



TECHNICAL MANUAL

FAN COIL UNIT SILENT MCFS SERIES

Please read this manual before operating this unit
and keep it securely for future reference.

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I. INTRODUCTION

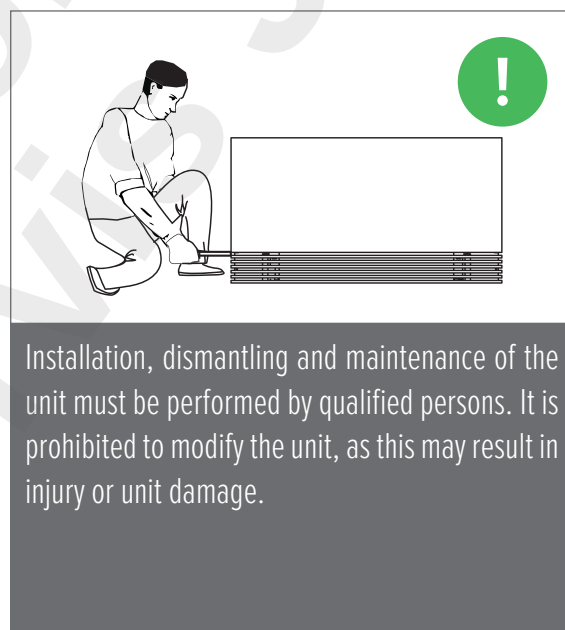
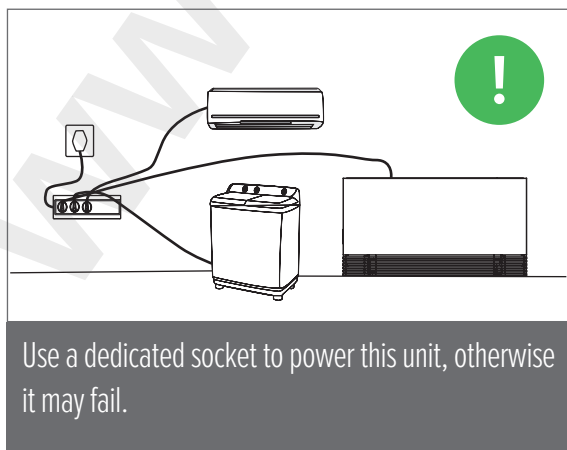
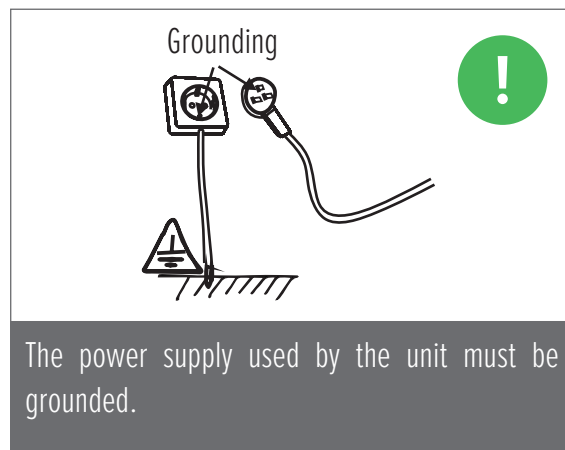
1.1. GENERAL INFORMATION

