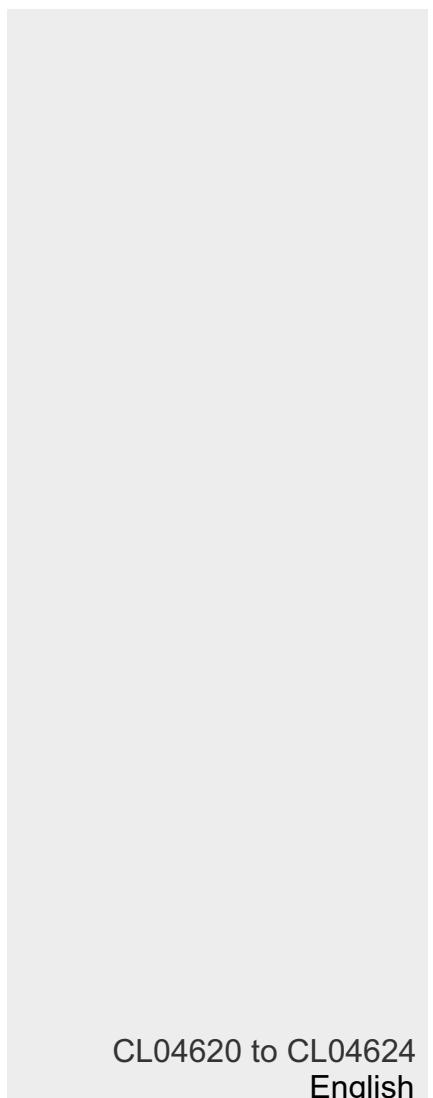


# Medium Pressure Duct FCU DC

## Service manual

### **MUCM-W7**



[www.mundoclima.com](http://www.mundoclima.com)

CL04620 to CL04624  
English

# **Two-pipe Duct DC Fan Coil Unit**

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## 1. External Appearance

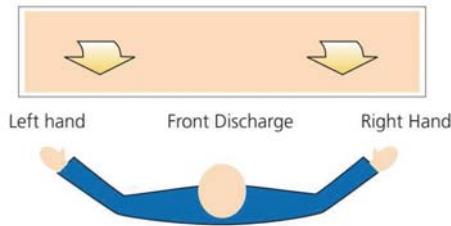


## 2. Feature

### ■ Wider external static pressure supplying.

The factory default 50Pa, 12/30Pa can adjust in the field.

### ■ Left or right hand piping connections, field convertible.



### ■ Quiet operation

A patent design is able to prevent abnormal noise caused by blowing fins.

### ■ Superior air distribution

As the conditioned air can be distributed to every corner of the area by air duct, this will ensure more pleasant living environment, thus provide extra comfort to the occupants.

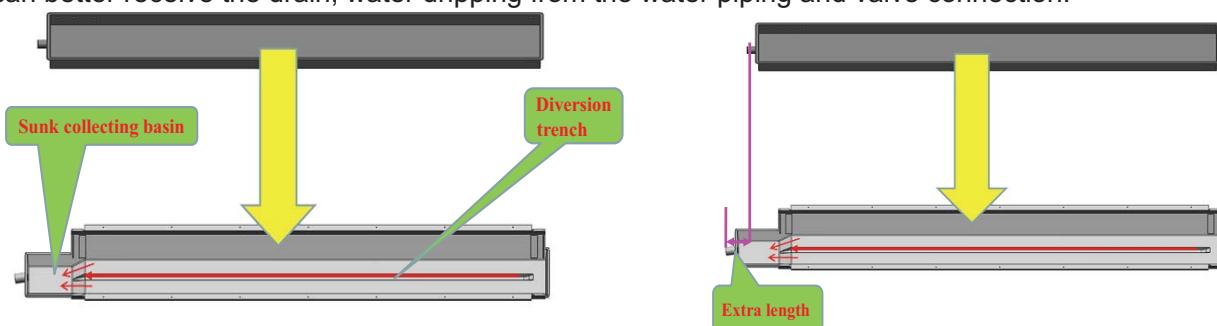
### ■ Fresh air supply makes life healthier and more comfortable

### ■ Air return plenum

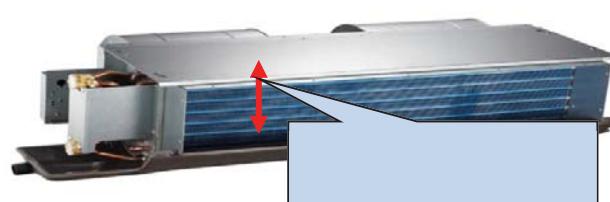
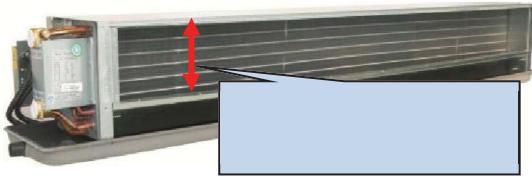
Units with air return plenum is standard and units without air return plenum can be customized.

### ■ V type drain pan

Diversion trench and sunk collecting basin design making better drainage. Longer length of V type drain pan can better receive the drain, water dripping from the water piping and valve connection.

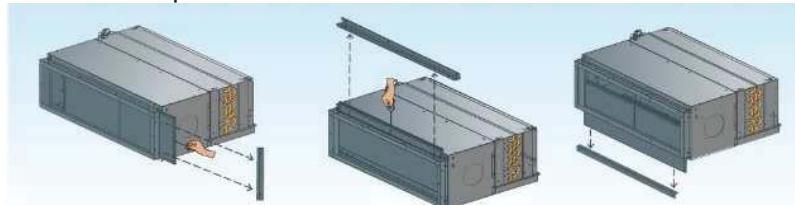


The performance is improved for larger air outlet area.



#### Washable filter

Iron frame filter is standard and aluminum frame filter can be customized.  
Air outlet flange and multi-direction pull-out filter can be customized.

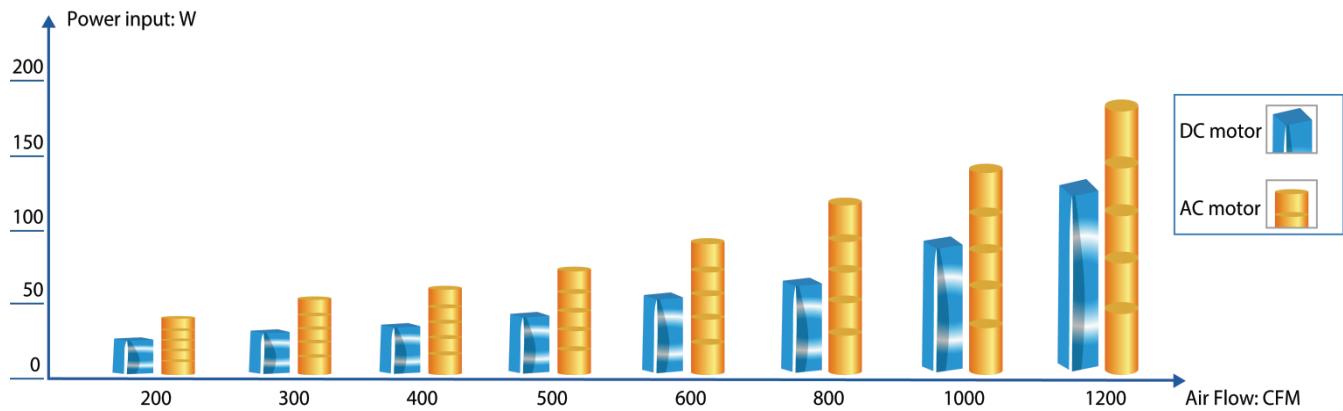


#### Optional wired controller

Optional wired controller offers simple and flexibility in controlling the unit.

#### Excellent efficiency

DC FCUs use the brushless DC motor, the DC motor efficiency up to 90%. Contrast with the original FCU. DC FCU power consumption can be reduced by about 30%.



#### DC brushless motor

DC motor with famous brand, energy saving, high operating efficiency, durable motor.

The motor adopts fully enclosed structure design. The motor bearing can operate 80,000 hours continuously and easy for maintenance.



#### Low noise

Centrifugal fan blades are made with lightweight materials to reduce noise.

Fan blades with optimized design make the aerodynamic performance better and with low noise.

The motor bearing with unique design makes less operation vibration.

### 3. Product Lineup

Model (MUCM-W7)	15	19	27	30	36
3-Row duct	●	●	●	●	●

## 4. Accessories

### 4.1 Standard accessories

Accessory name	Qty.	Shape	Usage
Owner's & installation manual	1	/	Installation guide
Extended drain pan	1		Connect drain water from valve kit

### 4.2 Optional accessories

Accessory name	Qty.	Shape	Usage
PCB control kit FCUKZ-03 (CL94974)	1		Electric control
Wired controller KJR-29B* (CL92869)	1		Wired control
Wired controller KJR-12B/D* (CL94848)	1		Wired control
Central controller CCM30* (CL92871)	1		Central control
3-way valve (CO05506 + CO05509)	1		3-way valve

\*Note: To use it is necessary the PCB control kit FCUKZ-03 (CL94974)

## 5. Specifications

Model		MUCM-15-W7	MUCM-19-W7	MUCM-27-W7
Power supply	V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)	m <sup>3</sup> /h	865/626/441	1022/760/544	1452/1038/781
	CFM	508/368/259	601/447/320	854/610/459
Standard external static pressure	Pa	The factory default 50Pa, 12/30Pa can adjust in the field		
Cooling <sup>1</sup>	Capacity (H/M/L)	kW	4.46/3.59/2.83	5.85/4.82/3.78
	Water flow rate(H/M/L)	m <sup>3</sup> /h	0.79/0.63/0.50	1.05/0.85/0.65
	Water pressure drop(H/M/L)	kPa	16.4/11.3/7.6	31.4/22/14.2
	Power input(H/M/L)	W	39/19/11	49/24/12
Heating <sup>2</sup>	Capacity (H/M/L)	kW	5.27/4.21/3.21	6.62/5.38/4
	Water flow rate(H/M/L)	m <sup>3</sup> /h	0.92/0.73/0.57	1.15/0.94/0.71
	Water pressure drop(H/M/L)	kPa	18.4/12.4/8.1	31.7/22.2/13.6
	Power input(H/M/L)	W	43/21/11	53/26/12
Heating <sup>3</sup>	Capacity (H/M/L)	kW	6.26/4.99/3.81	7.84/6.35/4.81
	Water flow rate(H/M/L)	m <sup>3</sup> /h	0.79/0.63/0.50	1.05/0.85/0.65
	Water pressure drop(H/M/L)	kPa	13.7/9.5/6.3	26.4/18.2/11.4
	Power input(H/M/L)	W	43/21/11	52/25/13
Sound pressure level	0Pa (H/M/L)	dB(A)	44.3/36.3/27.9	46.1/39.0/30.3
Rated current		A	0.4	0.5
Fan motor	Type		DC Motor	DC Motor
	Brand		Panasonic	Panasonic
	Model		WZDK100-38GS-2	WZDK100-38GS-2
	Quantity		1	1
Fan	Type		Centrifugal, forward-curved Blades	
	Quantity		2	2
Coil	Row		3	3
	Max. Working pressure	MPa	1.6	1.6
	Coil length x height	mm	685x216	905x216
	Fin spacing	mm	2.2	2.2
	Fin type		Hydrophilic aluminum	
	Number of circuits		3	3
Body	Diameter	mm	Φ9.52	Φ9.52
	DimensionsW×H×D	mm	941×241×522	1161×241×522
	PackingW×H×D	mm	990×260×550	1210×260×550
	Net weight	kg	21	23.7
Pipe connection	Gross weight	kg	24	27.2
	Water inlet/outlet pipe	inch	RC3/4	RC3/4
	Drain pipe	mm	ODΦ24	ODΦ24

### Notes:

Based on Eurovent conditions:

H: High fan speed; M: Medium fan speed; L: Low fan speed.

1 :Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.

2 :Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

3 :Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperaure/water flow 50°C/\*(same water flow as in standard rating condition in cooling)

Model		MUCM-30-W7		MUCM-36-W7
Power supply		V/Ph/Hz		220-240/1/50
Air flow (H/M/L)	m <sup>3</sup> /h	1824/1332/906	2134/1581/1083	
	CFM	1072/783/532	1255/930/637	
Standard external static pressure		Pa	The factory default 50Pa, 12/30Pa can adjust in the field	
Cooling <sup>1</sup>	Capacity (H/M/L)	kW	8.96/7.37/5.66	10.79/8.86/6.79
	Water flow rate(H/M/L)	m <sup>3</sup> /h	1.59/1.29/0.98	1.93/1.57/1.20
	Water pressure drop(H/M/L)	kPa	24.1/16.9/10.8	26.3/18.8/12.8
	Power input(H/M/L)	W	96/43/19	106/49/21
Heating <sup>2</sup>	Capacity (H/M/L)	kW	10.74/8.55/6.35	12.62/10.15/7.47
	Water flow rate(H/M/L)	m <sup>3</sup> /h	1.88/1.51/1.13	2.23/1.78/1.31
	Water pressure drop(H/M/L)	kPa	28.3/19.4/12	29.4/20/11.9
	Power input(H/M/L)	W	100/45/20	115/52/22
Heating <sup>3</sup>	Capacity (H/M/L)	kW	12.61/10.04/7.35	14.9/11.92/8.89
	Water flow rate(H/M/L)	m <sup>3</sup> /h	1.59/1.29/0.98	1.93/1.57/1.20
	Water pressure drop(H/M/L)	kPa	21.1/14.8/9.5	22.6/16/10.2
	Power input(H/M/L)	W	99/44/19	114/51/22
Sound pressure level	0Pa (H/M/L)	dB(A)	47.8/40.7/30.7	48.9/41.8/31.7
Rated current		A	0.9	1
Fan motor	Type		DC Motor	DC Motor
	Brand		Panasonic	Panasonic
	Model		WZDK100-38GS	WZDK100-38GS
	Quantity		2	2
Fan	Type		Centrifugal, forward-curved Blades	
	Quantity		4	4
Coil	Row		3	3
	Max. Working pressure	MPa	1.6	1.6
	Coil length x height	mm	1310x216	1600x216
	Fin spacing	mm	2.2	2.2
	Fin type		Hydrophilic aluminum	
	Number of circuits		5	6
	Diameter	mm	Φ9.52	Φ9.52
Body	DimensionsW×H×D	mm	1566×241×522	1856×241×522
	PackingW×H×D	mm	1615×260×550	1905×260×550
	Net weight	kg	34.7	39.2
	Gross weight	kg	39.2	44.4
Pipe connection	Water inlet/outlet pipe	inch	RC3/4	RC3/4
	Drain pipe	mm	ODΦ24	ODΦ24

### Notes:

Based on Eurovent conditions:

H: High fan speed; M: Medium fan speed; L: Low fan speed.

1 :Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.

2 :Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

3 :Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperaure/water flow 50°C/\*(same water flow as in standard rating condition in cooling)

## 6. Capacity Table

### Cooling Capacity Table

				MUCM-15-W7																			
EWT	ΔT	Indoor temp (W.B.)	Indoor temperature (D.B.)																				
			21				23				25				27				29				
°C	°C	°C	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	
5	3	15	4.15	3.28	1.19	30.66	4.11	3.78	1.18	30.15	4.28	4.28	1.23	32.44	4.74	4.74	1.36	38.67	5.19	5.19	1.49	45.32	
		17	5.4	3.17	1.55	48.55	5.36	3.67	1.54	48.05	5.24	4.14	1.5	46.16	5.09	4.58	1.46	43.81	5.26	5.16	1.51	46.41	
		19	6.76	3.05	1.94	72.04	6.71	3.56	1.93	71.25	6.66	4.06	1.91	70.24	6.5	4.5	1.87	67.35	6.4	4.97	1.84	65.58	
		20	7.48	2.99	2.15	86.16	7.43	3.5	2.14	85.23	7.38	4	2.12	84.29	7.28	4.47	2.09	82.24	7.11	4.91	2.05	78.94	
	4	15	3.82	3.13	0.82	16.11	3.84	3.66	0.82	16.29	4.13	4.13	0.89	18.44	4.58	4.58	0.98	22.09	5.04	5.04	1.08	25.98	
		17	5.06	3.02	1.09	26.22	5.04	3.53	1.08	25.97	4.94	4	1.06	25.16	4.8	4.45	1.03	23.92	5.08	5.08	1.09	26.33	
		19	6.42	2.9	1.38	39.59	6.38	3.41	1.37	39.16	6.33	3.91	1.36	38.68	6.17	4.36	1.33	36.98	6.05	4.81	1.3	35.7	
		20	7.14	2.84	1.53	47.63	7.1	3.35	1.52	47.13	7.05	3.86	1.52	46.63	6.95	4.33	1.49	45.47	6.77	4.76	1.45	43.39	
	5	15	3.48	2.98	0.6	9.34	3.63	3.56	0.62	10.03	3.97	3.97	0.68	11.73	4.43	4.43	0.76	14.14	4.88	4.88	0.84	16.7	
		17	4.72	2.87	0.81	15.73	4.7	3.38	0.81	15.6	4.62	3.86	0.79	15.2	4.58	4.35	0.79	14.93	4.91	4.91	0.84	16.84	
		19	6.08	2.75	1.04	24.32	6.04	3.26	1.04	24.06	6	3.77	1.03	23.78	5.87	4.23	1.01	22.9	5.69	4.66	0.98	21.7	
		20	6.79	2.69	1.17	29.49	6.75	3.2	1.16	29.19	6.71	3.71	1.15	28.89	6.63	4.19	1.14	28.28	6.42	4.61	1.1	26.72	
	6	15	3.18	2.85	0.46	5.86	3.43	3.43	0.49	6.67	3.82	3.82	0.55	8	4.28	4.28	0.61	9.7	4.73	4.73	0.68	11.53	
		17	4.36	2.71	0.62	10	4.34	3.23	0.62	9.94	4.3	3.72	0.61	9.76	4.38	4.27	0.63	10.08	4.75	4.75	0.68	11.58	
		19	5.72	2.6	0.82	15.94	5.68	3.11	0.81	15.76	5.65	3.62	0.81	15.59	5.54	4.09	0.79	15.11	5.32	4.51	0.76	14.09	
		20	6.44	2.54	0.92	19.52	6.4	3.06	0.92	19.32	6.36	3.56	0.91	19.12	6.29	4.05	0.9	18.77	6.06	4.46	0.87	17.6	
7	3	15	3.19	2.85	0.91	19.22	3.37	3.37	0.97	21.14	3.81	3.81	1.09	26.14	4.27	4.27	1.22	31.82	4.72	4.72	1.35	37.93	
		17	4.42	2.74	1.27	33.74	4.39	3.25	1.26	33.43	4.35	3.75	1.25	32.87	4.3	4.24	1.23	32.24	4.73	4.73	1.36	37.96	
		19	5.77	2.62	1.66	53.8	5.73	3.13	1.65	53.15	5.69	3.64	1.63	52.58	5.56	4.1	1.6	50.47	5.36	4.52	1.54	47.3	
		20	6.48	2.56	1.86	66.04	6.44	3.07	1.85	65.3	6.4	3.58	1.84	64.58	6.32	4.06	1.82	63.13	6.08	4.47	1.75	59.08	
	4	15	2.91	2.73	0.62	9.96	3.21	3.21	0.69	11.77	3.66	3.66	0.79	14.76	4.12	4.12	0.88	18.08	4.57	4.57	0.98	21.66	
		17	4.06	2.59	0.87	17.66	4.05	3.1	0.87	17.55	4.02	3.6	0.86	17.33	4.13	4.13	0.89	18.2	4.57	4.57	0.98	21.68	
		19	5.42	2.48	1.16	29.03	5.38	2.98	1.16	28.67	5.35	3.49	1.15	28.38	5.25	3.97	1.13	27.49	5	4.38	1.07	25.29	
		20	6.13	2.42	1.32	35.98	6.09	2.93	1.31	35.58	6.05	3.43	1.3	35.19	5.98	3.92	1.29	34.53	5.74	4.33	1.23	32.07	
	5	15	2.68	2.64	0.46	5.91	3.05	3.05	0.52	7.33	3.51	3.51	0.6	9.32	3.97	3.97	0.68	11.51	4.42	4.42	0.76	13.86	
		17	3.69	2.43	0.63	10.17	3.69	2.95	0.63	10.15	3.74	3.49	0.64	10.42	3.97	3.97	0.68	11.54	4.42	4.42	0.76	13.88	
		19	5.05	2.33	0.87	17.41	5.01	2.84	0.86	17.19	4.99	3.35	0.86	17.04	4.46	3.5	0.79	16.4	4.72	4.26	0.81	15.5	
		20	5.76	2.27	0.99	21.87	5.72	2.78	0.98	21.62	5.69	3.29	0.98	21.38	5.64	3.78	0.97	21.05	5.43	4.21	0.93	19.75	
	6	15	2.48	2.48	0.36	3.78	2.88	2.88	0.41	4.89	3.35	3.35	0.48	6.3	3.81	3.81	0.55	7.85	4.27	4.27	0.61	9.52	
		17	3.29	2.27	0.47	6.1	3.33	2.81	0.48	6.22	3.52	3.4	0.5	6.83	3.82	3.82	0.55	7.86	4.27	4.27	0.61	9.53	
		19	4.67	2.17	0.67	11.07	4.63	2.68	0.66	10.92	4.61	3.2	0.66	10.85	4.55	3.69	0.65	10.61	4.48	4.17	0.64	10.33	
		20	5.38	2.12	0.77	14.14	5.34	2.63	0.77	13.97	5.31	3.14	0.76	13.82	5.27	3.64	0.75	13.64	5.1	4.08	0.73	12.91	
9	3	15	2.43	2.43	0.7	11.88	2.88	2.88	0.83	15.85	3.34	3.34	0.96	20.52	3.8	3.8	1.09	25.65	4.26	4.26	1.22	31.22	
		17	3.38	2.31	0.97	20.93	3.38	2.83	0.97	20.93	3.45	3.37	0.99	21.63	3.8	3.8	1.09	25.66	4.26	4.26	1.22	31.25	
		19	4.73	2.2	1.36	37.47	4.69	2.71	1.35	36.94	4.66	3.22	1.34	36.58	4.62	3.71	1.32	35.92	4.4	4.13	1.26	33.04	
		20	5.44	2.14	1.56	47.84	5.4	2.65	1.55	47.22	5.36	3.16	1.54	46.67	5.32	3.66	1.53	46.1	5.11	4.08	1.47	42.87	
	4	15	2.26	2.26	0.49	6.4	2.72	2.72	0.59	8.77	3.19	3.19	0.69	11.49	3.65	3.65	0.78	14.48	4.11	4.11	0.88	17.74	
		17	3	2.15	0.64	10.31	3.04	2.69	0.65	10.55	3.25	3.25	0.7	11.85	3.65	3.65	0.79	14.49	4.11	4.11	0.88	17.76	
		19	4.35	2.05	0.94	19.6	4.32	2.56	0.93	19.32	4.3	3.07	0.92	19.18	4.26	3.57	0.92	18.89	4.19	4.05	0.9	18.37	
		20	5.06	1.99	1.09	25.47	5.02	2.5	1.08	25.12	4.99	3.01	1.07	24.84	4.96	3.52	1.07	24.57	4.8	3.96	1.03	23.18	
	5	15	2.1	2.1	0.36	3.83	2.57	2.57	0.44	5.4	3.04	3.04	0.52	7.18	3.5	3.5	0.6	9.15	3.96	3.96	0.68	11.29	
		17	2.59	1.99	0.44	5.46	2.77	2.58	0.48	6.12	3.07	3.07	0.53	7.32	3.5	3.5	0.6	9.15	3.96	3.96	0.68	11.3	
		19	3.95	1.89	0.68	11.25	3.92	2.41	0.67	11.1	3.92	2.93	0.67	11.09	3.91	3.44	0.67	11.06	4.01	3.98	0.69	11.55	
		20	4.68	1.84	0.8	15.02	4.63	2.35	0.8	14.79	4.61	2.86	0.79	14.64	4.58	3.37	0.79	14.52	4.46	3.84	0.77	13.86	
	6	15	1.93	1.93	0.28	2.32	2.41	2.41	0.34	3.54	2.88	2.88	0.41	4.79	3.34	3.34	0.48	6.18	3.8	3.8	0.55	7.7	
		17	2.24	1.86	0.32	3.11	2.54	2.49	0.36	3.87	2.9	2.9	0.42	4.85	3.35	3.35	0.48	6.19	3.81	3.81	0.55	7.71	
		19	3.51	1.73	0.5	6.71	3.49	2.25	0.5	6.65	3.52	2.77	0.5	6.72	3.63</td								

