

SPECIFICATIONS OF COMPRESSOR

Model No: C-SBN373H8A

Output : 5 HP



Temporary

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

31/Mar/18

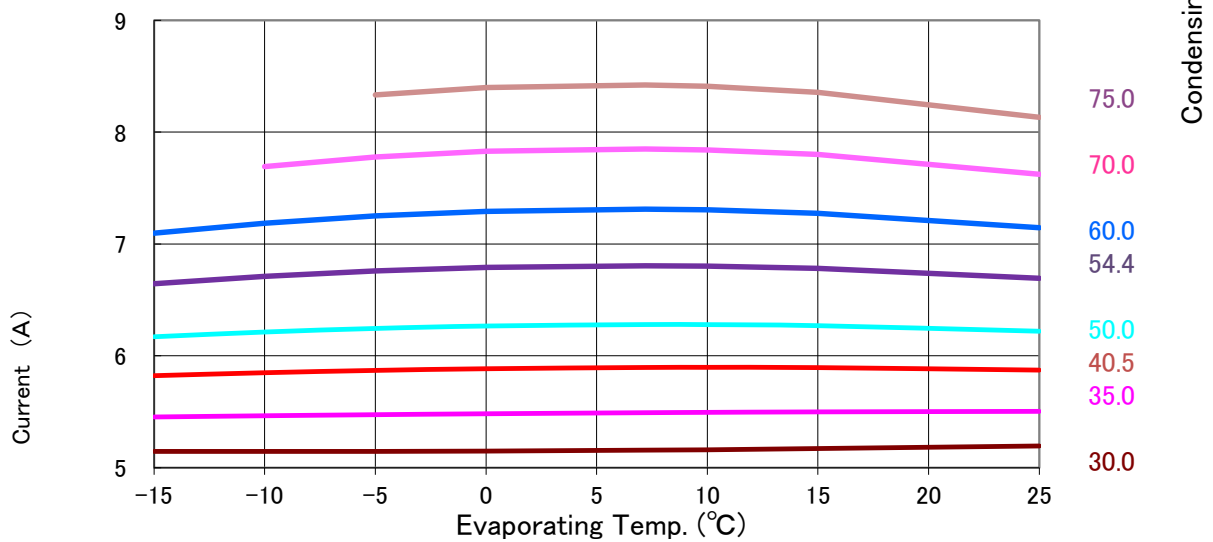
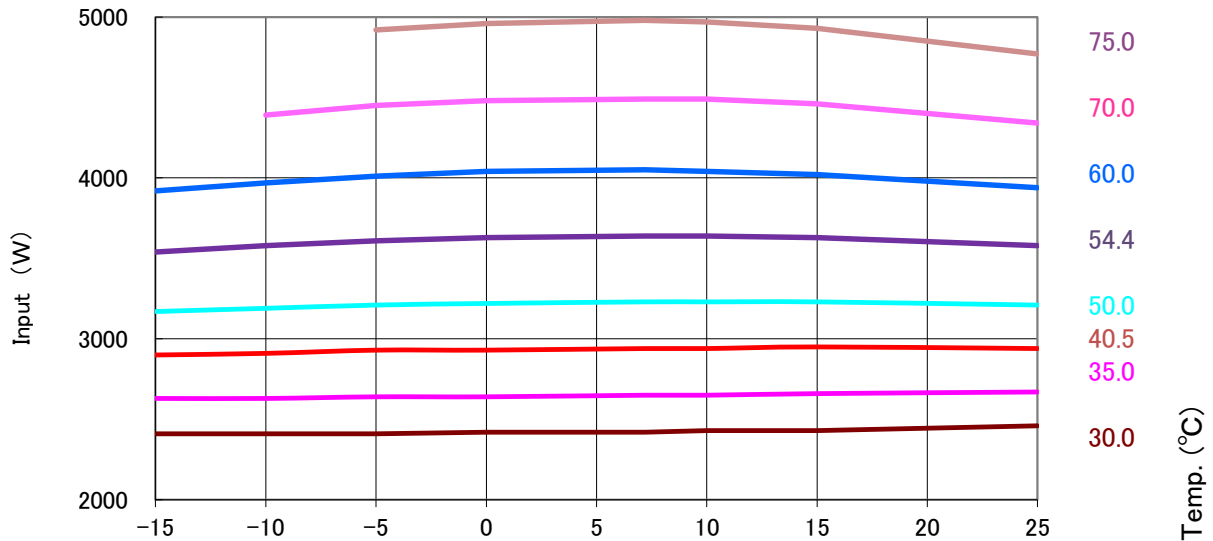
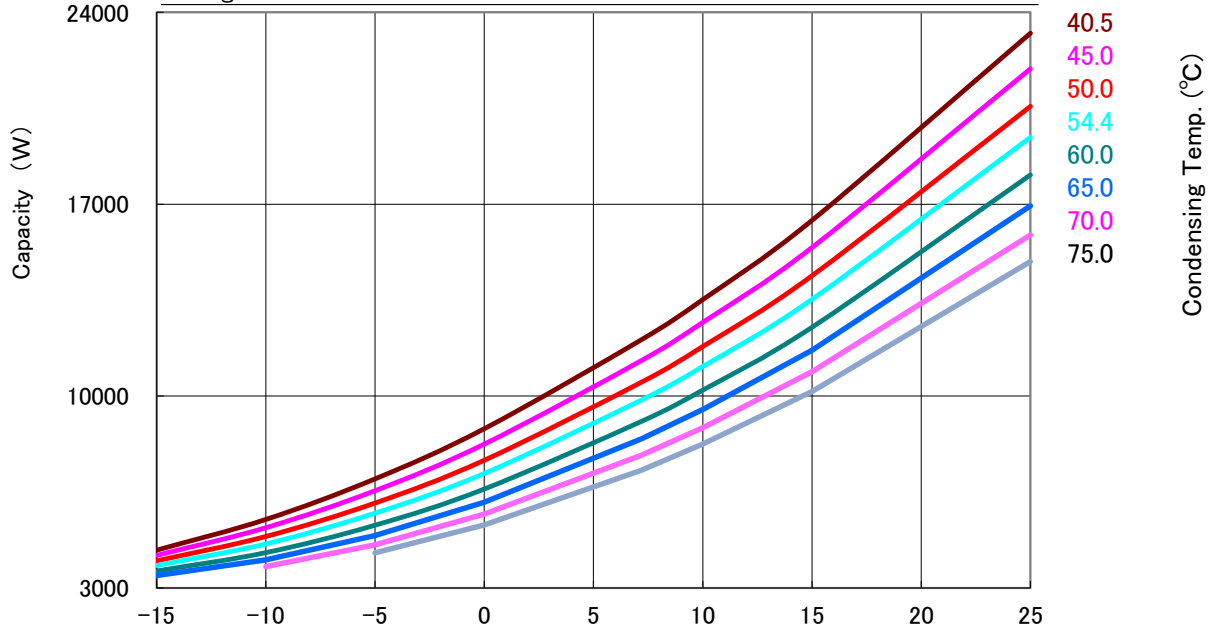
GENERAL SPECIFICATIONS

