

SPECIFICATIONS OF COMPRESSOR

Model No: 4CC149NA04

Output : 9 HP



Temporary

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

Aug-2020

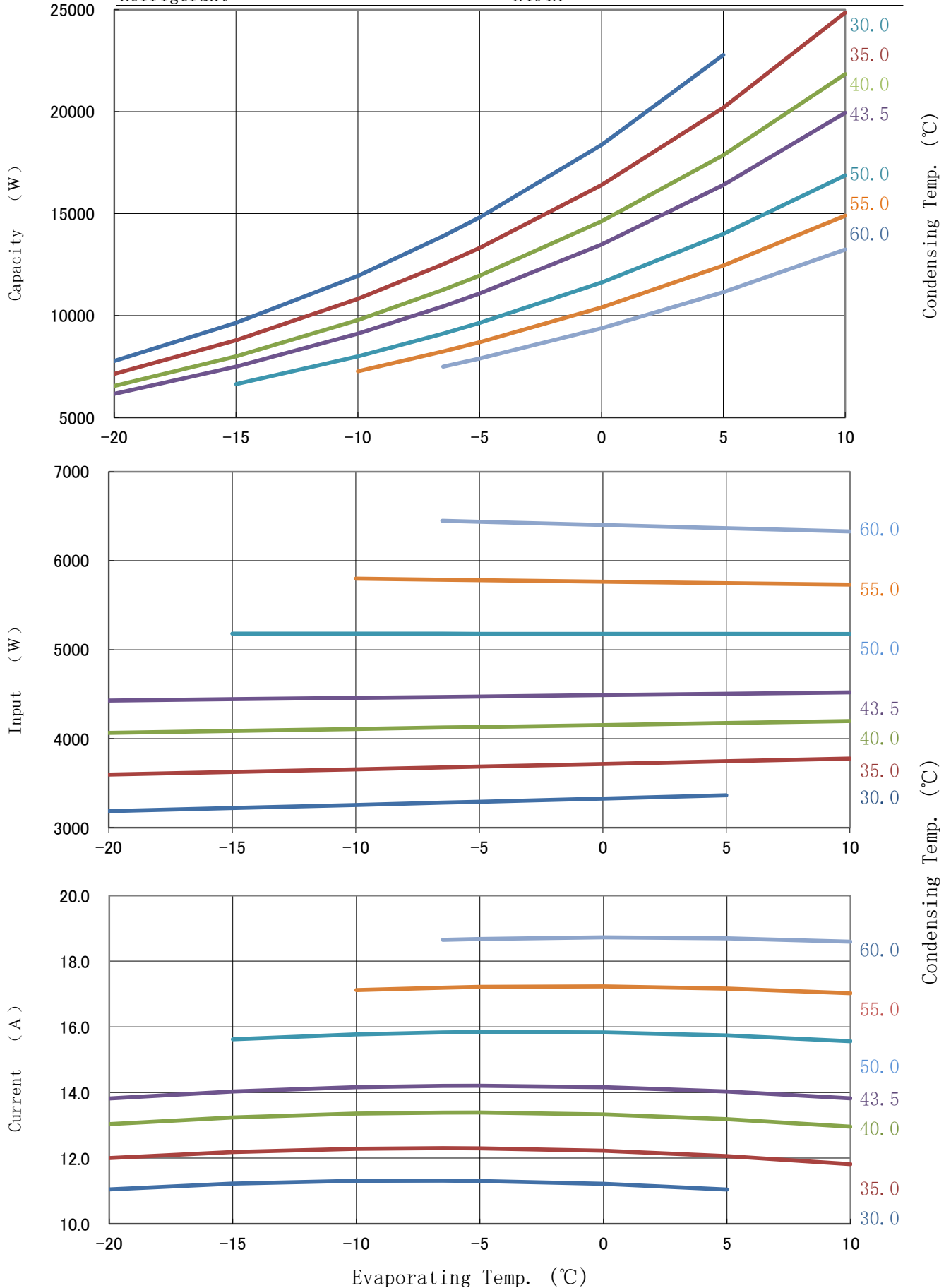
GENERAL SPECIFICATIONS

Model No:	4CC149NA04	
Application		
Evaporating Temp Range	(°C)	-20 ~ 10
Refrigerant	R404A	
Compressor Cooling	Natural Cooling	
Rated Performance		
Capacity	(W)	17300
Input	(W)	7,400
Current	(A)	14.90
Revolution	(min ⁻¹)	2950
Sound Level	(dB(A))	67max
Rating Conditions		
Power Source	Inverter 3-PH 50Hz 372V	
Evaporating Temp	(°C)	-6.5
Condensing Temp	(°C)	43.5
Suction Gas Temp	(°C)	18.5
Liquid Temp	(°C)	43.5
Ambient Temp	(°C)	35.0
Measuring Point of Sound Level		
Distance from the Compressor	(m)	1.0
Compressor		
Design	Hermetic Scroll	
Displacement	(cm ³)	148.8
Suction Line Connection	(Φ mm OD)	25.4
Discharge Line Connection	(Φ mm OD)	19.05
Oil	(ml)	2500 (FV68S)
Mass(Incl.Oil)	(kg)	70
Motor		
Type	Inverter 3-PH Induction Motor(3IR)	
Pole	2	
Frequency	20~75Hz	
Rated Power Source	3-PH 400V	
Voltage Range	(V)	156~375