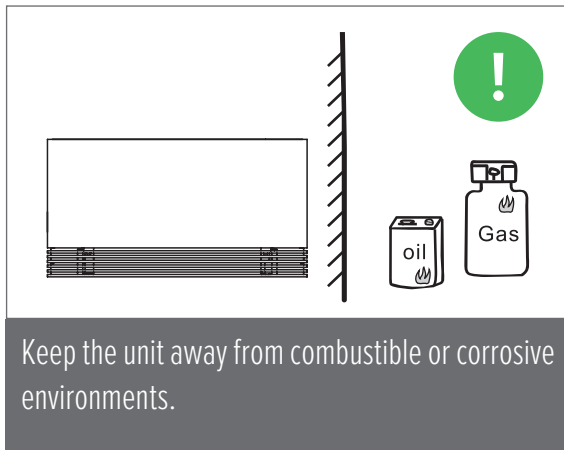
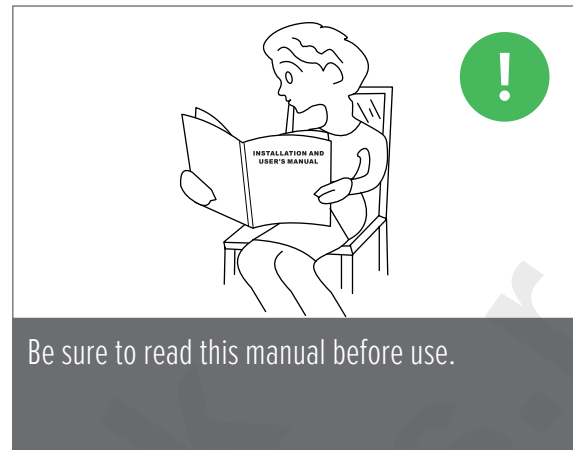
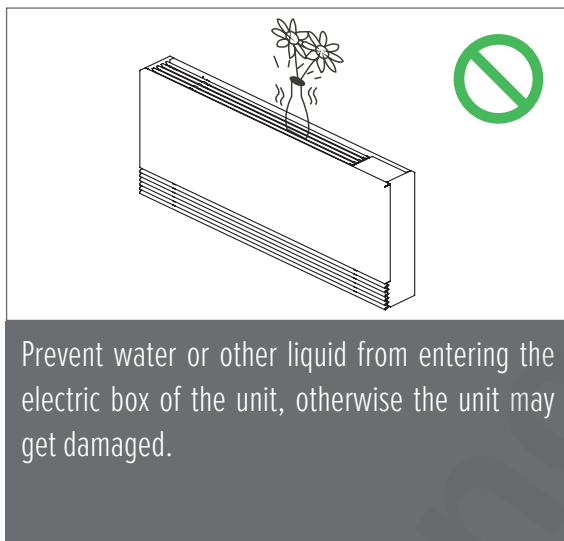
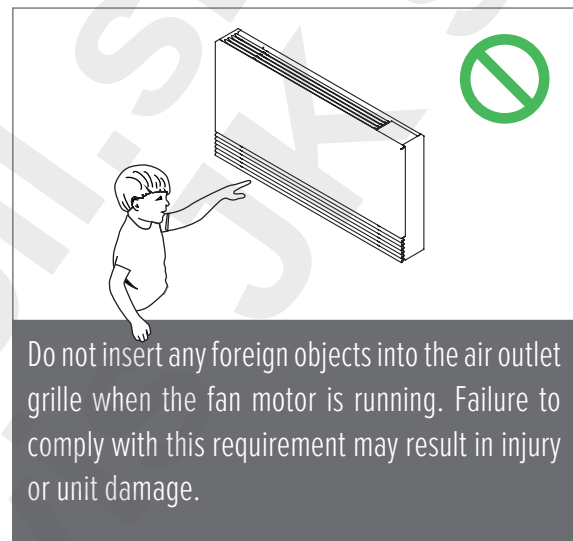
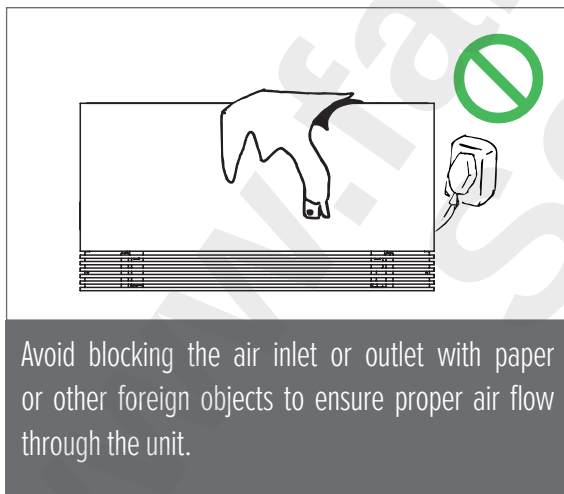
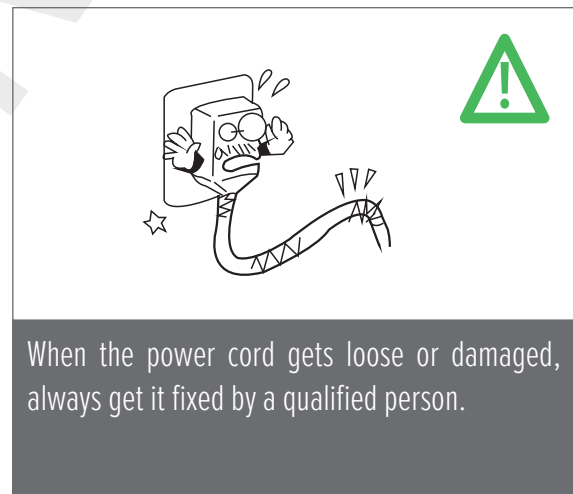
Thank you for choosing our product. Please read this manual carefully before use and operate the unit according to the instructions to prevent the unit damage or personnel injury. The specifications are subject to change without prior notice due to the product improvement. Please refer to the specification label on the unit for updated specifications.

