SPECIFICATIONS OF COMPRESSOR

Model No: 4CC149NA04

Output : 9 HP

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

Aug-20

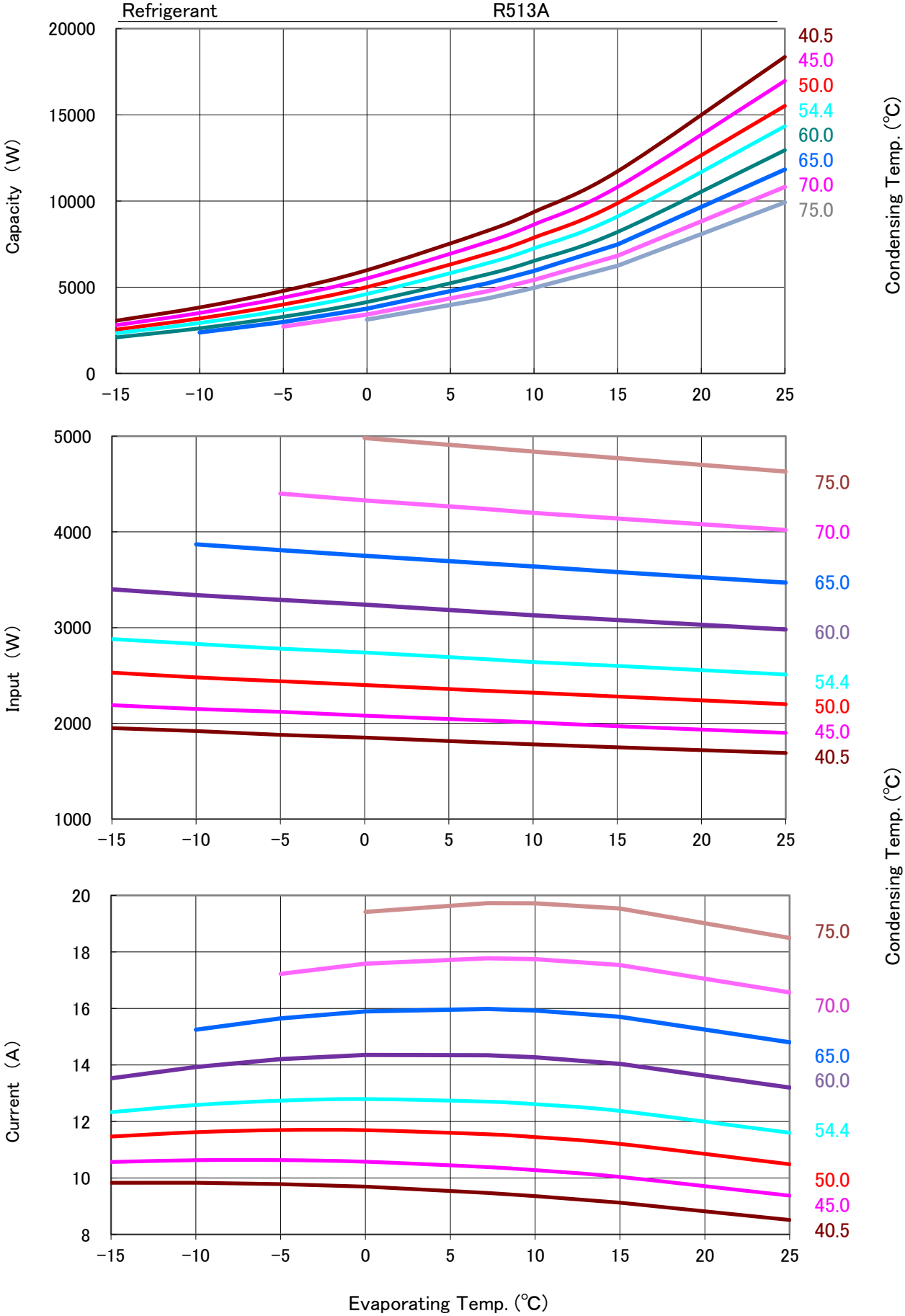
GENERAL SPECIFICATIONS

Model No:		4CC149NA04
Application		
Evaporating Temp Range	(℃)	-15 ～ 25
Refrigerant		R513A
Compressor Cooling		Natural Cooling
Rated Performance		
Capacity	(W)	18,700
Input	(W)	5,750
Current	(A)	11.7
Revolution	(min^{-1})	2950
Sound Level	(dB(A))	-
Rating Conditions		
Power Source		Inverter 3-PH 50Hz 372V
Evaporating Temp	(℃)	7.2
Condensing Temp	(℃)	54.4
Suction Gas Temp	(℃)	18.3
Liquid Temp	(℃)	43.8
Ambient Temp	(℃)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design		Hermetic Scroll
Displacement	(cm3)	148.8
Suction Line Connection	(Φmm 0D)	25.4
Discharge Line Connection	(Φmm 0D)	19.05
Oil	(ml)	2500(FV68S)
Mass(Incl.Oil)	(kg)	70
Motor		
Type		Inverter 3-PH Induction Motor(3IR)
Pole		2
Frequency Range		20～75Hz
Rated Power Source		3-PH 50Hz 380～415V
Voltage Range	(V)	342～457

Panasonic Appliances Compressor (Dalian) Co., Ltd.