Model No:	C-SBN373H8A	
Application		
Evaporating Temp Range	(°C)	-15 ~ 25
Refrigerant		R513A
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	9860 / 12570
Input	(W)	3230 / 3890
Current	(A)	6.3 / 6.3
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)	83.2
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-SBN373H8A
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-SBN373H8A
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	4,380	5,500	6,980	8,810	12,060	13,520	16,410	23,240
	45.0	4,190	5,200	6,550	8,250	11,300	12,690	15,420	21,940
	50.0	3,990	4,880	6,100	7,660	10,510	11,810	14,390	20,570
	54.4	3,820	4,610	5,730	7,180	9,860	11,080	13,530	19,440
	60.0	3,620	4,290	5,290	6,610	9,080	10,220	12,510	18,070
	65.0	3,450	4,030	4,920	6,130	8,440	9,510	11,670	16,940
	70.0		3,780	4,580	5,700	7,840	8,850	10,890	15,880
	75.0			4,280	5,300	7,300	8,250	10,170	14,910

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	2,410	2,410	2,410	2,420	2,420	2,430	2,430	2,460
	45.0	2,630	2,630	2,640	2,640	2,650	2,650	2,660	2,670
	50.0	2,900	2,910	2,930	2,930	2,940	2,940	2,950	2,940
	54.4	3,170	3,190	3,210	3,220	3,230	3,230	3,230	3,210
	60.0	3,540	3,580	3,610	3,630	3,640	3,640	3,630	3,580
	65.0	3,920	3,970	4,010	4,040	4,050	4,040	4,020	3,940
	70.0		4,390	4,450	4,480	4,490	4,490	4,460	4,340
	75.0			4,920	4,960	4,980	4,970	4,930	4,770

