

SPECIFICATIONS OF COMPRESSOR

Model No: C-SBS180H00B

Output : 5 HP



Panasonic Appliances Compressor (Dalian) Co., Ltd.

20/Mar/15

GENERAL SPECIFICATIONS

Model No:	C-SBS180H00B	
Application		
Evaporating Temp Range	(°C)	-20.0 ~ 12.0
Refrigerant	R404A	
Compressor Cooling	Natural Cooling	
Rated Performance		
Capacity	(W)	12310
Input	(W)	4670
Current	(A)	9.63
Revolution	(min ⁻¹)	3450
Sound Level	(dB(A))	--
Rating Conditions		
Power Source	Inverter 3-PH 60Hz 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)	38
Motor		
Type	Inverter 3-PH Induction Motor(3IR)	
Pole	2	
Frequency	30~90Hz	
Rated Power Source	3-PH 60Hz 380~415V	
Voltage Range	(V)	342~456

Panasonic Appliances Compressor (Dalian) Co., Ltd.

PERFORMANCE DATA

Compressor Model	C-SBS180H00B
Power Source	3PH 30rps 237V
Suction Gas Superheat(K)	11.1
Sub Cooling(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R404A

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	2,000	2,540	3,230	3,780	5,200	6,410	7,330	9,210
40.5		2,350	2,970	3,460	4,730	5,810	6,620	8,290
45.0			2,770	3,220	4,380	5,360	6,090	7,590
50.0				2,970	4,010	4,890	5,550	6,880
54.4				2,770	3,720	4,510	5,100	6,310
60.0					3,370	4,070	4,600	5,650
65.0						3,720	4,190	5,130

POWER(W)

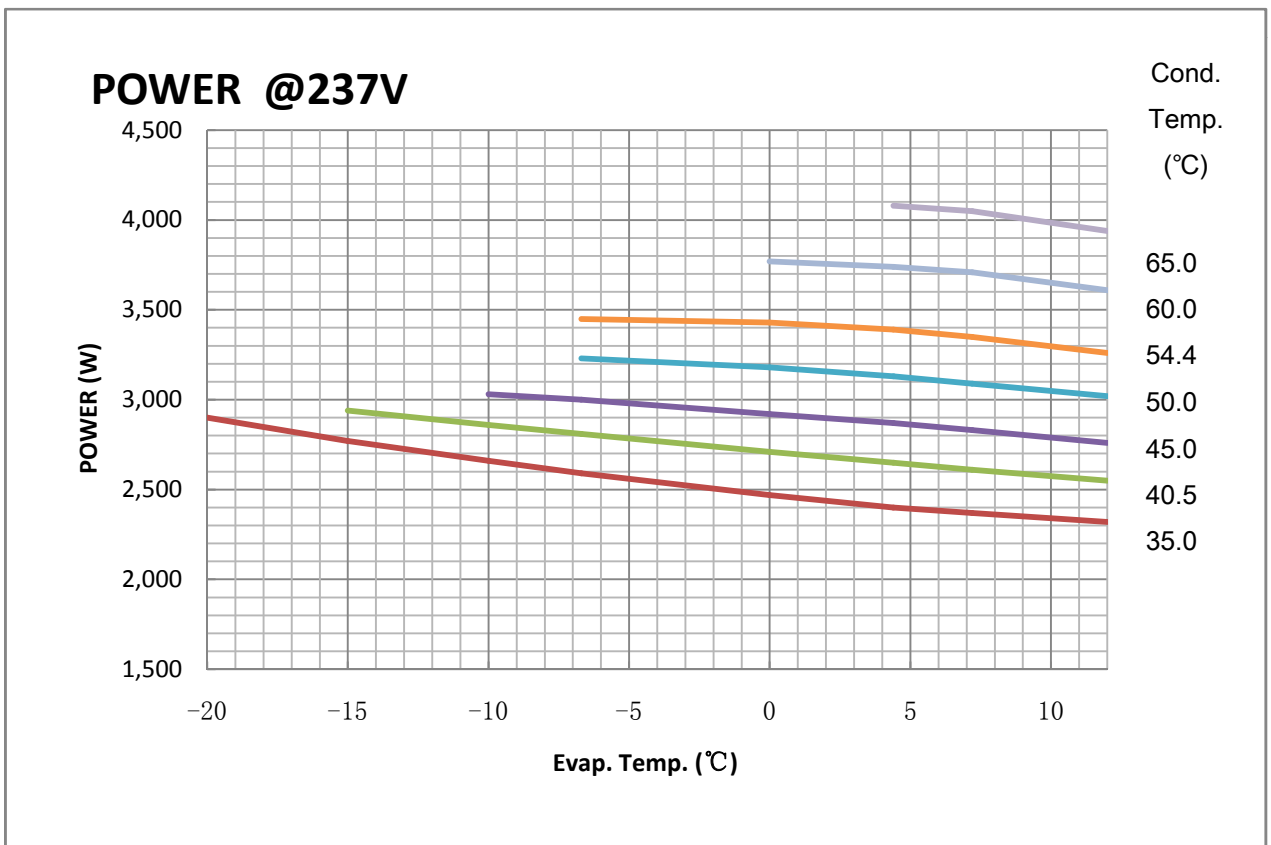
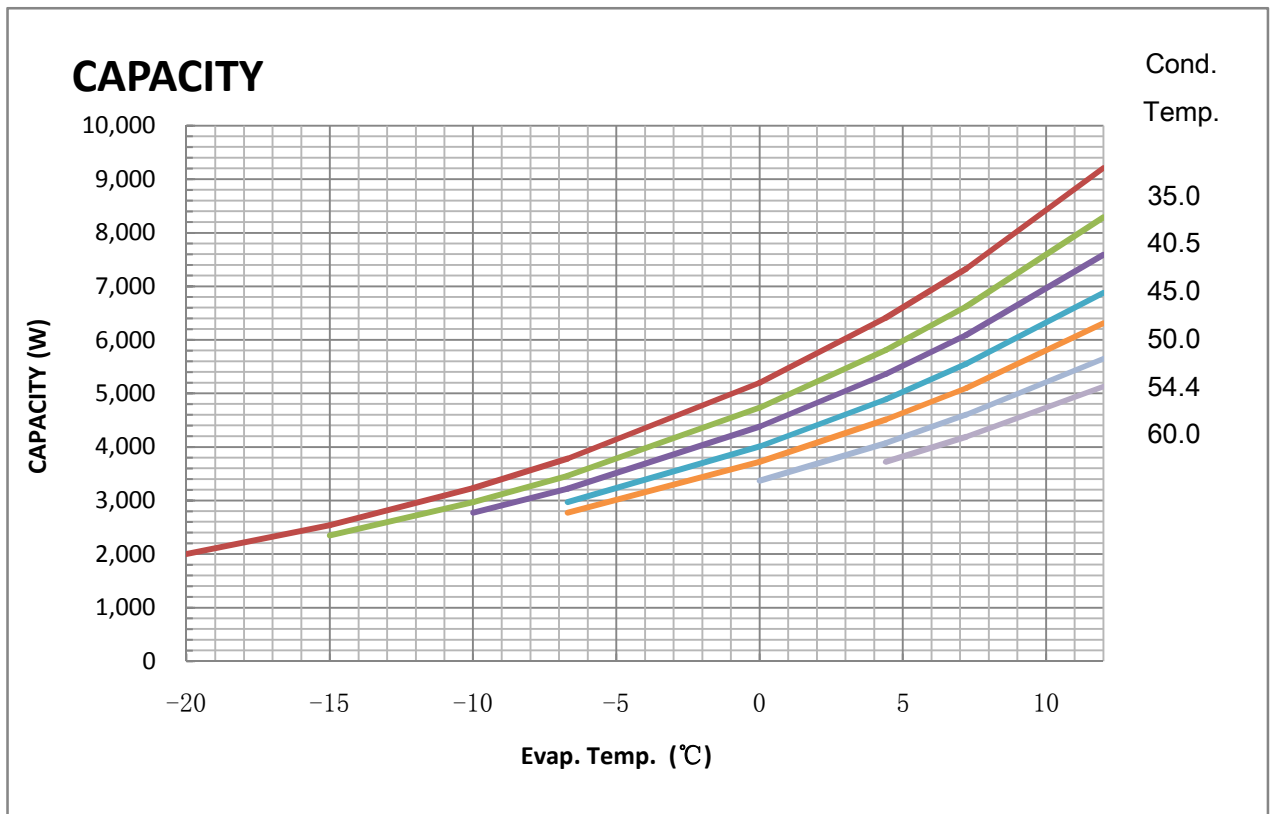
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	2,900	2,770	2,660	2,590	2,470	2,400	2,370	2,320
40.5		2,940	2,860	2,810	2,710	2,650	2,610	2,550
45.0			3,030	3,000	2,920	2,870	2,830	2,760
50.0				3,230	3,180	3,130	3,090	3,020
54.4				3,450	3,430	3,390	3,350	3,260
60.0					3,770	3,740	3,710	3,610
65.0						4,080	4,050	3,940