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-PH 20Hz 156V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A



PERFORMANCE DATA

Code No.	4CC149NA04
Power Source	Inverter 3-PH 20Hz 156V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(K)	18.3
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	3,060	3,830	4,790	5,990	8,270	9,370	11,730	18,360
45.0	2,800	3,510	4,400	5,510	7,620	8,640	10,820	16,970
50.0	2,540	3,190	4,000	5,010	6,940	7,880	9,880	15,520
54.4	2,330	2,930	3,670	4,610	6,390	7,260	9,110	14,340
60.0	2,090	2,620	3,290	4,140	5,750	6,530	8,210	12,950
65.0		2,380	2,990	3,760	5,230	5,950	7,480	11,830
70.0			2,720	3,420	4,770	5,420	6,830	10,820
75.0				3,120	4,350	4,960	6,250	9,920

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	1,950	1,920	1,880	1,850	1,800	1,780	1,750	1,690
45.0	2,190	2,150	2,120	2,080	2,030	2,010	1,970	1,900
50.0	2,530	2,480	2,440	2,400	2,340	2,320	2,280	2,200
54.4	2,880	2,830	2,780	2,740	2,670	2,640	2,600	2,510
60.0	3,400	3,340	3,290	3,240	3,160	3,130	3,080	2,980
65.0		3,870	3,810	3,750	3,670	3,640	3,580	3,470
70.0			4,400	4,330	4,240	4,200	4,140	4,020
75.0				4,980	4,880	4,840	4,770	4,630

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	9.8	9.8	9.8	9.7	9.5	9.4	9.1	8.5
45.0	10.6	10.6	10.6	10.6	10.4	10.3	10.0	9.4
50.0	11.5	11.6	11.7	11.7	11.5	11.4	11.2	10.5
54.4	12.3	12.6	12.7	12.8	12.7	12.6	12.4	11.6
60.0	13.5	13.9	14.2	14.4	14.3	14.3	14.0	13.2
65.0		15.2	15.7	15.9	16.0	15.9	15.7	14.8
70.0			17.2	17.6	17.8	17.7	17.5	16.6
75.0				19.4	19.7	19.7	19.5	18.5

FLOW (kg/h)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	82	100	121	145	184	200	232	303
45.0	81	99	120	144	182	199	231	303
50.0	80	98	119	142	181	198	230	302
54.4	79	97	118	141	180	197	229	302
60.0	78	96	116	140	179	195	228	301
65.0		95	115	138	177	194	227	300
70.0			114	137	176	193	225	300
75.0				136	175	192	224	299

Coefficients of Polynominal Formula (Inverter 3-PH 20Hz 156V)

	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	1.191044E+04	2.141601E+03	6.496216E+00	1.562563E+02
C2	5.382053E+02	-5.464494E+00	1.749300E-02	5.025402E+00
C3	-1.821111E+02	-6.026215E+01	-3.082651E-02	-2.902185E-01
C4	1.038272E+01	7.700260E-04	2.971914E-03	4.273025E-02
C5	-8.216551E+00	7.883859E-02	-3.088099E-03	-4.472263E-04
C6	8.719606E-01	1.308437E+00	2.699478E-03	2.222582E-04
C7	1.019064E-01	-3.028035E-05	-4.300616E-06	1.316636E-07
C8	-9.671123E-02	2.742157E-04	-9.360506E-05	2.743906E-04
C9	3.816274E-02	-2.714011E-03	5.158774E-05	-5.736963E-06
C10	-5.520915E-09	2.287715E-09	7.761129E-12	7.127436E-12

Note: The polynomial coefficients subject to change without notice.

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

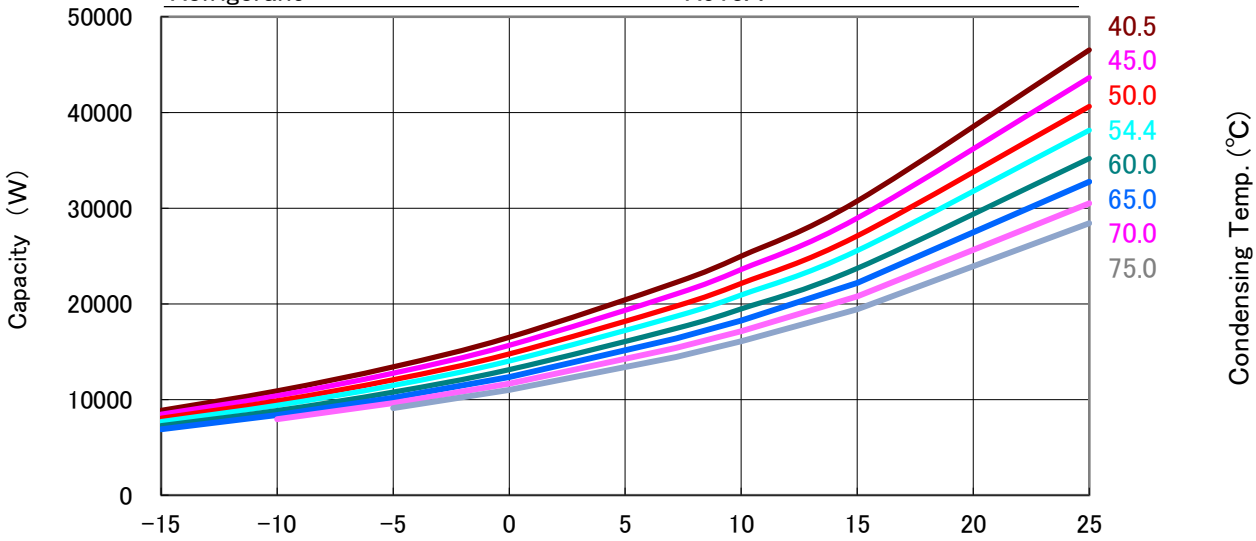
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