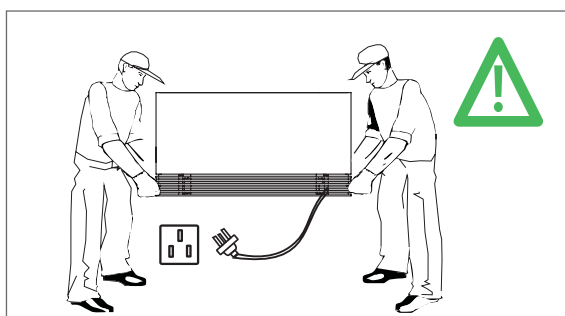
1.2. SAFETY

The safety notices used below are divided into the following 3 types. They all cover very important topics, so be sure to follow them carefully.

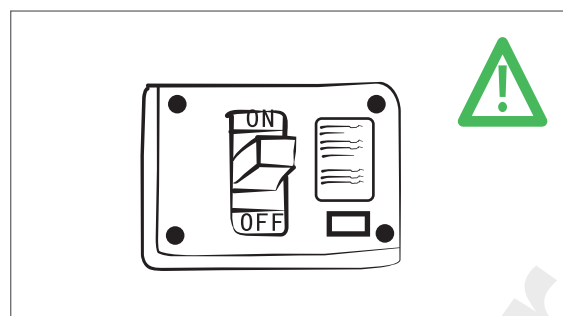
! – WARNING **⚠ – CAUTION** **⊘ – PROHIBITION**





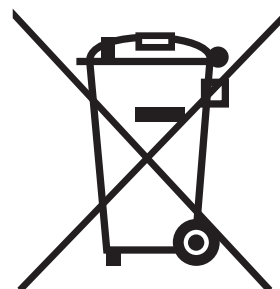


Before performing any works on the unit make sure its power supply is off.