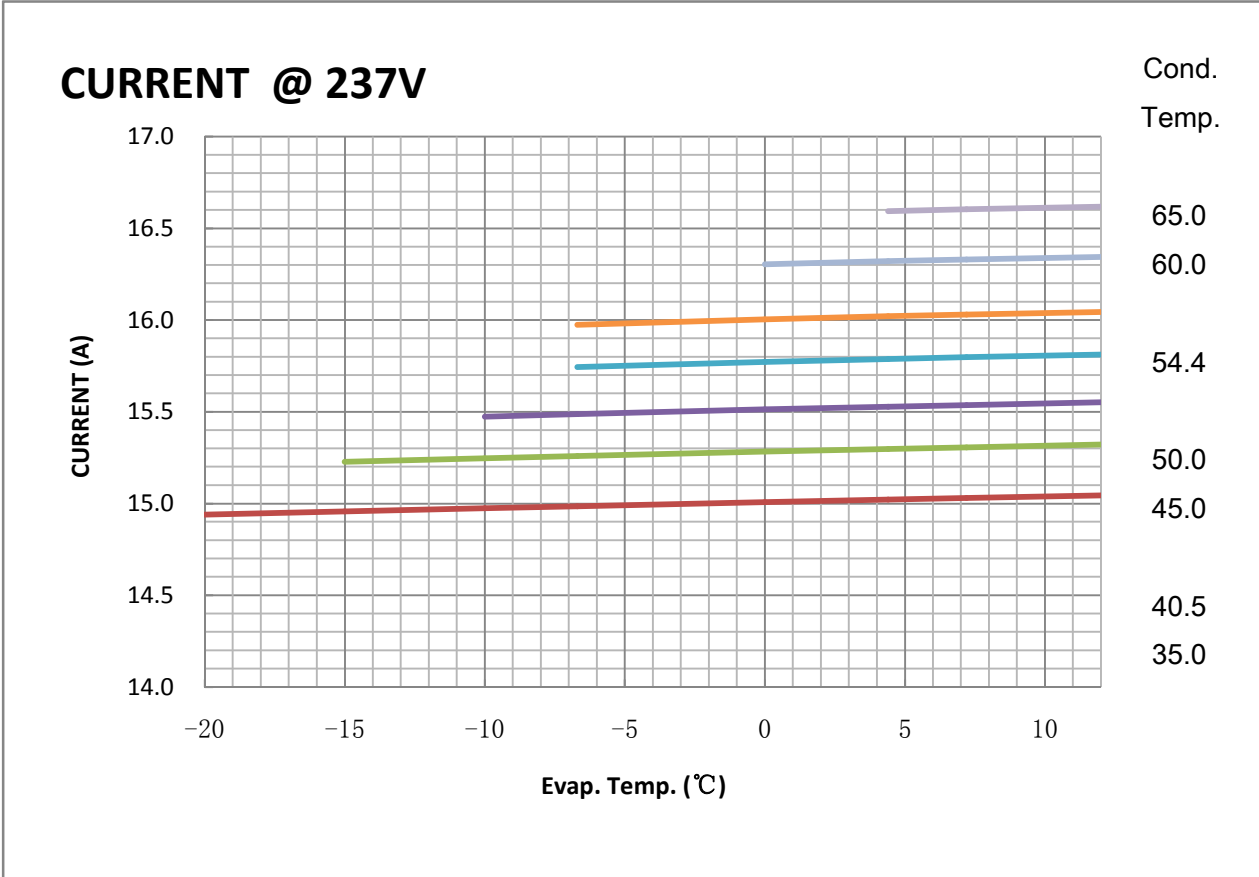
CURRENT(A)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0
40.5		15.2	15.2	15.3	15.3	15.3	15.3	15.3
45.0			15.5	15.5	15.5	15.5	15.5	15.6
50.0				15.7	15.8	15.8	15.8	15.8
54.4				16.0	16.0	16.0	16.0	16.0
60.0					16.3	16.3	16.3	16.3
65.0						16.6	16.6	16.6

