



### Hydrokit for ECOi, water at 45 °C • R410A

#### Connect the Hydrokit to your VRF system, together with other indoor units.

Total system performs high energy efficiency by this heat recovering operation, and it gives an advantage for sustainability related assessment methods, such as BREEAM in UK.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS. FOR DETAILED INFORMATION GO TO THE CONTROL SYSTEMS SECTION

Model				S-80MW1E5	S-125MW1E5
Power source				230 V / Single phase / 50 Hz	
Cooling capacity				8,0	12,5
Heating capacity				9,0	14,0
Maximum temperature				-45 / -65 <sup>1)</sup>	-45 / -65 <sup>1)</sup>
Dimension	H x W x D			892 x 502 x 353	
Water pipe connector				R 1 ¼	
Water pump (built-in)				DC motor (A class)	
Water flow rate	Cool			22,90	35,80
	Heat			25,80	40,10
Pipe diameter	Liquid pipe			3/8 (9,52)	
	Gas pipe			5/8 (15,88)	
	Drain piping			15 ~ 17 mm (inner size)	
Operation range	Cool	Ambient	°C	+10 ~ +43	
		Water	°C	+5 ~ +20	
	Heat	Ambient	°C	-20 ~ +43	
		Water	°C	+25 ~ +45	
Connectable system				3-Pipe (heat recovery type) VRF System (system capable up to 48 HP)	
Maximum Indoor ratio (connectable hydrokit module capacity ratio)				Total indoor unit + Hydrokit capacity: up to 130 % (** ~ **% vs total outdoor unit capacity)	

#### Accessories

**CZ-RTC5B** Wired remote controller with Econavi function

#### Accessories

**PAW-RE2C4** Wired remote controller for hotel application

1) Maximum 45 °C by refrigerant circuit (heat pump cycle), over 45 °C is provided by electric heater operation.

### Basic principle & advantage.

Hydrokit module provides hot water by using waste heat that is recovered from standard air-conditioning indoor unit in cooling mode.

### Technical focus

- Only with 3-Pipe ECOi EX MF3 Series outdoor units
- Remote controller CZ-RTC5B common use with DX coil indoor units ECOi and PACi

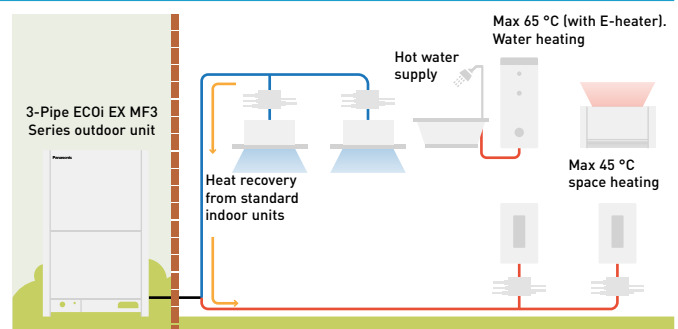
### Hydrokit control function / CZ-RTC5B

- CZ-RTC5B is updated version from CZ-RTC3. It can be used for hydrokit and also normal indoor unit. CZ-RTC5B checks the type of connected unit and switch hydrokit or air conditioner style of display automatically

- Operating mode on hydrokit style to be set at initial setting of the system from following modes: tank mode or air conditioning mode

### Overview: hydromodule in VRF system

- Multiple hydromodule connection in same circuit is available
- Each module can be set different operation mode either hot water supply mode or space heating mode (both operation modes are not able to set at 1 hydromodule)
- 3-Pipe control solenoid valve kit is necessary for each indoor unit and hydromodule



\* Cold water also available.

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# 1. Capacity Ratio of Outdoor Unit

## 1-1. U-8MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-10.0	14.9	2.49	17.0	2.83	20.4	3.40	22.4	3.74	23.1	3.86	25.0	4.17	26.9	4.48
	-5.0	14.9	2.50	17.0	2.83	20.4	3.40	22.4	3.74	23.1	3.86	25.0	4.17	26.9	4.48
	0.0	14.9	2.50	17.0	2.84	20.4	3.40	22.4	3.74	23.1	3.87	25.0	4.18	26.9	4.49
	5.0	14.9	2.51	17.0	2.85	20.4	3.41	22.4	3.75	23.1	3.88	25.0	4.18	26.9	4.49
	10.0	14.9	2.53	17.0	2.87	20.4	3.43	22.4	3.76	23.1	3.89	25.0	4.20	26.9	4.50
	15.0	14.9	2.58	17.0	2.91	20.4	3.46	22.4	3.79	23.1	3.91	25.0	4.22	26.9	4.52
	20.0	14.9	2.74	17.0	3.03	20.4	3.55	22.4	3.86	23.1	3.98	25.0	4.27	26.9	4.57
	25.0	14.9	3.04	17.0	3.38	20.4	3.85	22.4	4.10	23.1	4.19	25.0	4.44	26.9	4.71
	30.0	14.9	3.58	17.0	3.98	20.4	4.64	22.4	5.04	23.1	5.18	25.0	5.54	26.9	5.90
	35.0	14.9	4.47	17.0	4.98	20.4	5.83	22.4	6.33	23.1	6.51	25.0	6.96	26.1	7.01
	40.0	14.9	5.39	17.0	6.02	20.3	7.01	21.1	7.01	21.4	7.01	22.3	7.01	23.1	7.01
43.0	14.9	5.98	17.0	6.69	18.8	7.01	19.6	7.01	19.9	7.01	20.7	7.01	21.5	7.01	
46.0	14.9	6.60	16.3	7.01	17.5	7.01	18.3	7.01	18.6	7.01	19.3	7.01	20.0	7.01	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	-10.0	13.4	2.24	15.3	2.55	18.3	3.06	20.2	3.36	20.8	3.48	22.5	3.76	24.2	4.03
	-5.0	13.4	2.25	15.3	2.55	18.3	3.06	20.2	3.37	20.8	3.48	22.5	3.76	24.2	4.04
	0.0	13.4	2.25	15.3	2.56	18.3	3.07	20.2	3.37	20.8	3.48	22.5	3.76	24.2	4.04
	5.0	13.4	2.26	15.3	2.57	18.3	3.07	20.2	3.38	20.8	3.49	22.5	3.77	24.2	4.05
	10.0	13.4	2.28	15.3	2.58	18.3	3.09	20.2	3.39	20.8	3.50	22.5	3.78	24.2	4.06
	15.0	13.4	2.33	15.3	2.62	18.3	3.12	20.2	3.41	20.8	3.52	22.5	3.80	24.2	4.07
	20.0	13.4	2.47	15.3	2.73	18.3	3.19	20.2	3.48	20.8	3.58	22.5	3.85	24.2	4.11
	25.0	13.4	2.79	15.3	3.10	18.3	3.45	20.2	3.67	20.8	3.76	22.5	3.99	24.2	4.23
	30.0	13.4	3.11	15.3	3.43	18.3	3.93	20.2	4.23	20.8	4.34	22.5	4.60	24.2	4.86
	35.0	13.4	3.90	15.3	4.31	18.3	4.97	20.2	5.35	20.8	5.49	22.5	5.83	24.2	6.17
	40.0	13.4	4.71	15.3	5.22	18.3	6.05	20.2	6.53	20.8	6.70	22.3	7.01	23.1	7.01
43.0	13.4	5.23	15.3	5.80	18.3	6.73	19.6	7.01	19.9	7.01	20.7	7.01	21.5	7.01	
46.0	13.4	5.77	15.3	6.41	17.5	7.01	18.3	7.01	18.6	7.01	19.3	7.01	20.0	7.01	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
80%	-10.0	11.9	2.00	13.6	2.27	16.3	2.72	17.9	2.99	18.5	3.09	20.0	3.34	21.5	3.59
	-5.0	11.9	2.00	13.6	2.27	16.3	2.72	17.9	3.00	18.5	3.09	20.0	3.34	21.5	3.59
	0.0	11.9	2.01	13.6	2.28	16.3	2.73	17.9	3.00	18.5	3.10	20.0	3.35	21.5	3.59
	5.0	11.9	2.02	13.6	2.29	16.3	2.74	17.9	3.00	18.5	3.10	20.0	3.35	21.5	3.60
	10.0	11.9	2.03	13.6	2.30	16.3	2.75	17.9	3.02	18.5	3.11	20.0	3.36	21.5	3.61
	15.0	11.9	2.08	13.6	2.34	16.3	2.77	17.9	3.04	18.5	3.14	20.0	3.38	21.5	3.62
	20.0	11.9	2.20	13.6	2.43	16.3	2.84	17.9	3.09	18.5	3.19	20.0	3.42	21.5	3.66
	25.0	11.9	2.54	13.6	2.80	16.3	3.06	17.9	3.26	18.5	3.33	20.0	3.54	21.5	3.75
	30.0	11.9	2.69	13.6	2.93	16.3	3.31	17.9	3.57	18.5	3.67	20.0	3.92	21.5	4.10
	35.0	11.9	3.37	13.6	3.69	16.3	4.20	17.9	4.48	18.5	4.58	20.0	4.83	21.5	5.07
	40.0	11.9	4.08	13.6	4.48	16.3	5.12	17.9	5.49	18.5	5.62	20.0	5.94	21.5	6.25
43.0	11.9	4.52	13.6	4.98	16.3	5.71	17.9	6.13	18.5	6.28	20.0	6.64	21.3	6.93	
46.0	11.9	4.99	13.6	5.51	16.3	6.33	17.9	6.81	18.5	6.98	19.3	7.01	20.0	7.01	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-10.0	10.5	1.65	11.9	1.87	14.3	2.24	15.7	2.47	16.2	2.55	17.5	2.75	18.8	2.96
	-5.0	10.5	1.65	11.9	1.87	14.3	2.25	15.7	2.47	16.2	2.55	17.5	2.75	18.8	2.96
	0.0	10.5	1.66	11.9	1.88	14.3	2.25	15.7	2.47	16.2	2.55	17.5	2.76	18.8	2.96
	5.0	10.5	1.66	11.9	1.89	14.3	2.26	15.7	2.48	16.2	2.56	17.5	2.76	18.8	2.96
	10.0	10.5	1.68	11.9	1.90	14.3	2.27	15.7	2.49	16.2	2.57	17.5	2.77	18.8	2.97
	15.0	10.5	1.72	11.9	1.93	14.3	2.29	15.7	2.51	16.2	2.59	17.5	2.79	18.8	2.99
	20.0	10.5	1.82	11.9	2.01	14.3	2.34	15.7	2.55	16.2	2.63	17.5	2.82	18.8	3.02
	25.0	10.5	2.16	11.9	2.30	14.3	2.52	15.7	2.68	16.2	2.75	17.5	2.91	18.8	3.09
	30.0	10.5	2.19	11.9	2.42	14.3	2.79	15.7	3.01	16.2	3.09	17.5	3.26	18.8	3.35
	35.0	10.5	2.72	11.9	2.95	14.3	3.30	15.7	3.49	16.2	3.56	17.5	3.72	18.8	3.87
	40.0	10.5	3.29	11.9	3.59	14.3	4.04	15.7	4.29	16.2	4.38	17.5	4.60	18.8	4.80
43.0	10.5	3.65	11.9	3.99	14.3	4.51	15.7	4.80	16.2	4.91	17.5	5.16	18.8	5.39	
46.0	10.5	4.03	11.9	4.41	14.3	5.00	15.7	5.34	16.2	5.46	17.5	5.74	18.8	6.02	

## 1. Capacity Ratio of Outdoor Unit

## U-8MF2E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	9.0	1.26	10.2	1.43	12.2	1.71	13.4	1.88	13.9	1.95	15.0	2.10	16.1	2.26
	-5.0	9.0	1.26	10.2	1.43	12.2	1.72	13.4	1.89	13.9	1.95	15.0	2.10	16.1	2.26
	0.0	9.0	1.27	10.2	1.44	12.2	1.72	13.4	1.89	13.9	1.95	15.0	2.11	16.1	2.26
	5.0	9.0	1.27	10.2	1.44	12.2	1.72	13.4	1.89	13.9	1.96	15.0	2.11	16.1	2.26
	10.0	9.0	1.29	10.2	1.45	12.2	1.73	13.4	1.90	13.9	1.96	15.0	2.12	16.1	2.27
	15.0	9.0	1.32	10.2	1.48	12.2	1.75	13.4	1.92	13.9	1.98	15.0	2.13	16.1	2.28
	20.0	9.0	1.40	10.2	1.54	12.2	1.80	13.4	1.95	13.9	2.01	15.0	2.16	16.1	2.30
	25.0	9.0	1.72	10.2	1.77	12.2	1.93	13.4	2.05	13.9	2.10	15.0	2.23	16.1	2.36
	30.0	9.0	1.74	10.2	1.91	12.2	2.20	13.4	2.37	13.9	2.43	15.0	2.47	16.1	2.54
	35.0	9.0	2.06	10.2	2.20	12.2	2.43	13.4	2.54	13.9	2.58	15.0	2.68	16.1	2.77
	40.0	9.0	2.48	10.2	2.68	12.2	2.97	13.4	3.13	13.9	3.18	15.0	3.31	16.1	3.43
43.0	9.0	2.75	10.2	2.97	12.2	3.32	13.4	3.50	13.9	3.57	15.0	3.72	16.1	3.86	
46.0	9.0	3.03	10.2	3.29	12.2	3.68	13.4	3.90	13.9	3.97	15.0	4.15	16.1	4.32	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	7.5	0.950	8.5	1.07	10.2	1.29	11.2	1.41	11.6	1.46	12.5	1.58	13.4	1.69
	-5.0	7.5	0.950	8.5	1.08	10.2	1.29	11.2	1.42	11.6	1.46	12.5	1.58	13.4	1.69
	0.0	7.5	0.950	8.5	1.08	10.2	1.29	11.2	1.42	11.6	1.47	12.5	1.58	13.4	1.70
	5.0	7.5	0.960	8.5	1.09	10.2	1.30	11.2	1.42	11.6	1.47	12.5	1.58	13.4	1.70
	10.0	7.5	0.970	8.5	1.10	10.2	1.30	11.2	1.43	11.6	1.48	12.5	1.59	13.4	1.71
	15.0	7.5	1.00	8.5	1.12	10.2	1.32	11.2	1.44	11.6	1.49	12.5	1.60	13.4	1.71
	20.0	7.5	1.06	8.5	1.17	10.2	1.35	11.2	1.47	11.6	1.51	12.5	1.62	13.4	1.73
	25.0	7.5	1.31	8.5	1.34	10.2	1.46	11.2	1.55	11.6	1.58	12.5	1.68	13.4	1.78
	30.0	7.5	1.38	8.5	1.51	10.2	1.72	11.2	1.83	11.6	1.83	12.5	1.86	13.4	1.91
	35.0	7.5	1.55	8.5	1.64	10.2	1.78	11.2	1.88	11.6	1.92	12.5	2.04	13.4	2.16
	40.0	7.5	1.86	8.5	1.99	10.2	2.17	11.2	2.27	11.6	2.30	12.5	2.37	13.4	2.43
43.0	7.5	2.06	8.5	2.21	10.2	2.42	11.2	2.54	11.6	2.58	12.5	2.66	13.4	2.74	
46.0	7.5	2.26	8.5	2.43	10.2	2.69	11.2	2.82	11.6	2.87	12.5	2.97	13.4	3.07	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	6.0	0.700	6.8	0.790	8.1	0.940	9.0	1.04	9.3	1.07	10.0	1.16	10.8	1.24
	-5.0	6.0	0.700	6.8	0.790	8.1	0.950	9.0	1.04	9.3	1.07	10.0	1.16	10.8	1.24
	0.0	6.0	0.700	6.8	0.790	8.1	0.950	9.0	1.04	9.3	1.08	10.0	1.16	10.8	1.24
	5.0	6.0	0.710	6.8	0.800	8.1	0.950	9.0	1.04	9.3	1.08	10.0	1.16	10.8	1.25
	10.0	6.0	0.720	6.8	0.810	8.1	0.960	9.0	1.05	9.3	1.08	10.0	1.17	10.8	1.25
	15.0	6.0	0.740	6.8	0.820	8.1	0.970	9.0	1.06	9.3	1.09	10.0	1.18	10.8	1.26
	20.0	6.0	0.790	6.8	0.870	8.1	1.00	9.0	1.08	9.3	1.12	10.0	1.19	10.8	1.27
	25.0	6.0	0.990	6.8	1.00	8.1	1.08	9.0	1.14	9.3	1.17	10.0	1.24	10.8	1.31
	30.0	6.0	1.10	6.8	1.19	8.1	1.35	9.0	1.36	9.3	1.36	10.0	1.37	10.8	1.41
	35.0	6.0	1.17	6.8	1.23	8.1	1.37	9.0	1.46	9.3	1.49	10.0	1.58	10.8	1.66
	40.0	6.0	1.39	6.8	1.47	8.1	1.58	9.0	1.63	9.3	1.65	10.0	1.69	10.8	1.72
43.0	6.0	1.53	6.8	1.63	8.1	1.76	9.0	1.82	9.3	1.85	10.0	1.89	10.8	1.93	
46.0	6.0	1.68	6.8	1.79	8.1	1.95	9.0	2.02	9.3	2.05	10.0	2.11	10.8	2.16	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	4.5	0.490	5.1	0.560	6.1	0.670	6.7	0.730	6.9	0.750	7.5	0.810	8.1	0.870
	-5.0	4.5	0.490	5.1	0.560	6.1	0.670	6.7	0.730	6.9	0.760	7.5	0.820	8.1	0.870
	0.0	4.5	0.500	5.1	0.560	6.1	0.670	6.7	0.730	6.9	0.760	7.5	0.820	8.1	0.880
	5.0	4.5	0.500	5.1	0.560	6.1	0.670	6.7	0.740	6.9	0.760	7.5	0.820	8.1	0.880
	10.0	4.5	0.510	5.1	0.570	6.1	0.680	6.7	0.740	6.9	0.770	7.5	0.820	8.1	0.880
	15.0	4.5	0.530	5.1	0.590	6.1	0.690	6.7	0.750	6.9	0.770	7.5	0.830	8.1	0.890
	20.0	4.5	0.580	5.1	0.620	6.1	0.710	6.7	0.770	6.9	0.790	7.5	0.850	8.1	0.900
	25.0	4.5	0.740	5.1	0.740	6.1	0.780	6.7	0.820	6.9	0.840	7.5	0.880	8.1	0.930
	30.0	4.5	0.870	5.1	0.930	6.1	1.02	6.7	0.980	6.9	0.980	7.5	0.980	8.1	1.01
	35.0	4.5	0.890	5.1	0.950	6.1	1.06	6.7	1.12	6.9	1.15	7.5	1.21	8.1	1.27
	40.0	4.5	1.04	5.1	1.09	6.1	1.15	6.7	1.17	6.9	1.18	7.5	1.21	8.1	1.27
43.0	4.5	1.14	5.1	1.19	6.1	1.27	6.7	1.30	6.9	1.31	7.5	1.33	8.1	1.35	
46.0	4.5	1.24	5.1	1.30	6.1	1.39	6.7	1.44	6.9	1.45	7.5	1.48	8.1	1.50	

# 1. Capacity Ratio of Outdoor Unit

## 1-2. U-8MF2E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	14.8	6.72	13.1	6.46	12.0	6.26	11.3	6.09	10.2	5.80	9.5	5.56	7.5	4.82
	-14.7	-15.0	17.6	7.15	15.7	6.81	14.4	6.56	13.6	6.37	12.3	6.03	11.4	5.77	9.1	4.98
	-9.6	-10.0	20.8	7.36	18.8	7.34	17.3	7.03	16.3	6.80	14.8	6.41	13.7	6.11	11.0	5.23
	-4.4	-5.0	23.5	7.36	21.7	7.36	20.4	7.23	19.2	7.24	17.4	6.71	16.2	6.41	12.9	5.43
	-1.8	-2.5	24.9	7.36	23.1	7.36	22.0	7.36	20.9	7.21	19.0	7.00	17.6	6.67	14.1	5.61
	0.8	0.0	26.5	7.36	24.6	7.36	23.4	7.36	22.7	7.36	20.7	7.11	19.3	6.81	15.5	5.87
	2.8	2.0	27.9	7.36	25.8	7.36	24.7	7.36	23.9	7.36	22.1	7.12	20.4	6.75	15.7	5.60
	6.0	5.0	30.1	7.36	27.9	7.36	26.6	7.36	25.0	6.96	22.2	6.31	20.4	5.97	15.7	5.01
	7.0	6.0	30.9	7.36	28.6	7.36	26.9	7.13	25.0	6.63	22.2	6.02	20.4	5.72	15.7	4.82
	8.6	7.5	32.1	7.36	29.6	7.28	26.9	6.61	25.0	6.17	22.2	5.62	20.4	5.36	15.7	4.56
	11.2	10.0	34.3	7.34	29.6	6.40	26.9	5.83	25.0	5.46	22.2	5.01	20.4	4.80	15.7	4.13
	16.4	15.0	34.3	5.47	29.6	4.81	26.9	4.42	25.0	4.16	22.2	3.85	20.4	3.73	15.7	3.28
24.0	18.0	34.3	5.47	29.6	4.77	26.9	4.35	25.0	4.07	22.2	3.65	20.4	3.38	15.7	2.68	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	14.6	6.72	12.9	6.47	11.8	6.27	11.1	6.10	10.0	5.81	9.3	5.58	7.3	4.85
	-14.7	-15.0	17.4	7.24	15.5	6.90	14.2	6.64	13.4	6.44	12.1	6.10	11.2	5.83	8.9	5.04
	-9.6	-10.0	20.9	7.50	18.6	7.45	17.1	7.13	16.1	6.89	14.6	6.49	13.5	6.18	10.8	5.29
	-4.4	-5.0	23.9	7.69	22.1	7.70	20.6	7.39	19.4	7.49	17.5	7.03	16.2	6.65	12.9	5.62
	-1.8	-2.5	25.5	7.69	23.5	7.69	22.4	7.68	21.1	7.59	19.1	7.22	17.7	6.90	14.1	5.82
	0.8	0.0	27.1	7.69	25.0	7.70	23.9	7.70	22.5	7.45	20.0	6.95	18.3	6.58	14.2	5.50
	2.8	2.0	28.5	7.69	26.3	7.69	24.2	7.21	22.5	6.85	20.0	6.42	18.3	6.11	14.2	5.16
	6.0	5.0	30.7	7.69	26.7	6.91	24.2	6.38	22.5	6.10	20.0	5.77	18.3	5.49	14.2	4.64
	7.0	6.0	30.8	7.60	26.7	6.68	24.2	6.13	22.5	5.84	20.0	5.52	18.3	5.27	14.2	4.49
	8.6	7.5	30.8	6.99	26.7	6.18	24.2	5.68	22.5	5.43	20.0	5.16	18.3	4.94	14.2	4.24
	11.2	10.0	30.8	6.05	26.7	5.39	24.2	4.99	22.5	4.79	20.0	4.60	18.3	4.42	14.2	3.85
	16.4	15.0	30.8	5.18	26.7	4.52	24.2	4.13	22.5	3.87	20.0	3.52	18.3	3.43	14.2	3.05
24.0	18.0	30.8	5.18	26.7	4.52	24.2	4.13	22.5	3.87	20.0	3.47	18.3	3.21	14.2	2.55	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	14.6	6.92	12.9	6.65	11.8	6.44	11.1	6.27	10.0	5.96	9.2	5.73	7.3	4.97
	-14.7	-15.0	17.5	7.44	15.5	7.07	14.2	6.80	13.4	6.60	12.0	6.25	11.1	5.98	8.8	5.16
	-9.6	-10.0	21.0	7.93	18.6	7.69	17.1	7.33	16.1	7.08	14.5	6.66	13.5	6.34	10.7	5.42
	-4.4	-5.0	24.4	8.03	22.5	8.03	21.0	7.77	19.8	7.84	17.8	7.37	16.3	6.88	12.6	5.66
	-1.8	-2.5	26.0	8.03	23.7	7.89	21.5	7.51	20.0	7.25	17.8	6.79	16.3	6.46	12.6	5.37
	0.8	0.0	27.4	7.87	23.7	7.12	21.5	6.83	20.0	6.63	17.8	6.26	16.3	5.96	12.6	5.05
	2.8	2.0	27.4	7.27	23.7	6.59	21.5	6.35	20.0	6.18	17.8	5.85	16.3	5.58	12.6	4.75
	6.0	5.0	27.4	6.41	23.7	5.84	21.5	5.65	20.0	5.51	17.8	5.22	16.3	5.00	12.6	4.25
	7.0	6.0	27.4	6.18	23.7	5.58	21.5	5.38	20.0	5.25	17.8	5.00	16.3	4.79	12.6	4.12
	8.6	7.5	27.4	5.66	23.7	5.14	21.5	4.99	20.0	4.89	17.8	4.68	16.3	4.49	12.6	3.90
	11.2	10.0	27.4	4.84	23.7	4.45	21.5	4.37	20.0	4.32	17.8	4.17	16.3	4.03	12.6	3.54
	16.4	15.0	27.4	4.84	23.7	4.23	21.5	3.87	20.0	3.62	17.8	3.26	16.3	3.11	12.6	2.80
24.0	18.0	27.4	4.84	23.7	4.23	21.5	3.87	20.0	3.62	17.8	3.26	16.3	3.02	12.6	2.41	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	14.9	7.26	13.1	6.97	12.0	6.74	11.3	6.56	10.1	6.24	9.4	5.99	7.4	5.20
	-14.7	-15.0	17.9	7.80	15.8	7.41	14.5	7.12	13.6	6.91	12.2	6.54	11.3	6.25	9.0	5.40
	-9.6	-10.0	21.5	8.24	19.0	8.05	17.5	7.65	16.4	7.41	14.8	6.97	13.7	6.64	11.0	5.77
	-4.4	-5.0	24.0	7.89	20.7	7.53	18.8	7.26	17.5	7.03	15.6	6.61	14.3	6.24	11.0	5.14
	-1.8	-2.5	24.0	7.18	20.7	6.90	18.8	6.67	17.5	6.48	15.6	6.11	14.3	5.83	11.0	4.91
	0.8	0.0	24.0	6.48	20.7	6.28	18.8	6.11	17.5	5.94	15.6	5.63	14.3	5.38	11.0	4.59
	2.8	2.0	24.0	5.95	20.7	5.80	18.8	5.67	17.5	5.74	15.6	5.26	14.3	5.03	11.0	4.31
	6.0	5.0	24.0	5.19	20.7	5.09	18.8	4.98	17.5	4.88	15.6	4.66	14.3	4.47	11.0	3.84
	7.0	6.0	24.0	4.89	20.7	4.82	18.8	4.74	17.5	4.65	15.6	4.46	14.3	4.29	11.0	3.73
	8.6	7.5	24.0	4.46	20.7	4.44	18.8	4.40	17.5	4.33	15.6	4.18	14.3	4.03	11.0	3.53
	11.2	10.0	24.0	4.46	20.7	3.90	18.8	3.86	17.5	3.83	15.6	3.73	14.3	3.62	11.0	3.21
	16.4	15.0	24.0	4.46	20.7	3.90	18.8	3.57	17.5	3.35	15.6	3.01	14.3	2.79	11.0	2.53
24.0	18.0	24.0	4.46	20.7	3.90	18.8	3.57	17.5	3.35	15.6	3.01	14.3	2.79	11.0	2.24	

## 1. Capacity Ratio of Outdoor Unit

## U-8MF2E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	15.6	7.63	13.7	7.32	12.5	7.08	11.8	6.88	10.6	6.55	9.8	6.28	7.7	5.45
	-14.7	-15.0	18.7	8.25	16.5	7.80	15.1	7.49	14.2	7.26	12.8	6.87	11.8	6.57	9.4	5.74
	-9.6	-10.0	20.6	7.87	17.8	7.56	16.1	7.17	15.0	6.85	13.3	6.36	12.2	6.01	9.4	5.03
	-4.4	-5.0	20.6	6.62	17.8	6.45	16.1	6.24	15.0	6.05	13.3	5.71	12.2	5.43	9.4	4.49
	-1.8	-2.5	20.6	6.01	17.8	5.90	16.1	5.73	15.0	5.58	13.3	5.28	12.2	5.04	9.4	4.29
	0.8	0.0	20.6	5.41	17.8	5.36	16.1	5.24	15.0	5.11	13.3	4.86	12.2	4.65	9.4	3.99
	2.8	2.0	20.6	4.95	17.8	4.95	16.1	4.84	15.0	4.73	13.3	4.51	12.2	4.33	9.4	3.73
	6.0	5.0	20.6	4.20	17.8	4.26	16.1	4.21	15.0	4.14	13.3	3.98	12.2	3.84	9.4	3.34
	7.0	6.0	20.6	3.94	17.8	4.04	16.1	4.01	15.0	3.95	13.3	3.82	12.2	3.69	9.4	3.24
	8.6	7.5	20.6	3.93	17.8	3.72	16.1	3.72	15.0	3.68	13.3	3.58	12.2	3.47	9.4	3.07
	11.2	10.0	20.6	3.93	17.8	3.45	16.1	3.26	15.0	3.26	13.3	3.19	12.2	3.12	9.4	2.79
16.4	15.0	20.6	3.93	17.8	3.45	16.1	3.16	15.0	2.97	13.3	2.68	12.2	2.48	9.4	2.20	
24.0	18.0	20.6	3.93	17.8	3.45	16.1	3.16	15.0	2.97	13.3	2.68	12.2	2.48	9.4	2.00	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	16.8	8.04	14.8	7.70	13.4	7.39	12.5	7.14	11.1	6.72	10.2	6.40	7.9	5.47
	-14.7	-15.0	17.1	7.38	14.8	6.85	13.4	6.51	12.5	6.27	11.1	5.86	10.2	5.57	7.9	4.72
	-9.6	-10.0	17.1	6.36	14.8	6.15	13.4	5.89	12.5	5.62	11.1	5.22	10.2	4.94	7.9	4.15
	-4.4	-5.0	17.1	5.34	14.8	5.23	13.4	5.07	12.5	4.94	11.1	4.68	10.2	4.46	7.9	3.72
	-1.8	-2.5	17.1	4.83	14.8	4.78	13.4	4.66	12.5	4.55	11.1	4.32	10.2	4.14	7.9	3.54
	0.8	0.0	17.1	4.34	14.8	4.31	13.4	4.22	12.5	4.13	11.1	3.94	10.2	3.79	7.9	3.28
	2.8	2.0	17.1	3.90	14.8	3.92	13.4	3.87	12.5	3.80	11.1	3.65	10.2	3.51	7.9	3.06
	6.0	5.0	17.1	3.28	14.8	3.37	13.4	3.37	12.5	3.33	11.1	3.23	10.2	3.13	7.9	2.76
	7.0	6.0	17.1	3.28	14.8	3.20	13.4	3.21	12.5	3.18	11.1	3.09	10.2	3.00	7.9	2.67
	8.6	7.5	17.1	3.28	14.8	2.95	13.4	2.98	12.5	2.97	11.1	2.90	10.2	2.83	7.9	2.53
	11.2	10.0	17.1	3.28	14.8	2.89	13.4	2.65	12.5	2.63	11.1	2.60	10.2	2.55	7.9	2.31
16.4	15.0	17.1	3.28	14.8	2.89	13.4	2.65	12.5	2.49	11.1	2.25	10.2	2.10	7.9	1.82	
24.0	18.0	17.1	3.28	14.8	2.89	13.4	2.65	12.5	2.49	11.1	2.25	10.2	2.10	7.9	1.70	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
40%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	13.7	5.97	11.9	5.63	10.7	5.40	10.0	5.22	8.9	4.92	8.1	4.70	6.3	4.03
	-14.7	-15.0	13.7	5.37	11.9	5.01	10.7	4.77	10.0	4.60	8.9	4.31	8.1	4.10	6.3	3.49
	-9.6	-10.0	13.7	4.61	11.9	4.48	10.7	4.32	10.0	4.14	8.9	3.85	8.1	3.65	6.3	3.08
	-4.4	-5.0	13.7	3.86	11.9	3.80	10.7	3.69	10.0	3.60	8.9	3.42	8.1	3.27	6.3	2.76
	-1.8	-2.5	13.7	3.44	11.9	3.43	10.7	3.36	10.0	3.29	8.9	3.14	8.1	3.01	6.3	2.61
	0.8	0.0	13.7	3.04	11.9	3.07	10.7	3.03	10.0	2.98	8.9	2.86	8.1	2.76	6.3	2.42
	2.8	2.0	13.7	2.73	11.9	2.80	10.7	2.78	10.0	2.74	8.9	2.65	8.1	2.57	6.3	2.27
	6.0	5.0	13.7	2.47	11.9	2.41	10.7	2.43	10.0	2.41	8.9	2.35	8.1	2.29	6.3	2.05
	7.0	6.0	13.7	2.47	11.9	2.29	10.7	2.31	10.0	2.31	8.9	2.26	8.1	2.21	6.3	1.98
	8.6	7.5	13.7	2.47	11.9	2.18	10.7	2.15	10.0	2.16	8.9	2.13	8.1	2.08	6.3	1.89
	11.2	10.0	13.7	2.47	11.9	2.18	10.7	2.00	10.0	1.92	8.9	1.91	8.1	1.88	6.3	1.72
16.4	15.0	13.7	2.47	11.9	2.18	10.7	2.00	10.0	1.89	8.9	1.71	8.1	1.60	6.3	1.36	
24.0	18.0	13.7	2.47	11.9	2.18	10.7	2.00	10.0	1.89	8.9	1.71	8.1	1.60	6.3	1.31	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
30%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	10.3	4.05	8.9	3.83	8.1	3.68	7.5	3.56	6.7	3.37	6.1	3.22	4.7	2.78
	-14.7	-15.0	10.3	3.64	8.9	3.43	8.1	3.27	7.5	3.15	6.7	2.96	6.1	2.82	4.7	2.42
	-9.6	-10.0	10.3	3.10	8.9	3.03	8.1	2.94	7.5	2.85	6.7	2.65	6.1	2.51	4.7	2.14
	-4.4	-5.0	10.3	2.54	8.9	2.53	8.1	2.48	7.5	2.43	6.7	2.33	6.1	2.24	4.7	1.92
	-1.8	-2.5	10.3	2.27	8.9	2.29	8.1	2.26	7.5	2.22	6.7	2.14	6.1	2.07	4.7	1.82
	0.8	0.0	10.3	2.01	8.9	2.06	8.1	2.05	7.5	2.02	6.7	1.96	6.1	1.90	4.7	1.68
	2.8	2.0	10.3	1.81	8.9	1.88	8.1	1.88	7.5	1.87	6.7	1.82	6.1	1.77	4.7	1.58
	6.0	5.0	10.3	1.75	8.9	1.63	8.1	1.65	7.5	1.65	6.7	1.62	6.1	1.59	4.7	1.44
	7.0	6.0	10.3	1.75	8.9	1.55	8.1	1.58	7.5	1.58	6.7	1.56	6.1	1.53	4.7	1.40
	8.6	7.5	10.3	1.75	8.9	1.55	8.1	1.47	7.5	1.48	6.7	1.47	6.1	1.45	4.7	1.33
	11.2	10.0	10.3	1.75	8.9	1.55	8.1	1.43	7.5	1.35	6.7	1.33	6.1	1.31	4.7	1.22
16.4	15.0	10.3	1.75	8.9	1.55	8.1	1.43	7.5	1.35	6.7	1.24	6.1	1.16	4.7	0.97	
24.0	18.0	10.3	1.75	8.9	1.55	8.1	1.43	7.5	1.35	6.7	1.24	6.1	1.16	4.7	0.96	



# 1. Capacity Ratio of Outdoor Unit

## 1-3. U-10MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	18.7	2.95	21.2	3.35	25.5	4.02	28.0	4.43	28.9	4.58	31.3	4.94	33.6	5.31
	-5.0	18.7	2.96	21.2	3.36	25.5	4.03	28.0	4.43	28.9	4.58	31.3	4.95	33.6	5.32
	0.0	18.7	2.97	21.2	3.37	25.5	4.04	28.0	4.44	28.9	4.59	31.3	4.96	33.6	5.33
	5.0	18.7	2.99	21.2	3.39	25.5	4.05	28.0	4.45	28.9	4.60	31.3	4.97	33.6	5.34
	10.0	18.7	3.03	21.2	3.43	25.5	4.09	28.0	4.48	28.9	4.63	31.3	4.99	33.6	5.36
	15.0	18.7	3.15	21.2	3.52	25.5	4.16	28.0	4.55	28.9	4.69	31.3	5.05	33.6	5.41
	20.0	18.7	3.52	21.2	3.83	25.5	4.39	28.0	4.74	28.9	4.87	31.3	5.20	33.6	5.54
	25.0	18.7	3.68	21.2	4.16	25.5	4.98	28.0	5.49	28.9	5.68	31.3	6.16	33.6	6.66
	30.0	18.7	4.71	21.2	5.32	25.5	6.37	28.0	7.02	28.9	7.26	31.3	7.87	33.6	8.49
	35.0	18.7	5.83	21.2	6.58	25.5	7.88	28.0	8.67	28.9	8.97	31.1	9.62	32.1	9.62
	40.0	18.7	6.98	21.2	7.89	25.5	9.45	26.7	9.62	27.0	9.62	28.0	9.62	28.9	9.62
43.0	18.7	7.72	21.2	8.73	24.1	9.62	25.0	9.62	25.4	9.62	26.3	9.62	27.2	9.62	
46.0	18.7	8.50	21.0	9.54	22.6	9.62	23.5	9.62	23.8	9.62	24.6	9.62	25.5	9.62	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	16.8	2.66	19.1	3.02	22.9	3.63	25.2	3.99	26.0	4.12	28.1	4.45	30.2	4.79
	-5.0	16.8	2.67	19.1	3.03	22.9	3.63	25.2	3.99	26.0	4.13	28.1	4.46	30.2	4.79
	0.0	16.8	2.68	19.1	3.04	22.9	3.64	25.2	4.00	26.0	4.13	28.1	4.46	30.2	4.80
	5.0	16.8	2.70	19.1	3.05	22.9	3.65	25.2	4.01	26.0	4.15	28.1	4.48	30.2	4.81
	10.0	16.8	2.74	19.1	3.09	22.9	3.68	25.2	4.04	26.0	4.17	28.1	4.50	30.2	4.83
	15.0	16.8	2.84	19.1	3.17	22.9	3.75	25.2	4.10	26.0	4.22	28.1	4.55	30.2	4.87
	20.0	16.8	3.16	19.1	3.43	22.9	3.93	25.2	4.25	26.0	4.37	28.1	4.67	30.2	4.97
	25.0	16.8	3.30	19.1	3.66	22.9	4.26	25.2	4.63	26.0	4.76	28.1	5.08	30.2	5.31
	30.0	16.8	4.05	19.1	4.53	22.9	5.34	25.2	5.82	26.0	6.00	28.1	6.45	30.2	6.90
	35.0	16.8	5.03	19.1	5.64	22.9	6.64	25.2	7.25	26.0	7.48	28.1	8.04	30.2	8.60
	40.0	16.8	6.04	19.1	6.78	22.9	8.00	25.2	8.74	26.0	9.01	28.0	9.61	28.9	9.62
43.0	16.8	6.68	19.1	7.50	22.9	8.88	25.0	9.61	25.4	9.62	26.3	9.62	27.2	9.62	
46.0	16.8	7.36	19.1	8.28	22.6	9.62	23.5	9.62	23.8	9.62	24.6	9.62	25.5	9.62	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	14.9	2.37	17.0	2.69	20.4	3.23	22.4	3.55	23.1	3.67	25.0	3.96	26.9	4.26
	-5.0	14.9	2.37	17.0	2.69	20.4	3.23	22.4	3.55	23.1	3.67	25.0	3.97	26.9	4.26
	0.0	14.9	2.38	17.0	2.70	20.4	3.24	22.4	3.56	23.1	3.68	25.0	3.97	26.9	4.27
	5.0	14.9	2.40	17.0	2.72	20.4	3.25	22.4	3.57	23.1	3.69	25.0	3.98	26.9	4.28
	10.0	14.9	2.44	17.0	2.75	20.4	3.28	22.4	3.59	23.1	3.71	25.0	4.00	26.9	4.29
	15.0	14.9	2.53	17.0	2.83	20.4	3.33	22.4	3.64	23.1	3.76	25.0	4.04	26.9	4.33
	20.0	14.9	2.80	17.0	3.04	20.4	3.49	22.4	3.77	23.1	3.87	25.0	4.14	26.9	4.41
	25.0	14.9	3.00	17.0	3.33	20.4	3.86	22.4	4.19	23.1	4.27	25.0	4.46	26.9	4.67
	30.0	14.9	3.46	17.0	3.82	20.4	4.42	22.4	4.77	23.1	4.90	25.0	5.22	26.9	5.54
	35.0	14.9	4.31	17.0	4.78	20.4	5.55	22.4	6.00	23.1	6.16	25.0	6.57	26.9	6.97
	40.0	14.9	5.18	17.0	5.76	20.4	6.71	22.4	7.27	23.1	7.47	25.0	7.97	26.9	8.47
43.0	14.9	5.74	17.0	6.38	20.4	7.45	22.4	8.08	23.1	8.31	25.0	8.87	26.9	9.44	
46.0	14.9	6.32	17.0	7.04	20.4	8.24	22.4	8.94	23.1	9.20	24.6	9.62	25.5	9.62	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	13.1	1.95	14.8	2.22	17.8	2.66	19.6	2.93	20.3	3.02	21.9	3.27	23.5	3.51
	-5.0	13.1	1.96	14.8	2.22	17.8	2.66	19.6	2.93	20.3	3.03	21.9	3.27	23.5	3.51
	0.0	13.1	1.97	14.8	2.23	17.8	2.67	19.6	2.94	20.3	3.03	21.9	3.28	23.5	3.52
	5.0	13.1	1.98	14.8	2.25	17.8	2.68	19.6	2.95	20.3	3.04	21.9	3.28	23.5	3.52
	10.0	13.1	2.01	14.8	2.27	17.8	2.70	19.6	2.96	20.3	3.06	21.9	3.30	23.5	3.54
	15.0	13.1	2.09	14.8	2.33	17.8	2.75	19.6	3.00	20.3	3.10	21.9	3.33	23.5	3.57
	20.0	13.1	2.31	14.8	2.51	17.8	2.87	19.6	3.10	20.3	3.19	21.9	3.41	23.5	3.63
	25.0	13.1	2.55	14.8	2.82	17.8	3.26	19.6	3.42	20.3	3.48	21.9	3.64	23.5	3.82
	30.0	13.1	2.76	14.8	3.01	17.8	3.41	19.6	3.65	20.3	3.73	21.9	3.93	23.5	4.14
	35.0	13.1	3.44	14.8	3.78	17.8	4.30	19.6	4.61	20.3	4.72	21.9	4.98	23.5	5.24
	40.0	13.1	4.14	14.8	4.56	17.8	5.23	19.6	5.61	20.3	5.75	21.9	6.09	23.5	6.42
43.0	13.1	4.58	14.8	5.05	17.8	5.81	19.6	6.25	20.3	6.41	21.9	6.79	23.5	7.17	
46.0	13.1	5.05	14.8	5.58	17.8	6.43	19.6	6.92	20.3	7.10	21.9	7.54	23.5	7.97	

