Fixed Speed Condensing Units

Customer Value

- R22/R404A refrigerant provided
- Numerous model for medium temperature and low temperature application, with capacity up to 15HP
- High efficiency, energy saving and low noise level
- Stable operation under high ambient temperature with up to 43°C
- Stable oil return and reliable running (oil separator is standard specification for LT units)

Product Features

- Advanced microprocessor-based control system and automatic adjustment according to load change
- Two-speed fan motor with automatic switch according to ambient temperature and terminal unit cooling load
- Large coil design with strong heat exchange capacity suitable for extreme working condition
- Hermetic and sound insulated cabinet adopted for a quiet running

* All comparisons are based on the product performances of last generation.

Naming Rule of Fixed Speed Condensing Units

GQ H 015 P S 4 XXX

- XXX — Internal Design Serial Number
- 4 — Form of Power Supply (Allowable Voltage Fluctuation Range±10%)
  - 1.208-208V/1ph/60Hz
  - 3.200-230V/3ph/60Hz
  - 4.380-400V/3ph/50Hz; 460V/3ph/60Hz
  - 5.230V/1ph/50Hz
  - 9.380V/3ph/60Hz
- S — Number of Compressor
  - S-Single Compressor
  - D-Double Compressors
- P — Type of Refrigerant
  - H-AB Alkylbenzene Oil
  - P-Ester (Ether) Oil
- 015 — Nominal Capacity of Unit, kBtu/h@60Hz, ARI
- H — Application Temperature of Unit
  - H – Medium Temperature
  - L – Low Temperature
- GQ — Hermetic Air-cooled Compressor Condensing Unit - Quietor Series

Fixed Speed Condensing Units Technical Parameters

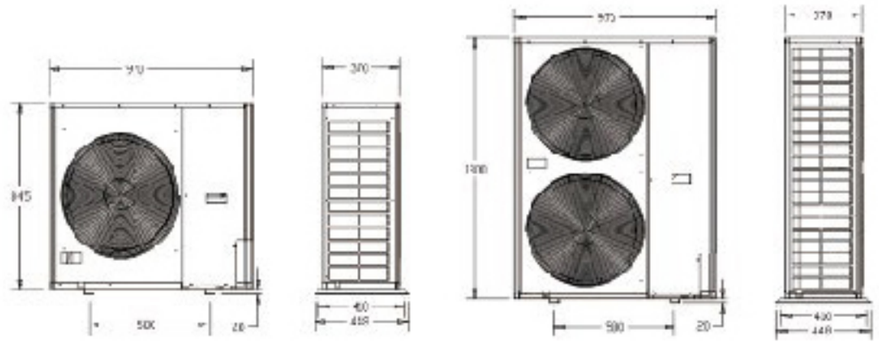
MT Fixed Speed Condensing Units Working Conditions (<7HP) 230V/1ph/50Hz

GQH		015 PS	021PS	026PS	030PS
Refrigerant			R404A		
Casing Type		M1	M1	M1	M1
Nominal Cooling Capacity		4.15	5.57	6.28	8.06
Nominal Input Power		1.58	2.24	2.64	3.37
COP		2.63	2.49	2.38	2.39
Compressor	Quantity	1	1	1	1
	Model	MLZ015	MLZ021	MLZ026	MLZ030
	Nominal Power	1x2	1x3	1x3.5	1x4
Crankcase Heating Belt	Quantity x Power	1x65	1x65	1x65	1x75
Noise	dB(A) (2)	60	60	60	60
Fan motor	Quantity x Diameter [mm]	1x⊠500	1x⊠500	1x⊠500	1x⊠500
	Air Volume [m³/h]	4445	4445	4445	4445
Total Current	Fan Nominal Current [A]	0.71	0.71	0.71	0.71
	Compressor Starting Current [A]	30	45	45	60
	Compressor Max. Continuous Current [A]	7	9.5	11	13
Reservoir Volume	L	6	6	6	6
Lubricating Oil		PVE oil Ester oil 32OHV			
Oil Charge		1.1	1.1	1.6	1.6
Connection	Gas Return [inch]	5/8"	5/8"	5/8"	5/8"
	Liquid Line [inch]	1/2"	1/2"	1/2"	1/2"
Dimension	mm	Please see the pictures attached			
Weight	kg	68	68	68	74

(1) Testing conditions of nominal cooling capacity and nominal power: National standard medium temperature working conditions SST -7°C , ambient temperature 32°C , gas return temperature 18°C .
(2) Noise measurement standard: dB(A)@1m, different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values at the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including total noise and frequency.