REFRIG FLOW(kg/h)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	63	76	92	105	136	162	180	217
40.5		73	89	102	132	157	176	212
45.0			87	99	129	154	172	208
50.0				96	125	150	168	203
54.4				93	122	146	164	199
60.0					118	142	160	195
65.0						138	156	190





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model **C-SBS180H00B**
 Power Source **3PH 30rps 237V**
 Suction Gas Superheat (K) **11.1**
 Sub Cooling (K) **8.3**
 Compressor Cooling **Natural Cooling**
 Refrigerant **R404A**

$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$
 X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)
 S—EVAPORATING TEMP, °C
 D—CONDENSING TEMP, °C

30rps 237V	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
1	9.270535E+03	1.552290E+03	1.337300E+01	1.656100E+02
2	4.676035E+02	-1.764656E+00	2.223479E-03	5.932819E+00
3	-1.399478E+02	1.100986E+01	4.366998E-02	-9.112894E-01
4	8.695433E+00	1.970702E+00	8.342011E-05	1.084779E-01
5	-7.341254E+00	-9.292874E-01	1.990770E-05	-1.857368E-02
6	6.881739E-01	4.328254E-01	8.636120E-05	2.064042E-03
7	6.350463E-02	-2.547159E-05	-2.472716E-08	1.136371E-03
8	-8.391121E-02	-4.739815E-02	-2.596986E-06	-1.119116E-04
9	3.264745E-02	1.520076E-02	2.303088E-07	2.666590E-05
10	-9.146754E-09	7.708738E-09	8.936678E-13	-3.247555E-15

PERFORMANCE DATA

Compressor Model	C-SBS180H00B
Power Source	3PH 60rps 357V
Suction Gas Superheat(K)	11.1
Sub Cooling(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R404A

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	5,840	7,130	8,700	9,930	12,970	15,460	17,290	20,940
40.5	5,270	6,440	7,880	9,000	11,780	14,050	15,730	19,070
45.0	4,840	5,930	7,250	8,290	10,870	12,980	14,540	17,650
50.0	4,410	5,400	6,610	7,560	9,930	11,880	13,310	16,170
54.4	4,050	4,970	6,100	6,980	9,170	10,980	12,310	14,980
60.0	3,640	4,470	5,500	6,300	8,290	9,940	11,150	13,590
65.0		4,080	5,020	5,750	7,590	9,110	10,230	12,470

POWER(W)