(Continued)

MUCM-15-W7

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																					
			21						23						25						27			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD		
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa		
11	3	15	1.93	1.93	0.55	7.9	2.41	2.41	0.69	11.47	2.87	2.87	0.82	15.56	3.33	3.33	0.96	20.14	3.79	3.79	1.09	25.18		
		17	2.28	1.87	0.65	10.47	2.48	2.47	0.71	12.09	2.87	2.87	0.82	15.57	3.34	3.34	0.96	20.15	3.79	3.79	1.09	25.19		
		19	3.62	1.77	1.04	23.21	3.59	2.28	1.03	22.88	3.59	2.8	1.03	22.88	3.58	3.31	1.03	22.79	3.8	3.8	1.09	25.3		
		20	4.34	1.72	1.25	31.82	4.29	2.22	1.23	31.23	4.27	2.74	1.23	30.91	4.25	3.24	1.22	30.63	4.17	3.73	1.2	29.66		
	4	15	1.78	1.78	0.38	4.17	2.25	2.25	0.48	6.23	2.72	2.72	0.58	8.61	3.18	3.18	0.68	11.28	3.64	3.64	0.78	14.22		
		17	1.96	1.75	0.42	4.94	2.29	2.29	0.49	6.42	2.72	2.72	0.58	8.61	3.18	3.18	0.68	11.28	3.64	3.64	0.78	14.23		
		19	3.19	1.61	0.69	11.33	3.18	2.13	0.68	11.25	3.2	2.66	0.69	11.4	3.33	3.22	0.72	12.19	3.65	3.65	0.78	14.26		
		20	3.94	1.57	0.85	16.23	3.89	2.07	0.84	15.89	3.87	2.59	0.83	15.8	3.87	3.1	0.83	15.74	3.88	3.62	0.83	15.84		
	5	15	1.61	1.61	0.28	2.36	2.09	2.09	0.36	3.75	2.56	2.56	0.44	5.3	3.03	3.03	0.52	7.05	3.49	3.49	0.6	8.98		
		17	1.72	1.66	0.3	2.67	2.11	2.11	0.36	3.82	2.56	2.56	0.44	5.3	3.03	3.03	0.52	7.05	3.49	3.49	0.6	8.98		
		19	2.76	1.45	0.47	5.99	2.75	1.97	0.47	5.96	2.87	2.54	0.49	6.42	3.12	3.12	0.54	7.43	3.5	3.5	0.6	9		
		20	3.5	1.41	0.6	8.99	3.44	1.92	0.59	8.76	3.46	2.44	0.59	8.81	3.49	2.97	0.6	8.95	3.65	3.54	0.63	9.67		
	6	15	1.43	1.43	0.21	0.98	1.93	1.93	0.28	2.34	2.4	2.4	0.34	3.48	2.87	2.87	0.41	4.71	3.34	3.34	0.48	6.07		
		17	1.5	1.5	0.21	1.13	1.94	1.94	0.28	2.37	2.4	2.4	0.34	3.48	2.87	2.87	0.41	4.71	3.34	3.34	0.48	6.07		
		19	2.28	1.28	0.33	3.18	2.34	1.83	0.34	3.31	2.61	2.44	0.37	3.99	2.94	2.94	0.42	4.88	3.34	3.34	0.48	6.08		
		20	3.2	1.3	0.45	5.52	2.99	1.76	0.43	5.02	3.01	2.28	0.43	5.08	3.19	2.86	0.46	5.6	3.44	3.44	0.49	6.4		
13	3	15	1.46	1.46	0.42	4.79	1.93	1.93	0.55	7.76	2.4	2.4	0.69	11.26	2.86	2.86	0.82	15.28	3.33	3.33	0.96	19.78		
		17	1.48	1.48	0.42	4.91	1.93	1.93	0.55	7.76	2.4	2.4	0.69	11.27	2.87	2.87	0.82	15.29	3.33	3.33	0.96	19.79		
		19	2.43	1.33	0.7	11.46	2.42	1.86	0.7	11.43	2.56	2.42	0.73	12.54	2.87	2.87	0.82	15.35	3.33	3.33	0.96	19.8		
		20	3.15	1.29	0.91	18.03	3.09	1.79	0.89	17.42	3.12	2.32	0.89	17.66	3.15	2.85	0.9	17.99	3.36	3.36	0.96	20.11		
	4	15	1.29	1.29	0.28	2.37	1.77	1.77	0.38	4.1	2.25	2.25	0.48	6.12	2.71	2.71	0.58	8.45	3.18	3.18	0.68	11.07		
		17	1.3	1.3	0.28	2.4	1.77	1.77	0.38	4.1	2.25	2.25	0.48	6.12	2.71	2.71	0.58	8.46	3.18	3.18	0.68	11.08		
		19	1.99	1.18	0.43	4.99	2.04	1.72	0.44	5.2	2.33	2.33	0.5	6.53	2.72	2.72	0.58	8.47	3.18	3.18	0.68	11.08		
		20	2.94	1.21	0.6	8.86	2.67	1.65	0.57	8.21	2.69	2.17	0.58	8.32	2.88	2.76	0.62	9.36	3.19	3.19	0.69	11.18		
	5	15	-	-	-	-	1.61	1.61	0.28	2.35	2.09	2.09	0.36	3.69	2.56	2.56	0.44	5.21	3.02	3.02	0.52	6.92		
		17	-	-	-	-	1.61	1.61	0.28	2.35	2.09	2.09	0.36	3.69	2.56	2.56	0.44	5.21	3.02	3.02	0.52	6.92		
		19	-	-	-	-	1.76	1.63	0.3	2.77	2.14	2.14	0.37	3.84	2.56	2.56	0.44	5.21	3.03	3.03	0.52	6.93		
		20	-	-	-	-	2.2	1.49	0.38	4.03	2.36	2.06	0.41	4.53	2.66	2.66	0.46	5.57	3.03	3.03	0.52	6.96		
	6	15	-	-	-	-	1.43	1.43	0.21	1.05	1.92	1.92	0.28	2.33	2.4	2.4	0.34	3.42	2.87	2.87	0.41	4.62		
		17	-	-	-	-	1.43	1.43	0.21	1.05	1.92	1.92	0.28	2.33	2.4	2.4	0.34	3.42	2.87	2.87	0.41	4.63		
		19	-	-	-	-	1.52	1.52	0.22	1.31	1.95	1.95	0.28	2.4	2.4	2.4	0.34	3.42	2.87	2.87	0.41	4.63		
		20	-	-	-	-	1.77	1.35	0.25	1.98	2.09	1.97	0.3	2.71	2.47	2.47	0.35	3.58	2.87	2.87	0.41	4.64		
15	3	15	-	-	-	-	1.45	1.45	0.42	4.71	1.93	1.93	0.55	7.62	2.39	2.39	0.69	11.07	2.86	2.86	0.82	15.01		
		17	-	-	-	-	1.45	1.45	0.42	4.71	1.93	1.93	0.55	7.62	2.39	2.39	0.69	11.07	2.86	2.86	0.82	15.02		
		19	-	-	-	-	1.5	1.5	0.43	4.97	1.93	1.93	0.55	7.63	2.4	2.4	0.69	11.08	2.86	2.86	0.82	15.03		
		20	-	-	-	-	1.89	1.38	0.54	7.34	2.05	1.96	0.59	8.44	2.41	2.41	0.69	11.15	2.86	2.86	0.82	15.03		
	4	15	-	-	-	-	1.29	1.29	0.28	2.35	1.77	1.77	0.38	4.02	2.24	2.24	0.48	6.01	2.71	2.71	0.58	8.3		
		17	-	-	-	-	1.29	1.29	0.28	2.35	1.77	1.77	0.38	4.03	2.24	2.24	0.48	6.02	2.71	2.71	0.58	8.31		
		19	-	-	-	-	1.31	1.31	0.28	2.42	1.77	1.77	0.38	4.03	2.24	2.24	0.48	6.02	2.71	2.71	0.58	8.31		
		20	-	-	-	-	1.5	1.26	0.32	3.04	1.83	1.83	0.39	4.26	2.25	2.25	0.48	6.03	2.71	2.71	0.58	8.32		
	5	15	-	-	-	-	-	-	-	-	1.61	1.61	0.28	2.33	2.08	2.08	0.36	3.62	2.55	2.55	0.44	5.12		
		17	-	-	-	-	-	-	-	-	1.61	1.61	0.28	2.33	2.08	2.08	0.36	3.62	2.55	2.55	0.44	5.12		
		19	-	-	-	-	-	-	-	-	1.61	1.61	0.28	2.33	2.09	2.09	0.36	3.63	2.56	2.56	0.44	5.12		
		20	-	-	-	-	-	-	-	-	1.64	1.64	0.28	2.41	2.09	2.09	0.36	3.63	2.56	2.56	0.44	5.12		
	6	15	-	-	-	-	-	-	-	-	1.43	1.43	0.21	1.14	1.92	1.92	0.28	2.31	2.4	2.4	0.34	3.36		
		17	-	-	-	-	-	-	-	-	1.43	1.43	0.21	1.14	1.92	1.92	0.28	2.31	2.4	2.4	0.34	3.36		
		19	-	-	-	-	-	-	-	-	1.43	1.43	0.21	1.14	1.92	1.92	0.28	2.31	2.4	2.4	0.34	3.36		
		20	-	-	-	-	-	-	-	-	1.45	1.45	0.21	1.19	1.92	1.92	0.28	2.31	2.4	2.4	0.34	3.36		

Abbreviations:

EWT: Enter Water Temp. (°C) Δt: Temperature Difference (°C) DB: Dry Bulb Temp. (°C) WF: Water Flow (m³/h)

WB: Wet Bulb Temp. (°C) TC: Total Cooling Capacity (kW) SC: Sensible Cooling Capacity (kW) WPD: Water Pressure Drop (kPa)

**MUCM-19-W7**

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
5	3	15	5.15	4.02	1.48	58.25	5.06	4.6	1.45	56.46	5.24	5.24	1.51	60.07	5.79	5.79	1.66	71.5	6.34	6.34	1.82	83.8
		17	6.69	3.9	1.93	92.27	6.64	4.51	1.91	91.06	6.43	5.03	1.85	85.84	6.34	5.61	1.82	83.94	6.51	6.29	1.87	87.75
		19	8.36	3.78	2.42	137.1	8.31	4.39	2.4	135.6	8.23	4.98	2.37	133.1	8.03	5.51	2.32	127.5	7.99	6.1	2.3	126.2
		20	9.25	3.71	2.68	164.1	9.19	4.32	2.66	162.3	9.13	4.93	2.64	160.4	9	5.49	2.6	156.3	8.84	6.04	2.56	151.48
	4	15	4.77	3.85	1.02	30.69	4.74	4.46	1.02	30.42	5.06	5.06	1.09	34.05	5.61	5.61	1.21	40.74	6.16	6.16	1.32	47.91
		17	6.31	3.73	1.36	49.84	6.26	4.34	1.35	49.27	6.1	4.89	1.31	47.01	5.97	5.44	1.28	45.34	6.27	6.18	1.35	49.32
		19	7.97	3.6	1.72	75.13	7.92	4.22	1.71	74.34	7.85	4.81	1.69	73.18	7.64	5.34	1.64	69.72	7.56	5.92	1.63	68.51
		20	8.85	3.54	1.91	90.38	8.8	4.15	1.9	89.43	8.75	4.76	1.88	88.42	8.61	5.32	1.85	86	8.43	5.86	1.82	82.84
	5	15	4.37	3.67	0.75	17.86	4.48	4.34	0.77	18.72	4.88	4.88	0.84	21.66	5.44	5.44	0.93	26.07	5.99	5.99	1.03	30.79
		17	5.9	3.55	1.01	30.01	5.87	4.16	1.01	29.71	5.73	4.72	0.98	28.57	5.68	5.32	0.98	28.12	6.05	6.05	1.04	31.4
		19	7.57	3.43	1.3	46.23	7.52	4.04	1.29	45.74	7.46	4.64	1.28	45.11	7.25	5.17	1.25	42.86	7.13	5.73	1.23	41.67
		20	8.45	3.36	1.45	56.01	8.4	3.98	1.44	55.44	8.35	4.58	1.44	54.84	8.21	5.15	1.41	53.31	8	5.67	1.38	50.95
	6	15	3.99	3.5	0.57	11.17	4.25	4.24	0.61	12.44	4.7	4.7	0.67	14.78	5.26	5.26	0.75	17.91	5.81	5.81	0.83	21.25
		17	5.47	3.36	0.78	19.17	5.45	3.98	0.78	19.02	5.35	4.56	0.76	18.42	5.43	5.21	0.78	18.93	5.85	5.85	0.84	21.55
		19	7.15	3.25	1.02	30.39	7.11	3.86	1.02	30.06	7.05	4.46	1.01	29.69	6.88	5.01	0.98	28.43	6.68	5.54	0.96	27.04
		20	8.03	3.18	1.15	37.17	7.98	3.8	1.14	36.79	7.94	4.41	1.14	36.41	7.82	4.98	1.12	35.53	7.57	5.49	1.08	33.55
7	3	15	3.98	3.5	1.14	36.62	4.15	4.15	1.19	39.36	4.67	4.67	1.34	48.3	5.22	5.22	1.5	58.79	5.77	5.77	1.66	70.08
		17	5.5	3.37	1.58	64.28	5.46	3.99	1.57	63.64	5.36	4.56	1.54	61.54	5.3	5.15	1.52	60.27	5.77	5.77	1.66	70.14
		19	7.16	3.25	2.06	102.4	7.11	3.86	2.05	101.2	7.06	4.47	2.03	99.88	6.82	4.98	1.96	93.98	6.68	5.54	1.93	90.77
		20	8.03	3.18	2.32	125.8	7.98	3.8	2.31	124.4	7.93	4.4	2.29	123	7.79	4.97	2.25	119.0	7.55	5.48	2.18	112.75
	4	15	3.63	3.34	0.78	18.86	3.95	3.95	0.85	21.85	4.49	4.49	0.96	27.25	5.05	5.05	1.08	33.36	5.6	5.6	1.2	39.94
		17	5.08	3.19	1.09	33.75	5.06	3.81	1.09	33.48	4.98	4.4	1.07	32.58	5.09	5.06	1.09	33.85	5.6	5.6	1.2	39.97
		19	6.74	3.07	1.45	55.24	6.7	3.69	1.44	54.6	6.65	4.3	1.43	53.96	6.47	4.84	1.39	51.42	6.25	5.36	1.34	48.36
		20	7.62	3.01	1.64	68.41	7.57	3.62	1.63	67.67	7.52	4.23	1.62	66.94	7.41	4.81	1.6	65.18	7.13	5.31	1.54	60.93
	5	15	3.35	3.22	0.57	11.16	3.76	3.76	0.65	13.61	4.31	4.31	0.74	17.21	4.87	4.87	0.84	21.23	5.42	5.42	0.93	25.55
		17	4.64	3.01	0.8	19.54	4.63	3.63	0.8	19.47	4.64	4.26	0.8	19.57	4.89	4.89	0.84	21.42	5.42	5.42	0.93	25.57
		19	6.31	2.9	1.09	33.23	6.27	3.51	1.08	32.85	6.23	4.12	1.07	32.5	5.85	4.49	1.05	31.4	5.87	5.21	1.01	29.31
		20	7.19	2.83	1.24	41.66	7.14	3.45	1.23	41.21	7.1	4.06	1.22	40.77	7.01	4.64	1.21	39.88	6.7	5.13	1.15	36.88
	6	15	3.1	3.1	0.44	7.14	3.56	3.56	0.51	9.07	4.12	4.12	0.59	11.64	4.69	4.69	0.67	14.49	5.24	5.24	0.75	17.55
		17	4.17	2.82	0.6	11.83	4.19	3.45	0.6	11.95	4.37	4.15	0.63	12.82	4.7	4.7	0.67	14.57	5.24	5.24	0.75	17.57
		19	5.86	2.71	0.84	21.22	5.82	3.33	0.83	20.97	5.79	3.94	0.83	20.8	5.68	4.52	0.81	20.11	5.57	5.08	0.8	19.45
		20	6.74	2.65	0.97	27.05	6.7	3.27	0.96	26.74	6.66	3.88	0.95	26.47	6.58	4.47	0.94	25.98	6.33	4.99	0.91	24.25
9	3	15	3.01	3.01	0.86	22.19	3.53	3.53	1.01	29.29	4.09	4.09	1.18	37.89	4.65	4.65	1.34	47.36	5.21	5.21	1.5	57.65
		17	4.23	2.84	1.21	40.08	4.22	3.47	1.21	39.98	4.26	4.1	1.22	40.57	4.65	4.65	1.34	47.39	5.21	5.21	1.5	57.69
		19	5.88	2.72	1.69	71.45	5.84	3.34	1.68	70.51	5.8	3.95	1.67	69.79	5.69	4.52	1.64	67.43	5.43	5.03	1.56	62.05
		20	6.75	2.65	1.95	91.2	6.71	3.27	1.93	90.09	6.66	3.88	1.92	89.07	6.59	4.47	1.9	87.32	6.25	4.96	1.8	79.52
	4	15	2.8	2.8	0.6	11.93	3.35	3.35	0.72	16.21	3.91	3.91	0.84	21.2	4.48	4.48	0.96	26.72	5.03	5.03	1.08	32.71
		17	3.78	2.66	0.81	19.91	3.8	3.3	0.82	20.14	4.01	4	0.86	22.14	4.48	4.48	0.96	26.73	5.03	5.03	1.08	32.73
		19	5.44	2.54	1.17	37.46	5.4	3.16	1.16	36.97	5.37	3.78	1.16	36.67	5.29	4.36	1.14	35.64	5.17	4.93	1.11	34.28
		20	6.31	2.48	1.36	48.58	6.27	3.1	1.35	47.96	6.23	3.71	1.34	47.45	6.17	4.31	1.33	46.68	5.91	4.82	1.27	43.25
	5	15	2.6	2.6	0.45	7.15	3.16	3.16	0.54	9.99	3.73	3.73	0.64	13.26	4.3	4.3	0.74	16.88	4.85	4.85	0.83	20.81
		17	3.28	2.46	0.56	10.63	3.46	3.16	0.59	11.62	3.8	3.8	0.65	13.65	4.3	4.3	0.74	16.89	4.85	4.85	0.84	20.83
		19	4.97	2.36	0.85	21.64	4.93	2.98	0.85	21.39	4.92	3.6	0.85	21.3	4.87	4.2	0.84	20.91	4.94	4.84	0.85	21.49
		20	5.85	2.3	1.01	28.76	5.81	2.92	1	28.36	5.78	3.54	0.99	28.09	5.73	4.14	0.99	27.72	5.52	4.68	0.95	26.02
6	15	2.39	2.39	0.34	4.55	2.97	2.97	0.43	6.57	3.55	3.55	0.51	8.87	4.11	4.11	0.59	11.42	4.67	4.67	0.67	14.2	
	17	2.83	2.29	0.41	6.04	3.17	3.05	0.45	7.32	3.59	3.59	0.51	9.05	4.12	4.12	0.59	11.43	4.68	4.68	0.67	14.21	
	19	4.44	2.16	0.64	12.98	4.43	2.79	0.63	12.93	4.44	3.42	0.64	13	4.52	4.07							