MT Working Conditions (<7HP) 380V/3ph/50Hz

GQH		015PS	021PS	026PS	030PS	038PS	045PS	048PS
Refrigerant		R404A/R22						
Casing Type		M1	M1	M1	M1	M2	M2	M2
R404A	Nominal Cooling Capacity (1)KW	4.15	5.57	6.28	8.06	10.16	12.08	13.03
	Nominal Input Power (1)KW	1.58	2.24	2.64	3.37	3.96	4.71	5.09
R22	Nominal Cooling Capacity (1)KW	3.74	5.01	5.65	7.25	9.64	11.42	12.52
	Nominal Input Power (1)KW	1.42	2.02	2.38	3.03	3.40	4.09	4.48
Compressor	Quantity	1	1	1	1	1	1	1
	Model	MLZ015T4/ MLM015T4	MLZ021T4/ MLM021T4	MLZ026T4/ MLM026T4	MLZ030T4/ MLM030T4	MLZ038T4/ MLM038T4*	MLZ045T4/ MLM045T4	MLZ048T4/ MLM048T4
	Nominal Power	1x2	1x3	1x3.5	1x4	1x5	1x6	1x7
Crankcase Heating Belt	Quantity x Power	1x65	1x65	1x65	1x75	1x75	1x75	1x75
Noise	dB(A)(2)	60	60	60	60	60	60	60
Fan motor	Quantity x Diameter [mm]	1x⊠500	1x⊠500	1x⊠500	1x⊠500	2x⊠500	2x⊠500	2x⊠500
	Air Volume [m^3/h]	4445	4445	4445	4445	8890	8890	8890
Total Current	Fan Nominal Current [A]	0.71	0.71	0.71	0.71	1.42	1.42	1.42
	Compressor Starting Current [A]	30	45	45	60	70	82	87
	Compressor Max. Continuous Current [A]	7	9.5	11	13	15	15	16
Reservoir Volume	L	6	6	6	6	7.6	7.6	7.6
Lubricating Oil	Ester oil 32OHV(R404A)/ Alkyl benzene oil (R22)							
Oil Charge		1.1	1.1	1.6	1.6	1.6	1.6	1.6
Connection	Gas Return [inch]	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
	Liquid Line [inch]	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Dimension	mm	Please see the pictures attached						
Weight	kg	68	69	68	74	125	125	125