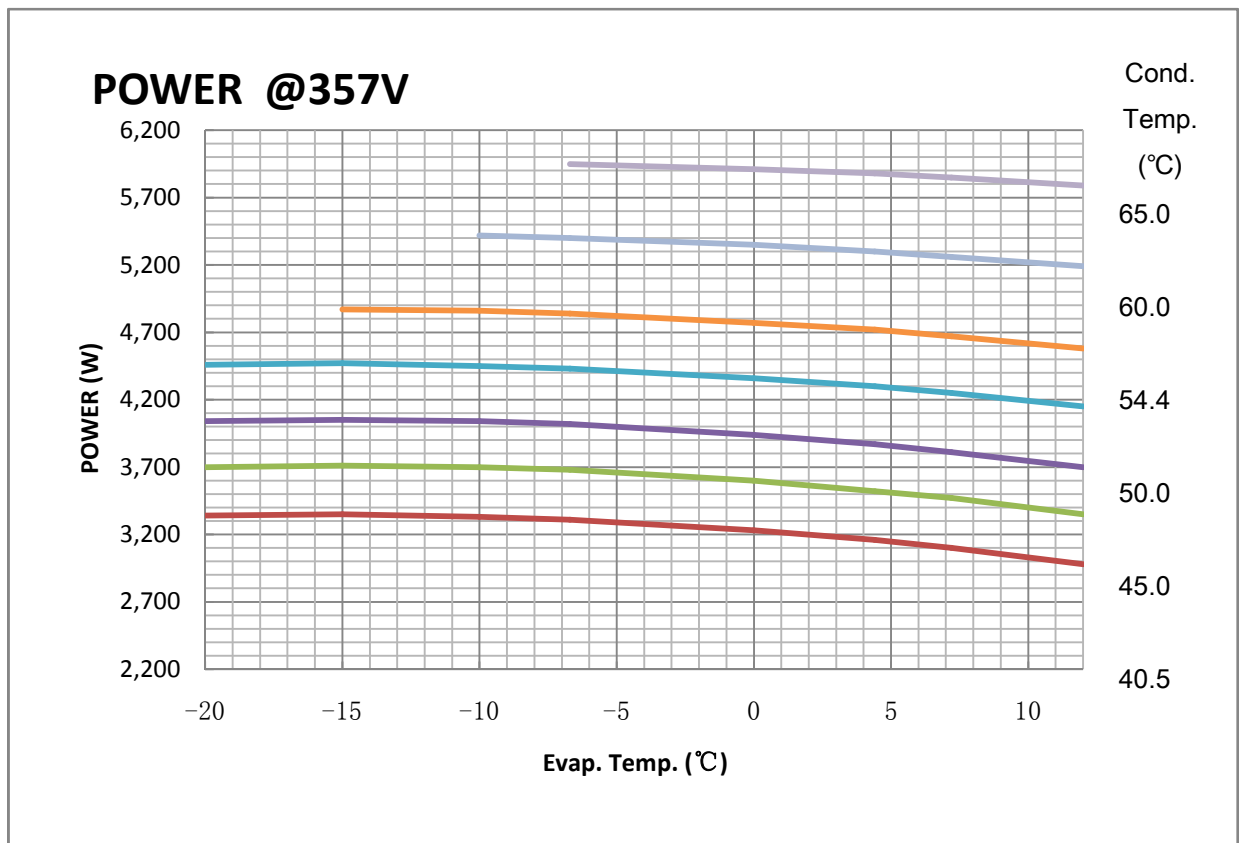
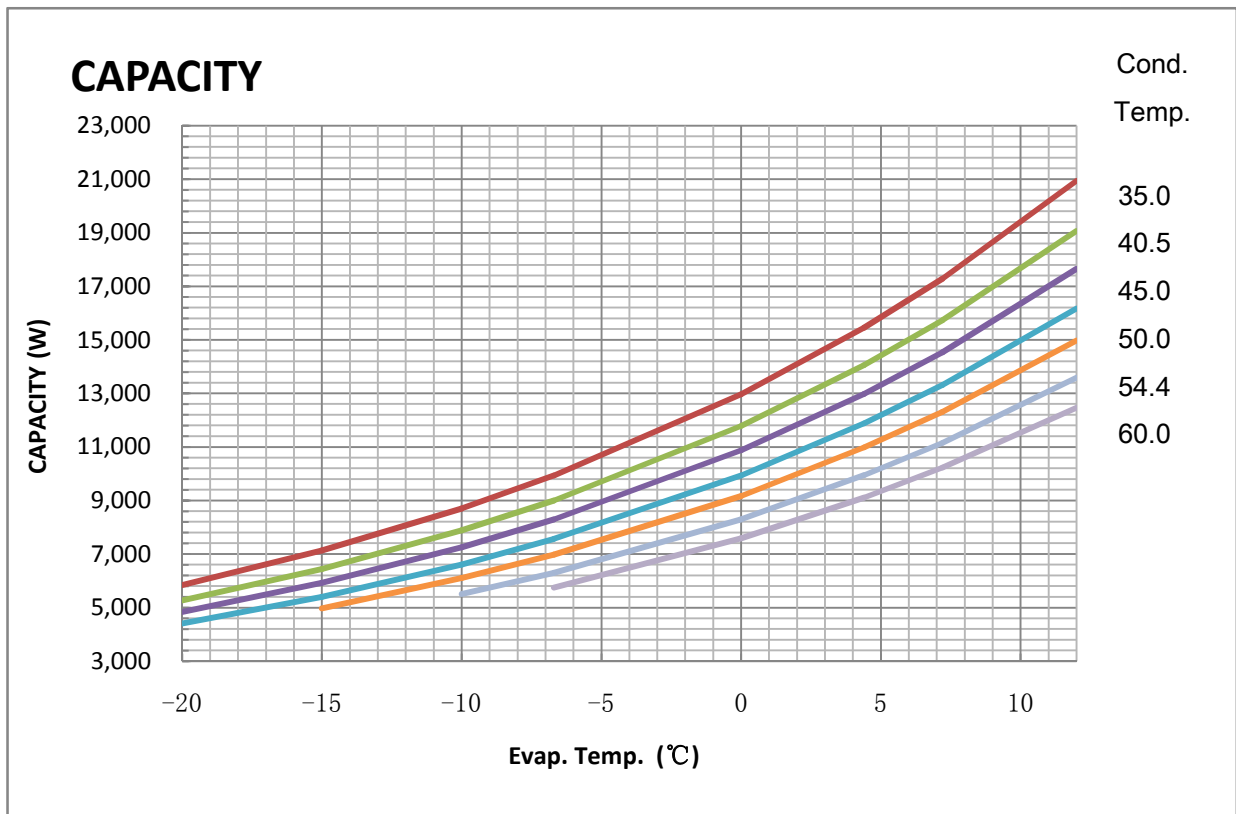
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	3,340	3,350	3,330	3,310	3,230	3,160	3,100	2,980
40.5	3,700	3,710	3,700	3,680	3,600	3,520	3,470	3,350
45.0	4,040	4,050	4,040	4,020	3,940	3,870	3,810	3,700
50.0	4,460	4,470	4,450	4,430	4,360	4,300	4,250	4,150
54.4	4,860	4,870	4,860	4,840	4,770	4,720	4,670	4,580
60.0	5,420	5,430	5,420	5,400	5,350	5,300	5,260	5,190
65.0		5,970	5,960	5,950	5,910	5,880	5,850	5,790