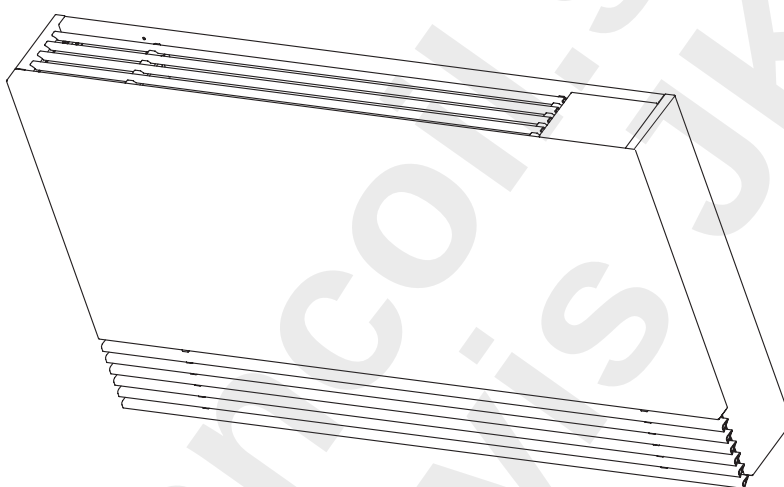
It is mandatory to provide the unit with a suitable circuit breaker and make sure the power supply matches the unit specifications, otherwise the unit may get damaged.

1. If the power cable is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified person in order to avoid a hazard.
2. This appliance shall not be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed concerning use of the appliance by a person responsible for their safety.
3. Children should be supervised to ensure that they do not play with the appliance.
4. The appliance shall be installed in accordance with national wiring regulations.
5. The type and ratings of the fuse shall be as follows: 522 T3, 15 A, L 250 V.
6. This marking indicates that this product should not be discarded as household waste throughout the EU. To prevent potential harm to the environment or human health due to uncontrolled waste disposal, recycle it responsibly to promote sustainable reuse of materials resources. To return your used device, please use the collection and recycling systems, or contact the retailer where you have purchased the product. They can take this product back for environmentally safe recycling.



1.3. FEATURES

- Unique ultra-slim and ultra-quiet design. Equipped with a high-efficiency DC fan motor.
- Balanced fan system for extremely low noise level.
- Heat exchanger featuring an aluminium coil with hydrophilic coating and a copper tube with grooved inner surface that effectively increases the heat transfer area of the unit.
- Pre-painted galvanized metal sheet casing, complete with heat insulation and grilles made of high-quality aluminium alloy.
- Condensate tray allowing natural drainage, complete with anti-condensation insulation. Mesh filter made of reclaimed polypropylene.

