8,470	11,250	13,550	15,260	17,180	18,700
	40.0	5,520	6,820	7,840	10,410	12,540	14,110	15,890	17,290
	45.0	5,180	6,400	7,360	9,760	11,760	13,230	14,890	16,200
	50.0		5,970	6,860	9,090	10,950	12,320	13,860	15,080
	54.4			6,450	8,540	10,280	11,560	13,010	14,150
	60.0				7,890	9,500	10,680	12,010	13,060
	65.0					8,860	9,960	11,200	12,170

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	2,640	2,590	2,560	2,490	2,450	2,420	2,390	2,370
	35.0	2,950	2,900	2,860	2,790	2,750	2,720	2,690	2,670
	40.0	3,350	3,290	3,260	3,180	3,140	3,110	3,080	3,060
	45.0	3,730	3,670	3,630	3,560	3,510	3,480	3,450	3,430
	50.0		4,140	4,100	4,030	3,980	3,940	3,910	3,890
	54.4			4,560	4,480	4,430	4,400	4,370	4,350
	60.0				5,130	5,080	5,050	5,010	4,990
	65.0					5,720	5,680	5,650	5,630

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	6.1	6.0	5.9	5.8	5.8	5.7	5.7	5.7
	35.0	6.6	6.5	6.5	6.4	6.3	6.3	6.2	6.2
	40.0	7.3	7.2	7.2	7.0	7.0	6.9	6.9	6.9
	45.0	7.9	7.8	7.8	7.7	7.6	7.5	7.5	7.5
	50.0		8.5	8.5	8.4	8.3	8.3	8.2	8.2
	54.4			9.2	9.1	9.0	9.0	8.9	8.9
	60.0				10.0	10.0	9.9	9.9	9.8
	65.0					10.9	10.8	10.8	10.8

MassFlow(kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	137	166	188	242	286	318	354	382
	35.0	137	165	187	240	284	315	350	378
	40.0	136	164	186	238	281	312	346	373
	45.0	136	163	185	237	279	309	343	370
	50.0		162	183	235	276	306	340	366
	54.4			182	233	274	304	337	362
	60.0				231	272	301	333	358
	65.0					269	298	330	354

EER

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	2.42	3.05	3.55	4.84	5.93	6.76	7.72	8.47
	35.0	2.02	2.54	2.96	4.03	4.93	5.61	6.39	7.00
	40.0	1.65	2.07	2.40	3.27	3.99	4.54	5.16	5.65
	45.0	1.39	1.74	2.03	2.74	3.35	3.80	4.32	4.72
	50.0		1.44	1.67	2.26	2.75	3.13	3.54	3.88
	54.4			1.41	1.91	2.32	2.63	2.98	3.25
	60.0				1.54	1.87	2.11	2.40	2.62
	65.0					1.55	1.75	1.98	2.16

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	1.819122E+04	1.736594E+03	3.797616E+00	2.536536E+02
C2	7.893975E+02	-4.158106E-01	4.463584E-04	1.010459E+01
C3	-2.379420E+02	-5.952635E+00	3.304722E-02	-4.038225E-01
C4	1.519956E+01	6.945643E-02	1.929504E-04	1.993606E-01
C5	-1.065323E+01	-4.472342E-01	-6.862358E-04	-3.217544E-02
C6	1.112044E+00	1.038213E+00	1.178987E-03	5.415509E-04
C7	1.296651E-01	-1.063305E-03	1.973157E-07	2.008322E-03
C8	-1.388982E-01	-1.685218E-03	-4.713353E-06	-7.291602E-04
C9	4.963205E-02	4.699655E-03	7.089981E-06	6.669399E-05
C10	-2.850532E-07	1.366460E-07	1.934343E-10	-6.374247E-10

Note: The polynomial coefficients subject to change without notice.