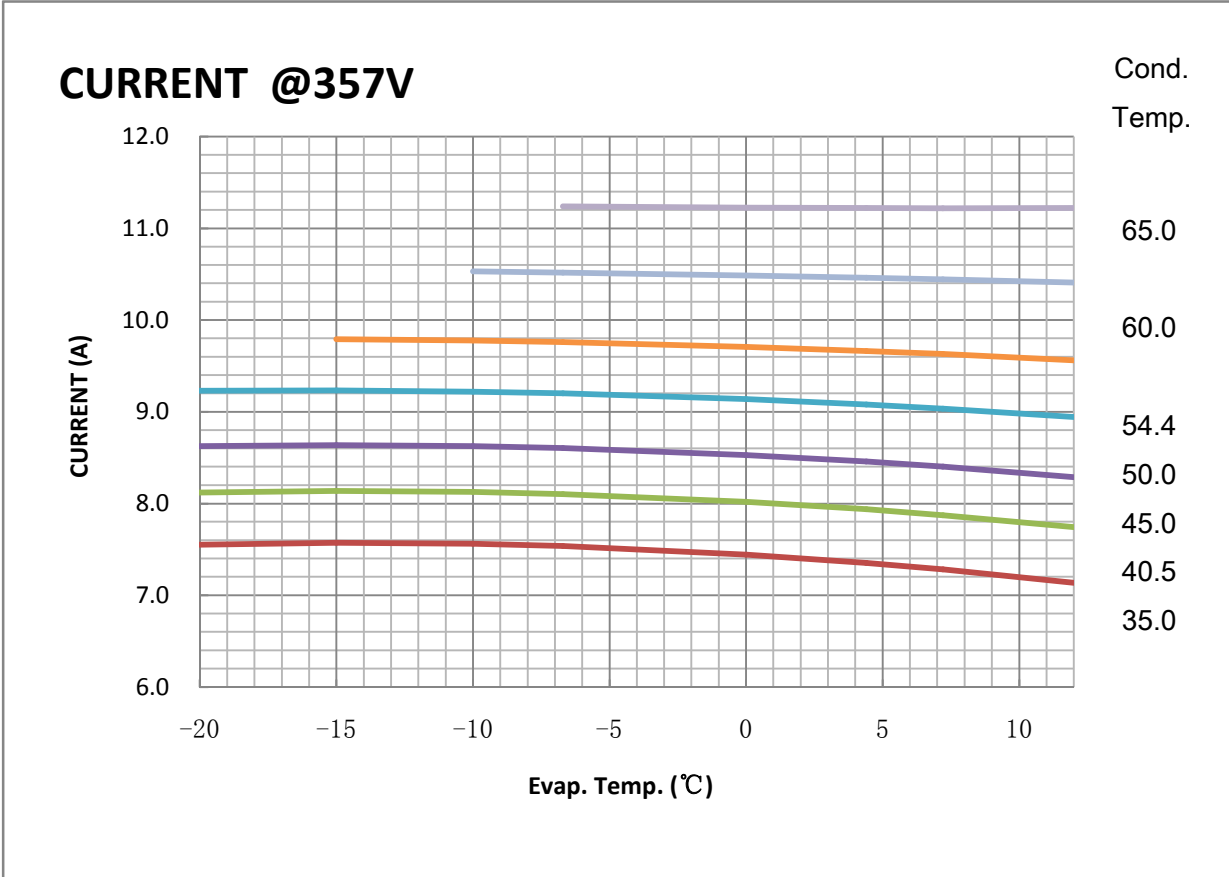
CURRENT(A)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	7.6	7.6	7.6	7.5	7.4	7.4	7.3	7.1
40.5	8.1	8.1	8.1	8.1	8.0	7.9	7.9	7.7
45.0	8.6	8.6	8.6	8.6	8.5	8.5	8.4	8.3
50.0	9.2	9.2	9.2	9.2	9.1	9.1	9.0	8.9
54.4	9.8	9.8	9.8	9.8	9.7	9.7	9.6	9.6
60.0	10.6	10.5	10.5	10.5	10.5	10.5	10.4	10.4
65.0		11.3	11.2	11.2	11.2	11.2	11.2	11.2