## 1. Capacity Ratio of Outdoor Unit

## U-10MF2E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	11.2	1.49	12.7	1.70	15.3	2.03	16.8	2.24	17.4	2.31	18.8	2.49	20.2	2.68
	-5.0	11.2	1.50	12.7	1.70	15.3	2.04	16.8	2.24	17.4	2.31	18.8	2.50	20.2	2.68
	0.0	11.2	1.51	12.7	1.71	15.3	2.04	16.8	2.24	17.4	2.32	18.8	2.50	20.2	2.68
	5.0	11.2	1.52	12.7	1.72	15.3	2.05	16.8	2.25	17.4	2.33	18.8	2.51	20.2	2.69
	10.0	11.2	1.54	12.7	1.74	15.3	2.07	16.8	2.27	17.4	2.34	18.8	2.52	20.2	2.70
	15.0	11.2	1.60	12.7	1.79	15.3	2.10	16.8	2.30	17.4	2.37	18.8	2.55	20.2	2.72
	20.0	11.2	1.77	12.7	1.92	15.3	2.20	16.8	2.37	17.4	2.44	18.8	2.60	20.2	2.77
	25.0	11.2	2.03	12.7	2.23	15.3	2.49	16.8	2.60	17.4	2.64	18.8	2.76	20.2	2.90
	30.0	11.2	2.06	12.7	2.26	15.3	2.60	16.8	2.80	17.4	2.88	18.8	3.06	20.2	3.24
	35.0	11.2	2.57	12.7	2.79	15.3	3.12	16.8	3.30	17.4	3.36	18.8	3.52	20.2	3.67
	40.0	11.2	3.09	12.7	3.37	15.3	3.79	16.8	4.03	17.4	4.12	18.8	4.32	20.2	4.52
43.0	11.2	3.42	12.7	3.73	15.3	4.22	16.8	4.50	17.4	4.60	18.8	4.83	20.2	5.06	
46.0	11.2	3.76	12.7	4.11	15.3	4.67	16.8	4.99	17.4	5.10	18.8	5.37	20.2	5.63	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	9.3	1.12	10.6	1.28	12.7	1.53	14.0	1.68	14.5	1.73	15.6	1.87	16.8	2.01
	-5.0	9.3	1.13	10.6	1.28	12.7	1.53	14.0	1.68	14.5	1.74	15.6	1.87	16.8	2.01
	0.0	9.3	1.13	10.6	1.28	12.7	1.54	14.0	1.69	14.5	1.74	15.6	1.88	16.8	2.02
	5.0	9.3	1.14	10.6	1.29	12.7	1.54	14.0	1.69	14.5	1.75	15.6	1.88	16.8	2.02
	10.0	9.3	1.17	10.6	1.31	12.7	1.56	14.0	1.70	14.5	1.76	15.6	1.89	16.8	2.03
	15.0	9.3	1.21	10.6	1.35	12.7	1.59	14.0	1.73	14.5	1.78	15.6	1.91	16.8	2.05
	20.0	9.3	1.35	10.6	1.45	12.7	1.66	14.0	1.79	14.5	1.83	15.6	1.96	16.8	2.08
	25.0	9.3	1.60	10.6	1.76	12.7	1.87	14.0	1.95	14.5	1.98	15.6	2.07	16.8	2.18
	30.0	9.3	1.63	10.6	1.78	12.7	2.04	14.0	2.19	14.5	2.24	15.6	2.38	16.8	2.49
	35.0	9.3	1.92	10.6	2.05	12.7	2.25	14.0	2.35	14.5	2.39	15.6	2.47	16.8	2.55
	40.0	9.3	2.30	10.6	2.47	12.7	2.73	14.0	2.88	14.5	2.93	15.6	3.04	16.8	3.15
43.0	9.3	2.53	10.6	2.74	12.7	3.04	14.0	3.21	14.5	3.27	15.6	3.41	16.8	3.53	
46.0	9.3	2.78	10.6	3.01	12.7	3.37	14.0	3.56	14.5	3.63	15.6	3.79	16.8	3.94	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	7.5	0.830	8.5	0.940	10.2	1.12	11.2	1.23	11.6	1.27	12.5	1.37	13.4	1.47
	-5.0	7.5	0.830	8.5	0.940	10.2	1.12	11.2	1.23	11.6	1.27	12.5	1.38	13.4	1.48
	0.0	7.5	0.830	8.5	0.940	10.2	1.13	11.2	1.24	11.6	1.28	12.5	1.38	13.4	1.48
	5.0	7.5	0.840	8.5	0.950	10.2	1.13	11.2	1.24	11.6	1.28	12.5	1.38	13.4	1.48
	10.0	7.5	0.860	8.5	0.970	10.2	1.15	11.2	1.25	11.6	1.29	12.5	1.39	13.4	1.49
	15.0	7.5	0.900	8.5	1.00	10.2	1.17	11.2	1.27	11.6	1.31	12.5	1.41	13.4	1.50
	20.0	7.5	1.01	8.5	1.08	10.2	1.22	11.2	1.32	11.6	1.35	12.5	1.44	13.4	1.53
	25.0	7.5	1.27	8.5	1.36	10.2	1.38	11.2	1.44	11.6	1.46	12.5	1.53	13.4	1.60
	30.0	7.5	1.29	8.5	1.40	10.2	1.59	11.2	1.70	11.6	1.74	12.5	1.82	13.4	1.82
	35.0	7.5	1.43	8.5	1.51	10.2	1.62	11.2	1.72	11.6	1.76	12.5	1.87	13.4	1.97
	40.0	7.5	1.70	8.5	1.81	10.2	1.96	11.2	2.04	11.6	2.07	12.5	2.13	13.4	2.18
43.0	7.5	1.87	8.5	2.00	10.2	2.18	11.2	2.27	11.6	2.31	12.5	2.38	13.4	2.44	
46.0	7.5	2.05	8.5	2.19	10.2	2.41	11.2	2.52	11.6	2.56	12.5	2.65	13.4	2.73	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	5.6	0.580	6.4	0.660	7.6	0.790	8.4	0.870	8.7	0.900	9.4	0.970	10.1	1.04
	-5.0	5.6	0.590	6.4	0.660	7.6	0.790	8.4	0.870	8.7	0.900	9.4	0.970	10.1	1.04
	0.0	5.6	0.590	6.4	0.670	7.6	0.800	8.4	0.870	8.7	0.900	9.4	0.970	10.1	1.04
	5.0	5.6	0.600	6.4	0.670	7.6	0.800	8.4	0.880	8.7	0.910	9.4	0.970	10.1	1.04
	10.0	5.6	0.610	6.4	0.690	7.6	0.810	8.4	0.890	8.7	0.910	9.4	0.980	10.1	1.05
	15.0	5.6	0.650	6.4	0.710	7.6	0.830	8.4	0.900	8.7	0.930	9.4	0.990	10.1	1.06
	20.0	5.6	0.730	6.4	0.780	7.6	0.870	8.4	0.940	8.7	0.960	9.4	1.02	10.1	1.08
	25.0	5.6	1.00	6.4	0.990	7.6	1.00	8.4	1.03	8.7	1.05	9.4	1.09	10.1	1.14
	30.0	5.6	1.02	6.4	1.10	7.6	1.23	8.4	1.31	8.7	1.33	9.4	1.30	10.1	1.29
	35.0	5.6	1.07	6.4	1.12	7.6	1.25	8.4	1.33	8.7	1.36	9.4	1.43	10.1	1.50
	40.0	5.6	1.26	6.4	1.32	7.6	1.40	8.4	1.44	8.7	1.45	9.4	1.48	10.1	1.50
43.0	5.6	1.37	6.4	1.45	7.6	1.55	8.4	1.59	8.7	1.61	9.4	1.64	10.1	1.67	
46.0	5.6	1.49	6.4	1.58	7.6	1.70	8.4	1.76	8.7	1.78	9.4	1.82	10.1	1.86	



1. Capacity Ratio of Outdoor Unit

1-4. U-10MF2E8 (Heating)

Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	19.6	9.20	17.4	8.86	16.1	8.58	15.1	8.36	13.7	7.95	12.7	7.62	10.1	6.61
	-14.7	-15.0	23.4	9.44	20.8	9.30	19.2	8.97	18.1	8.71	16.4	8.25	15.3	7.90	12.2	6.83
	-9.6	-10.0	26.3	9.71	24.9	9.69	23.0	9.57	21.7	9.26	19.7	8.74	18.3	8.34	14.7	7.16
	-4.4	-5.0	29.5	9.71	27.5	9.71	26.3	9.71	25.5	9.64	23.2	9.18	21.6	8.73	17.3	7.42
	-1.8	-2.5	31.3	9.71	29.1	9.71	27.9	9.71	27.1	9.71	25.3	9.55	23.5	8.99	18.9	7.64
	0.8	0.0	33.3	9.71	30.9	9.71	29.6	9.71	28.8	9.71	27.6	9.71	25.7	9.36	19.8	7.62
	2.8	2.0	34.9	9.71	32.5	9.71	31.1	9.71	30.2	9.71	28.0	9.24	25.7	8.70	19.8	7.19
	6.0	5.0	37.6	9.71	35.0	9.71	33.5	9.71	31.5	9.16	28.0	8.17	25.7	7.71	19.8	6.45
	7.0	6.0	38.6	9.71	35.9	9.71	33.8	9.43	31.5	8.75	28.0	7.81	25.7	7.40	19.8	6.22
	8.6	7.5	40.1	9.71	37.3	9.71	33.8	8.77	31.5	8.16	28.0	7.30	25.7	6.94	19.8	5.88
	11.2	10.0	42.7	9.71	37.3	8.56	33.8	7.76	31.5	7.24	28.0	6.52	25.7	6.23	19.8	5.34
16.4	15.0	43.2	7.47	37.3	6.53	33.8	5.97	31.5	5.60	28.0	5.08	25.7	4.91	19.8	4.30	
24.0	18.0	43.2	6.89	37.3	6.03	33.8	5.52	31.5	5.18	28.0	4.67	25.7	4.33	19.8	3.54	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	19.2	9.14	17.0	8.81	15.6	8.53	14.7	8.31	13.3	7.91	12.3	7.59	9.8	6.59
	-14.7	-15.0	22.9	9.71	20.3	9.27	18.7	8.93	17.7	8.67	16.0	8.22	14.8	7.87	11.8	6.82
	-9.6	-10.0	26.9	10.2	24.4	9.97	22.5	9.55	21.2	9.24	19.2	8.72	17.9	8.32	14.3	7.14
	-4.4	-5.0	30.2	10.2	28.0	10.2	26.8	10.2	25.5	10.1	23.1	9.39	21.5	8.93	17.1	7.57
	-1.8	-2.5	32.0	10.2	29.7	10.2	28.4	10.2	27.6	10.2	25.2	9.77	23.1	9.15	17.9	7.44
	0.8	0.0	34.0	10.2	31.6	10.2	30.2	10.2	28.4	9.61	25.2	8.94	23.1	8.45	17.9	7.04
	2.8	2.0	35.7	10.2	33.2	10.2	30.5	9.47	28.4	8.86	25.2	8.28	23.1	7.85	17.9	6.63
	6.0	5.0	38.5	10.2	33.6	9.12	30.5	8.40	28.4	7.91	25.2	7.47	23.1	7.10	17.9	6.01
	7.0	6.0	38.7	10.2	33.6	8.90	30.5	8.13	28.4	7.61	25.2	7.16	23.1	6.82	17.9	5.79
	8.6	7.5	38.9	9.44	33.6	8.25	30.5	7.55	28.4	7.09	25.2	6.70	23.1	6.40	17.9	5.48
	11.2	10.0	38.9	8.20	33.6	7.24	30.5	6.66	28.4	6.28	25.2	5.99	23.1	5.75	17.9	4.99
16.4	15.0	38.9	6.54	33.6	5.74	30.5	5.26	28.4	4.94	25.2	4.66	23.1	4.53	17.9	4.01	
24.0	18.0	38.9	6.54	33.6	5.74	30.5	5.26	28.4	4.94	25.2	4.45	23.1	4.13	17.9	3.33	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
80%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	18.9	9.19	16.7	8.84	15.4	8.56	14.4	8.34	13.0	7.94	12.1	7.63	9.5	6.64
	-14.7	-15.0	22.6	9.80	20.1	9.33	18.5	8.99	17.4	8.72	15.7	8.27	14.5	7.92	11.6	6.86
	-9.6	-10.0	27.1	10.6	24.1	10.0	22.2	9.64	20.9	9.32	18.9	8.79	17.5	8.38	14.0	7.19
	-4.4	-5.0	30.9	10.6	28.6	10.6	27.1	10.4	25.2	10.2	22.4	9.34	20.5	8.75	15.9	7.21
	-1.8	-2.5	32.8	10.6	29.9	10.3	27.1	9.66	25.2	9.31	22.4	8.70	20.5	8.25	15.9	6.81
	0.8	0.0	34.5	10.4	29.9	9.29	27.1	8.78	25.2	8.51	22.4	8.02	20.5	7.63	15.9	6.47
	2.8	2.0	34.5	9.57	29.9	8.63	27.1	8.18	25.2	7.95	22.4	7.51	20.5	7.17	15.9	6.10
	6.0	5.0	34.5	8.50	29.9	7.70	27.1	7.32	25.2	7.13	22.4	6.77	20.5	6.47	15.9	5.51
	7.0	6.0	34.5	8.34	29.9	7.44	27.1	7.04	25.2	6.85	22.4	6.49	20.5	6.21	15.9	5.34
	8.6	7.5	34.5	7.66	29.9	6.88	27.1	6.54	25.2	6.38	22.4	6.08	20.5	5.84	15.9	5.05
	11.2	10.0	34.5	6.61	29.9	6.00	27.1	5.75	25.2	5.66	22.4	5.44	20.5	5.25	15.9	4.61
16.4	15.0	34.5	6.14	29.9	5.39	27.1	4.95	25.2	4.65	22.4	4.23	20.5	4.13	15.9	3.70	
24.0	18.0	34.5	6.14	29.9	5.39	27.1	4.95	25.2	4.65	22.4	4.20	20.5	3.90	15.9	3.16	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
	-19.8	-20.0	19.0	9.41	16.7	9.04	15.4	8.75	14.4	8.53	13.0	8.12	12.0	7.80	9.5	6.79
	-14.7	-15.0	22.8	10.1	20.1	9.57	18.5	9.21	17.4	8.94	15.7	8.47	14.5	8.11	11.5	7.03
	-9.6	-10.0	27.3	10.7	24.2	10.4	22.3	9.90	21.0	9.57	18.9	9.01	17.5	8.59	13.9	7.36
	-4.4	-5.0	30.2	10.2	26.1	9.59	23.7	9.24	22.1	8.95	19.6	8.39	18.0	7.91	13.9	6.56
	-1.8	-2.5	30.2	9.35	26.1	8.82	23.7	8.53	22.1	8.27	19.6	7.80	18.0	7.44	13.9	6.26
	0.8	0.0	30.2	8.49	26.1	8.06	23.7	7.83	22.1	7.62	19.6	7.21	18.0	6.89	13.9	5.89
	2.8	2.0	30.2	7.83	26.1	7.48	23.7	7.29	22.1	7.36	19.6	6.76	18.0	6.46	13.9	5.55
	6.0	5.0	30.2	6.89	26.1	6.64	23.7	6.50	22.1	6.36	19.6	6.05	18.0	5.81	13.9	4.99
	7.0	6.0	30.2	6.63	26.1	6.34	23.7	6.21	22.1	6.07	19.6	5.80	18.0	5.58	13.9	4.85
	8.6	7.5	30.2	6.06	26.1	5.86	23.7	5.77	22.1	5.67	19.6	5.45	18.0	5.25	13.9	4.60
	11.2	10.0	30.2	5.68	26.1	5.10	23.7	5.09	22.1	5.03	19.6	4.88	18.0	4.73	13.9	4.20
16.4	15.0	30.2	5.68	26.1	5.00	23.7	4.59	22.1	4.32	19.6	3.91	18.0	3.71	13.9	3.37	
24.0	18.0	30.2	5.68	26.1	5.00	23.7	4.59	22.1	4.32	19.6	3.91	18.0	3.64	13.9	2.96	

# 1. Capacity Ratio of Outdoor Unit

## U-10MF2E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	19.5	9.61	17.2	9.23	15.8	8.94	14.8	8.70	13.3	8.29	12.3	7.96	9.7	6.94
	-14.7	-15.0	23.5	10.35	20.7	9.84	19.0	9.46	17.9	9.18	16.1	8.69	14.9	8.32	11.9	7.29
	-9.6	-10.0	25.9	9.98	22.4	9.57	20.3	9.03	18.9	8.66	16.8	8.06	15.4	7.62	11.9	6.41
	-4.4	-5.0	25.9	8.46	22.4	8.22	20.3	7.94	18.9	7.71	16.8	7.28	15.4	6.91	11.9	5.75
	-1.8	-2.5	25.9	7.70	22.4	7.54	20.3	7.32	18.9	7.12	16.8	6.75	15.4	6.45	11.9	5.50
	0.8	0.0	25.9	6.97	22.4	6.88	20.3	6.72	18.9	6.56	16.8	6.24	15.4	5.97	11.9	5.15
	2.8	2.0	25.9	6.41	22.4	6.38	20.3	6.25	18.9	6.12	16.8	5.84	15.4	5.61	11.9	4.85
	6.0	5.0	25.9	5.58	22.4	5.60	20.3	5.51	18.9	5.41	16.8	5.19	15.4	5.00	11.9	4.35
	7.0	6.0	25.9	5.26	22.4	5.32	20.3	5.26	18.9	5.17	16.8	4.98	15.4	4.81	11.9	4.24
	8.6	7.5	25.9	5.04	22.4	4.92	20.3	4.89	18.9	4.84	16.8	4.68	15.4	4.54	11.9	4.02
	11.2	10.0	25.9	5.04	22.4	4.45	20.3	4.32	18.9	4.30	16.8	4.21	15.4	4.10	11.9	3.68
	16.4	15.0	25.9	5.04	22.4	4.45	20.3	4.09	18.9	3.85	16.8	3.50	15.4	3.26	11.9	2.96
24.0	18.0	25.9	5.04	22.4	4.45	20.3	4.09	18.9	3.85	16.8	3.50	15.4	3.26	11.9	2.67	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	20.8	9.97	18.3	9.56	16.8	9.24	15.7	9.00	14.0	8.49	12.8	8.10	9.9	6.94
	-14.7	-15.0	21.6	9.31	18.7	8.65	16.9	8.23	15.8	7.93	14.0	7.43	12.8	7.07	9.9	6.02
	-9.6	-10.0	21.6	8.08	18.7	7.80	16.9	7.46	15.8	7.13	14.0	6.64	12.8	6.29	9.9	5.32
	-4.4	-5.0	21.6	6.83	18.7	6.68	16.9	6.49	15.8	6.31	14.0	5.98	12.8	5.71	9.9	4.79
	-1.8	-2.5	21.6	6.21	18.7	6.13	16.9	5.98	15.8	5.83	14.0	5.55	12.8	5.32	9.9	4.58
	0.8	0.0	21.6	5.62	18.7	5.59	16.9	5.48	15.8	5.37	14.0	5.13	12.8	4.92	9.9	4.27
	2.8	2.0	21.6	5.16	18.7	5.15	16.9	5.06	15.8	4.96	14.0	4.76	12.8	4.58	9.9	4.01
	6.0	5.0	21.6	4.36	18.7	4.46	16.9	4.43	15.8	4.37	14.0	4.23	12.8	4.10	9.9	3.62
	7.0	6.0	21.6	4.24	18.7	4.24	16.9	4.23	15.8	4.19	14.0	4.07	12.8	3.95	9.9	3.52
	8.6	7.5	21.6	4.24	18.7	3.93	16.9	3.95	15.8	3.92	14.0	3.83	12.8	3.73	9.9	3.35
	11.2	10.0	21.6	4.24	18.7	3.76	16.9	3.50	15.8	3.50	14.0	3.45	12.8	3.38	9.9	3.07
	16.4	15.0	21.6	4.24	18.7	3.76	16.9	3.47	15.8	3.27	14.0	2.98	12.8	2.79	9.9	2.48
24.0	18.0	21.6	4.24	18.7	3.76	16.9	3.47	15.8	3.27	14.0	2.98	12.8	2.79	9.9	2.30	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	17.3	7.54	14.9	7.13	13.5	6.84	12.6	6.62	11.2	6.25	10.3	5.97	7.9	5.15
	-14.7	-15.0	17.3	6.82	14.9	6.37	13.5	6.07	12.6	5.85	11.2	5.49	10.3	5.23	7.9	4.49
	-9.6	-10.0	17.3	5.88	14.9	5.72	13.5	5.51	12.6	5.28	11.2	4.93	10.3	4.68	7.9	3.98
	-4.4	-5.0	17.3	4.97	14.9	4.90	13.5	4.77	12.6	4.65	11.2	4.43	10.3	4.24	7.9	3.60
	-1.8	-2.5	17.3	4.52	14.9	4.48	13.5	4.38	12.6	4.29	11.2	4.09	10.3	3.93	7.9	3.43
	0.8	0.0	17.3	4.02	14.9	4.04	13.5	3.97	12.6	3.90	11.2	3.75	10.3	3.62	7.9	3.18
	2.8	2.0	17.3	3.64	14.9	3.69	13.5	3.66	12.6	3.61	11.2	3.49	10.3	3.38	7.9	3.00
	6.0	5.0	17.3	3.22	14.9	3.21	13.5	3.22	12.6	3.20	11.2	3.12	10.3	3.04	7.9	2.73
	7.0	6.0	17.3	3.22	14.9	3.06	13.5	3.08	12.6	3.07	11.2	3.00	10.3	2.93	7.9	2.65
	8.6	7.5	17.3	3.22	14.9	2.87	13.5	2.88	12.6	2.88	11.2	2.83	10.3	2.78	7.9	2.53
	11.2	10.0	17.3	3.22	14.9	2.87	13.5	2.66	12.6	2.58	11.2	2.56	10.3	2.53	7.9	2.33
	16.4	15.0	17.3	3.22	14.9	2.87	13.5	2.66	12.6	2.51	11.2	2.30	10.3	2.16	7.9	1.89
24.0	18.0	17.3	3.22	14.9	2.87	13.5	2.66	12.6	2.51	11.2	2.30	10.3	2.16	7.9	1.80	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	13.0	5.17	11.2	4.90	10.2	4.70	9.5	4.56	8.4	4.32	7.7	4.14	6.0	3.60
	-14.7	-15.0	13.0	4.66	11.2	4.40	10.2	4.20	9.5	4.05	8.4	3.82	7.7	3.65	6.0	3.15
	-9.6	-10.0	13.0	4.02	11.2	3.93	10.2	3.81	9.5	3.69	8.4	3.44	7.7	3.28	6.0	2.81
	-4.4	-5.0	13.0	3.35	11.2	3.33	10.2	3.26	9.5	3.19	8.4	3.06	7.7	2.95	6.0	2.54
	-1.8	-2.5	13.0	3.01	11.2	3.03	10.2	2.98	9.5	2.94	8.4	2.83	7.7	2.73	6.0	2.42
	0.8	0.0	13.0	2.69	11.2	2.74	10.2	2.72	9.5	2.68	8.4	2.60	7.7	2.53	6.0	2.26
	2.8	2.0	13.0	2.44	11.2	2.52	10.2	2.51	9.5	2.49	8.4	2.43	7.7	2.37	6.0	2.13
	6.0	5.0	13.0	2.32	11.2	2.20	10.2	2.23	9.5	2.22	8.4	2.19	7.7	2.14	6.0	1.96
	7.0	6.0	13.0	2.32	11.2	2.11	10.2	2.14	9.5	2.14	8.4	2.11	7.7	2.07	6.0	1.90
	8.6	7.5	13.0	2.32	11.2	2.08	10.2	2.01	9.5	2.02	8.4	2.00	7.7	1.97	6.0	1.82
	11.2	10.0	13.0	2.32	11.2	2.08	10.2	1.94	9.5	1.84	8.4	1.82	7.7	1.80	6.0	1.69
	16.4	15.0	13.0	2.32	11.2	2.08	10.2	1.94	9.5	1.84	8.4	1.70	7.7	1.60	6.0	1.38
24.0	18.0	13.0	2.32	11.2	2.08	10.2	1.94	9.5	1.84	8.4	1.70	7.7	1.60	6.0	1.36	



# 1. Capacity Ratio of Outdoor Unit

## 1-5. U-12MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	22.3	3.06	25.4	3.47	30.5	4.16	33.5	4.57	34.6	4.72	37.4	5.10	40.2	5.48
	-5.0	22.3	3.07	25.4	3.48	30.5	4.17	33.5	4.58	34.6	4.74	37.4	5.11	40.2	5.49
	0.0	22.3	3.09	25.4	3.50	30.5	4.19	33.5	4.60	34.6	4.76	37.4	5.13	40.2	5.51
	5.0	22.3	3.14	25.4	3.55	30.5	4.24	33.5	4.65	34.6	4.80	37.4	5.17	40.2	5.55
	10.0	22.3	3.26	25.4	3.67	30.5	4.34	33.5	4.74	34.6	4.89	37.4	5.27	40.2	5.64
	15.0	22.3	3.62	25.4	4.00	30.5	4.63	33.5	5.02	34.6	5.16	37.4	5.52	40.2	5.87
	20.0	22.3	3.75	25.4	4.22	30.5	5.28	33.5	5.98	34.6	6.25	37.4	6.95	40.2	7.69
	25.0	22.3	4.71	25.4	5.46	30.5	6.80	33.5	7.68	34.6	8.02	37.4	8.88	40.2	9.79
	30.0	22.3	5.90	25.4	6.82	30.5	8.46	33.5	9.52	34.6	9.92	37.4	11.0	40.2	12.0
	35.0	22.3	7.17	25.4	8.27	30.5	10.2	33.5	11.5	34.6	12.0	36.8	12.8	37.8	12.8
	40.0	22.3	8.49	25.4	9.79	30.5	12.1	32.3	12.8	32.7	12.8	33.7	12.8	34.7	12.8
43.0	22.3	9.34	25.4	10.8	29.7	12.8	30.7	12.8	31.0	12.8	32.0	12.8	32.9	12.8	
46.0	22.3	10.2	25.4	11.8	28.1	12.8	28.9	12.6	28.9	12.4	28.9	11.7	28.9	11.2	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	20.1	2.75	22.8	3.13	27.4	3.75	30.2	4.12	31.2	4.26	33.7	4.60	36.2	4.94
	-5.0	20.1	2.77	22.8	3.14	27.4	3.76	30.2	4.13	31.2	4.27	33.7	4.61	36.2	4.95
	0.0	20.1	2.79	22.8	3.16	27.4	3.78	30.2	4.15	31.2	4.29	33.7	4.63	36.2	4.97
	5.0	20.1	2.83	22.8	3.20	27.4	3.81	30.2	4.18	31.2	4.32	33.7	4.66	36.2	5.00
	10.0	20.1	2.93	22.8	3.29	27.4	3.90	30.2	4.26	31.2	4.40	33.7	4.73	36.2	5.07
	15.0	20.1	3.22	22.8	3.55	27.4	4.12	30.2	4.46	31.2	4.59	33.7	4.91	36.2	5.23
	20.0	20.1	3.45	22.8	3.83	27.4	4.45	30.2	4.82	31.2	4.96	33.7	5.45	36.2	5.96
	25.0	20.1	3.98	22.8	4.55	27.4	5.55	30.2	6.20	31.2	6.44	33.7	7.07	36.2	7.72
	30.0	20.1	5.01	22.8	5.72	27.4	6.98	30.2	7.77	31.2	8.07	33.7	8.83	36.2	9.62
	35.0	20.1	6.12	22.8	6.98	27.4	8.49	30.2	9.45	31.2	9.80	33.7	10.7	36.2	11.7
	40.0	20.1	7.26	22.8	8.29	27.4	10.1	30.2	11.2	31.2	11.6	33.7	12.7	34.7	12.8
43.0	20.1	7.99	22.8	9.13	27.4	11.1	30.2	12.4	31.0	12.7	32.0	12.8	32.9	12.8	
46.0	20.1	8.76	22.8	10.0	27.4	12.2	28.9	12.6	28.9	12.4	28.9	11.7	28.9	11.1	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	17.9	2.45	20.3	2.78	24.4	3.34	26.8	3.67	27.7	3.79	29.9	4.10	32.2	4.40
	-5.0	17.9	2.46	20.3	2.79	24.4	3.35	26.8	3.68	27.7	3.80	29.9	4.11	32.2	4.41
	0.0	17.9	2.48	20.3	2.81	24.4	3.36	26.8	3.69	27.7	3.82	29.9	4.12	32.2	4.42
	5.0	17.9	2.52	20.3	2.85	24.4	3.39	26.8	3.72	27.7	3.84	29.9	4.15	32.2	4.45
	10.0	17.9	2.61	20.3	2.93	24.4	3.46	26.8	3.78	27.7	3.90	29.9	4.20	32.2	4.50
	15.0	17.9	2.84	20.3	3.13	24.4	3.63	26.8	3.94	27.7	4.05	29.9	4.33	32.2	4.62
	20.0	17.9	3.15	20.3	3.49	24.4	4.04	26.8	4.37	27.7	4.50	29.9	4.73	32.2	4.97
	25.0	17.9	3.35	20.3	3.76	24.4	4.48	26.8	4.94	27.7	5.11	29.9	5.54	32.2	5.99
	30.0	17.9	4.23	20.3	4.76	24.4	5.68	26.8	6.26	27.7	6.47	29.9	7.02	32.2	7.58
	35.0	17.9	5.18	20.3	5.84	24.4	6.97	26.8	7.67	27.7	7.94	29.9	8.60	32.2	9.27
	40.0	17.9	6.15	20.3	6.95	24.4	8.31	26.8	9.15	27.7	9.46	29.9	10.3	32.2	11.1
43.0	17.9	6.77	20.3	7.66	24.4	9.17	26.8	10.1	27.7	10.5	29.9	11.3	32.2	12.2	
46.0	17.9	7.43	20.3	8.41	24.4	10.1	26.8	11.1	27.7	11.5	28.9	11.7	28.9	11.1	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	15.6	2.03	17.8	2.30	21.3	2.76	23.5	3.03	24.2	3.13	26.2	3.38	28.1	3.63
	-5.0	15.6	2.03	17.8	2.31	21.3	2.76	23.5	3.04	24.2	3.14	26.2	3.39	28.1	3.64
	0.0	15.6	2.05	17.8	2.32	21.3	2.78	23.5	3.05	24.2	3.15	26.2	3.40	28.1	3.65
	5.0	15.6	2.08	17.8	2.35	21.3	2.80	23.5	3.07	24.2	3.17	26.2	3.42	28.1	3.67
	10.0	15.6	2.15	17.8	2.41	21.3	2.85	23.5	3.12	24.2	3.22	26.2	3.46	28.1	3.71
	15.0	15.6	2.33	17.8	2.57	21.3	2.98	23.5	3.23	24.2	3.32	26.2	3.56	28.1	3.79
	20.0	15.6	2.69	17.8	2.96	21.3	3.36	23.5	3.55	24.2	3.62	26.2	3.82	28.1	4.02
	25.0	15.6	2.72	17.8	3.00	21.3	3.46	23.5	3.73	24.2	3.83	26.2	4.09	28.1	4.34
	30.0	15.6	3.32	17.8	3.69	21.3	4.31	23.5	4.68	24.2	4.82	26.2	5.17	28.1	5.52
	35.0	15.6	4.09	17.8	4.55	21.3	5.33	23.5	5.79	24.2	5.97	26.2	6.40	28.1	6.84
	40.0	15.6	4.86	17.8	5.42	21.3	6.37	23.5	6.94	24.2	7.15	26.2	7.67	28.1	8.20
43.0	15.6	5.35	17.8	5.98	21.3	7.03	23.5	7.67	24.2	7.91	26.2	8.49	28.1	9.08	
46.0	15.6	5.87	17.8	6.57	21.3	7.74	23.5	8.45	24.2	8.71	26.2	9.37	28.1	10.0	

# 1. Capacity Ratio of Outdoor Unit

## U-12MF2E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	-10.0	13.4	1.55	15.2	1.76	18.3	2.11	20.1	2.32	20.8	2.39	22.4	2.58	24.1	2.78
	-5.0	13.4	1.56	15.2	1.76	18.3	2.11	20.1	2.32	20.8	2.40	22.4	2.59	24.1	2.78
	0.0	13.4	1.57	15.2	1.78	18.3	2.12	20.1	2.33	20.8	2.41	22.4	2.60	24.1	2.79
	5.0	13.4	1.59	15.2	1.80	18.3	2.14	20.1	2.35	20.8	2.42	22.4	2.61	24.1	2.80
	10.0	13.4	1.65	15.2	1.85	18.3	2.18	20.1	2.38	20.8	2.46	22.4	2.64	24.1	2.83
	15.0	13.4	1.78	15.2	1.96	18.3	2.27	20.1	2.46	20.8	2.53	22.4	2.71	24.1	2.89
	20.0	13.4	2.14	15.2	2.31	18.3	2.52	20.1	2.67	20.8	2.72	22.4	2.87	24.1	3.03
	25.0	13.4	2.17	15.2	2.38	18.3	2.73	20.1	2.94	20.8	3.02	22.4	3.21	24.1	3.40
	30.0	13.4	2.45	15.2	2.68	18.3	3.05	20.1	3.27	20.8	3.34	22.4	3.54	24.1	3.73
	35.0	13.4	3.02	15.2	3.31	18.3	3.79	20.1	4.07	20.8	4.17	22.4	4.43	24.1	4.68
	40.0	13.4	3.58	15.2	3.95	18.3	4.55	20.1	4.90	20.8	5.02	22.4	5.34	24.1	5.65
43.0	13.4	3.94	15.2	4.35	18.3	5.02	20.1	5.42	20.8	5.56	22.4	5.92	24.1	6.27	
46.0	13.4	4.32	15.2	4.78	18.3	5.53	20.1	5.98	20.8	6.14	22.4	6.54	24.1	6.93	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-10.0	11.2	1.17	12.7	1.32	15.2	1.58	16.8	1.74	17.3	1.80	18.7	1.94	20.1	2.09
	-5.0	11.2	1.17	12.7	1.33	15.2	1.59	16.8	1.75	17.3	1.80	18.7	1.95	20.1	2.09
	0.0	11.2	1.18	12.7	1.34	15.2	1.60	16.8	1.75	17.3	1.81	18.7	1.95	20.1	2.10
	5.0	11.2	1.20	12.7	1.36	15.2	1.61	16.8	1.77	17.3	1.82	18.7	1.96	20.1	2.11
	10.0	11.2	1.24	12.7	1.39	15.2	1.64	16.8	1.79	17.3	1.85	18.7	1.99	20.1	2.13
	15.0	11.2	1.34	12.7	1.48	15.2	1.70	16.8	1.85	17.3	1.90	18.7	2.03	20.1	2.17
	20.0	11.2	1.65	12.7	1.72	15.2	1.87	16.8	1.98	17.3	2.03	18.7	2.14	20.1	2.26
	25.0	11.2	1.73	12.7	1.89	15.2	2.15	16.8	2.31	17.3	2.36	18.7	2.48	20.1	2.53
	30.0	11.2	1.81	12.7	1.94	15.2	2.18	16.8	2.34	17.3	2.40	18.7	2.54	20.1	2.68
	35.0	11.2	2.22	12.7	2.40	15.2	2.68	16.8	2.84	17.3	2.90	18.7	3.04	20.1	3.17
	40.0	11.2	2.63	12.7	2.86	15.2	3.22	16.8	3.43	17.3	3.50	18.7	3.68	20.1	3.85
43.0	11.2	2.89	12.7	3.15	15.2	3.56	16.8	3.80	17.3	3.88	18.7	4.09	20.1	4.29	
46.0	11.2	3.16	12.7	3.46	15.2	3.92	16.8	4.19	17.3	4.28	18.7	4.52	20.1	4.74	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
40%	-10.0	8.9	0.860	10.2	0.970	12.2	1.16	13.4	1.28	13.8	1.32	15.0	1.42	16.1	1.53
	-5.0	8.9	0.860	10.2	0.980	12.2	1.17	13.4	1.28	13.8	1.32	15.0	1.43	16.1	1.53
	0.0	8.9	0.870	10.2	0.980	12.2	1.17	13.4	1.29	13.8	1.33	15.0	1.43	16.1	1.54
	5.0	8.9	0.890	10.2	1.00	12.2	1.19	13.4	1.30	13.8	1.34	15.0	1.44	16.1	1.55
	10.0	8.9	0.920	10.2	1.03	12.2	1.21	13.4	1.32	13.8	1.36	15.0	1.46	16.1	1.56
	15.0	8.9	1.00	10.2	1.09	12.2	1.26	13.4	1.36	13.8	1.40	15.0	1.49	16.1	1.59
	20.0	8.9	1.22	10.2	1.26	12.2	1.37	13.4	1.45	13.8	1.49	15.0	1.57	16.1	1.65
	25.0	8.9	1.37	10.2	1.49	12.2	1.68	13.4	1.75	13.8	1.75	15.0	1.78	16.1	1.82
	30.0	8.9	1.40	10.2	1.52	12.2	1.71	13.4	1.83	13.8	1.87	15.0	1.97	16.1	2.08
	35.0	8.9	1.64	10.2	1.75	12.2	1.90	13.4	1.98	13.8	2.01	15.0	2.08	16.1	2.14
	40.0	8.9	1.93	10.2	2.07	12.2	2.28	13.4	2.39	13.8	2.43	15.0	2.52	16.1	2.61
43.0	8.9	2.11	10.2	2.27	12.2	2.51	13.4	2.64	13.8	2.69	15.0	2.80	16.1	2.90	
46.0	8.9	2.30	10.2	2.48	12.2	2.76	13.4	2.91	13.8	2.97	15.0	3.09	16.1	3.21	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
30%	-10.0	6.7	0.610	7.6	0.690	9.1	0.820	10.1	0.900	10.4	0.930	11.2	1.00	12.1	1.08
	-5.0	6.7	0.610	7.6	0.690	9.1	0.820	10.1	0.900	10.4	0.930	11.2	1.01	12.1	1.08
	0.0	6.7	0.620	7.6	0.700	9.1	0.830	10.1	0.910	10.4	0.940	11.2	1.01	12.1	1.08
	5.0	6.7	0.630	7.6	0.710	9.1	0.840	10.1	0.920	10.4	0.950	11.2	1.02	12.1	1.09
	10.0	6.7	0.660	7.6	0.730	9.1	0.860	10.1	0.930	10.4	0.960	11.2	1.03	12.1	1.10
	15.0	6.7	0.720	7.6	0.780	9.1	0.890	10.1	0.960	10.4	0.990	11.2	1.06	12.1	1.12
	20.0	6.7	0.890	7.6	0.910	9.1	0.980	10.1	1.03	10.4	1.05	11.2	1.11	12.1	1.17
	25.0	6.7	1.09	7.6	1.17	9.1	1.24	10.1	1.23	10.4	1.23	11.2	1.25	12.1	1.28
	30.0	6.7	1.12	7.6	1.20	9.1	1.33	10.1	1.41	10.4	1.44	11.2	1.52	12.1	1.59
	35.0	6.7	1.22	7.6	1.28	9.1	1.36	10.1	1.44	10.4	1.47	11.2	1.54	12.1	1.62
	40.0	6.7	1.42	7.6	1.49	9.1	1.60	10.1	1.66	10.4	1.67	11.2	1.72	12.1	1.75
43.0	6.7	1.54	7.6	1.63	9.1	1.76	10.1	1.83	10.4	1.85	11.2	1.90	12.1	1.94	
46.0	6.7	1.67	7.6	1.77	9.1	1.93	10.1	2.00	10.4	2.03	11.2	2.09	12.1	2.15	