(Continued)

MUCM-19-W7

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																									
			21						23						25						27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD		
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa		
11	3	15	2.38	2.38	0.68	14.61	2.95	2.95	0.85	21.2	3.52	3.52	1.01	28.73	4.08	4.08	1.17	37.17	4.64	4.64	1.33	46.45						
		17	2.88	2.31	0.83	20.27	3.08	3.01	0.88	22.75	3.52	3.52	1.01	28.75	4.08	4.08	1.17	37.19	4.64	4.64	1.33	46.49						
		19	4.53	2.19	1.3	44.5	4.49	2.81	1.29	43.93	4.49	3.44	1.29	43.81	4.44	4.04	1.28	43.12	4.64	4.64	1.33	46.52						
		20	5.41	2.13	1.56	60.78	5.35	2.75	1.54	59.77	5.32	3.37	1.53	59.18	5.29	3.97	1.52	58.49	5.12	4.52	1.47	55.18						
	4	15	2.19	2.19	0.47	7.73	2.77	2.77	0.6	11.53	3.34	3.34	0.72	15.9	3.9	3.9	0.84	20.8	4.46	4.46	0.96	26.21						
		17	2.47	2.15	0.53	9.46	2.84	2.84	0.61	12.03	3.34	3.34	0.72	15.91	3.9	3.9	0.84	20.81	4.46	4.46	0.96	26.22						
		19	4.02	2	0.87	21.86	4.01	2.63	0.86	21.78	4.03	3.26	0.87	21.95	4.13	3.92	0.89	22.91	4.46	4.46	0.96	26.24						
		20	4.93	1.96	1.06	31.15	4.88	2.57	1.05	30.56	4.86	3.19	1.05	30.38	4.84	3.81	1.04	30.15	4.77	4.4	1.03	29.43						
	5	15	1.99	1.99	0.34	4.5	2.58	2.58	0.44	6.96	3.16	3.16	0.54	9.8	3.72	3.72	0.64	13.01	4.28	4.28	0.74	16.55						
		17	2.16	2.04	0.37	5.13	2.62	2.62	0.45	7.15	3.16	3.16	0.54	9.81	3.72	3.72	0.64	13.02	4.29	4.29	0.74	16.56						
		19	3.49	1.81	0.6	11.65	3.49	2.44	0.6	11.61	3.6	3.11	0.62	12.29	3.87	3.83	0.67	13.92	4.29	4.29	0.74	16.58						
		20	4.41	1.77	0.76	17.37	4.35	2.38	0.75	17.01	4.37	3.01	0.75	17.08	4.37	3.64	0.75	17.14	4.5	4.3	0.77	17.99						
	6	15	1.78	1.78	0.26	2.56	2.38	2.38	0.34	4.45	2.97	2.97	0.43	6.44	3.54	3.54	0.51	8.7	4.1	4.1	0.59	11.2						
		17	1.88	1.88	0.27	2.9	2.41	2.41	0.35	4.53	2.97	2.97	0.43	6.45	3.54	3.54	0.51	8.7	4.1	4.1	0.59	11.21						
		19	2.91	1.6	0.42	6.23	2.96	2.25	0.43	6.42	3.27	2.99	0.47	7.59	3.64	3.64	0.52	9.13	4.11	4.11	0.59	11.22						
		20	3.83	1.56	0.55	9.95	3.8	2.19	0.55	9.82	3.82	2.82	0.55	9.91	3.99	3.5	0.57	10.67	4.26	4.21	0.61	11.92						
13	3	15	1.79	1.79	0.51	8.88	2.37	2.37	0.68	14.34	2.94	2.94	0.85	20.8	3.51	3.51	1.01	28.19	4.07	4.07	1.17	36.47						
		17	1.83	1.83	0.53	9.2	2.37	2.37	0.68	14.34	2.94	2.94	0.85	20.81	3.51	3.51	1.01	28.21	4.07	4.07	1.17	36.5						
		19	3.06	1.65	0.88	22.18	3.05	2.29	0.88	22.15	3.18	2.96	0.91	23.81	3.53	3.53	1.01	28.45	4.07	4.07	1.17	36.52						
		20	3.95	1.6	1.14	34.66	3.9	2.22	1.12	33.82	3.92	2.85	1.13	34.11	3.93	3.48	1.13	34.3	4.13	4.13	1.19	37.5						
	4	15	1.6	1.6	0.34	4.46	2.19	2.19	0.47	7.58	2.76	2.76	0.59	11.31	3.33	3.33	0.72	15.6	3.89	3.89	0.84	20.41						
		17	1.62	1.62	0.35	4.54	2.19	2.19	0.47	7.59	2.76	2.76	0.59	11.32	3.33	3.33	0.72	15.61	3.89	3.89	0.84	20.42						
		19	2.53	1.47	0.54	9.7	2.57	2.12	0.55	10.01	2.9	2.86	0.62	12.31	3.34	3.34	0.72	15.68	3.89	3.89	0.84	20.44						
		20	3.41	1.41	0.73	16.2	3.38	2.04	0.73	15.99	3.4	2.67	0.73	16.16	3.58	3.36	0.77	17.7	3.93	3.93	0.85	20.76						
	5	15	-	-	-	-	1.99	1.99	0.34	4.41	2.57	2.57	0.44	6.83	3.15	3.15	0.54	9.62	3.71	3.71	0.64	12.77						
		17	-	-	-	-	1.99	1.99	0.34	4.42	2.57	2.57	0.44	6.83	3.15	3.15	0.54	9.62	3.71	3.71	0.64	12.77						
		19	-	-	-	-	2.22	2	0.38	5.3	2.66	2.66	0.46	7.22	3.15	3.15	0.54	9.65	3.72	3.72	0.64	12.78						
		20	-	-	-	-	2.81	1.84	0.48	7.89	2.97	2.53	0.51	8.71	3.31	3.26	0.57	10.5	3.74	3.74	0.64	12.91						
	6	15	-	-	-	-	1.78	1.78	0.26	2.61	2.38	2.38	0.34	4.37	2.96	2.96	0.42	6.32	3.53	3.53	0.51	8.54						
		17	-	-	-	-	1.78	1.78	0.26	2.61	2.38	2.38	0.34	4.37	2.96	2.96	0.42	6.33	3.53	3.53	0.51	8.54						
		19	-	-	-	-	1.92	1.89	0.28	3.01	2.43	2.43	0.35	4.53	2.96	2.96	0.43	6.34	3.53	3.53	0.51	8.55						
		20	-	-	-	-	2.26	1.66	0.32	3.98	2.64	2.41	0.38	5.19	3.07	3.07	0.44	6.73	3.55	3.55	0.51	8.6						
15	3	15	-	-	-	-	1.79	1.79	0.51	8.71	2.37	2.37	0.68	14.07	2.93	2.93	0.84	20.41	3.5	3.5	1.01	27.68						
		17	-	-	-	-	1.79	1.79	0.51	8.72	2.37	2.37	0.68	14.08	2.94	2.94	0.84	20.42	3.5	3.5	1.01	27.69						
		19	-	-	-	-	1.86	1.86	0.54	9.34	2.37	2.37	0.68	14.1	2.94	2.94	0.84	20.44	3.5	3.5	1.01	27.71						
		20	-	-	-	-	2.38	1.7	0.68	14.24	2.56	2.39	0.73	16.07	2.96	2.96	0.85	20.72	3.5	3.5	1.01	27.72						
	4	15	-	-	-	-	1.59	1.59	0.34	4.38	2.18	2.18	0.47	7.44	2.75	2.75	0.59	11.1	3.32	3.32	0.72	15.31						
		17	-	-	-	-	1.6	1.6	0.34	4.38	2.18	2.18	0.47	7.45	2.75	2.75	0.59	11.11	3.32	3.32	0.72	15.32						
		19	-	-	-	-	1.63	1.63	0.35	4.55	2.18	2.18	0.47	7.45	2.76	2.76	0.59	11.12	3.32	3.32	0.72	15.33						
		20	-	-	-	-	1.9	1.54	0.41	5.86	2.29	2.29	0.49	8.06	2.77	2.77	0.6	11.2	3.32	3.32	0.72	15.34						
	5	15	-	-	-	-	-	-	-	-	1.99	1.99	0.34	4.33	2.57	2.57	0.44	6.7	3.14	3.14	0.54	9.44						
		17	-	-	-	-	-	-	-	-	1.99	1.99	0.34	4.34	2.57	2.57	0.44	6.71	3.14	3.14	0.54	9.45						
		19	-	-	-	-	-	-	-	-	1.99	1.99	0.34	4.34	2.57	2.57	0.44	6.71	3.14	3.14	0.54	9.46						
		20	-	-	-	-	-	-	-	-	2.05	2.05	0.35	4.56	2.58	2.58	0.44	6.73	3.14	3.14	0.54	9.46						
	6	15	-	-	-	-	-	-	-	-	1.78	1.78	0.26	2.6	2.37	2.37	0											

### MUCM-27-W7

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
5	3	15	7.07	5.54	2.03	60.51	6.96	6.36	2	58.93	7.23	7.23	2.07	62.98	7.99	7.99	2.3	75.08	8.74	8.74	2.52	88.05
		17	9.18	5.37	2.64	95.96	9.12	6.21	2.62	94.82	8.85	6.95	2.55	89.95	8.68	7.73	2.5	86.92	8.93	8.69	2.57	91.34
		19	11.47	5.18	3.32	142.7	11.4	6.03	3.29	141.2	11.3	6.85	3.26	138.8	11.03	7.59	3.18	132.9	10.92	8.4	3.15	130.67
		20	12.69	5.09	3.67	170.9	12.61	5.94	3.65	169.1	12.53	6.77	3.63	167.1	12.35	7.56	3.57	162.8	12.11	8.31	3.5	157.14
	4	15	6.53	5.3	1.4	31.83	6.53	6.16	1.4	31.77	6.98	6.98	1.5	35.69	7.74	7.74	1.66	42.75	8.5	8.5	1.83	50.28
		17	8.64	5.12	1.86	51.75	8.59	5.97	1.85	51.19	8.39	6.75	1.8	49.16	8.18	7.51	1.76	47.07	8.61	8.54	1.85	51.44
		19	10.93	4.94	2.35	78.12	10.87	5.79	2.34	77.27	10.78	6.62	2.32	76.16	10.49	7.36	2.26	72.61	10.34	8.14	2.23	70.85
		20	12.15	4.85	2.62	94.01	12.07	5.7	2.6	93.01	12	6.54	2.58	91.97	11.81	7.32	2.55	89.51	11.54	8.06	2.49	85.86
7	5	15	5.98	5.05	1.03	18.5	6.17	6	1.06	19.55	6.73	6.73	1.15	22.69	7.49	7.49	1.29	27.33	8.25	8.25	1.42	32.29
		17	8.08	4.88	1.39	31.11	8.04	5.73	1.38	30.82	7.88	6.52	1.35	29.78	7.8	7.34	1.34	29.25	8.32	8.32	1.43	32.78
		19	10.38	4.7	1.78	48.01	10.31	5.55	1.77	47.48	10.23	6.39	1.76	46.87	9.97	7.13	1.71	44.77	9.75	7.89	1.67	43.05
		20	11.59	4.6	1.99	58.2	11.52	5.46	1.98	57.59	11.44	6.3	1.97	56.97	11.28	7.09	1.94	55.52	10.96	7.81	1.88	52.79
	6	15	5.47	4.83	0.78	11.58	5.85	5.85	0.84	13.01	6.47	6.47	0.93	15.48	7.24	7.24	1.04	18.76	8.01	8.01	1.15	22.28
		17	7.49	4.62	1.07	19.85	7.46	5.48	1.07	19.7	7.34	6.29	1.05	19.17	7.46	7.19	1.07	19.72	8.05	8.05	1.15	22.51
		19	9.8	4.45	1.4	31.52	9.73	5.3	1.39	31.17	9.67	6.14	1.38	30.81	9.45	6.91	1.35	29.62	9.14	7.63	1.31	27.94
		20	11.01	4.36	1.58	38.58	10.94	5.21	1.57	38.18	10.87	6.05	1.56	37.78	10.73	6.86	1.54	36.94	10.36	7.56	1.48	34.76
9	3	15	5.46	4.82	1.56	37.98	5.71	5.71	1.64	41.16	6.44	6.44	1.85	50.68	7.2	7.2	2.07	61.72	7.96	7.96	2.29	73.62
		17	7.53	4.64	2.16	66.73	7.49	5.49	2.15	66.07	7.38	6.3	2.12	64.35	7.28	7.12	2.09	62.95	7.97	7.97	2.29	73.68
		19	9.81	4.46	2.83	106.5	9.74	5.31	2.81	105.3	9.68	6.15	2.79	103.9	9.39	6.88	2.71	98.5	9.14	7.63	2.63	93.94
		20	11.02	4.36	3.18	130.9	10.95	5.21	3.16	129.4	10.88	6.06	3.14	127.9	10.7	6.84	3.09	124.2	10.35	7.55	2.99	117.03
	4	15	4.98	4.61	1.07	19.6	5.44	5.44	1.17	22.85	6.19	6.19	1.33	28.56	6.96	6.96	1.5	34.99	7.72	7.72	1.66	41.91
		17	6.96	4.39	1.5	34.97	6.93	5.25	1.49	34.71	6.84	6.07	1.47	33.94	7	7	1.51	35.39	7.72	7.72	1.66	41.95
		19	9.24	4.22	1.99	57.36	9.18	5.07	1.98	56.66	9.12	5.91	1.96	56.03	8.9	6.68	1.92	53.76	8.55	7.39	1.84	50.03
		20	10.44	4.12	2.25	71.08	10.38	4.98	2.24	70.28	10.31	5.82	2.22	69.51	10.17	6.63	2.19	67.91	9.77	7.31	2.1	63.22
9	5	15	4.59	4.45	0.79	11.61	5.17	5.17	0.89	14.23	5.94	5.94	1.02	18.03	6.71	6.71	1.15	22.25	7.47	7.47	1.28	26.8
		17	6.35	4.14	1.09	20.22	6.34	5	1.09	20.15	6.38	5.89	1.1	20.41	6.74	6.74	1.16	22.4	7.48	7.48	1.29	26.82
		19	8.65	3.97	1.49	34.47	8.58	4.82	1.48	34.04	8.54	5.67	1.47	33.71	8.02	6.19	1.42	31.6	8.04	7.18	1.38	30.42
		20	9.85	3.88	1.69	43.24	9.79	4.73	1.68	42.74	9.72	5.58	1.67	42.29	9.61	6.4	1.65	41.45	9.21	7.09	1.58	38.48
	6	15	4.25	4.25	0.61	7.43	4.91	4.91	0.7	9.49	5.68	5.68	0.81	12.19	6.46	6.46	0.92	15.17	7.23	7.23	1.03	18.4
		17	5.69	3.87	0.82	12.21	5.73	4.76	0.82	12.36	6	5.73	0.86	13.37	6.47	6.47	0.93	15.24	7.23	7.23	1.04	18.41
		19	8.02	3.72	1.15	21.98	7.96	4.57	1.14	21.7	7.92	5.42	1.13	21.53	7.79	6.23	1.12	20.91	7.64	7.02	1.09	20.22
		20	9.23	3.63	1.32	28.04	9.17	4.48	1.31	27.7	9.11	5.33	1.31	27.41	9.02	6.16	1.29	26.96	8.7	6.89	1.25	25.29
9	3	15	4.14	4.14	1.19	23.16	4.87	4.87	1.4	30.71	5.64	5.64	1.62	39.75	6.42	6.42	1.84	49.71	7.18	7.18	2.06	60.54
		17	5.79	3.91	1.66	41.51	5.78	4.78	1.66	41.43	5.85	5.67	1.68	42.31	6.42	6.42	1.84	49.74	7.18	7.18	2.07	60.59
		19	8.06	3.73	2.32	74.18	8	4.59	2.3	73.16	7.95	5.43	2.29	72.41	7.83	6.25	2.25	70.48	7.45	6.95	2.14	64.59
		20	9.26	3.64	2.67	94.76	9.19	4.49	2.65	93.56	9.13	5.34	2.63	92.47	9.04	6.17	2.61	90.94	8.6	6.85	2.48	83.16
	4	15	3.85	3.85	0.83	12.45	4.61	4.61	0.99	16.97	5.4	5.4	1.16	22.22	6.17	6.17	1.33	28.02	6.94	6.94	1.49	34.32
		17	5.16	3.66	1.11	20.57	5.2	4.54	1.12	20.86	5.52	5.52	1.19	23.11	6.17	6.17	1.33	28.03	6.94	6.94	1.49	34.35
		19	7.45	3.49	1.6	38.82	7.39	4.35	1.59	38.29	7.35	5.2	1.58	37.98	7.26	6.02	1.56	37.1	7.1	6.81	1.53	35.75
		20	8.65	3.4	1.86	50.41	8.58	4.25	1.85	49.73	8.53	5.11	1.84	49.18	8.46	5.94	1.82	48.47	8.12	6.66	1.75	45.17
9	5	15	3.57	3.57	0.61	7.46	4.36	4.36	0.75	10.46	5.14	5.14	0.88	13.89	5.92	5.92	1.02	17.69	6.69	6.69	1.15	21.83
		17	4.48	3.39	0.77	10.95	4.74	4.36	0.82	12.06	5.22	5.22	0.9	14.26	5.92	5.92	1.02	17.7	6.69	6.69	1.15	21.84
		19	6.79	3.24	1.17	22.39	6.74	4.1	1.16	22.11	6.73	4.96	1.16	22.03	6.68	5.8	1.15	21.76	6.8	6.69	1.17	22.43
		20	8.02	3.15	1.38	29.8	7.95	4.01	1.37	29.36	7.9	4.86	1.36	29.07	7.85	5.7	1.35	28.74	7.59	6.46	1.31	27.14
	6	15	3.29	3.29	0.47	4.75	4.09	4.09	0.59	6.87	4.89	4.89	0.7	9.28	5.67	5.67	0.81	11.96	6.44	6.44	0.92	14.89
		17	3.87	3.16	0.56	6.24	4.35	4.21	0.62	7.61	4.94	4.94	0.71	9.45	5.67	5.67	0.81	11.97	6.44	6.44	0.92	14.9
		19	6.07	2.96	0.87	13.42																

(Continued)