REFRIG FLOW(kg/h)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	157	187	224	253	321	376	416	495
40.5	156	186	222	250	318	372	411	488
45.0	155	185	221	248	315	368	407	483
50.0	154	183	219	246	312	364	402	477
54.4	153	182	217	244	309	361	398	472
60.0	152	181	215	242	306	357	393	465
65.0		180	214	240	303	353	389	459





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model **C-SBS180H00B**
 Power Source **3PH 60rps 357V**
 Suction Gas Superheat (K) **11.1**
 Sub Cooling (K) **8.3**
 Compressor Cooling **Natural Cooling**
 Refrigerant **R404A**

$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$
 X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)
 S—EVAPORATING TEMP, °C
 D—CONDENSING TEMP, °C

60rps 357V	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
1	2.296899E+04	2.250547E+03	5.088417E+00	3.452746E+02
2	8.815376E+02	-9.468719E+00	-2.504341E-02	1.306973E+01
3	-3.421097E+02	-4.897933E+00	3.579521E-02	-7.149977E-01
4	1.425008E+01	-7.926263E-01	-1.473734E-03	2.361994E-01
5	-1.209332E+01	-3.967828E-01	-6.318855E-06	-4.440139E-02
6	1.620837E+00	9.426066E-01	9.028165E-04	8.548688E-04
7	1.053806E-01	7.577370E-04	6.570104E-07	2.064384E-03
8	-1.126342E-01	8.131170E-03	2.311323E-05	-7.451094E-04
9	5.151194E-02	6.521150E-03	5.541233E-06	8.181732E-05
10	-1.875695E-08	-6.480734E-09	-9.218310E-12	-3.699223E-11

PERFORMANCE DATA

Compressor Model	C-SBS180H00B
Power Source	3PH 90rps 357V
Suction Gas Superheat(K)	11.1
Sub Cooling(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R404A

CAPACITY(W)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	8,750	10,630	12,920	14,700	19,090	22,670	25,290	30,500
40.5	7,870	9,590	11,680	13,300	17,320	20,600	23,010	27,800
45.0	7,210	8,800	10,730	12,240	15,970	19,030	21,270	25,740
50.0	6,540	7,990	9,770	11,150	14,590	17,400	19,470	23,610
54.4	6,000	7,340	8,990	10,270	13,470	16,090	18,010	21,870
60.0	5,380	6,600	8,090	9,260	12,170	14,560	16,320	19,860
65.0		6,000	7,370	8,450	11,130	13,340	14,970	18,240

POWER(W)