# 1. Capacity Ratio of Outdoor Unit

## 1-6. U-12MF2E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	22.7	10.4	20.3	10.1	18.8	9.75	17.7	9.50	16.1	9.04	14.9	8.68	12.0	7.53
	-14.7	-15.0	27.0	11.0	24.2	10.5	22.4	10.1	21.1	9.86	19.2	9.36	17.9	8.97	14.4	7.79
	-9.6	-10.0	32.0	12.0	28.8	11.2	26.7	10.8	25.2	10.4	23.0	9.86	21.5	9.43	17.3	8.14
	-4.4	-5.0	35.2	12.2	33.6	12.2	31.3	11.5	29.6	11.0	27.0	10.3	25.2	9.84	20.4	8.41
	-1.8	-2.5	37.1	12.2	35.0	12.2	34.1	12.2	32.3	11.7	29.5	10.7	27.5	10.2	22.2	8.65
	0.8	0.0	39.2	12.2	36.8	12.2	35.5	12.2	34.8	12.2	32.1	11.4	30.0	10.6	23.6	8.69
	2.8	2.0	41.0	12.2	38.6	12.2	37.1	12.2	36.2	12.2	33.3	11.3	30.6	10.3	23.6	8.30
	6.0	5.0	43.9	12.2	41.3	12.2	39.8	12.2	37.5	11.5	33.3	10.1	30.6	9.14	23.6	7.46
	7.0	6.0	45.0	12.2	42.3	12.2	40.3	12.0	37.5	11.0	33.3	9.64	30.6	8.78	23.6	7.19
	8.6	7.5	46.6	12.2	43.8	12.2	40.3	11.2	37.5	10.3	33.3	9.05	30.6	8.25	23.6	6.81
	11.2	10.0	49.5	12.2	44.4	11.1	40.3	9.96	37.5	9.20	33.3	8.11	30.6	7.41	23.6	6.20
	16.4	15.0	51.4	10.2	44.4	8.68	40.3	7.82	37.5	7.26	33.3	6.44	30.6	5.91	23.6	5.04
24.0	18.0	51.4	8.61	44.4	7.34	40.3	6.60	37.5	6.11	33.3	5.41	30.6	4.94	23.6	4.22	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	22.1	10.2	19.7	9.87	18.1	9.57	17.1	9.33	15.5	8.89	14.4	8.54	11.5	7.44
	-14.7	-15.0	26.3	10.8	23.5	10.3	21.7	9.98	20.5	9.70	18.6	9.21	17.3	8.84	13.8	7.68
	-9.6	-10.0	31.3	11.8	28.0	11.1	25.9	10.6	24.5	10.3	22.3	9.73	20.7	9.31	16.7	8.03
	-4.4	-5.0	36.0	12.8	33.6	12.5	31.1	11.7	29.4	11.1	26.8	10.5	24.9	9.96	20.0	8.50
	-1.8	-2.5	38.0	12.8	35.7	12.8	34.0	12.5	32.1	11.9	29.2	10.9	27.2	10.3	21.3	8.51
	0.8	0.0	40.2	12.8	37.7	12.8	36.3	12.8	33.8	11.8	30.0	10.5	27.5	9.79	21.3	8.07
	2.8	2.0	42.0	12.8	39.4	12.8	36.3	11.8	33.8	11.0	30.0	9.72	27.5	9.11	21.3	7.66
	6.0	5.0	45.0	12.8	40.0	11.6	36.3	10.6	33.8	9.86	30.0	8.82	27.5	8.28	21.3	6.94
	7.0	6.0	45.1	12.8	40.0	11.4	36.3	10.3	33.8	9.54	30.0	8.47	27.5	7.95	21.3	6.70
	8.6	7.5	46.3	12.5	40.0	10.6	36.3	9.59	33.8	8.92	30.0	7.93	27.5	7.47	21.3	6.35
	11.2	10.0	46.3	11.0	40.0	9.40	36.3	8.52	33.8	7.94	30.0	7.10	27.5	6.72	21.3	5.79
	16.4	15.0	46.3	8.31	40.0	7.25	36.3	6.63	33.8	6.21	30.0	5.59	27.5	5.34	21.3	4.71
24.0	18.0	46.3	7.37	40.0	6.49	36.3	5.96	33.8	5.60	30.0	5.07	27.5	4.72	21.3	3.92	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	21.6	9.98	19.1	9.64	17.6	9.36	16.6	9.13	15.0	8.72	13.9	8.39	11.0	7.34
	-14.7	-15.0	25.7	10.7	22.9	10.2	21.1	9.87	19.9	9.59	18.0	9.11	16.7	8.74	13.3	7.61
	-9.6	-10.0	30.7	11.7	27.4	11.0	25.3	10.5	23.9	10.2	21.6	9.65	20.1	9.22	16.1	7.96
	-4.4	-5.0	36.9	13.3	33.6	12.7	31.1	11.9	29.3	11.4	26.6	10.6	24.4	10.0	18.9	8.24
	-1.8	-2.5	39.0	13.3	35.6	12.8	32.2	11.6	30.0	10.9	26.7	10.1	24.4	9.47	18.9	7.79
	0.8	0.0	41.1	13.3	35.6	11.6	32.2	10.6	30.0	9.95	26.7	9.27	24.4	8.81	18.9	7.44
	2.8	2.0	41.1	12.2	35.6	10.8	32.2	9.92	30.0	9.33	26.7	8.71	24.4	8.29	18.9	7.04
	6.0	5.0	41.1	11.0	35.6	9.72	32.2	8.96	30.0	8.43	26.7	7.90	24.4	7.53	18.9	6.40
	7.0	6.0	41.1	10.9	35.6	9.51	32.2	8.68	30.0	8.14	26.7	7.59	24.4	7.23	18.9	6.18
	8.6	7.5	41.1	10.1	35.6	8.84	32.2	8.09	30.0	7.59	26.7	7.11	24.4	6.80	18.9	5.86
	11.2	10.0	41.1	8.82	35.6	7.78	32.2	7.16	30.0	6.75	26.7	6.38	24.4	6.13	18.9	5.35
	16.4	15.0	41.1	6.93	35.6	6.11	32.2	5.62	30.0	5.29	26.7	5.01	24.4	4.88	18.9	4.35
24.0	18.0	41.1	6.93	35.6	6.11	32.2	5.62	30.0	5.29	26.7	4.80	24.4	4.47	18.9	3.65	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	21.2	10.0	18.8	9.68	17.3	9.39	16.2	9.16	14.6	8.74	13.5	8.41	10.7	7.36
	-14.7	-15.0	25.4	10.7	22.5	10.2	20.7	9.85	19.5	9.57	17.6	9.10	16.3	8.73	13.0	7.61
	-9.6	-10.0	30.4	11.7	27.0	11.1	24.9	10.6	23.5	10.2	21.2	9.67	19.7	9.24	15.7	7.97
	-4.4	-5.0	36.0	12.7	31.1	11.3	28.2	10.6	26.3	10.3	23.3	9.57	21.4	8.95	16.5	7.48
	-1.8	-2.5	36.0	11.6	31.1	10.4	28.2	9.83	26.3	9.52	23.3	8.96	21.4	8.53	16.5	7.11
	0.8	0.0	36.0	10.6	31.1	9.60	28.2	9.05	26.3	8.79	23.3	8.30	21.4	7.92	16.5	6.76
	2.8	2.0	36.0	9.88	31.1	8.94	28.2	8.45	26.3	8.51	23.3	7.80	21.4	7.45	16.5	6.39
	6.0	5.0	36.0	8.81	31.1	8.00	28.2	7.59	26.3	7.41	23.3	7.05	21.4	6.75	16.5	5.80
	7.0	6.0	36.0	8.67	31.1	7.76	28.2	7.32	26.3	7.13	23.3	6.77	21.4	6.49	16.5	5.62
	8.6	7.5	36.0	7.98	31.1	7.19	28.2	6.81	26.3	6.66	23.3	6.36	21.4	6.12	16.5	5.34
	11.2	10.0	36.0	6.91	31.1	6.30	28.2	6.02	26.3	5.93	23.3	5.72	21.4	5.53	16.5	4.88
	16.4	15.0	36.0	6.43	31.1	5.68	28.2	5.23	26.3	4.93	23.3	4.49	21.4	4.39	16.5	3.98
24.0	18.0	36.0	6.43	31.1	5.68	28.2	5.23	26.3	4.93	23.3	4.49	21.4	4.19	16.5	3.44	



## 1. Capacity Ratio of Outdoor Unit

## U-12MF2E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	21.3	10.1	18.8	9.69	17.3	9.39	16.2	9.16	14.6	8.74	13.5	8.40	10.7	7.36
	-14.7	-15.0	25.6	10.7	22.6	10.3	20.8	9.88	19.6	9.60	17.6	9.11	16.3	8.74	12.9	7.62
	-9.6	-10.0	30.7	11.6	26.7	10.9	24.2	10.3	22.5	9.83	20.0	9.15	18.3	8.66	14.2	7.30
	-4.4	-5.0	30.8	9.94	26.7	9.42	24.2	9.09	22.5	8.82	20.0	8.30	18.3	7.86	14.2	6.56
	-1.8	-2.5	30.8	9.11	26.7	8.68	24.2	8.41	22.5	8.17	20.0	7.73	18.3	7.39	14.2	6.28
	0.8	0.0	30.8	8.29	26.7	7.95	24.2	7.74	22.5	7.54	20.0	7.16	18.3	6.86	14.2	5.91
	2.8	2.0	30.8	7.66	26.7	7.39	24.2	7.22	22.5	7.05	20.0	6.73	18.3	6.45	14.2	5.59
	6.0	5.0	30.8	6.77	26.7	6.59	24.2	6.47	22.5	6.33	20.0	6.05	18.3	5.82	14.2	5.05
	7.0	6.0	30.8	6.51	26.7	6.30	24.2	6.19	22.5	6.06	20.0	5.81	18.3	5.60	14.2	4.92
	8.6	7.5	30.8	5.97	26.7	5.84	24.2	5.77	22.5	5.67	20.0	5.47	18.3	5.29	14.2	4.68
	11.2	10.0	30.8	5.73	26.7	5.11	24.2	5.11	22.5	5.07	20.0	4.93	18.3	4.79	14.2	4.29
	16.4	15.0	30.8	5.73	26.7	5.08	24.2	4.69	22.5	4.43	20.0	4.03	18.3	3.81	14.2	3.50
24.0	18.0	30.8	5.73	26.7	5.08	24.2	4.69	22.5	4.43	20.0	4.03	18.3	3.77	14.2	3.12	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	22.2	10.2	19.6	9.76	17.9	9.45	16.8	9.21	15.1	8.78	14.0	8.44	11.8	7.86
	-14.7	-15.0	25.7	10.5	22.2	9.79	20.1	9.32	18.8	8.98	16.7	8.42	15.3	8.02	11.8	6.85
	-9.6	-10.0	25.7	9.21	22.2	8.87	20.1	8.45	18.8	8.09	16.7	7.55	15.3	7.16	11.8	6.07
	-4.4	-5.0	25.7	7.84	22.2	7.64	20.1	7.41	18.8	7.21	16.7	6.83	15.3	6.51	11.8	5.48
	-1.8	-2.5	25.7	7.16	22.2	7.04	20.1	6.85	18.8	6.68	16.7	6.35	15.3	6.09	11.8	5.25
	0.8	0.0	25.7	6.50	22.2	6.44	20.1	6.31	18.8	6.17	16.7	5.89	15.3	5.66	11.8	4.93
	2.8	2.0	25.7	5.99	22.2	5.99	20.1	5.88	18.8	5.77	16.7	5.53	15.3	5.32	11.8	4.65
	6.0	5.0	25.7	5.22	22.2	5.27	20.1	5.20	18.8	5.12	16.7	4.94	15.3	4.78	11.8	4.21
	7.0	6.0	25.7	4.93	22.2	5.02	20.1	4.98	18.8	4.91	16.7	4.75	15.3	4.61	11.8	4.10
	8.6	7.5	25.7	4.85	22.2	4.66	20.1	4.65	18.8	4.61	16.7	4.48	15.3	4.36	11.8	3.91
	11.2	10.0	25.7	4.85	22.2	4.31	20.1	4.14	18.8	4.13	16.7	4.05	15.3	3.96	11.8	3.60
	16.4	15.0	25.7	4.85	22.2	4.31	20.1	3.99	18.8	3.78	16.7	3.46	15.3	3.24	11.8	2.95
24.0	18.0	25.7	4.85	22.2	4.31	20.1	3.99	18.8	3.78	16.7	3.46	15.3	3.24	11.8	2.71	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	20.6	8.53	17.8	8.07	16.1	7.74	15.0	7.50	13.3	7.09	12.2	6.78	9.4	5.86
	-14.7	-15.0	20.6	7.73	17.8	7.22	16.1	6.88	15.0	6.64	13.3	6.25	12.2	5.96	9.4	5.13
	-9.6	-10.0	20.6	6.72	17.8	6.52	16.1	6.27	15.0	5.98	13.3	5.62	12.2	5.34	9.4	4.57
	-4.4	-5.0	20.6	5.71	17.8	5.61	16.1	5.46	15.0	5.33	13.3	5.08	12.2	4.87	9.4	4.14
	-1.8	-2.5	20.6	5.21	17.8	5.17	16.1	5.05	15.0	4.94	13.3	4.73	12.2	4.55	9.4	3.97
	0.8	0.0	20.6	4.73	17.8	4.73	16.1	4.64	15.0	4.55	13.3	4.37	12.2	4.21	9.4	3.70
	2.8	2.0	20.6	4.32	17.8	4.35	16.1	4.29	15.0	4.22	13.3	4.07	12.2	3.94	9.4	3.49
	6.0	5.0	20.6	3.71	17.8	3.80	16.1	3.79	15.0	3.75	13.3	3.65	12.2	3.55	9.4	3.19
	7.0	6.0	20.6	3.71	17.8	3.63	16.1	3.63	15.0	3.61	13.3	3.52	12.2	3.43	9.4	3.10
	8.6	7.5	20.6	3.71	17.8	3.38	16.1	3.41	15.0	3.40	13.3	3.33	12.2	3.26	9.4	2.97
	11.2	10.0	20.6	3.71	17.8	3.32	16.1	3.09	15.0	3.06	13.3	3.03	12.2	2.98	9.4	2.75
	16.4	15.0	20.6	3.71	17.8	3.32	16.1	3.09	15.0	2.93	13.3	2.69	12.2	2.54	9.4	2.26
24.0	18.0	20.6	3.71	17.8	3.32	16.1	3.09	15.0	2.93	13.3	2.69	12.2	2.54	9.4	2.15	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	15.4	5.87	13.3	5.57	12.1	5.36	11.3	5.20	10.0	4.93	9.2	4.73	7.1	4.12
	-14.7	-15.0	15.4	5.32	13.3	5.01	12.1	4.79	11.3	4.63	10.0	4.37	9.2	4.18	7.1	3.63
	-9.6	-10.0	15.4	4.62	13.3	4.51	12.1	4.37	11.3	4.22	10.0	3.95	9.2	3.77	7.1	3.26
	-4.4	-5.0	15.4	3.93	13.3	3.88	12.1	3.80	11.3	3.71	10.0	3.56	9.2	3.43	7.1	2.96
	-1.8	-2.5	15.4	3.55	13.3	3.55	12.1	3.49	11.3	3.43	10.0	3.30	9.2	3.19	7.1	2.83
	0.8	0.0	15.4	3.18	13.3	3.22	12.1	3.19	11.3	3.15	10.0	3.05	9.2	2.96	7.1	2.65
	2.8	2.0	15.4	2.90	13.3	2.97	12.1	2.96	11.3	2.93	10.0	2.85	9.2	2.78	7.1	2.51
	6.0	5.0	15.4	2.70	13.3	2.62	12.1	2.64	11.3	2.63	10.0	2.58	9.2	2.53	7.1	2.31
	7.0	6.0	15.4	2.70	13.3	2.51	12.1	2.54	11.3	2.53	10.0	2.50	9.2	2.45	7.1	2.25
	8.6	7.5	15.4	2.70	13.3	2.44	12.1	2.39	11.3	2.40	10.0	2.37	9.2	2.33	7.1	2.16
	11.2	10.0	15.4	2.70	13.3	2.44	12.1	2.28	11.3	2.18	10.0	2.17	9.2	2.15	7.1	2.01
	16.4	15.0	15.4	2.70	13.3	2.44	12.1	2.28	11.3	2.17	10.0	2.01	9.2	1.91	7.1	1.68
24.0	18.0	15.4	2.70	13.3	2.44	12.1	2.28	11.3	2.17	10.0	2.01	9.2	1.91	7.1	1.64	



# 1. Capacity Ratio of Outdoor Unit

## 1-7. U-14MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	26.7	3.90	30.3	4.43	36.4	5.30	40.0	5.83	41.3	6.03	44.7	6.51	48.0	7.00
	-5.0	26.7	3.92	30.3	4.45	36.4	5.32	40.0	5.85	41.3	6.04	44.7	6.53	48.0	7.01
	0.0	26.7	3.96	30.3	4.48	36.4	5.36	40.0	5.88	41.3	6.07	44.7	6.56	48.0	7.04
	5.0	26.7	4.03	30.3	4.55	36.4	5.42	40.0	5.94	41.3	6.13	44.7	6.61	48.0	7.09
	10.0	26.7	4.20	30.3	4.71	36.4	5.56	40.0	6.07	41.3	6.26	44.7	6.73	48.0	7.20
	15.0	26.7	4.59	30.3	5.12	36.4	5.92	40.0	6.39	41.3	6.57	44.7	7.01	48.0	7.46
	20.0	26.7	4.63	30.3	5.35	36.4	6.76	40.0	7.69	41.3	8.05	44.7	8.98	48.0	9.96
	25.0	26.7	5.95	30.3	6.93	36.4	8.70	40.0	9.85	41.3	10.3	44.7	11.4	48.0	12.6
	30.0	26.7	7.45	30.3	8.65	36.4	10.8	40.0	12.2	41.3	12.7	44.7	14.1	48.0	15.5
	35.0	26.7	9.06	30.3	10.5	36.4	13.0	40.0	14.7	41.3	15.3	43.9	16.3	45.1	16.3
	40.0	26.7	10.7	30.3	12.4	36.4	15.4	38.7	16.3	39.1	16.3	40.2	16.3	41.4	16.3
43.0	26.7	11.8	30.3	13.7	35.5	16.3	36.3	16.0	36.3	15.7	36.3	14.9	36.3	14.1	
46.0	26.7	13.0	28.6	13.7	28.6	12.5	28.6	11.8	28.6	11.6	28.6	11.0	28.6	10.4	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	24.0	3.51	27.3	3.99	32.7	4.78	36.0	5.26	37.2	5.43	40.2	5.87	43.2	6.31
	-5.0	24.0	3.53	27.3	4.01	32.7	4.80	36.0	5.27	37.2	5.45	40.2	5.88	43.2	6.32
	0.0	24.0	3.57	27.3	4.04	32.7	4.83	36.0	5.30	37.2	5.47	40.2	5.91	43.2	6.34
	5.0	24.0	3.64	27.3	4.10	32.7	4.88	36.0	5.35	37.2	5.52	40.2	5.95	43.2	6.39
	10.0	24.0	3.79	27.3	4.24	32.7	5.00	36.0	5.46	37.2	5.62	40.2	6.05	43.2	6.47
	15.0	24.0	4.19	27.3	4.59	32.7	5.28	36.0	5.71	37.2	5.87	40.2	6.27	43.2	6.67
	20.0	24.0	4.25	27.3	4.72	32.7	5.52	36.0	6.10	37.2	6.35	40.2	7.01	43.2	7.70
	25.0	24.0	5.00	27.3	5.74	32.7	7.07	36.0	7.92	37.2	8.25	40.2	9.07	43.2	9.93
	30.0	24.0	6.31	27.3	7.23	32.7	8.87	36.0	9.91	37.2	10.3	40.2	11.3	43.2	12.3
	35.0	24.0	7.70	27.3	8.82	32.7	10.8	36.0	12.0	37.2	12.5	40.2	13.7	43.2	14.9
	40.0	24.0	9.15	27.3	10.5	32.7	12.8	36.0	14.3	37.2	14.9	40.2	16.3	41.4	16.3
43.0	24.0	10.1	27.3	11.6	32.7	14.1	36.0	15.8	36.3	15.7	36.3	14.9	36.3	14.1	
46.0	24.0	11.1	27.3	12.7	28.6	12.5	28.6	11.8	28.6	11.6	28.6	11.0	28.6	10.4	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	21.3	3.13	24.2	3.55	29.1	4.26	32.0	4.68	33.1	4.84	35.7	5.22	38.4	5.61
	-5.0	21.3	3.15	24.2	3.57	29.1	4.27	32.0	4.69	33.1	4.85	35.7	5.24	38.4	5.62
	0.0	21.3	3.18	24.2	3.60	29.1	4.30	32.0	4.72	33.1	4.87	35.7	5.26	38.4	5.64
	5.0	21.3	3.24	24.2	3.65	29.1	4.34	32.0	4.76	33.1	4.91	35.7	5.30	38.4	5.68
	10.0	21.3	3.37	24.2	3.77	29.1	4.44	32.0	4.85	33.1	5.00	35.7	5.37	38.4	5.75
	15.0	21.3	3.71	24.2	4.06	29.1	4.67	32.0	5.05	33.1	5.19	35.7	5.55	38.4	5.91
	20.0	21.3	3.87	24.2	4.29	29.1	5.00	32.0	5.42	33.1	5.58	35.7	5.97	38.4	6.33
	25.0	21.3	4.17	24.2	4.72	29.1	5.67	32.0	6.28	33.1	6.50	35.7	7.08	38.4	7.68
	30.0	21.3	5.28	24.2	5.98	29.1	7.20	32.0	7.95	33.1	8.23	35.7	8.95	38.4	9.68
	35.0	21.3	6.49	24.2	7.34	29.1	8.82	32.0	9.74	33.1	10.1	35.7	10.9	38.4	11.8
	40.0	21.3	7.72	24.2	8.75	29.1	10.5	32.0	11.6	33.1	12.0	35.7	13.1	38.4	14.1
43.0	21.3	8.52	24.2	9.66	29.1	11.6	32.0	12.9	33.1	13.3	35.7	14.5	36.3	14.1	
46.0	21.3	9.35	24.2	10.6	28.6	12.5	28.6	11.8	28.6	11.6	28.6	11.0	28.6	10.4	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	18.7	2.58	21.2	2.93	25.5	3.51	28.0	3.86	28.9	3.99	31.3	4.31	33.6	4.63
	-5.0	18.7	2.60	21.2	2.95	25.5	3.53	28.0	3.87	28.9	4.00	31.3	4.32	33.6	4.64
	0.0	18.7	2.63	21.2	2.97	25.5	3.55	28.0	3.89	28.9	4.02	31.3	4.34	33.6	4.66
	5.0	18.7	2.68	21.2	3.02	25.5	3.59	28.0	3.93	28.9	4.05	31.3	4.37	33.6	4.68
	10.0	18.7	2.79	21.2	3.11	25.5	3.66	28.0	4.00	28.9	4.12	31.3	4.43	33.6	4.74
	15.0	18.7	3.06	21.2	3.34	25.5	3.84	28.0	4.15	28.9	4.27	31.3	4.56	33.6	4.86
	20.0	18.7	3.28	21.2	3.63	25.5	4.21	28.0	4.56	28.9	4.67	31.3	4.90	33.6	5.15
	25.0	18.7	3.32	21.2	3.67	25.5	4.25	28.0	4.62	28.9	4.76	31.3	5.12	33.6	5.48
	30.0	18.7	4.12	21.2	4.61	25.5	5.42	28.0	5.91	28.9	6.10	31.3	6.56	33.6	7.02
	35.0	18.7	5.09	21.2	5.69	25.5	6.70	28.0	7.32	28.9	7.54	31.3	8.11	33.6	8.68
	40.0	18.7	6.07	21.2	6.80	25.5	8.03	28.0	8.77	28.9	9.05	31.3	9.74	33.6	10.4
43.0	18.7	6.69	21.2	7.51	25.5	8.88	28.0	9.71	28.9	10.0	31.3	10.8	33.6	11.6	
46.0	18.7	7.35	21.2	8.26	25.5	9.79	28.0	10.7	28.6	10.9	28.6	10.3	28.6	9.80	

# 1. Capacity Ratio of Outdoor Unit

## U-14MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
60%	-10.0	16.0	1.98	18.2	2.24	21.8	2.69	24.0	2.95	24.8	3.05	26.8	3.29	28.8	3.54
	-5.0	16.0	1.99	18.2	2.25	21.8	2.70	24.0	2.96	24.8	3.06	26.8	3.30	28.8	3.54
	0.0	16.0	2.01	18.2	2.27	21.8	2.71	24.0	2.98	24.8	3.07	26.8	3.32	28.8	3.56
	5.0	16.0	2.05	18.2	2.31	21.8	2.74	24.0	3.00	24.8	3.10	26.8	3.34	28.8	3.58
	10.0	16.0	2.14	18.2	2.38	21.8	2.80	24.0	3.06	24.8	3.15	26.8	3.38	28.8	3.62
	15.0	16.0	2.34	18.2	2.56	21.8	2.94	24.0	3.17	24.8	3.26	26.8	3.48	28.8	3.70
	20.0	16.0	2.60	18.2	2.86	21.8	3.29	24.0	3.46	24.8	3.53	26.8	3.71	28.8	3.90
	25.0	16.0	2.63	18.2	2.90	21.8	3.34	24.0	3.61	24.8	3.71	26.8	3.95	28.8	4.20
	30.0	16.0	3.01	18.2	3.31	21.8	3.80	24.0	4.09	24.8	4.19	26.8	4.46	28.8	4.71
	35.0	16.0	3.72	18.2	4.11	21.8	4.74	24.0	5.11	24.8	5.24	26.8	5.58	28.8	5.91
	40.0	16.0	4.44	18.2	4.92	21.8	5.70	24.0	6.16	24.8	6.32	26.8	6.74	28.8	7.15
43.0	16.0	4.90	18.2	5.43	21.8	6.31	24.0	6.83	24.8	7.01	26.8	7.48	28.8	7.94	
46.0	16.0	5.38	18.2	5.98	21.8	6.96	24.0	7.54	24.8	7.75	26.8	8.28	28.6	8.72	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-10.0	13.3	1.49	15.2	1.69	18.2	2.02	20.0	2.22	20.7	2.29	22.3	2.47	24.0	2.66
	-5.0	13.3	1.50	15.2	1.70	18.2	2.03	20.0	2.23	20.7	2.30	22.3	2.48	24.0	2.66
	0.0	13.3	1.52	15.2	1.71	18.2	2.04	20.0	2.24	20.7	2.31	22.3	2.49	24.0	2.67
	5.0	13.3	1.55	15.2	1.74	18.2	2.07	20.0	2.26	20.7	2.33	22.3	2.51	24.0	2.69
	10.0	13.3	1.62	15.2	1.80	18.2	2.11	20.0	2.30	20.7	2.37	22.3	2.54	24.0	2.72
	15.0	13.3	1.78	15.2	1.93	18.2	2.21	20.0	2.39	20.7	2.45	22.3	2.61	24.0	2.78
	20.0	13.3	2.05	15.2	2.25	18.2	2.47	20.0	2.59	20.7	2.64	22.3	2.78	24.0	2.92
	25.0	13.3	2.08	15.2	2.28	18.2	2.61	20.0	2.81	20.7	2.89	22.3	3.07	24.0	3.25
	30.0	13.3	2.20	15.2	2.37	18.2	2.65	20.0	2.85	20.7	2.92	22.3	3.10	24.0	3.29
	35.0	13.3	2.72	15.2	2.95	18.2	3.32	20.0	3.53	20.7	3.61	22.3	3.79	24.0	3.97
	40.0	13.3	3.24	15.2	3.53	18.2	4.01	20.0	4.28	20.7	4.37	22.3	4.61	24.0	4.84
43.0	13.3	3.57	15.2	3.90	18.2	4.44	20.0	4.75	20.7	4.86	22.3	5.13	24.0	5.39	
46.0	13.3	3.91	15.2	4.29	18.2	4.90	20.0	5.25	20.7	5.37	22.3	5.68	24.0	5.98	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-10.0	10.7	1.10	12.1	1.24	14.5	1.48	16.0	1.63	16.5	1.68	17.9	1.81	19.2	1.95
	-5.0	10.7	1.10	12.1	1.25	14.5	1.49	16.0	1.63	16.5	1.69	17.9	1.82	19.2	1.95
	0.0	10.7	1.12	12.1	1.26	14.5	1.50	16.0	1.65	16.5	1.70	17.9	1.83	19.2	1.96
	5.0	10.7	1.15	12.1	1.29	14.5	1.52	16.0	1.66	16.5	1.71	17.9	1.84	19.2	1.97
	10.0	10.7	1.20	12.1	1.33	14.5	1.56	16.0	1.69	16.5	1.75	17.9	1.87	19.2	2.00
	15.0	10.7	1.33	12.1	1.44	14.5	1.63	16.0	1.76	16.5	1.81	17.9	1.92	19.2	2.04
	20.0	10.7	1.61	12.1	1.71	14.5	1.82	16.0	1.91	16.5	1.95	17.9	2.04	19.2	2.14
	25.0	10.7	1.64	12.1	1.78	14.5	2.03	16.0	2.18	16.5	2.23	17.9	2.36	19.2	2.40
	30.0	10.7	1.67	12.1	1.82	14.5	2.06	16.0	2.21	16.5	2.26	17.9	2.39	19.2	2.53
	35.0	10.7	1.98	12.1	2.12	14.5	2.32	16.0	2.43	16.5	2.47	17.9	2.56	19.2	2.64
	40.0	10.7	2.35	12.1	2.53	14.5	2.80	16.0	2.94	16.5	3.00	17.9	3.12	19.2	3.23
43.0	10.7	2.58	12.1	2.78	14.5	3.10	16.0	3.27	16.5	3.33	17.9	3.48	19.2	3.61	
46.0	10.7	2.82	12.1	3.06	14.5	3.41	16.0	3.61	16.5	3.68	17.9	3.85	19.2	4.01	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
30%	-10.0	8.0	0.770	9.1	0.880	10.9	1.05	12.0	1.15	12.4	1.19	13.4	1.28	14.4	1.37
	-5.0	8.0	0.780	9.1	0.880	10.9	1.05	12.0	1.15	12.4	1.19	13.4	1.28	14.4	1.37
	0.0	8.0	0.800	9.1	0.900	10.9	1.06	12.0	1.16	12.4	1.20	13.4	1.29	14.4	1.38
	5.0	8.0	0.820	9.1	0.920	10.9	1.08	12.0	1.18	12.4	1.21	13.4	1.30	14.4	1.39
	10.0	8.0	0.870	9.1	0.950	10.9	1.11	12.0	1.20	12.4	1.24	13.4	1.32	14.4	1.41
	15.0	8.0	0.970	9.1	1.04	10.9	1.17	12.0	1.25	12.4	1.28	13.4	1.37	14.4	1.45
	20.0	8.0	1.25	9.1	1.25	10.9	1.31	12.0	1.37	12.4	1.39	13.4	1.45	14.4	1.52
	25.0	8.0	1.28	9.1	1.39	10.9	1.56	12.0	1.66	12.4	1.68	13.4	1.68	14.4	1.70
	30.0	8.0	1.31	9.1	1.42	10.9	1.59	12.0	1.69	12.4	1.73	13.4	1.82	14.4	1.91
	35.0	8.0	1.45	9.1	1.52	10.9	1.62	12.0	1.71	12.4	1.76	13.4	1.85	14.4	1.94
	40.0	8.0	1.70	9.1	1.79	10.9	1.94	12.0	2.01	12.4	2.03	13.4	2.09	14.4	2.13
43.0	8.0	1.85	9.1	1.97	10.9	2.14	12.0	2.22	12.4	2.25	13.4	2.32	14.4	2.38	
46.0	8.0	2.02	9.1	2.15	10.9	2.35	12.0	2.45	12.4	2.49	13.4	2.57	14.4	2.64	



## 1. Capacity Ratio of Outdoor Unit

## 1-8. U-14MF2E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	25.8	11.6	23.1	11.2	21.3	10.9	20.1	10.7	18.3	10.2	17.0	9.82	13.6	8.59
	-14.7	-15.0	30.7	12.4	27.4	11.9	25.4	11.5	24.0	11.2	21.8	10.6	20.3	10.2	16.4	8.90
	-9.6	-10.0	36.4	13.2	32.7	12.6	30.3	12.2	28.7	11.8	26.1	11.2	24.4	10.7	19.7	9.28
	-4.4	-5.0	42.1	14.3	38.3	13.5	35.6	12.8	33.7	12.4	30.7	11.7	28.7	11.2	23.2	9.60
	-1.8	-2.5	44.5	14.3	41.8	14.3	38.8	13.5	36.7	12.9	33.5	12.1	31.2	11.5	25.2	9.87
	0.8	0.0	47.1	14.3	44.2	14.3	42.2	14.2	40.0	13.5	36.5	12.5	34.0	12.0	27.6	10.2
	2.8	2.0	49.4	14.3	46.3	14.3	44.6	14.3	42.4	13.8	38.7	12.7	36.2	12.0	28.3	10.0
	6.0	5.0	53.0	14.3	49.7	14.3	47.8	14.3	45.0	13.5	40.0	11.9	36.7	10.9	28.3	9.03
	7.0	6.0	54.2	14.3	50.9	14.3	48.3	14.0	45.0	12.9	40.0	11.4	36.7	10.4	28.3	8.72
	8.6	7.5	56.2	14.3	52.8	14.3	48.3	13.1	45.0	12.1	40.0	10.7	36.7	9.81	28.3	8.26
	11.2	10.0	59.8	14.3	53.3	12.9	48.3	11.6	45.0	10.8	40.0	9.55	36.7	8.82	28.3	7.53
	16.4	15.0	61.7	11.7	53.3	10.1	48.3	9.10	45.0	8.49	40.0	7.58	36.7	7.05	28.3	6.15
24.0	18.0	61.7	9.83	53.3	8.47	48.3	7.67	45.0	7.14	40.0	6.46	36.7	6.02	28.3	5.18	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	25.1	11.5	22.4	11.1	20.6	10.8	19.4	10.6	17.6	10.1	16.3	9.73	13.0	8.53
	-14.7	-15.0	29.9	12.1	26.7	11.7	24.6	11.3	23.2	11.0	21.1	10.5	19.6	10.1	15.7	8.80
	-9.6	-10.0	35.6	13.2	31.8	12.5	29.5	12.0	27.8	11.7	25.3	11.1	23.6	10.6	18.9	9.19
	-4.4	-5.0	42.6	14.6	38.2	13.7	35.4	13.1	33.4	12.6	30.4	11.9	28.3	11.3	22.8	9.72
	-1.8	-2.5	45.7	15.0	41.6	14.4	38.6	13.6	36.5	13.1	33.2	12.4	30.9	11.7	24.8	10.0
	0.8	0.0	48.3	15.0	45.2	15.0	42.0	14.2	39.7	13.5	36.0	12.5	33.0	11.8	25.5	9.76
	2.8	2.0	50.6	15.0	47.4	15.0	43.5	13.9	40.5	12.9	36.0	11.6	33.0	11.0	25.5	9.28
	6.0	5.0	54.3	15.0	48.0	13.5	43.5	12.4	40.5	11.6	36.0	10.6	33.0	10.0	25.5	8.43
	7.0	6.0	54.4	15.0	48.0	13.3	43.5	12.1	40.5	11.2	36.0	10.1	33.0	9.62	25.5	8.14
	8.6	7.5	55.5	14.4	48.0	12.4	43.5	11.3	40.5	10.5	36.0	9.51	33.0	9.05	25.5	7.72
	11.2	10.0	55.5	12.7	48.0	11.0	43.5	9.98	40.5	9.34	36.0	8.52	33.0	8.16	25.5	7.05
	16.4	15.0	55.5	9.56	48.0	8.43	43.5	7.75	40.5	7.30	36.0	6.74	33.0	6.52	25.5	5.77
24.0	18.0	55.5	8.94	48.0	7.88	43.5	7.25	40.5	6.83	36.0	6.20	33.0	5.78	25.5	4.83	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	24.5	11.5	21.7	11.1	20.0	10.8	18.8	10.5	17.0	10.0	15.8	9.67	12.5	8.48
	-14.7	-15.0	29.2	12.1	26.0	11.6	24.0	11.2	22.6	10.9	20.4	10.4	19.0	10.0	15.1	8.76
	-9.6	-10.0	34.9	13.0	31.1	12.4	28.7	12.0	27.1	11.6	24.6	11.0	22.8	10.5	18.3	9.15
	-4.4	-5.0	42.8	14.7	38.2	13.8	35.3	13.3	33.3	12.9	30.2	12.1	28.1	11.5	22.4	9.87
	-1.8	-2.5	46.7	15.5	41.7	14.4	38.5	13.6	36.0	13.0	32.0	12.1	29.3	11.4	22.7	9.44
	0.8	0.0	49.3	15.5	42.7	13.6	38.7	12.5	36.0	11.9	32.0	11.2	29.3	10.7	22.7	9.02
	2.8	2.0	49.3	14.2	42.7	12.7	38.7	11.7	36.0	11.2	32.0	10.5	29.3	10.0	22.7	8.55
	6.0	5.0	49.3	12.7	42.7	11.4	38.7	10.6	36.0	10.1	32.0	9.57	29.3	9.13	22.7	7.78
	7.0	6.0	49.3	12.7	42.7	11.2	38.7	10.2	36.0	9.75	32.0	9.20	29.3	8.78	22.7	7.52
	8.6	7.5	49.3	11.8	42.7	10.4	38.7	9.53	36.0	9.11	32.0	8.64	29.3	8.26	22.7	7.14
	11.2	10.0	49.3	10.2	42.7	9.12	38.7	8.44	36.0	8.11	32.0	7.76	29.3	7.47	22.7	6.54
	16.4	15.0	49.3	8.42	42.7	7.45	38.7	6.86	36.0	6.47	32.0	6.14	29.3	5.97	22.7	5.35
24.0	18.0	49.3	8.42	42.7	7.45	38.7	6.86	36.0	6.47	32.0	5.88	29.3	5.49	22.7	4.51	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	24.1	11.5	21.3	11.1	19.6	10.8	18.4	10.5	16.6	10.1	15.4	9.70	12.2	8.52
	-14.7	-15.0	28.8	12.2	25.6	11.7	23.6	11.3	22.2	11.0	20.0	10.5	18.6	10.1	14.8	8.80
	-9.6	-10.0	34.6	13.0	30.7	12.6	28.3	12.1	26.7	11.7	24.1	11.1	22.4	10.6	17.8	9.21
	-4.4	-5.0	43.2	14.9	37.3	13.4	33.8	12.8	31.5	12.4	28.0	11.6	25.7	10.8	19.8	9.08
	-1.8	-2.5	43.2	13.6	37.3	12.3	33.8	11.9	31.5	11.5	28.0	10.8	25.7	10.3	19.8	8.64
	0.8	0.0	43.2	12.5	37.3	11.3	33.8	11.0	31.5	10.6	28.0	10.1	25.7	9.60	19.8	8.23
	2.8	2.0	43.2	11.6	37.3	10.5	33.8	10.2	31.5	10.3	28.0	9.46	25.7	9.05	19.8	7.78
	6.0	5.0	43.2	10.3	37.3	9.44	33.8	9.21	31.5	9.00	28.0	8.57	25.7	8.21	19.8	7.08
	7.0	6.0	43.2	10.1	37.3	9.15	33.8	8.89	31.5	8.66	28.0	8.24	25.7	7.90	19.8	6.87
	8.6	7.5	43.2	9.33	37.3	8.48	33.8	8.28	31.5	8.10	28.0	7.75	25.7	7.46	19.8	6.53
	11.2	10.0	43.2	8.07	37.3	7.42	33.8	7.34	31.5	7.23	28.0	6.98	25.7	6.76	19.8	5.99
	16.4	15.0	43.2	7.83	37.3	6.94	33.8	6.41	31.5	6.05	28.0	5.53	25.7	5.41	19.8	4.91
24.0	18.0	43.2	7.83	37.3	6.94	33.8	6.41	31.5	6.05	28.0	5.52	25.7	5.16	19.8	4.27	