MUCM-27-W7

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
11	3	15	3.28	3.28	0.94	15.3	4.07	4.07	1.17	22.21	4.85	4.85	1.39	30.13	5.63	5.63	1.62	39.01	6.4	6.4	1.84	48.78
		17	3.93	3.18	1.13	20.9	4.22	4.16	1.21	23.68	4.85	4.85	1.39	30.15	5.63	5.63	1.62	39.03	6.4	6.4	1.84	48.81
		19	6.19	3.01	1.78	46.08	6.14	3.87	1.77	45.45	6.14	4.73	1.76	45.36	6.1	5.58	1.75	44.83	6.4	6.4	1.84	48.85
		20	7.4	2.92	2.13	63.06	7.33	3.78	2.11	61.94	7.29	4.63	2.1	61.31	7.24	5.48	2.08	60.64	7.05	6.26	2.03	57.81
	4	15	3.02	3.02	0.65	8.08	3.82	3.82	0.82	12.07	4.6	4.6	0.99	16.66	5.38	5.38	1.16	21.81	6.15	6.15	1.32	27.49
		17	3.38	2.97	0.73	9.79	3.9	3.9	0.84	12.54	4.6	4.6	0.99	16.66	5.38	5.38	1.16	21.82	6.15	6.15	1.33	27.51
		19	5.49	2.75	1.18	22.55	5.48	3.62	1.18	22.46	5.51	4.5	1.19	22.68	5.67	5.42	1.22	23.87	6.16	6.16	1.33	27.53
		20	6.75	2.68	1.45	32.26	6.67	3.53	1.44	31.6	6.65	4.39	1.43	31.41	6.62	5.25	1.43	31.21	6.57	6.08	1.42	30.82
	5	15	2.74	2.74	0.47	4.7	3.55	3.55	0.61	7.28	4.35	4.35	0.75	10.26	5.13	5.13	0.88	13.63	5.91	5.91	1.02	17.36
		17	2.96	2.81	0.51	5.32	3.6	3.6	0.62	7.45	4.35	4.35	0.75	10.27	5.13	5.13	0.88	13.64	5.91	5.91	1.02	17.37
		19	4.77	2.49	0.82	12.02	4.76	3.36	0.82	11.96	4.93	4.29	0.85	12.72	5.32	5.29	0.92	14.51	5.91	5.91	1.02	17.38
		20	6.03	2.42	1.04	17.96	5.94	3.27	1.02	17.52	5.96	4.15	1.03	17.62	5.99	5.02	1.03	17.75	6.2	5.95	1.07	18.86
	6	15	2.46	2.46	0.35	2.74	3.28	3.28	0.47	4.65	4.09	4.09	0.59	6.74	4.88	4.88	0.7	9.11	5.66	5.66	0.81	11.74
		17	2.58	2.58	0.37	3.04	3.31	3.31	0.47	4.72	4.09	4.09	0.59	6.74	4.88	4.88	0.7	9.11	5.66	5.66	0.81	11.74
		19	3.98	2.2	0.57	6.42	4.05	3.11	0.58	6.63	4.48	4.13	0.64	7.88	5.01	5.01	0.72	9.53	5.66	5.66	0.81	11.75
		20	5.23	2.14	0.75	10.26	5.19	3	0.74	10.1	5.22	3.88	0.75	10.2	5.47	4.83	0.78	11.07	5.87	5.83	0.84	12.49
13	3	15	2.47	2.47	0.71	9.29	3.27	3.27	0.94	15.02	4.06	4.06	1.17	21.8	4.84	4.84	1.39	29.58	5.61	5.61	1.61	38.29
		17	2.52	2.52	0.72	9.59	3.27	3.27	0.94	15.02	4.06	4.06	1.17	21.82	4.84	4.84	1.39	29.59	5.61	5.61	1.61	38.31
		19	4.18	2.27	1.2	22.89	4.17	3.15	1.2	22.82	4.36	4.08	1.25	24.72	4.86	4.86	1.4	29.79	5.61	5.61	1.61	38.34
		20	5.41	2.2	1.56	35.9	5.32	3.05	1.53	34.86	5.35	3.93	1.54	35.21	5.38	4.8	1.55	35.55	5.69	5.69	1.64	39.18
	4	15	2.2	2.2	0.47	4.66	3.01	3.01	0.65	7.94	3.81	3.81	0.82	11.85	4.59	4.59	0.99	16.35	5.37	5.37	1.16	21.41
		17	2.22	2.22	0.48	4.73	3.01	3.01	0.65	7.94	3.81	3.81	0.82	11.85	4.59	4.59	0.99	16.36	5.37	5.37	1.16	21.42
		19	3.45	2.02	0.74	9.99	3.52	2.92	0.76	10.34	3.98	3.95	0.86	12.8	4.6	4.6	0.99	16.41	5.37	5.37	1.16	21.43
		20	4.65	1.94	1	16.7	4.61	2.8	0.99	16.47	4.64	3.68	1	16.66	4.92	4.64	1.06	18.4	5.41	5.41	1.17	21.72
	5	15	-	-	-	-	2.74	2.74	0.47	4.61	3.55	3.55	0.61	7.14	4.34	4.34	0.75	10.08	5.12	5.12	0.88	13.38
		17	-	-	-	-	2.74	2.74	0.47	4.61	3.55	3.55	0.61	7.15	4.34	4.34	0.75	10.08	5.12	5.12	0.88	13.39
		19	-	-	-	-	3.04	2.75	0.52	5.49	3.65	3.65	0.63	7.52	4.34	4.34	0.75	10.1	5.12	5.12	0.88	13.4
		20	-	-	-	-	3.83	2.54	0.66	8.14	4.07	3.49	0.7	9	4.55	4.51	0.78	10.93	5.15	5.15	0.89	13.5
	6	15	-	-	-	-	2.45	2.45	0.35	2.75	3.28	3.28	0.47	4.57	4.08	4.08	0.59	6.62	4.87	4.87	0.7	8.94
		17	-	-	-	-	2.45	2.45	0.35	2.75	3.28	3.28	0.47	4.57	4.08	4.08	0.59	6.62	4.87	4.87	0.7	8.95
		19	-	-	-	-	2.63	2.62	0.38	3.14	3.34	3.34	0.48	4.72	4.08	4.08	0.59	6.63	4.87	4.87	0.7	8.95
		20	-	-	-	-	3.08	2.29	0.44	4.11	3.61	3.33	0.52	5.37	4.22	4.22	0.61	7.01	4.88	4.88	0.7	9
15	3	15	-	-	-	-	2.46	2.46	0.71	9.12	3.26	3.26	0.94	14.74	4.05	4.05	1.16	21.41	4.82	4.82	1.39	29.05
		17	-	-	-	-	2.47	2.47	0.71	9.13	3.26	3.26	0.94	14.75	4.05	4.05	1.16	21.42	4.83	4.83	1.39	29.06
		19	-	-	-	-	2.56	2.56	0.74	9.72	3.26	3.26	0.94	14.76	4.05	4.05	1.16	21.43	4.83	4.83	1.39	29.08
		20	-	-	-	-	3.26	2.35	0.94	14.69	3.5	3.3	1.01	16.66	4.08	4.08	1.17	21.67	4.83	4.83	1.39	29.09
	4	15	-	-	-	-	2.2	2.2	0.47	4.58	3	3	0.65	7.79	3.8	3.8	0.82	11.63	4.58	4.58	0.99	16.06
		17	-	-	-	-	2.2	2.2	0.47	4.58	3	3	0.65	7.8	3.8	3.8	0.82	11.64	4.58	4.58	0.99	16.06
		19	-	-	-	-	2.24	2.24	0.48	4.74	3.01	3.01	0.65	7.8	3.8	3.8	0.82	11.65	4.58	4.58	0.99	16.07
		20	-	-	-	-	2.59	2.13	0.56	6.06	3.14	3.14	0.68	8.38	3.81	3.81	0.82	11.71	4.58	4.58	0.99	16.08
	5	15	-	-	-	-	-	-	-	-	2.73	2.73	0.47	4.53	3.54	3.54	0.61	7.02	4.33	4.33	0.75	9.89
		17	-	-	-	-	-	-	-	-	2.74	2.74	0.47	4.53	3.54	3.54	0.61	7.02	4.33	4.33	0.75	9.9
		19	-	-	-	-	-	-	-	-	2.74	2.74	0.47	4.53	3.54	3.54	0.61	7.02	4.33	4.33	0.75	9.91
		20	-	-	-	-	-	-	-	-	2.81	2.81	0.48	4.74	3.55	3.55	0.61	7.04	4.33	4.33	0.75	9.91
	6	15	-	-	-	-	-	-	-	-	2.45	2.45	0.35	2.73	3.27	3.27	0.47	4.49	4.07	4.07	0.58	6.5
		17	-	-	-	-	-	-	-	-	2.45	2.45	0.35	2.74	3.27	3.27	0.47	4.49	4.07	4.07	0.58	6.5
		19	-	-	-	-	-	-	-	-	2.45	2.45	0.35	2.74	3.27	3.27	0.47	4.49	4.07	4.07	0.59	6.51
		20	-	-	-	-	-	-	-	-	2.49	2.49	0.36	2.82	3.27	3.27	0.47	4.49	4.07	4.07	0.59	6.51

Abbreviations:

EWT: Enter Water Temp. (°C) Δt: Temperature Difference (°C) DB: Dry Bulb Temp. (°C) WF: Water Flow (m³/h)

WB: Wet Bulb Temp. (°C) TC: Total Cooling Capacity (kW) SC: Sensible Cooling Capacity (kW) WPD: Water Pressure Drop (kPa)

**MUCM-30-W7**

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
5	3	15	8.26	6.57	2.37	46.8	8.2	7.58	2.35	46.12	8.59	8.59	2.46	50.07	9.5	9.5	2.73	59.76	10.41	10.41	2.99	70.11
		17	10.76	6.33	3.09	74.28	10.69	7.36	3.07	73.49	10.49	8.31	3.01	71.11	10.13	9.18	2.91	66.8	10.5	10.37	3.02	71.26
		19	13.47	6.09	3.88	110.6	13.38	7.11	3.85	109.3	13.28	8.12	3.83	107.9	12.97	9.02	3.74	103.5	12.73	9.94	3.66	100.02
		20	14.9	5.96	4.3	132.5	14.81	6.98	4.27	130.9	14.71	7.99	4.25	129.5	14.52	8.95	4.19	126.4	14.15	9.83	4.08	120.83
	4	15	7.62	6.28	1.64	24.53	7.69	7.35	1.65	24.92	8.29	8.29	1.78	28.38	9.2	9.2	1.98	34.03	10.11	10.11	2.17	40.06
		17	10.1	6.04	2.17	39.98	10.04	7.07	2.16	39.59	9.89	8.04	2.12	38.57	9.59	8.94	2.06	36.54	10.16	10.16	2.18	40.42
		19	12.81	5.79	2.75	60.53	12.72	6.82	2.74	59.82	12.63	7.83	2.72	59.1	12.34	8.75	2.65	56.76	12.03	9.64	2.59	54.27
		20	14.24	5.66	3.06	72.89	14.14	6.69	3.04	72.07	14.06	7.71	3.03	71.28	13.88	8.68	2.99	69.69	13.47	9.54	2.9	66.17
	5	15	6.95	5.98	1.19	14.21	7.27	7.17	1.25	15.34	7.98	7.98	1.37	18.03	8.9	8.9	1.53	21.74	9.81	9.81	1.68	25.71
		17	9.42	5.74	1.62	23.96	9.37	6.77	1.61	23.74	9.25	7.76	1.59	23.24	9.15	8.75	1.57	22.83	9.84	9.84	1.69	25.84
		19	12.13	5.5	2.08	37.12	12.04	6.53	2.07	36.68	11.97	7.54	2.06	36.27	11.74	8.49	2.02	35.08	11.32	9.34	1.95	32.96
		20	13.55	5.37	2.33	45.05	13.47	6.4	2.31	44.55	13.38	7.42	2.3	44.06	13.24	8.4	2.27	43.23	12.79	9.25	2.2	40.72
	6	15	6.37	5.73	0.91	8.93	6.88	6.88	0.98	10.2	7.67	7.67	1.1	12.28	8.59	8.59	1.23	14.91	9.5	9.5	1.36	17.73
		17	8.7	5.43	1.24	15.21	8.67	6.47	1.24	15.11	8.6	7.49	1.23	14.92	8.77	8.59	1.25	15.43	9.52	9.52	1.36	17.78
		19	11.42	5.2	1.63	24.3	11.34	6.23	1.62	24	11.27	7.25	1.61	23.75	11.09	8.21	1.59	23.09	10.63	9.06	1.52	21.46
		20	12.85	5.07	1.84	29.79	12.77	6.11	1.83	29.45	12.68	7.13	1.82	29.13	12.56	8.12	1.8	28.64	12.13	8.97	1.74	26.96
7	3	15	6.36	5.72	1.82	29.26	6.76	6.76	1.94	32.5	7.65	7.65	2.19	40.31	8.57	8.57	2.46	49.14	9.48	9.48	2.72	58.64
		17	8.8	5.47	2.53	51.48	8.75	6.51	2.51	51	8.68	7.52	2.49	50.21	8.61	8.52	2.47	49.6	9.48	9.48	2.72	58.69
		19	11.49	5.23	3.31	82.37	11.41	6.26	3.28	81.29	11.34	7.28	3.26	80.39	11.12	8.23	3.2	77.74	10.66	9.07	3.07	72.08
		20	12.91	5.1	3.72	101.3	12.83	6.13	3.7	100.1	12.74	7.15	3.67	98.88	12.6	8.14	3.63	96.98	12.12	8.97	3.49	90.44
	4	15	5.82	5.49	1.25	15.2	6.43	6.43	1.38	18.07	7.35	7.35	1.58	22.71	8.27	8.27	1.78	27.85	9.18	9.18	1.97	33.39
		17	8.1	5.18	1.74	26.88	8.07	6.22	1.73	26.7	8.02	7.24	1.72	26.43	8.29	8.29	1.78	27.98	9.18	9.18	1.97	33.41
		19	10.8	4.94	2.32	44.3	10.72	5.97	2.31	43.71	10.65	6.99	2.29	43.25	10.49	7.97	2.26	42.12	9.97	8.78	2.14	38.52
		20	12.22	4.81	2.63	54.96	12.13	5.84	2.61	54.3	12.05	6.86	2.59	53.67	11.94	7.86	2.57	52.79	11.47	8.71	2.47	49.22
	5	15	5.38	5.3	0.92	9.04	6.11	6.11	1.05	11.25	7.04	7.04	1.21	14.32	7.96	7.96	1.37	17.69	8.88	8.88	1.53	21.34
		17	7.36	4.87	1.27	15.45	7.36	5.92	1.26	15.43	7.49	7.02	1.29	15.92	7.97	7.97	1.37	17.73	8.88	8.88	1.53	21.35
		19	10.08	4.65	1.73	26.54	10	5.67	1.72	26.17	9.94	6.7	1.71	25.92	8.96	7.33	1.59	24.1	9.45	8.58	1.62	23.75
		20	11.5	4.52	1.98	33.36	11.41	5.55	1.96	32.94	11.34	6.58	1.95	32.56	11.24	7.58	1.93	32.09	10.88	8.47	1.87	30.3
	6	15	4.98	4.98	0.71	5.79	5.8	5.8	0.83	7.49	6.73	6.73	0.96	9.67	7.66	7.66	1.1	12.05	8.58	8.58	1.23	14.63
		17	6.57	4.55	0.94	9.25	6.66	5.64	0.95	9.47	7.05	6.84	1.01	10.44	7.66	7.66	1.1	12.07	8.58	8.58	1.23	14.64
		19	9.32	4.34	1.33	16.85	9.24	5.37	1.32	16.61	9.2	6.41	1.32	16.49	9.1	7.41	1.3	16.2	8.98	8.39	1.29	15.82
		20	10.75	4.22	1.54	21.56	10.66	5.26	1.53	21.27	10.59	6.28	1.52	21.03	10.52	7.3	1.51	20.77	10.22	8.21	1.46	19.76
9	3	15	4.88	4.88	1.4	18.21	5.78	5.78	1.66	24.4	6.71	6.71	1.92	31.62	7.63	7.63	2.19	39.58	8.54	8.54	2.46	48.24
		17	6.73	4.62	1.93	31.81	6.73	5.67	1.93	31.83	6.89	6.78	1.98	33.15	7.63	7.63	2.19	39.6	8.55	8.55	2.46	48.27
		19	9.42	4.38	2.71	57.22	9.34	5.41	2.68	56.33	9.28	6.44	2.67	55.77	9.2	7.45	2.64	54.89	8.8	8.32	2.53	50.82
		20	10.83	4.26	3.12	73.17	10.74	5.29	3.09	72.15	10.67	6.31	3.07	71.24	10.59	7.32	3.05	70.39	10.24	8.22	2.94	66.2
	4	15	4.54	4.54	0.98	9.8	5.47	5.47	1.18	13.47	6.4	6.4	1.38	17.66	7.33	7.33	1.58	22.29	8.25	8.25	1.77	27.34
		17	5.97	4.31	1.28	15.63	6.06	5.4	1.3	16.05	6.51	6.51	1.4	18.17	7.33	7.33	1.58	22.3	8.25	8.25	1.77	27.36
		19	8.68	4.09	1.87	29.85	8.6	5.12	1.85	29.38	8.56	6.16	1.84	29.16	8.49	7.17	1.83	28.75	8.41	8.17	1.81	28.27
		20	10.1	3.97	2.17	38.86	10.01	5	2.15	38.27	9.94	6.03	2.14	37.8	9.88	7.05	2.13	37.4	9.6	7.97	2.07	35.58
	5	15	4.21	4.21	0.72	5.88	5.16	5.16	0.89	8.28	6.1	6.1	1.05	11.02	7.03	7.03	1.21	14.06	7.95	7.95	1.37	17.37
		17	5.17	4	0.89	8.29	5.54	5.2	0.95	9.33	6.16	6.16	1.06	11.22	7.03	7.03	1.21	14.06	7.95	7.95	1.37	17.38
		19	7.88	3.79	1.36	17.1	7.82	4.82	1.34	16.86	7.81	5.87	1.34	16.83	7.81	6.91	1.34	16.86	8.05	8.03	1.38	17.75
		20	9.33	3.68	1.61	22.9	9.23	4.7	1.59	22.49	9.18	5.74	1.58	22.25	9.13	6.76	1.57	22.07	8.92	7.72	1.53	21.19
6	6	15	3.88	3.88	0.56	3.73	4.84	4.84	0.69	5.43	5.78	5.78	0.83	7.35	6.72	6.72	0.96	9.49	7.64	7.64	1.1	11.83
		17	4.49	3.74	0.64	4.77	5.09	5.02	0.73	5.9	5.82	5.82	0.83	7.44	6.72	6.72	0.96	9.5	7.65	7.65	1.1	11.84
		19	7.02</td																			

(Continued)

MUCM-30-W7

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
11	3	15	3.88	3.88	1.11	12.13	4.83	4.83	1.39	17.64	5.76	5.76	1.65	23.96	6.69	6.69	1.92	31.05	7.61	7.61	2.19	38.87
		17	4.54	3.76	1.3	15.88	4.96	4.96	1.42	18.49	5.77	5.77	1.66	23.98	6.69	6.69	1.92	31.07	7.61	7.61	2.19	38.89
		19	7.2	3.53	2.07	35.3	7.14	4.57	2.05	34.76	7.14	5.62	2.05	34.76	7.15	6.66	2.05	34.81	7.65	7.65	2.2	39.2
		20	8.64	3.42	2.49	48.56	8.54	4.44	2.46	47.55	8.49	5.48	2.44	47.02	8.45	6.51	2.43	46.63	8.32	7.49	2.39	45.38
	4	15	3.57	3.57	0.77	6.39	4.52	4.52	0.97	9.57	5.46	5.46	1.17	13.23	6.39	6.39	1.38	17.35	7.31	7.31	1.57	21.9
		17	3.93	3.53	0.84	7.52	4.59	4.59	0.99	9.82	5.46	5.46	1.17	13.24	6.39	6.39	1.38	17.35	7.31	7.31	1.57	21.91
		19	6.38	3.22	1.37	17.26	6.33	4.27	1.36	17.03	6.38	5.33	1.37	17.29	6.67	6.48	1.43	18.65	7.33	7.33	1.58	22.01
		20	7.84	3.12	1.69	24.7	7.74	4.15	1.67	24.12	7.71	5.19	1.66	23.97	7.7	6.23	1.66	23.91	7.75	7.28	1.67	24.21
	5	15	3.24	3.24	0.56	3.7	4.2	4.2	0.72	5.76	5.15	5.15	0.89	8.14	6.09	6.09	1.05	10.83	7.01	7.01	1.21	13.81
		17	3.45	3.35	0.59	4.11	4.24	4.24	0.73	5.84	5.15	5.15	0.89	8.14	6.09	6.09	1.05	10.83	7.01	7.01	1.21	13.81
		19	5.5	2.91	0.95	9.07	5.48	3.96	0.94	9.05	5.74	5.1	0.99	9.78	6.26	6.26	1.08	11.37	7.02	7.02	1.21	13.85
		20	6.98	2.81	1.2	13.68	6.87	3.84	1.18	13.32	6.88	4.9	1.18	13.34	6.96	5.97	1.2	13.62	7.3	7.12	1.26	14.8
	6	15	2.89	2.89	0.41	2.04	3.87	3.87	0.56	3.67	4.83	4.83	0.69	5.33	5.78	5.78	0.83	7.22	6.71	6.71	0.96	9.32
		17	3.01	3.01	0.43	2.27	3.89	3.89	0.56	3.7	4.83	4.83	0.69	5.34	5.78	5.78	0.83	7.23	6.71	6.71	0.96	9.33
		19	4.57	2.58	0.66	4.84	4.68	3.68	0.67	5.04	5.22	4.92	0.75	6.08	5.89	5.89	0.85	7.47	6.71	6.71	0.96	9.34
		20	6.04	2.48	0.87	7.77	5.96	3.52	0.85	7.6	6	4.59	0.86	7.7	6.38	5.76	0.91	8.54	6.91	6.91	0.99	9.8
13	3	15	2.92	2.92	0.84	7.35	3.88	3.88	1.11	11.92	4.82	4.82	1.38	17.33	5.75	5.75	1.65	23.54	6.67	6.67	1.92	30.51
		17	2.96	2.96	0.85	7.52	3.88	3.88	1.11	11.92	4.82	4.82	1.38	17.34	5.75	5.75	1.65	23.55	6.68	6.68	1.92	30.52
		19	4.83	2.67	1.39	17.4	4.82	3.73	1.38	17.33	5.1	4.87	1.46	19.12	5.76	5.76	1.65	23.62	6.68	6.68	1.92	30.54
		20	6.28	2.57	1.8	27.43	6.16	3.59	1.77	26.52	6.19	4.65	1.78	26.74	6.28	5.73	1.8	27.4	6.73	6.73	1.93	30.92
	4	15	2.6	2.6	0.56	3.67	3.56	3.56	0.77	6.28	4.51	4.51	0.97	9.4	5.45	5.45	1.17	13	6.38	6.38	1.37	17.04
		17	2.61	2.61	0.56	3.72	3.56	3.56	0.77	6.28	4.51	4.51	0.97	9.41	5.45	5.45	1.17	13	6.38	6.38	1.37	17.05
		19	3.98	2.37	0.86	7.58	4.08	3.47	0.88	7.91	4.67	4.67	1.01	9.97	5.45	5.45	1.17	13.02	6.38	6.38	1.37	17.06
		20	5.4	2.26	1.17	12.97	5.31	3.3	1.14	12.44	5.35	4.36	1.15	12.6	5.76	5.55	1.24	14.3	6.4	6.4	1.38	17.17
	5	15	-	-	-	-	3.23	3.23	0.56	3.64	4.2	4.2	0.72	5.66	5.14	5.14	0.89	8	6.07	6.07	1.05	10.64
		17	-	-	-	-	3.24	3.24	0.56	3.64	4.2	4.2	0.72	5.66	5.14	5.14	0.89	8	6.08	6.08	1.05	10.64
		19	-	-	-	-	3.53	3.28	0.61	4.22	4.29	4.29	0.74	5.87	5.14	5.14	0.89	8	6.08	6.08	1.05	10.65
		20	-	-	-	-	4.4	2.99	0.76	6.1	4.71	4.15	0.81	6.88	5.34	5.34	0.92	8.52	6.09	6.09	1.05	10.68
	6	15	-	-	-	-	2.89	2.89	0.41	2.1	3.87	3.87	0.56	3.61	4.83	4.83	0.69	5.24	5.77	5.77	0.83	7.1
		17	-	-	-	-	2.89	2.89	0.41	2.1	3.87	3.87	0.56	3.61	4.83	4.83	0.69	5.24	5.77	5.77	0.83	7.1
		19	-	-	-	-	3.06	3.06	0.44	2.39	3.92	3.92	0.56	3.69	4.83	4.83	0.69	5.25	5.77	5.77	0.83	7.11
		20	-	-	-	-	3.55	2.71	0.51	3.1	4.2	3.97	0.6	4.13	4.95	4.95	0.71	5.48	5.77	5.77	0.83	7.11
15	3	15	-	-	-	-	2.92	2.92	0.84	7.23	3.87	3.87	1.11	11.71	4.81	4.81	1.38	17.03	5.74	5.74	1.65	23.14
		17	-	-	-	-	2.92	2.92	0.84	7.23	3.87	3.87	1.11	11.72	4.81	4.81	1.38	17.04	5.74	5.74	1.65	23.15
		19	-	-	-	-	3.01	3.01	0.86	7.62	3.87	3.87	1.11	11.72	4.81	4.81	1.38	17.05	5.74	5.74	1.65	23.16
		20	-	-	-	-	3.75	2.77	1.08	11.1	4.08	3.94	1.17	12.86	4.82	4.82	1.39	17.13	5.74	5.74	1.65	23.17
	4	15	-	-	-	-	2.59	2.59	0.56	3.61	3.56	3.56	0.77	6.17	4.5	4.5	0.97	9.24	5.44	5.44	1.17	12.78
		17	-	-	-	-	2.59	2.59	0.56	3.61	3.56	3.56	0.77	6.18	4.5	4.5	0.97	9.24	5.44	5.44	1.17	12.78
		19	-	-	-	-	2.63	2.63	0.57	3.71	3.56	3.56	0.77	6.18	4.5	4.5	0.97	9.25	5.44	5.44	1.17	12.79
		20	-	-	-	-	3.01	2.53	0.65	4.63	3.67	3.67	0.79	6.51	4.51	4.51	0.97	9.26	5.44	5.44	1.17	12.79
	5	15	-	-	-	-	-	-	-	-	3.23	3.23	0.56	3.58	4.19	4.19	0.72	5.56	5.13	5.13	0.88	7.86
		17	-	-	-	-	-	-	-	-	3.23	3.23	0.56	3.58	4.19	4.19	0.72	5.56	5.13	5.13	0.88	7.86
		19	-	-	-	-	-	-	-	-	3.23	3.23	0.56	3.58	4.19	4.19	0.72	5.57	5.13	5.13	0.89	7.87
		20	-	-	-	-	-	-	-	-	3.29	3.29	0.57	3.69	4.19	4.19	0.72	5.57	5.13	5.13	0.89	7.87
	6	15	-	-	-	-	-	-	-	-	2.89	2.89	0.41	2.12	3.86	3.86	0.56	3.55	4.82	4.82	0.69	5.15
		17	-	-	-	-	-	-	-	-	2.89	2.89	0.41	2.12	3.87	3.87	0.56	3.55	4.82	4.82	0.69	5.16
		19	-	-	-	-	-	-	-	-	2.89	2.89	0.41	2.13	3.87	3.87	0.56	3.55	4.82	4.82	0.69	5.16
		20	-	-	-	-	-	-	-	-	2.92	2.92	0.42	2.17	3.87	3.87	0.56	3.55	4.82	4.82	0.69	5.16