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2
	45.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	50.0	5.8	5.8	5.9	5.9	5.9	5.9	5.9	5.9
	54.4	6.2	6.2	6.2	6.3	6.3	6.3	6.3	6.2
	60.0	6.6	6.7	6.8	6.8	6.8	6.8	6.8	6.7
	65.0	7.1	7.2	7.3	7.3	7.3	7.3	7.3	7.1
	70.0		7.7	7.8	7.8	7.8	7.8	7.8	7.6
	75.0			8.3	8.4	8.4	8.4	8.4	8.1

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)
C1	1.515618E+04	1.667833E+03	3.269684E+00
C2	7.069900E+02	2.230482E+00	-5.726407E-04
C3	-1.864980E+02	-1.154038E+01	2.057725E-02
C4	8.255745E+00	6.550017E-01	9.602471E-04
C5	-9.035920E+00	-1.319506E-01	-6.971692E-05
C6	7.337745E-01	7.380509E-01	6.356857E-04
C7	-3.923177E-05	-6.877355E-04	-8.936659E-07
C8	-2.965853E-02	-1.456282E-02	-2.204341E-05
C9	3.655477E-02	2.396915E-03	2.645319E-06
C10	-5.818784E-09	-5.040633E-10	1.734007E-12

Note: The polynomial coefficients subject to change without notice.