# 1. Capacity Ratio of Outdoor Unit

## U-14MF2E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	24.2	11.6	21.4	11.1	19.6	10.8	18.4	10.5	16.6	10.1	15.3	9.70	12.1	8.52
	-14.7	-15.0	29.1	12.3	25.7	11.8	23.6	11.4	22.2	11.0	20.0	10.5	18.5	10.1	14.7	8.81
	-9.6	-10.0	34.9	13.0	31.0	12.7	28.5	12.2	26.8	11.8	24.0	11.1	22.0	10.5	17.0	8.87
	-4.4	-5.0	37.0	11.8	32.0	11.4	29.0	11.0	27.0	10.7	24.0	10.1	22.0	9.53	17.0	7.99
	-1.8	-2.5	37.0	10.8	32.0	10.5	29.0	10.2	27.0	9.90	24.0	9.38	22.0	8.97	17.0	7.65
	0.8	0.0	37.0	9.81	32.0	9.64	29.0	9.39	27.0	9.15	24.0	8.70	22.0	8.34	17.0	7.22
	2.8	2.0	37.0	9.07	32.0	8.97	29.0	8.77	27.0	8.58	24.0	8.18	22.0	7.86	17.0	6.83
	6.0	5.0	37.0	8.01	32.0	8.02	29.0	7.88	27.0	7.72	24.0	7.38	22.0	7.11	17.0	6.20
	7.0	6.0	37.0	7.71	32.0	7.68	29.0	7.54	27.0	7.40	24.0	7.10	22.0	6.85	17.0	6.03
	8.6	7.5	37.0	7.06	32.0	7.13	29.0	7.04	27.0	6.93	24.0	6.69	22.0	6.48	17.0	5.75
	11.2	10.0	37.0	7.00	32.0	6.27	29.0	6.26	27.0	6.21	24.0	6.05	22.0	5.89	17.0	5.29
	16.4	15.0	37.0	7.00	32.0	6.22	29.0	5.76	27.0	5.45	24.0	4.98	22.0	4.72	17.0	4.35
24.0	18.0	37.0	7.00	32.0	6.22	29.0	5.76	27.0	5.45	24.0	4.98	22.0	4.67	17.0	3.90	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	25.3	11.7	22.2	11.2	20.4	10.9	19.1	10.6	17.2	10.1	15.9	9.74	12.5	8.55
	-14.7	-15.0	30.4	12.5	26.7	11.8	24.2	11.3	22.5	10.9	20.0	10.2	18.3	9.72	14.2	8.33
	-9.6	-10.0	30.8	11.1	26.7	10.7	24.2	10.2	22.5	9.80	20.0	9.16	18.3	8.69	14.2	7.41
	-4.4	-5.0	30.8	9.50	26.7	9.27	24.2	9.00	22.5	8.76	20.0	8.31	18.3	7.93	14.2	6.70
	-1.8	-2.5	30.8	8.70	26.7	8.55	24.2	8.33	22.5	8.13	20.0	7.74	18.3	7.43	14.2	6.43
	0.8	0.0	30.8	7.91	26.7	7.85	24.2	7.68	22.5	7.52	20.0	7.19	18.3	6.91	14.2	6.04
	2.8	2.0	30.8	7.31	26.7	7.31	24.2	7.18	22.5	7.05	20.0	6.76	18.3	6.51	14.2	5.71
	6.0	5.0	30.8	6.39	26.7	6.45	24.2	6.37	22.5	6.27	20.0	6.06	18.3	5.86	14.2	5.19
	7.0	6.0	30.8	6.05	26.7	6.15	24.2	6.10	22.5	6.02	20.0	5.83	18.3	5.66	14.2	5.06
	8.6	7.5	30.8	5.95	26.7	5.72	24.2	5.71	22.5	5.66	20.0	5.51	18.3	5.36	14.2	4.83
	11.2	10.0	30.8	5.95	26.7	5.31	24.2	5.10	22.5	5.09	20.0	5.00	18.3	4.90	14.2	4.47
	16.4	15.0	30.8	5.95	26.7	5.31	24.2	4.93	22.5	4.68	20.0	4.30	18.3	4.04	14.2	3.69
24.0	18.0	30.8	5.95	26.7	5.31	24.2	4.93	22.5	4.68	20.0	4.30	18.3	4.04	14.2	3.41	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	24.7	10.3	21.3	9.76	19.3	9.37	18.0	9.08	16.0	8.60	14.7	8.23	11.3	7.13
	-14.7	-15.0	24.7	9.37	21.3	8.75	19.3	8.35	18.0	8.07	16.0	7.59	14.7	7.25	11.3	6.26
	-9.6	-10.0	24.7	8.15	21.3	7.92	19.3	7.63	18.0	7.28	16.0	6.85	14.7	6.52	11.3	5.60
	-4.4	-5.0	24.7	6.96	21.3	6.84	19.3	6.67	18.0	6.51	16.0	6.20	14.7	5.95	11.3	5.09
	-1.8	-2.5	24.7	6.37	21.3	6.31	19.3	6.18	18.0	6.05	16.0	5.79	14.7	5.57	11.3	4.89
	0.8	0.0	24.7	5.80	21.3	5.80	19.3	5.69	18.0	5.58	16.0	5.36	14.7	5.17	11.3	4.57
	2.8	2.0	24.7	5.30	21.3	5.34	19.3	5.27	18.0	5.19	16.0	5.01	14.7	4.85	11.3	4.32
	6.0	5.0	24.7	4.58	21.3	4.68	19.3	4.67	18.0	4.63	16.0	4.51	14.7	4.39	11.3	3.96
	7.0	6.0	24.7	4.58	21.3	4.48	19.3	4.49	18.0	4.46	16.0	4.36	14.7	4.25	11.3	3.86
	8.6	7.5	24.7	4.58	21.3	4.18	19.3	4.22	18.0	4.21	16.0	4.13	14.7	4.04	11.3	3.70
	11.2	10.0	24.7	4.58	21.3	4.12	19.3	3.84	18.0	3.81	16.0	3.77	14.7	3.71	11.3	3.43
	16.4	15.0	24.7	4.58	21.3	4.12	19.3	3.84	18.0	3.65	16.0	3.37	14.7	3.19	11.3	2.86
24.0	18.0	24.7	4.58	21.3	4.12	19.3	3.84	18.0	3.65	16.0	3.37	14.7	3.19	11.3	2.72	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	18.5	7.13	16.0	6.77	14.5	6.52	13.5	6.33	12.0	6.01	11.0	5.77	8.5	5.05
	-14.7	-15.0	18.5	6.48	16.0	6.11	14.5	5.85	13.5	5.66	12.0	5.35	11.0	5.12	8.5	4.47
	-9.6	-10.0	18.5	5.64	16.0	5.51	14.5	5.35	13.5	5.17	12.0	4.85	11.0	4.64	8.5	4.02
	-4.4	-5.0	18.5	4.82	16.0	4.77	14.5	4.67	13.5	4.57	12.0	4.38	11.0	4.23	8.5	3.67
	-1.8	-2.5	18.5	4.37	16.0	4.37	14.5	4.30	13.5	4.23	12.0	4.07	11.0	3.94	8.5	3.51
	0.8	0.0	18.5	3.94	16.0	3.98	14.5	3.95	13.5	3.89	12.0	3.78	11.0	3.67	8.5	3.30
	2.8	2.0	18.5	3.60	16.0	3.69	14.5	3.67	13.5	3.64	12.0	3.55	11.0	3.46	8.5	3.14
	6.0	5.0	18.5	3.37	16.0	3.27	14.5	3.29	13.5	3.28	12.0	3.22	11.0	3.16	8.5	2.90
	7.0	6.0	18.5	3.37	16.0	3.14	14.5	3.17	13.5	3.17	12.0	3.12	11.0	3.06	8.5	2.83
	8.6	7.5	18.5	3.37	16.0	3.05	14.5	3.00	13.5	3.00	12.0	2.97	11.0	2.93	8.5	2.72
	11.2	10.0	18.5	3.37	16.0	3.05	14.5	2.86	13.5	2.74	12.0	2.74	11.0	2.71	8.5	2.55
	16.4	15.0	18.5	3.37	16.0	3.05	14.5	2.86	13.5	2.73	12.0	2.54	11.0	2.42	8.5	2.15
24.0	18.0	18.5	3.37	16.0	3.05	14.5	2.86	13.5	2.73	12.0	2.54	11.0	2.42	8.5	2.10	



# 1. Capacity Ratio of Outdoor Unit

## 1-9. U-16MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-10.0	30.0	3.99	34.1	4.53	40.9	5.42	45.0	5.96	46.5	6.16	50.3	6.65	54.0	7.15
	-5.0	30.0	4.02	34.1	4.56	40.9	5.45	45.0	5.99	46.5	6.18	50.3	6.68	54.0	7.17
	0.0	30.0	4.07	34.1	4.60	40.9	5.50	45.0	6.03	46.5	6.23	50.3	6.72	54.0	7.21
	5.0	30.0	4.18	34.1	4.71	40.9	5.59	45.0	6.12	46.5	6.32	50.3	6.81	54.0	7.29
	10.0	30.0	4.43	34.1	4.95	40.9	5.81	45.0	6.33	46.5	6.52	50.3	7.00	54.0	7.48
	15.0	30.0	4.60	34.1	5.14	40.9	6.04	45.0	6.99	46.5	7.37	50.3	8.37	54.0	9.45
	20.0	30.0	5.17	34.1	6.13	40.9	7.95	45.0	9.17	46.5	9.64	50.3	10.9	54.0	12.2
	25.0	30.0	6.65	34.1	7.85	40.9	10.1	45.0	11.6	46.5	12.1	50.3	13.6	54.0	15.2
	30.0	30.0	8.25	34.1	9.70	40.9	12.4	45.0	14.1	46.5	14.8	50.3	16.5	54.0	18.3
	35.0	30.0	9.97	34.1	11.7	40.9	14.8	45.0	16.9	46.5	17.6	49.1	18.8	50.3	18.8
	40.0	30.0	11.8	34.1	13.8	40.9	17.5	43.7	18.8	44.2	18.8	45.4	18.8	45.6	18.0
43.0	30.0	13.0	34.1	15.2	37.5	16.4	37.5	15.5	37.5	15.1	37.5	14.4	37.5	13.6	
46.0	29.6	13.9	29.6	13.2	29.6	12.0	29.6	11.3	29.6	11.1	29.6	10.5	29.6	9.98	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-10.0	27.0	3.60	30.7	4.08	36.8	4.89	40.5	5.37	41.9	5.55	45.2	6.00	48.6	6.44
	-5.0	27.0	3.62	30.7	4.11	36.8	4.91	40.5	5.40	41.9	5.57	45.2	6.02	48.6	6.46
	0.0	27.0	3.67	30.7	4.15	36.8	4.95	40.5	5.43	41.9	5.61	45.2	6.05	48.6	6.50
	5.0	27.0	3.76	30.7	4.24	36.8	5.03	40.5	5.51	41.9	5.68	45.2	6.12	48.6	6.56
	10.0	27.0	3.98	30.7	4.43	36.8	5.21	40.5	5.67	41.9	5.84	45.2	6.27	48.6	6.70
	15.0	27.0	4.21	30.7	4.70	36.8	5.51	40.5	6.00	41.9	6.18	45.2	6.62	48.6	7.08
	20.0	27.0	4.26	30.7	4.98	36.8	6.30	40.5	7.18	41.9	7.52	45.2	8.40	48.6	9.34
	25.0	27.0	5.52	30.7	6.44	36.8	8.11	40.5	9.20	41.9	9.61	45.2	10.7	48.6	11.8
	30.0	27.0	6.91	30.7	8.03	36.8	10.1	40.5	11.4	41.9	11.8	45.2	13.1	48.6	14.5
	35.0	27.0	8.40	30.7	9.74	36.8	12.1	40.5	13.7	41.9	14.3	45.2	15.8	48.6	17.3
	40.0	27.0	9.96	30.7	11.5	36.8	14.4	40.5	16.2	41.9	16.9	45.2	18.6	45.6	18.0
43.0	27.0	11.0	30.7	12.7	36.8	15.8	37.5	15.5	37.5	15.1	37.5	14.4	37.5	13.6	
46.0	27.0	12.0	29.6	13.2	29.6	12.0	29.6	11.3	29.6	11.1	29.6	10.5	29.6	9.98	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-10.0	24.0	3.20	27.3	3.64	32.7	4.35	36.0	4.79	37.2	4.95	40.2	5.34	43.2	5.74
	-5.0	24.0	3.23	27.3	3.66	32.7	4.37	36.0	4.80	37.2	4.96	40.2	5.36	43.2	5.76
	0.0	24.0	3.27	27.3	3.70	32.7	4.41	36.0	4.84	37.2	5.00	40.2	5.39	43.2	5.78
	5.0	24.0	3.35	27.3	3.77	32.7	4.47	36.0	4.90	37.2	5.06	40.2	5.45	43.2	5.84
	10.0	24.0	3.53	27.3	3.94	32.7	4.62	36.0	5.03	37.2	5.18	40.2	5.56	43.2	5.94
	15.0	24.0	3.82	27.3	4.26	32.7	4.98	36.0	5.35	37.2	5.49	40.2	5.84	43.2	6.20
	20.0	24.0	3.86	27.3	4.29	32.7	5.02	36.0	5.54	37.2	5.77	40.2	6.37	43.2	6.99
	25.0	24.0	4.54	27.3	5.22	32.7	6.42	36.0	7.20	37.2	7.49	40.2	8.24	43.2	9.03
	30.0	24.0	5.73	27.3	6.57	32.7	8.06	36.0	9.01	37.2	9.36	40.2	10.3	43.2	11.2
	35.0	24.0	7.00	27.3	8.02	32.7	9.81	36.0	10.9	37.2	11.4	40.2	12.5	43.2	13.6
	40.0	24.0	8.32	27.3	9.54	32.7	11.7	36.0	13.0	37.2	13.5	40.2	14.8	43.2	16.1
43.0	24.0	9.17	27.3	10.5	32.7	12.9	36.0	14.4	37.2	14.9	37.5	14.4	37.5	13.6	
46.0	24.0	10.1	27.3	11.6	29.6	12.0	29.6	11.3	29.6	11.1	29.6	10.5	29.6	9.98	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-10.0	21.0	2.65	23.9	3.00	28.6	3.59	31.5	3.95	32.6	4.08	35.2	4.41	37.8	4.74
	-5.0	21.0	2.67	23.9	3.02	28.6	3.61	31.5	3.97	32.6	4.10	35.2	4.42	37.8	4.75
	0.0	21.0	2.70	23.9	3.05	28.6	3.64	31.5	3.99	32.6	4.12	35.2	4.45	37.8	4.77
	5.0	21.0	2.77	23.9	3.11	28.6	3.69	31.5	4.04	32.6	4.17	35.2	4.49	37.8	4.81
	10.0	21.0	2.91	23.9	3.24	28.6	3.80	31.5	4.14	32.6	4.26	35.2	4.58	37.8	4.89
	15.0	21.0	3.23	23.9	3.57	28.6	4.07	31.5	4.37	32.6	4.49	35.2	4.78	37.8	5.07
	20.0	21.0	3.27	23.9	3.62	28.6	4.22	31.5	4.58	32.6	4.71	35.2	5.04	37.8	5.37
	25.0	21.0	3.48	23.9	3.93	28.6	4.72	31.5	5.21	32.6	5.39	35.2	5.86	37.8	6.35
	30.0	21.0	4.42	23.9	5.00	28.6	5.99	31.5	6.61	32.6	6.84	35.2	7.43	37.8	8.03
	35.0	21.0	5.43	23.9	6.14	28.6	7.36	31.5	8.11	32.6	8.39	35.2	9.10	37.8	9.83
	40.0	21.0	6.47	23.9	7.32	28.6	8.79	31.5	9.69	32.6	10.0	35.2	10.9	37.8	11.7
43.0	21.0	7.13	23.9	8.08	28.6	9.71	31.5	10.7	32.6	11.1	35.2	12.0	37.5	12.8	
46.0	21.0	7.84	23.9	8.89	28.6	10.70	29.6	10.7	29.6	10.44	29.6	9.91	29.6	9.40	



# 1. Capacity Ratio of Outdoor Unit

## U-16MF2E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	18.0	2.02	20.5	2.30	24.5	2.75	27.0	3.02	27.9	3.12	30.2	3.37	32.4	3.62
	-5.0	18.0	2.04	20.5	2.31	24.5	2.76	27.0	3.03	27.9	3.13	30.2	3.38	32.4	3.63
	0.0	18.0	2.07	20.5	2.34	24.5	2.78	27.0	3.05	27.9	3.15	30.2	3.40	32.4	3.65
	5.0	18.0	2.12	20.5	2.38	24.5	2.82	27.0	3.09	27.9	3.19	30.2	3.43	32.4	3.68
	10.0	18.0	2.23	20.5	2.48	24.5	2.90	27.0	3.16	27.9	3.26	30.2	3.49	32.4	3.73
	15.0	18.0	2.51	20.5	2.72	24.5	3.09	27.0	3.32	27.9	3.41	30.2	3.63	32.4	3.85
	20.0	18.0	2.58	20.5	2.85	24.5	3.31	27.0	3.58	27.9	3.68	30.2	3.93	32.4	4.15
	25.0	18.0	2.61	20.5	2.89	24.5	3.34	27.0	3.61	27.9	3.71	30.2	3.97	32.4	4.22
	30.0	18.0	3.18	20.5	3.53	24.5	4.13	27.0	4.50	27.9	4.63	30.2	4.97	32.4	5.30
	35.0	18.0	3.92	20.5	4.37	24.5	5.13	27.0	5.58	27.9	5.75	30.2	6.17	32.4	6.58
	40.0	18.0	4.68	20.5	5.23	24.5	6.15	27.0	6.70	27.9	6.90	30.2	7.41	32.4	7.92
43.0	18.0	5.17	20.5	5.78	24.5	6.81	27.0	7.42	27.9	7.65	30.2	8.22	32.4	8.79	
46.0	18.0	5.68	20.5	6.36	24.5	7.51	27.0	8.20	27.9	8.45	29.6	8.82	29.6	8.37	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	15.0	1.52	17.0	1.73	20.5	2.07	22.5	2.27	23.3	2.35	25.1	2.53	27.0	2.72
	-5.0	15.0	1.54	17.0	1.74	20.5	2.08	22.5	2.28	23.3	2.36	25.1	2.54	27.0	2.73
	0.0	15.0	1.56	17.0	1.76	20.5	2.10	22.5	2.30	23.3	2.37	25.1	2.56	27.0	2.74
	5.0	15.0	1.60	17.0	1.80	20.5	2.13	22.5	2.32	23.3	2.40	25.1	2.58	27.0	2.76
	10.0	15.0	1.69	17.0	1.87	20.5	2.19	22.5	2.38	23.3	2.45	25.1	2.63	27.0	2.80
	15.0	15.0	1.90	17.0	2.05	20.5	2.32	22.5	2.49	23.3	2.56	25.1	2.72	27.0	2.89
	20.0	15.0	2.03	17.0	2.23	20.5	2.57	22.5	2.78	23.3	2.83	25.1	2.95	27.0	3.08
	25.0	15.0	2.06	17.0	2.26	20.5	2.60	22.5	2.81	23.3	2.88	25.1	3.07	27.0	3.26
	30.0	15.0	2.28	17.0	2.49	20.5	2.83	22.5	3.03	23.3	3.10	25.1	3.28	27.0	3.45
	35.0	15.0	2.82	17.0	3.09	20.5	3.54	22.5	3.79	23.3	3.89	25.1	4.12	27.0	4.34
	40.0	15.0	3.37	17.0	3.71	20.5	4.26	22.5	4.58	23.3	4.70	25.1	4.99	27.0	5.27
43.0	15.0	3.71	17.0	4.10	20.5	4.72	22.5	5.09	23.3	5.22	25.1	5.54	27.0	5.86	
46.0	15.0	4.08	17.0	4.51	20.5	5.21	22.5	5.62	23.3	5.77	25.1	6.14	27.0	6.50	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	12.0	1.12	13.6	1.27	16.4	1.52	18.0	1.67	18.6	1.72	20.1	1.86	21.6	1.99
	-5.0	12.0	1.13	13.6	1.28	16.4	1.53	18.0	1.68	18.6	1.73	20.1	1.87	21.6	2.00
	0.0	12.0	1.15	13.6	1.30	16.4	1.54	18.0	1.69	18.6	1.74	20.1	1.88	21.6	2.01
	5.0	12.0	1.19	13.6	1.33	16.4	1.57	18.0	1.71	18.6	1.76	20.1	1.90	21.6	2.03
	10.0	12.0	1.26	13.6	1.39	16.4	1.61	18.0	1.75	18.6	1.80	20.1	1.93	21.6	2.06
	15.0	12.0	1.42	13.6	1.52	16.4	1.71	18.0	1.84	18.6	1.88	20.1	2.00	21.6	2.12
	20.0	12.0	1.58	13.6	1.73	16.4	1.96	18.0	2.04	18.6	2.07	20.1	2.16	21.6	2.25
	25.0	12.0	1.61	13.6	1.76	16.4	2.01	18.0	2.16	18.6	2.22	20.1	2.35	21.6	2.49
	30.0	12.0	1.64	13.6	1.79	16.4	2.04	18.0	2.19	18.6	2.24	20.1	2.38	21.6	2.52
	35.0	12.0	2.02	13.6	2.18	16.4	2.42	18.0	2.55	18.6	2.60	20.1	2.72	21.6	2.82
	40.0	12.0	2.40	13.6	2.61	16.4	2.92	18.0	3.10	18.6	3.16	20.1	3.31	21.6	3.45
43.0	12.0	2.65	13.6	2.88	16.4	3.24	18.0	3.44	18.6	3.51	20.1	3.69	21.6	3.85	
46.0	12.0	2.90	13.6	3.16	16.4	3.57	18.0	3.80	18.6	3.88	20.1	4.08	21.6	4.28	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	9.0	0.790	10.2	0.900	12.3	1.07	13.5	1.18	14.0	1.21	15.1	1.31	16.2	1.40
	-5.0	9.0	0.800	10.2	0.910	12.3	1.08	13.5	1.18	14.0	1.22	15.1	1.31	16.2	1.41
	0.0	9.0	0.820	10.2	0.920	12.3	1.09	13.5	1.19	14.0	1.23	15.1	1.32	16.2	1.42
	5.0	9.0	0.850	10.2	0.950	12.3	1.11	13.5	1.21	14.0	1.25	15.1	1.34	16.2	1.43
	10.0	9.0	0.900	10.2	0.990	12.3	1.15	13.5	1.24	14.0	1.28	15.1	1.37	16.2	1.45
	15.0	9.0	1.03	10.2	1.10	12.3	1.22	13.5	1.31	14.0	1.34	15.1	1.42	16.2	1.50
	20.0	9.0	1.23	10.2	1.33	12.3	1.41	13.5	1.45	14.0	1.48	15.1	1.53	16.2	1.60
	25.0	9.0	1.25	10.2	1.36	12.3	1.53	13.5	1.64	14.0	1.68	15.1	1.77	16.2	1.84
	30.0	9.0	1.28	10.2	1.38	12.3	1.56	13.5	1.66	14.0	1.70	15.1	1.80	16.2	1.89
	35.0	9.0	1.45	10.2	1.53	12.3	1.65	13.5	1.70	14.0	1.73	15.1	1.83	16.2	1.92
	40.0	9.0	1.71	10.2	1.82	12.3	1.98	13.5	2.06	14.0	2.09	15.1	2.16	16.2	2.22
43.0	9.0	1.87	10.2	2.00	12.3	2.19	13.5	2.29	14.0	2.33	15.1	2.41	16.2	2.48	
46.0	9.0	2.04	10.2	2.19	12.3	2.41	13.5	2.53	14.0	2.57	15.1	2.67	16.2	2.75	





# 1. Capacity Ratio of Outdoor Unit

## 1-10. U-16MF2E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	27.9	13.4	24.9	13.0	23.0	12.6	21.7	12.4	19.7	11.8	18.3	11.4	14.7	9.92
	-14.7	-15.0	33.1	14.1	29.6	13.6	27.5	13.1	25.9	12.8	23.6	12.2	22.0	11.7	17.7	10.2
	-9.6	-10.0	39.3	15.2	35.3	14.5	32.7	14.0	31.0	13.6	28.2	12.9	26.3	12.3	21.3	10.7
	-4.4	-5.0	45.9	16.8	41.3	15.6	38.4	14.8	36.4	14.3	33.2	13.5	31.0	12.9	25.0	11.0
	-1.8	-2.5	49.5	17.4	45.1	16.5	41.9	15.6	39.7	14.9	36.2	14.0	33.8	13.3	27.3	11.4
	0.8	0.0	52.3	17.4	49.1	17.4	45.6	16.4	43.2	15.6	39.4	14.4	36.8	13.8	29.8	11.7
	2.8	2.0	54.7	17.4	51.4	17.4	48.3	16.7	45.8	15.9	41.8	14.7	39.1	13.8	31.5	11.9
	6.0	5.0	58.6	17.4	55.1	17.4	53.0	17.3	50.0	16.4	44.4	14.4	40.7	13.1	31.5	10.7
	7.0	6.0	60.0	17.4	56.4	17.4	53.7	17.1	50.0	15.7	44.4	13.8	40.7	12.6	31.5	10.3
	8.6	7.5	62.1	17.4	58.4	17.4	53.7	16.0	50.0	14.7	44.4	12.9	40.7	11.8	31.5	9.77
	11.2	10.0	66.0	17.4	59.3	15.9	53.7	14.2	50.0	13.1	44.4	11.6	40.7	10.6	31.5	8.89
16.4	15.0	68.5	14.5	59.3	12.4	53.7	11.2	50.0	10.4	44.4	9.21	40.7	8.46	31.5	7.25	
24.0	18.0	68.5	12.3	59.3	10.5	53.7	9.42	50.0	8.74	44.4	7.74	40.7	7.09	31.5	6.09	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	27.1	13.3	24.1	12.9	22.3	12.5	21.0	12.2	19.0	11.7	17.6	11.2	14.1	9.84
	-14.7	-15.0	32.3	14.0	28.8	13.5	26.6	13.0	25.1	12.7	22.8	12.1	21.2	11.6	17.0	10.2
	-9.6	-10.0	38.4	15.1	34.4	14.4	31.8	13.8	30.1	13.4	27.3	12.7	25.5	12.2	20.5	10.6
	-4.4	-5.0	46.0	16.9	41.2	15.8	38.2	15.1	36.1	14.6	32.9	13.7	30.6	13.0	24.6	11.2
	-1.8	-2.5	50.2	17.9	45.0	16.6	41.7	15.7	39.4	15.0	35.8	14.2	33.3	13.5	26.8	11.5
	0.8	0.0	53.6	18.2	49.0	17.4	45.4	16.4	42.9	15.6	39.0	14.5	36.4	13.9	28.3	11.6
	2.8	2.0	56.1	18.2	51.9	17.8	48.1	16.7	45.0	15.6	40.0	13.9	36.7	13.1	28.3	11.0
	6.0	5.0	60.1	18.2	53.3	16.5	48.3	15.1	45.0	14.1	40.0	12.6	36.7	11.9	28.3	9.96
	7.0	6.0	60.2	18.2	53.3	16.3	48.3	14.7	45.0	13.6	40.0	12.1	36.7	11.4	28.3	9.62
	8.6	7.5	61.7	17.8	53.3	15.2	48.3	13.7	45.0	12.7	40.0	11.3	36.7	10.7	28.3	9.11
	11.2	10.0	61.7	15.6	53.3	13.4	48.3	12.2	45.0	11.4	40.0	10.2	36.7	9.64	28.3	8.31
16.4	15.0	61.7	11.9	53.3	10.4	48.3	9.47	45.0	8.88	40.0	8.01	36.7	7.68	28.3	6.78	
24.0	18.0	61.7	10.6	53.3	9.30	48.3	8.55	45.0	8.04	40.0	7.29	36.7	6.78	28.3	5.66	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	26.4	13.2	23.5	12.8	21.6	12.4	20.3	12.1	18.4	11.6	17.0	11.2	13.5	9.78
	-14.7	-15.0	31.6	14.0	28.1	13.4	25.9	13.0	24.4	12.6	22.1	12.0	20.5	11.6	16.4	10.1
	-9.6	-10.0	37.7	15.0	33.6	14.4	31.0	13.8	29.3	13.4	26.6	12.7	24.7	12.2	19.8	10.6
	-4.4	-5.0	46.2	17.1	41.2	16.0	38.1	15.3	36.0	14.9	32.6	13.9	30.3	13.3	24.3	11.4
	-1.8	-2.5	50.4	18.0	45.0	16.7	41.6	15.8	39.2	15.1	35.6	14.4	32.6	13.6	25.2	11.2
	0.8	0.0	54.8	18.9	47.4	16.5	43.0	15.1	40.0	14.2	35.6	13.3	32.6	12.6	25.2	10.7
	2.8	2.0	54.8	17.4	47.4	15.4	43.0	14.2	40.0	13.3	35.6	12.5	32.6	11.9	25.2	10.1
	6.0	5.0	54.8	15.6	47.4	13.9	43.0	12.8	40.0	12.1	35.6	11.3	32.6	10.8	25.2	9.18
	7.0	6.0	54.8	15.6	47.4	13.6	43.0	12.4	40.0	11.6	35.6	10.9	32.6	10.4	25.2	8.87
	8.6	7.5	54.8	14.4	47.4	12.6	43.0	11.6	40.0	10.9	35.6	10.2	32.6	9.76	25.2	8.41
	11.2	10.0	54.8	12.6	47.4	11.1	43.0	10.2	40.0	9.66	35.6	9.16	32.6	8.81	25.2	7.69
16.4	15.0	54.8	9.94	47.4	8.77	43.0	8.07	40.0	7.60	35.6	7.22	32.6	7.02	25.2	6.27	
24.0	18.0	54.8	9.94	47.4	8.77	43.0	8.07	40.0	7.60	35.6	6.90	32.6	6.43	25.2	5.26	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	26.0	13.3	23.0	12.8	21.2	12.5	19.9	12.2	17.9	11.6	16.6	11.2	13.2	9.81
	-14.7	-15.0	31.1	14.1	27.6	13.5	25.4	13.1	23.9	12.7	21.6	12.1	20.0	11.6	15.9	10.1
	-9.6	-10.0	37.3	15.0	33.2	14.6	30.6	14.0	28.8	13.5	26.0	12.8	24.2	12.2	19.2	10.6
	-4.4	-5.0	46.8	17.5	41.5	16.2	37.6	15.2	35.0	14.7	31.1	13.7	28.5	12.8	22.0	10.7
	-1.8	-2.5	48.0	16.6	41.5	14.9	37.6	14.1	35.0	13.6	31.1	12.8	28.5	12.2	22.0	10.2
	0.8	0.0	48.0	15.2	41.5	13.7	37.6	13.0	35.0	12.6	31.1	11.9	28.5	11.4	22.0	9.71
	2.8	2.0	48.0	14.1	41.5	12.8	37.6	12.1	35.0	12.2	31.1	11.2	28.5	10.7	22.0	9.18
	6.0	5.0	48.0	12.6	41.5	11.5	37.6	10.9	35.0	10.6	31.1	10.1	28.5	9.69	22.0	8.34
	7.0	6.0	48.0	12.4	41.5	11.1	37.6	10.5	35.0	10.2	31.1	9.73	28.5	9.32	22.0	8.08
	8.6	7.5	48.0	11.4	41.5	10.3	37.6	9.78	35.0	9.56	31.1	9.14	28.5	8.79	22.0	7.67
	11.2	10.0	48.0	9.88	41.5	9.01	37.6	8.65	35.0	8.52	31.1	8.22	28.5	7.95	22.0	7.03
16.4	15.0	48.0	9.23	41.5	8.17	37.6	7.53	35.0	7.10	31.1	6.48	28.5	6.34	22.0	5.74	
24.0	18.0	48.0	9.23	41.5	8.17	37.6	7.53	35.0	7.10	31.1	6.46	28.5	6.03	22.0	4.97	

## 1. Capacity Ratio of Outdoor Unit

## U-16MF2E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	26.2	13.3	23.1	12.8	21.2	12.5	19.9	12.2	17.9	11.6	16.6	11.2	13.1	9.80
	-14.7	-15.0	31.4	14.2	27.8	13.6	25.5	13.1	24.0	12.7	21.6	12.1	20.0	11.6	15.9	10.1
	-9.6	-10.0	37.7	15.0	33.4	14.7	30.7	14.0	28.9	13.6	26.1	12.8	24.2	12.3	18.9	10.5
	-4.4	-5.0	41.1	14.2	35.6	13.5	32.2	13.0	30.0	12.6	26.7	11.9	24.4	11.3	18.9	9.42
	-1.8	-2.5	41.1	13.0	35.6	12.4	32.2	12.1	30.0	11.7	26.7	11.1	24.4	10.6	18.9	9.01
	0.8	0.0	41.1	11.9	35.6	11.4	32.2	11.1	30.0	10.8	26.7	10.3	24.4	9.84	18.9	8.50
	2.8	2.0	41.1	11.0	35.6	10.6	32.2	10.4	30.0	10.1	26.7	9.66	24.4	9.27	18.9	8.04
	6.0	5.0	41.1	9.68	35.6	9.46	32.2	9.29	30.0	9.10	26.7	8.70	24.4	8.37	18.9	7.27
	7.0	6.0	41.1	9.32	35.6	9.06	32.2	8.89	30.0	8.72	26.7	8.36	24.4	8.06	18.9	7.08
	8.6	7.5	41.1	8.54	35.6	8.40	32.2	8.29	30.0	8.16	26.7	7.87	24.4	7.61	18.9	6.74
	11.2	10.0	41.1	8.23	35.6	7.36	32.2	7.36	30.0	7.29	26.7	7.10	24.4	6.90	18.9	6.19
	16.4	15.0	41.1	8.23	35.6	7.30	32.2	6.75	30.0	6.37	26.7	5.82	24.4	5.51	18.9	5.06
24.0	18.0	41.1	8.23	35.6	7.30	32.2	6.75	30.0	6.37	26.7	5.82	24.4	5.45	18.9	4.52	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	27.2	13.4	24.0	12.9	22.0	12.5	20.6	12.2	18.5	11.7	17.1	11.2	13.5	9.83
	-14.7	-15.0	32.7	14.4	28.9	13.7	26.5	13.2	24.9	12.8	22.2	12.1	20.4	11.5	15.7	9.83
	-9.6	-10.0	34.3	13.2	29.6	12.7	26.9	12.1	25.0	11.6	22.2	10.8	20.4	10.3	15.7	8.72
	-4.4	-5.0	34.3	11.2	29.6	11.0	26.9	10.6	25.0	10.3	22.2	9.80	20.4	9.35	15.7	7.87
	-1.8	-2.5	34.3	10.3	29.6	10.1	26.9	9.83	25.0	9.59	22.2	9.12	20.4	8.75	15.7	7.55
	0.8	0.0	34.3	9.33	29.6	9.25	26.9	9.05	25.0	8.86	22.2	8.46	20.4	8.13	15.7	7.09
	2.8	2.0	34.3	8.61	29.6	8.60	26.9	8.45	25.0	8.29	22.2	7.95	20.4	7.66	15.7	6.69
	6.0	5.0	34.3	7.52	29.6	7.58	26.9	7.49	25.0	7.37	22.2	7.11	20.4	6.88	15.7	6.06
	7.0	6.0	34.3	7.11	29.6	7.23	26.9	7.17	25.0	7.07	22.2	6.84	20.4	6.63	15.7	5.91
	8.6	7.5	34.3	6.98	29.6	6.71	26.9	6.70	25.0	6.64	22.2	6.46	20.4	6.28	15.7	5.64
	11.2	10.0	34.3	6.98	29.6	6.22	26.9	5.97	25.0	5.95	22.2	5.85	20.4	5.72	15.7	5.20
	16.4	15.0	34.3	6.98	29.6	6.22	26.9	5.76	25.0	5.45	22.2	5.00	20.4	4.69	15.7	4.27
24.0	18.0	34.3	6.98	29.6	6.22	26.9	5.76	25.0	5.45	22.2	5.00	20.4	4.69	15.7	3.93	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	27.4	12.2	23.7	11.6	21.5	11.09	20.0	10.75	17.8	10.16	16.3	9.72	12.6	8.41
	-14.7	-15.0	27.4	11.1	23.7	10.4	21.5	9.87	20.0	9.53	17.8	8.96	16.3	8.55	12.6	7.37
	-9.6	-10.0	27.4	9.63	23.7	9.35	21.5	9.00	20.0	8.59	17.8	8.07	16.3	7.67	12.6	6.57
	-4.4	-5.0	27.4	8.20	23.7	8.06	21.5	7.85	20.0	7.66	17.8	7.30	16.3	7.00	12.6	5.96
	-1.8	-2.5	27.4	7.49	23.7	7.42	21.5	7.27	20.0	7.11	17.8	6.80	16.3	6.54	12.6	5.72
	0.8	0.0	27.4	6.81	23.7	6.81	21.5	6.68	20.0	6.55	17.8	6.29	16.3	6.06	12.6	5.34
	2.8	2.0	27.4	6.22	23.7	6.26	21.5	6.18	20.0	6.08	17.8	5.87	16.3	5.68	12.6	5.04
	6.0	5.0	27.4	5.35	23.7	5.48	21.5	5.47	20.0	5.41	17.8	5.27	16.3	5.13	12.6	4.61
	7.0	6.0	27.4	5.35	23.7	5.23	21.5	5.24	20.0	5.21	17.8	5.08	16.3	4.96	12.6	4.49
	8.6	7.5	27.4	5.35	23.7	4.88	21.5	4.92	20.0	4.90	17.8	4.81	16.3	4.71	12.6	4.29
	11.2	10.0	27.4	5.35	23.7	4.79	21.5	4.46	20.0	4.42	17.8	4.38	16.3	4.31	12.6	3.98
	16.4	15.0	27.4	5.35	23.7	4.79	21.5	4.46	20.0	4.24	17.8	3.90	16.3	3.68	12.6	3.29
24.0	18.0	27.4	5.35	23.7	4.79	21.5	4.46	20.0	4.24	17.8	3.90	16.3	3.68	12.6	3.12	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	20.6	8.42	17.8	7.99	16.1	7.69	15.0	7.46	13.3	7.08	12.2	6.79	9.4	5.93
	-14.7	-15.0	20.6	7.64	17.8	7.20	16.1	6.88	15.0	6.66	13.3	6.28	12.2	6.01	9.4	5.23
	-9.6	-10.0	20.6	6.64	17.8	6.48	16.1	6.29	15.0	6.07	13.3	5.69	12.2	5.43	9.4	4.70
	-4.4	-5.0	20.6	5.66	17.8	5.59	16.1	5.47	15.0	5.35	13.3	5.12	12.2	4.94	9.4	4.28
	-1.8	-2.5	20.6	5.12	17.8	5.11	16.1	5.03	15.0	4.94	13.3	4.76	12.2	4.60	9.4	4.09
	0.8	0.0	20.6	4.59	17.8	4.65	16.1	4.60	15.0	4.54	13.3	4.40	12.2	4.27	9.4	3.83
	2.8	2.0	20.6	4.19	17.8	4.29	16.1	4.28	15.0	4.24	13.3	4.12	12.2	4.02	9.4	3.63
	6.0	5.0	20.6	3.91	17.8	3.79	16.1	3.82	15.0	3.81	13.3	3.74	12.2	3.66	9.4	3.35
	7.0	6.0	20.6	3.91	17.8	3.64	16.1	3.68	15.0	3.67	13.3	3.62	12.2	3.55	9.4	3.27
	8.6	7.5	20.6	3.91	17.8	3.53	16.1	3.47	15.0	3.47	13.3	3.44	12.2	3.38	9.4	3.14
	11.2	10.0	20.6	3.91	17.8	3.53	16.1	3.30	15.0	3.16	13.3	3.15	12.2	3.12	9.4	2.93
	16.4	15.0	20.6	3.91	17.8	3.53	16.1	3.30	15.0	3.15	13.3	2.92	12.2	2.77	9.4	2.45
24.0	18.0	20.6	3.91	17.8	3.53	16.1	3.30	15.0	3.15	13.3	2.92	12.2	2.77	9.4	2.39	