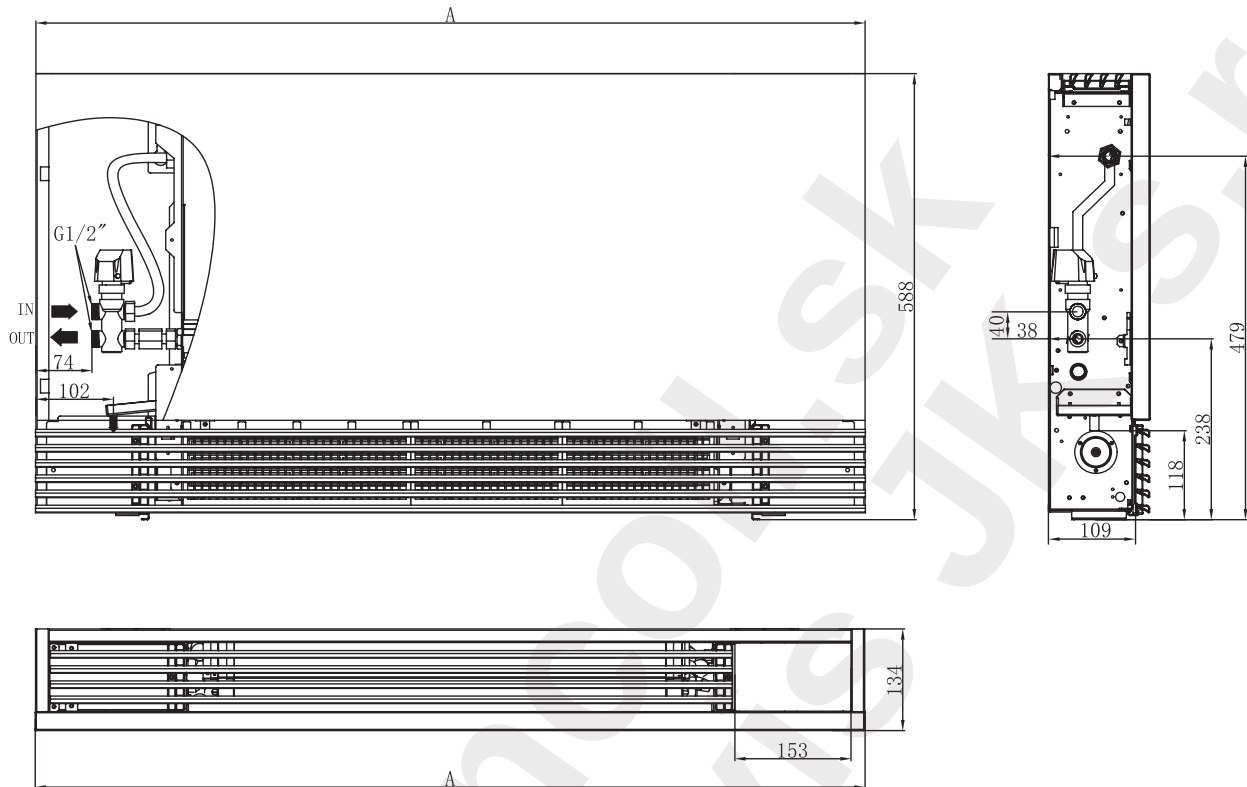


1.4. OPERATING TEMPERATURE RANGE

Operation mode	Indoor temperature		Inlet water temperature	
	Min.	Max.	Min.	Max.
Heating/Cooling	5°C	32°C, 60% R.H.	4°C	80°C