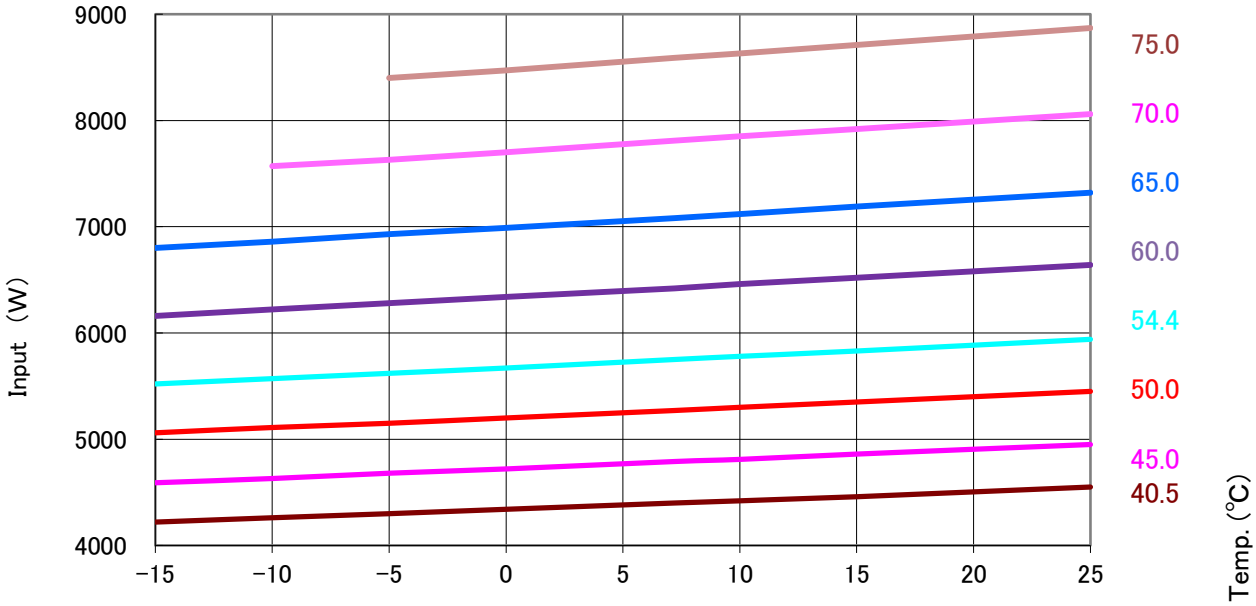
S——EVAPORATING TEMP, °C

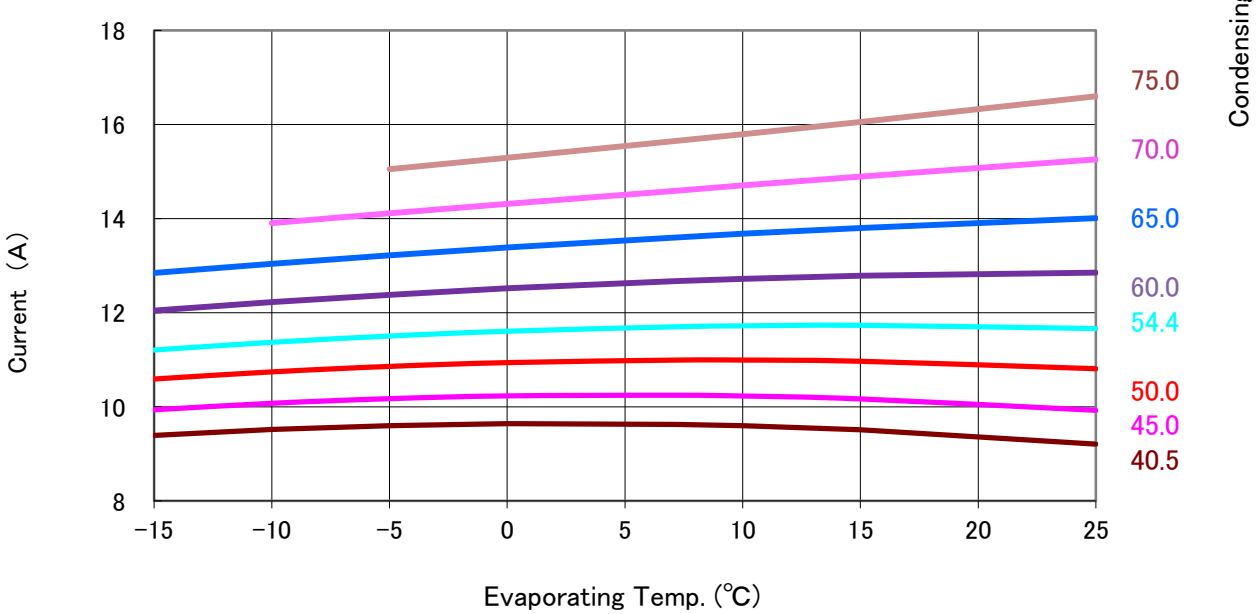
D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-PH 50Hz 372V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A







PERFORMANCE DATA

Code No.	4CC149NA04
Power Source	Inverter 3-PH 50Hz 372V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(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	8,860	10,900	13,410	16,500	22,240	24,980	30,740	46,530
45.0	8,460	10,390	12,750	15,660	21,030	23,590	28,960	43,640
50.0	8,040	9,850	12,060	14,760	19,760	22,130	27,100	40,630
54.4	7,690	9,390	11,470	14,020	18,700	20,920	25,560	38,140
60.0	7,260	8,840	10,770	13,120	17,430	19,470	23,710	35,190
65.0	6,890	8,370	10,180	12,360	16,370	18,260	22,190	32,760
70.0		7,940	9,620	11,660	15,380	17,130	20,760	30,500
75.0			9,100	11,000	14,460	16,080	19,440	28,420

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	4,220	4,260	4,300	4,340	4,400	4,420	4,460	4,550
45.0	4,590	4,630	4,680	4,720	4,790	4,810	4,860	4,950
50.0	5,060	5,110	5,150	5,200	5,270	5,300	5,350	5,450
54.4	5,520	5,570	5,620	5,670	5,750	5,780	5,830	5,940
60.0	6,160	6,220	6,280	6,340	6,420	6,460	6,520	6,640
65.0	6,800	6,860	6,930	6,990	7,080	7,120	7,190	7,320
70.0		7,570	7,630	7,700	7,810	7,850	7,920	8,060
75.0			8,400	8,470	8,590	8,630	8,710	8,870

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	9.4	9.5	9.6	9.6	9.6	9.6	9.5	9.2
45.0	9.9	10.1	10.2	10.2	10.2	10.2	10.2	9.9
50.0	10.6	10.7	10.9	10.9	11.0	11.0	11.0	10.8
54.4	11.2	11.4	11.5	11.6	11.7	11.7	11.7	11.7
60.0	12.0	12.2	12.4	12.5	12.7	12.7	12.8	12.9
65.0	12.8	13.0	13.2	13.4	13.6	13.7	13.8	14.0
70.0		13.9	14.1	14.3	14.6	14.7	14.9	15.3
75.0			15.1	15.3	15.6	15.8	16.1	16.6

FLOW (kg/h)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	236	288	348	416	527	575	666	872
45.0	233	285	345	413	524	572	663	870
50.0	230	282	341	409	520	568	660	868
54.4	228	279	338	405	517	565	657	867
60.0	225	275	334	401	513	561	654	865
65.0	222	272	330	397	509	558	651	863
70.0		269	327	394	506	554	648	861
75.0				390	502	551	644	860