# 1. Capacity Ratio of Outdoor Unit

## 1-11. U-8MF3E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	14.9	1.57	17.0	1.79	20.4	2.14	22.4	2.36	23.1	2.44	25.0	2.63	26.9	2.83
	-5.0	14.9	1.58	17.0	1.79	20.4	2.15	22.4	2.36	23.1	2.44	25.0	2.64	26.9	2.83
	0.0	14.9	1.58	17.0	1.80	20.4	2.15	22.4	2.37	23.1	2.44	25.0	2.64	26.9	2.84
	5.0	14.9	1.59	17.0	1.81	20.4	2.16	22.4	2.38	23.1	2.45	25.0	2.65	26.9	2.85
	10.0	14.9	1.62	17.0	1.83	20.4	2.19	22.4	2.40	23.1	2.48	25.0	2.67	26.9	2.87
	15.0	14.9	1.71	17.0	1.92	20.4	2.27	22.4	2.47	23.1	2.55	25.0	2.74	26.9	2.94
	20.0	14.9	1.86	17.0	2.07	20.4	2.47	22.4	2.79	23.1	2.91	25.0	3.23	26.9	3.57
	25.0	14.9	2.25	17.0	2.60	20.4	3.23	22.4	3.64	23.1	3.80	25.0	4.20	26.9	4.63
	30.0	14.9	2.85	17.0	3.29	20.4	4.07	22.4	4.58	23.1	4.77	25.0	5.26	26.9	5.77
	35.0	14.9	3.49	17.0	4.03	20.4	4.97	22.4	5.58	23.1	5.81	25.0	6.39	26.9	7.00
	40.0	14.9	4.17	17.0	4.81	20.4	5.93	22.4	6.64	23.1	6.91	25.0	7.59	26.0	7.80
	43.0	14.9	4.60	17.0	5.30	20.4	6.53	22.4	7.32	23.1	7.61	24.1	7.80	24.8	7.80
46.0	14.9	5.05	17.0	5.82	20.4	7.18	20.4	6.84	20.4	6.70	20.4	6.35	20.4	6.02	
52.0	7.5	2.44	7.5	2.32	7.5	2.12	7.5	2.01	7.5	1.97	7.5	1.87	7.5	1.78	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	13.4	1.42	15.3	1.61	18.3	1.93	20.2	2.13	20.8	2.20	22.5	2.37	24.2	2.55
	-5.0	13.4	1.42	15.3	1.61	18.3	1.94	20.2	2.13	20.8	2.20	22.5	2.38	24.2	2.55
	0.0	13.4	1.43	15.3	1.62	18.3	1.94	20.2	2.13	20.8	2.20	22.5	2.38	24.2	2.56
	5.0	13.4	1.44	15.3	1.63	18.3	1.95	20.2	2.14	20.8	2.21	22.5	2.39	24.2	2.56
	10.0	13.4	1.46	15.3	1.65	18.3	1.97	20.2	2.16	20.8	2.23	22.5	2.41	24.2	2.58
	15.0	13.4	1.53	15.3	1.71	18.3	2.02	20.2	2.21	20.8	2.28	22.5	2.45	24.2	2.62
	20.0	13.4	1.71	15.3	1.90	18.3	2.22	20.2	2.41	20.8	2.48	22.5	2.63	24.2	2.79
	25.0	13.4	1.89	15.3	2.16	18.3	2.63	20.2	2.93	20.8	3.04	22.5	3.33	24.2	3.63
	30.0	13.4	2.41	15.3	2.75	18.3	3.35	20.2	3.73	20.8	3.87	22.5	4.23	24.2	4.60
	35.0	13.4	2.97	15.3	3.39	18.3	4.12	20.2	4.58	20.8	4.75	22.5	5.18	24.2	5.63
	40.0	13.4	3.56	15.3	4.06	18.3	4.93	20.2	5.48	20.8	5.68	22.5	6.20	24.2	6.73
	43.0	13.4	3.93	15.3	4.49	18.3	5.45	20.2	6.05	20.8	6.28	22.5	6.85	24.2	7.43
46.0	13.4	4.32	15.3	4.94	18.3	6.00	20.2	6.66	20.4	6.70	20.4	6.35	20.4	6.02	
52.0	7.5	2.44	7.5	2.32	7.5	2.12	7.5	2.01	7.5	1.97	7.5	1.87	7.5	1.78	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	11.9	1.26	13.6	1.44	16.3	1.72	17.9	1.89	18.5	1.96	20.0	2.11	21.5	2.27
	-5.0	11.9	1.27	13.6	1.44	16.3	1.72	17.9	1.90	18.5	1.96	20.0	2.12	21.5	2.27
	0.0	11.9	1.27	13.6	1.44	16.3	1.73	17.9	1.90	18.5	1.96	20.0	2.12	21.5	2.28
	5.0	11.9	1.28	13.6	1.45	16.3	1.74	17.9	1.91	18.5	1.97	20.0	2.13	21.5	2.28
	10.0	11.9	1.30	13.6	1.47	16.3	1.75	17.9	1.92	18.5	1.98	20.0	2.14	21.5	2.30
	15.0	11.9	1.35	13.6	1.51	16.3	1.79	17.9	1.96	18.5	2.02	20.0	2.17	21.5	2.32
	20.0	11.9	1.55	13.6	1.70	16.3	1.94	17.9	2.08	18.5	2.14	20.0	2.28	21.5	2.42
	25.0	11.9	1.58	13.6	1.78	16.3	2.12	17.9	2.33	18.5	2.40	20.0	2.60	21.5	2.81
	30.0	11.9	2.02	13.6	2.28	16.3	2.72	17.9	2.99	18.5	3.09	20.0	3.35	21.5	3.61
	35.0	11.9	2.51	13.6	2.83	16.3	3.38	17.9	3.71	18.5	3.84	20.0	4.15	21.5	4.47
	40.0	11.9	3.01	13.6	3.40	16.3	4.06	17.9	4.46	18.5	4.61	20.0	4.99	21.5	5.38
	43.0	11.9	3.33	13.6	3.76	16.3	4.50	17.9	4.95	18.5	5.11	20.0	5.53	21.5	5.96
46.0	11.9	3.66	13.6	4.14	16.3	4.96	17.9	5.45	18.5	5.64	20.0	6.11	20.4	6.02	
52.0	7.5	2.44	7.5	2.32	7.5	2.12	7.5	2.01	7.5	1.97	7.5	1.87	7.5	1.78	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	10.5	1.04	11.9	1.18	14.3	1.42	15.7	1.56	16.2	1.62	17.5	1.75	18.8	1.88
	-5.0	10.5	1.05	11.9	1.19	14.3	1.42	15.7	1.57	16.2	1.62	17.5	1.75	18.8	1.88
	0.0	10.5	1.05	11.9	1.19	14.3	1.43	15.7	1.57	16.2	1.62	17.5	1.75	18.8	1.88
	5.0	10.5	1.06	11.9	1.20	14.3	1.43	15.7	1.57	16.2	1.63	17.5	1.76	18.8	1.89
	10.0	10.5	1.07	11.9	1.21	14.3	1.44	15.7	1.58	16.2	1.64	17.5	1.76	18.8	1.89
	15.0	10.5	1.11	11.9	1.24	14.3	1.47	15.7	1.61	16.2	1.66	17.5	1.79	18.8	1.91
	20.0	10.5	1.25	11.9	1.37	14.3	1.56	15.7	1.69	16.2	1.73	17.5	1.85	18.8	1.97
	25.0	10.5	1.33	11.9	1.47	14.3	1.71	15.7	1.85	16.2	1.90	17.5	2.03	18.8	2.16
	30.0	10.5	1.58	11.9	1.76	14.3	2.05	15.7	2.23	16.2	2.29	17.5	2.45	18.8	2.62
	35.0	10.5	1.97	11.9	2.20	14.3	2.57	15.7	2.79	16.2	2.88	17.5	3.08	18.8	3.29
	40.0	10.5	2.37	11.9	2.64	14.3	3.10	15.7	3.38	16.2	3.48	17.5	3.73	18.8	3.98
	43.0	10.5	2.62	11.9	2.93	14.3	3.44	15.7	3.75	16.2	3.86	17.5	4.15	18.8	4.43
46.0	10.5	2.88	11.9	3.23	14.3	3.80	15.7	4.15	16.2	4.27	17.5	4.58	18.8	4.90	
52.0	7.5	2.30	7.5	2.18	7.5	1.99	7.5	1.89	7.5	1.85	7.5	1.76	7.5	1.68	

## 1. Capacity Ratio of Outdoor Unit

## U-8MF3E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	9.0	0.80	10.2	0.91	12.2	1.09	13.4	1.20	13.9	1.24	15.0	1.33	16.1	1.43
	-5.0	9.0	0.80	10.2	0.91	12.2	1.09	13.4	1.20	13.9	1.24	15.0	1.34	16.1	1.44
	0.0	9.0	0.80	10.2	0.91	12.2	1.09	13.4	1.20	13.9	1.24	15.0	1.34	16.1	1.44
	5.0	9.0	0.81	10.2	0.92	12.2	1.10	13.4	1.20	13.9	1.24	15.0	1.34	16.1	1.44
	10.0	9.0	0.82	10.2	0.93	12.2	1.10	13.4	1.21	13.9	1.25	15.0	1.35	16.1	1.45
	15.0	9.0	0.85	10.2	0.95	12.2	1.12	13.4	1.23	13.9	1.27	15.0	1.36	16.1	1.46
	20.0	9.0	0.94	10.2	1.03	12.2	1.18	13.4	1.27	13.9	1.31	15.0	1.40	16.1	1.49
	25.0	9.0	1.05	10.2	1.16	12.2	1.34	13.4	1.45	13.9	1.49	15.0	1.55	16.1	1.61
	30.0	9.0	1.16	10.2	1.27	12.2	1.44	13.4	1.55	13.9	1.58	15.0	1.67	16.1	1.76
	35.0	9.0	1.45	10.2	1.59	12.2	1.82	13.4	1.95	13.9	2.00	15.0	2.12	16.1	2.24
	40.0	9.0	1.74	10.2	1.92	12.2	2.21	13.4	2.38	13.9	2.44	15.0	2.59	16.1	2.74
43.0	9.0	1.92	10.2	2.12	12.2	2.45	13.4	2.64	13.9	2.71	15.0	2.88	16.1	3.05	
46.0	9.0	2.12	10.2	2.34	12.2	2.71	13.4	2.93	13.9	3.00	15.0	3.20	16.1	3.38	
52.0	7.5	2.05	7.5	1.94	7.5	1.77	7.5	1.68	7.5	1.65	7.5	1.57	7.5	1.49	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	7.5	0.60	8.5	0.68	10.2	0.82	11.2	0.90	11.6	0.93	12.5	1.00	13.4	1.08
	-5.0	7.5	0.60	8.5	0.68	10.2	0.82	11.2	0.90	11.6	0.93	12.5	1.00	13.4	1.08
	0.0	7.5	0.60	8.5	0.69	10.2	0.82	11.2	0.90	11.6	0.93	12.5	1.01	13.4	1.08
	5.0	7.5	0.61	8.5	0.69	10.2	0.82	11.2	0.90	11.6	0.93	12.5	1.01	13.4	1.08
	10.0	7.5	0.62	8.5	0.70	10.2	0.83	11.2	0.91	11.6	0.94	12.5	1.01	13.4	1.09
	15.0	7.5	0.64	8.5	0.71	10.2	0.84	11.2	0.92	11.6	0.95	12.5	1.02	13.4	1.10
	20.0	7.5	0.70	8.5	0.77	10.2	0.88	11.2	0.95	11.6	0.98	12.5	1.05	13.4	1.12
	25.0	7.5	0.83	8.5	0.91	10.2	1.02	11.2	1.06	11.6	1.08	12.5	1.13	13.4	1.18
	30.0	7.5	0.85	8.5	0.92	10.2	1.06	11.2	1.14	11.6	1.17	12.5	1.25	13.4	1.32
	35.0	7.5	1.06	8.5	1.14	10.2	1.28	11.2	1.36	11.6	1.38	12.5	1.45	13.4	1.51
	40.0	7.5	1.27	8.5	1.38	10.2	1.56	11.2	1.66	11.6	1.69	12.5	1.78	13.4	1.86
43.0	7.5	1.40	8.5	1.53	10.2	1.73	11.2	1.85	11.6	1.89	12.5	1.98	13.4	2.08	
46.0	7.5	1.54	8.5	1.69	10.2	1.91	11.2	2.04	11.6	2.09	12.5	2.20	13.4	2.31	
52.0	7.5	1.84	7.5	1.75	7.5	1.60	7.5	1.51	7.5	1.48	7.5	1.41	7.5	1.34	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	6.0	0.44	6.8	0.50	8.1	0.60	9.0	0.66	9.3	0.68	10.0	0.74	10.8	0.79
	-5.0	6.0	0.44	6.8	0.50	8.1	0.60	9.0	0.66	9.3	0.68	10.0	0.74	10.8	0.79
	0.0	6.0	0.44	6.8	0.50	8.1	0.60	9.0	0.66	9.3	0.68	10.0	0.74	10.8	0.79
	5.0	6.0	0.45	6.8	0.51	8.1	0.60	9.0	0.66	9.3	0.69	10.0	0.74	10.8	0.79
	10.0	6.0	0.45	6.8	0.51	8.1	0.61	9.0	0.67	9.3	0.69	10.0	0.74	10.8	0.80
	15.0	6.0	0.47	6.8	0.53	8.1	0.62	9.0	0.68	9.3	0.70	10.0	0.75	10.8	0.80
	20.0	6.0	0.52	6.8	0.56	8.1	0.64	9.0	0.70	9.3	0.72	10.0	0.77	10.8	0.82
	25.0	6.0	0.65	6.8	0.70	8.1	0.73	9.0	0.76	9.3	0.78	10.0	0.81	10.8	0.85
	30.0	6.0	0.66	6.8	0.72	8.1	0.82	9.0	0.88	9.3	0.90	10.0	0.96	10.8	1.00
	35.0	6.0	0.77	6.8	0.82	8.1	0.90	9.0	0.94	9.3	0.95	10.0	0.98	10.8	1.02
	40.0	6.0	0.92	6.8	0.99	8.1	1.09	9.0	1.14	9.3	1.16	10.0	1.21	10.8	1.25
43.0	6.0	1.01	6.8	1.09	8.1	1.21	9.0	1.28	9.3	1.30	10.0	1.35	10.8	1.40	
46.0	6.0	1.11	6.8	1.20	8.1	1.34	9.0	1.41	9.3	1.44	10.0	1.50	10.8	1.56	
52.0	6.0	1.32	6.8	1.44	7.5	1.46	7.5	1.39	7.5	1.36	7.5	1.29	7.5	1.23	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	4.5	0.31	5.1	0.35	6.1	0.42	6.7	0.46	6.9	0.48	7.5	0.52	8.1	0.56
	-5.0	4.5	0.31	5.1	0.35	6.1	0.42	6.7	0.47	6.9	0.48	7.5	0.52	8.1	0.56
	0.0	4.5	0.31	5.1	0.36	6.1	0.42	6.7	0.47	6.9	0.48	7.5	0.52	8.1	0.56
	5.0	4.5	0.32	5.1	0.36	6.1	0.43	6.7	0.47	6.9	0.48	7.5	0.52	8.1	0.56
	10.0	4.5	0.32	5.1	0.36	6.1	0.43	6.7	0.47	6.9	0.49	7.5	0.52	8.1	0.56
	15.0	4.5	0.33	5.1	0.37	6.1	0.44	6.7	0.48	6.9	0.49	7.5	0.53	8.1	0.57
	20.0	4.5	0.37	5.1	0.40	6.1	0.46	6.7	0.49	6.9	0.51	7.5	0.54	8.1	0.58
	25.0	4.5	0.50	5.1	0.49	6.1	0.51	6.7	0.53	6.9	0.54	7.5	0.57	8.1	0.60
	30.0	4.5	0.52	5.1	0.56	6.1	0.63	6.7	0.67	6.9	0.69	7.5	0.68	8.1	0.68
	35.0	4.5	0.56	5.1	0.59	6.1	0.64	6.7	0.68	6.9	0.70	7.5	0.74	8.1	0.78
	40.0	4.5	0.67	5.1	0.70	6.1	0.76	6.7	0.78	6.9	0.79	7.5	0.81	8.1	0.83
43.0	4.5	0.73	5.1	0.77	6.1	0.84	6.7	0.87	6.9	0.88	7.5	0.90	8.1	0.93	
46.0	4.5	0.79	5.1	0.85	6.1	0.92	6.7	0.96	6.9	0.97	7.5	1.00	8.1	1.03	
52.0	4.5	0.94	5.1	1.01	6.1	1.11	6.7	1.16	6.9	1.18	7.5	1.22	7.5	1.15	

# 1. Capacity Ratio of Outdoor Unit

## 1-12. U-8MF3E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	15.2	6.49	13.6	6.26	12.6	6.07	11.9	5.91	10.8	5.62	10.0	5.39	8.0	4.67
	-14.7	-15.0	18.1	6.84	16.2	6.55	15.0	6.32	14.2	6.14	12.9	5.83	12.0	5.58	9.6	4.83
	-9.6	-10.0	21.5	7.34	19.3	6.98	17.9	6.71	16.9	6.50	15.4	6.14	14.4	5.87	11.6	5.05
	-4.4	-5.0	25.1	7.77	22.6	7.43	21.0	7.09	19.9	6.85	18.1	6.44	16.9	6.13	13.6	5.23
	-1.8	-2.5	27.4	8.09	24.6	7.69	22.9	7.41	21.7	7.14	19.8	6.67	18.4	6.34	14.9	5.38
	0.8	0.0	29.7	8.43	26.8	7.89	24.9	7.55	23.6	7.34	21.5	6.93	20.1	6.59	15.7	5.38
	2.8	2.0	31.1	8.43	28.4	8.02	26.4	7.55	25.0	7.31	22.2	6.70	20.4	6.28	15.7	5.13
	6.0	5.0	33.4	8.43	29.6	7.56	26.9	6.80	25.0	6.42	22.2	5.93	20.4	5.57	15.7	4.60
	7.0	6.0	34.2	8.43	29.6	7.20	26.9	6.49	25.0	6.02	22.2	5.67	20.4	5.34	15.7	4.43
	8.6	7.5	34.3	7.79	29.6	6.66	26.9	6.01	25.0	5.70	22.2	5.30	20.4	5.01	15.7	4.19
	11.2	10.0	34.3	6.75	29.6	5.82	26.9	5.28	25.0	5.03	22.2	4.72	20.4	4.49	15.7	3.81
	16.4	15.0	34.3	4.94	29.6	4.35	26.9	4.00	25.0	3.85	22.2	3.69	20.4	3.55	15.7	3.08
24.0	18.0	34.3	4.79	29.6	4.20	26.9	3.84	25.0	3.60	22.2	3.25	20.4	3.01	15.7	2.57	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	14.8	6.37	13.2	6.15	12.2	5.96	11.5	5.80	10.4	5.53	9.6	5.31	7.7	4.61
	-14.7	-15.0	17.6	6.74	15.7	6.44	14.5	6.22	13.7	6.04	12.4	5.73	11.6	5.49	9.3	4.76
	-9.6	-10.0	21.0	7.27	18.8	6.90	17.4	6.62	16.4	6.41	14.9	6.06	13.9	5.79	11.2	4.98
	-4.4	-5.0	25.1	7.77	22.5	7.54	20.9	7.22	19.7	6.95	17.9	6.52	16.7	6.20	13.4	5.28
	-1.8	-2.5	27.4	8.06	24.6	7.69	22.8	7.44	21.5	7.23	19.6	6.78	18.2	6.42	14.2	5.26
	0.8	0.0	29.9	8.46	26.7	7.80	24.2	7.29	22.5	6.97	20.0	6.44	18.3	6.06	14.2	4.98
	2.8	2.0	30.8	8.21	26.7	7.14	24.2	6.70	22.5	6.42	20.0	5.96	18.3	5.63	14.2	4.72
	6.0	5.0	30.8	7.06	26.7	6.22	24.2	5.94	22.5	5.74	20.0	5.40	18.3	5.11	14.2	4.27
	7.0	6.0	30.8	7.02	26.7	6.12	24.2	5.77	22.5	5.55	20.0	5.18	18.3	4.90	14.2	4.12
	8.6	7.5	30.8	6.45	26.7	5.64	24.2	5.35	22.5	5.16	20.0	4.84	18.3	4.60	14.2	3.90
	11.2	10.0	30.8	5.55	26.7	4.91	24.2	4.70	22.5	4.56	20.0	4.32	18.3	4.13	14.2	3.55
	16.4	15.0	30.8	4.55	26.7	3.99	24.2	3.66	22.5	3.50	20.0	3.38	18.3	3.26	14.2	2.87
24.0	18.0	30.8	4.55	26.7	3.99	24.2	3.66	22.5	3.43	20.0	3.10	18.3	2.88	14.2	2.37	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	14.5	6.21	12.8	6.00	11.8	5.82	11.1	5.68	10.0	5.41	9.3	5.20	7.4	4.54
	-14.7	-15.0	17.2	6.67	15.3	6.38	14.1	6.15	13.3	5.97	12.1	5.67	11.2	5.43	8.9	4.71
	-9.6	-10.0	20.6	7.23	18.4	6.85	17.0	6.57	16.0	6.36	14.5	6.00	13.5	5.74	10.8	4.94
	-4.4	-5.0	25.3	7.79	22.5	7.59	20.8	7.34	19.7	7.10	17.8	6.61	16.3	6.19	12.6	5.08
	-1.8	-2.5	27.4	7.99	23.7	7.34	21.5	6.97	20.0	6.69	17.8	6.22	16.3	5.86	12.6	4.81
	0.8	0.0	27.4	7.13	23.7	6.61	21.5	6.31	20.0	6.10	17.8	5.73	16.3	5.44	12.6	4.58
	2.8	2.0	27.4	6.47	23.7	6.11	21.5	5.90	20.0	5.71	17.8	5.38	16.3	5.11	12.6	4.33
	6.0	5.0	27.4	5.73	23.7	5.46	21.5	5.30	20.0	5.15	17.8	4.87	16.3	4.63	12.6	3.93
	7.0	6.0	27.4	5.71	23.7	5.33	21.5	5.13	20.0	4.96	17.8	4.67	16.3	4.45	12.6	3.79
	8.6	7.5	27.4	5.22	23.7	4.92	21.5	4.76	20.0	4.62	17.8	4.37	16.3	4.18	12.6	3.59
	11.2	10.0	27.4	4.45	23.7	4.28	21.5	4.19	20.0	4.09	17.8	3.91	16.3	3.76	12.6	3.27
	16.4	15.0	27.4	4.27	23.7	3.75	21.5	3.44	20.0	3.24	17.8	3.05	16.3	2.97	12.6	2.64
24.0	18.0	27.4	4.27	23.7	3.75	21.5	3.44	20.0	3.24	17.8	2.92	16.3	2.72	12.6	2.20	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	14.2	6.25	12.6	6.02	11.6	5.84	10.9	5.69	9.8	5.43	9.1	5.22	7.2	4.55
	-14.7	-15.0	17.0	6.70	15.1	6.39	13.9	6.16	13.1	5.98	11.8	5.67	11.0	5.44	8.7	4.72
	-9.6	-10.0	20.4	7.18	18.1	6.90	16.7	6.60	15.8	6.39	14.2	6.02	13.2	5.75	10.5	4.95
	-4.4	-5.0	24.0	7.24	20.7	6.87	18.8	6.57	17.5	6.35	15.6	5.92	14.3	5.53	11.0	4.60
	-1.8	-2.5	24.0	6.54	20.7	6.31	18.8	6.08	17.5	5.88	15.6	5.53	14.3	5.26	11.0	4.38
	0.8	0.0	24.0	5.94	20.7	5.78	18.8	5.59	17.5	5.42	15.6	5.12	14.3	4.88	11.0	4.15
	2.8	2.0	24.0	5.49	20.7	5.37	18.8	5.21	17.5	5.07	15.6	4.80	14.3	4.59	11.0	3.92
	6.0	5.0	24.0	4.83	20.7	4.79	18.8	4.67	17.5	4.56	15.6	4.33	14.3	4.14	11.0	3.55
	7.0	6.0	24.0	4.74	20.7	4.63	18.8	4.50	17.5	4.38	15.6	4.16	14.3	3.98	11.0	3.43
	8.6	7.5	24.0	4.32	20.7	4.27	18.8	4.18	17.5	4.08	15.6	3.90	14.3	3.74	11.0	3.26
	11.2	10.0	24.0	3.95	20.7	3.72	18.8	3.68	17.5	3.62	15.6	3.49	14.3	3.37	11.0	2.97
	16.4	15.0	24.0	3.95	20.7	3.48	18.8	3.20	17.5	3.01	15.6	2.72	14.3	2.66	11.0	2.40
24.0	18.0	24.0	3.95	20.7	3.48	18.8	3.20	17.5	3.01	15.6	2.72	14.3	2.54	11.0	2.06	



## 1. Capacity Ratio of Outdoor Unit

## U-8MF3E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	14.3	6.28	12.7	6.04	11.6	5.85	10.9	5.70	9.8	5.43	9.1	5.22	7.2	4.56
	-14.7	-15.0	17.2	6.69	15.2	6.40	14.0	6.16	13.1	5.98	11.8	5.67	11.0	5.44	8.7	4.72
	-9.6	-10.0	20.6	7.08	17.8	6.74	16.1	6.35	15.0	6.08	13.3	5.65	12.2	5.35	9.4	4.50
	-4.4	-5.0	20.6	6.02	17.8	5.82	16.1	5.62	15.0	5.44	13.3	5.12	12.2	4.84	9.4	4.03
	-1.8	-2.5	20.6	5.50	17.8	5.35	16.1	5.19	15.0	5.04	13.3	4.76	12.2	4.54	9.4	3.85
	0.8	0.0	20.6	4.98	17.8	4.90	16.1	4.76	15.0	4.64	13.3	4.40	12.2	4.21	9.4	3.62
	2.8	2.0	20.6	4.59	17.8	4.54	16.1	4.44	15.0	4.33	13.3	4.13	12.2	3.96	9.4	3.42
	6.0	5.0	20.6	4.03	17.8	4.04	16.1	3.96	15.0	3.88	13.3	3.70	12.2	3.56	9.4	3.08
	7.0	6.0	20.6	3.87	17.8	3.86	16.1	3.78	15.0	3.71	13.3	3.55	12.2	3.42	9.4	2.99
	8.6	7.5	20.6	3.53	17.8	3.56	16.1	3.52	15.0	3.46	13.3	3.34	12.2	3.22	9.4	2.84
	11.2	10.0	20.6	3.51	17.8	3.11	16.1	3.11	15.0	3.08	13.3	3.00	12.2	2.91	9.4	2.60
	16.4	15.0	20.6	3.51	17.8	3.09	16.1	2.85	15.0	2.68	13.3	2.44	12.2	2.30	9.4	2.10
24.0	18.0	20.6	3.51	17.8	3.09	16.1	2.85	15.0	2.68	13.3	2.44	12.2	2.27	9.4	1.86	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	15.0	6.35	13.2	6.09	12.1	5.90	11.3	5.74	10.2	5.47	9.4	5.26	7.4	4.59
	-14.7	-15.0	17.1	6.52	14.8	6.06	13.4	5.76	12.5	5.55	11.1	5.20	10.2	4.94	7.9	4.21
	-9.6	-10.0	17.1	5.69	14.8	5.48	13.4	5.22	12.5	4.99	11.1	4.65	10.2	4.40	7.9	3.72
	-4.4	-5.0	17.1	4.83	14.8	4.71	13.4	4.56	12.5	4.44	11.1	4.20	10.2	4.00	7.9	3.35
	-1.8	-2.5	17.1	4.40	14.8	4.33	13.4	4.21	12.5	4.10	11.1	3.90	10.2	3.73	7.9	3.20
	0.8	0.0	17.1	3.99	14.8	3.95	13.4	3.87	12.5	3.78	11.1	3.61	10.2	3.46	7.9	3.00
	2.8	2.0	17.1	3.67	14.8	3.67	13.4	3.60	12.5	3.53	11.1	3.38	10.2	3.25	7.9	2.82
	6.0	5.0	17.1	3.18	14.8	3.21	13.4	3.17	12.5	3.12	11.1	3.00	10.2	2.90	7.9	2.55
	7.0	6.0	17.1	3.00	14.8	3.05	13.4	3.03	12.5	2.99	11.1	2.89	10.2	2.80	7.9	2.48
	8.6	7.5	17.1	2.95	14.8	2.83	13.4	2.82	12.5	2.80	11.1	2.72	10.2	2.64	7.9	2.36
	11.2	10.0	17.1	2.95	14.8	2.62	13.4	2.50	12.5	2.50	11.1	2.45	10.2	2.39	7.9	2.17
	16.4	15.0	17.1	2.95	14.8	2.62	13.4	2.41	12.5	2.28	11.1	2.08	10.2	1.94	7.9	1.75
24.0	18.0	17.1	2.95	14.8	2.62	13.4	2.41	12.5	2.28	11.1	2.08	10.2	1.94	7.9	1.61	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	13.7	5.27	11.9	4.98	10.7	4.78	10.0	4.63	8.9	4.37	8.1	4.18	6.3	3.60
	-14.7	-15.0	13.7	4.78	11.9	4.45	10.7	4.24	10.0	4.09	8.9	3.84	8.1	3.66	6.3	3.14
	-9.6	-10.0	13.7	4.13	11.9	4.01	10.7	3.86	10.0	3.68	8.9	3.45	8.1	3.27	6.3	2.78
	-4.4	-5.0	13.7	3.50	11.9	3.44	10.7	3.35	10.0	3.26	8.9	3.10	8.1	2.97	6.3	2.51
	-1.8	-2.5	13.7	3.19	11.9	3.16	10.7	3.09	10.0	3.02	8.9	2.88	8.1	2.77	6.3	2.41
	0.8	0.0	13.7	2.89	11.9	2.88	10.7	2.83	10.0	2.77	8.9	2.66	8.1	2.56	6.3	2.24
	2.8	2.0	13.7	2.62	11.9	2.64	10.7	2.61	10.0	2.56	8.9	2.47	8.1	2.39	6.3	2.11
	6.0	5.0	13.7	2.25	11.9	2.30	10.7	2.29	10.0	2.27	8.9	2.21	8.1	2.14	6.3	1.92
	7.0	6.0	13.7	2.25	11.9	2.19	10.7	2.19	10.0	2.18	8.9	2.12	8.1	2.07	6.3	1.86
	8.6	7.5	13.7	2.25	11.9	2.03	10.7	2.05	10.0	2.04	8.9	2.00	8.1	1.96	6.3	1.78
	11.2	10.0	13.7	2.25	11.9	2.00	10.7	1.85	10.0	1.83	8.9	1.81	8.1	1.78	6.3	1.64
	16.4	15.0	13.7	2.25	11.9	2.00	10.7	1.85	10.0	1.75	8.9	1.60	8.1	1.51	6.3	1.33
24.0	18.0	13.7	2.25	11.9	2.00	10.7	1.85	10.0	1.75	8.9	1.60	8.1	1.51	6.3	1.26	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	10.3	3.61	8.9	3.42	8.1	3.29	7.5	3.19	6.7	3.02	6.1	2.89	4.7	2.51
	-14.7	-15.0	10.3	3.27	8.9	3.07	8.1	2.93	7.5	2.83	6.7	2.67	6.1	2.55	4.7	2.20
	-9.6	-10.0	10.3	2.82	8.9	2.75	8.1	2.67	7.5	2.58	6.7	2.41	6.1	2.29	4.7	1.97
	-4.4	-5.0	10.3	2.39	8.9	2.36	8.1	2.31	7.5	2.25	6.7	2.15	6.1	2.07	4.7	1.78
	-1.8	-2.5	10.3	2.15	8.9	2.15	8.1	2.11	7.5	2.07	6.7	1.99	6.1	1.92	4.7	1.70
	0.8	0.0	10.3	1.92	8.9	1.94	8.1	1.92	7.5	1.90	6.7	1.83	6.1	1.78	4.7	1.58
	2.8	2.0	10.3	1.74	8.9	1.79	8.1	1.78	7.5	1.76	6.7	1.71	6.1	1.67	4.7	1.50
	6.0	5.0	10.3	1.62	8.9	1.56	8.1	1.58	7.5	1.57	6.7	1.54	6.1	1.51	4.7	1.37
	7.0	6.0	10.3	1.62	8.9	1.50	8.1	1.51	7.5	1.51	6.7	1.49	6.1	1.46	4.7	1.33
	8.6	7.5	10.3	1.62	8.9	1.45	8.1	1.42	7.5	1.42	6.7	1.41	6.1	1.39	4.7	1.28
	11.2	10.0	10.3	1.62	8.9	1.45	8.1	1.35	7.5	1.29	6.7	1.28	6.1	1.27	4.7	1.18
	16.4	15.0	10.3	1.62	8.9	1.45	8.1	1.35	7.5	1.28	6.7	1.18	6.1	1.12	4.7	0.97
24.0	18.0	10.3	1.62	8.9	1.45	8.1	1.35	7.5	1.28	6.7	1.18	6.1	1.12	4.7	0.95	



# 1. Capacity Ratio of Outdoor Unit

## 1-13. U-10MF3E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	18.7	2.06	21.2	2.34	25.5	2.81	28.0	3.09	28.9	3.19	31.3	3.45	33.6	3.71
	-5.0	18.7	2.07	21.2	2.35	25.5	2.82	28.0	3.10	28.9	3.20	31.3	3.46	33.6	3.71
	0.0	18.7	2.08	21.2	2.36	25.5	2.82	28.0	3.10	28.9	3.21	31.3	3.46	33.6	3.72
	5.0	18.7	2.10	21.2	2.37	25.5	2.84	28.0	3.12	28.9	3.22	31.3	3.48	33.6	3.74
	10.0	18.7	2.14	21.2	2.42	25.5	2.88	28.0	3.16	28.9	3.26	31.3	3.52	33.6	3.77
	15.0	18.7	2.28	21.2	2.55	25.5	3.01	28.0	3.28	28.9	3.38	31.3	3.63	33.6	3.88
	20.0	18.7	2.42	21.2	2.70	25.5	3.36	28.0	3.82	28.9	3.99	31.3	4.45	33.6	4.93
	25.0	18.7	3.01	21.2	3.50	25.5	4.38	28.0	4.96	28.9	5.18	31.3	5.75	33.6	6.35
	30.0	18.7	3.81	21.2	4.41	25.5	5.50	28.0	6.20	28.9	6.47	31.3	7.16	33.6	7.87
	35.0	18.7	4.66	21.2	5.39	25.5	6.70	28.0	7.54	28.9	7.85	31.3	8.67	33.6	9.51
	40.0	18.7	5.56	21.2	6.43	25.5	7.97	28.0	8.95	28.9	9.32	31.3	10.28	32.5	10.54
	43.0	18.7	6.13	21.2	7.09	25.5	8.78	28.0	9.86	28.9	10.27	30.1	10.54	31.0	10.54
46.0	18.7	6.73	21.2	7.78	23.4	8.33	23.4	7.87	23.4	7.70	23.4	7.30	23.4	6.92	
52.0	8.5	2.90	8.5	2.75	8.5	2.52	8.5	2.39	8.5	2.34	8.5	2.23	8.5	2.12	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	16.8	1.86	19.1	2.11	22.9	2.53	25.2	2.79	26.0	2.88	28.1	3.11	30.2	3.34
	-5.0	16.8	1.86	19.1	2.12	22.9	2.54	25.2	2.79	26.0	2.88	28.1	3.12	30.2	3.35
	0.0	16.8	1.87	19.1	2.12	22.9	2.55	25.2	2.80	26.0	2.89	28.1	3.12	30.2	3.35
	5.0	16.8	1.89	19.1	2.14	22.9	2.56	25.2	2.81	26.0	2.90	28.1	3.13	30.2	3.37
	10.0	16.8	1.92	19.1	2.17	22.9	2.59	25.2	2.84	26.0	2.93	28.1	3.16	30.2	3.39
	15.0	16.8	2.03	19.1	2.27	22.9	2.68	25.2	2.92	26.0	3.01	28.1	3.24	30.2	3.46
	20.0	16.8	2.22	19.1	2.47	22.9	2.89	25.2	3.15	26.0	3.24	28.1	3.47	30.2	3.79
	25.0	16.8	2.53	19.1	2.90	22.9	3.55	25.2	3.98	26.0	4.14	28.1	4.55	30.2	4.97
	30.0	16.8	3.22	19.1	3.69	22.9	4.51	25.2	5.04	26.0	5.23	28.1	5.74	30.2	6.26
	35.0	16.8	3.96	19.1	4.53	22.9	5.54	25.2	6.17	26.0	6.41	28.1	7.01	30.2	7.63
	40.0	16.8	4.74	19.1	5.42	22.9	6.62	25.2	7.37	26.0	7.65	28.1	8.36	30.2	9.10
	43.0	16.8	5.23	19.1	5.99	22.9	7.31	25.2	8.13	26.0	8.44	28.1	9.23	30.2	10.05
46.0	16.8	5.75	19.1	6.58	22.9	8.04	23.4	7.87	23.4	7.70	23.4	7.30	23.4	6.92	
52.0	8.5	2.90	8.5	2.75	8.5	2.52	8.5	2.39	8.5	2.34	8.5	2.23	8.5	2.12	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	14.9	1.66	17.0	1.88	20.4	2.26	22.4	2.48	23.1	2.57	25.0	2.77	26.9	2.98
	-5.0	14.9	1.66	17.0	1.88	20.4	2.26	22.4	2.49	23.1	2.57	25.0	2.78	26.9	2.98
	0.0	14.9	1.67	17.0	1.89	20.4	2.27	22.4	2.49	23.1	2.57	25.0	2.78	26.9	2.99
	5.0	14.9	1.68	17.0	1.90	20.4	2.28	22.4	2.50	23.1	2.58	25.0	2.79	26.9	3.00
	10.0	14.9	1.71	17.0	1.93	20.4	2.30	22.4	2.52	23.1	2.61	25.0	2.81	26.9	3.02
	15.0	14.9	1.79	17.0	2.01	20.4	2.37	22.4	2.58	23.1	2.66	25.0	2.86	26.9	3.06
	20.0	14.9	2.01	17.0	2.24	20.4	2.60	22.4	2.79	23.1	2.86	25.0	3.04	26.9	3.22
	25.0	14.9	2.10	17.0	2.38	20.4	2.85	22.4	3.14	23.1	3.25	25.0	3.54	26.9	3.82
	30.0	14.9	2.69	17.0	3.04	20.4	3.65	22.4	4.03	23.1	4.17	25.0	4.53	26.9	4.89
	35.0	14.9	3.33	17.0	3.77	20.4	4.52	22.4	4.99	23.1	5.16	25.0	5.59	26.9	6.04
	40.0	14.9	3.99	17.0	4.52	20.4	5.43	22.4	5.99	23.1	6.19	25.0	6.72	26.9	7.25
	43.0	14.9	4.41	17.0	5.00	20.4	6.01	22.4	6.63	23.1	6.86	25.0	7.44	26.9	8.03
46.0	14.9	4.86	17.0	5.51	20.4	6.62	22.4	7.31	23.1	7.56	23.4	7.30	23.4	6.92	
52.0	8.5	2.90	8.5	2.75	8.5	2.52	8.5	2.39	8.5	2.34	8.5	2.23	8.5	2.12	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	13.1	1.37	14.8	1.55	17.8	1.86	19.6	2.05	20.3	2.12	21.9	2.29	23.5	2.46
	-5.0	13.1	1.37	14.8	1.56	17.8	1.87	19.6	2.05	20.3	2.12	21.9	2.29	23.5	2.46
	0.0	13.1	1.38	14.8	1.56	17.8	1.87	19.6	2.06	20.3	2.12	21.9	2.30	23.5	2.47
	5.0	13.1	1.39	14.8	1.57	17.8	1.88	19.6	2.06	20.3	2.13	21.9	2.30	23.5	2.47
	10.0	13.1	1.41	14.8	1.59	17.8	1.90	19.6	2.08	20.3	2.15	21.9	2.32	23.5	2.49
	15.0	13.1	1.47	14.8	1.65	17.8	1.94	19.6	2.12	20.3	2.19	21.9	2.35	23.5	2.52
	20.0	13.1	1.70	14.8	1.84	17.8	2.09	19.6	2.25	20.3	2.31	21.9	2.46	23.5	2.61
	25.0	13.1	1.72	14.8	1.91	17.8	2.22	19.6	2.41	20.3	2.48	21.9	2.65	23.5	2.82
	30.0	13.1	2.10	14.8	2.34	17.8	2.74	19.6	2.99	20.3	3.08	21.9	3.31	23.5	3.54
	35.0	13.1	2.61	14.8	2.92	17.8	3.43	19.6	3.74	20.3	3.85	21.9	4.14	23.5	4.42
	40.0	13.1	3.13	14.8	3.51	17.8	4.14	19.6	4.51	20.3	4.65	21.9	5.00	23.5	5.35
	43.0	13.1	3.47	14.8	3.89	17.8	4.59	19.6	5.01	20.3	5.16	21.9	5.55	23.5	5.94
46.0	13.1	3.81	14.8	4.28	17.8	5.06	19.6	5.53	20.3	5.71	21.9	6.14	23.5	6.57	
52.0	8.5	2.73	8.5	2.59	8.5	2.37	8.5	2.25	8.5	2.20	8.5	2.10	8.5	2.00	