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

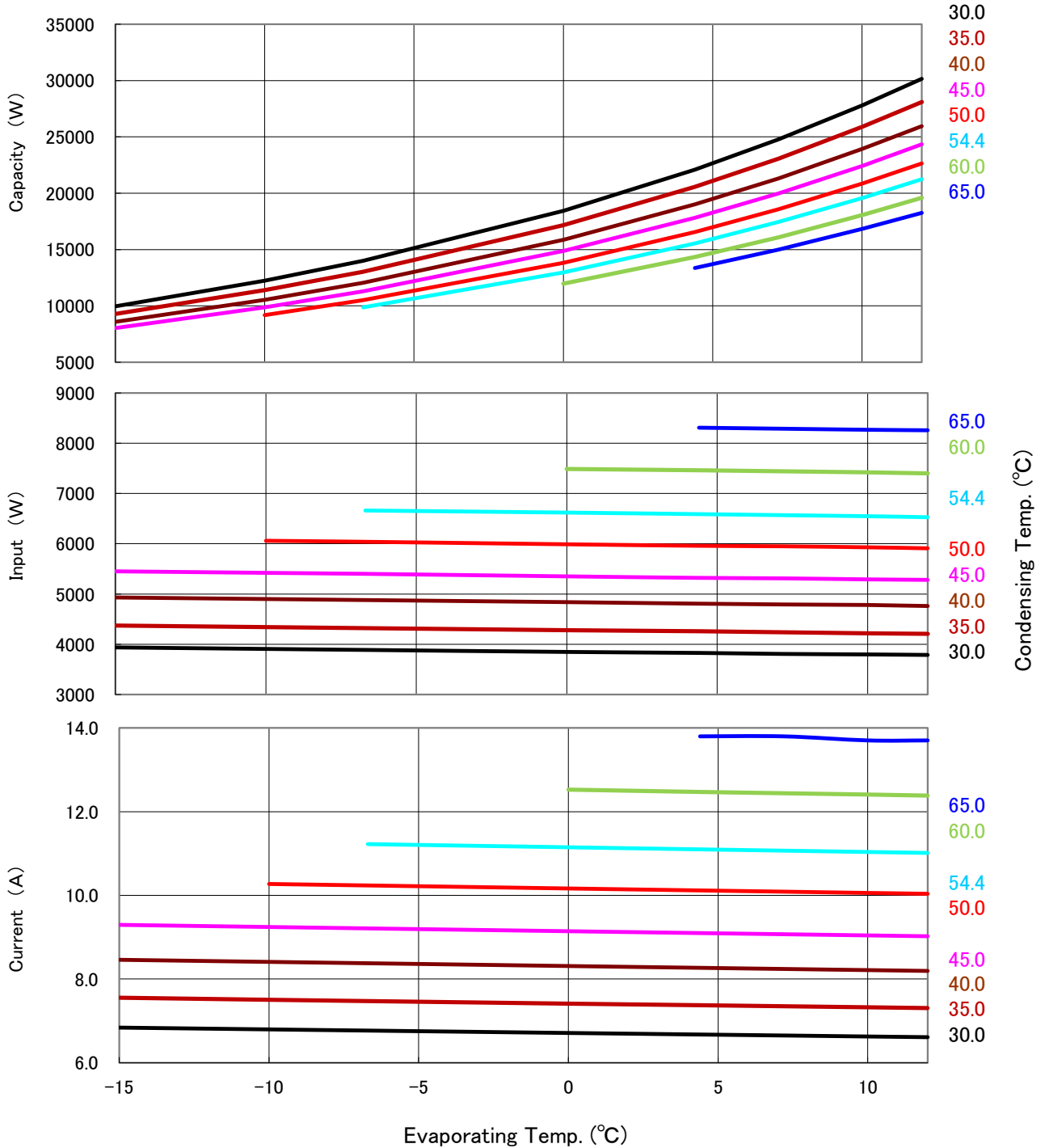
X—CAPACITY(W) OR POWER(W) OR CURRENT(A)