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-PH 30Hz 226V
Condensing Temp. (°C)	30、35、40、43.5、50、55、60
Suction Temp. (°C)	18.5
Sub Cooled(K)	0
Compressor Cooling	Natural Cooling
Refrigerant	R404A



PERFORMANCE DATA

Code No.	4CC149NA04
Power Source	Inverter 3-PH 30Hz 226V
Condensing Temp. (°C)	30、35、40、43.5、50、55、60
Suction Temp. (°C)	18.5
Sub Cooled(K)	0
Compressor Cooling	Natural Cooling
Refrigerant	R404A

Capacity (W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	7,771	9,636	11,948	13,890	14,816	18,372	22,781	
	35.0	7,137	8,787	10,819	12,514	13,320	16,400	20,191	24,860
	40.0	6,545	8,001	9,780	11,257	11,956	14,616	17,868	21,844
	43.5	6,158	7,490	9,111	10,450	11,083	13,481	16,398	19,947
	50.0		6,637	7,998	9,115	9,640	11,618	14,002	16,875
	55.0			7,264	8,237	8,693	10,402	12,448	14,896
	60.0				7,493	7,891	9,376	11,141	13,237

Input (W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	3,186	3,221	3,256	3,281	3,292	3,328	3,364	
	35.0	3,597	3,627	3,656	3,677	3,686	3,716	3,746	3,777
	40.0	4,066	4,088	4,110	4,125	4,132	4,154	4,176	4,199
	43.5	4,429	4,444	4,459	4,470	4,475	4,490	4,505	4,521
	50.0		5,181	5,180	5,180	5,179	5,179	5,178	5,177
	55.0			5,799	5,787	5,782	5,765	5,749	5,732
	60.0				6,449	6,438	6,402	6,366	6,330

Current (A)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	11.0	11.2	11.3	11.3	11.3	11.2	11.0	
	35.0	12.0	12.2	12.3	12.3	12.3	12.2	12.1	11.8
	40.0	13.0	13.2	13.4	13.4	13.4	13.3	13.2	13.0
	43.5	13.8	14.0	14.2	14.2	14.2	14.2	14.0	13.8
	50.0		15.6	15.8	15.8	15.8	15.8	15.7	15.6
	55.0			17.1	17.2	17.2	17.2	17.2	17.0
	60.0				18.6	18.7	18.7	18.7	18.6

MassFlow (kg/H)		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	182	226	281	327	349	434	540	
	35.0	180	223	277	322	343	426	528	656
	40.0	178	220	273	317	338	418	517	640
	43.5	177	218	270	313	334	412	509	629
	50.0		215	265	306	326	402	495	610
	55.0			261	301	321	394	484	595
	60.0				296	315	386	474	581

EER (W/W)		Evaporating Temp. (°C)							
		-20	-15	-10	-6.7	0	4.4	7.2	12
Condensing Temp. (°C)	30.0	2.44	2.99	3.67	4.23	4.50	5.52	6.77	
	35.0	1.98	2.42	2.96	3.40	3.61	4.41	5.39	6.58
	40.0	1.61	1.96	2.38	2.73	2.89	3.52	4.28	5.20
	43.5		1.69	2.04	2.34	2.48	3.00	3.64	4.41
	50.0			1.54	1.76	1.86	2.24	2.70	3.26
	55.0				1.42	1.50	1.80	2.17	2.60
	60.0						1.46	1.75	2.09

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/H)
C1	3.482572E+04	2.041290E+03	7.247243E+00	4.901993E+02
C2	1.714479E+03	2.930265E+00	-2.779707E-02	2.313713E+01
C3	-6.700497E+02	1.309583E+01	7.330030E-02	-1.961597E+00
C4	2.765174E+01	2.449138E-02	-1.847182E-03	4.960845E-01
C5	-3.788646E+01	4.515864E-01	-4.026299E-04	-1.473037E-01
C6	4.106730E+00	9.930378E-01	1.968166E-03	3.755270E-03
C7	1.529606E-01	5.281890E-06	9.855904E-07	4.537074E-03
C8	-3.805501E-01	-5.310688E-04	3.809323E-06	-2.775139E-03
C9	2.435941E-01	-1.030558E-02	1.496901E-05	3.994288E-04
C10	-2.110628E-07	1.806399E-09	-1.388116E-11	-1.011740E-10

Note: The polynomial coefficients subject to change without notice.