Coefficients of Polynominal Formula (Inverter 3-PH 50Hz 372V)

	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	2.621568E+04	3.016958E+03	6.478781E+00	4.487471E+02
C2	1.231903E+03	4.690120E+00	6.748997E-04	1.444073E+01
C3	-2.872770E+02	-1.441114E+01	3.180188E-02	-8.314184E-01
C4	2.424303E+01	1.187835E-03	-1.934282E-03	1.227240E-01
C5	-1.636782E+01	2.200696E-02	-5.798721E-04	-1.545244E-03
C6	1.140744E+00	1.162468E+00	1.145740E-03	6.183279E-04
C7	2.163151E-01	1.534196E-05	1.622188E-06	7.565535E-07
C8	-2.250613E-01	1.627170E-04	2.543951E-05	7.881154E-04
C9	7.043023E-02	1.592276E-03	1.624609E-05	-1.401605E-05
C10	-2.033223E-08	1.317627E-09	-3.510687E-12	-1.700681E-10

Note: The polynomial coefficients subject to change without notice.

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

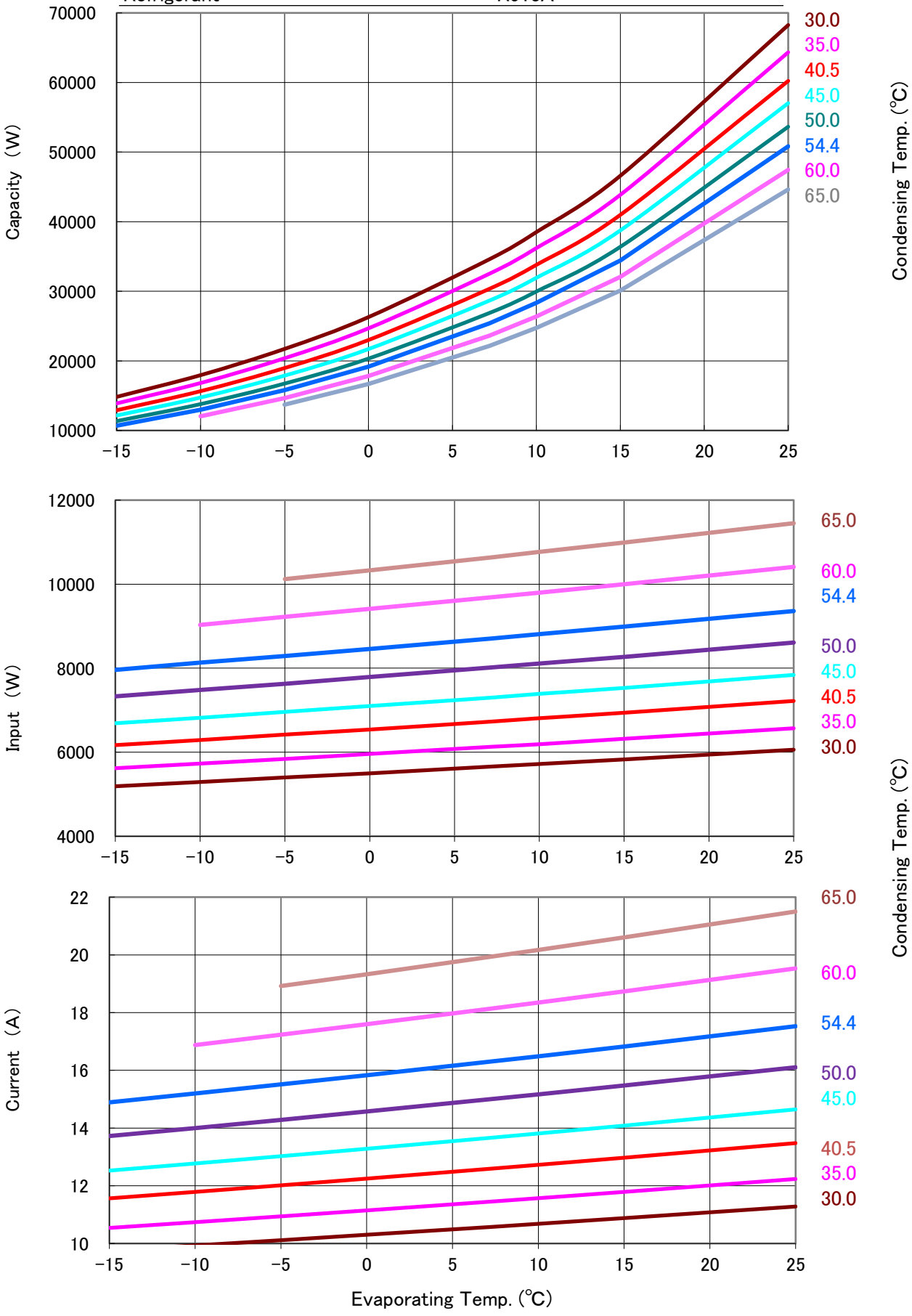
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-HP 75Hz 355V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A



PERFORMANCE DATA

Code No.	4CC149NA04
Power Source	Inverter 3-HP 75Hz 355V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(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	14,830	17,950	21,720	26,290	34,600	38,510	46,600	68,260
45.0	13,890	16,820	20,380	24,680	32,520	36,210	43,860	64,340
50.0	12,910	15,650	18,970	23,000	30,350	33,800	40,980	60,230
54.4	12,150	14,740	17,880	21,700	28,660	31,940	38,750	57,030
60.0	11,350	13,790	16,740	20,330	26,880	29,970	36,390	53,650
65.0	10,690	12,990	15,790	19,180	25,400	28,330	34,420	50,830
70.0		12,040	14,650	17,820	23,630	26,370	32,070	47,450
75.0			13,710	16,690	22,150	24,730	30,110	44,630