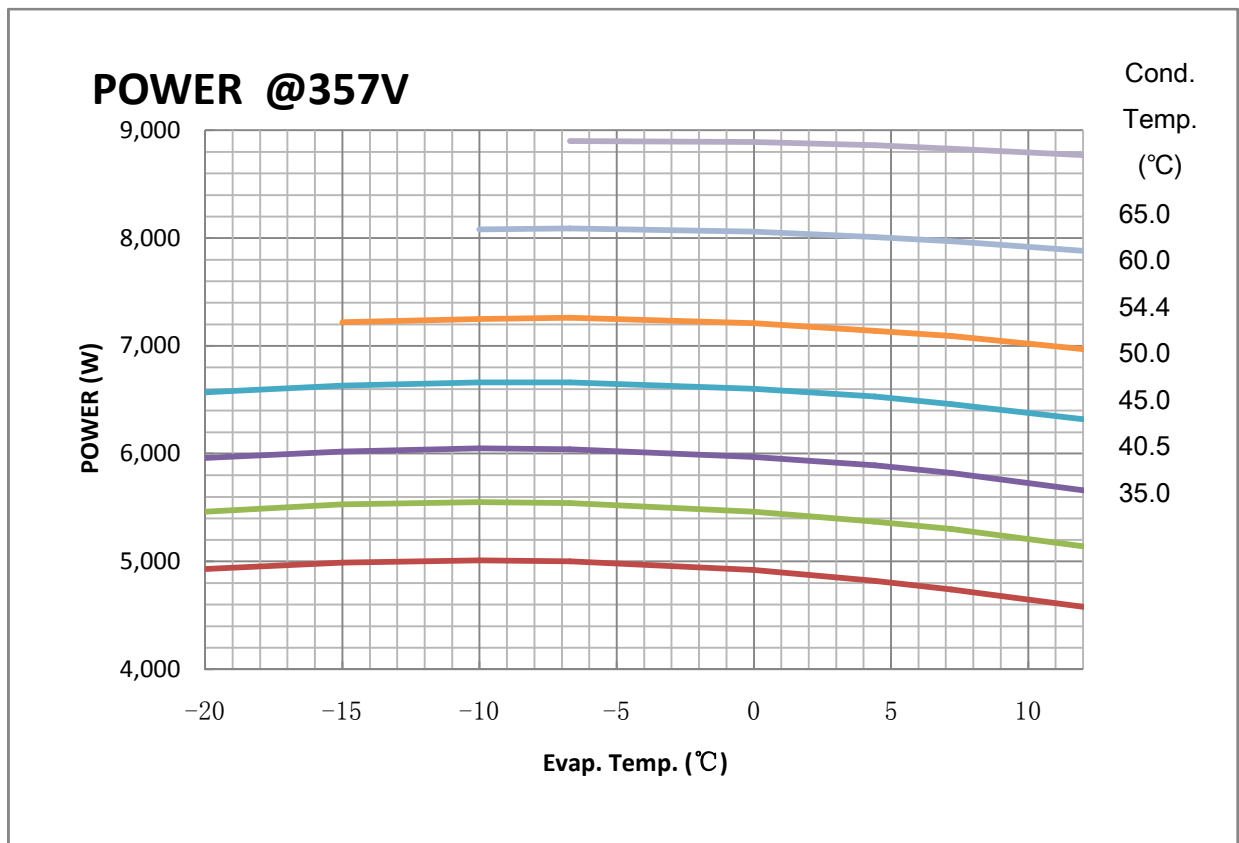
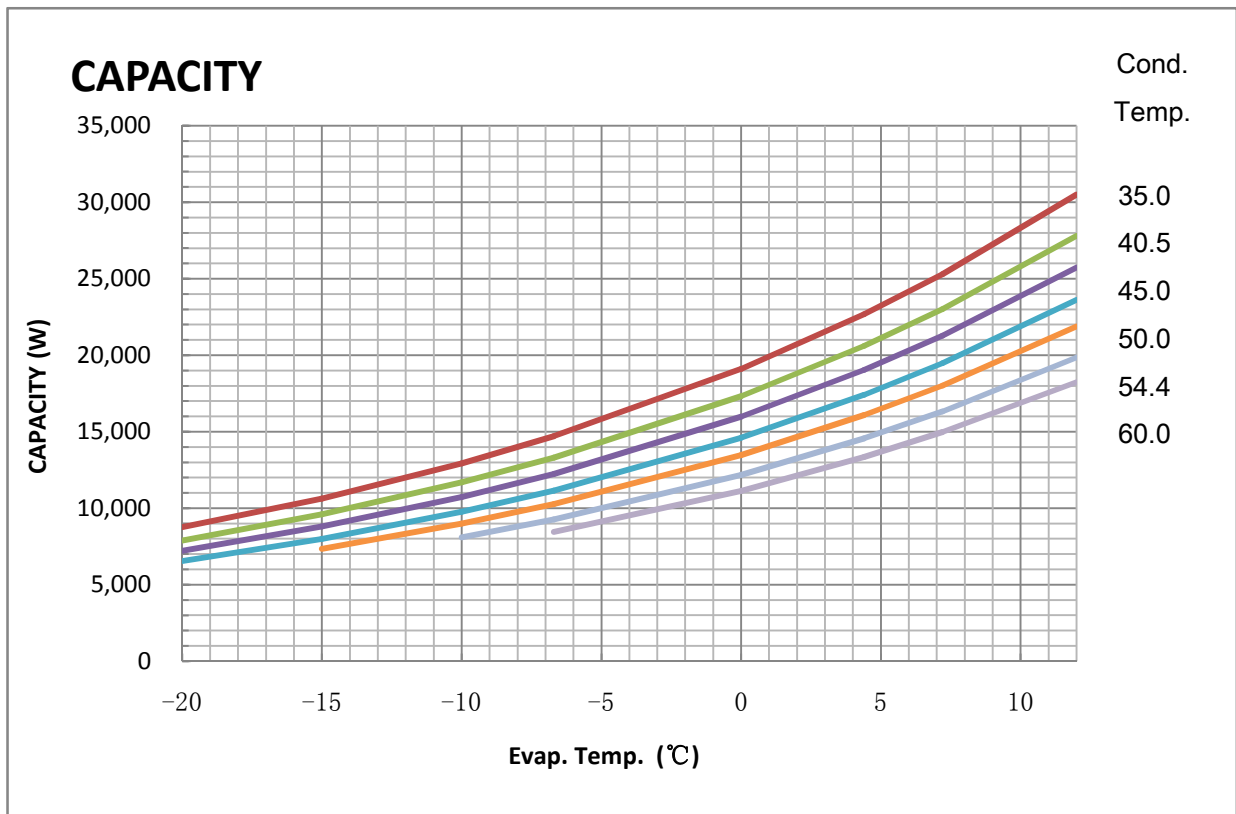
Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	4,930	4,990	5,010	5,000	4,920	4,820	4,740	4,580
40.5	5,460	5,530	5,550	5,540	5,460	5,370	5,300	5,140
45.0	5,960	6,020	6,050	6,040	5,970	5,890	5,820	5,660
50.0	6,570	6,630	6,660	6,660	6,600	6,530	6,460	6,320
54.4	7,160	7,220	7,250	7,260	7,210	7,140	7,090	6,970
60.0	7,980	8,050	8,080	8,090	8,060	8,010	7,970	7,880
65.0		8,850	8,880	8,900	8,890	8,860	8,830	8,770