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

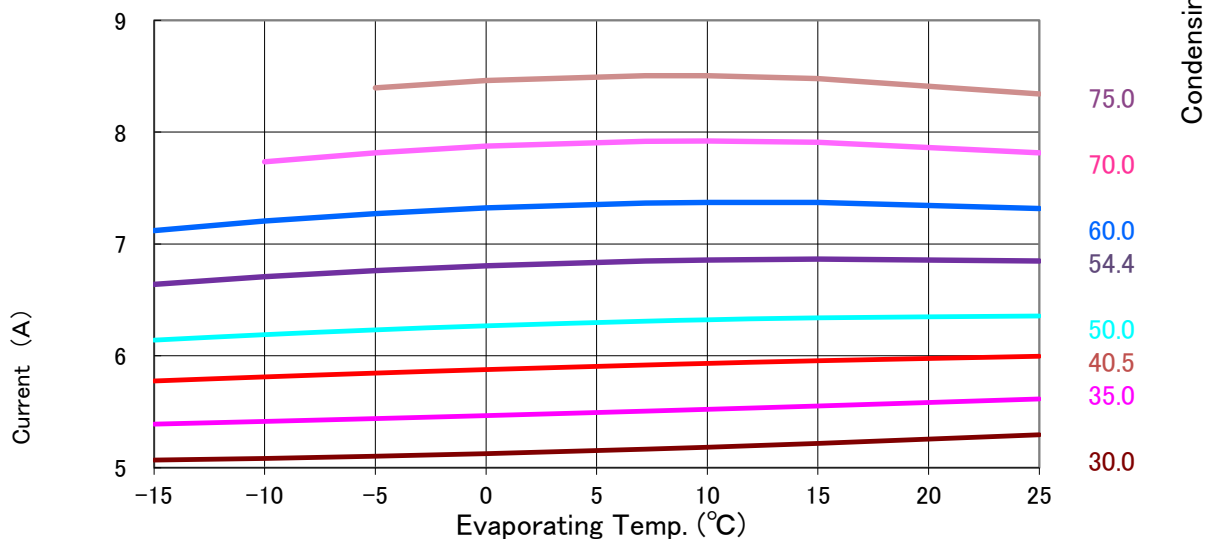
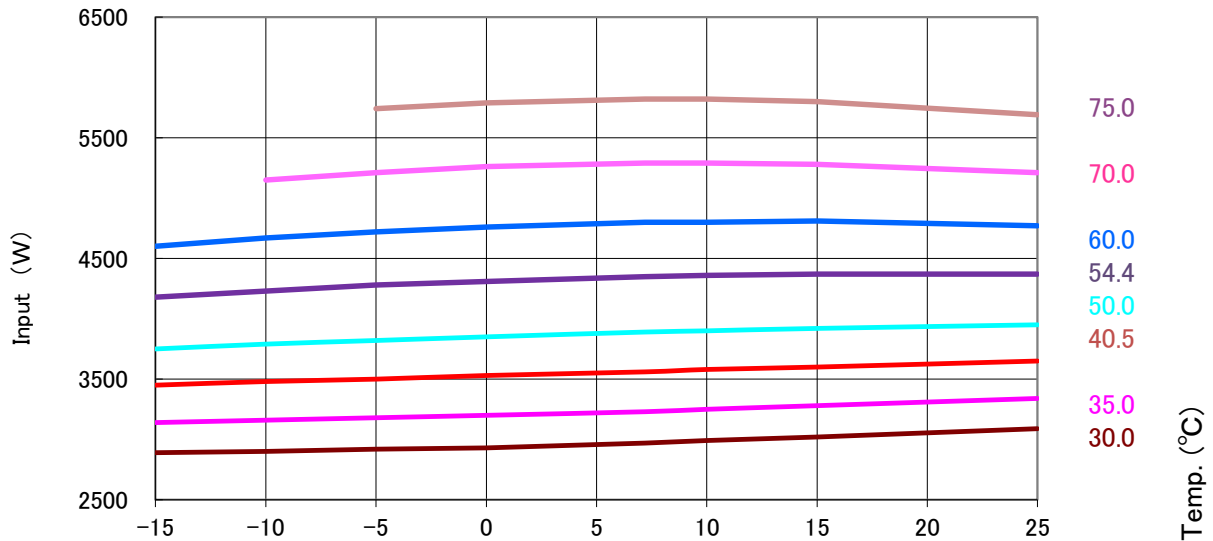
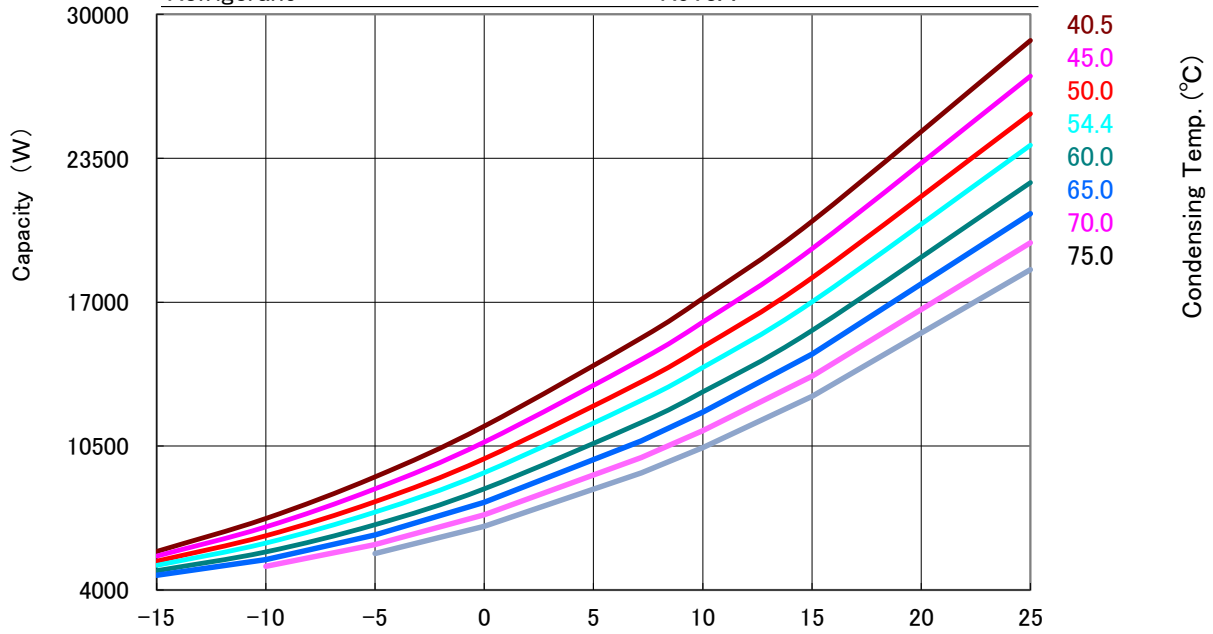
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	C-SBN373H8A
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-SBN373H8A
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	5,740	7,230	9,110	11,400	15,390	17,170	20,650	28,820
	45.0	5,530	6,850	8,570	10,680	14,420	16,100	19,410	27,210
	50.0	5,300	6,450	7,990	9,930	13,410	14,980	18,100	25,510
	54.4	5,110	6,120	7,520	9,300	12,570	14,050	17,010	24,090
	60.0	4,870	5,720	6,950	8,570	11,570	12,950	15,720	22,400
	65.0	4,660	5,380	6,480	7,960	10,740	12,040	14,650	21,000
	70.0		5,070	6,050	7,390	9,980	11,200	13,660	19,690
	75.0			5,650	6,880	9,290	10,430	12,750	18,470