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	5,190	5,290	5,400	5,500	5,660	5,720	5,830	6,060
45.0	5,620	5,730	5,840	5,960	6,130	6,190	6,320	6,570
50.0	6,170	6,290	6,420	6,540	6,730	6,810	6,940	7,220
54.4	6,690	6,820	6,960	7,100	7,300	7,390	7,530	7,840
60.0	7,330	7,480	7,630	7,790	8,020	8,110	8,270	8,610
65.0	7,960	8,130	8,290	8,460	8,710	8,810	8,990	9,360
70.0		9,030	9,220	9,410	9,690	9,800	10,000	10,410
75.0			10,120	10,330	10,640	10,770	10,990	11,450

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	9.8	9.9	10.1	10.3	10.6	10.7	10.9	11.3
45.0	10.5	10.7	10.9	11.1	11.4	11.6	11.8	12.2
50.0	11.6	11.8	12.0	12.2	12.6	12.7	13.0	13.5
54.4	12.5	12.8	13.0	13.3	13.7	13.8	14.1	14.6
60.0	13.7	14.0	14.3	14.6	15.0	15.2	15.5	16.1
65.0	14.9	15.2	15.5	15.8	16.3	16.5	16.8	17.5
70.0		16.9	17.2	17.6	18.1	18.3	18.7	19.5
75.0			18.9	19.3	19.9	20.2	20.6	21.5

FLOW (kg/h)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	330	394	470	560	722	796	950	1,352
45.0	330	393	469	558	718	792	944	1,340
50.0	329	392	467	556	715	788	938	1,329
54.4	329	392	466	554	711	784	932	1,318
60.0	329	391	464	552	707	779	924	1,305
65.0	328	390	463	549	703	774	918	1,293
70.0		389	461	547	699	769	912	1,282
75.0			460	545	695	764	905	1,271

Coefficients of Polynominal Formula (Inverter 3-HP 75Hz 355V)

	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	4.506666E+04	3.863975E+03	7.228012E+00	5.764365E+02
C2	1.717660E+03	1.399750E+01	2.394334E-02	2.165727E+01
C3	-5.750258E+02	-1.046359E+01	-1.924871E-02	-4.264165E-01
C4	2.894573E+01	-3.842938E-02	-1.040882E-04	4.169379E-01
C5	-2.184650E+01	-3.460750E-02	-1.531572E-04	-5.349540E-02
C6	2.682597E+00	1.269344E+00	2.370049E-03	8.612925E-05
C7	2.788856E-01	-8.689318E-04	-1.660043E-06	4.644064E-03
C8	-2.167781E-01	1.687943E-03	3.694975E-06	-1.348713E-03
C9	1.015553E-01	5.443037E-03	1.224171E-05	1.111276E-04
C10	-5.104056E-07	1.947739E-07	3.698312E-10	-2.276599E-10

Note: The polynomial coefficients subject to change without notice.

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

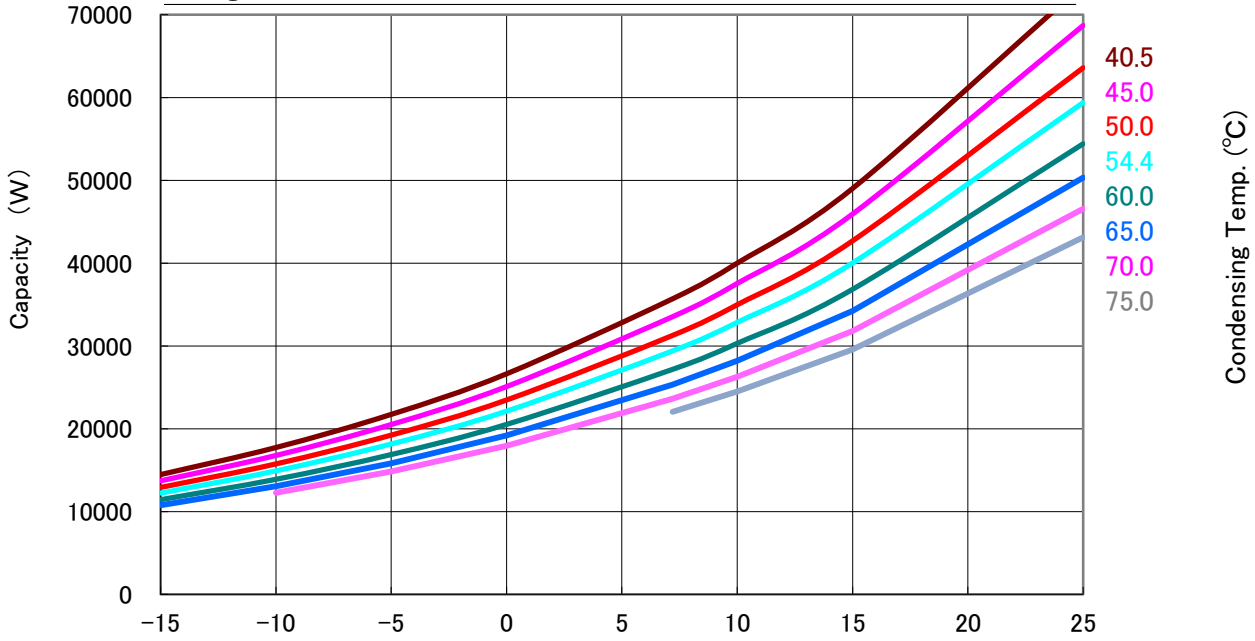
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