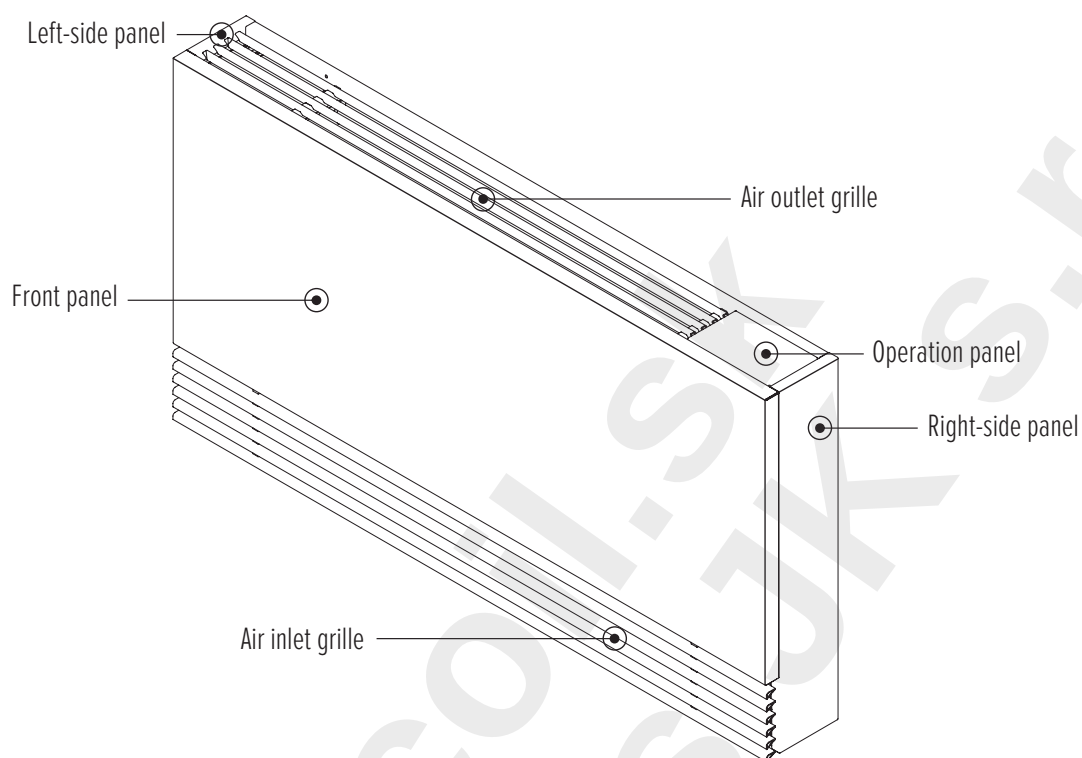
II. DIMENSIONS

FAN COIL UNIT WITH A THREE-WAY VALVE



Model	A (mm)	Connector	Net weight (kg)
MCFS-075T2	694	G1/2"	16
MCFS-150T2	894	G1/2"	22
MCFS-220T2	1094	G1/2"	28
MCFS-300T2	1294	G1/2"	32

III. DESCRIPTION OF THE PARTS



IV. TECHNICAL DATA

Model	Unit	MCFS-075T2	MCFS-150T2	MCFS-220T2	MCFS-300T2
Total cooling capacity (a)	kW	0,75	1,5	2,2	3,1
Sensible cooling capacity	kW	0,61	1,25	1,9	2,6
Water flow rate	l/h	142	302	453	573
Water pressure drop	kPa	7	9	22	28
Heating capacity (b)	kW	0,99	2	2,8	4,2
Water flow rate	l/h	142	302	453	573
Water pressure drop	kPa	6,5	7	18,5	24,5
Heating capacity (c)	kW	1,55	3,1	4,6	6,3
Water flow rate	l/h	162	343	471	600
Water pressure drop	kPa	7	7,5	19	25,0
Coil water volume	l	0,48	0,85	1,15	1,48
Maximum operating pressure	bar	10	10	10	10
Water pipe connector	inches	G1/2	G1/2	G1/2	G1/2
Drain pipe	mm	R1/2"(DN15)	R1/2"(DN15)	R1/2"(DN15)	R1/2"(DN15)
Maximum air flow (d)	m³/h	160	320	460	580
Minimum air flow	m³/h	50	150	200	300
Power supply	V/ph/ Hz	230/1/50	230/1/50	230/1/50	230/1/50
Maximum operating current	A	0,115	0,16	0,21	0,24
Maximum power input	W	14	23	27	33
Maximum noise level (e)	dB(A)	44	44	44	44
Minimum noise level (f)	dB(A)	28	28	28	28
Length	mm	694	894	1094	1294
Height	mm	588	588	588	588
Depth	mm	134	134	134	134
Net weight	kg	16	22	28	34
Gross weight	kg	18	24	30	36

Note:

- (a) Cooling: inlet/outlet water temperature 7/12°C; indoor temperature 27/19°C (DB/WB).
- (b) Heating: inlet water temperature 50°C, with the same water flow rate as for cooling; indoor temperature 20°C.
- (c) Heating: inlet water temperature 70°C, outlet water temperature 60°C; indoor temperature 20°C.
- (d) The air flow rate has been measured with a clean filter.
- (e) The noise level has been tested as per ISO 23741/2
- (f) The noise level has been tested as per ISO 7779:2001

The specifications are subject to change without prior notice.

For actual specifications of the unit, please see the labels on the unit.

Data for different water temperatures						
Speed	Working mode	Inlet water temperature	MCFS-075T2	MCFS-150T2	MCFS-220T2	MCFS-300T2
			Power, W	Power, W	Power, W	Power, W
High	Cooling	7	748	1496	2154	3120
		12	480	960	1412	2066
	Heating	35	552	1104	1558	2103
		38	611	1222	1737	2426
		40	680	1360	1936	2939
		43	756	1511	2102	3045
		45	834	1668	2390	3419
		48	932	1864	2631	3894
		50	994	1987	2837	4227
		53	1072	2145	3138	4467
		55	1120	2240	3539	4778
		58	1193	2387	3789	4991
		60	1284	2567	3860	5414
		63	1337	2674	4175	5705
		65	1394	2787	4289	5744
		68	1459	2917	4547	5968
		70	1553	3106	4629	6335