Input (W)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	2,890	2,900	2,920	2,930	2,970	2,990	3,020	3,090
	45.0	3,140	3,160	3,180	3,200	3,230	3,250	3,280	3,340
	50.0	3,450	3,480	3,500	3,530	3,560	3,580	3,600	3,650
	54.4	3,750	3,790	3,820	3,850	3,890	3,900	3,920	3,950
	60.0	4,180	4,230	4,280	4,310	4,350	4,360	4,370	4,370
	65.0	4,600	4,670	4,720	4,760	4,800	4,800	4,810	4,770
	70.0		5,150	5,210	5,260	5,290	5,290	5,280	5,210
	75.0			5,740	5,790	5,820	5,820	5,800	5,690

Current (A)

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7.2	10	15	25
Condensing Temp. (°C)	40.5	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.3
	45.0	5.4	5.4	5.4	5.5	5.5	5.5	5.6	5.6
	50.0	5.8	5.8	5.8	5.9	5.9	5.9	6.0	6.0
	54.4	6.1	6.2	6.2	6.3	6.3	6.3	6.3	6.4
	60.0	6.6	6.7	6.8	6.8	6.8	6.9	6.9	6.8
	65.0	7.1	7.2	7.3	7.3	7.4	7.4	7.4	7.3
	70.0		7.7	7.8	7.9	7.9	7.9	7.9	7.8
	75.0			8.4	8.5	8.5	8.5	8.5	8.3

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)
C1	1.947616E+04	1.976743E+03	3.263900E+00
C2	8.939401E+02	-4.465570E-02	2.751174E-03
C3	-2.363629E+02	-8.195158E+00	1.856276E-02
C4	8.771222E+00	7.197630E-01	8.309272E-04
C5	-1.173098E+01	1.046146E-01	9.827630E-07
C6	9.095987E-01	7.856357E-01	6.750830E-04
C7	-6.661981E-04	-8.302944E-04	-7.652026E-07
C8	-1.860260E-02	-1.513890E-02	-1.807720E-05
C9	4.769603E-02	4.209789E-05	1.342762E-06
C10	-3.340740E-10	1.655044E-09	1.597121E-13

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

FLOW (kg/h) @50Hz

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7, 2	10	15	25
Condensing Temp. (°C)	40, 5	128	154	184	221	286	316	379	543
	45, 0	128	153	184	220	284	314	376	538
	50, 0	128	153	183	219	283	312	373	533
	54, 4	128	153	182	218	281	310	371	528
	60, 0	128	152	182	217	279	308	367	522
	65, 0	127	152	181	216	277	306	364	517
	70, 0	127	151	180	214	276	304	362	512
	75, 0			180	213	274	302	359	507

FLOW (kg/h) @60Hz

		Evaporating Temp. (°C)							
		-15	-10	-5	0	7, 2	10	15	25
Condensing Temp. (°C)	40, 5	163	195	233	277	357	394	470	669
	45, 0	163	195	232	276	356	392	467	664
	50, 0	163	194	231	275	354	390	464	658
	54, 4	163	194	231	274	352	388	461	653
	60, 0	163	193	230	273	350	385	458	646
	65, 0	163	193	229	272	348	383	455	640
	70, 0	162	193	228	271	346	381	451	635
	75, 0			228	270	344	378	448	629

Operating Envelope

Suction Gas Superheat: **11.1K**

Sub cooled: **8.3 k**

Refrigerant: **R513A**