Abbreviations:

EWT: Enter Water Temp. (°C)

$\Delta t$ : Temperature Difference (°C)

DB: Dry Bulb Temp. (°C)

WF: Water Flow (m³/h)

WB: Wet Bulb Temp. (°C)

TC: Total Cooling Capacity

**MUCM-36-W7**

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
5	3	15	9.79	7.75	2.81	46.25	9.7	8.94	2.78	45.53	10.13	10.13	2.9	49.13	11.2	11.2	3.21	58.61	12.27	12.27	3.52	68.74
		17	12.73	7.48	3.66	73.37	12.65	8.68	3.64	72.6	12.38	9.78	3.56	69.85	11.99	10.82	3.44	66.07	12.41	12.21	3.57	70.19
		19	15.93	7.2	4.59	109.1	15.83	8.4	4.56	107.9	15.71	9.58	4.53	106.4	15.34	10.64	4.42	102.0	15.08	11.74	4.34	99.02
		20	17.63	7.05	5.09	130.7	17.52	8.26	5.06	129.2	17.41	9.45	5.02	127.8	17.17	10.57	4.95	124.7	16.76	11.6	4.83	119.44
	4	15	9.03	7.41	1.94	24.28	9.09	8.66	1.95	24.57	9.77	9.77	2.1	27.86	10.85	10.85	2.33	33.39	11.91	11.91	2.56	39.3
		17	11.96	7.13	2.57	39.54	11.89	8.34	2.55	39.14	11.69	9.48	2.51	38	11.34	10.54	2.44	36.06	12	12	2.58	39.77
		19	15.16	6.86	3.26	59.79	15.06	8.06	3.24	59.11	14.95	9.25	3.22	58.37	14.58	10.31	3.13	55.85	14.26	11.38	3.07	53.76
		20	16.85	6.71	3.63	71.97	16.74	7.91	3.6	71.19	16.64	9.11	3.58	70.41	16.41	10.24	3.53	68.71	15.96	11.25	3.43	65.44
	5	15	8.24	7.05	1.41	14.07	8.59	8.44	1.47	15.12	9.41	9.41	1.62	17.71	10.49	10.49	1.8	21.35	11.56	11.56	1.99	25.24
		17	11.16	6.78	1.92	23.71	11.1	7.99	1.91	23.5	10.94	9.15	1.88	22.94	10.82	10.31	1.86	22.51	11.61	11.61	1.99	25.41
		19	14.36	6.51	2.47	36.7	14.26	7.71	2.45	36.27	14.17	8.91	2.43	35.85	13.88	10	2.38	34.6	13.42	11.02	2.31	32.65
		20	16.04	6.36	2.76	44.52	15.94	7.57	2.74	44.03	15.85	8.77	2.72	43.56	15.66	9.91	2.69	42.66	15.15	10.91	2.6	40.26
	6	15	7.54	6.75	1.08	8.84	8.13	8.13	1.16	10.06	9.05	9.05	1.29	12.07	10.13	10.13	1.45	14.64	11.21	11.21	1.6	17.41
		17	10.32	6.42	1.48	15.08	10.27	7.64	1.47	14.97	10.18	8.82	1.46	14.73	10.36	10.11	1.48	15.21	11.24	11.24	1.61	17.48
		19	13.53	6.16	1.94	24.04	13.44	7.36	1.92	23.76	13.35	8.56	1.91	23.51	13.11	9.68	1.88	22.78	12.59	10.67	1.8	21.22
		20	15.22	6.01	2.18	29.46	15.12	7.22	2.16	29.14	15.03	8.42	2.15	28.83	14.87	9.58	2.13	28.32	14.34	10.57	2.05	26.58
7	3	15	7.54	6.75	2.16	28.95	7.98	7.98	2.29	31.95	9.02	9.02	2.59	39.55	10.1	10.1	2.9	48.2	11.17	11.17	3.21	57.5
		17	10.42	6.46	2.99	50.91	10.37	7.68	2.98	50.43	10.27	8.86	2.95	49.62	10.17	10.03	2.92	48.75	11.18	11.18	3.21	57.55
		19	13.61	6.19	3.92	81.36	13.51	7.39	3.89	80.33	13.42	8.59	3.86	79.45	13.13	9.69	3.78	76.39	12.63	10.69	3.63	71.33
		20	15.28	6.04	4.41	99.99	15.18	7.25	4.38	98.82	15.09	8.45	4.35	97.69	14.9	9.59	4.29	95.59	14.34	10.58	4.13	89.31
	4	15	6.89	6.47	1.48	15.01	7.59	7.59	1.63	17.76	8.66	8.66	1.86	22.29	9.75	9.75	2.09	27.33	10.82	10.82	2.33	32.76
		17	9.6	6.12	2.06	26.62	9.56	7.34	2.06	26.44	9.5	8.53	2.04	26.12	9.78	9.78	2.1	27.49	10.82	10.82	2.33	32.78
		19	12.79	5.85	2.75	43.8	12.69	7.05	2.73	43.23	12.62	8.26	2.71	42.78	12.4	9.39	2.67	41.51	11.8	10.35	2.54	38.09
		20	14.46	5.7	3.11	54.32	14.37	6.91	3.09	53.68	14.27	8.11	3.07	53.07	14.13	9.27	3.04	52.12	13.54	10.25	2.91	48.37
	5	15	6.36	6.25	1.09	8.92	7.22	7.22	1.24	11.06	8.3	8.3	1.43	14.06	9.39	9.39	1.61	17.37	10.47	10.47	1.8	20.94
		17	8.73	5.76	1.5	15.32	8.73	6.99	1.5	15.29	8.86	8.27	1.52	15.72	9.41	9.41	1.62	17.43	10.47	10.47	1.8	20.96
		19	11.94	5.5	2.05	26.27	11.85	6.71	2.04	25.91	11.78	7.92	2.03	25.67	10.79	8.84	1.93	26.3	11.17	10.1	1.92	23.42
		20	13.62	5.36	2.34	32.99	13.52	6.57	2.33	32.59	13.43	7.77	2.31	32.23	13.32	8.95	2.29	31.73	12.86	9.98	2.21	29.87
	6	15	5.89	5.89	0.84	5.72	6.84	6.84	0.98	7.37	7.94	7.94	1.14	9.5	9.03	9.03	1.29	11.84	10.11	10.11	1.45	14.37
		17	7.8	5.38	1.12	9.19	7.89	6.65	1.13	9.38	8.33	8.05	1.19	10.3	9.04	9.04	1.29	11.86	10.12	10.12	1.45	14.38
		19	11.04	5.14	1.58	16.7	10.96	6.35	1.57	16.46	10.91	7.56	1.56	16.34	10.77	8.73	1.54	15.99	10.6	9.87	1.52	15.57
		20	12.74	5.01	1.82	21.34	12.64	6.22	1.81	21.06	12.56	7.42	1.8	20.83	12.46	8.61	1.79	20.57	12.07	9.67	1.73	19.47
9	3	15	5.76	5.76	1.65	17.93	6.81	6.81	1.95	23.96	7.91	7.91	2.27	31.03	8.99	8.99	2.58	38.82	10.07	10.07	2.89	47.3
		17	7.98	5.45	2.29	31.52	7.98	6.69	2.29	31.52	8.15	7.98	2.34	32.65	9	9	2.58	38.84	10.08	10.08	2.89	47.34
		19	11.16	5.19	3.21	56.58	11.06	6.39	3.18	55.73	11	7.6	3.16	55.18	10.9	8.78	3.13	54.28	10.39	9.79	2.99	49.92
		20	12.82	5.04	3.69	72.31	12.73	6.25	3.66	71.33	12.64	7.45	3.64	70.46	12.55	8.64	3.61	69.61	12.07	9.67	3.47	64.97
	4	15	5.37	5.37	1.15	9.65	6.45	6.45	1.39	13.23	7.55	7.55	1.62	17.34	8.64	8.64	1.86	21.88	9.72	9.72	2.09	26.83
		17	7.09	5.09	1.52	15.52	7.18	6.37	1.54	15.89	7.69	7.69	1.65	17.89	8.64	8.64	1.86	21.89	9.73	9.73	2.09	26.84
		19	10.28	4.84	2.21	29.55	10.19	6.05	2.19	29.1	10.15	7.27	2.18	28.89	10.06	8.45	2.16	28.45	9.91	9.6	2.13	27.73
		20	11.96	4.7	2.57	38.44	11.86	5.91	2.55	37.87	11.78	7.12	2.54	37.43	11.71	8.31	2.52	37.02	11.35	9.39	2.44	35.09
	5	15	4.98	4.98	0.86	5.78	6.09	6.09	1.05	8.14	7.19	7.19	1.24	10.83	8.29	8.29	1.43	13.81	9.37	9.37	1.61	17.05
		17	6.13	4.72	1.05	8.24	6.55	6.12	1.13	9.23	7.28	7.28	1.25	11.05	8.29	8.29	1.43	13.81	9.37	9.37	1.61	17.06
		19	9.35	4.48	1.61	16.96	9.27	5.7	1.59	16.73	9.26	6.93	1.59	16.69	9.25	8.14	1.59	16.67	9.49	9.44	1.63	17.43
		20	11.06	4.36	1.9	22.67	10.95	5.56	1.88	22.29	10.88	6.78	1.87	22.06	10.83	7.98	1.86	21.87	10.56	9.09	1.82	20.94
	6	15	4.58	4.58	0.66	3.67	5.71	5.71	0.82	5.34	6.82	6.82	0.98	7.23	7.93	7.93	1.14	9.33	9.01	9.01	1.29	11.62
		17	5.31	4.41	0.76	4.72	6.02	5.91	0.86	5.83	6.88	6.88	0.99	7.32</td								

(Continued)

MUCM-36-W7

EWT	$\Delta T$	Indoor temp (W.B.)	Indoor temperature (D.B.)																			
			21				23				25				27				29			
			TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
°C	°C	°C	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa	kW	kW	m³/h	kPa
11	3	15	4.58	4.58	1.31	11.92	5.69	5.69	1.63	17.33	6.8	6.8	1.95	23.52	7.89	7.89	2.27	30.47	8.97	8.97	2.58	38.12
		17	5.39	4.44	1.55	15.75	5.87	5.85	1.68	18.23	6.8	6.8	1.95	23.53	7.89	7.89	2.27	30.48	8.97	8.97	2.58	38.14
		19	8.54	4.18	2.45	34.98	8.47	5.39	2.43	34.46	8.47	6.62	2.43	34.45	8.46	7.84	2.43	34.37	9	9	2.59	38.31
		20	10.24	4.05	2.94	48.04	10.12	5.25	2.91	47.08	10.06	6.47	2.89	46.57	10.01	7.67	2.88	46.16	9.85	8.82	2.83	44.86
	4	15	4.21	4.21	0.91	6.29	5.33	5.33	1.15	9.4	6.44	6.44	1.39	12.99	7.54	7.54	1.62	17.03	8.62	8.62	1.86	21.49
		17	4.65	4.16	1	7.45	5.42	5.42	1.17	9.68	6.44	6.44	1.39	13	7.54	7.54	1.62	17.04	8.62	8.62	1.86	21.5
		19	7.56	3.81	1.63	17.12	7.51	5.04	1.62	16.92	7.57	6.29	1.63	17.15	7.88	7.63	1.7	18.39	8.64	8.64	1.86	21.56
		20	9.3	3.7	2	24.48	9.18	4.91	1.98	23.93	9.15	6.13	1.97	23.78	9.13	7.35	1.96	23.7	9.17	8.57	1.97	23.88
	5	15	3.82	3.82	0.66	3.64	4.96	4.96	0.85	5.66	6.07	6.07	1.05	8	7.18	7.18	1.24	10.64	8.27	8.27	1.42	13.56
		17	4.08	3.95	0.7	4.06	5.01	5.01	0.86	5.76	6.08	6.08	1.05	8	7.18	7.18	1.24	10.64	8.27	8.27	1.42	13.56
		19	6.52	3.44	1.12	9.02	6.51	4.68	1.12	9	6.8	6.01	1.17	9.68	7.4	7.4	1.27	11.2	8.29	8.29	1.43	13.61
		20	8.28	3.34	1.43	13.58	8.14	4.53	1.4	13.19	8.17	5.78	1.41	13.26	8.25	7.03	1.42	13.49	8.63	8.38	1.49	14.59
	6	15	3.41	3.41	0.49	1.97	4.57	4.57	0.66	3.61	5.7	5.7	0.82	5.25	6.81	6.81	0.98	7.1	7.91	7.91	1.13	9.16
		17	3.56	3.56	0.51	2.22	4.6	4.6	0.66	3.64	5.7	5.7	0.82	5.25	6.81	6.81	0.98	7.1	7.91	7.91	1.14	9.16
		19	5.43	3.05	0.78	4.81	5.55	4.34	0.8	5	6.18	5.79	0.89	6.01	6.96	6.96	1	7.36	7.92	7.92	1.14	9.18
		20	7.17	2.94	1.03	7.72	7.09	4.17	1.02	7.59	7.13	5.41	1.02	7.66	7.55	6.78	1.08	8.45	8.16	8.16	1.17	9.65
13	3	15	3.45	3.45	0.99	7.23	4.57	4.57	1.31	11.71	5.68	5.68	1.63	17.01	6.78	6.78	1.95	23.1	7.87	7.87	2.26	29.93
		17	3.5	3.5	1	7.41	4.57	4.57	1.31	11.71	5.68	5.68	1.63	17.02	6.78	6.78	1.95	23.11	7.87	7.87	2.26	29.94
		19	5.73	3.16	1.65	17.26	5.72	4.4	1.64	17.2	6.04	5.74	1.73	18.9	6.79	6.79	1.95	23.19	7.87	7.87	2.26	29.96
		20	7.45	3.04	2.14	27.19	7.3	4.24	2.1	26.26	7.35	5.49	2.11	26.56	7.43	6.74	2.14	27.11	7.94	7.94	2.28	30.38
	4	15	3.06	3.06	0.66	3.61	4.2	4.2	0.9	6.18	5.32	5.32	1.15	9.24	6.43	6.43	1.38	12.76	7.52	7.52	1.62	16.73
		17	3.09	3.09	0.66	3.66	4.2	4.2	0.9	6.18	5.32	5.32	1.15	9.24	6.43	6.43	1.38	12.77	7.52	7.52	1.62	16.74
		19	4.71	2.8	1.01	7.5	4.84	4.09	1.04	7.83	5.52	5.52	1.19	9.84	6.43	6.43	1.38	12.79	7.52	7.52	1.62	16.74
		20	6.41	2.68	1.39	12.88	6.31	3.9	1.36	12.36	6.36	5.15	1.37	12.53	6.81	6.53	1.47	14.12	7.56	7.56	1.63	16.87
	5	15	-	-	-	-	3.82	3.82	0.66	3.58	4.95	4.95	0.85	5.56	6.06	6.06	1.04	7.86	7.16	7.16	1.23	10.45
		17	-	-	-	-	3.82	3.82	0.66	3.58	4.95	4.95	0.85	5.56	6.06	6.06	1.04	7.86	7.16	7.16	1.23	10.45
		19	-	-	-	-	4.19	3.86	0.72	4.18	5.07	5.07	0.87	5.79	6.07	6.07	1.04	7.86	7.17	7.17	1.23	10.46
		20	-	-	-	-	5.23	3.53	0.9	6.1	5.59	4.89	0.96	6.82	6.31	6.31	1.09	8.41	7.18	7.18	1.24	10.5
	6	15	-	-	-	-	3.41	3.41	0.49	2.05	4.57	4.57	0.66	3.55	5.69	5.69	0.82	5.15	6.8	6.8	0.98	6.98
		17	-	-	-	-	3.41	3.41	0.49	2.05	4.57	4.57	0.66	3.55	5.69	5.69	0.82	5.16	6.8	6.8	0.98	6.98
		19	-	-	-	-	3.62	3.62	0.52	2.35	4.64	4.64	0.67	3.64	5.7	5.7	0.82	5.16	6.8	6.8	0.98	6.98
		20	-	-	-	-	4.21	3.2	0.6	3.08	4.97	4.68	0.71	4.09	5.85	5.85	0.84	5.4	6.81	6.81	0.98	6.99
15	3	15	-	-	-	-	3.44	3.44	0.99	7.1	4.56	4.56	1.31	11.5	5.67	5.67	1.63	16.72	6.76	6.76	1.94	22.7
		17	-	-	-	-	3.44	3.44	0.99	7.11	4.56	4.56	1.31	11.51	5.67	5.67	1.63	16.72	6.76	6.76	1.94	22.71
		19	-	-	-	-	3.55	3.55	1.02	7.49	4.56	4.56	1.31	11.51	5.67	5.67	1.63	16.74	6.77	6.77	1.95	22.72
		20	-	-	-	-	4.46	3.27	1.28	11.04	4.84	4.64	1.39	12.71	5.69	5.69	1.64	16.84	6.77	6.77	1.95	22.73
	4	15	-	-	-	-	-	-	-	4.19	4.19	0.9	6.07	5.31	5.31	1.14	9.08	6.41	6.41	1.38	12.54	
		17	-	-	-	-	3.06	3.06	0.66	3.55	4.19	4.19	0.9	6.07	5.31	5.31	1.14	9.08	6.41	6.41	1.38	12.55
		19	-	-	-	-	3.12	3.12	0.67	3.66	4.2	4.2	0.9	6.07	5.31	5.31	1.14	9.08	6.41	6.41	1.38	12.55
		20	-	-	-	-	3.57	2.98	0.77	4.6	4.34	4.34	0.94	6.43	5.32	5.32	1.15	9.1	6.42	6.42	1.38	12.56
	5	15	-	-	-	-	-	-	-	3.81	3.81	0.66	3.52	4.94	4.94	0.85	5.47	6.05	6.05	1.04	7.72	
		17	-	-	-	-	-	-	-	3.81	3.81	0.66	3.52	4.94	4.94	0.85	5.47	6.05	6.05	1.04	7.72	
		19	-	-	-	-	-	-	-	3.81	3.81	0.66	3.52	4.94	4.94	0.85	5.47	6.06	6.06	1.04	7.73	
		20	-	-	-	-	-	-	-	3.89	3.89	0.67	3.64	4.95	4.95	0.85	5.47	6.06	6.06	1.04	7.73	
	6	15	-	-	-	-	-	-	-	3.41	3.41	0.49	2.08	4.56	4.56	0.66	3.49	5.68	5.68	0.82	5.07	
		17	-	-	-	-	-	-	-	3.41	3.41	0.49	2.08	4.56	4.56	0.66	3.49	5.69	5.69	0.82	5.07	
		19	-	-	-	-	-	-	-	3.41	3.41	0.49	2.08	4.56	4.56	0.66	3.49	5.69	5.69	0.82	5.07	
		20	-	-	-	-	-	-	-	3.45	3.45	0.5	2.13	4.56	4.56	0.66	3.49	5.69	5.69	0.82	5.07	