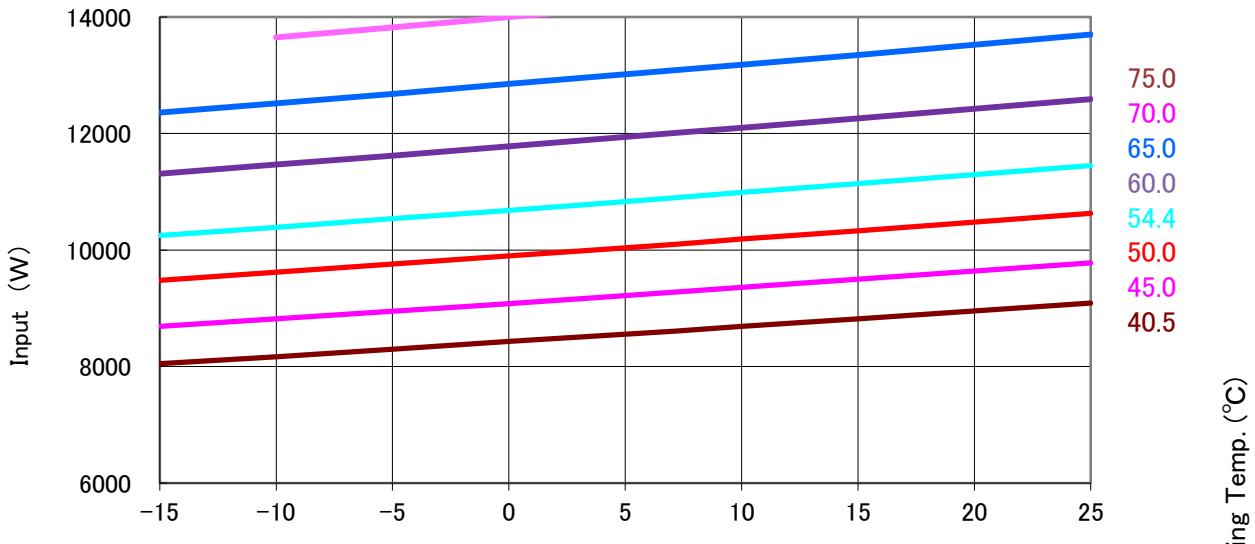
S——EVAPORATING TEMP, °C

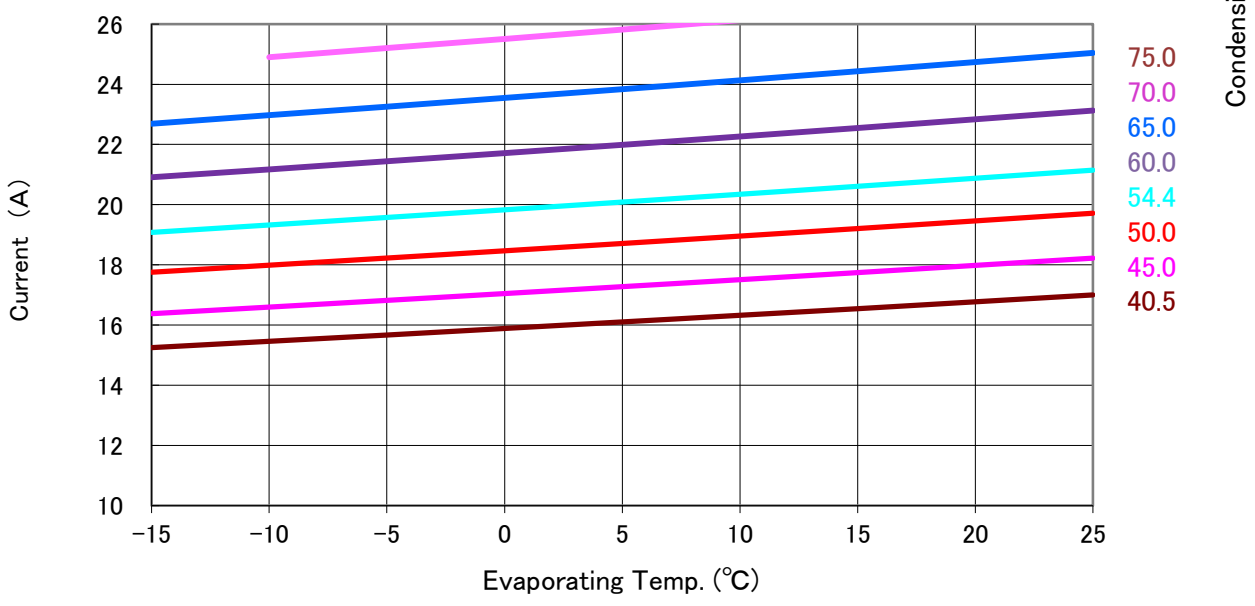
D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-HP 90Hz 375V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(K)	11.1
Sub Cooled(K)	8.3
Compressor Cooling	Natural Cooling
Refrigerant	R513A







PERFORMANCE DATA

Code No.	4CC149NA04
Power Source	Inverter 3-HP 90Hz 375V
Condensing Temp.(℃)	40.5、45、50、54.4、60、65、70、75
Suction Gas Superheat(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	14,460	17,730	21,730	26,630	35,690	39,990	49,010	73,620
45.0	13,710	16,770	20,510	25,090	33,530	37,540	45,920	68,700
50.0	12,910	15,750	19,230	23,470	31,270	34,970	42,680	63,590
54.4	12,230	14,910	18,160	22,120	29,400	32,840	40,010	59,380
60.0	11,430	13,890	16,880	20,520	27,170	30,310	36,830	54,410
65.0	10,760	13,040	15,820	19,180	25,320	28,210	34,220	50,320
70.0		12,260	14,830	17,950	23,620	26,280	31,800	46,560
75.0					22,040	24,494	29,574	43,114

Input (W)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	8,050	8,170	8,300	8,430	8,610	8,690	8,820	9,090
45.0	8,690	8,820	8,950	9,080	9,280	9,360	9,500	9,780
50.0	9,480	9,620	9,760	9,900	10,100	10,190	10,330	10,630
54.4	10,250	10,390	10,540	10,680	10,900	10,990	11,140	11,450
60.0	11,310	11,470	11,620	11,780	12,010	12,100	12,260	12,590
65.0	12,360	12,520	12,680	12,850	13,090	13,180	13,350	13,700
70.0		13,650	13,820	14,000	14,250	14,350	14,530	14,890
75.0					15,498	15,601	15,788	16,168

Current (A)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	15.2	15.5	15.7	15.9	16.2	16.3	16.5	17.0
45.0	16.4	16.6	16.8	17.0	17.4	17.5	17.7	18.2
50.0	17.8	18.0	18.2	18.5	18.8	19.0	19.2	19.7
54.4	19.1	19.3	19.6	19.8	20.2	20.3	20.6	21.1
60.0	20.9	21.2	21.4	21.7	22.1	22.3	22.6	23.1
65.0	22.7	23.0	23.3	23.5	24.0	24.1	24.4	25.0
70.0		24.9	25.2	25.5	26.0	26.1	26.5	27.1
75.0					28.1	28.3	28.6	29.3