M1 M2

Model Selection Table of MT Fixed Speed CDU (<7HP) 230V/1ph/50Hz&380V/3ph/50Hz

	R404A	Ambient Temperature							
		27℃		32℃		37℃		42℃	
	GQH	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)
-15℃	015PS	3.07	1.48	2.82	1.67	2.56	1.86	2.26	2.07
	021PS	4.23	1.91	3.89	2.14	3.59	2.35	3.23	2.60
	026PS	5.13	2.48	4.70	2.74	4.36	2.98	3.91	3.28
	030PS	6.00	2.99	5.62	3.23	5.10	3.56	5.06	3.92
	038PS	7.70	3.39	7.08	3.76	6.54	4.12	5.89	4.55
	045PS	9.01	4.16	8.26	4.61	7.64	5.04	6.86	5.57
	048PS	9.73	4.52	8.93	5.00	8.26	5.45	7.42	6.01
-10℃	015PS	3.83	1.43	3.51	1.63	3.22	1.83	2.88	2.05
	021PS	5.13	1.98	4.73	2.22	4.41	2.43	3.99	2.69
	026PS	6.21	2.54	5.84	2.75	5.33	3.04	4.81	3.34
	030PS	7.23	3.10	6.82	3.34	6.21	3.67	5.59	4.03
	038PS	9.36	3.48	8.64	3.84	8.04	4.20	7.28	4.63
	045PS	10.94	4.28	10.07	4.74	9.37	5.16	8.46	5.69
	048PS	11.77	4.66	11.07	5.06	10.11	5.58	9.13	6.14
-7℃	015PS	4.33	1.39	4.15	1.58	3.68	1.79	3.31	2.02
	021PS	5.75	2.03	5.57	2.24	4.96	2.48	4.50	2.75
	026PS	6.94	2.59	6.28	2.64	6.00	3.08	5.42	3.39
	030PS	8.21	3.13	8.06	3.37	6.96	3.74	6.28	4.10
	038PS	10.48	3.53	10.16	3.96	9.06	4.26	8.23	4.69
	045PS	12.24	4.38	12.08	4.71	10.55	5.24	9.55	5.77
	048PS	13.16	4.75	13.03	5.09	11.37	5.66	10.29	6.23
-5℃	015PS	4.66	1.37	4.29	1.57	3.98	1.77	3.59	2.00
	021PS	6.16	2.06	5.81	2.26	5.33	2.51	4.84	2.79
	026PS	7.42	2.62	7.02	2.82	6.44	3.10	5.83	3.41
	030PS	8.86	3.15	8.17	3.46	7.46	3.79	6.74	4.15
	038PS	11.23	3.57	10.41	3.94	9.74	4.29	8.86	4.72
	045PS	13.11	4.44	12.37	4.80	11.34	5.29	10.28	5.83
	048PS	14.08	4.81	13.31	5.20	12.20	5.72	11.06	6.29
-0℃	015PS	5.60	1.30	5.18	1.50	4.83	1.70	4.39	1.94
	021PS	7.30	2.15	6.92	2.34	6.37	2.60	5.81	2.87
	026PS	8.77	2.71	8.34	2.90	7.67	3.18	6.97	3.49
	030PS	10.47	3.27	9.67	3.60	8.86	3.93	8.01	4.30
	038PS	13.34	3.69	12.64	4.00	11.66	4.39	10.65	4.83
	045PS	15.56	4.61	14.75	4.96	13.55	5.45	12.32	5.98
	048PS	16.65	5.00	15.82	5.36	14.55	5.89	13.22	6.46

Testing conditions: refrigerant R404A, MT return temperature RGT= 18°C (Base on National standard)