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

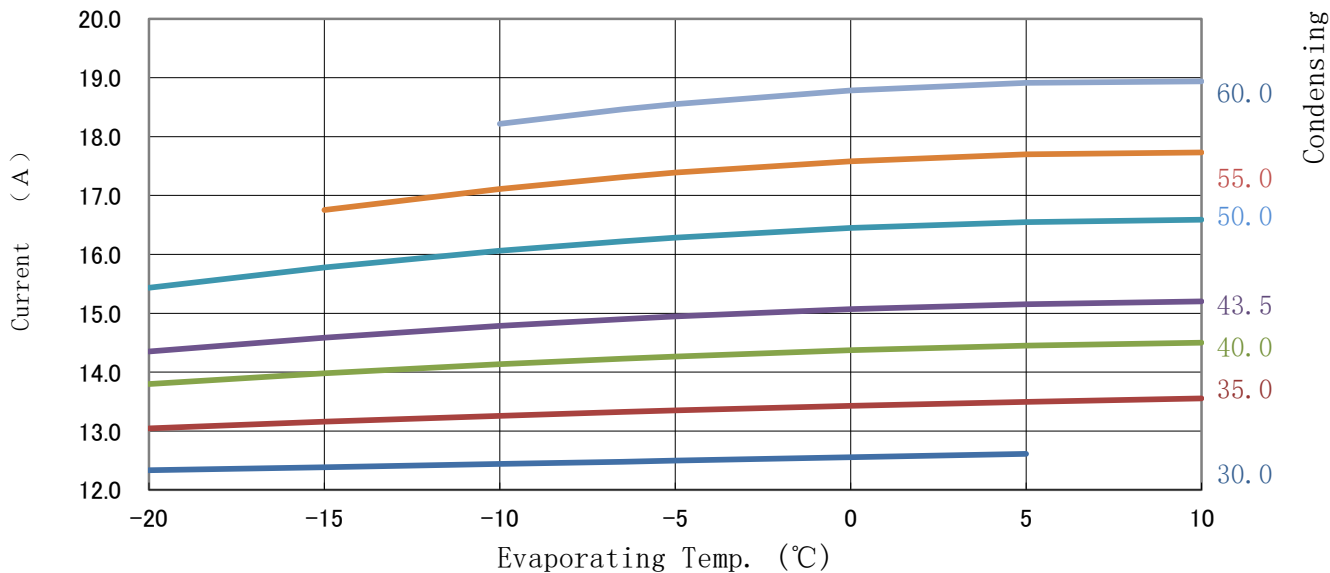
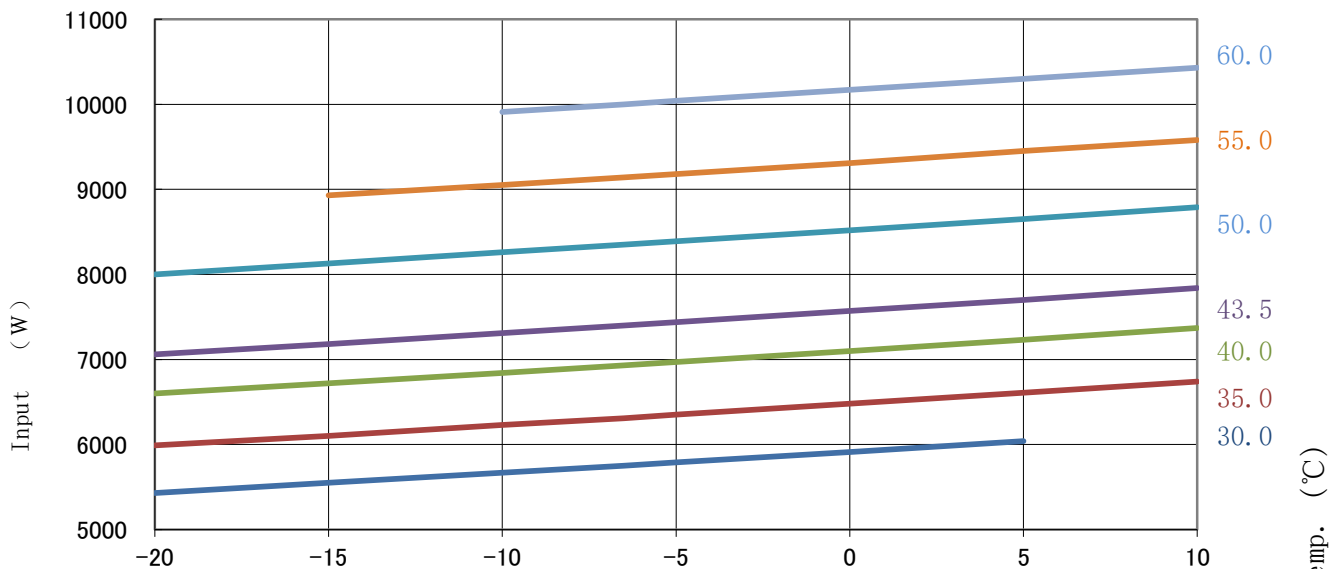
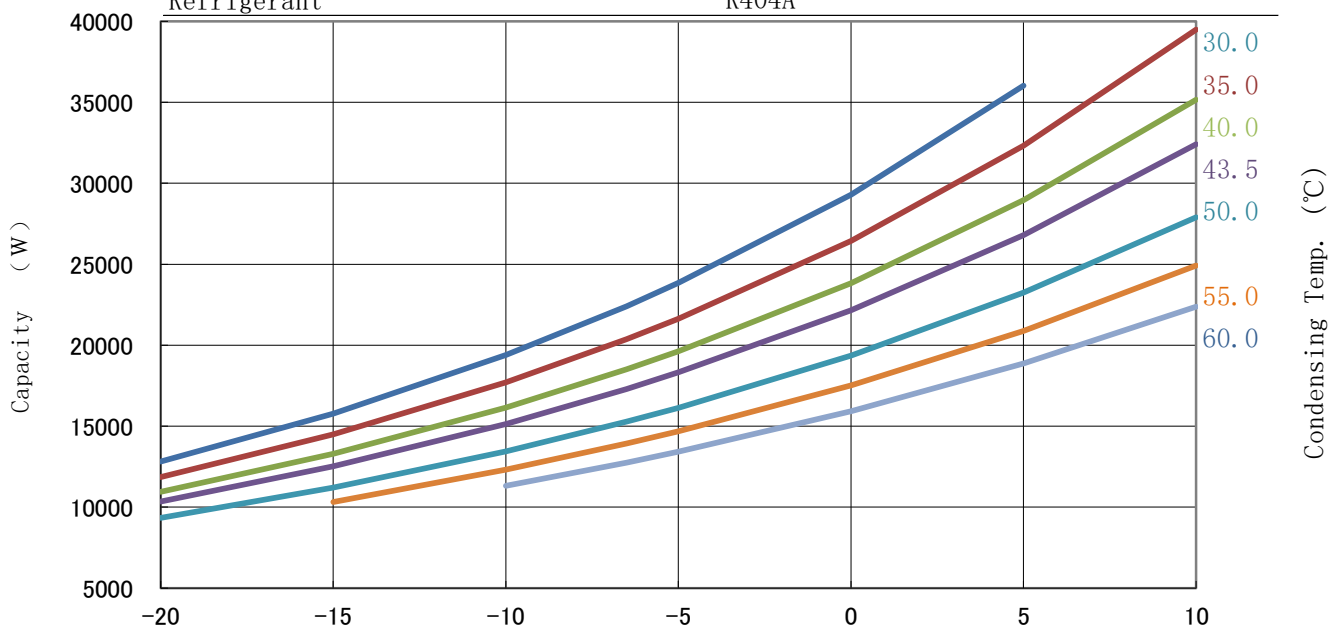
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-PH 50Hz 372V
Condensing Temp. (°C)	30、35、40、43.5、50、55、60
Suction Temp. (°C)	18.5
Sub Cooled(K)	0
Compressor Cooling	Natural Cooling
Refrigerant	R404A