# 1. Capacity Ratio of Outdoor Unit

## U-10MF3E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	11.2	1.05	12.7	1.19	15.3	1.42	16.8	1.57	17.4	1.62	18.8	1.75	20.2	1.88
	-5.0	11.2	1.05	12.7	1.19	15.3	1.43	16.8	1.57	17.4	1.62	18.8	1.75	20.2	1.88
	0.0	11.2	1.05	12.7	1.20	15.3	1.43	16.8	1.57	17.4	1.62	18.8	1.75	20.2	1.88
	5.0	11.2	1.06	12.7	1.20	15.3	1.44	16.8	1.58	17.4	1.63	18.8	1.76	20.2	1.89
	10.0	11.2	1.08	12.7	1.22	15.3	1.45	16.8	1.59	17.4	1.64	18.8	1.77	20.2	1.90
	15.0	11.2	1.12	12.7	1.26	15.3	1.48	16.8	1.62	17.4	1.67	18.8	1.79	20.2	1.92
	20.0	11.2	1.28	12.7	1.38	15.3	1.57	16.8	1.69	17.4	1.74	18.8	1.86	20.2	1.97
	25.0	11.2	1.36	12.7	1.51	15.3	1.74	16.8	1.89	17.4	1.94	18.8	2.07	20.2	2.16
	30.0	11.2	1.53	12.7	1.68	15.3	1.92	16.8	2.06	17.4	2.12	18.8	2.24	20.2	2.37
	35.0	11.2	1.91	12.7	2.10	15.3	2.42	16.8	2.60	17.4	2.67	18.8	2.84	20.2	3.00
	40.0	11.2	2.29	12.7	2.53	15.3	2.93	16.8	3.16	17.4	3.25	18.8	3.46	20.2	3.66
43.0	11.2	2.53	12.7	2.81	15.3	3.26	16.8	3.52	17.4	3.61	18.8	3.85	20.2	4.08	
46.0	11.2	2.79	12.7	3.10	15.3	3.60	16.8	3.89	17.4	4.00	18.8	4.26	20.2	4.52	
52.0	8.5	2.43	8.5	2.31	8.5	2.11	8.5	2.00	8.5	1.96	8.5	1.87	8.5	1.78	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	9.3	0.79	10.6	0.89	12.7	1.07	14.0	1.18	14.5	1.22	15.6	1.31	16.8	1.41
	-5.0	9.3	0.79	10.6	0.90	12.7	1.07	14.0	1.18	14.5	1.22	15.6	1.32	16.8	1.41
	0.0	9.3	0.79	10.6	0.90	12.7	1.08	14.0	1.18	14.5	1.22	15.6	1.32	16.8	1.42
	5.0	9.3	0.80	10.6	0.90	12.7	1.08	14.0	1.19	14.5	1.23	15.6	1.32	16.8	1.42
	10.0	9.3	0.81	10.6	0.92	12.7	1.09	14.0	1.20	14.5	1.23	15.6	1.33	16.8	1.43
	15.0	9.3	0.85	10.6	0.94	12.7	1.11	14.0	1.21	14.5	1.25	15.6	1.35	16.8	1.44
	20.0	9.3	0.95	10.6	1.03	12.7	1.17	14.0	1.26	14.5	1.30	15.6	1.38	16.8	1.47
	25.0	9.3	1.07	10.6	1.18	12.7	1.36	14.0	1.44	14.5	1.46	15.6	1.51	16.8	1.58
	30.0	9.3	1.11	10.6	1.20	12.7	1.37	14.0	1.48	14.5	1.52	15.6	1.62	16.8	1.72
	35.0	9.3	1.39	10.6	1.51	12.7	1.69	14.0	1.80	14.5	1.83	15.6	1.92	16.8	2.01
	40.0	9.3	1.66	10.6	1.82	12.7	2.06	14.0	2.19	14.5	2.24	15.6	2.36	16.8	2.47
43.0	9.3	1.84	10.6	2.01	12.7	2.29	14.0	2.44	14.5	2.50	15.6	2.64	16.8	2.77	
46.0	9.3	2.02	10.6	2.22	12.7	2.53	14.0	2.71	14.5	2.77	15.6	2.92	16.8	3.07	
52.0	8.5	2.19	8.5	2.08	8.5	1.90	8.5	1.80	8.5	1.77	8.5	1.68	8.5	1.60	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	7.5	0.58	8.5	0.66	10.2	0.79	11.2	0.86	11.6	0.89	12.5	0.96	13.4	1.04
	-5.0	7.5	0.58	8.5	0.66	10.2	0.79	11.2	0.87	11.6	0.89	12.5	0.97	13.4	1.04
	0.0	7.5	0.58	8.5	0.66	10.2	0.79	11.2	0.87	11.6	0.90	12.5	0.97	13.4	1.04
	5.0	7.5	0.59	8.5	0.67	10.2	0.79	11.2	0.87	11.6	0.90	12.5	0.97	13.4	1.04
	10.0	7.5	0.60	8.5	0.67	10.2	0.80	11.2	0.88	11.6	0.91	12.5	0.98	13.4	1.05
	15.0	7.5	0.62	8.5	0.70	10.2	0.82	11.2	0.89	11.6	0.92	12.5	0.99	13.4	1.06
	20.0	7.5	0.70	8.5	0.75	10.2	0.86	11.2	0.92	11.6	0.95	12.5	1.01	13.4	1.08
	25.0	7.5	0.84	8.5	0.92	10.2	0.99	11.2	1.03	11.6	1.04	12.5	1.09	13.4	1.14
	30.0	7.5	0.86	8.5	0.93	10.2	1.06	11.2	1.14	11.6	1.17	12.5	1.24	13.4	1.31
	35.0	7.5	1.01	8.5	1.08	10.2	1.18	11.2	1.23	11.6	1.25	12.5	1.29	13.4	1.33
	40.0	7.5	1.20	8.5	1.29	10.2	1.43	11.2	1.51	11.6	1.53	12.5	1.59	13.4	1.65
43.0	7.5	1.33	8.5	1.43	10.2	1.59	11.2	1.68	11.6	1.71	12.5	1.78	13.4	1.85	
46.0	7.5	1.46	8.5	1.58	10.2	1.76	11.2	1.86	11.6	1.90	12.5	1.98	13.4	2.06	
52.0	7.5	1.73	8.5	1.89	8.5	1.74	8.5	1.65	8.5	1.62	8.5	1.54	8.5	1.47	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	5.6	0.41	6.4	0.46	7.6	0.55	8.4	0.61	8.7	0.63	9.4	0.68	10.1	0.73
	-5.0	5.6	0.41	6.4	0.46	7.6	0.56	8.4	0.61	8.7	0.63	9.4	0.68	10.1	0.73
	0.0	5.6	0.41	6.4	0.47	7.6	0.56	8.4	0.61	8.7	0.63	9.4	0.68	10.1	0.73
	5.0	5.6	0.42	6.4	0.47	7.6	0.56	8.4	0.61	8.7	0.63	9.4	0.68	10.1	0.73
	10.0	5.6	0.43	6.4	0.48	7.6	0.57	8.4	0.62	8.7	0.64	9.4	0.69	10.1	0.74
	15.0	5.6	0.44	6.4	0.49	7.6	0.58	8.4	0.63	8.7	0.65	9.4	0.70	10.1	0.74
	20.0	5.6	0.50	6.4	0.54	7.6	0.61	8.4	0.65	8.7	0.67	9.4	0.71	10.1	0.76
	25.0	5.6	0.65	6.4	0.69	7.6	0.69	8.4	0.72	8.7	0.73	9.4	0.76	10.1	0.80
	30.0	5.6	0.67	6.4	0.72	7.6	0.81	8.4	0.87	8.7	0.89	9.4	0.94	10.1	0.93
	35.0	5.6	0.73	6.4	0.77	7.6	0.83	8.4	0.88	8.7	0.90	9.4	0.95	10.1	1.00
	40.0	5.6	0.86	6.4	0.91	7.6	0.99	8.4	1.02	8.7	1.03	9.4	1.06	10.1	1.08
43.0	5.6	0.95	6.4	1.01	7.6	1.09	8.4	1.14	8.7	1.15	9.4	1.19	10.1	1.21	
46.0	5.6	1.03	6.4	1.10	7.6	1.21	8.4	1.26	8.7	1.28	9.4	1.32	10.1	1.35	
52.0	5.6	1.22	6.4	1.31	7.6	1.45	8.4	1.52	8.7	1.54	8.5	1.44	8.5	1.37	



# 1. Capacity Ratio of Outdoor Unit

## 1-14. U-10MF3E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	21.3	9.54	19.1	9.17	17.7	8.85	16.7	8.60	15.2	8.14	14.1	7.77	11.3	6.66
	-14.7	-15.0	25.3	10.04	22.7	9.59	21.0	9.23	19.9	8.95	18.1	8.46	16.9	8.08	13.6	6.92
	-9.6	-10.0	29.9	10.75	26.9	10.20	25.0	9.78	23.7	9.46	21.6	8.91	20.2	8.50	16.4	7.25
	-4.4	-5.0	33.3	10.78	31.5	10.78	29.3	10.30	27.8	9.94	25.4	9.32	23.7	8.86	19.3	7.50
	-1.8	-2.5	35.0	10.78	33.2	10.78	32.0	10.72	30.3	10.32	27.7	9.65	25.7	9.06	19.8	7.21
	0.8	0.0	37.1	10.78	34.9	10.78	33.7	10.78	31.5	10.15	28.0	9.14	25.7	8.44	19.8	6.75
	2.8	2.0	38.8	10.78	36.6	10.78	33.8	10.01	31.5	9.42	28.0	8.58	25.7	8.00	19.8	6.45
	6.0	5.0	41.7	10.78	37.3	9.76	33.8	8.73	31.5	8.26	28.0	7.57	25.7	7.08	19.8	5.79
	7.0	6.0	42.8	10.78	37.3	9.29	33.8	8.32	31.5	7.70	28.0	7.24	25.7	6.79	19.8	5.58
	8.6	7.5	43.2	10.14	37.3	8.60	33.8	7.71	31.5	7.32	28.0	6.76	25.7	6.36	19.8	5.26
	11.2	10.0	43.2	8.78	37.3	7.49	33.8	6.75	31.5	6.44	28.0	6.00	25.7	5.68	19.8	4.77
	16.4	15.0	43.2	6.38	37.3	5.56	33.8	5.07	31.5	4.91	28.0	4.67	25.7	4.47	19.8	3.84
24.0	18.0	43.2	5.93	37.3	5.18	33.8	4.74	31.5	4.44	28.0	3.99	25.7	3.72	19.8	3.21	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	20.7	9.23	18.5	8.89	17.1	8.59	16.1	8.35	14.6	7.92	13.6	7.58	10.9	6.52
	-14.7	-15.0	24.6	9.75	22.0	9.31	20.4	8.97	19.2	8.70	17.5	8.23	16.3	7.87	13.1	6.76
	-9.6	-10.0	29.2	10.49	26.2	9.94	24.3	9.54	23.0	9.23	20.9	8.69	19.5	8.29	15.7	7.08
	-4.4	-5.0	34.1	11.27	31.4	10.85	29.1	10.36	27.6	9.98	25.1	9.36	23.1	8.73	17.9	7.04
	-1.8	-2.5	36.1	11.27	33.6	11.09	30.5	10.27	28.4	9.67	25.2	8.77	23.1	8.17	17.9	6.59
	0.8	0.0	38.2	11.27	33.6	10.01	30.5	9.36	28.4	8.91	25.2	8.19	23.1	7.67	17.9	6.23
	2.8	2.0	38.8	10.61	33.6	9.16	30.5	8.60	28.4	8.21	25.2	7.56	23.1	7.15	17.9	5.94
	6.0	5.0	38.8	9.11	33.6	7.96	30.5	7.61	28.4	7.34	25.2	6.87	23.1	6.47	17.9	5.36
	7.0	6.0	38.8	9.11	33.6	7.86	30.5	7.41	28.4	7.09	25.2	6.58	23.1	6.20	17.9	5.16
	8.6	7.5	38.8	8.36	33.6	7.24	30.5	6.86	28.4	6.59	25.2	6.14	23.1	5.81	17.9	4.87
	11.2	10.0	38.8	7.18	33.6	6.28	30.5	6.01	28.4	5.81	25.2	5.47	23.1	5.20	17.9	4.42
	16.4	15.0	38.8	5.62	33.6	4.92	30.5	4.51	28.4	4.43	25.2	4.25	23.1	4.10	17.9	3.56
24.0	18.0	38.8	5.62	33.6	4.92	30.5	4.50	28.4	4.22	25.2	3.80	23.1	3.52	17.9	2.95	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	20.1	8.97	17.9	8.64	16.5	8.36	15.5	8.13	14.1	7.72	13.0	7.40	10.4	6.39
	-14.7	-15.0	24.0	9.51	21.4	9.08	19.7	8.74	18.6	8.48	16.9	8.02	15.7	7.68	12.5	6.61
	-9.6	-10.0	28.6	10.28	25.5	9.74	23.6	9.33	22.3	9.03	20.3	8.50	18.8	8.11	15.1	6.94
	-4.4	-5.0	34.5	11.40	29.9	10.34	27.1	9.64	25.2	9.11	22.4	8.33	20.5	7.79	15.9	6.35
	-1.8	-2.5	34.5	10.25	29.9	9.39	27.1	8.88	25.2	8.50	22.4	7.85	20.5	7.36	15.9	6.00
	0.8	0.0	34.5	9.14	29.9	8.45	27.1	8.03	25.2	7.75	22.4	7.24	20.5	6.86	15.9	5.72
	2.8	2.0	34.5	8.26	29.9	7.81	27.1	7.51	25.2	7.25	22.4	6.80	20.5	6.45	15.9	5.42
	6.0	5.0	34.5	7.32	29.9	6.98	27.1	6.75	25.2	6.54	22.4	6.16	20.5	5.84	15.9	4.90
	7.0	6.0	34.5	7.36	29.9	6.85	27.1	6.54	25.2	6.31	22.4	5.90	20.5	5.60	15.9	4.72
	8.6	7.5	34.5	6.72	29.9	6.31	27.1	6.06	25.2	5.87	22.4	5.52	20.5	5.25	15.9	4.46
	11.2	10.0	34.5	5.71	29.9	5.47	27.1	5.32	25.2	5.18	22.4	4.92	20.5	4.71	15.9	4.05
	16.4	15.0	34.5	5.27	29.9	4.61	27.1	4.22	25.2	3.96	22.4	3.82	20.5	3.70	15.9	3.26
24.0	18.0	34.5	5.27	29.9	4.61	27.1	4.22	25.2	3.96	22.4	3.57	20.5	3.31	15.9	2.68	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	19.7	8.82	17.4	8.48	16.0	8.21	15.1	7.99	13.6	7.59	12.6	7.28	10.0	6.30
	-14.7	-15.0	23.5	9.38	20.9	8.94	19.2	8.60	18.1	8.35	16.4	7.90	15.2	7.56	12.1	6.52
	-9.6	-10.0	28.1	10.22	25.0	9.63	23.1	9.22	21.8	8.91	19.6	8.33	18.0	7.83	13.9	6.47
	-4.4	-5.0	30.2	9.25	26.1	8.72	23.7	8.30	22.1	7.99	19.6	7.40	18.0	6.93	13.9	5.73
	-1.8	-2.5	30.2	8.32	26.1	7.99	23.7	7.67	22.1	7.42	19.6	6.95	18.0	6.59	13.9	5.44
	0.8	0.0	30.2	7.58	26.1	7.33	23.7	7.06	22.1	6.84	19.6	6.43	18.0	6.11	13.9	5.17
	2.8	2.0	30.2	6.99	26.1	6.80	23.7	6.58	22.1	6.39	19.6	6.03	18.0	5.74	13.9	4.87
	6.0	5.0	30.2	6.16	26.1	6.06	23.7	5.90	22.1	5.74	19.6	5.44	18.0	5.19	13.9	4.41
	7.0	6.0	30.2	6.10	26.1	5.90	23.7	5.69	22.1	5.53	19.6	5.22	18.0	4.98	13.9	4.26
	8.6	7.5	30.2	5.56	26.1	5.44	23.7	5.28	22.1	5.14	19.6	4.88	18.0	4.68	13.9	4.03
	11.2	10.0	30.2	4.86	26.1	4.71	23.7	4.64	22.1	4.55	19.6	4.36	18.0	4.20	13.9	3.67
	16.4	15.0	30.2	4.86	26.1	4.26	23.7	3.91	22.1	3.67	19.6	3.38	18.0	3.30	13.9	2.95
24.0	18.0	30.2	4.86	26.1	4.26	23.7	3.91	22.1	3.67	19.6	3.31	18.0	3.08	13.9	2.48	

## 1. Capacity Ratio of Outdoor Unit

## U-10MF3E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	19.6	8.64	17.3	8.30	15.9	8.03	14.9	7.82	13.4	7.43	12.4	7.13	9.8	6.18
	-14.7	-15.0	23.5	9.23	20.8	8.78	19.1	8.45	18.0	8.19	16.2	7.75	15.0	7.42	11.9	6.39
	-9.6	-10.0	25.9	8.98	22.4	8.45	20.3	7.94	18.9	7.60	16.8	7.05	15.4	6.66	11.9	5.57
	-4.4	-5.0	25.9	7.59	22.4	7.31	20.3	7.04	18.9	6.81	16.8	6.39	15.4	6.01	11.9	4.98
	-1.8	-2.5	25.9	6.93	22.4	6.73	20.3	6.50	18.9	6.30	16.8	5.94	15.4	5.66	11.9	4.75
	0.8	0.0	25.9	6.28	22.4	6.15	20.3	5.97	18.9	5.80	16.8	5.49	15.4	5.24	11.9	4.47
	2.8	2.0	25.9	5.79	22.4	5.70	20.3	5.55	18.9	5.41	16.8	5.14	15.4	4.92	11.9	4.22
	6.0	5.0	25.9	5.08	22.4	5.07	20.3	4.96	18.9	4.85	16.8	4.62	15.4	4.43	11.9	3.80
	7.0	6.0	25.9	4.93	22.4	4.87	20.3	4.75	18.9	4.64	16.8	4.43	15.4	4.25	11.9	3.68
	8.6	7.5	25.9	4.48	22.4	4.49	20.3	4.41	18.9	4.33	16.8	4.15	15.4	4.00	11.9	3.49
	11.2	10.0	25.9	4.30	22.4	3.90	20.3	3.88	18.9	3.84	16.8	3.71	15.4	3.60	11.9	3.18
16.4	15.0	25.9	4.30	22.4	3.78	20.3	3.47	18.9	3.26	16.8	2.95	15.4	2.82	11.9	2.56	
24.0	18.0	25.9	4.30	22.4	3.78	20.3	3.47	18.9	3.26	16.8	2.95	15.4	2.74	11.9	2.23	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	20.1	8.54	17.7	8.19	16.3	7.92	15.3	7.71	13.7	7.33	12.7	7.03	9.9	6.05
	-14.7	-15.0	21.6	8.12	18.7	7.56	16.9	7.18	15.8	6.91	14.0	6.47	12.8	6.14	9.9	5.21
	-9.6	-10.0	21.6	7.12	18.7	6.84	16.9	6.47	15.8	6.20	14.0	5.76	12.8	5.45	9.9	4.59
	-4.4	-5.0	21.6	6.04	18.7	5.87	16.9	5.68	15.8	5.51	14.0	5.20	12.8	4.94	9.9	4.11
	-1.8	-2.5	21.6	5.50	18.7	5.39	16.9	5.23	15.8	5.09	14.0	4.83	12.8	4.61	9.9	3.93
	0.8	0.0	21.6	4.97	18.7	4.92	16.9	4.80	15.8	4.68	14.0	4.46	12.8	4.27	9.9	3.68
	2.8	2.0	21.6	4.57	18.7	4.55	16.9	4.46	15.8	4.37	14.0	4.17	12.8	4.01	9.9	3.47
	6.0	5.0	21.6	3.99	18.7	4.01	16.9	3.95	15.8	3.87	14.0	3.72	12.8	3.58	9.9	3.11
	7.0	6.0	21.6	3.77	18.7	3.81	16.9	3.77	15.8	3.70	14.0	3.57	12.8	3.44	9.9	3.03
	8.6	7.5	21.6	3.60	18.7	3.52	16.9	3.50	15.8	3.46	14.0	3.35	12.8	3.24	9.9	2.87
	11.2	10.0	21.6	3.60	18.7	3.18	16.9	3.09	15.8	3.07	14.0	3.01	12.8	2.93	9.9	2.63
16.4	15.0	21.6	3.60	18.7	3.18	16.9	2.92	15.8	2.75	14.0	2.50	12.8	2.33	9.9	2.11	
24.0	18.0	21.6	3.60	18.7	3.18	16.9	2.92	15.8	2.75	14.0	2.50	12.8	2.33	9.9	1.90	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	17.3	6.56	14.9	6.20	13.5	5.94	12.6	5.74	11.2	5.42	10.3	5.17	7.9	4.43
	-14.7	-15.0	17.3	5.94	14.9	5.52	13.5	5.25	12.6	5.06	11.2	4.74	10.3	4.51	7.9	3.85
	-9.6	-10.0	17.3	5.13	14.9	4.97	13.5	4.77	12.6	4.55	11.2	4.25	10.3	4.02	7.9	3.41
	-4.4	-5.0	17.3	4.34	14.9	4.25	13.5	4.13	12.6	4.02	11.2	3.82	10.3	3.65	7.9	3.06
	-1.8	-2.5	17.3	3.94	14.9	3.90	13.5	3.81	12.6	3.72	11.2	3.54	10.3	3.39	7.9	2.93
	0.8	0.0	17.3	3.56	14.9	3.56	13.5	3.49	12.6	3.42	11.2	3.27	10.3	3.14	7.9	2.73
	2.8	2.0	17.3	3.27	14.9	3.27	13.5	3.22	12.6	3.16	11.2	3.03	10.3	2.93	7.9	2.56
	6.0	5.0	17.3	2.76	14.9	2.83	13.5	2.82	12.6	2.79	11.2	2.70	10.3	2.62	7.9	2.32
	7.0	6.0	17.3	2.72	14.9	2.69	13.5	2.69	12.6	2.67	11.2	2.59	10.3	2.52	7.9	2.25
	8.6	7.5	17.3	2.72	14.9	2.49	13.5	2.51	12.6	2.50	11.2	2.44	10.3	2.38	7.9	2.14
	11.2	10.0	17.3	2.72	14.9	2.41	13.5	2.22	12.6	2.23	11.2	2.20	10.3	2.16	7.9	1.96
16.4	15.0	17.3	2.72	14.9	2.41	13.5	2.22	12.6	2.10	11.2	1.91	10.3	1.79	7.9	1.58	
24.0	18.0	17.3	2.72	14.9	2.41	13.5	2.22	12.6	2.10	11.2	1.91	10.3	1.79	7.9	1.48	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	12.9	4.47	11.2	4.23	10.1	4.06	9.5	3.93	8.4	3.72	7.7	3.55	6.0	3.07
	-14.7	-15.0	12.9	4.04	11.2	3.78	10.1	3.61	9.5	3.48	8.4	3.27	7.7	3.12	6.0	2.68
	-9.6	-10.0	12.9	3.48	11.2	3.39	10.1	3.28	9.5	3.15	8.4	2.94	7.7	2.79	6.0	2.38
	-4.4	-5.0	12.9	2.93	11.2	2.90	10.1	2.83	9.5	2.77	8.4	2.64	7.7	2.53	6.0	2.15
	-1.8	-2.5	12.9	2.65	11.2	2.64	10.1	2.59	9.5	2.54	8.4	2.43	7.7	2.34	6.0	2.05
	0.8	0.0	12.9	2.36	11.2	2.38	10.1	2.35	9.5	2.31	8.4	2.23	7.7	2.16	6.0	1.90
	2.8	2.0	12.9	2.13	11.2	2.18	10.1	2.17	9.5	2.14	8.4	2.08	7.7	2.01	6.0	1.79
	6.0	5.0	12.9	1.94	11.2	1.90	10.1	1.91	9.5	1.90	8.4	1.86	7.7	1.81	6.0	1.64
	7.0	6.0	12.9	1.94	11.2	1.81	10.1	1.83	9.5	1.82	8.4	1.79	7.7	1.75	6.0	1.59
	8.6	7.5	12.9	1.94	11.2	1.73	10.1	1.71	9.5	1.71	8.4	1.69	7.7	1.66	6.0	1.52
	11.2	10.0	12.9	1.94	11.2	1.73	10.1	1.60	9.5	1.54	8.4	1.53	7.7	1.51	6.0	1.40
16.4	15.0	12.9	1.94	11.2	1.73	10.1	1.60	9.5	1.52	8.4	1.39	7.7	1.31	6.0	1.14	
24.0	18.0	12.9	1.94	11.2	1.73	10.1	1.60	9.5	1.52	8.4	1.39	7.7	1.31	6.0	1.10	

# 1. Capacity Ratio of Outdoor Unit

## 1-15. U-12MF3E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	22.3	2.93	25.4	3.33	30.5	3.99	33.5	4.39	34.6	4.54	37.4	4.90	40.2	5.27
	-5.0	22.3	2.94	25.4	3.34	30.5	4.00	33.5	4.40	34.6	4.55	37.4	4.91	40.2	5.28
	0.0	22.3	2.96	25.4	3.36	30.5	4.02	33.5	4.41	34.6	4.56	37.4	4.92	40.2	5.29
	5.0	22.3	2.99	25.4	3.39	30.5	4.05	33.5	4.45	34.6	4.59	37.4	4.96	40.2	5.32
	10.0	22.3	3.08	25.4	3.47	30.5	4.13	33.5	4.52	34.6	4.66	37.4	5.03	40.2	5.39
	15.0	22.3	3.35	25.4	3.73	30.5	4.36	33.5	4.75	34.6	4.89	37.4	5.24	40.2	5.59
	20.0	22.3	3.61	25.4	4.01	30.5	4.95	33.5	5.60	34.6	5.84	37.4	6.49	40.2	7.17
	25.0	22.3	4.46	25.4	5.15	30.5	6.41	33.5	7.23	34.6	7.54	37.4	8.35	40.2	9.20
	30.0	22.3	5.60	25.4	6.46	30.5	8.01	33.5	9.00	34.6	9.38	37.4	10.36	40.2	11.38
	35.0	22.3	6.83	25.4	7.87	30.5	9.72	33.5	10.91	34.6	11.36	37.4	12.51	40.2	13.72
	40.0	22.3	8.11	25.4	9.34	30.5	11.52	33.5	12.92	34.6	13.44	37.4	14.80	39.0	15.26
	43.0	22.3	8.92	25.4	10.27	30.5	12.67	33.5	14.20	34.6	14.78	36.1	15.26	37.1	15.25
46.0	22.3	9.77	25.4	11.26	28.0	12.04	28.0	11.38	28.0	11.15	28.0	10.58	28.0	10.03	
52.0	10.2	4.33	10.2	4.12	10.2	3.78	10.2	3.60	10.2	3.53	10.2	3.37	10.2	3.22	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	20.1	2.64	22.8	3.00	27.4	3.60	30.2	3.96	31.2	4.09	33.7	4.42	36.2	4.75
	-5.0	20.1	2.65	22.8	3.01	27.4	3.61	30.2	3.97	31.2	4.10	33.7	4.43	36.2	4.76
	0.0	20.1	2.67	22.8	3.02	27.4	3.62	30.2	3.98	31.2	4.11	33.7	4.44	36.2	4.77
	5.0	20.1	2.70	22.8	3.05	27.4	3.65	30.2	4.00	31.2	4.13	33.7	4.46	36.2	4.79
	10.0	20.1	2.76	22.8	3.12	27.4	3.70	30.2	4.06	31.2	4.19	33.7	4.51	36.2	4.84
	15.0	20.1	2.97	22.8	3.31	27.4	3.87	30.2	4.22	31.2	4.34	33.7	4.66	36.2	4.97
	20.0	20.1	3.33	22.8	3.69	27.4	4.28	30.2	4.64	31.2	4.78	33.7	5.10	36.2	5.56
	25.0	20.1	3.78	22.8	4.30	27.4	5.23	30.2	5.83	31.2	6.06	33.7	6.64	36.2	7.25
	30.0	20.1	4.77	22.8	5.43	27.4	6.60	30.2	7.35	31.2	7.63	33.7	8.34	36.2	9.08
	35.0	20.1	5.83	22.8	6.65	27.4	8.07	30.2	8.97	31.2	9.30	33.7	10.16	36.2	11.05
	40.0	20.1	6.93	22.8	7.91	27.4	9.60	30.2	10.67	31.2	11.07	33.7	12.08	36.2	13.13
	43.0	20.1	7.63	22.8	8.71	27.4	10.58	30.2	11.76	31.2	12.20	33.7	13.32	36.2	14.47
46.0	20.1	8.37	22.8	9.55	27.4	11.62	28.0	11.38	28.0	11.14	28.0	10.58	28.0	10.03	
52.0	10.2	4.33	10.2	4.12	10.2	3.78	10.2	3.60	10.2	3.53	10.2	3.37	10.2	3.22	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	17.9	2.35	20.3	2.67	24.4	3.21	26.8	3.53	27.7	3.64	29.9	3.94	32.2	4.23
	-5.0	17.9	2.36	20.3	2.68	24.4	3.21	26.8	3.53	27.7	3.65	29.9	3.94	32.2	4.24
	0.0	17.9	2.37	20.3	2.69	24.4	3.22	26.8	3.54	27.7	3.66	29.9	3.95	32.2	4.25
	5.0	17.9	2.40	20.3	2.72	24.4	3.24	26.8	3.56	27.7	3.68	29.9	3.97	32.2	4.26
	10.0	17.9	2.46	20.3	2.77	24.4	3.29	26.8	3.61	27.7	3.72	29.9	4.01	32.2	4.30
	15.0	17.9	2.62	20.3	2.91	24.4	3.41	26.8	3.72	27.7	3.83	29.9	4.11	32.2	4.39
	20.0	17.9	3.04	20.3	3.36	24.4	3.86	26.8	4.11	27.7	4.20	29.9	4.44	32.2	4.69
	25.0	17.9	3.18	20.3	3.56	24.4	4.23	26.8	4.65	27.7	4.81	29.9	5.21	32.2	5.62
	30.0	17.9	4.02	20.3	4.52	24.4	5.38	26.8	5.92	27.7	6.12	29.9	6.63	32.2	7.15
	35.0	17.9	4.94	20.3	5.56	24.4	6.63	26.8	7.29	27.7	7.53	29.9	8.15	32.2	8.78
	40.0	17.9	5.88	20.3	6.63	24.4	7.92	26.8	8.71	27.7	9.00	29.9	9.74	32.2	10.50
	43.0	17.9	6.48	20.3	7.31	24.4	8.74	26.8	9.62	27.7	9.94	29.9	10.77	32.2	11.61
46.0	17.9	7.10	20.3	8.03	24.4	9.61	26.8	10.58	27.7	10.94	28.0	10.58	28.0	10.03	
52.0	10.2	4.33	10.2	4.12	10.2	3.78	10.2	3.60	10.2	3.53	10.2	3.37	10.2	3.22	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	15.6	1.94	17.8	2.21	21.3	2.65	23.5	2.91	24.2	3.01	26.2	3.25	28.1	3.49
	-5.0	15.6	1.95	17.8	2.21	21.3	2.65	23.5	2.92	24.2	3.01	26.2	3.26	28.1	3.50
	0.0	15.6	1.96	17.8	2.22	21.3	2.66	23.5	2.92	24.2	3.02	26.2	3.26	28.1	3.51
	5.0	15.6	1.98	17.8	2.24	21.3	2.68	23.5	2.94	24.2	3.04	26.2	3.28	28.1	3.52
	10.0	15.6	2.03	17.8	2.28	21.3	2.71	23.5	2.97	24.2	3.07	26.2	3.30	28.1	3.54
	15.0	15.6	2.15	17.8	2.39	21.3	2.80	23.5	3.05	24.2	3.14	26.2	3.37	28.1	3.60
	20.0	15.6	2.59	17.8	2.76	21.3	3.08	23.5	3.29	24.2	3.37	26.2	3.57	28.1	3.78
	25.0	15.6	2.62	17.8	2.89	21.3	3.33	23.5	3.59	24.2	3.69	26.2	3.93	28.1	4.18
	30.0	15.6	3.17	17.8	3.51	21.3	4.08	23.5	4.43	24.2	4.56	26.2	4.88	28.1	5.21
	35.0	15.6	3.90	17.8	4.34	21.3	5.07	23.5	5.50	24.2	5.67	26.2	6.07	28.1	6.48
	40.0	15.6	4.64	17.8	5.18	21.3	6.07	23.5	6.61	24.2	6.80	26.2	7.30	28.1	7.79
	43.0	15.6	5.12	17.8	5.71	21.3	6.71	23.5	7.31	24.2	7.53	26.2	8.08	28.1	8.63
46.0	15.6	5.61	17.8	6.28	21.3	7.39	23.5	8.05	24.2	8.30	26.2	8.91	28.1	9.53	
52.0	10.2	4.08	10.2	3.88	10.2	3.56	10.2	3.39	10.2	3.33	10.2	3.18	10.2	3.03	



## 1. Capacity Ratio of Outdoor Unit

## U-12MF3E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	13.4	1.49	15.2	1.69	18.3	2.02	20.1	2.23	20.8	2.30	22.4	2.49	24.1	2.67
	-5.0	13.4	1.49	15.2	1.69	18.3	2.03	20.1	2.23	20.8	2.30	22.4	2.49	24.1	2.67
	0.0	13.4	1.50	15.2	1.70	18.3	2.04	20.1	2.24	20.8	2.31	22.4	2.50	24.1	2.68
	5.0	13.4	1.52	15.2	1.71	18.3	2.05	20.1	2.25	20.8	2.32	22.4	2.50	24.1	2.69
	10.0	13.4	1.55	15.2	1.74	18.3	2.07	20.1	2.27	20.8	2.34	22.4	2.52	24.1	2.71
	15.0	13.4	1.64	15.2	1.82	18.3	2.13	20.1	2.32	20.8	2.39	22.4	2.57	24.1	2.75
	20.0	13.4	1.93	15.2	2.06	18.3	2.31	20.1	2.47	20.8	2.53	22.4	2.69	24.1	2.85
	25.0	13.4	2.09	15.2	2.30	18.3	2.63	20.1	2.83	20.8	2.91	22.4	3.09	24.1	3.21
	30.0	13.4	2.34	15.2	2.55	18.3	2.89	20.1	3.10	20.8	3.17	22.4	3.35	24.1	3.53
	35.0	13.4	2.88	15.2	3.16	18.3	3.61	20.1	3.87	20.8	3.97	22.4	4.20	24.1	4.43
	40.0	13.4	3.43	15.2	3.77	18.3	4.34	20.1	4.67	20.8	4.79	22.4	5.08	24.1	5.37
	43.0	13.4	3.77	15.2	4.16	18.3	4.80	20.1	5.17	20.8	5.31	22.4	5.64	24.1	5.97
46.0	13.4	4.14	15.2	4.57	18.3	5.28	20.1	5.70	20.8	5.85	22.4	6.23	24.1	6.60	
52.0	10.2	3.63	10.2	3.45	10.2	3.17	10.2	3.02	10.2	2.96	10.2	2.83	10.2	2.70	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	11.2	1.12	12.7	1.27	15.2	1.52	16.8	1.67	17.3	1.73	18.7	1.87	20.1	2.01
	-5.0	11.2	1.12	12.7	1.27	15.2	1.52	16.8	1.68	17.3	1.73	18.7	1.87	20.1	2.01
	0.0	11.2	1.13	12.7	1.28	15.2	1.53	16.8	1.68	17.3	1.74	18.7	1.87	20.1	2.01
	5.0	11.2	1.14	12.7	1.29	15.2	1.54	16.8	1.69	17.3	1.75	18.7	1.88	20.1	2.02
	10.0	11.2	1.17	12.7	1.31	15.2	1.56	16.8	1.71	17.3	1.76	18.7	1.90	20.1	2.03
	15.0	11.2	1.23	12.7	1.37	15.2	1.60	16.8	1.74	17.3	1.79	18.7	1.93	20.1	2.06
	20.0	11.2	1.43	12.7	1.53	15.2	1.71	16.8	1.83	17.3	1.88	18.7	2.00	20.1	2.12
	25.0	11.2	1.67	12.7	1.82	15.2	2.07	16.8	2.17	17.3	2.19	18.7	2.24	20.1	2.32
	30.0	11.2	1.73	12.7	1.86	15.2	2.10	16.8	2.25	17.3	2.31	18.7	2.45	20.1	2.59
	35.0	11.2	2.13	12.7	2.29	15.2	2.56	16.8	2.71	17.3	2.76	18.7	2.89	20.1	3.01
	40.0	11.2	2.52	12.7	2.74	15.2	3.08	16.8	3.27	17.3	3.34	18.7	3.51	20.1	3.67
	43.0	11.2	2.77	12.7	3.02	15.2	3.41	16.8	3.63	17.3	3.71	18.7	3.90	20.1	4.08
46.0	11.2	3.03	12.7	3.31	15.2	3.75	16.8	4.00	17.3	4.09	18.7	4.31	20.1	4.52	
52.0	10.2	3.27	10.2	3.11	10.2	2.86	10.2	2.72	10.2	2.67	10.2	2.55	10.2	2.43	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	8.9	0.82	10.2	0.93	12.2	1.12	13.4	1.23	13.8	1.27	15.0	1.37	16.1	1.47
	-5.0	8.9	0.83	10.2	0.94	12.2	1.12	13.4	1.23	13.8	1.27	15.0	1.37	16.1	1.47
	0.0	8.9	0.83	10.2	0.94	12.2	1.12	13.4	1.23	13.8	1.28	15.0	1.38	16.1	1.48
	5.0	8.9	0.84	10.2	0.95	12.2	1.13	13.4	1.24	13.8	1.28	15.0	1.38	16.1	1.48
	10.0	8.9	0.86	10.2	0.97	12.2	1.15	13.4	1.25	13.8	1.29	15.0	1.39	16.1	1.49
	15.0	8.9	0.91	10.2	1.01	12.2	1.18	13.4	1.28	13.8	1.32	15.0	1.41	16.1	1.51
	20.0	8.9	1.05	10.2	1.12	12.2	1.25	13.4	1.34	13.8	1.37	15.0	1.46	16.1	1.55
	25.0	8.9	1.32	10.2	1.43	12.2	1.51	13.4	1.54	13.8	1.56	15.0	1.61	16.1	1.67
	30.0	8.9	1.35	10.2	1.46	12.2	1.65	13.4	1.76	13.8	1.80	15.0	1.90	16.1	2.00
	35.0	8.9	1.57	10.2	1.67	12.2	1.82	13.4	1.89	13.8	1.92	15.0	1.98	16.1	2.04
	40.0	8.9	1.85	10.2	1.98	12.2	2.18	13.4	2.28	13.8	2.32	15.0	2.40	16.1	2.48
	43.0	8.9	2.03	10.2	2.18	12.2	2.41	13.4	2.53	13.8	2.57	15.0	2.67	16.1	2.77
46.0	8.9	2.21	10.2	2.38	12.2	2.64	13.4	2.79	13.8	2.84	15.0	2.96	16.1	3.07	
52.0	8.9	2.61	10.2	2.83	10.2	2.62	10.2	2.49	10.2	2.44	10.2	2.33	10.2	2.23	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	6.7	0.58	7.6	0.66	9.1	0.79	10.1	0.86	10.4	0.89	11.2	0.96	12.1	1.03
	-5.0	6.7	0.58	7.6	0.66	9.1	0.79	10.1	0.87	10.4	0.89	11.2	0.97	12.1	1.04
	0.0	6.7	0.59	7.6	0.66	9.1	0.79	10.1	0.87	10.4	0.90	11.2	0.97	12.1	1.04
	5.0	6.7	0.60	7.6	0.67	9.1	0.80	10.1	0.88	10.4	0.90	11.2	0.97	12.1	1.04
	10.0	6.7	0.61	7.6	0.69	9.1	0.81	10.1	0.88	10.4	0.91	11.2	0.98	12.1	1.05
	15.0	6.7	0.65	7.6	0.72	9.1	0.83	10.1	0.90	10.4	0.93	11.2	1.00	12.1	1.06
	20.0	6.7	0.75	7.6	0.80	9.1	0.89	10.1	0.95	10.4	0.97	11.2	1.03	12.1	1.09
	25.0	6.7	1.05	7.6	1.08	9.1	1.06	10.1	1.07	10.4	1.09	11.2	1.12	12.1	1.17
	30.0	6.7	1.08	7.6	1.15	9.1	1.28	10.1	1.36	10.4	1.39	11.2	1.46	12.1	1.41
	35.0	6.7	1.17	7.6	1.23	9.1	1.31	10.1	1.39	10.4	1.42	11.2	1.49	12.1	1.56
	40.0	6.7	1.36	7.6	1.43	9.1	1.53	10.1	1.59	10.4	1.60	11.2	1.64	12.1	1.67
	43.0	6.7	1.48	7.6	1.57	9.1	1.69	10.1	1.75	10.4	1.77	11.2	1.82	12.1	1.86
46.0	6.7	1.60	7.6	1.70	9.1	1.85	10.1	1.92	10.4	1.95	11.2	2.00	12.1	2.05	
52.0	6.7	1.87	7.6	2.00	9.1	2.19	10.1	2.29	10.4	2.32	10.2	2.18	10.2	2.08	