Abbreviations:

EWT: Enter Water Temp. (°C) Δt: Temperature Difference (°C) DB: Dry Bulb Temp. (°C) WF: Water Flow (m³/h)

WB: Wet Bulb Temp. (°C) TC: Total Cooling Capacity (kW) SC: Sensible Cooling Capacity (kW) WPD: Water Pressure Drop (kPa)

## Heating Capacity Table

MUCM-15-W7													
EWT	$\Delta T$	Indoor temperature (D.B.)											
		16			18			20			22		
		TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
°C	°C	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa
40	5	5.25	0.91	15.82	4.73	0.82	13.2	4.22	0.73	10.8	3.71	0.64	8.63
	6	5.1	0.74	10.96	4.58	0.66	9.1	4.06	0.59	7.4	3.55	0.51	5.86
	8	4.78	0.52	6	4.26	0.46	4.92	3.74	0.4	3.94	3.23	0.35	3.06
	10	4.45	0.39	3.64	3.93	0.34	2.94	3.41	0.29	2.31	2.88	0.25	1.74
	12	4.11	0.3	2.35	3.58	0.26	1.86	3.05	0.22	1.41	2.5	0.18	0.99
45	5	6.51	1.13	22.53	5.99	1.04	19.46	5.47	0.95	16.61	4.96	0.86	13.97
	6	6.36	0.92	15.76	5.84	0.84	13.57	5.32	0.77	11.53	4.8	0.69	9.66
	8	6.05	0.66	8.8	5.53	0.6	7.52	5.01	0.54	6.34	4.49	0.49	5.25
	10	5.74	0.5	5.48	5.21	0.45	4.65	4.69	0.41	3.87	4.17	0.36	3.17
	12	5.41	0.39	3.64	4.88	0.35	3.06	4.35	0.31	2.51	3.83	0.28	2.02
50	5	7.77	1.35	30.12	7.24	1.26	26.62	6.72	1.17	23.34	6.2	1.08	20.27
	6	7.62	1.1	21.18	7.09	1.03	18.68	6.57	0.95	16.34	6.05	0.88	14.15
	8	7.32	0.79	11.98	6.79	0.74	10.52	6.27	0.68	9.15	5.75	0.62	7.87
	10	7.01	0.61	7.57	6.48	0.56	6.61	5.96	0.52	5.71	5.44	0.47	4.88
	12	6.69	0.48	5.12	6.16	0.45	4.45	5.64	0.41	3.81	5.11	0.37	3.23
55	5	9.03	1.57	38.54	8.5	1.48	34.63	7.97	1.39	30.93	7.45	1.3	27.44
	6	8.88	1.29	27.2	8.35	1.21	24.4	7.82	1.13	21.76	7.3	1.06	19.27
	8	8.58	0.93	15.52	8.05	0.88	13.87	7.52	0.82	12.33	7	0.76	10.87
	10	8.28	0.72	9.9	7.75	0.67	8.82	7.22	0.63	7.81	6.69	0.58	6.85
	12	7.97	0.58	6.78	7.43	0.54	6.01	6.91	0.5	5.29	6.38	0.46	4.62
60	5	10.29	1.79	47.74	9.75	1.7	43.42	9.22	1.61	39.32	8.69	1.51	35.43
	6	10.14	1.47	33.79	9.6	1.4	30.7	9.07	1.32	27.76	8.54	1.24	24.98
	8	9.84	1.07	19.39	9.31	1.01	17.57	8.78	0.96	15.85	8.25	0.9	14.22
	10	9.54	0.83	12.46	9.01	0.78	11.26	8.48	0.74	10.13	7.95	0.69	9.06
	12	9.24	0.67	8.6	8.7	0.63	7.75	8.17	0.59	6.94	7.64	0.55	6.18

Abbreviations:

**Δt:** Temperature Difference (°C)    **TH:** Total Heating Capacity (kW)    **WF:** Water Flow (m³/h)    **WPD:** Water Pressure Drop (kPa)

### MUCM-19-W7

EWT	$\Delta T$	Indoor temperature (D.B.)											
		16			18			20			22		
		TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
°C	°C	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa
40	5	6.39	1.11	28.92	5.76	1	24.12	5.14	0.89	19.74	4.52	0.78	15.77
	6	6.21	0.9	20.06	5.58	0.81	16.65	4.95	0.71	13.53	4.33	0.62	10.72
	8	5.84	0.63	10.99	5.21	0.56	9.01	4.57	0.49	7.22	3.95	0.43	5.6
	10	5.45	0.47	6.68	4.81	0.42	5.4	4.17	0.36	4.24	3.53	0.31	3.19
	12	5.04	0.36	4.31	4.4	0.32	3.42	3.75	0.27	2.6	3.09	0.22	1.88
45	5	7.92	1.37	41.18	7.28	1.26	35.55	6.65	1.15	30.33	6.03	1.05	25.51
	6	7.74	1.12	28.81	7.1	1.03	24.8	6.47	0.94	21.08	5.85	0.84	17.64
	8	7.38	0.8	16.11	6.74	0.73	13.76	6.11	0.66	11.6	5.48	0.59	9.61
	10	7	0.61	10.04	6.36	0.55	8.51	5.73	0.5	7.1	5.09	0.44	5.8
	12	6.61	0.48	6.68	5.97	0.43	5.6	5.33	0.38	4.61	4.69	0.34	3.71
50	5	9.44	1.64	55.05	8.8	1.53	48.63	8.16	1.42	42.61	7.53	1.31	36.99
	6	9.27	1.34	38.73	8.62	1.25	34.14	7.99	1.16	29.84	7.36	1.06	25.83
	8	8.91	0.97	21.92	8.27	0.9	19.23	7.63	0.83	16.72	7	0.76	14.38
	10	8.54	0.74	13.86	7.9	0.69	12.1	7.26	0.63	10.45	6.63	0.58	8.92
	12	8.17	0.59	9.39	7.52	0.54	8.14	6.88	0.5	6.98	6.24	0.45	5.91
55	5	10.97	1.91	70.42	10.32	1.79	63.24	9.68	1.68	56.46	9.04	1.57	50.07
	6	10.79	1.56	49.74	10.14	1.47	44.6	9.5	1.38	39.75	8.86	1.29	35.18
	8	10.44	1.13	28.39	9.79	1.06	25.37	9.15	0.99	22.53	8.51	0.93	19.85
	10	10.08	0.88	18.13	9.43	0.82	16.14	8.79	0.76	14.27	8.15	0.71	12.52
	12	9.71	0.7	12.41	9.06	0.66	11.01	8.42	0.61	9.69	7.78	0.56	8.45
60	5	12.49	2.17	87.21	11.83	2.06	79.3	11.18	1.95	71.78	10.54	1.84	64.64
	6	12.31	1.79	61.78	11.66	1.69	56.1	11.01	1.6	50.71	10.37	1.51	45.61
	8	11.96	1.3	35.47	11.31	1.23	32.13	10.66	1.16	28.97	10.02	1.09	25.97
	10	11.61	1.01	22.8	10.96	0.95	20.6	10.31	0.9	18.52	9.67	0.84	16.55
	12	11.25	0.82	15.74	10.59	0.77	14.18	9.95	0.72	12.7	9.3	0.67	11.3

### MUCM-27-W7

EWT	$\Delta T$	Indoor temperature (D.B.)											
		16			18			20			22		
		TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
°C	°C	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa
40	5	8.84	1.53	30.48	7.97	1.38	25.42	7.1	1.23	20.8	6.24	1.08	16.62
	6	8.59	1.24	21.13	7.71	1.11	17.54	6.85	0.99	14.26	5.99	0.86	11.29
	8	8.07	0.87	11.57	7.19	0.78	9.49	6.32	0.68	7.59	5.45	0.59	5.89
	10	7.53	0.65	7.03	6.65	0.58	5.68	5.77	0.5	4.45	4.88	0.42	3.35
	12	6.97	0.5	4.53	6.07	0.44	3.59	5.17	0.37	2.73	4.26	0.31	1.97
45	5	10.95	1.9	43.42	10.07	1.75	37.49	9.2	1.59	31.99	8.33	1.45	26.9
	6	10.7	1.55	30.37	9.82	1.42	26.14	8.95	1.29	22.22	8.08	1.17	18.6
	8	10.2	1.1	16.97	9.32	1.01	14.5	8.44	0.91	12.22	7.57	0.82	10.12
	10	9.67	0.84	10.57	8.79	0.76	8.95	7.91	0.69	7.47	7.04	0.61	6.1
	12	9.14	0.66	7.02	8.25	0.6	5.89	7.36	0.53	4.85	6.48	0.47	3.9
50	5	13.06	2.27	58.07	12.17	2.11	51.31	11.29	1.96	44.96	10.42	1.81	39.03
	6	12.81	1.85	40.85	11.93	1.73	36.01	11.05	1.6	31.48	10.17	1.47	27.25
	8	12.31	1.34	23.1	11.43	1.24	20.27	10.55	1.14	17.63	9.68	1.05	15.16
	10	11.81	1.02	14.6	10.92	0.95	12.75	10.04	0.87	11.01	9.16	0.8	9.4
	12	11.28	0.82	9.88	10.4	0.75	8.57	9.51	0.69	7.35	8.63	0.62	6.22
55	5	15.16	2.63	74.3	14.27	2.48	66.74	13.38	2.33	59.59	12.5	2.17	52.85
	6	14.92	2.16	52.47	14.03	2.03	47.06	13.14	1.9	41.94	12.26	1.78	37.12
	8	14.43	1.57	29.93	13.54	1.47	26.75	12.65	1.38	23.76	11.77	1.28	20.94
	10	13.93	1.21	19.1	13.04	1.13	17.01	12.15	1.06	15.04	11.27	0.98	13.19
	12	13.42	0.97	13.07	12.53	0.91	11.59	11.64	0.84	10.2	10.75	0.78	8.9
60	5	17.27	3	92.04	16.36	2.85	83.7	15.47	2.69	75.78	14.58	2.54	68.26
	6	17.03	2.47	65.19	16.12	2.34	59.21	15.23	2.21	53.53	14.34	2.08	48.15
	8	16.54	1.8	37.41	15.64	1.7	33.9	14.75	1.61	30.56	13.86	1.51	27.4
	10	16.05	1.4	24.04	15.15	1.32	21.72	14.25	1.24	19.53	13.37	1.16	17.45
	12	15.55	1.13	16.58	14.65	1.06	14.94	13.75	1	13.38	12.86	0.93	11.91

Abbreviations:

**At:** Temperature Difference (°C)    **TH:** Total Heating Capacity (kW)    **WF:** Water Flow (m³/h)    **WPD:** Water Pressure Drop (kPa)

### MUCM-30-W7

EWT	$\Delta T$	Indoor temperature (D.B.)											
		16			18			20			22		
		TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
°C	°C	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa
40	5	10.56	1.83	24.46	9.52	1.65	20.41	8.48	1.47	16.7	7.45	1.29	13.34
	6	10.25	1.48	16.94	9.21	1.33	14.06	8.17	1.18	11.43	7.14	1.03	9.06
	8	9.62	1.04	9.26	8.57	0.93	7.59	7.53	0.81	6.08	6.49	0.7	4.71
	10	8.96	0.78	5.62	7.91	0.68	4.53	6.86	0.59	3.55	5.8	0.5	2.67
	12	8.28	0.6	3.61	7.21	0.52	2.86	6.14	0.44	2.17	5.05	0.36	1.56
45	5	13.08	2.27	34.88	12.03	2.09	30.13	10.99	1.91	25.71	9.96	1.73	21.63
	6	12.78	1.85	24.38	11.73	1.7	20.99	10.69	1.55	17.84	9.66	1.4	14.94
	8	12.16	1.32	13.6	11.12	1.2	11.62	10.07	1.09	9.8	9.03	0.98	8.12
	10	11.53	1	8.46	10.48	0.91	7.17	9.43	0.82	5.98	8.39	0.73	4.88
	12	10.88	0.78	5.61	9.82	0.71	4.71	8.76	0.63	3.87	7.71	0.56	3.11
50	5	15.61	2.71	46.68	14.55	2.53	41.26	13.5	2.34	36.17	12.46	2.16	31.41
	6	15.31	2.22	32.81	14.25	2.06	28.94	13.2	1.91	25.3	12.16	1.76	21.91
	8	14.7	1.6	18.54	13.65	1.48	16.27	12.6	1.37	14.15	11.56	1.25	12.17
	10	14.09	1.22	11.7	13.03	1.13	10.22	11.98	1.04	8.83	10.93	0.95	7.54
	12	13.45	0.97	7.91	12.39	0.9	6.86	11.34	0.82	5.89	10.29	0.74	4.98
55	5	18.13	3.15	59.76	17.07	2.97	53.7	16.01	2.78	47.97	14.96	2.6	42.56
	6	17.84	2.59	42.17	16.77	2.43	37.83	15.71	2.28	33.73	14.66	2.13	29.87
	8	17.24	1.87	24.03	16.17	1.76	21.49	15.12	1.64	19.09	14.07	1.53	16.83
	10	16.63	1.45	15.32	15.57	1.35	13.65	14.51	1.26	12.07	13.46	1.17	10.59
	12	16.01	1.16	10.48	14.95	1.08	9.29	13.89	1.01	8.18	12.83	0.93	7.14
60	5	20.65	3.6	74.06	19.58	3.41	67.38	18.51	3.22	61.02	17.45	3.04	54.99
	6	20.36	2.96	52.42	19.29	2.8	47.63	18.22	2.65	43.08	17.16	2.49	38.76
	8	19.77	2.15	30.05	18.7	2.04	27.24	17.63	1.92	24.57	16.58	1.81	22.04
	10	19.17	1.67	19.3	18.1	1.58	17.44	17.03	1.48	15.69	15.98	1.39	14.02
	12	18.56	1.35	13.3	17.49	1.27	11.99	16.42	1.19	10.74	15.37	1.11	9.56

### MUCM-36-W7

EWT	$\Delta T$	Indoor temperature (D.B.)											
		16			18			20			22		
		TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
°C	°C	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa	kW	m³/h	kPa
40	5	12.42	2.15	23.9	11.19	1.94	19.94	9.98	1.73	16.32	8.77	1.52	13.04
	6	12.06	1.74	16.56	10.83	1.56	13.75	9.61	1.39	11.18	8.4	1.21	8.85
	8	11.32	1.22	9.06	10.09	1.09	7.43	8.86	0.96	5.94	7.64	0.83	4.61
	10	10.55	0.91	5.5	9.31	0.81	4.44	8.07	0.7	3.48	6.83	0.59	2.62
	12	9.75	0.7	3.54	8.49	0.61	2.8	7.23	0.52	2.13	5.95	0.43	1.53
45	5	15.39	2.67	34.08	14.16	2.45	29.43	12.93	2.24	25.12	11.72	2.03	21.13
	6	15.04	2.17	23.82	13.8	1.99	20.51	12.58	1.82	17.43	11.36	1.64	14.6
	8	14.31	1.55	13.29	13.08	1.42	11.36	11.85	1.28	9.58	10.63	1.15	7.93
	10	13.57	1.18	8.27	12.33	1.07	7.01	11.1	0.96	5.85	9.87	0.86	4.78
	12	12.81	0.92	5.49	11.56	0.83	4.61	10.32	0.74	3.79	9.07	0.65	3.05
50	5	18.36	3.19	45.59	17.12	2.97	40.29	15.88	2.76	35.32	14.66	2.55	30.67
	6	18.01	2.61	32.05	16.77	2.43	28.26	15.53	2.25	24.71	14.31	2.07	21.4
	8	17.3	1.88	18.11	16.06	1.74	15.9	14.82	1.61	13.83	13.6	1.48	11.89
	10	16.57	1.44	11.44	15.33	1.33	9.99	14.09	1.22	8.63	12.86	1.12	7.37
	12	15.83	1.14	7.73	14.58	1.05	6.71	13.34	0.96	5.76	12.1	0.87	4.87
55	5	21.33	3.71	58.36	20.07	3.49	52.43	18.83	3.27	46.83	17.59	3.06	41.55
	6	20.98	3.04	41.19	19.73	2.86	36.95	18.48	2.68	32.94	17.25	2.5	29.17
	8	20.28	2.2	23.48	19.03	2.07	20.99	17.78	1.93	18.64	16.55	1.8	16.44
	10	19.57	1.7	14.97	18.31	1.59	13.34	17.07	1.48	11.8	15.83	1.38	10.35
	12	18.84	1.36	10.24	17.59	1.27	9.09	16.34	1.18	8	15.1	1.09	6.97
60	5	24.29	4.23	72.31	23.03	4.01	65.78	21.77	3.79	59.57	20.53	3.58	53.67
	6	23.95	3.48	51.18	22.69	3.29	46.5	21.43	3.11	42.06	20.19	2.93	37.84
	8	23.26	2.53	29.35	21.99	2.4	26.6	20.74	2.26	23.99	19.5	2.12	21.52
	10	22.55	1.96	18.85	21.29	1.85	17.04	20.04	1.74	15.32	18.79	1.64	13.7
	12	21.84	1.58	13	20.58	1.49	11.71	19.32	1.4	10.5	18.08	1.31	9.35

Abbreviations:

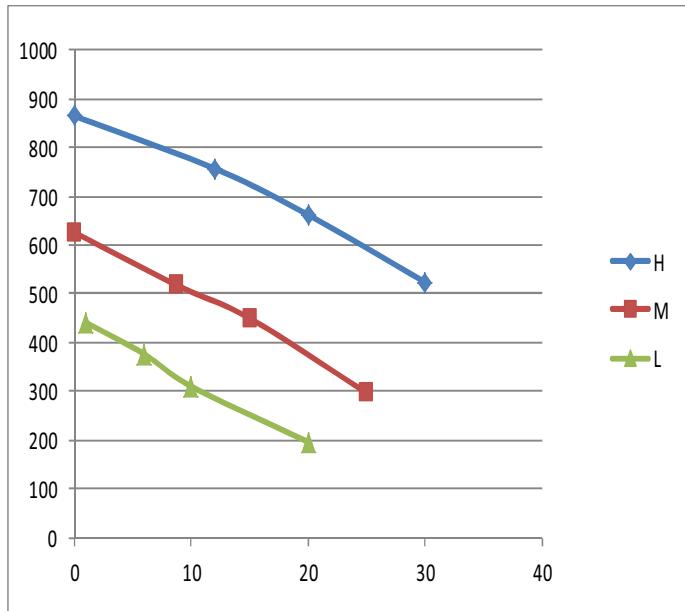
**At:** Temperature Difference (°C)    **TH:** Total Heating Capacity (kW)    **WF:** Water Flow (m³/h)    **WPD:** Water Pressure Drop (kPa)

## 7 Static Pressure Graphs

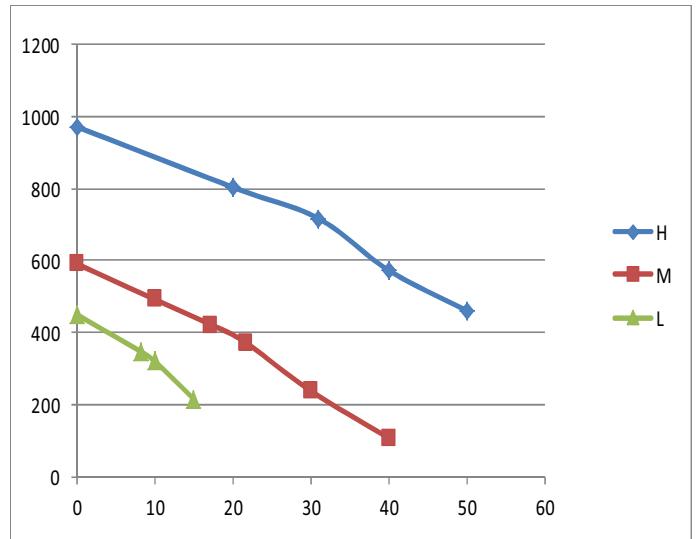
How to read the diagram:

The vertical axis is the External Static Pressure (Pa) while the horizontal axis represents the Air Flow ( $\text{m}^3/\text{h}$ ).  
 The fan performance curves are for the "H-High Speed", "M-Medium Speed", "L-Low Speed" fan speed.  
 The dotted line stands for reserved fan speed.