Model Selection Table of MT Fixed Speed CDU (<7HP) 380V/3ph/50Hz

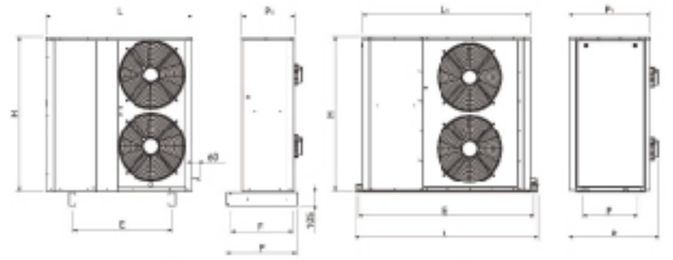
	R22	Ambient Temperature							
		27°C		32°C		37°C		42°C	
	GQH	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)
-15°C	015PS	3.10	1.28	2.95	1.40	2.81	1.54	2.65	1.69
	021PS	4.34	1.71	4.13	1.90	3.93	2.08	3.68	2.26
	026PS	5.19	2.10	4.98	2.28	4.71	2.51	4.44	2.75
	030PS	6.18	2.59	5.91	2.78	5.55	3.03	5.18	3.30
	038PS	7.41	2.91	7.02	3.17	6.68	3.47	6.28	3.84
	045PS	8.73	3.58	8.19	3.93	7.72	4.26	7.16	4.63
	048PS	9.66	3.94	9.24	4.29	8.74	4.69	8.23	5.13
-10°C	015PS	3.75	1.32	3.58	1.45	3.42	1.59	3.23	1.74
	021PS	5.18	1.78	4.97	1.95	4.71	2.15	4.43	2.34
	026PS	6.27	2.17	6.03	2.36	5.71	2.59	5.39	2.84
	030PS	7.45	2.72	7.17	2.92	6.77	3.19	6.36	3.47
	038PS	9.05	3.05	8.59	3.33	8.21	3.62	7.77	3.95
	045PS	10.66	3.71	10.16	4.04	9.55	4.42	8.91	4.82
	048PS	11.68	4.09	11.21	4.43	10.62	4.86	10.02	5.31
-7°C	015PS	4.20	1.34	3.74	1.42	3.84	1.61	3.63	1.77
	021PS	5.75	1.82	5.01	2.02	5.24	2.20	4.94	2.40
	026PS	7.01	2.22	5.65	2.38	6.39	2.65	6.04	2.90
	030PS	8.39	2.78	7.25	3.03	7.58	3.29	7.14	3.58
	038PS	10.17	3.14	9.64	3.40	9.26	3.71	8.76	4.05
	045PS	11.97	3.79	11.42	4.08	10.78	4.51	10.10	4.92
	048PS	13.15	4.14	12.52	4.48	11.90	4.96	11.24	5.42
-5°C	015PS	4.50	1.36	4.29	1.49	4.12	1.63	3.90	1.79
	021PS	6.13	1.85	5.90	2.02	5.60	2.23	5.28	2.43
	026PS	7.50	2.25	7.22	2.44	6.85	2.68	6.48	2.94
	030PS	9.02	2.81	8.58	3.08	8.13	3.36	7.66	3.65
	038PS	10.91	3.21	10.49	3.47	9.96	3.78	9.43	4.12
	045PS	12.84	3.84	12.30	4.17	11.60	4.57	10.89	5.00
	048PS	14.13	4.19	13.44	4.59	12.75	5.03	12.06	5.50
-0°C	015PS	5.35	1.41	5.15	1.53	4.91	1.69	4.66	1.84
	021PS	7.20	1.94	6.95	2.11	6.60	2.32	6.23	2.53
	026PS	9.01	2.29	8.57	2.52	8.14	2.79	7.70	3.05
	030PS	10.65	2.98	10.14	3.25	9.63	3.54	9.11	3.85
	038PS	12.99	3.37	12.53	3.64	11.93	3.96	11.32	4.31
	045PS	15.28	3.99	14.71	4.31	13.91	4.73	13.10	5.17
	048PS	16.76	4.33	15.96	4.76	15.16	5.21	14.35	5.70

Testing conditions: refrigerant R22, MT return temperature RGT = 18°C (Base on National standard)

Fixed Speed Condensing Units Technical Parameters

MT Fixed Speed Condensing Units (>7HP) 380V/3ph/50Hz

GQH			066PS	114PS	076PD	090PD	096PD
Refrigerant					R404A		
Casing Type			T2	T4	T3	T4	T4
Nominal Cooling Capacity			14.30	23.44	15.89	19.70	22.29
Nominal Input Power			7.45	13.51	9.46	9.50	11.95
Compressor	Quantity		1	1	2	2	2
	Model		ZB66 KQE	ZB114 KQE	ZB38 KQE	ZB45 KQE	ZB48 KQE
	Nominal Power		1x9	1x15	2x5	2x6	2x7
Crankcase Heating Belt	Quantity x Power		1x90	1x90	2x75	2x75	2x75
Noise	Min. Rotation Speed		57	60	56	58	60
	Max. Rotation Speed		62	65	63	64	65
Fan motor	Quantity x Diameter [mm]		2x⊠450	2x⊠500	2x⊠500	2x⊠500	2x⊠500
	Air Volume [m³/h]		6000	8000	7000	8000	8000
Total Current	Fan (3)		2.4	2.8	2.8	2.8	2.8
	Compressor Starting Current [A]		111	174	78	87	115
	Compressor Max. Continuous Current [A]		17.3	27.1	26	27	30
Reservoir Volume	opposite dm		14	24	14	18	24
Connection	Gas Return [inch]		1"3/8	1"5/8	1"3/8	1"3/8	1"3/8
	Liquid Line [inch]		5/8"	7/8"	5/8"	7/8"	7/8"
Dimension	Length	L mm	1290	1870	1570	1870	1870
		L mm 1	-	1750	1450	1750	1750
	Width	P mm	580	840	720	840	840
		P mm 1	510	820	700	820	820
	Height	H mm	1300	1290	1290	1290	1290
	Fixed end	E mm	844	1825	1525	1825	1825
		F mm	550	570	450	570	570
Weight	kg		216	280	249	290	345



T1-T2 T3-T4

(1) Testing conditions of nominal cooling capacity and nominal power: Medium temperature working conditions SST -10°C , ambient temperature 32°C , degree of superheat 10K.
(2) Noise measurement standard: dB(A)@1M, 1m, different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values on the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including total noise and frequency.
(3) Fan motor locked-rotor current, power supply mode 230V/1ph/50Hz.