PERFORMANCE DATA

Code No.	4CC149NA04
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Condensing Temp. (°C)	30、35、40、43.5、50、55、60
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Sub Cooled(K)	0
Compressor Cooling	Natural Cooling
Refrigerant	R404A

Capacity (W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	12,820	15,770	19,390	22,400	23,840	29,300	36,030	
	35.0	11,860	14,490	17,710	20,370	21,640	26,440	32,310	39,490
	40.0	10,950	13,300	16,150	18,510	19,620	23,830	28,950	35,160
	43.5	10,350	12,520	15,140	17,300	18,320	22,150	26,800	32,410
	50.0	9,340	11,210	13,450	15,280	16,140	19,370	23,240	27,900
	55.0		10,320	12,310	13,930	14,680	17,520	20,890	24,920
	60.0			11,320	12,760	13,420	15,920	18,870	22,380

Input (W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	5,430	5,550	5,670	5,750	5,790	5,910	6,040	
	35.0	5,990	6,100	6,230	6,310	6,350	6,480	6,610	6,740
	40.0	6,600	6,720	6,840	6,930	6,970	7,100	7,230	7,370
	43.5	7,060	7,180	7,310	7,400	7,440	7,570	7,700	7,840
	50.0	8,000	8,130	8,260	8,350	8,390	8,520	8,650	8,790
	55.0		8,930	9,050	9,140	9,180	9,310	9,450	9,580
	60.0			9,910	10,000	10,040	10,170	10,300	10,430

Current (A)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	12.3	12.4	12.4	12.5	12.5	12.6	12.6	
	35.0	13.0	13.2	13.3	13.3	13.3	13.4	13.5	13.6
	40.0	13.8	14.0	14.1	14.2	14.3	14.4	14.4	14.5
	43.5	14.4	14.6	14.8	14.9	14.9	15.1	15.2	15.2
	50.0	15.4	15.8	16.1	16.2	16.3	16.4	16.5	16.6
	55.0		16.8	17.1	17.3	17.4	17.6	17.7	17.7
	60.0			18.2	18.5	18.6	18.8	18.9	18.9

MassFlow (kg/H)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	180	223	276	321	342	423	524	
	35.0	180	222	274	318	339	418	516	638
	40.0	179	221	272	315	335	413	509	628
	43.5	179	220	271	313	333	410	504	621
	50.0	178	218	268	309	329	404	495	608
	55.0		217	266	307	326	399	489	598
	60.0			264	304	323	394	482	589

EER (W/W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	2.36	2.84	3.42	3.90	4.12	4.96	5.97	
	35.0	1.98	2.38	2.84	3.23	3.41	4.08	4.89	5.86
	40.0	1.66	1.98	2.36	2.67	2.81	3.36	4.00	4.77
	43.5	1.47	1.74	2.07	2.34	2.46	2.93	3.48	4.13
	50.0	1.17	1.38	1.63	1.83	1.92	2.27	2.69	3.17
	55.0		1.16	1.36	1.52	1.60	1.88	2.21	2.60
	60.0			1.14	1.28	1.34	1.57	1.83	2.15

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/H)
C1	5.241003E+04	3.744360E+03	8.629875E+00	4.564880E+02
C2	2.357851E+03	1.802276E+01	1.470298E-02	2.096913E+01
C3	-9.272007E+02	3.748011E+01	9.221691E-02	-1.171750E+00
C4	3.638707E+01	1.000698E-01	2.114495E-03	4.410383E-01
C5	-4.599662E+01	3.378283E-01	-5.217612E-04	-1.020316E-01
C6	5.314293E+00	1.159796E+00	1.282500E-03	2.225091E-03
C7	1.862669E-01	5.386014E-04	7.153439E-07	4.237854E-03
C8	-4.516752E-01	-9.378704E-04	-6.642725E-05	-1.864667E-03
C9	2.592534E-01	-3.341005E-03	1.502267E-05	2.819918E-04
C10	-1.763992E-08	4.029767E-09	5.805765E-12	3.660199E-10

Note: The polynomial coefficients subject to change without notice.