FLOW (kg/h)

Condensing Temp. (℃) \ Evaporating Temp. (℃)	-15	-10	-5	0	7.2	10	15	25
40.5	369	452	552	675	902	1,009	1,234	1,844
45.0	376	456	553	670	885	985	1,195	1,756
50.0	384	461	554	665	866	960	1,153	1,664
54.4	390	465	554	660	850	938	1,117	1,586
60.0	399	471	555	655	830	910	1,073	1,492
65.0	407	476	556	650	813	886	1,036	1,413
70.0		481	557	644	795	863	999	1,339
75.0					779	841	964	1,268

Coefficients of Polynominal Formula

	CAPACITY (W)	POWER (W)	CURRENT (A)	FLOW (kg/h)
C1	4.464907E+04	5.573286E+03	1.039194E+01	7.362199E+02
C2	2.017568E+03	1.657641E+01	2.889360E-02	4.319096E+01
C3	-5.374351E+02	1.895061E+00	2.525740E-02	-1.934129E+00
C4	3.796402E+01	3.789770E-02	3.687062E-05	1.022843E+00
C5	-2.805147E+01	1.803411E-01	1.910948E-04	-4.404262E-01
C6	2.240305E+00	1.692232E+00	2.724589E-03	9.260769E-03
C7	3.287503E-01	-3.632806E-04	8.215208E-08	7.654738E-03
C8	-3.592311E-01	5.591114E-05	5.361844E-07	-1.085668E-02
C9	1.232272E-01	1.156449E-03	3.972804E-06	1.152187E-03
C10	-2.040668E-08	-3.243490E-09	-2.172165E-13	-9.034481E-10

Note:The polynomial coefficients subject to change without notice.

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

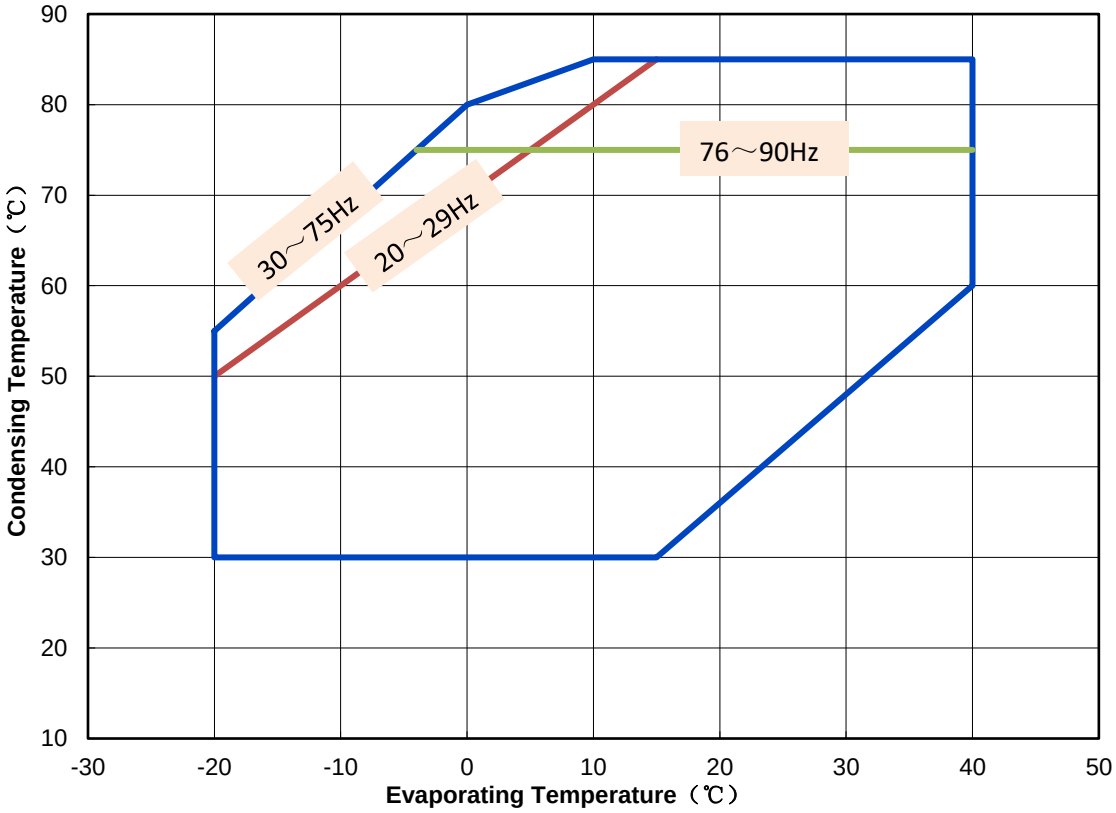
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