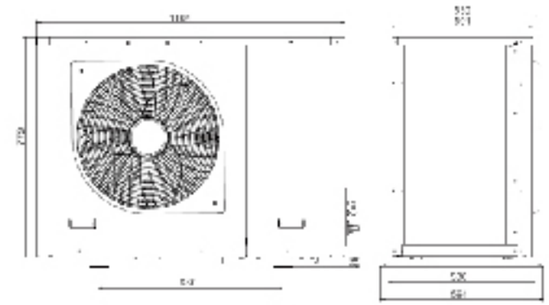
Model Selection Table of MT Fixed Speed CDU (>7HP) 380V/3ph/50Hz

	R22	Ambient Temperature							
		27℃		32℃		37℃		42℃	
	GQH	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)
-15℃	066PS	12.89	6.28	11.81	6.93	10.72	7.57	9.64	8.22
	076PD	14.53	7.37	13.33	7.99	12.13	8.61	10.93	9.24
	090PD	17.93	9.26	16.41	9.2	14.89	10.14	13.39	11.08
	096PD	20.12	10.47	18.13	11.61	16.15	12.75	14.17	13.89
	114PS	21.38	11.93	19.27	13.00	17.17	14.17	15.06	15.34
-10℃	066PS	16.05	6.47	14.3	7.45	12.8	8.05	11.85	9.01
	076PD	17.25	7.85	15.89	8.46	14.54	9.07	13.19	9.69
	090PD	21.46	9.58	19.7	9.5	17.94	10.42	16.19	11.33
	096PD	24.38	10.9	22.29	11.95	20.2	13.00	18.11	14.06
	114PS	25.73	12.39	23.44	13.51	21.16	14.64	18.87	15.75
-5℃	066PS	18.23	6.9	16.79	7.48	15.35	8.06	13.91	8.64
	076PD	20.22	8.36	18.69	8.95	17.15	9.54	15.62	10.13
	090PD	25.4	9.93	23.41	9.81	21.43	10.69	19.44	11.58
	096PD	28.96	11.36	26.73	12.33	24.51	13.31	22.28	14.29
	114PS	30.44	12.97	27.92	14.01	25.4	15.05	22.88	16.08
-0℃	066PS	21.3	7.24	19.68	7.78	18.05	8.33	16.42	8.87
	076PD	23.43	8.87	21.67	9.42	19.91	9.97	18.14	10.51
	090PD	29.73	9.28	27.46	10.12	25.19	10.97	22.92	11.82
	096PD	33.81	11.85	31.35	12.78	28.88	13.72	--	--
	114PS	35.58	13.59	32.84	14.56	30.10	15.53	--	--

Testing conditions: refrigerant R404A, MT return temperature RGT = 18°C (Base on National standard)