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

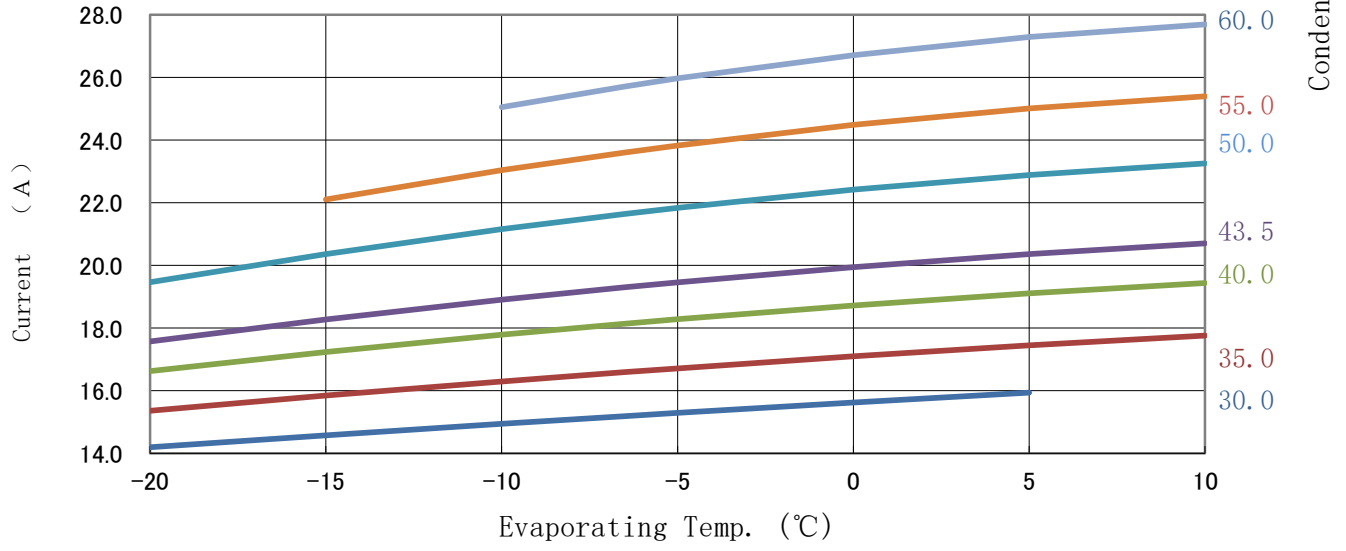
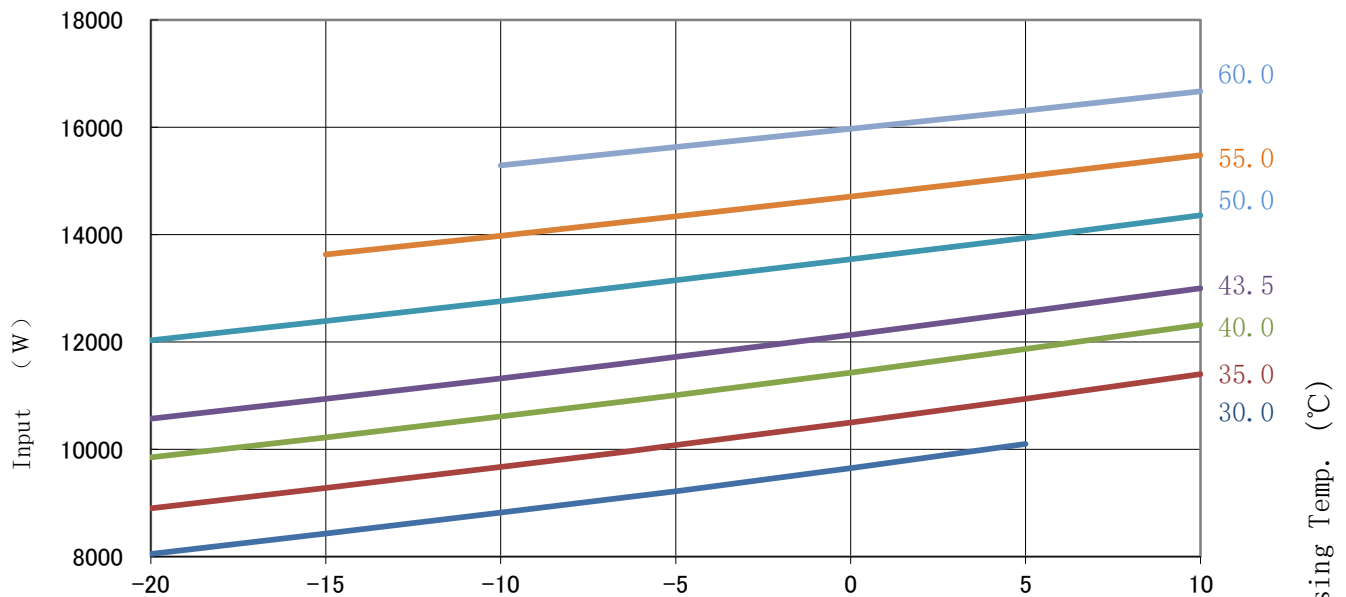
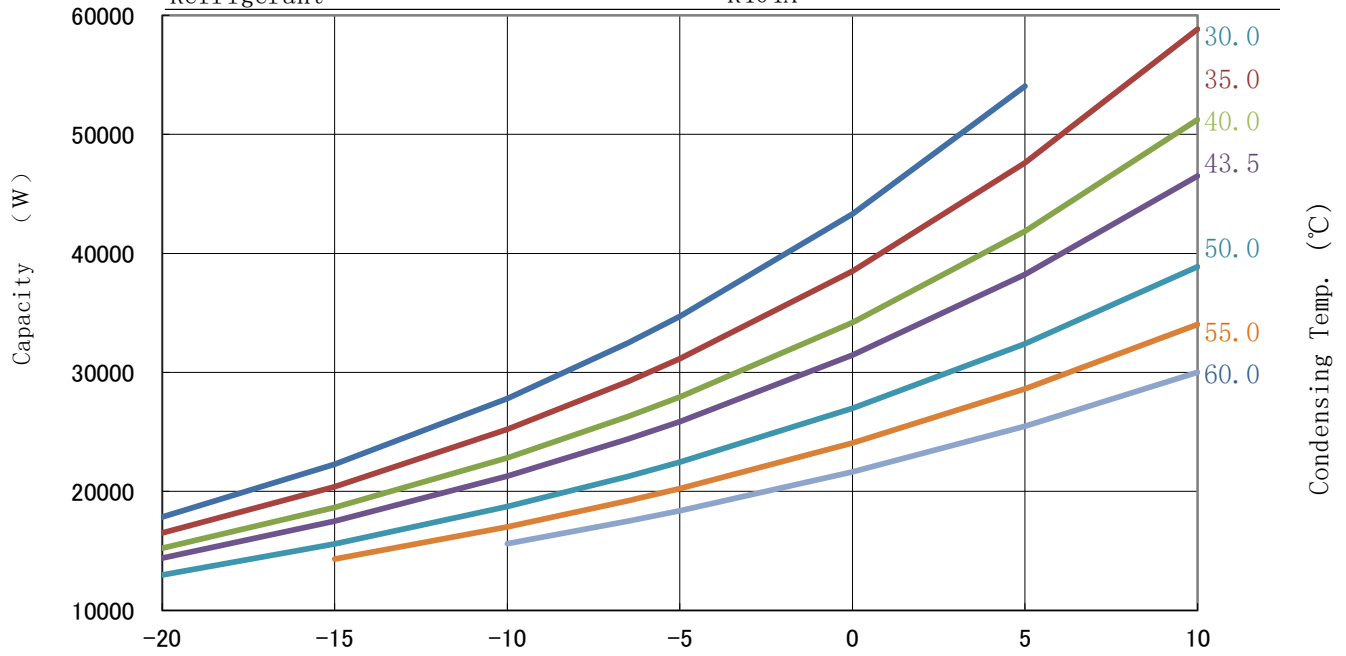
X——CAPACITY(W) OR POWER(W) OR CURRENT(A)