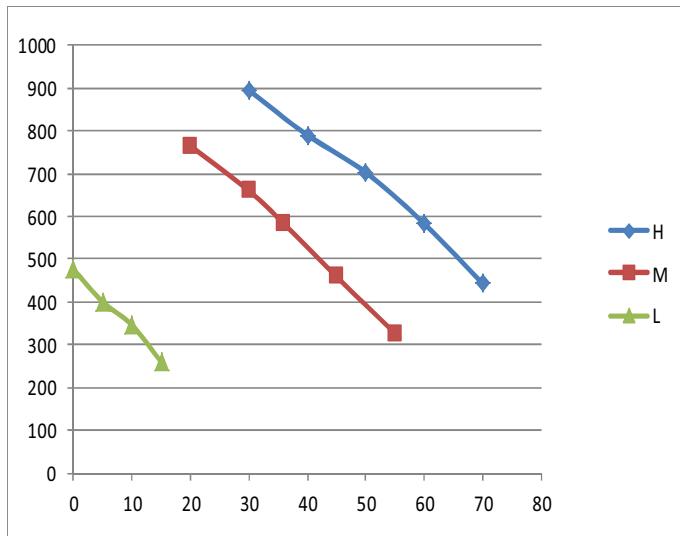
**MUCM-15-W7 (12Pa)**

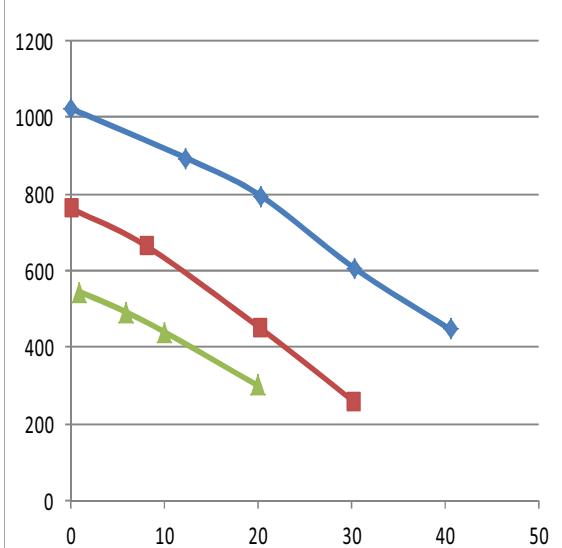
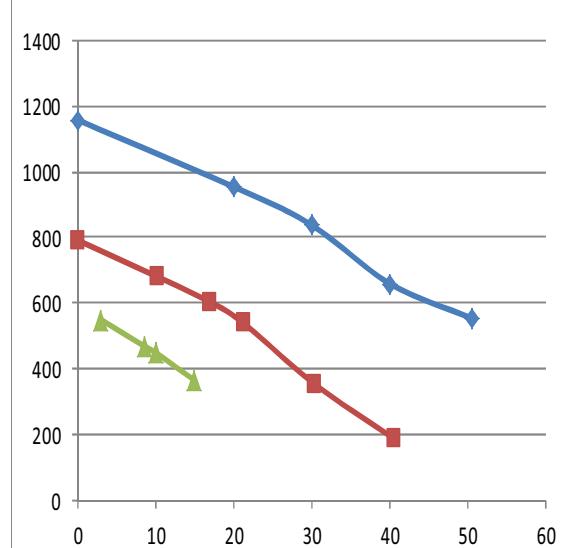
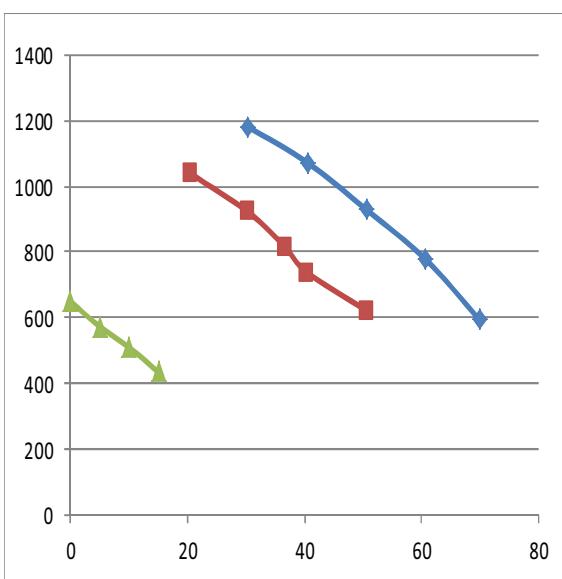
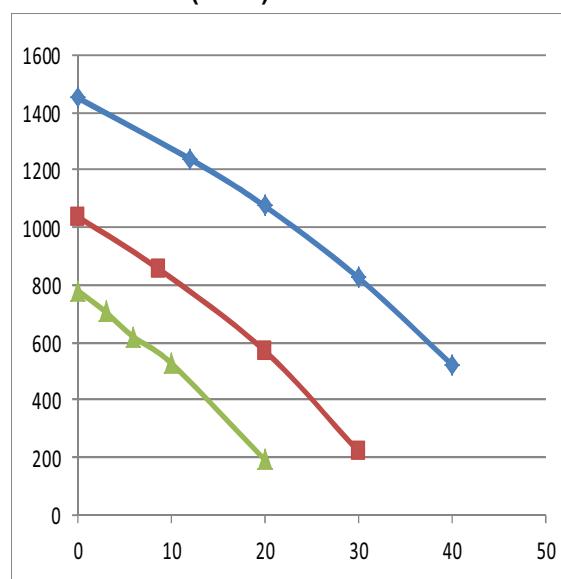
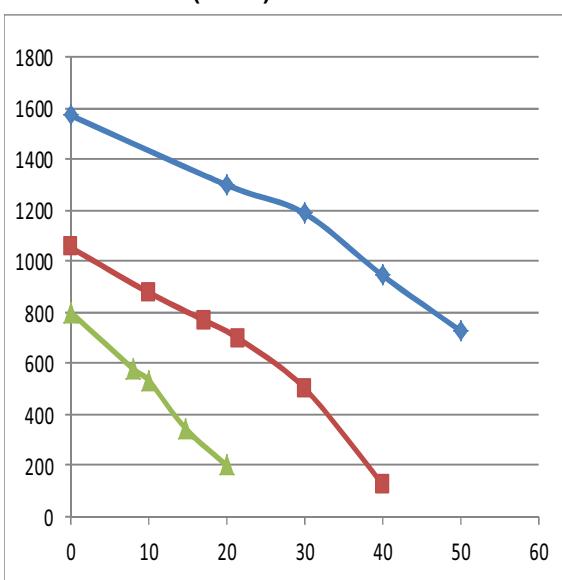
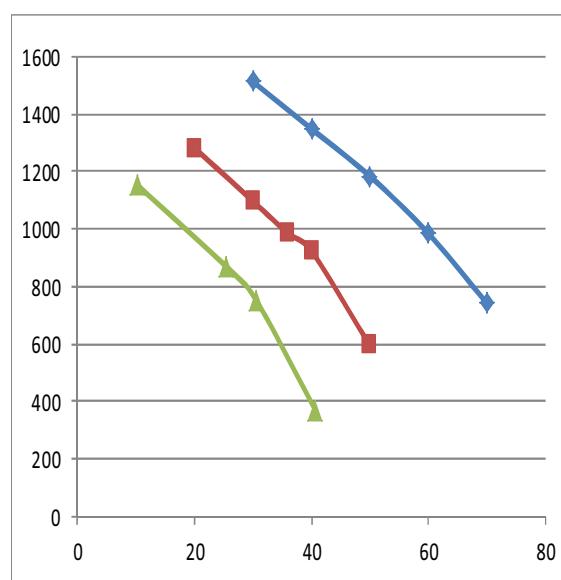


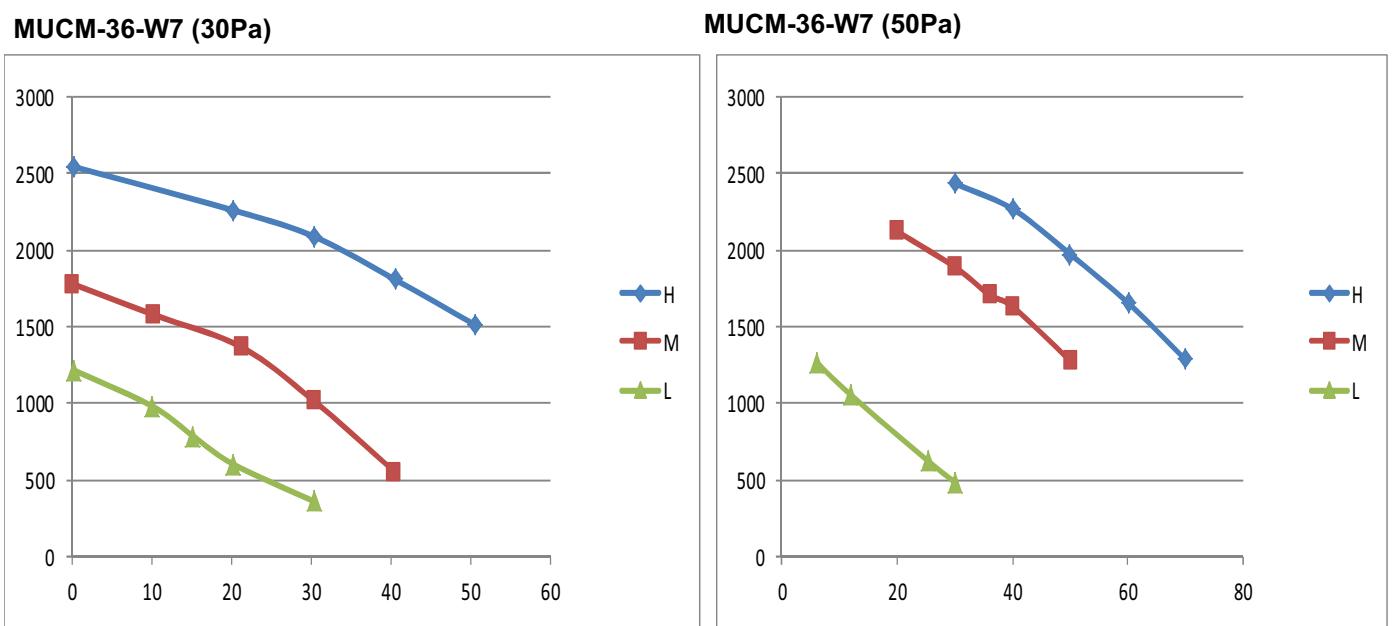
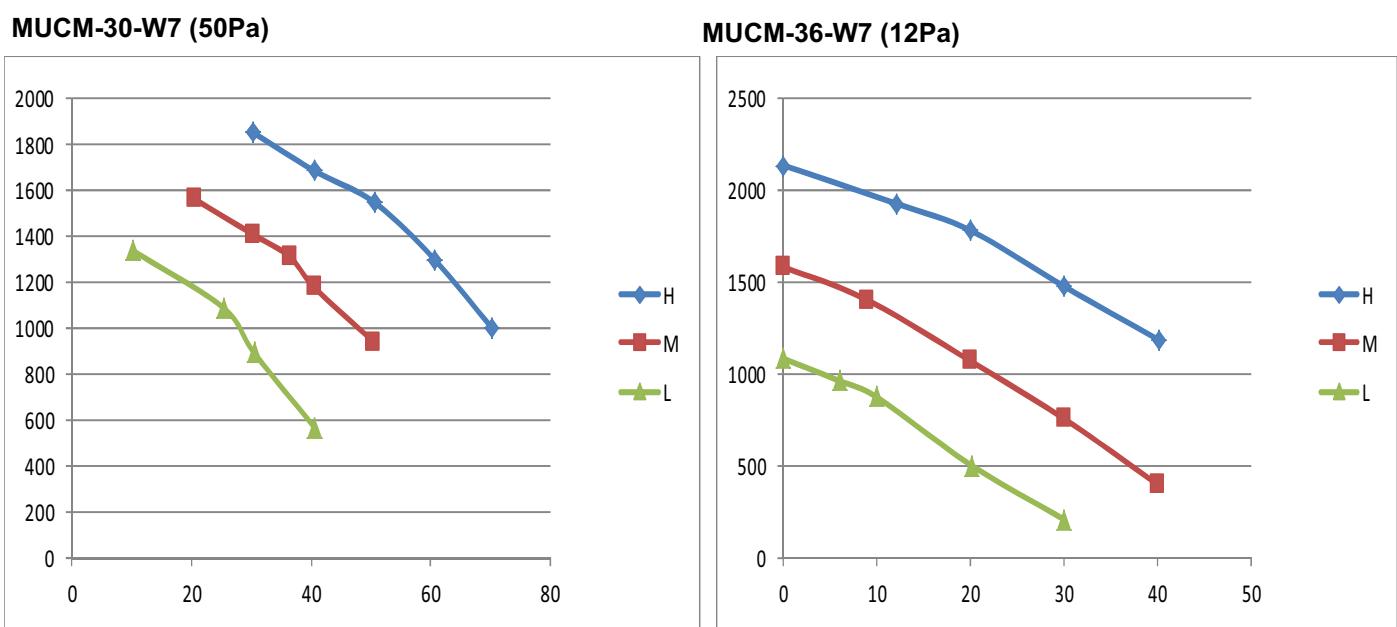
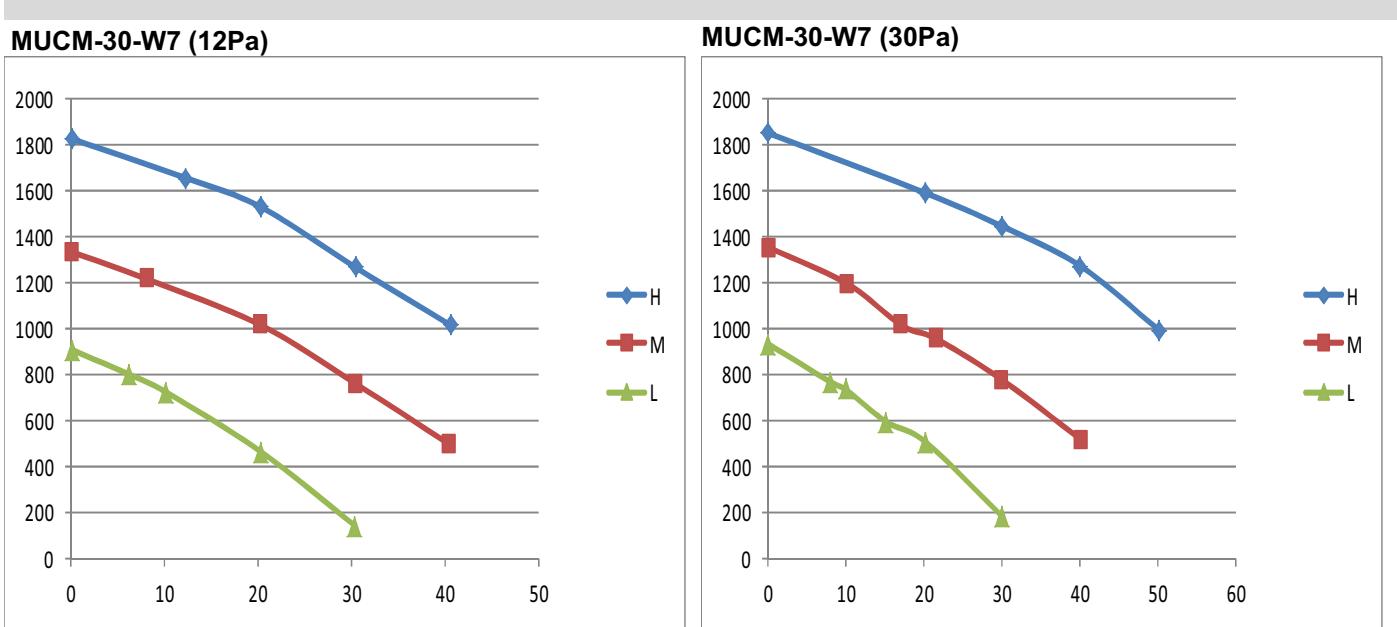
**MUCM-15-W7 (30Pa)**



**MUCM-15-W7 (50Pa)**



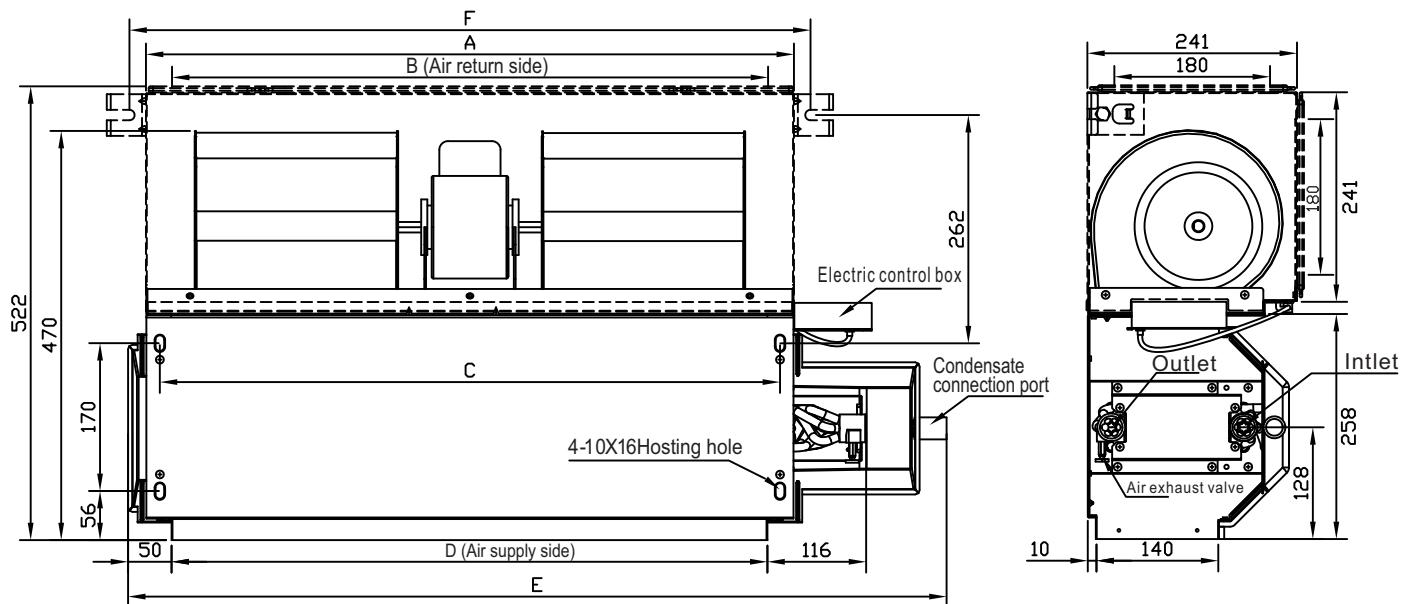
**MUCM-19-W7 (12Pa)****MUCM-19-W7 (30Pa)****MUCM-19-W7 (50Pa)****MUCM-27-W7 (12Pa)****MUCM-27-W7 (30Pa)****MUCM-27-W7 (50Pa)**



## 8. Dimensions

The quantities of the fans and motors are only for reference, please prevail in kind!