### 1. Capacity Ratio of Outdoor Unit

#### 1-16. U-12MF3E8 (Heating)

#### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	23.5	11.59	20.9	11.16	19.3	10.79	18.1	10.50	16.4	9.98	15.2	9.56	12.1	8.26
	-14.7	-15.0	28.0	12.29	25.0	11.72	23.1	11.29	21.7	10.96	19.7	10.37	18.3	9.92	14.6	8.55
	-9.6	-10.0	33.4	13.27	29.9	12.59	27.6	12.06	26.1	11.67	23.7	10.99	22.0	10.48	17.7	8.97
	-4.4	-5.0	39.2	14.23	35.1	13.43	32.5	12.85	30.7	12.34	27.8	11.56	25.9	10.98	20.8	9.29
	-1.8	-2.5	42.2	14.70	38.3	13.90	35.4	13.24	33.4	12.84	30.4	12.03	28.2	11.30	22.7	9.58
	0.8	0.0	44.7	14.70	41.6	14.56	38.5	13.66	36.4	13.04	33.1	12.35	30.6	11.68	23.6	9.47
	2.8	2.0	46.9	14.70	43.9	14.70	40.3	13.55	37.5	12.58	33.3	11.52	30.6	10.83	23.6	8.93
	6.0	5.0	50.4	14.70	44.4	13.12	40.3	11.85	37.5	11.02	33.3	10.17	30.6	9.58	23.6	7.99
	7.0	6.0	51.4	14.55	44.4	12.50	40.3	11.30	37.5	10.50	33.3	9.71	30.6	9.19	23.6	7.69
	8.6	7.5	51.4	13.44	44.4	11.56	40.3	10.47	37.5	9.76	33.3	9.07	30.6	8.61	23.6	7.26
	11.2	10.0	51.4	11.67	44.4	10.12	40.3	9.21	37.5	8.61	33.3	8.07	30.6	7.70	23.6	6.59
	16.4	15.0	51.4	8.59	44.4	7.59	40.3	6.97	37.5	6.56	33.3	6.25	30.6	6.03	23.6	5.27
24.0	18.0	51.4	8.55	44.4	7.47	40.3	6.82	37.5	6.39	33.3	5.74	30.6	5.30	23.6	4.30	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	23.0	11.51	20.4	11.08	18.8	10.72	17.7	10.43	15.9	9.92	14.8	9.51	11.7	8.23
	-14.7	-15.0	27.5	12.24	24.4	11.67	22.5	11.24	21.2	10.90	19.2	10.32	17.8	9.88	14.2	8.52
	-9.6	-10.0	32.9	13.33	29.3	12.57	27.0	12.04	25.5	11.64	23.1	10.96	21.4	10.45	17.1	8.94
	-4.4	-5.0	39.4	14.42	35.2	13.63	32.5	13.16	30.6	12.68	27.7	11.83	25.8	11.23	20.6	9.49
	-1.8	-2.5	43.0	15.21	38.3	14.05	35.4	13.40	33.4	13.03	30.0	12.19	27.5	11.41	21.3	9.24
	0.8	0.0	45.8	15.37	40.0	13.63	36.3	12.49	33.8	11.99	30.0	11.14	27.5	10.52	21.3	8.73
	2.8	2.0	46.2	14.26	40.0	12.47	36.3	11.46	33.8	11.04	30.0	10.30	27.5	9.75	21.3	8.21
	6.0	5.0	46.2	12.18	40.0	10.89	36.3	10.12	33.8	9.82	30.0	9.27	27.5	8.81	21.3	7.42
	7.0	6.0	46.2	12.11	40.0	10.61	36.3	9.77	33.8	9.45	30.0	8.88	27.5	8.45	21.3	7.15
	8.6	7.5	46.2	11.13	40.0	9.80	36.3	9.05	33.8	8.79	30.0	8.30	27.5	7.92	21.3	6.75
	11.2	10.0	46.2	9.59	40.0	8.53	36.3	7.93	33.8	7.75	30.0	7.39	27.5	7.09	21.3	6.13
	16.4	15.0	46.2	8.10	40.0	7.08	36.3	6.47	33.8	6.06	30.0	5.71	27.5	5.54	21.3	4.89
24.0	18.0	46.2	8.10	40.0	7.08	36.3	6.47	33.8	6.06	30.0	5.45	27.5	5.05	21.3	4.03	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	22.7	11.56	20.1	11.12	18.5	10.76	17.4	10.48	15.6	9.96	14.5	9.56	11.5	8.29
	-14.7	-15.0	27.2	12.34	24.1	11.75	22.2	11.31	20.9	10.97	18.9	10.38	17.5	9.93	13.9	8.58
	-9.6	-10.0	32.6	13.34	29.0	12.63	26.7	12.14	25.1	11.74	22.7	11.05	21.1	10.53	16.8	9.00
	-4.4	-5.0	40.0	14.82	35.6	13.93	32.2	13.24	30.0	12.68	26.7	11.64	24.4	10.89	18.9	8.94
	-1.8	-2.5	41.1	13.98	35.6	12.61	32.2	12.04	30.0	11.59	26.7	10.83	24.4	10.25	18.9	8.44
	0.8	0.0	41.1	12.47	35.6	11.31	32.2	10.92	30.0	10.58	26.7	9.96	24.4	9.47	18.9	8.01
	2.8	2.0	41.1	11.39	35.6	10.49	32.2	10.16	30.0	9.87	26.7	9.32	24.4	8.88	18.9	7.54
	6.0	5.0	41.1	10.05	35.6	9.31	32.2	9.07	30.0	8.84	26.7	8.38	24.4	7.99	18.9	6.79
	7.0	6.0	41.1	9.84	35.6	8.99	32.2	8.71	30.0	8.47	26.7	8.02	24.4	7.67	18.9	6.56
	8.6	7.5	41.1	9.00	35.6	8.28	32.2	8.08	30.0	7.88	26.7	7.51	24.4	7.19	18.9	6.20
	11.2	10.0	41.1	7.68	35.6	7.17	32.2	7.08	30.0	6.96	26.7	6.69	24.4	6.45	18.9	5.64
	16.4	15.0	41.1	7.58	35.6	6.64	32.2	6.07	30.0	5.69	26.7	5.15	24.4	5.02	18.9	4.49
24.0	18.0	41.1	7.58	35.6	6.64	32.2	6.07	30.0	5.69	26.7	5.13	24.4	4.75	18.9	3.80	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	22.8	11.84	20.1	11.37	18.5	11.00	17.3	10.71	15.6	10.19	14.4	9.77	11.4	8.49
	-14.7	-15.0	27.4	12.68	24.2	12.05	22.2	11.59	20.9	11.23	18.9	10.63	17.4	10.17	13.8	8.78
	-9.6	-10.0	32.9	13.56	29.1	13.10	26.8	12.48	25.2	12.05	22.7	11.33	21.1	10.80	16.5	9.12
	-4.4	-5.0	36.0	12.43	31.1	11.95	28.2	11.50	26.3	11.13	23.3	10.43	21.4	9.82	16.5	8.10
	-1.8	-2.5	36.0	11.30	31.1	10.97	28.2	10.60	26.3	10.27	23.3	9.68	21.4	9.22	16.5	7.73
	0.8	0.0	36.0	10.23	31.1	10.01	28.2	9.71	26.3	9.44	23.3	8.93	21.4	8.52	16.5	7.26
	2.8	2.0	36.0	9.39	31.1	9.27	28.2	9.03	26.3	8.80	23.3	8.35	21.4	7.98	16.5	6.83
	6.0	5.0	36.0	8.21	31.1	8.20	28.2	8.03	26.3	7.84	23.3	7.46	21.4	7.15	16.5	6.12
	7.0	6.0	36.0	7.88	31.1	7.82	28.2	7.65	26.3	7.49	23.3	7.14	21.4	6.86	16.5	5.94
	8.6	7.5	36.0	7.16	31.1	7.21	28.2	7.10	26.3	6.97	23.3	6.69	21.4	6.44	16.5	5.62
	11.2	10.0	36.0	6.99	31.1	6.25	28.2	6.23	26.3	6.17	23.3	5.98	21.4	5.79	16.5	5.11
	16.4	15.0	36.0	6.99	31.1	6.13	28.2	5.61	26.3	5.27	23.3	4.75	21.4	4.49	16.5	4.06
24.0	18.0	36.0	6.99	31.1	6.13	28.2	5.61	26.3	5.27	23.3	4.75	21.4	4.40	16.5	3.54	

## 1. Capacity Ratio of Outdoor Unit

## U-12MF3E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	23.5	12.10	20.7	11.61	19.0	11.23	17.8	10.93	16.0	10.40	14.8	9.99	11.7	8.68
	-14.7	-15.0	28.3	13.05	24.9	12.40	22.9	11.92	21.5	11.55	19.4	10.93	17.9	10.45	14.1	9.02
	-9.6	-10.0	30.8	12.43	26.7	11.92	24.2	11.25	22.5	10.77	20.0	10.00	18.3	9.45	14.2	7.92
	-4.4	-5.0	30.8	10.51	26.7	10.20	24.2	9.86	22.5	9.56	20.0	9.01	18.3	8.55	14.2	7.07
	-1.8	-2.5	30.8	9.55	26.7	9.35	24.2	9.07	22.5	8.82	20.0	8.34	18.3	7.96	14.2	6.76
	0.8	0.0	30.8	8.62	26.7	8.51	24.2	8.30	22.5	8.10	20.0	7.69	18.3	7.36	14.2	6.31
	2.8	2.0	30.8	7.91	26.7	7.87	24.2	7.71	22.5	7.54	20.0	7.19	18.3	6.89	14.2	5.93
	6.0	5.0	30.8	6.85	26.7	6.88	24.2	6.77	22.5	6.64	20.0	6.36	18.3	6.13	14.2	5.30
	7.0	6.0	30.8	6.45	26.7	6.53	24.2	6.45	22.5	6.34	20.0	6.10	18.3	5.89	14.2	5.16
	8.6	7.5	30.8	6.17	26.7	6.02	24.2	5.99	22.5	5.91	20.0	5.72	18.3	5.53	14.2	4.88
	11.2	10.0	30.8	6.17	26.7	5.42	24.2	5.26	22.5	5.24	20.0	5.12	18.3	4.98	14.2	4.45
	16.4	15.0	30.8	6.17	26.7	5.42	24.2	4.97	22.5	4.67	20.0	4.22	18.3	3.92	14.2	3.53
24.0	18.0	30.8	6.17	26.7	5.42	24.2	4.97	22.5	4.67	20.0	4.22	18.3	3.92	14.2	3.17	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	25.1	12.57	22.1	12.04	20.1	11.60	18.8	11.21	16.7	10.55	15.3	10.06	11.8	8.59
	-14.7	-15.0	25.7	11.60	22.2	10.76	20.1	10.23	18.8	9.84	16.7	9.21	15.3	8.75	11.8	7.43
	-9.6	-10.0	25.7	10.03	22.2	9.68	20.1	9.25	18.8	8.83	16.7	8.21	15.3	7.77	11.8	6.54
	-4.4	-5.0	25.7	8.45	22.2	8.26	20.1	8.01	18.8	7.79	16.7	7.37	15.3	7.03	11.8	5.86
	-1.8	-2.5	25.7	7.67	22.2	7.56	20.1	7.37	18.8	7.18	16.7	6.82	15.3	6.53	11.8	5.60
	0.8	0.0	25.7	6.91	22.2	6.88	20.1	6.74	18.8	6.59	16.7	6.29	15.3	6.03	11.8	5.20
	2.8	2.0	25.7	6.32	22.2	6.31	20.1	6.20	18.8	6.08	16.7	5.82	15.3	5.60	11.8	4.87
	6.0	5.0	25.7	5.32	22.2	5.44	20.1	5.40	18.8	5.33	16.7	5.15	15.3	4.98	11.8	4.38
	7.0	6.0	25.7	5.17	22.2	5.16	20.1	5.15	18.8	5.10	16.7	4.94	15.3	4.79	11.8	4.25
	8.6	7.5	25.7	5.17	22.2	4.76	20.1	4.79	18.8	4.76	16.7	4.64	15.3	4.51	11.8	4.03
	11.2	10.0	25.7	5.17	22.2	4.55	20.1	4.22	18.8	4.22	16.7	4.16	15.3	4.07	11.8	3.68
	16.4	15.0	25.7	5.17	22.2	4.55	20.1	4.18	18.8	3.94	16.7	3.57	15.3	3.32	11.8	2.92
24.0	18.0	25.7	5.17	22.2	4.55	20.1	4.18	18.8	3.94	16.7	3.57	15.3	3.32	11.8	2.70	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	20.6	9.37	17.8	8.85	16.1	8.48	15.0	8.20	13.3	7.74	12.2	7.38	9.4	6.34
	-14.7	-15.0	20.6	8.45	17.8	7.88	16.1	7.50	15.0	7.23	13.3	6.77	12.2	6.44	9.4	5.50
	-9.6	-10.0	20.6	7.27	17.8	7.05	16.1	6.80	15.0	6.50	13.3	6.06	12.2	5.74	9.4	4.86
	-4.4	-5.0	20.6	6.11	17.8	6.01	16.1	5.85	15.0	5.71	13.3	5.42	12.2	5.19	9.4	4.37
	-1.8	-2.5	20.6	5.54	17.8	5.49	16.1	5.36	15.0	5.24	13.3	4.99	12.2	4.79	9.4	4.15
	0.8	0.0	20.6	4.90	17.8	4.92	16.1	4.84	15.0	4.75	13.3	4.56	12.2	4.40	9.4	3.84
	2.8	2.0	20.6	4.41	17.8	4.49	16.1	4.45	15.0	4.38	13.3	4.23	12.2	4.09	9.4	3.61
	6.0	5.0	20.6	3.89	17.8	3.88	16.1	3.89	15.0	3.86	13.3	3.76	12.2	3.66	9.4	3.27
	7.0	6.0	20.6	3.89	17.8	3.69	16.1	3.71	15.0	3.69	13.3	3.61	12.2	3.52	9.4	3.16
	8.6	7.5	20.6	3.89	17.8	3.44	16.1	3.46	15.0	3.46	13.3	3.40	12.2	3.32	9.4	3.01
	11.2	10.0	20.6	3.89	17.8	3.44	16.1	3.17	15.0	3.08	13.3	3.06	12.2	3.01	9.4	2.76
	16.4	15.0	20.6	3.89	17.8	3.44	16.1	3.17	15.0	2.99	13.3	2.72	12.2	2.54	9.4	2.19
24.0	18.0	20.6	3.89	17.8	3.44	16.1	3.17	15.0	2.99	13.3	2.72	12.2	2.54	9.4	2.09	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	15.4	6.38	13.3	6.03	12.1	5.79	11.3	5.61	10.0	5.30	9.2	5.07	7.1	4.38
	-14.7	-15.0	15.4	5.74	13.3	5.40	12.1	5.15	11.3	4.96	10.0	4.67	9.2	4.45	7.1	3.82
	-9.6	-10.0	15.4	4.92	13.3	4.81	12.1	4.66	11.3	4.50	10.0	4.19	9.2	3.98	7.1	3.39
	-4.4	-5.0	15.4	4.07	13.3	4.04	12.1	3.96	11.3	3.87	10.0	3.70	9.2	3.56	7.1	3.05
	-1.8	-2.5	15.4	3.64	13.3	3.66	12.1	3.61	11.3	3.54	10.0	3.41	9.2	3.29	7.1	2.89
	0.8	0.0	15.4	3.23	13.3	3.29	12.1	3.27	11.3	3.23	10.0	3.12	9.2	3.03	7.1	2.68
	2.8	2.0	15.4	2.91	13.3	3.01	12.1	3.01	11.3	2.98	10.0	2.90	9.2	2.82	7.1	2.53
	6.0	5.0	15.4	2.77	13.3	2.62	12.1	2.65	11.3	2.64	10.0	2.60	9.2	2.54	7.1	2.30
	7.0	6.0	15.4	2.77	13.3	2.49	12.1	2.53	11.3	2.54	10.0	2.50	9.2	2.45	7.1	2.23
	8.6	7.5	15.4	2.77	13.3	2.46	12.1	2.37	11.3	2.38	10.0	2.36	9.2	2.32	7.1	2.13
	11.2	10.0	15.4	2.77	13.3	2.46	12.1	2.28	11.3	2.16	10.0	2.13	9.2	2.11	7.1	1.96
	16.4	15.0	15.4	2.77	13.3	2.46	12.1	2.28	11.3	2.16	10.0	1.97	9.2	1.85	7.1	1.58
24.0	18.0	15.4	2.77	13.3	2.46	12.1	2.28	11.3	2.16	10.0	1.97	9.2	1.85	7.1	1.55	

# 1. Capacity Ratio of Outdoor Unit

## 1-17. U-14MF3E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	26.7	3.73	30.3	4.23	36.4	5.08	40.0	5.58	41.3	5.77	44.7	6.23	48.0	6.70
	-5.0	26.7	3.74	30.3	4.24	36.4	5.09	40.0	5.59	41.3	5.78	44.7	6.24	48.0	6.71
	0.0	26.7	3.76	30.3	4.26	36.4	5.10	40.0	5.61	41.3	5.80	44.7	6.26	48.0	6.72
	5.0	26.7	3.79	30.3	4.29	36.4	5.14	40.0	5.64	41.3	5.83	44.7	6.29	48.0	6.75
	10.0	26.7	3.88	30.3	4.38	36.4	5.22	40.0	5.72	41.3	5.90	44.7	6.37	48.0	6.83
	15.0	26.7	4.17	30.3	4.66	36.4	5.47	40.0	5.96	41.3	6.14	44.7	6.60	48.0	7.05
	20.0	26.7	4.46	30.3	4.96	36.4	6.16	40.0	6.98	41.3	7.29	44.7	8.11	48.0	8.98
	25.0	26.7	5.53	30.3	6.40	36.4	8.01	40.0	9.05	41.3	9.44	44.7	10.47	48.0	11.55
	30.0	26.7	6.97	30.3	8.06	36.4	10.03	40.0	11.30	41.3	11.78	44.7	13.02	48.0	14.31
	35.0	26.7	8.52	30.3	9.84	36.4	12.20	40.0	13.71	41.3	14.28	44.7	15.75	48.0	17.29
	40.0	26.7	10.14	30.3	11.71	36.4	14.49	40.0	16.27	41.3	16.94	44.7	18.66	46.5	19.18
	43.0	26.7	11.17	30.3	12.90	36.4	15.96	40.0	17.90	41.3	18.64	43.1	19.18	44.3	19.18
46.0	26.7	12.26	30.3	14.15	33.4	15.15	33.4	14.31	33.4	14.01	33.4	13.29	33.4	12.60	
52.0	12.2	5.34	12.2	5.07	12.2	4.64	12.2	4.41	12.2	4.32	12.2	4.12	12.2	3.93	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	24.0	3.36	27.3	3.82	32.7	4.58	36.0	5.03	37.2	5.20	40.2	5.62	43.2	6.04
	-5.0	24.0	3.37	27.3	3.83	32.7	4.59	36.0	5.04	37.2	5.21	40.2	5.63	43.2	6.05
	0.0	24.0	3.38	27.3	3.84	32.7	4.60	36.0	5.06	37.2	5.22	40.2	5.64	43.2	6.06
	5.0	24.0	3.41	27.3	3.87	32.7	4.63	36.0	5.08	37.2	5.25	40.2	5.67	43.2	6.08
	10.0	24.0	3.49	27.3	3.94	32.7	4.69	36.0	5.14	37.2	5.31	40.2	5.72	43.2	6.14
	15.0	24.0	3.71	27.3	4.14	32.7	4.87	36.0	5.31	37.2	5.47	40.2	5.87	43.2	6.28
	20.0	24.0	4.09	27.3	4.54	32.7	5.31	36.0	5.76	37.2	5.93	40.2	6.35	43.2	6.93
	25.0	24.0	4.65	27.3	5.32	32.7	6.51	36.0	7.27	37.2	7.56	40.2	8.30	43.2	9.07
	30.0	24.0	5.90	27.3	6.75	32.7	8.24	36.0	9.19	37.2	9.54	40.2	10.46	43.2	11.40
	35.0	24.0	7.25	27.3	8.29	32.7	10.10	36.0	11.24	37.2	11.67	40.2	12.76	43.2	13.89
	40.0	24.0	8.65	27.3	9.89	32.7	12.05	36.0	13.40	37.2	13.91	40.2	15.21	43.2	16.54
	43.0	24.0	9.54	27.3	10.91	32.7	13.30	36.0	14.79	37.2	15.35	40.2	16.78	43.2	18.25
46.0	24.0	10.48	27.3	11.99	32.7	14.62	33.4	14.31	33.4	14.01	33.4	13.29	33.4	12.60	
52.0	12.2	5.34	12.2	5.07	12.2	4.64	12.2	4.41	12.2	4.32	12.2	4.12	12.2	3.93	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	21.3	2.99	24.2	3.40	29.1	4.08	32.0	4.48	33.1	4.63	35.7	5.01	38.4	5.38
	-5.0	21.3	3.00	24.2	3.41	29.1	4.08	32.0	4.49	33.1	4.64	35.7	5.01	38.4	5.39
	0.0	21.3	3.01	24.2	3.42	29.1	4.09	32.0	4.50	33.1	4.65	35.7	5.02	38.4	5.40
	5.0	21.3	3.04	24.2	3.44	29.1	4.12	32.0	4.52	33.1	4.67	35.7	5.04	38.4	5.42
	10.0	21.3	3.10	24.2	3.50	29.1	4.17	32.0	4.57	33.1	4.72	35.7	5.08	38.4	5.45
	15.0	21.3	3.27	24.2	3.65	29.1	4.30	32.0	4.69	33.1	4.83	35.7	5.19	38.4	5.55
	20.0	21.3	3.72	24.2	4.13	29.1	4.77	32.0	5.10	33.1	5.23	35.7	5.54	38.4	5.86
	25.0	21.3	3.89	24.2	4.38	29.1	5.23	32.0	5.76	33.1	5.96	35.7	6.47	38.4	7.00
	30.0	21.3	4.95	24.2	5.59	29.1	6.69	32.0	7.37	33.1	7.63	35.7	8.27	38.4	8.93
	35.0	21.3	6.11	24.2	6.91	29.1	8.27	32.0	9.10	33.1	9.41	35.7	10.20	38.4	11.01
	40.0	21.3	7.31	24.2	8.27	29.1	9.90	32.0	10.91	33.1	11.28	35.7	12.23	38.4	13.19
	43.0	21.3	8.07	24.2	9.13	29.1	10.95	32.0	12.07	33.1	12.48	35.7	13.53	38.4	14.60
46.0	21.3	8.87	24.2	10.05	29.1	12.06	32.0	13.29	33.1	13.75	33.4	13.29	33.4	12.60	
52.0	12.2	5.34	12.2	5.07	12.2	4.64	12.2	4.41	12.2	4.32	12.2	4.12	12.2	3.93	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	18.7	2.47	21.2	2.80	25.5	3.36	28.0	3.70	28.9	3.83	31.3	4.13	33.6	4.44
	-5.0	18.7	2.48	21.2	2.81	25.5	3.37	28.0	3.71	28.9	3.83	31.3	4.14	33.6	4.45
	0.0	18.7	2.49	21.2	2.82	25.5	3.38	28.0	3.72	28.9	3.84	31.3	4.15	33.6	4.46
	5.0	18.7	2.51	21.2	2.84	25.5	3.40	28.0	3.73	28.9	3.85	31.3	4.16	33.6	4.47
	10.0	18.7	2.56	21.2	2.89	25.5	3.43	28.0	3.76	28.9	3.89	31.3	4.19	33.6	4.50
	15.0	18.7	2.69	21.2	3.00	25.5	3.53	28.0	3.85	28.9	3.97	31.3	4.26	33.6	4.56
	20.0	18.7	3.16	21.2	3.40	25.5	3.83	28.0	4.10	28.9	4.21	31.3	4.47	33.6	4.75
	25.0	18.7	3.19	21.2	3.53	25.5	4.09	28.0	4.43	28.9	4.55	31.3	4.86	33.6	5.17
	30.0	18.7	3.88	21.2	4.31	25.5	5.04	28.0	5.49	28.9	5.65	31.3	6.06	33.6	6.47
	35.0	18.7	4.80	21.2	5.36	25.5	6.29	28.0	6.84	28.9	7.05	31.3	7.57	33.6	8.08
	40.0	18.7	5.75	21.2	6.43	25.5	7.56	28.0	8.25	28.9	8.50	31.3	9.12	33.6	9.75
	43.0	18.7	6.35	21.2	7.11	25.5	8.38	28.0	9.14	28.9	9.42	31.3	10.12	33.6	10.82
46.0	18.7	6.98	21.2	7.83	25.5	9.24	28.0	10.09	28.9	10.40	31.3	11.18	33.6	11.97	
52.0	12.2	5.03	12.2	4.77	12.2	4.37	12.2	4.15	12.2	4.07	12.2	3.88	12.2	3.70	

## 1. Capacity Ratio of Outdoor Unit

## U-14MF3E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	16.0	1.89	18.2	2.14	21.8	2.57	24.0	2.83	24.8	2.92	26.8	3.16	28.8	3.39
	-5.0	16.0	1.89	18.2	2.15	21.8	2.58	24.0	2.83	24.8	2.93	26.8	3.16	28.8	3.40
	0.0	16.0	1.90	18.2	2.16	21.8	2.58	24.0	2.84	24.8	2.93	26.8	3.17	28.8	3.40
	5.0	16.0	1.92	18.2	2.17	21.8	2.60	24.0	2.85	24.8	2.95	26.8	3.18	28.8	3.41
	10.0	16.0	1.95	18.2	2.20	21.8	2.62	24.0	2.88	24.8	2.97	26.8	3.20	28.8	3.43
	15.0	16.0	2.05	18.2	2.28	21.8	2.69	24.0	2.93	24.8	3.02	26.8	3.25	28.8	3.48
	20.0	16.0	2.36	18.2	2.54	21.8	2.87	24.0	3.09	24.8	3.17	26.8	3.37	28.8	3.58
	25.0	16.0	2.53	18.2	2.79	21.8	3.22	24.0	3.48	24.8	3.57	26.8	3.81	28.8	3.97
	30.0	16.0	2.84	18.2	3.11	21.8	3.55	24.0	3.80	24.8	3.90	26.8	4.13	28.8	4.35
	35.0	16.0	3.52	18.2	3.88	21.8	4.45	24.0	4.78	24.8	4.91	26.8	5.20	28.8	5.50
	40.0	16.0	4.22	18.2	4.66	21.8	5.38	24.0	5.80	24.8	5.95	26.8	6.32	28.8	6.69
	43.0	16.0	4.66	18.2	5.15	21.8	5.96	24.0	6.44	24.8	6.61	26.8	7.03	28.8	7.45
46.0	16.0	5.12	18.2	5.67	21.8	6.58	24.0	7.11	24.8	7.30	26.8	7.78	28.8	8.25	
52.0	12.2	4.48	12.2	4.25	12.2	3.89	12.2	3.69	12.2	3.63	12.2	3.45	12.2	3.29	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	13.3	1.42	15.2	1.61	18.2	1.93	20.0	2.13	20.7	2.20	22.3	2.37	24.0	2.55
	-5.0	13.3	1.42	15.2	1.62	18.2	1.94	20.0	2.13	20.7	2.20	22.3	2.38	24.0	2.55
	0.0	13.3	1.43	15.2	1.62	18.2	1.94	20.0	2.14	20.7	2.21	22.3	2.38	24.0	2.56
	5.0	13.3	1.45	15.2	1.63	18.2	1.95	20.0	2.14	20.7	2.21	22.3	2.39	24.0	2.56
	10.0	13.3	1.47	15.2	1.66	18.2	1.97	20.0	2.16	20.7	2.23	22.3	2.40	24.0	2.58
	15.0	13.3	1.54	15.2	1.72	18.2	2.02	20.0	2.20	20.7	2.27	22.3	2.44	24.0	2.61
	20.0	13.3	1.75	15.2	1.89	18.2	2.14	20.0	2.30	20.7	2.36	22.3	2.52	24.0	2.67
	25.0	13.3	2.00	15.2	2.20	18.2	2.52	20.0	2.66	20.7	2.68	22.3	2.77	24.0	2.88
	30.0	13.3	2.08	15.2	2.24	18.2	2.55	20.0	2.74	20.7	2.82	22.3	2.99	24.0	3.17
	35.0	13.3	2.58	15.2	2.79	18.2	3.13	20.0	3.32	20.7	3.38	22.3	3.55	24.0	3.70
	40.0	13.3	3.08	15.2	3.36	18.2	3.79	20.0	4.04	20.7	4.12	22.3	4.33	24.0	4.54
	43.0	13.3	3.40	15.2	3.71	18.2	4.21	20.0	4.49	20.7	4.59	22.3	4.83	24.0	5.07
46.0	13.3	3.73	15.2	4.08	18.2	4.64	20.0	4.96	20.7	5.08	22.3	5.36	24.0	5.62	
52.0	12.2	4.03	12.2	3.83	12.2	3.51	12.2	3.33	12.2	3.26	12.2	3.11	12.2	2.96	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	10.7	1.04	12.1	1.19	14.5	1.42	16.0	1.56	16.5	1.61	17.9	1.74	19.2	1.87
	-5.0	10.7	1.05	12.1	1.19	14.5	1.42	16.0	1.56	16.5	1.62	17.9	1.74	19.2	1.87
	0.0	10.7	1.05	12.1	1.19	14.5	1.43	16.0	1.57	16.5	1.62	17.9	1.75	19.2	1.88
	5.0	10.7	1.06	12.1	1.20	14.5	1.43	16.0	1.57	16.5	1.63	17.9	1.75	19.2	1.88
	10.0	10.7	1.09	12.1	1.22	14.5	1.45	16.0	1.59	16.5	1.64	17.9	1.76	19.2	1.89
	15.0	10.7	1.14	12.1	1.26	14.5	1.48	16.0	1.61	16.5	1.66	17.9	1.79	19.2	1.91
	20.0	10.7	1.29	12.1	1.38	14.5	1.56	16.0	1.68	16.5	1.73	17.9	1.84	19.2	1.95
	25.0	10.7	1.58	12.1	1.72	14.5	1.84	16.0	1.89	16.5	1.92	17.9	1.99	19.2	2.08
	30.0	10.7	1.61	12.1	1.75	14.5	1.99	16.0	2.13	16.5	2.18	17.9	2.31	19.2	2.44
	35.0	10.7	1.88	12.1	2.01	14.5	2.19	16.0	2.29	16.5	2.32	17.9	2.40	19.2	2.48
	40.0	10.7	2.24	12.1	2.40	14.5	2.65	16.0	2.79	16.5	2.83	17.9	2.94	19.2	3.04
	43.0	10.7	2.46	12.1	2.65	14.5	2.94	16.0	3.10	16.5	3.16	17.9	3.29	19.2	3.41
46.0	10.7	2.69	12.1	2.91	14.5	3.25	16.0	3.43	16.5	3.49	17.9	3.64	19.2	3.79	
52.0	10.7	3.20	12.1	3.48	12.2	3.21	12.2	3.05	12.2	2.99	12.2	2.85	12.2	2.71	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	8.0	0.74	9.1	0.83	10.9	1.00	12.0	1.10	12.4	1.13	13.4	1.22	14.4	1.32
	-5.0	8.0	0.74	9.1	0.84	10.9	1.00	12.0	1.10	12.4	1.14	13.4	1.23	14.4	1.32
	0.0	8.0	0.74	9.1	0.84	10.9	1.01	12.0	1.10	12.4	1.14	13.4	1.23	14.4	1.32
	5.0	8.0	0.75	9.1	0.85	10.9	1.01	12.0	1.11	12.4	1.15	13.4	1.23	14.4	1.32
	10.0	8.0	0.77	9.1	0.86	10.9	1.02	12.0	1.12	12.4	1.15	13.4	1.24	14.4	1.33
	15.0	8.0	0.81	9.1	0.90	10.9	1.05	12.0	1.14	12.4	1.17	13.4	1.26	14.4	1.35
	20.0	8.0	0.92	9.1	0.98	10.9	1.11	12.0	1.19	12.4	1.22	13.4	1.30	14.4	1.38
	25.0	8.0	1.24	9.1	1.29	10.9	1.29	12.0	1.32	12.4	1.34	13.4	1.39	14.4	1.45
	30.0	8.0	1.26	9.1	1.36	10.9	1.53	12.0	1.63	12.4	1.66	13.4	1.75	14.4	1.72
	35.0	8.0	1.38	9.1	1.45	10.9	1.56	12.0	1.66	12.4	1.69	13.4	1.79	14.4	1.87
	40.0	8.0	1.62	9.1	1.71	10.9	1.84	12.0	1.91	12.4	1.93	13.4	1.98	14.4	2.02
	43.0	8.0	1.77	9.1	1.88	10.9	2.04	12.0	2.12	12.4	2.14	13.4	2.20	14.4	2.26
46.0	8.0	1.93	9.1	2.06	10.9	2.24	12.0	2.33	12.4	2.37	13.4	2.44	14.4	2.50	
52.0	8.0	2.27	9.1	2.43	10.9	2.67	12.0	2.80	12.4	2.85	12.2	2.67	12.2	2.54	

# 1. Capacity Ratio of Outdoor Unit

## 1-18. U-14MF3E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	27.4	14.14	24.4	13.64	22.6	13.20	21.3	12.86	19.3	12.21	17.9	11.70	14.3	10.10
	-14.7	-15.0	32.6	14.95	29.1	14.29	26.9	13.78	25.4	13.37	23.1	12.67	21.5	12.12	17.2	10.46
	-9.6	-10.0	38.7	16.10	34.7	15.28	32.2	14.67	30.4	14.20	27.7	13.39	25.8	12.78	20.8	10.95
	-4.4	-5.0	45.3	17.26	40.7	16.33	37.8	15.54	35.7	14.99	32.5	14.07	30.3	13.37	24.4	11.35
	-1.8	-2.5	49.5	18.25	44.4	16.92	41.2	16.19	39.0	15.66	35.5	14.54	33.1	13.84	26.6	11.69
	0.8	0.0	53.3	18.90	48.4	17.75	44.9	16.66	42.4	15.98	38.6	15.11	36.0	14.41	28.3	11.73
	2.8	2.0	55.8	18.90	51.2	18.10	47.6	16.97	45.0	16.15	40.0	14.61	36.7	13.69	28.3	11.18
	6.0	5.0	59.9	18.90	53.3	17.03	48.3	15.29	45.0	14.16	40.0	12.89	36.7	12.11	28.3	10.00
	7.0	6.0	61.4	18.90	53.3	16.23	48.3	14.58	45.0	13.50	40.0	12.31	36.7	11.60	28.3	9.63
	8.6	7.5	61.7	17.67	53.3	15.03	48.3	13.53	45.0	12.55	40.0	11.49	36.7	10.87	28.3	9.09
	11.2	10.0	61.7	15.35	53.3	13.15	48.3	11.89	45.0	11.07	40.0	10.21	36.7	9.71	28.3	8.23
16.4	15.0	61.7	11.33	53.3	9.88	48.3	9.02	45.0	8.45	40.0	7.91	36.7	7.61	28.3	6.59	
24.0	18.0	61.7	10.52	53.3	9.18	48.3	8.38	45.0	7.85	40.0	7.04	36.7	6.51	28.3	5.42	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	26.7	13.92	23.7	13.41	21.9	12.99	20.6	12.65	18.6	12.03	17.3	11.54	13.8	9.99
	-14.7	-15.0	31.8	14.76	28.3	14.09	26.2	13.59	24.7	13.19	22.3	12.50	20.8	11.97	16.6	10.33
	-9.6	-10.0	37.9	16.04	33.9	15.13	31.3	14.51	29.6	14.05	26.9	13.24	25.0	12.64	20.0	10.83
	-4.4	-5.0	45.5	17.32	40.7	16.50	37.6	15.88	35.5	15.22	32.3	14.28	30.0	13.57	24.1	11.50
	-1.8	-2.5	49.6	18.27	44.3	16.94	41.0	16.27	38.7	15.81	35.2	14.88	32.7	14.05	25.5	11.49
	0.8	0.0	54.0	19.24	48.0	17.54	43.5	15.91	40.5	15.19	36.0	14.05	33.0	13.22	25.5	10.88
	2.8	2.0	55.5	18.54	48.0	16.07	43.5	14.61	40.5	13.98	36.0	12.99	33.0	12.26	25.5	10.27
	6.0	5.0	55.5	15.98	48.0	14.01	43.5	12.89	40.5	12.46	36.0	11.71	33.0	11.09	25.5	9.27
	7.0	6.0	55.5	15.86	48.0	13.74	43.5	12.50	40.5	12.01	36.0	11.22	33.0	10.63	25.5	8.93
	8.6	7.5	55.5	14.58	48.0	12.69	43.5	11.57	40.5	11.16	36.0	10.48	33.0	9.96	25.5	8.43
	11.2	10.0	55.5	12.58	48.0	11.05	43.5	10.13	40.5	9.83	36.0	9.32	33.0	8.91	25.5	7.64
16.4	15.0	55.5	9.97	48.0	8.71	43.5	7.95	40.5	7.46	36.0	7.21	33.0	6.97	25.5	6.11	
24.0	18.0	55.5	9.97	48.0	8.71	43.5	7.95	40.5	7.45	36.0	6.69	33.0	6.19	25.5	4.99	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	26.1	13.64	23.1	13.15	21.3	12.75	20.0	12.42	18.1	11.83	16.7	11.36	13.3	9.87
	-14.7	-15.0	31.2	14.70	27.7	14.01	25.5	13.50	24.1	13.10	21.8	12.41	20.2	11.88	16.1	10.27
	-9.6	-10.0	37.3	15.91	33.2	15.10	30.7	14.47	28.9	13.99	26.2	13.18	24.3	12.58	19.4	10.77
	-4.4	-5.0	45.8	17.50	40.8	16.68	37.7	16.16	35.5	15.65	32.0	14.50	29.3	13.57	22.7	11.10
	-1.8	-2.5	49.3	18.01	42.7	15.99	38.7	15.20	36.0	14.60	32.0	13.59	29.3	12.81	22.7	10.48
	0.8	0.0	49.3	16.09	42.7	14.37	38.7	13.76	36.0	13.30	32.0	12.48	29.3	11.85	22.7	9.96
	2.8	2.0	49.3	14.62	42.7	13.27	38.7	12.82	36.0	12.42	32.0	11.69	29.3	11.12	22.7	9.39
	6.0	5.0	49.3	12.96	42.7	11.81	38.7	11.47	36.0	11.15	32.0	10.54	29.3	10.03	22.7	8.48
	7.0	6.0	49.3	12.84	42.7	11.49	38.7	11.07	36.0	10.72	32.0	10.10	29.3	9.62	22.7	8.17
	8.6	7.5	49.3	11.75	42.7	10.58	38.7	10.25	36.0	9.97	32.0	9.44	29.3	9.02	22.7	7.72
	11.2	10.0	49.3	10.04	42.7	9.16	38.7	8.98	36.0	8.80	32.0	8.41	29.3	8.08	22.7	7.01
16.4	15.0	49.3	9.32	42.7	8.15	38.7	7.45	36.0	6.99	32.0	6.49	29.3	6.31	22.7	5.60	
24.0	18.0	49.3	9.32	42.7	8.15	38.7	7.45	36.0	6.99	32.0	6.29	29.3	5.82	22.7	4.65	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	25.9	13.82	22.9	13.30	21.0	12.88	19.7	12.54	17.8	11.94	16.5	11.47	13.0	9.97
	-14.7	-15.0	31.0	14.86	27.5	14.14	25.3	13.61	23.8	13.20	21.5	12.51	19.9	11.97	15.8	10.35
	-9.6	-10.0	37.2	15.91	33.0	15.34	30.4	14.63	28.6	14.14	25.9	13.31	24.0	12.69	19.1	10.86
	-4.4	-5.0	43.2	15.76	37.3	14.99	33.8	14.38	31.5	13.89	28.0	12.97	25.7	12.14	19.8	10.03
	-1.8	-2.5	43.2	14.24	37.3	13.76	33.8	13.26	31.5	12.84	28.0	12.07	25.7	11.47	19.8	9.53
	0.8	0.0	43.2	12.91	37.3	12.57	33.8	12.17	31.5	11.81	28.0	11.14	25.7	10.61	19.8	9.00
	2.8	2.0	43.2	11.87	37.3	11.65	33.8	11.32	31.5	11.01	28.0	10.42	25.7	9.95	19.8	8.47
	6.0	5.0	43.2	10.40	37.3	10.33	33.8	10.09	31.5	9.85	28.0	9.35	25.7	8.94	19.8	7.62
	7.0	6.0	43.2	10.13	37.3	9.94	33.8	9.67	31.5	9.43	28.0	8.96	25.7	8.58	19.8	7.38
	8.6	7.5	43.2	9.20	37.3	9.16	33.8	8.97	31.5	8.77	28.0	8.38	25.7	8.05	19.8	6.98
	11.2	10.0	43.2	8.59	37.3	7.93	33.8	7.87	31.5	7.75	28.0	7.48	25.7	7.23	19.8	6.34
16.4	15.0	43.2	8.59	37.3	7.52	33.8	6.89	31.5	6.46	28.0	5.82	25.7	5.62	19.8	5.05	
24.0	18.0	43.2	8.59	37.3	7.52	33.8	6.89	31.5	6.46	28.0	5.82	25.7	5.40	19.8	4.33	