S——EVAPORATING TEMP, °C

D——CONDENSING TEMP, °C

PERFORMANCE CURVE

Code No.	4CC149NA04
Power Source	Inverter 3-PH 75Hz 375V
Condensing Temp. (°C)	30、35、40、43.5、50、55、60
Suction Temp. (°C)	18.5
Sub Cooled(K)	0
Compressor Cooling	Natural Cooling
Refrigerant	R404A



PERFORMANCE DATA

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Suction Temp. (°C)	18.5
Sub Cooled(K)	0
Compressor Cooling	Natural Cooling
Refrigerant	R404A

Capacity (W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	17,850	22,280	27,810	32,470	34,700	43,310	54,050	
	35.0	16,510	20,400	25,210	29,240	31,160	38,520	47,610	58,840
	40.0	15,230	18,650	22,820	26,290	27,940	34,200	41,860	51,240
	43.5	14,400	17,500	21,280	24,400	25,870	31,460	38,240	46,500
	50.0	12,980	15,590	18,720	21,270	22,470	26,980	32,390	38,880
	55.0		14,320	17,030	19,220	20,250	24,070	28,620	34,030
	60.0			15,610	17,500	18,380	21,640	25,480	30,010

Input (W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	8,050	8,430	8,820	9,100	9,220	9,650	10,100	
	35.0	8,900	9,280	9,670	9,950	10,080	10,500	10,940	11,400
	40.0	9,850	10,220	10,610	10,890	11,010	11,430	11,870	12,320
	43.5	10,570	10,940	11,320	11,600	11,720	12,130	12,560	13,000
	50.0	12,030	12,390	12,760	13,030	13,150	13,540	13,940	14,360
	55.0		13,630	13,980	14,230	14,340	14,710	15,090	15,480
	60.0			15,290	15,530	15,630	15,970	16,310	16,670