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBS180H00B
Power Source	3-PH 90Hz 380V
Condensing Temp.(°C)	30, 35, 40, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407A
Revolution(min ⁻¹)	5400



PERFORMANCE DATA

Code No.	C-SBS180H00B
Power Source	3-PH 90Hz 380V
Condensing Temp.(°C)	30, 35, 40, 45, 50, 54.4, 60, 65
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R407A

Capacity (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	9,960	12,230	14,000	18,430	22,080	24,770	27,780	30,160
	35.0	9,280	11,390	13,040	17,170	20,570	23,070	25,880	28,090
	40.0	8,580	10,530	12,050	15,870	19,010	21,320	23,920	25,960
	45.0	8,040	9,860	11,290	14,870	17,810	19,980	22,410	24,330
	50.0		9,180	10,510	13,830	16,560	18,580	20,840	22,630
	54.4			9,860	12,980	15,540	17,440	19,560	21,230
	60.0				11,970	14,340	16,090	18,050	19,590
	65.0					13,360	14,990	16,820	18,250

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	3,940	3,910	3,890	3,850	3,830	3,810	3,800	3,790
	35.0	4,370	4,340	4,320	4,280	4,260	4,240	4,220	4,210
	40.0	4,930	4,900	4,880	4,840	4,810	4,790	4,780	4,760
	45.0	5,450	5,420	5,400	5,350	5,320	5,310	5,290	5,280
	50.0		6,060	6,040	5,990	5,960	5,950	5,930	5,910
	54.4			6,660	6,620	6,590	6,570	6,550	6,530
	60.0				7,490	7,460	7,440	7,420	7,400
	65.0					8,310	8,290	8,270	8,260

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	6.8	6.8	6.8	6.7	6.7	6.6	6.6	6.6
	35.0	7.6	7.5	7.5	7.4	7.4	7.4	7.3	7.3
	40.0	8.5	8.4	8.4	8.3	8.3	8.2	8.2	8.2
	45.0	9.3	9.2	9.2	9.1	9.1	9.1	9.0	9.0
	50.0		10.3	10.2	10.2	10.1	10.1	10.1	10.0
	54.4			11.2	11.2	11.1	11.1	11.0	11.0
	60.0				12.5	12.5	12.4	12.4	12.4
	65.0					13.8	13.8	13.7	13.7

MassFlow(kg/H)

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	213	258	292	378	448	498	555	599
	35.0	211	255	289	374	442	492	548	591
	40.0	209	252	286	369	436	485	540	583
	45.0	207	250	284	365	432	480	534	576
	50.0		248	281	361	427	474	527	568
	54.4			278	358	422	469	521	562
	60.0				353	416	463	514	554
	65.0					412	457	507	546

EER

		Evaporating Temp. (°C)							
		-15	-10	-6.7	0	4.4	7.2	10	12
Condensing Temp. (°C)	30.0	2.53	3.13	3.60	4.79	5.77	6.50	7.31	7.96
	35.0	2.12	2.62	3.02	4.01	4.83	5.44	6.13	6.67
	40.0	1.74	2.15	2.47	3.28	3.95	4.45	5.00	5.45
	45.0	1.48	1.82	2.09	2.78	3.35	3.76	4.24	4.61
	50.0		1.51	1.74	2.31	2.78	3.12	3.51	3.83
	54.4			1.48	1.96	2.36	2.65	2.99	3.25
	60.0				1.60	1.92	2.16	2.43	2.65
	65.0					1.61	1.81	2.03	2.21