Data for different water temperatures						
Speed	Working mode	Inlet water temperature	MCFS-075T2	MCFS-150T2	MCFS-220T2	MCFS-300T2
			Power, W	Power, W	Power, W	Power, W
Medium	Cooling	7	684	1368	2005	2927
		12	384	767	1116	1907
	Heating	35	496	992	1343	1899
		38	588	1175	1518	2246
		40	624	1248	1825	2658
		43	735	1470	1976	2759
		45	806	1612	2232	3365
		48	898	1795	2523	3629
		50	936	1871	2678	3667
		53	993	1986	3065	4202
		55	1028	2056	3322	4455
		58	1131	2261	3499	4526
		60	1169	2337	3666	5059
		63	1218	2437	3806	5331
		65	1305	2611	3951	5444
		68	1359	2718	4134	5704
		70	1456	2913	4336	6335

Data for different water temperatures						
Speed	Working mode	Inlet water temperature	MCFS-075T2	MCFS-150T2	MCFS-220T2	MCFS-300T2
			Power, W	Power, W	Power, W	Power, W
Low	Cooling	7	574	1148	1834	2536
		12	376	752	1058	1590
	Heating	35	378	756	1166	1636
		38	473	947	1273	2049
		40	553	1106	1514	2290
		43	604	1208	1665	2405
		45	665	1330	1911	2886
		48	722	1443	2163	3040
		50	765	1531	2247	3131
		53	813	1627	2604	3616
		55	868	1736	2818	3843
		58	965	1931	2948	4029
		60	1011	2022	3279	4322
		63	1046	2091	3401	4391
		65	1089	2179	3492	4583
		68	1193	2385	3564	4830
		70	1229	2457	3681	4985

Data for different water temperatures						
Speed	Working mode	Inlet water temperature	MCFS-075T2	MCFS-150T2	MCFS-220T2	MCFS-300T2
			Power, W	Power, W	Power, W	Power, W
Ultra low	Cooling	7	N/A	N/A	N/A	N/A
		12	N/A	N/A	N/A	N/A
	Heating	35	366	732	1060	1535
		38	405	810	1231	1761
		40	494	989	1474	2047
		43	556	1113	1566	2203
		45	571	1142	1682	2635
		48	662	1323	1861	2807
		50	692	1384	2036	2822
		53	729	1459	2337	3237
		55	754	1509	2468	3485
		58	844	1687	2641	3816
		60	857	1715	2906	3912
		63	932	1865	2987	3965
		65	968	1936	3021	4089
		68	1017	2033	3090	4387
		70	1089	2178	3360	4555

V. INSTALLATION PROCEDURE

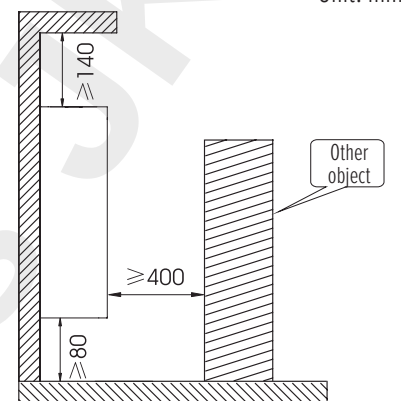
The unit can be installed on the floor (only applies to the models with feet included). In order to ensure maximum efficiency and performance, as well as prevent any failures or hazards, the installation place shall meet the following requirements:

- In case of floor installation, the minimum clearances shall be 80 mm between the floor and the unit bottom, 20 mm between the unit side and the wall for easy removal of the side panels, and 140 mm around the air inlets and outlets.
- The wall must be firm and capable of supporting the unit weight, and the air inlet shall be clear of any other objects within 400 mm from the unit.