Unit: mm

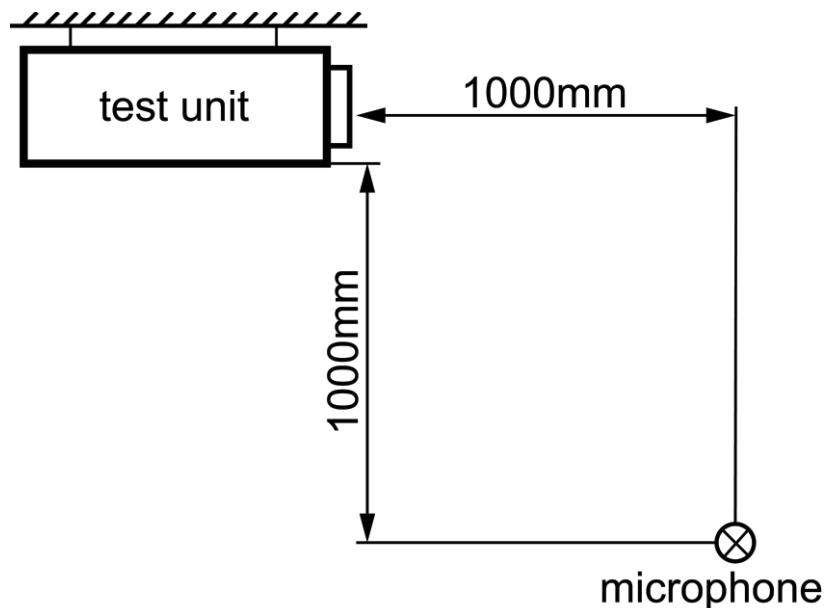


Model	MUCM-15-W7	MUCM-19-W7	MUCM-27-W7	MUCM-30-W7	MUCM-36-W7
A	745	965	1265	1370	1660
B	685	905	1205	1310	1600
C	713	933	1233	1338	1628
D	685	905	1205	1310	1600
E	941	1161	1461	1566	1856
F	783	1003	1303	1408	1698

### Notes:

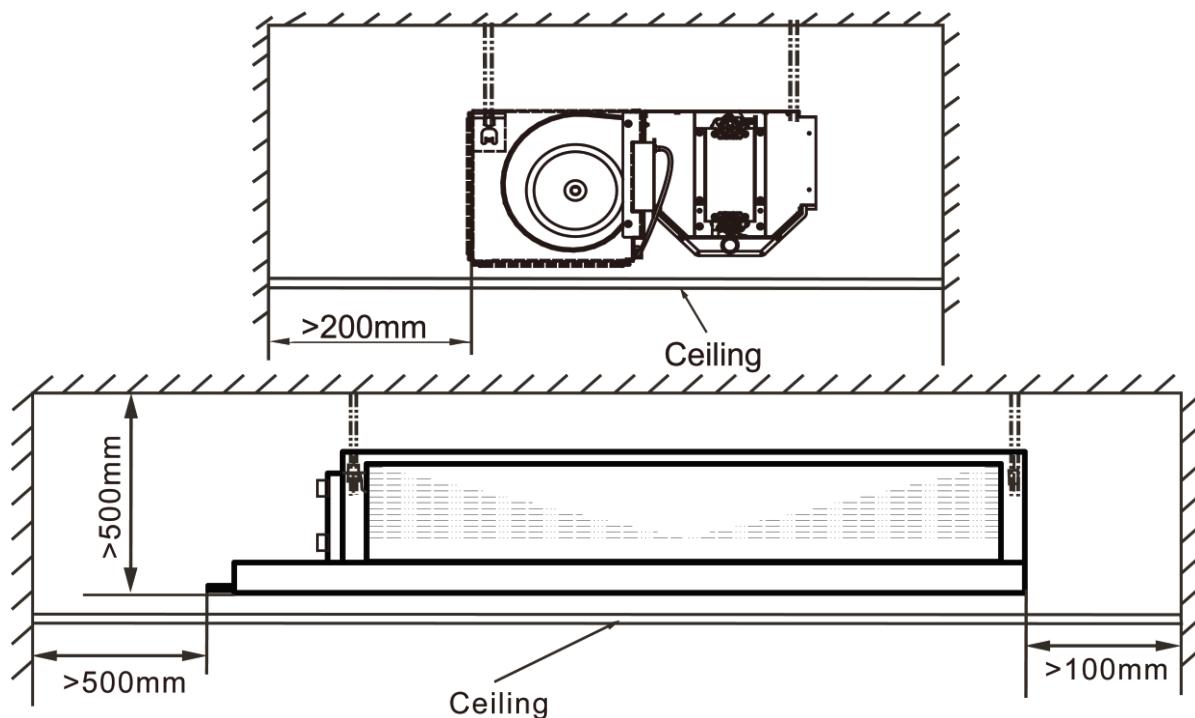
- The above figure is only an instance model, which would be different from the one that you purchase.
- The broken lines in above figures for illustrate the dimension of air return box. (Lower side air return box and rear air return box.)
- Units with air return plenum is standard, and units without air return plenum can be customized.

## 9.Sound Levels

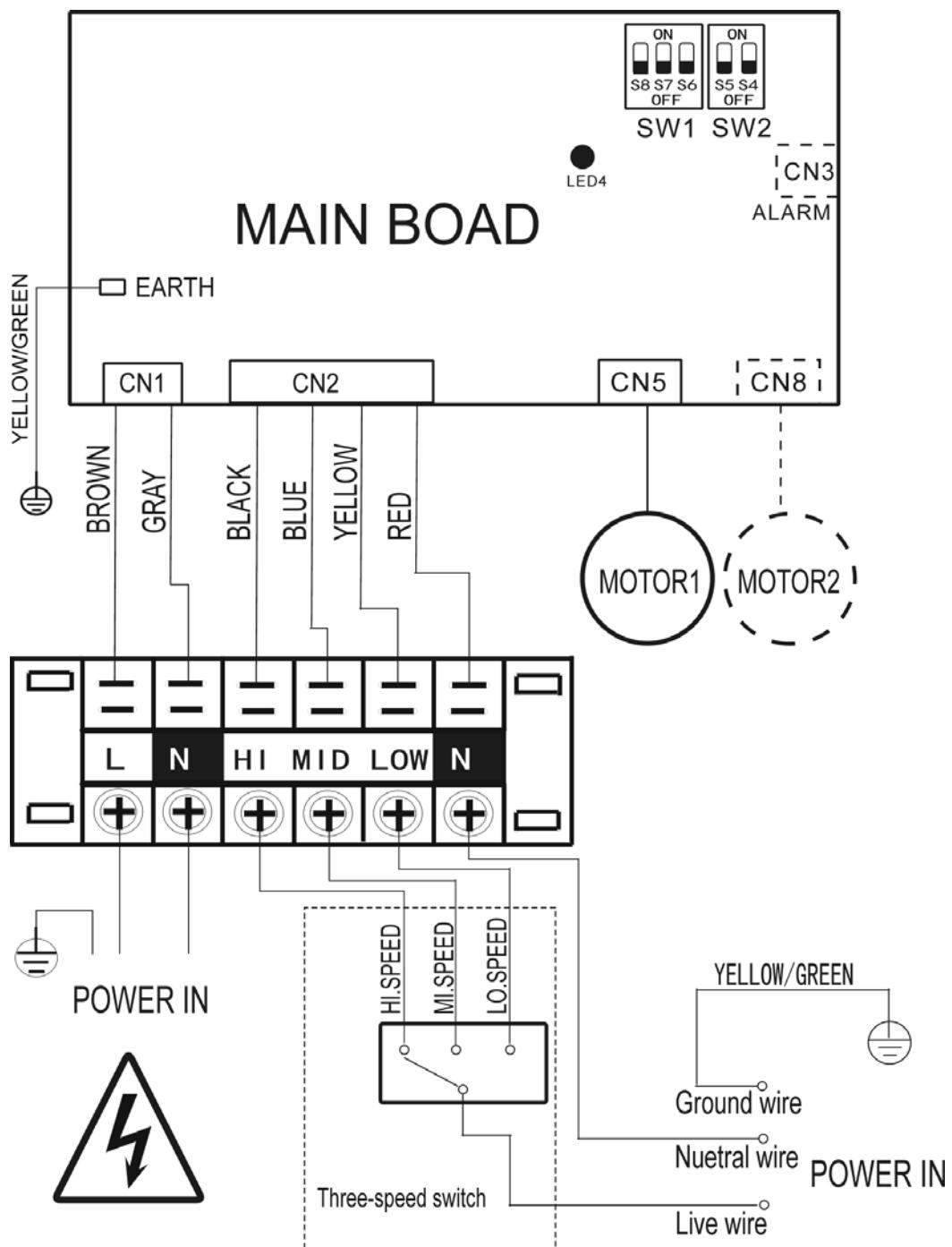


<b>Model</b>		(none)	(none)	(none)	<b>MUCM-15-W7</b>
0Pa (H/M/L)	dB(A)	38.1/28.4/23.4	36.4/29.5/20.7	38.4/32.2/24.0	44.3/36.3/27.9
12Pa (H/M/L)	dB(A)	36.8/26.0/21.8	34.0/27.7/19.6	37.0/30.8/23.8	42.9/35.9/27.5
30Pa (H/M/L)	dB(A)	41.7/32.5/24.9	39.7/29.6/24.1	43.1/36.1/27.7	47.1/37.6/30.2
50Pa (H/M/L)	dB(A)	43.7/34.2/25.4	44.5/36.4/27.2	46.1/39.0/31.5	48.4/42.3/33.3
<b>Model</b>		<b>MUCM-19-W7</b>	<b>MUCM-27-W7</b>	<b>MUCM-30-W7</b>	<b>MUCM-36-W7</b>
0Pa (H/M/L)	dB(A)	46.1/39.0/30.3	44.9/36.1/27.7	47.8/40.7/30.7	48.9/41.8/31.7
12Pa (H/M/L)	dB(A)	45.0/37.9/29.3	44.1/35.5/27.5	46.9/39.4/29.5	47.4/40.5/30.5
30Pa (H/M/L)	dB(A)	47.7/39.8/30.7	45.6/37.5/28.0	46.9/39.4/30.7	49.4/41.8/33.5
50Pa (H/M/L)	dB(A)	49.3/41.8/32.8	48.5/40.5/32.0	48.9/41.7/33.1	52.3/44.8/37.3

## 10. Space Requirement



## 11. Wiring Diagram



**Notes:**

1. Connection of motor and main control panel: single-motor model should connect CN5, for double-motor model, positions of CN5 and CN8 can be changed.

The default model of DC fan coil is set as 50Pa when leaving the factory.

Clients can dial to the responding position to choose the model and static pressure according to the nameplate and actual static pressure requirements of the models and static dial code table .

Models and static dial code table:

MODE	12Pa	30Pa	50Pa (by default)
MUCM-15-W7	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF
MUCM-19-W7	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF
MUCM-27-W7	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF
MUCM-30-W7	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF
MUCM-36-W7	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF	ON S8 S7 S6 OFF
NOT SET MODELS		ON S8 S7 S6 OFF	SW1 SW2

When the unit is subject to failure, main board corresponding LED will flash.

Fault code table and Protection:

Nº	FAULT NAME	DESCRIPTION
1	LED light flash 4 (flashing frequency 0,5s and stop 2s)	Fan motor failure
2	LED light continue to flashing (flashing frequency 0,5s)	No set model

## 12. Installation

### 12.1 Installing site

- Install the unit where installation and maintenance space is enough.
- Install the unit where the ceiling is horizontal and enough to bear the weight of the indoor unit.
- Install the unit where the air inlet and outlet are not baffled and are the least affected by external air.
- Install the unit where the supply air flow can be sent to all parts in the room.
- Install the unit where it is easy to lead out the connective pipe and the drain pipe.
- Install the unit where connotative heat is emitted from a heat source directly.

**Caution:** Installing the equipment in any of the following places may lead to faults of the equipment (if that is inevitable, consult the supplier):

- The site contains mineral oils such as cutting lubricant.
- Seaside where the air contains much salt.
- Hot spring area where corrosive gases exist, e.g., sulfide gas.
- Factories where the supply voltage fluctuates seriously.
- Inside a car or cabin.
- Place like kitchen where oil permeates.
- Place where strong electromagnetic waves exist.
- Place where flammable gases or materials exist.
- Place where acid or alkali gases evaporate.
- Other special environments.

#### Precautions before installation:

- Decide the correct way of conveying the equipment.
- Try to transport this equipment with the original package.
- If the air conditioner needs to be installed on a metal part of the building, electric insulation must be performed, and the installation must meet the relevant technical standards of electric devices.

### 12.2 Installing body

Confirm the dimensions of the indoor unit against the following figure.

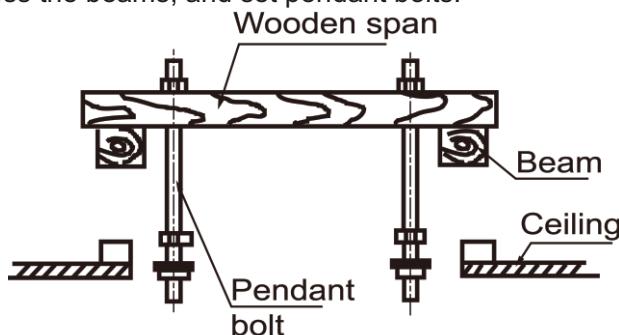
#### Install Φ10 pendant bolts (4 bolts)

- The intervals of the pendant bolts are shown in the following figure.
- Use the Φ10 pendant bolts.
- The treatment of the ceiling varies between buildings. For detailed measures, negotiate with the construction and fit-out staff.
- Scope of dismantling the ceiling. Please keep the ceiling horizontal. Reinforce the beams and girders of the ceiling lest vibration of the ceiling.
- Cut off the beams and girders of the ceiling.
- Reinforce the cut-off part, beams and girders of the ceiling.
- After the main body is suspended, work on the pipes and wires in the ceiling. Decide the lead-out direction of the pipes after selecting the installation site. Especially, in a circumstance where a ceiling is available, extend the refrigerant pipe, drain pipe, indoor/outdoor connection wires and wire controller lines to the connection position before suspending the unit.

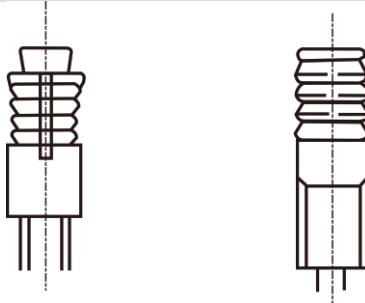
#### 12.2.1 Procedure of installing the pendant bolts.

- Base on the unit structure, please set the screw-pitch according to the size of the following figures:
- Wooden structure:

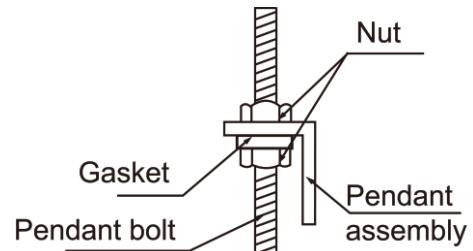
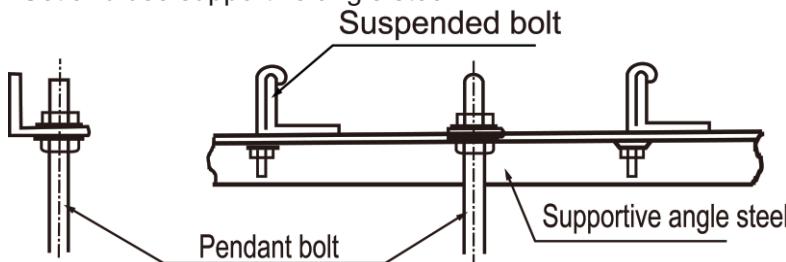
Put rectangular sticks across the beams, and set pendant bolts.



- Old concrete roughcast:  
Use embedded bolts and embedded pulling plugs.



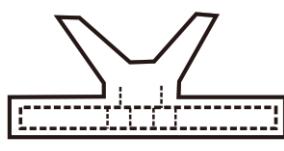
- Steel beam and girder structure:  
Set and use supportive angle steel.



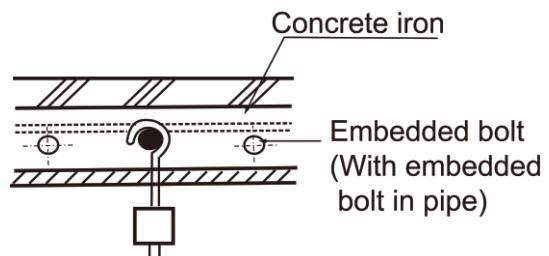
- New concrete roughcast:  
Set it with embedded bushes or embedded bolts.



Flap type inser



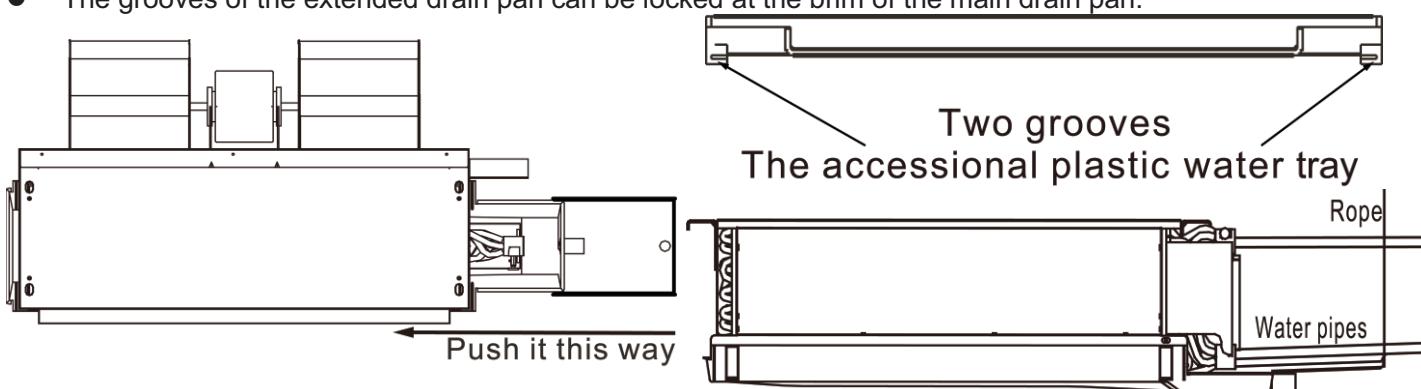
Slide type inser



- Suspending the indoor unit
- Use tools such as pulleys to hoist the indoor unit to the pendant bolt.
- Use tools such as gradient to settle the indoor unit horizontally. Lack of horizontality may cause water leak.
- Connect the duct  
The duct length is determined according to the external static pressure.
- Install the wire control switch  
For installation of the wire control switch, see the installation manual of the wire controller.

### 12.3 Installing extended drain pan

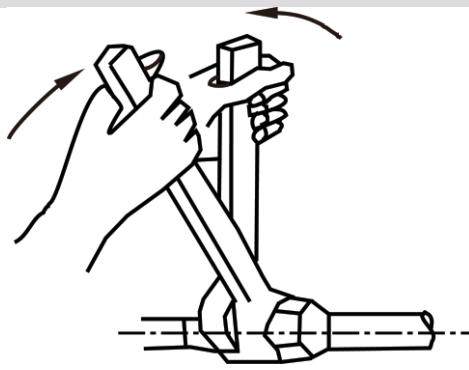
- The grooves of the extended drain pan can be locked at the brim of the main drain pan.



- Please hang up the extended drain pan to the pipes or ceiling by a rope.

### 12.4 Installing water pipe

- With air release valve, the other side is water inlet pipe.
- When connect water collector, set the tightening torque to 6180~7540N.cm (630~770kgf.cm), and use a spanner to tighten it as shown in Figure.
- The diameter of connective junction in water inlet pipe and water outlet pipe is RC3/4 tapper pipe thread inside.
- The diameter of condensate pipe is ZG3/4 tapper pipe thread outside.



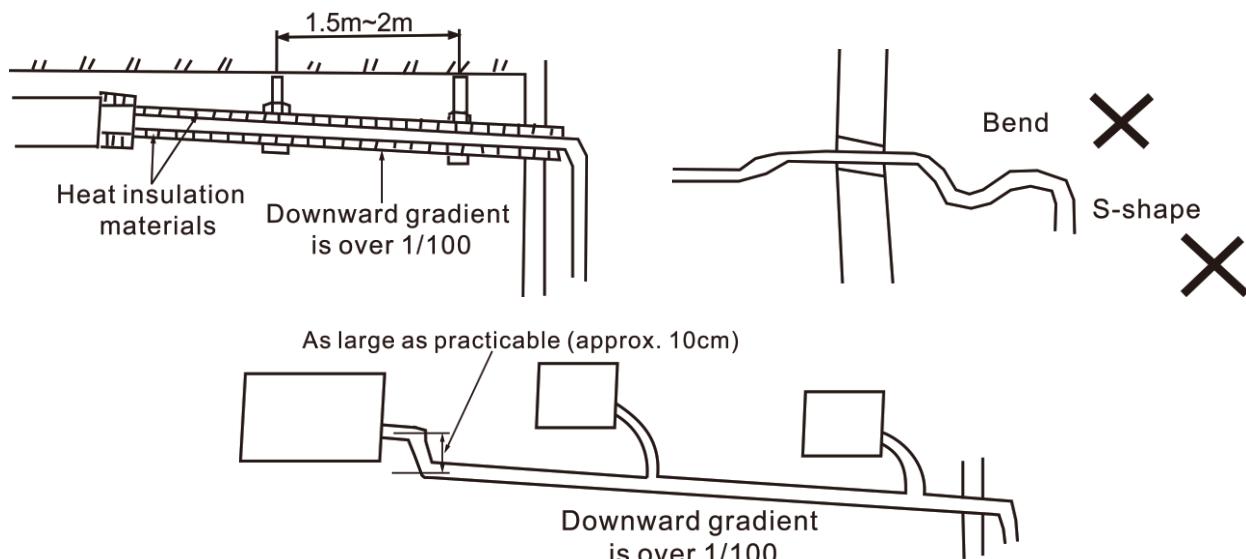
## 12.5 Installing drainpipe

### ■ Install the drain pipe of the fan coil unit

Before out from factory, the scupper adopts the pipe thread.

#### CAUTIONS:

- Be sure to perform heat insulation for the drain pipe of the indoor unit. Otherwise, condensate will occur. The joint of the indoor unit should also undergo heat insulation treatment.
- When performing the pipes connection, use the rigid PVC binder, and make sure that no leak exists.
- Same as the joint of the indoor unit. Be careful not to apply force at the pipe side of the indoor unit.
- The downward gradient of the drain pipe should be higher than (1/100), without bend in the middle.
- The total length of the drain pipe should not exceed 20m, when the pipe is over long, a prop stand must be installed to prevent winging.
- The centralized pipes should be distributed against the figure shown on the right side.



### ■ Drain test

- Before the test, ensure that the drain pipes are smooth and the adapters are sealed.
- Newly built rooms should undergo the drain test before the ceiling is laid.

## 12.6 Wiring installation

#### CAUTIONS:

- The air conditioner should use separate power supply with rated voltage.
- The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring of the indoor and outdoor unit.
- The wiring work should be done by qualified persons according to circuit drawing.
- An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device (RCD) with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rule.
- The appliance shall be installed in accordance with national wiring regulations.
- Be sure to locate the power wiring and the signal wrings well to avoid cross-disturbance.
- Do not turn on the power until you have checked carefully after wiring.

Wiring diagram refer to the part 8.



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