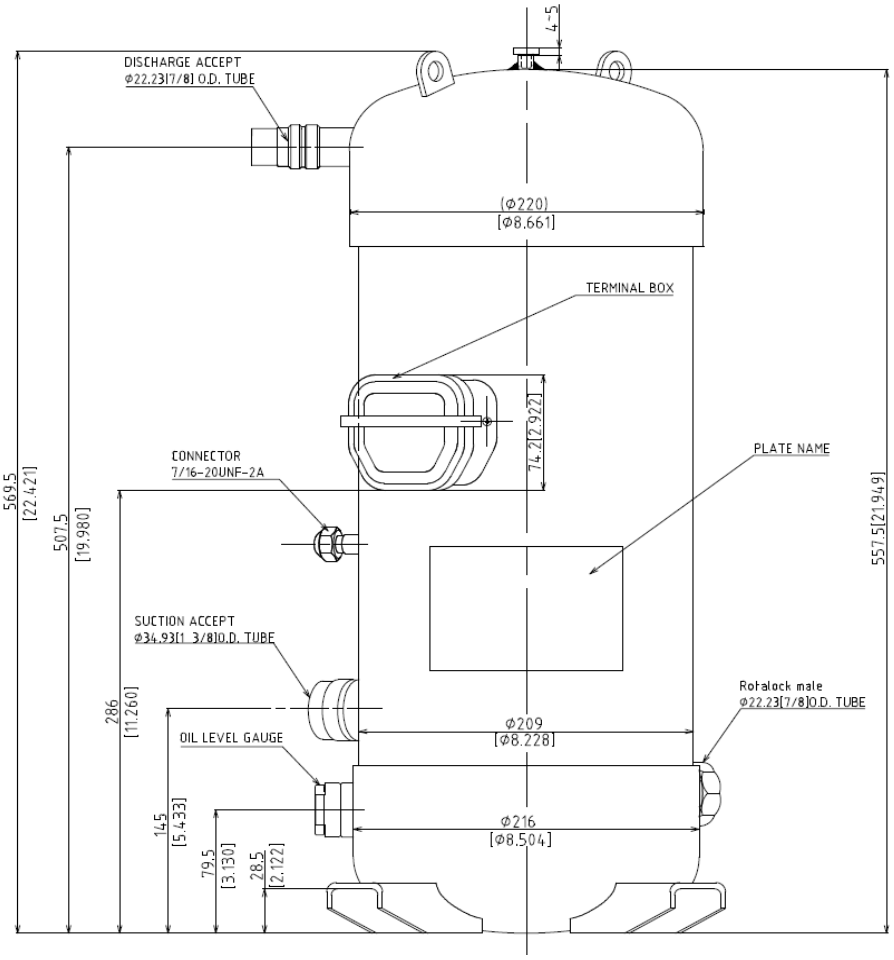
S——EVAPORATING TEMP, °C

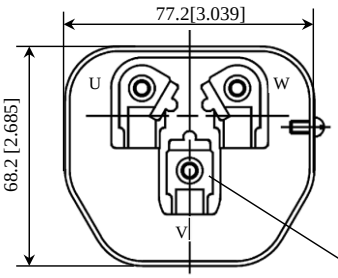
D——CONDENSING TEMP, °C

4CC149NA04 Operating Envelope

Refrigerant： R513A
Suction Gas Superheat： 11.1K



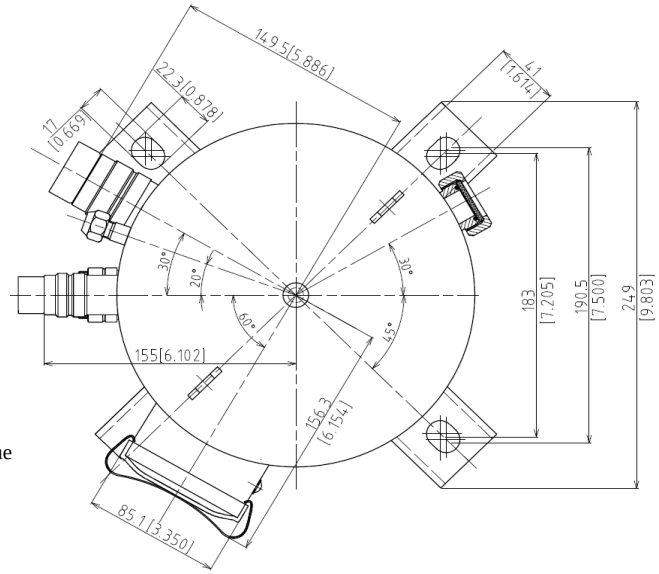




TERMINAL

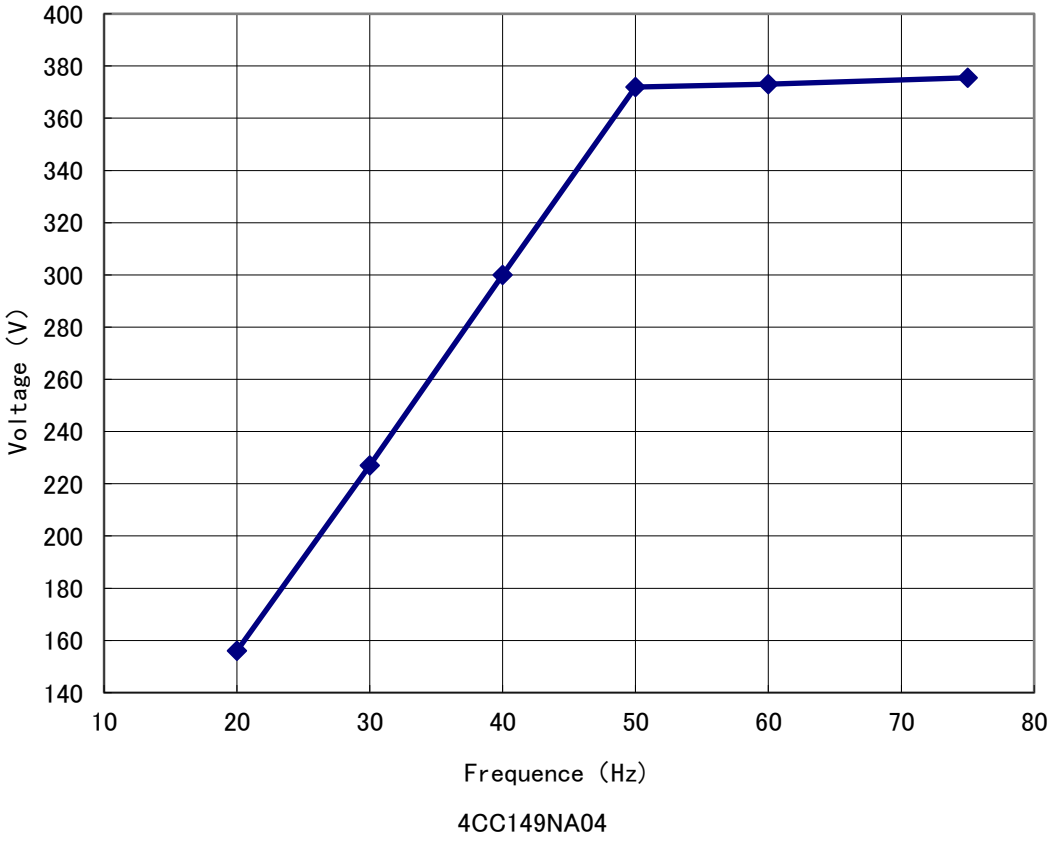
BOLT 5

The bolt tightening torque is 2.5～3N ·M.



Compressor Outline Drawing

Voltage-Frequency Curve



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