UNIT POSITIONING



Vertical mounting: front view

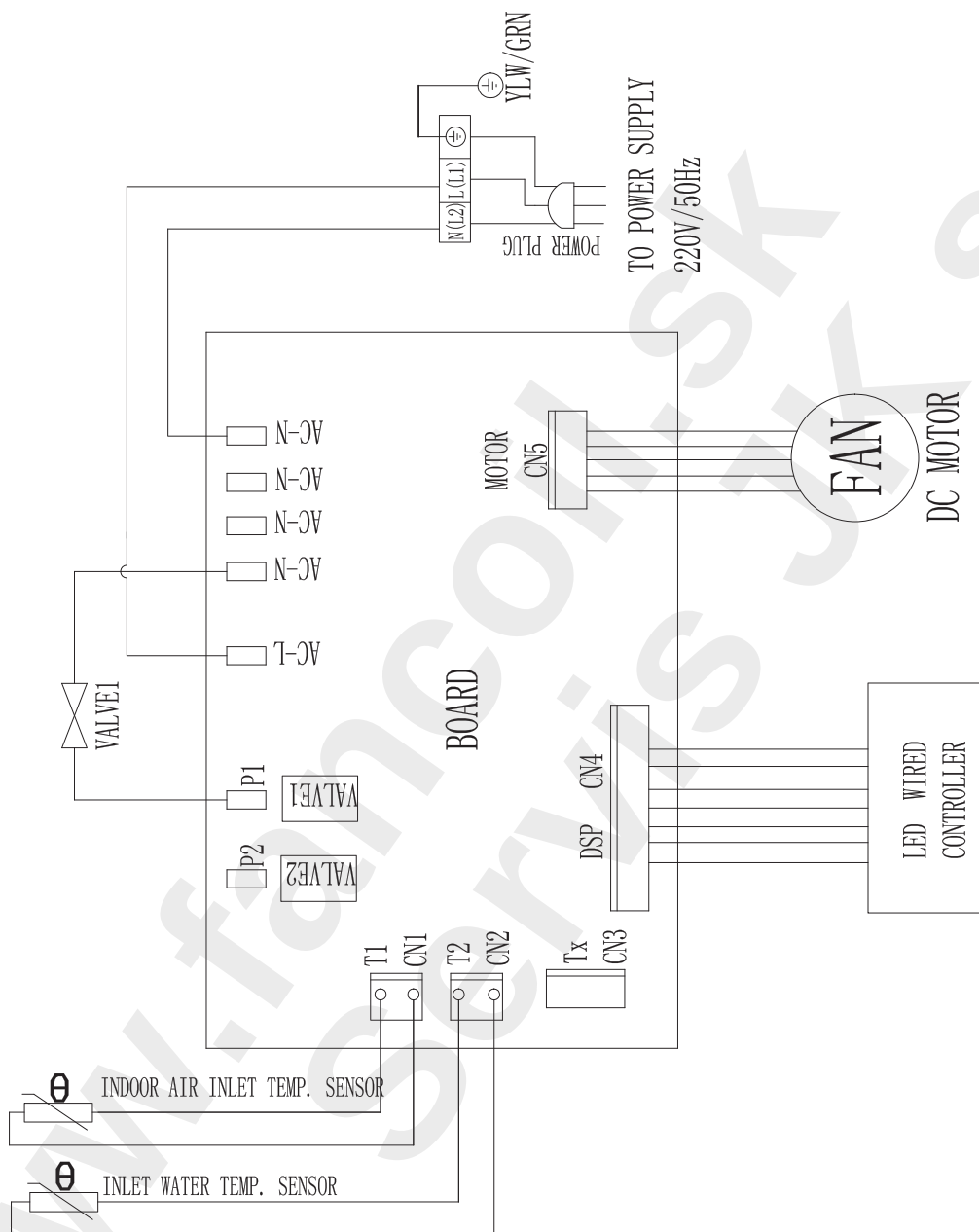


Wall mounting

Unit: mm

NCJXT00081A00-B

VI. WIRING DIAGRAM



NOTE: THE DOTTEN LINE PART USED IN SOME MODELS.

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