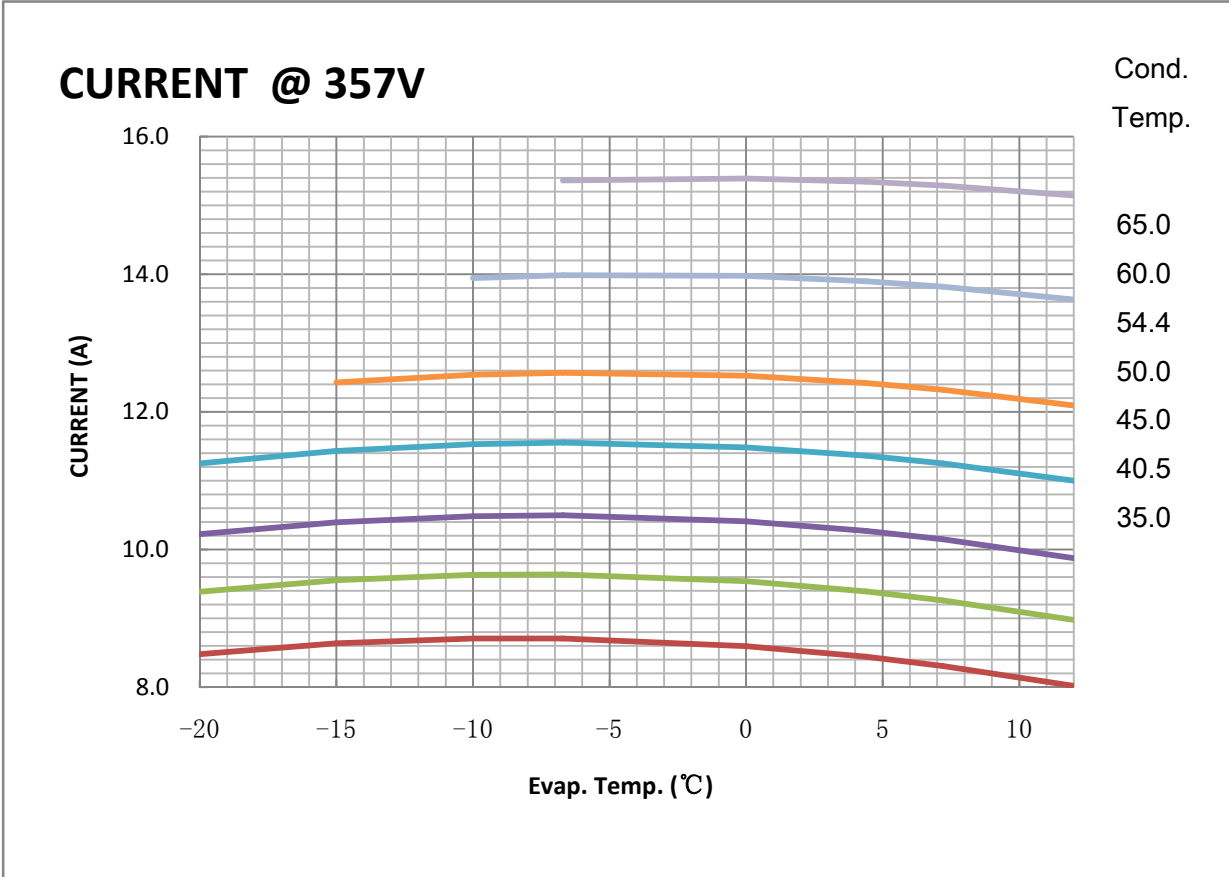
CURRENT(A)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	8.5	8.6	8.7	8.7	8.6	8.4	8.3	8.0
40.5	9.4	9.6	9.6	9.6	9.5	9.4	9.3	9.0
45.0	10.2	10.4	10.5	10.5	10.4	10.3	10.1	9.9
50.0	11.2	11.4	11.5	11.6	11.5	11.4	11.2	11.0
54.4	12.2	12.4	12.5	12.6	12.5	12.4	12.3	12.1
60.0	13.6	13.8	13.9	14.0	14.0	13.9	13.8	13.6
65.0		15.2	15.3	15.4	15.4	15.3	15.3	15.1

REFRIG FLOW(kg/h)

Condensing Temperature(°C)	Evaporating Temperature(°C)							
	-20	-15	-10	-6.7	0	4.4	7.2	12
35.0	244	292	350	394	501	586	648	770
40.5	241	288	345	388	493	578	638	758
45.0	239	285	341	384	488	571	631	749
50.0	236	282	337	379	481	563	622	738
54.4	233	279	333	375	476	556	615	729
60.0	230	275	329	370	469	548	605	718
65.0		272	325	365	463	541	597	708





COEFFICIENTS OF PERFORMANCE CURVES

Compressor Model **C-SBS180H00B**
 Power Source **3PH 90rps 357V**
 Suction Gas Superheat (K) **11.1**
 Sub Cooling (K) **8.3**
 Compressor Cooling **Natural Cooling**
 Refrigerant **R404A**

$X=C1+C2*(S)+C3*D+C4*(S^2)+C5*(S*D)+C6*(D^2)+C7*(S^3)+C8*(D*S^2)+C9*(S*D^2)+C10*(D^3)$
 X—CAPACITY(W) OR POWER(W) OR CURRENT(A) OR FLOW(kg/h)
 S—EVAPORATING TEMP, °C
 D—CONDENSING TEMP, °C

90rps 357V	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
1	3.389455E+04	3.393298E+03	5.885096E+00	5.493877E+02
2	1.252311E+03	-1.758612E+01	-2.268532E-02	2.021796E+01
3	-5.067813E+02	-4.253601E+00	-2.720654E-03	-1.468807E+00
4	1.988312E+01	-1.281403E+00	-2.110122E-03	3.599986E-01
5	-1.679586E+01	-2.666331E-01	-6.640475E-04	-6.654136E-02
6	2.405088E+00	1.366985E+00	2.292529E-03	2.010431E-03
7	1.467478E-01	9.628317E-04	1.031767E-06	3.226142E-03
8	-1.525163E-01	1.134188E-02	1.100170E-05	-9.716115E-04
9	7.008614E-02	7.023377E-03	1.420631E-05	1.241773E-04
10	-2.596905E-08	-8.657006E-09	-1.996685E-12	5.002407E-12

Operating Envelope

SH: 11.1K

Refrigerant: R404A