LT Fixed Speed Condensing Units Technical Parameters 380V/3ph/50Hz

GQL		005PS	009PS	010PS	012PS	016PS
Refrigerant		R404A				
Casing Type		L1				
Nominal Cooling Capacity		2.09	3.01	3.70	4.44	5.47
Nominal Input Power		1.49	2.25	2.87	3.22	4.47
Compressor	Quantity	1	1	1	1	1
	Model	NTZ048	NTZ068	NTZ096	NTZ108	NTZ136
	Nominal Power	1x1.5	1x2.5	1x3	1x4	1x5
Crankcase Heating Belt	Quantity x Power	1x27	1x27	1x27	1x27	1x27
Noise	dB(A) (2)	65	66	66	66	66
Fan motor	Quantity x Diameter [mm]	1x⊠500	1x⊠500	1x⊠500	1x⊠500	1x⊠500
	Air Volume [m^3/h]	5287	5287	5287	5287	5287
Total Current	Fan Nominal Current [A]	0.7	0.7	0.7	0.7	0.7
	Compressor Starting Current [A]	16	25	32	45	51
	Compressor Max. Continuous Current [A]	4.9	8.4	10.1	12.1	14.3
Reservoir Volume	L	6	6	6	6	6
Lubricating Oil		PVE oil Ester oil 160Z				
Oil Charge		0.95	0.95	1.9	1.9	1.9
Connection	Gas Return [inch]	5/8"	5/8"	3/4"	3/4"	3/4"
	Liquid Line [inch]	1/2"	1/2"	1/2"	1/2"	1/2"
Dimension	mm	1104X504X818				
Weight	kg	98	100	112	112	112



L1

(1) Testing conditions of nominal cooling capacity and nominal power: National standard Low temperature working conditions SST -25℃ , ambient temperature 32℃ , gas return temperature 5℃.
(2) Noise measurement standard: dB(A)@1M, different operating environment may lead to different noise values. Affected by wall sound reflection and other factors may lead to differences between measured values and nominal values at the installation field. Acoustic attenuation due to distance only exists in theory. Sound reflection and resonance may lead to different results of measurement, including tonal noise and frequency.

Note: All data and images are just for reference. Carrier reserves the right to make changes without previous notification.

Model Selection Table of LT Fixed Speed CDU (>7HP) 380V/3ph/50Hz

	R22	Ambient Temperature							
		27°C		32°C		37°C		42°C	
	GQH	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)	Cooling Capacity Q (kW)	Power Consumption P (kW)
-40°C	005PS	0.79	0.80	0.64	0.77	0.54	0.75	0.46	0.80
	009PS	1.34	1.33	1.16	1.35	0.98	1.36	0.82	1.41
	010PS	1.49	1.56	1.25	1.51	1.02	1.45	0.80	1.36
	012PS	1.84	1.83	1.56	1.80	1.33	1.78	1.16	1.83
	016PS	2.27	2.49	1.95	2.47	1.72	2.49	1.39	2.40
-35°C	005PS	1.14	0.99	0.98	0.99	0.82	0.96	0.67	0.97
	009PS	1.82	1.56	1.61	1.59	1.41	1.63	1.24	1.70
	010PS	2.11	1.89	1.83	1.86	1.55	1.82	1.35	1.83
	012PS	2.54	2.20	2.20	2.19	1.97	2.22	1.64	2.17
	016PS	3.08	2.99	2.71	2.99	2.50	3.04	2.11	3.01
-30°C	005PS	1.56	1.17	1.37	1.18	1.19	1.19	1.01	1.24
	009PS	2.37	1.80	2.13	1.85	2.06	1.86	1.72	1.98
	010PS	2.81	2.25	2.49	2.24	2.29	2.28	1.96	2.25
	012PS	3.36	2.57	2.96	2.60	2.74	2.66	2.32	2.64
	016PS	4.01	3.53	3.57	3.56	3.39	3.63	2.94	3.63
-25°C	005PS	2.11	1.38	1.84	1.39	1.61	1.41	1.42	1.48
	009PS	3.01	2.07	2.73	2.13	2.57	2.22	2.28	2.28
	010PS	3.62	2.66	3.25	2.66	3.06	2.71	2.67	2.69
	012PS	4.32	2.98	3.92	3.03	3.64	3.10	3.15	3.12
	016PS	5.05	4.14	4.96	4.20	4.42	4.25	3.89	4.29
-20°C	005PS	2.95	1.63	2.47	1.64	2.24	1.70	1.93	1.72
	009PS	3.74	2.37	3.42	2.44	3.26	2.53	2.92	2.60
	010PS	4.53	3.13	4.39	3.18	3.94	3.19	3.49	3.18
	012PS	5.47	3.46	5.37	3.52	4.72	3.57	4.11	3.61
	016PS	6.85	4.79	6.23	4.87	5.60	4.94	4.97	5.01

Testing conditions: refrigerant R404A, MT return temperature RGT= 5°C (Base on National standard)