Current (A)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	14.2	14.6	14.9	15.2	15.3	15.6	15.9	
	35.0	15.4	15.8	16.3	16.6	16.7	17.1	17.4	17.8
	40.0	16.6	17.2	17.8	18.1	18.3	18.7	19.1	19.4
	43.5	17.6	18.3	18.9	19.3	19.5	19.9	20.4	20.7
	50.0	19.5	20.4	21.2	21.6	21.8	22.4	22.9	23.3
	55.0		22.1	23.0	23.6	23.8	24.5	25.0	25.4
	60.0			25.1	25.7	26.0	26.7	27.3	27.7

MassFlow (kg/H)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	436	541	672	782	834	1,036	1,287	
	35.0	434	537	663	768	819	1,011	1,249	1,543
	40.0	433	532	654	755	803	987	1,212	1,490
	43.5	432	529	648	746	793	970	1,187	1,453
	50.0	431	523	636	729	773	940	1,142	1,388
	55.0		519	628	717	759	917	1,109	1,341
	60.0			619	704	744	895	1,076	1,294

EER (W/W)

		Evaporating Temp. (°C)							
		-20	-15	-10	-6.5	-5	0	5	10
Condensing Temp. (°C)	30.0	2.22	2.64	3.15	3.57	3.76	4.49	5.35	
	35.0	1.86	2.20	2.61	2.94	3.09	3.67	4.35	5.16
	40.0	1.55	1.82	2.15	2.41	2.54	2.99	3.53	4.16
	43.5	1.36	1.60	1.88	2.10	2.21	2.59	3.04	3.58
	50.0	1.08	1.26	1.47	1.63	1.71	1.99	2.32	2.71
	55.0		1.05	1.22	1.35	1.41	1.64	1.90	2.20
	60.0			1.02	1.13	1.18	1.36	1.56	1.80

Coefficients of Polynomial Formula

	Capacity (W)	Input (W)	Current (A)	MassFlow (kg/H)
C1	8.338547E+04	6.251376E+03	9.885219E+00	1.207310E+03
C2	4.131538E+03	6.816092E+01	6.110676E-02	6.006372E+01
C3	-1.632161E+03	6.464554E+01	1.020750E-01	-6.088744E+00
C4	6.391790E+01	6.570993E-01	2.701491E-03	1.237693E+00
C5	-9.021896E+01	1.249385E+00	-8.766601E-04	-5.401560E-01
C6	1.005252E+01	1.621442E+00	2.971023E-03	1.441640E-02
C7	2.923474E-01	1.405160E-03	1.249398E-06	9.376029E-03
C8	-8.835518E-01	-8.354342E-03	-9.612444E-05	-9.836166E-03
C9	5.452740E-01	-2.051746E-02	3.502875E-05	1.465148E-03
C10	-1.008284E-07	1.808861E-08	2.325975E-11	6.001181E-10

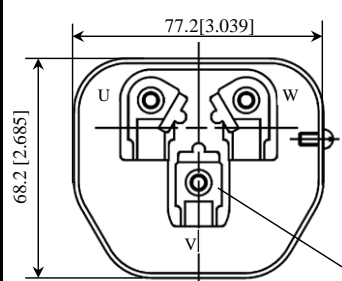
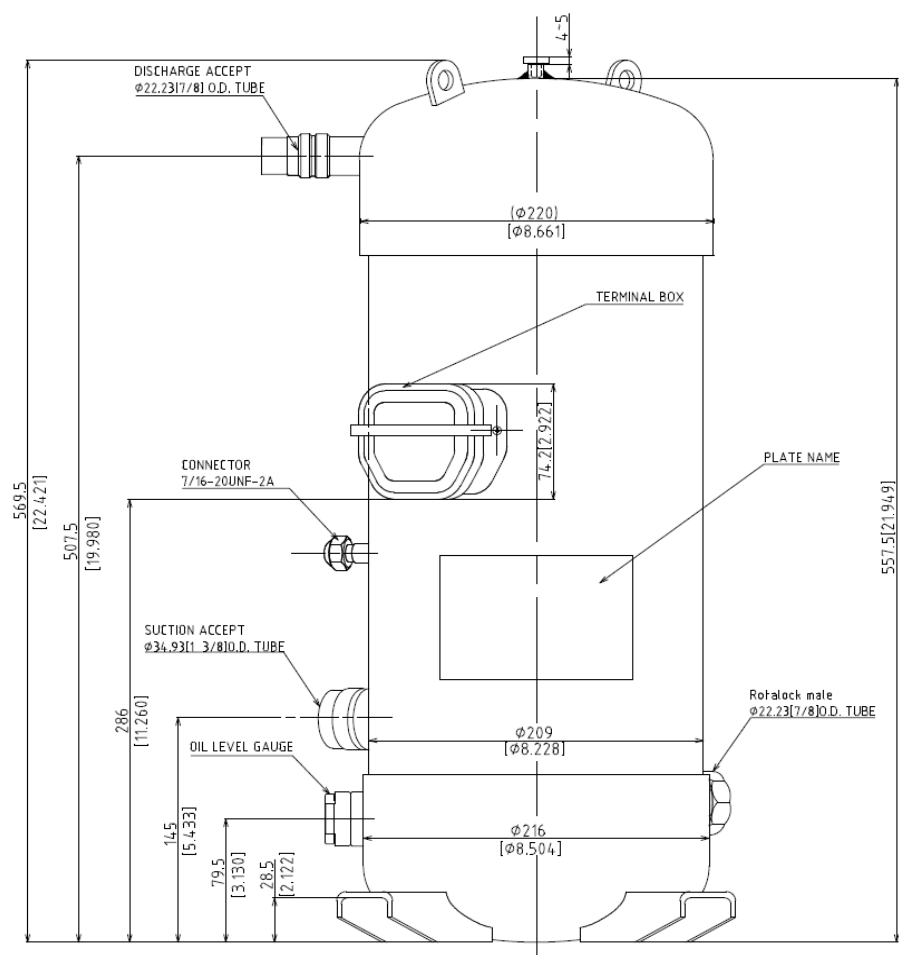
Note: The polynomial coefficients subject to change without notice.