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/h)
C1	2.795967E+04	2.557548E+03	4.402460E+00	4.053797E+02
C2	1.159624E+03	7.074944E+00	9.047846E-03	1.597829E+01
C3	-3.700312E+02	4.346169E+00	1.899478E-02	-9.656498E-01
C4	2.144795E+01	2.202676E-01	2.434242E-04	3.151862E-01
C5	-1.544870E+01	-6.197920E-01	-8.508821E-04	-5.103065E-02
C6	1.736112E+00	1.293256E+00	1.932565E-03	1.621758E-03
C7	1.785725E-01	-9.050159E-05	2.806079E-07	3.269824E-03
C8	-1.904276E-01	-5.709101E-03	-6.359727E-06	-1.056063E-03
C9	7.086948E-02	7.010861E-03	9.270474E-06	7.967862E-05
C10	-4.350615E-07	1.661513E-07	2.664044E-10	-1.196620E-09

Note: The polynomial coefficients subject to change without notice.

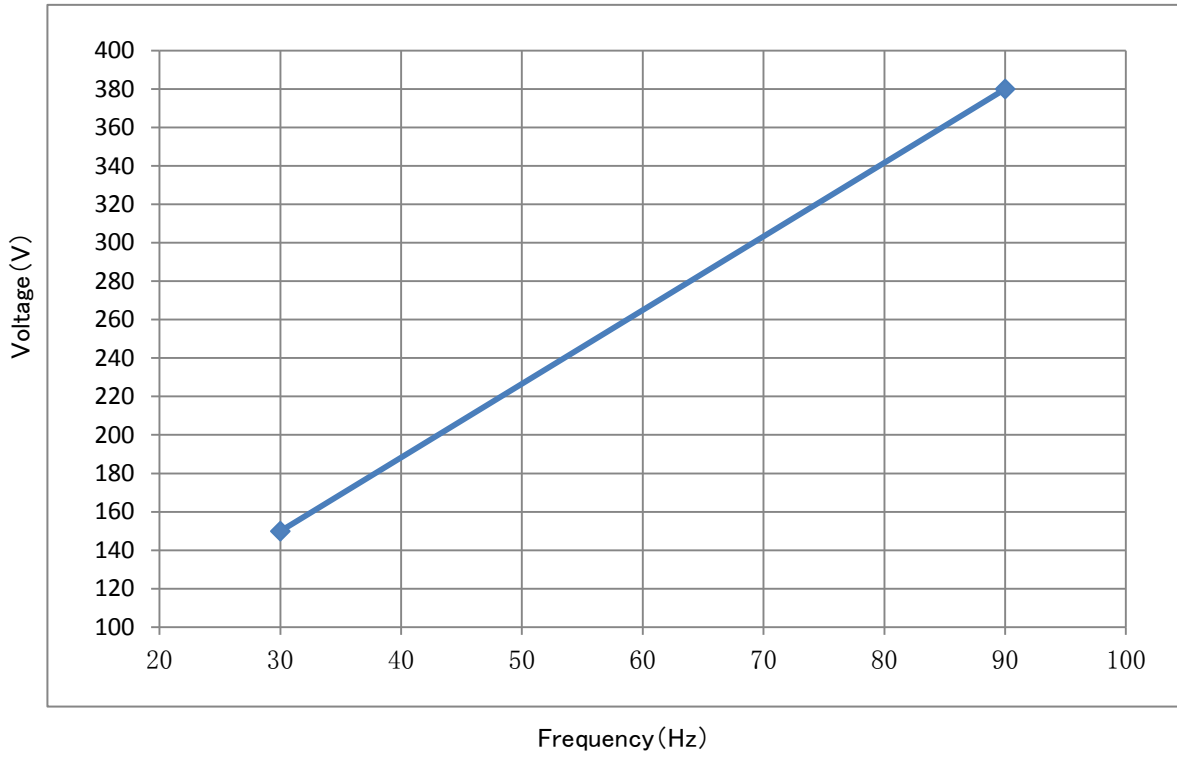
$$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$$

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

S—EVAPORATING TEMP, °C

D—CONDENSING TEMP, °C

Voltage-Frequency Curve



Operating Envelope

Suction Gas Superheat: 11.1K

Refrigerant: R407A