## 1. Capacity Ratio of Outdoor Unit

## U-14MF3E8 (Heating)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
60%	-19.8	-20.0	26.3	14.00	23.2	13.45	21.2	13.02	19.9	12.68	17.9	12.06	16.6	11.58	13.1	10.07
	-14.7	-15.0	31.5	15.00	27.9	14.28	25.6	13.74	24.1	13.33	21.7	12.62	20.1	12.08	15.9	10.45
	-9.6	-10.0	37.0	15.50	32.0	14.80	29.0	13.86	27.0	13.34	24.0	12.38	22.0	11.69	17.0	9.78
	-4.4	-5.0	37.0	13.13	32.0	12.71	29.0	12.26	27.0	11.88	24.0	11.18	22.0	10.57	17.0	8.73
	-1.8	-2.5	37.0	11.95	32.0	11.66	29.0	11.29	27.0	10.96	24.0	10.36	22.0	9.88	17.0	8.33
	0.8	0.0	37.0	10.80	32.0	10.62	29.0	10.34	27.0	10.07	24.0	9.55	22.0	9.13	17.0	7.81
	2.8	2.0	37.0	9.92	32.0	9.83	29.0	9.61	27.0	9.38	24.0	8.93	22.0	8.55	17.0	7.34
	6.0	5.0	37.0	8.65	32.0	8.69	29.0	8.51	27.0	8.33	24.0	7.95	22.0	7.64	17.0	6.57
	7.0	6.0	37.0	8.23	32.0	8.25	29.0	8.11	27.0	7.95	24.0	7.62	22.0	7.33	17.0	6.39
	8.6	7.5	37.0	7.58	32.0	7.60	29.0	7.52	27.0	7.41	24.0	7.14	22.0	6.89	17.0	6.05
	11.2	10.0	37.0	7.58	32.0	6.65	29.0	6.60	27.0	6.55	24.0	6.38	22.0	6.20	17.0	5.51
	16.4	15.0	37.0	7.58	32.0	6.65	29.0	6.10	27.0	5.73	24.0	5.17	22.0	4.80	17.0	4.38
24.0	18.0	37.0	7.58	32.0	6.65	29.0	6.10	27.0	5.73	24.0	5.17	22.0	4.80	17.0	3.87	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	27.6	14.30	24.3	13.71	22.3	13.26	20.9	12.91	18.8	12.28	17.3	11.78	13.7	10.23
	-14.7	-15.0	30.8	14.34	26.7	13.31	24.2	12.65	22.5	12.17	20.0	11.38	18.3	10.81	14.2	9.16
	-9.6	-10.0	30.8	12.46	26.7	12.00	24.2	11.42	22.5	10.91	20.0	10.14	18.3	9.59	14.2	8.06
	-4.4	-5.0	30.8	10.51	26.7	10.25	24.2	9.93	22.5	9.65	20.0	9.12	18.3	8.68	14.2	7.21
	-1.8	-2.5	30.8	9.54	26.7	9.39	24.2	9.13	22.5	8.89	20.0	8.44	18.3	8.07	14.2	6.89
	0.8	0.0	30.8	8.60	26.7	8.54	24.2	8.35	22.5	8.16	20.0	7.78	18.3	7.46	14.2	6.43
	2.8	2.0	30.8	7.89	26.7	7.90	24.2	7.76	22.5	7.59	20.0	7.25	18.3	6.96	14.2	6.02
	6.0	5.0	30.8	6.73	26.7	6.83	24.2	6.76	22.5	6.65	20.0	6.41	18.3	6.19	14.2	5.40
	7.0	6.0	30.8	6.34	26.7	6.48	24.2	6.44	22.5	6.36	20.0	6.15	18.3	5.95	14.2	5.25
	8.6	7.5	30.8	6.34	26.7	5.98	24.2	5.98	22.5	5.93	20.0	5.77	18.3	5.60	14.2	4.98
	11.2	10.0	30.8	6.34	26.7	5.58	24.2	5.27	22.5	5.26	20.0	5.17	18.3	5.04	14.2	4.54
	16.4	15.0	30.8	6.34	26.7	5.58	24.2	5.12	22.5	4.82	20.0	4.36	18.3	4.06	14.2	3.61
24.0	18.0	30.8	6.34	26.7	5.58	24.2	5.12	22.5	4.82	20.0	4.36	18.3	4.06	14.2	3.30	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	24.7	11.58	21.3	10.93	19.3	10.47	18.0	10.12	16.0	9.55	14.7	9.11	11.3	7.80
	-14.7	-15.0	24.7	10.45	21.3	9.73	19.3	9.25	18.0	8.91	16.0	8.35	14.7	7.94	11.3	6.77
	-9.6	-10.0	24.7	9.00	21.3	8.72	19.3	8.39	18.0	7.99	16.0	7.46	14.7	7.07	11.3	5.97
	-4.4	-5.0	24.7	7.57	21.3	7.44	19.3	7.23	18.0	7.04	16.0	6.69	14.7	6.39	11.3	5.37
	-1.8	-2.5	24.7	6.86	21.3	6.80	19.3	6.65	18.0	6.50	16.0	6.19	14.7	5.94	11.3	5.12
	0.8	0.0	24.7	6.16	21.3	6.15	19.3	6.03	18.0	5.91	16.0	5.66	14.7	5.44	11.3	4.74
	2.8	2.0	24.7	5.54	21.3	5.61	19.3	5.54	18.0	5.45	16.0	5.24	14.7	5.06	11.3	4.44
	6.0	5.0	24.7	4.77	21.3	4.84	19.3	4.83	18.0	4.79	16.0	4.65	14.7	4.52	11.3	4.02
	7.0	6.0	24.7	4.77	21.3	4.60	19.3	4.61	18.0	4.58	16.0	4.47	14.7	4.35	11.3	3.89
	8.6	7.5	24.7	4.77	21.3	4.25	19.3	4.30	18.0	4.28	16.0	4.20	14.7	4.10	11.3	3.70
	11.2	10.0	24.7	4.77	21.3	4.21	19.3	3.88	18.0	3.81	16.0	3.78	14.7	3.71	11.3	3.38
	16.4	15.0	24.7	4.77	21.3	4.21	19.3	3.88	18.0	3.66	16.0	3.32	14.7	3.10	11.3	2.70
24.0	18.0	24.7	4.77	21.3	4.21	19.3	3.88	18.0	3.66	16.0	3.32	14.7	3.10	11.3	2.54	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	18.5	7.87	16.0	7.44	14.5	7.14	13.5	6.91	12.0	6.54	11.0	6.25	8.5	5.39
	-14.7	-15.0	18.5	7.09	16.0	6.65	14.5	6.34	13.5	6.11	12.0	5.74	11.0	5.47	8.5	4.69
	-9.6	-10.0	18.5	6.08	16.0	5.93	14.5	5.74	13.5	5.54	12.0	5.15	11.0	4.89	8.5	4.16
	-4.4	-5.0	18.5	5.07	16.0	5.02	14.5	4.90	13.5	4.79	12.0	4.57	11.0	4.39	8.5	3.73
	-1.8	-2.5	18.5	4.54	16.0	4.54	14.5	4.47	13.5	4.39	12.0	4.21	11.0	4.05	8.5	3.55
	0.8	0.0	18.5	4.02	16.0	4.09	14.5	4.05	13.5	3.99	12.0	3.85	11.0	3.73	8.5	3.30
	2.8	2.0	18.5	3.62	16.0	3.73	14.5	3.72	13.5	3.69	12.0	3.58	11.0	3.48	8.5	3.10
	6.0	5.0	18.5	3.38	16.0	3.24	14.5	3.27	13.5	3.26	12.0	3.20	11.0	3.12	8.5	2.82
	7.0	6.0	18.5	3.38	16.0	3.08	14.5	3.13	13.5	3.13	12.0	3.08	11.0	3.01	8.5	2.74
	8.6	7.5	18.5	3.38	16.0	3.01	14.5	2.92	13.5	2.93	12.0	2.90	11.0	2.85	8.5	2.61
	11.2	10.0	18.5	3.38	16.0	3.01	14.5	2.78	13.5	2.63	12.0	2.62	11.0	2.59	8.5	2.40
	16.4	15.0	18.5	3.38	16.0	3.01	14.5	2.78	13.5	2.63	12.0	2.40	11.0	2.25	8.5	1.93
24.0	18.0	18.5	3.38	16.0	3.01	14.5	2.78	13.5	2.63	12.0	2.40	11.0	2.25	8.5	1.88	

# 1. Capacity Ratio of Outdoor Unit

## 1-19. U-16MF3E8 (Cooling)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-10.0	30.0	4.49	34.1	5.10	40.9	6.12	45.0	6.73	46.5	6.96	50.3	7.51	54.0	8.07
	-5.0	30.0	4.50	34.1	5.11	40.9	6.13	45.0	6.74	46.5	6.96	50.3	7.52	54.0	8.08
	0.0	30.0	4.52	34.1	5.13	40.9	6.15	45.0	6.76	46.5	6.98	50.3	7.54	54.0	8.10
	5.0	30.0	4.56	34.1	5.17	40.9	6.18	45.0	6.79	46.5	7.01	50.3	7.57	54.0	8.13
	10.0	30.0	4.66	34.1	5.26	40.9	6.27	45.0	6.87	46.5	7.10	50.3	7.65	54.0	8.21
	15.0	30.0	4.96	34.1	5.55	40.9	6.54	45.0	7.14	46.5	7.36	50.3	7.90	54.0	8.45
	20.0	30.0	5.27	34.1	5.88	40.9	7.32	45.0	8.31	46.5	8.69	50.3	9.68	54.0	10.73
	25.0	30.0	6.56	34.1	7.62	40.9	9.55	45.0	10.80	46.5	11.28	50.3	12.52	54.0	13.82
	30.0	30.0	8.29	34.1	9.61	40.9	11.98	45.0	13.51	46.5	14.09	50.3	15.58	54.0	17.14
	35.0	30.0	10.15	34.1	11.75	40.9	14.59	45.0	16.41	46.5	17.10	50.3	18.87	54.0	20.72
	40.0	30.0	12.11	34.1	14.00	40.9	17.36	45.0	19.49	46.5	20.30	50.3	22.38	52.2	22.96
	43.0	30.0	13.35	34.1	15.43	40.9	19.12	45.0	21.47	46.5	22.36	48.4	22.96	49.7	22.96
46.0	30.0	14.66	34.1	16.95	37.6	18.15	37.6	17.14	37.6	16.78	37.6	15.90	37.6	15.07	
52.0	13.7	6.32	13.7	5.99	13.7	5.48	13.7	5.20	13.7	5.10	13.7	4.85	13.7	4.62	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-10.0	27.0	4.05	30.7	4.60	36.8	5.52	40.5	6.07	41.9	6.27	45.2	6.77	48.6	7.28
	-5.0	27.0	4.06	30.7	4.61	36.8	5.53	40.5	6.07	41.9	6.28	45.2	6.78	48.6	7.29
	0.0	27.0	4.07	30.7	4.62	36.8	5.54	40.5	6.09	41.9	6.29	45.2	6.80	48.6	7.30
	5.0	27.0	4.11	30.7	4.65	36.8	5.57	40.5	6.12	41.9	6.32	45.2	6.82	48.6	7.33
	10.0	27.0	4.19	30.7	4.73	36.8	5.64	40.5	6.18	41.9	6.38	45.2	6.88	48.6	7.38
	15.0	27.0	4.42	30.7	4.95	36.8	5.83	40.5	6.36	41.9	6.56	45.2	7.05	48.6	7.54
	20.0	27.0	4.83	30.7	5.38	36.8	6.30	40.5	6.85	41.9	7.05	45.2	7.56	48.6	8.26
	25.0	27.0	5.50	30.7	6.31	36.8	7.74	40.5	8.66	41.9	9.01	45.2	9.90	48.6	10.83
	30.0	27.0	7.00	30.7	8.02	36.8	9.83	40.5	10.97	41.9	11.39	45.2	12.49	48.6	13.63
	35.0	27.0	8.62	30.7	9.87	36.8	12.06	40.5	13.43	41.9	13.95	45.2	15.27	48.6	16.63
	40.0	27.0	10.31	30.7	11.81	36.8	14.41	40.5	16.04	41.9	16.66	45.2	18.22	48.6	19.82
	43.0	27.0	11.39	30.7	13.04	36.8	15.91	40.5	17.71	41.9	18.39	45.2	20.11	48.6	21.88
46.0	27.0	12.52	30.7	14.34	36.8	17.50	37.6	17.14	37.6	16.77	37.6	15.90	37.6	15.07	
52.0	13.7	6.32	13.7	5.99	13.7	5.48	13.7	5.20	13.7	5.09	13.7	4.85	13.7	4.61	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
80%	-10.0	24.0	3.60	27.3	4.09	32.7	4.91	36.0	5.40	37.2	5.58	40.2	6.03	43.2	6.49
	-5.0	24.0	3.61	27.3	4.10	32.7	4.92	36.0	5.41	37.2	5.59	40.2	6.04	43.2	6.49
	0.0	24.0	3.63	27.3	4.11	32.7	4.93	36.0	5.42	37.2	5.60	40.2	6.05	43.2	6.50
	5.0	24.0	3.66	27.3	4.14	32.7	4.95	36.0	5.44	37.2	5.62	40.2	6.07	43.2	6.52
	10.0	24.0	3.72	27.3	4.20	32.7	5.01	36.0	5.49	37.2	5.67	40.2	6.12	43.2	6.56
	15.0	24.0	3.90	27.3	4.37	32.7	5.15	36.0	5.62	37.2	5.79	40.2	6.23	43.2	6.67
	20.0	24.0	4.39	27.3	4.88	32.7	5.66	36.0	6.07	37.2	6.22	40.2	6.61	43.2	7.00
	25.0	24.0	4.58	27.3	5.17	32.7	6.20	36.0	6.84	37.2	7.08	40.2	7.70	43.2	8.33
	30.0	24.0	5.86	27.3	6.63	32.7	7.95	36.0	8.78	37.2	9.08	40.2	9.86	43.2	10.66
	35.0	24.0	7.26	27.3	8.21	32.7	9.85	36.0	10.86	37.2	11.23	40.2	12.19	43.2	13.15
	40.0	24.0	8.69	27.3	9.85	32.7	11.82	36.0	13.03	37.2	13.49	40.2	14.63	43.2	15.79
	43.0	24.0	9.61	27.3	10.89	32.7	13.09	36.0	14.43	37.2	14.93	40.2	16.20	43.2	17.48
46.0	24.0	10.57	27.3	11.99	32.7	14.42	36.0	15.91	37.2	16.47	37.6	15.90	37.6	15.07	
52.0	13.7	6.32	13.7	5.99	13.7	5.48	13.7	5.20	13.7	5.09	13.7	4.85	13.7	4.62	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-10.0	21.0	2.97	23.9	3.38	28.6	4.05	31.5	4.46	32.6	4.61	35.2	4.98	37.8	5.35
	-5.0	21.0	2.98	23.9	3.39	28.6	4.06	31.5	4.47	32.6	4.61	35.2	4.99	37.8	5.36
	0.0	21.0	2.99	23.9	3.40	28.6	4.07	31.5	4.48	32.6	4.62	35.2	5.00	37.8	5.37
	5.0	21.0	3.02	23.9	3.42	28.6	4.09	31.5	4.49	32.6	4.64	35.2	5.01	37.8	5.38
	10.0	21.0	3.07	23.9	3.47	28.6	4.13	31.5	4.53	32.6	4.68	35.2	5.04	37.8	5.41
	15.0	21.0	3.21	23.9	3.59	28.6	4.23	31.5	4.62	32.6	4.76	35.2	5.12	37.8	5.48
	20.0	21.0	3.71	23.9	4.01	28.6	4.55	31.5	4.89	32.6	5.02	35.2	5.35	37.8	5.68
	25.0	21.0	3.75	23.9	4.16	28.6	4.83	31.5	5.24	32.6	5.39	35.2	5.76	37.8	6.13
	30.0	21.0	4.57	23.9	5.09	28.6	5.98	31.5	6.51	32.6	6.71	35.2	7.20	37.8	7.70
	35.0	21.0	5.68	23.9	6.35	28.6	7.47	31.5	8.14	32.6	8.39	35.2	9.01	37.8	9.63
	40.0	21.0	6.82	23.9	7.64	28.6	9.01	31.5	9.83	32.6	10.13	35.2	10.89	37.8	11.65
	43.0	21.0	7.55	23.9	8.46	28.6	9.99	31.5	10.91	32.6	11.25	35.2	12.09	37.8	12.94
46.0	21.0	8.31	23.9	9.33	28.6	11.03	31.5	12.05	32.6	12.43	35.2	13.37	37.8	14.32	
52.0	13.7	5.95	13.7	5.64	13.7	5.16	13.7	4.89	13.7	4.80	13.7	4.57	13.7	4.35	

# 1. Capacity Ratio of Outdoor Unit

## U-16MF3E8 (Cooling)

## Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-10.0	18.0	2.27	20.5	2.58	24.5	3.10	27.0	3.41	27.9	3.52	30.2	3.81	32.4	4.09
	-5.0	18.0	2.28	20.5	2.59	24.5	3.10	27.0	3.41	27.9	3.53	30.2	3.81	32.4	4.10
	0.0	18.0	2.29	20.5	2.60	24.5	3.11	27.0	3.42	27.9	3.53	30.2	3.82	32.4	4.10
	5.0	18.0	2.31	20.5	2.61	24.5	3.13	27.0	3.43	27.9	3.55	30.2	3.83	32.4	4.11
	10.0	18.0	2.35	20.5	2.65	24.5	3.15	27.0	3.46	27.9	3.57	30.2	3.85	32.4	4.13
	15.0	18.0	2.45	20.5	2.73	24.5	3.22	27.0	3.52	27.9	3.63	30.2	3.90	32.4	4.18
	20.0	18.0	2.78	20.5	3.01	24.5	3.42	27.0	3.69	27.9	3.79	30.2	4.04	32.4	4.29
	25.0	18.0	2.97	20.5	3.28	24.5	3.79	27.0	4.10	27.9	4.22	30.2	4.50	32.4	4.71
	30.0	18.0	3.33	20.5	3.65	24.5	4.18	27.0	4.49	27.9	4.60	30.2	4.88	32.4	5.15
	35.0	18.0	4.15	20.5	4.57	24.5	5.26	27.0	5.67	27.9	5.82	30.2	6.18	32.4	6.53
	40.0	18.0	4.99	20.5	5.52	24.5	6.38	27.0	6.89	27.9	7.07	30.2	7.52	32.4	7.97
43.0	18.0	5.52	20.5	6.12	24.5	7.09	27.0	7.66	27.9	7.87	30.2	8.38	32.4	8.88	
46.0	18.0	6.07	20.5	6.74	24.5	7.84	27.0	8.48	27.9	8.71	30.2	9.28	32.4	9.85	
52.0	13.7	5.30	13.7	5.02	13.7	4.60	13.7	4.36	13.7	4.27	13.7	4.07	13.7	3.87	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-10.0	15.0	1.71	17.0	1.94	20.5	2.33	22.5	2.56	23.3	2.65	25.1	2.86	27.0	3.07
	-5.0	15.0	1.72	17.0	1.95	20.5	2.33	22.5	2.56	23.3	2.65	25.1	2.86	27.0	3.08
	0.0	15.0	1.72	17.0	1.95	20.5	2.34	22.5	2.57	23.3	2.66	25.1	2.87	27.0	3.08
	5.0	15.0	1.74	17.0	1.97	20.5	2.35	22.5	2.58	23.3	2.67	25.1	2.88	27.0	3.09
	10.0	15.0	1.77	17.0	1.99	20.5	2.37	22.5	2.60	23.3	2.68	25.1	2.89	27.0	3.10
	15.0	15.0	1.84	17.0	2.05	20.5	2.42	22.5	2.64	23.3	2.72	25.1	2.93	27.0	3.13
	20.0	15.0	2.07	17.0	2.24	20.5	2.55	22.5	2.75	23.3	2.82	25.1	3.01	27.0	3.21
	25.0	15.0	2.34	17.0	2.57	20.5	2.96	22.5	3.13	23.3	3.17	25.1	3.29	27.0	3.43
	30.0	15.0	2.42	17.0	2.61	20.5	2.99	22.5	3.22	23.3	3.31	25.1	3.52	27.0	3.74
	35.0	15.0	3.02	17.0	3.28	20.5	3.68	22.5	3.91	23.3	3.99	25.1	4.19	27.0	4.37
	40.0	15.0	3.62	17.0	3.96	20.5	4.48	22.5	4.78	23.3	4.88	25.1	5.14	27.0	5.38
43.0	15.0	4.00	17.0	4.39	20.5	4.98	22.5	5.32	23.3	5.44	25.1	5.74	27.0	6.02	
46.0	15.0	4.41	17.0	4.83	20.5	5.51	22.5	5.90	23.3	6.03	25.1	6.37	27.0	6.69	
52.0	13.7	4.77	13.7	4.52	13.7	4.14	13.7	3.92	13.7	3.85	13.7	3.66	13.7	3.49	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-10.0	12.0	1.26	13.6	1.43	16.4	1.71	18.0	1.88	18.6	1.94	20.1	2.10	21.6	2.25
	-5.0	12.0	1.26	13.6	1.43	16.4	1.71	18.0	1.88	18.6	1.95	20.1	2.10	21.6	2.26
	0.0	12.0	1.27	13.6	1.44	16.4	1.72	18.0	1.89	18.6	1.95	20.1	2.11	21.6	2.26
	5.0	12.0	1.28	13.6	1.45	16.4	1.73	18.0	1.89	18.6	1.96	20.1	2.11	21.6	2.26
	10.0	12.0	1.30	13.6	1.47	16.4	1.74	18.0	1.91	18.6	1.97	20.1	2.12	21.6	2.28
	15.0	12.0	1.35	13.6	1.51	16.4	1.78	18.0	1.94	18.6	2.00	20.1	2.15	21.6	2.30
	20.0	12.0	1.52	13.6	1.64	16.4	1.86	18.0	2.01	18.6	2.06	20.1	2.20	21.6	2.35
	25.0	12.0	1.83	13.6	2.00	16.4	2.16	18.0	2.24	18.6	2.27	20.1	2.37	21.6	2.48
	30.0	12.0	1.86	13.6	2.03	16.4	2.32	18.0	2.49	18.6	2.55	20.1	2.70	21.6	2.86
	35.0	12.0	2.19	13.6	2.34	16.4	2.56	18.0	2.68	18.6	2.72	20.1	2.82	21.6	2.90
	40.0	12.0	2.62	13.6	2.82	16.4	3.12	18.0	3.28	18.6	3.33	20.1	3.47	21.6	3.59
43.0	12.0	2.89	13.6	3.12	16.4	3.47	18.0	3.66	18.6	3.72	20.1	3.88	21.6	4.02	
46.0	12.0	3.17	13.6	3.43	16.4	3.83	18.0	4.05	18.6	4.13	20.1	4.31	21.6	4.48	
52.0	12.0	3.78	13.6	4.11	13.7	3.79	13.7	3.59	13.7	3.52	13.7	3.35	13.7	3.19	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp. °CDB	Indoor water outlet temp. : °C													
		7.0		10.0		15.0		18.0		20.0		25.0		30.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	9.0	0.89	10.2	1.01	12.3	1.20	13.5	1.32	14.0	1.37	15.1	1.48	16.2	1.58
	-5.0	9.0	0.89	10.2	1.01	12.3	1.21	13.5	1.33	14.0	1.37	15.1	1.48	16.2	1.59
	0.0	9.0	0.89	10.2	1.01	12.3	1.21	13.5	1.33	14.0	1.37	15.1	1.48	16.2	1.59
	5.0	9.0	0.90	10.2	1.02	12.3	1.22	13.5	1.33	14.0	1.38	15.1	1.49	16.2	1.59
	10.0	9.0	0.92	10.2	1.04	12.3	1.23	13.5	1.35	14.0	1.39	15.1	1.50	16.2	1.60
	15.0	9.0	0.96	10.2	1.07	12.3	1.25	13.5	1.37	14.0	1.41	15.1	1.51	16.2	1.62
	20.0	9.0	1.08	10.2	1.16	12.3	1.32	13.5	1.42	14.0	1.45	15.1	1.55	16.2	1.65
	25.0	9.0	1.42	10.2	1.49	12.3	1.51	13.5	1.56	14.0	1.59	15.1	1.65	16.2	1.73
	30.0	9.0	1.45	10.2	1.57	12.3	1.77	13.5	1.89	14.0	1.94	15.1	2.04	16.2	2.01
	35.0	9.0	1.59	10.2	1.67	12.3	1.80	13.5	1.92	14.0	1.97	15.1	2.07	16.2	2.18
	40.0	9.0	1.88	10.2	1.99	12.3	2.15	13.5	2.22	14.0	2.25	15.1	2.31	16.2	2.36
43.0	9.0	2.06	10.2	2.19	12.3	2.38	13.5	2.47	14.0	2.51	15.1	2.58	16.2	2.64	
46.0	9.0	2.25	10.2	2.40	12.3	2.62	13.5	2.74	14.0	2.78	15.1	2.87	16.2	2.94	
52.0	9.0	2.66	10.2	2.86	12.3	3.15	13.5	3.30	14.0	3.36	13.7	3.14	13.7	2.99	



# 1. Capacity Ratio of Outdoor Unit

## 1-20. U-16MF3E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20.0	29.6	15.09	26.4	14.58	24.4	14.14	23.1	13.77	20.9	13.10	19.5	12.57	15.6	10.89
	-14.7	-15.0	35.1	15.89	31.4	15.23	29.1	14.71	27.5	14.30	25.0	13.56	23.3	13.00	18.8	11.26
	-9.6	-10.0	41.6	17.03	37.4	16.21	34.7	15.60	32.8	15.12	29.9	14.29	27.9	13.66	22.6	11.76
	-4.4	-5.0	48.6	18.21	43.8	17.24	40.7	16.47	38.5	15.92	35.2	14.98	32.8	14.27	26.6	12.18
	-1.8	-2.5	53.0	19.27	47.7	17.92	44.4	17.21	42.0	16.60	38.4	15.52	35.8	14.76	29.0	12.53
	0.8	0.0	57.7	20.36	52.0	18.82	48.3	17.72	45.8	17.07	41.8	16.12	39.0	15.35	31.5	12.89
	2.8	2.0	61.1	20.83	55.0	19.18	51.2	18.02	48.5	17.18	44.3	16.14	40.7	15.15	31.5	12.31
	6.0	5.0	66.2	21.28	59.3	19.27	53.7	17.23	50.0	15.92	44.4	14.32	40.7	13.42	31.5	11.04
	7.0	6.0	67.7	21.28	59.3	18.38	53.7	16.45	50.0	15.20	44.4	13.69	40.7	12.87	31.5	10.64
	8.6	7.5	68.5	20.21	59.3	17.08	53.7	15.29	50.0	14.15	44.4	12.79	40.7	12.07	31.5	10.05
	11.2	10.0	68.5	17.63	59.3	14.98	53.7	13.47	50.0	12.51	44.4	11.38	40.7	10.80	31.5	9.12
16.4	15.0	68.5	13.10	59.3	11.33	53.7	10.30	50.0	9.62	44.4	8.88	40.7	8.52	31.5	7.37	
24.0	18.0	68.5	11.42	59.3	10.00	53.7	9.15	50.0	8.58	44.4	7.72	40.7	7.15	31.5	6.14	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
90%	-19.8	-20.0	28.7	14.60	25.6	14.13	23.6	13.72	22.3	13.38	20.2	12.76	18.7	12.26	15.0	10.67
	-14.7	-15.0	34.2	15.63	30.5	14.96	28.2	14.45	26.6	14.04	24.2	13.33	22.5	12.77	18.0	11.08
	-9.6	-10.0	40.6	16.86	36.4	16.00	33.7	15.37	31.9	14.90	29.0	14.08	27.0	13.46	21.7	11.59
	-4.4	-5.0	48.6	18.22	43.6	17.48	40.5	16.75	38.3	16.13	34.8	15.15	32.4	14.43	26.1	12.29
	-1.8	-2.5	53.0	19.22	47.6	17.90	44.1	17.28	41.7	16.79	38.0	15.76	35.4	14.92	28.3	12.60
	0.8	0.0	57.8	20.24	51.8	18.72	48.0	17.63	45.0	16.83	40.0	15.52	36.7	14.58	28.3	11.93
	2.8	2.0	61.2	20.67	53.3	18.08	48.3	16.38	45.0	15.52	40.0	14.37	36.7	13.56	28.3	11.34
	6.0	5.0	61.7	18.18	53.3	15.82	48.3	14.51	45.0	13.87	40.0	13.01	36.7	12.30	28.3	10.24
	7.0	6.0	61.7	18.13	53.3	15.58	48.3	14.11	45.0	13.40	40.0	12.47	36.7	11.80	28.3	9.87
	8.6	7.5	61.7	16.70	53.3	14.42	48.3	13.09	45.0	12.46	40.0	11.66	36.7	11.06	28.3	9.33
	11.2	10.0	61.7	14.47	53.3	12.59	48.3	11.49	45.0	11.00	40.0	10.39	36.7	9.92	28.3	8.48
16.4	15.0	61.7	10.84	53.3	9.50	48.3	8.70	45.0	8.41	40.0	8.11	36.7	7.82	28.3	6.85	
24.0	18.0	61.7	10.84	53.3	9.50	48.3	8.70	45.0	8.16	40.0	7.36	36.7	6.82	28.3	5.67	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
80%	-19.8	-20.0	28.0	14.47	24.8	13.98	22.9	13.56	21.5	13.23	19.5	12.62	18.0	12.13	14.4	10.57
	-14.7	-15.0	33.4	15.34	29.7	14.68	27.4	14.18	25.8	13.79	23.4	13.10	21.7	12.57	17.3	10.93
	-9.6	-10.0	39.8	16.72	35.5	15.85	32.8	15.22	31.0	14.74	28.1	13.92	26.1	13.30	20.9	11.45
	-4.4	-5.0	48.8	18.25	43.6	17.56	40.3	17.01	38.1	16.45	34.5	15.37	32.1	14.61	25.2	12.17
	-1.8	-2.5	53.2	19.19	47.4	17.78	43.0	16.81	40.0	16.12	35.6	14.95	32.6	14.06	25.2	11.50
	0.8	0.0	54.8	18.15	47.4	16.01	43.0	15.22	40.0	14.70	35.6	13.77	32.6	13.07	25.2	10.97
	2.8	2.0	54.8	16.50	47.4	14.81	43.0	14.22	40.0	13.76	35.6	12.93	32.6	12.28	25.2	10.37
	6.0	5.0	54.8	14.69	47.4	13.23	43.0	12.78	40.0	12.40	35.6	11.71	32.6	11.13	25.2	9.39
	7.0	6.0	54.8	14.69	47.4	12.95	43.0	12.38	40.0	11.96	35.6	11.23	32.6	10.68	25.2	9.05
	8.6	7.5	54.8	13.48	47.4	11.94	43.0	11.48	40.0	11.13	35.6	10.51	32.6	10.02	25.2	8.57
	11.2	10.0	54.8	11.57	47.4	10.37	43.0	10.08	40.0	9.85	35.6	9.38	32.6	9.00	25.2	7.80
16.4	15.0	54.8	10.17	47.4	8.92	43.0	8.18	40.0	7.68	35.6	7.31	32.6	7.10	25.2	6.29	
24.0	18.0	54.8	10.17	47.4	8.92	43.0	8.18	40.0	7.68	35.6	6.94	32.6	6.44	25.2	5.20	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20.0	27.5	14.48	24.3	13.96	22.4	13.54	21.0	13.20	19.0	12.59	17.6	12.10	13.9	10.55
	-14.7	-15.0	32.9	15.42	29.2	14.73	26.8	14.21	25.3	13.80	22.8	13.11	21.2	12.57	16.8	10.92
	-9.6	-10.0	39.3	16.46	35.0	15.90	32.3	15.22	30.4	14.73	27.5	13.91	25.5	13.29	20.3	11.45
	-4.4	-5.0	48.0	17.61	41.5	16.55	37.6	15.79	35.0	15.24	31.1	14.17	28.5	13.28	22.0	11.00
	-1.8	-2.5	48.0	15.89	41.5	15.18	37.6	14.60	35.0	14.13	31.1	13.28	28.5	12.61	22.0	10.43
	0.8	0.0	48.0	14.46	41.5	13.91	37.6	13.44	35.0	13.03	31.1	12.28	28.5	11.69	22.0	9.92
	2.8	2.0	48.0	13.35	41.5	12.92	37.6	12.53	35.0	12.18	31.1	11.51	28.5	10.99	22.0	9.36
	6.0	5.0	48.0	11.77	41.5	11.52	37.6	11.22	35.0	10.94	31.1	10.39	28.5	9.93	22.0	8.48
	7.0	6.0	48.0	11.59	41.5	11.16	37.6	10.82	35.0	10.52	31.1	9.97	28.5	9.53	22.0	8.19
	8.6	7.5	48.0	10.57	41.5	10.30	37.6	10.04	35.0	9.80	31.1	9.34	28.5	8.96	22.0	7.76
	11.2	10.0	48.0	9.40	41.5	8.95	37.6	8.84	35.0	8.69	31.1	8.36	28.5	8.06	22.0	7.08
16.4	15.0	48.0	9.40	41.5	8.26	37.6	7.58	35.0	7.13	31.1	6.50	28.5	6.35	22.0	5.70	
24.0	18.0	48.0	9.40	41.5	8.26	37.6	7.58	35.0	7.13	31.1	6.45	28.5	5.99	22.0	4.86	

# 1. Capacity Ratio of Outdoor Unit

## U-16MF3E8 (Heating)

### Capacity Ratio 30-100%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-19.8	-20.0	27.5	14.45	24.3	13.91	22.3	13.47	20.9	13.13	18.9	12.52	17.4	12.03	13.8	10.50
	-14.7	-15.0	33.0	15.45	29.2	14.72	26.8	14.19	25.2	13.78	22.8	13.07	21.1	12.52	16.7	10.88
	-9.6	-10.0	39.6	16.36	35.1	15.97	32.2	15.20	30.0	14.55	26.7	13.52	24.4	12.78	18.9	10.73
	-4.4	-5.0	41.1	14.45	35.6	13.96	32.2	13.46	30.0	13.04	26.7	12.25	24.4	11.56	18.9	9.60
	-1.8	-2.5	41.1	13.20	35.6	12.84	32.2	12.42	30.0	12.06	26.7	11.39	24.4	10.86	18.9	9.16
	0.8	0.0	41.1	11.97	35.6	11.74	32.2	11.41	30.0	11.11	26.7	10.53	24.4	10.06	18.9	8.62
	2.8	2.0	41.1	11.02	35.6	10.89	32.2	10.62	30.0	10.37	26.7	9.86	24.4	9.45	18.9	8.13
	6.0	5.0	41.1	9.67	35.6	9.68	32.2	9.49	30.0	9.29	26.7	8.86	24.4	8.50	18.9	7.33
	7.0	6.0	41.1	9.32	35.6	9.26	32.2	9.07	30.0	8.88	26.7	8.49	24.4	8.17	18.9	7.12
	8.6	7.5	41.1	8.50	35.6	8.55	32.2	8.44	30.0	8.29	26.7	7.97	24.4	7.69	18.9	6.75
	11.2	10.0	41.1	8.33	35.6	7.45	32.2	7.44	30.0	7.36	26.7	7.15	24.4	6.94	18.9	6.17
	16.4	15.0	41.1	8.33	35.6	7.34	32.2	6.75	30.0	6.35	26.7	5.76	24.4	5.45	18.9	4.97
24.0	18.0	41.1	8.33	35.6	7.34	32.2	6.75	30.0	6.35	26.7	5.76	24.4	5.37	18.9	4.38	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
50%	-19.8	-20.0	28.6	14.51	25.2	13.94	23.1	13.49	21.6	13.14	19.4	12.52	18.0	12.03	14.2	10.49
	-14.7	-15.0	34.3	15.58	29.6	14.50	26.9	13.79	25.0	13.27	22.2	12.42	20.4	11.81	15.7	10.04
	-9.6	-10.0	34.3	13.63	29.6	13.11	26.9	12.45	25.0	11.92	22.2	11.09	20.4	10.50	15.7	8.86
	-4.4	-5.0	34.3	11.56	29.6	11.26	26.9	10.90	25.0	10.59	22.2	10.02	20.4	9.53	15.7	7.96
	-1.8	-2.5	34.3	10.53	29.6	10.34	26.9	10.06	25.0	9.79	22.2	9.29	20.4	8.89	15.7	7.61
	0.8	0.0	34.3	9.53	29.6	9.44	26.9	9.23	25.0	9.02	22.2	8.59	20.4	8.24	15.7	7.13
	2.8	2.0	34.3	8.77	29.6	8.75	26.9	8.59	25.0	8.41	22.2	8.05	20.4	7.74	15.7	6.71
	6.0	5.0	34.3	7.63	29.6	7.68	26.9	7.57	25.0	7.44	22.2	7.16	20.4	6.91	15.7	6.04
	7.0	6.0	34.3	7.19	29.6	7.30	26.9	7.23	25.0	7.13	22.2	6.88	20.4	6.65	15.7	5.88
	8.6	7.5	34.3	7.00	29.6	6.75	26.9	6.74	25.0	6.66	22.2	6.47	20.4	6.27	15.7	5.59
	11.2	10.0	34.3	7.00	29.6	6.19	26.9	5.96	25.0	5.94	22.2	5.82	20.4	5.68	15.7	5.12
	16.4	15.0	34.3	7.00	29.6	6.19	26.9	5.70	25.0	5.38	22.2	4.90	20.4	4.57	15.7	4.13
24.0	18.0	34.3	7.00	29.6	6.19	26.9	5.70	25.0	5.38	22.2	4.90	20.4	4.57	15.7	3.76	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
40%	-19.8	-20.0	27.4	12.60	23.7	11.91	21.5	11.42	20.0	11.05	17.8	10.42	16.3	9.96	12.6	8.56
	-14.7	-15.0	27.4	11.41	23.7	10.62	21.5	10.12	20.0	9.75	17.8	9.15	16.3	8.71	12.6	7.45
	-9.6	-10.0	27.4	9.87	23.7	9.56	21.5	9.19	20.0	8.74	17.8	8.20	16.3	7.78	12.6	6.60
	-4.4	-5.0	27.4	8.35	23.7	8.20	21.5	7.97	20.0	7.77	17.8	7.38	16.3	7.06	12.6	5.96
	-1.8	-2.5	27.4	7.60	23.7	7.52	21.5	7.35	20.0	7.18	17.8	6.85	16.3	6.58	12.6	5.70
	0.8	0.0	27.4	6.87	23.7	6.87	21.5	6.75	20.0	6.60	17.8	6.32	16.3	6.08	12.6	5.31
	2.8	2.0	27.4	6.27	23.7	6.30	21.5	6.21	20.0	6.10	17.8	5.87	16.3	5.67	12.6	4.99
	6.0	5.0	27.4	5.31	23.7	5.46	21.5	5.45	20.0	5.39	17.8	5.23	16.3	5.08	12.6	4.52
	7.0	6.0	27.4	5.31	23.7	5.20	21.5	5.21	20.0	5.17	17.8	5.03	16.3	4.90	12.6	4.40
	8.6	7.5	27.4	5.31	23.7	4.83	21.5	4.86	20.0	4.85	17.8	4.75	16.3	4.63	12.6	4.19
	11.2	10.0	27.4	5.31	23.7	4.72	21.5	4.36	20.0	4.33	17.8	4.29	16.3	4.21	12.6	3.85
	16.4	15.0	27.4	5.31	23.7	4.72	21.5	4.36	20.0	4.12	17.8	3.77	16.3	3.53	12.6	3.12
24.0	18.0	27.4	5.31	23.7	4.72	21.5	4.36	20.0	4.12	17.8	3.77	16.3	3.53	12.6	2.94	

Combination(%) :Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor water outlet temp. : °C													
			25.0		30.0		33.0		35.0		38.0		40.0		45.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-19.8	-20.0	20.6	8.61	17.8	8.15	16.1	7.83	15.0	7.59	13.3	7.18	12.2	6.88	9.4	5.96
	-14.7	-15.0	20.6	7.79	17.8	7.31	16.1	6.98	15.0	6.73	13.3	6.34	12.2	6.05	9.4	5.22
	-9.6	-10.0	20.6	6.72	17.8	6.55	16.1	6.34	15.0	6.11	13.3	5.71	12.2	5.43	9.4	4.65
	-4.4	-5.0	20.6	5.68	17.8	5.61	16.1	5.48	15.0	5.35	13.3	5.11	12.2	4.91	9.4	4.21
	-1.8	-2.5	20.6	5.11	17.8	5.10	16.1	5.01	15.0	4.92	13.3	4.72	12.2	4.55	9.4	4.00
	0.8	0.0	20.6	4.56	17.8	4.61	16.1	4.56	15.0	4.49	13.3	4.34	12.2	4.20	9.4	3.73
	2.8	2.0	20.6	4.13	17.8	4.23	16.1	4.21	15.0	4.17	13.3	4.05	12.2	3.93	9.4	3.52
	6.0	5.0	20.6	3.81	17.8	3.70	16.1	3.72	15.0	3.71	13.3	3.63	12.2	3.55	9.4	3.22
	7.0	6.0	20.6	3.81	17.8	3.53	16.1	3.57	15.0	3.56	13.3	3.51	12.2	3.43	9.4	3.13
	8.6	7.5	20.6	3.81	17.8	3.41	16.1	3.35	15.0	3.36	13.3	3.32	12.2	3.26	9.4	2.99
	11.2	10.0	20.6	3.81	17.8	3.41	16.1	3.17	15.0	3.02	13.3	3.02	12.2	2.98	9.4	2.77
	16.4	15.0	20.6	3.81	17.8	3.41	16.1	3.17	15.0	3.01	13.3	2.76	12.2	2.60	9.4	2.27
24.0	18.0	20.6	3.81	17.8	3.41	16.1	3.17	15.0	3.01	13.3	2.76	12.2	2.60	9.4	2.20	