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

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

S——EVAPORATING TEMP, °C

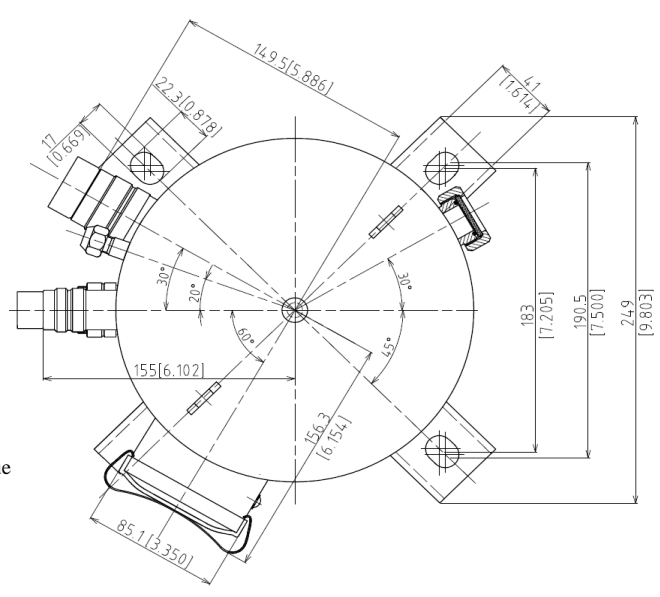
D——CONDENSING TEMP, °C



TERMINAL

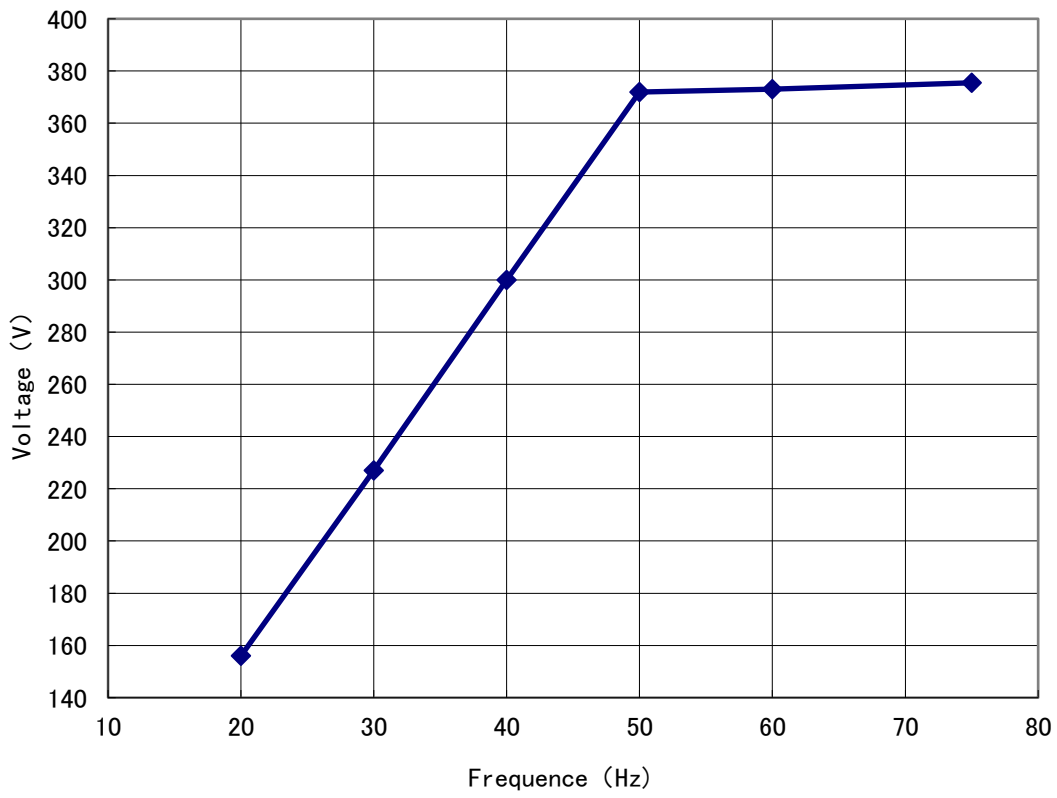
BOLT 5

The bolt tightening torque is 2.5~3N M.



Compressor Outline Drawing

Voltage-Frequency Curve



4CC149NA04

Operation envelope

Suction temperature: 18.5°C
Refrigerant: R404A

