



TECHNICAL MANUAL

FAN COIL UNIT (WALL-MOUNTED TYPE) MHW SERIES

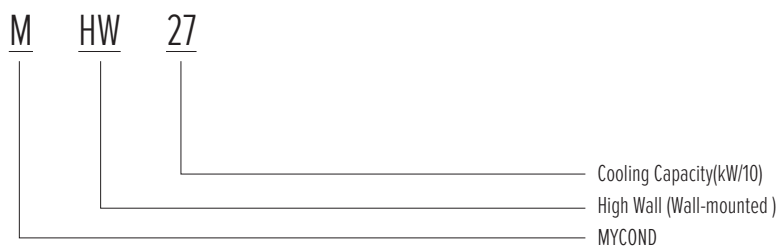
Please read this manual before operating this unit
and keep it securely for future reference.

CONTENTS

I. General description	4
1.1. Nomenclature	4
1.2. Unit appearance	4
II. Unit information	5
2.1. Feature	5
2.2. Specification	7
2.3. Capacity amendment	9
2.4. Demension	13
III. Electrical wiring and connection	14

I. GENERAL DESCRIPTION

1.1. NOMENCLATURE



1.2. UNIT APPEARANCE

Model	Unit Appearance
MHW 18	
MHW 27	
MHW 35	
MHW 45	
MHW 54	
MHW 72	

II. UNIT INFORMATION

2.1. FEATURE

The fan coil units mainly consist of centrifugal fan, coil heat exchanger, etc., they are the terminal devices of central air conditioning system, which are widely used in buildings with multi-rooms or industrial and household air conditioning occasions, for example: hotels, restaurants, factories, hospitals, exhibition halls, markets and office buildings, etc. These units can meet many requirements, like cooling, dehumidification and heating, etc., and make a clean, quiet and comfortable working and living environment.

Compared with other types of fan coil units, the wall-mounted type has the following advantages: it can be mounted on any location of indoor wall and will not occupy extra space; it's easy for installation and maintenance, and can perfectly match with indoor decoration. The wall-mounted type fan coil units:

Application occasions:

Small-size supermarkets, restaurants, office buildings, meeting rooms, villa living rooms and family living rooms, etc., and it is also suitable for old building air conditioning betterment projects, which decreases pipes and saves much cost.

Features:

- It can be mounted on any location of indoor wall and will not occupy extra space, which makes it very suitable for family and public places use;
- Excellent quality: The units adopt superb components to ensure its quality. The strict test during manufacturing process and 100% ex-factory test guarantee the reliable quality.
- Beautiful appearance and low noise: Resin type skin with thin and beautiful appearance; new turbine blade makes operation quiet and with low noise.
- Special heat isolation design, excellent heat isolation effect, and the casing will not get condensing water;
- Long-term air filter adopted, its cleaning period is 1/2 of the normal filter, which make maintenance easier;
- Plastic drip tray, adopts innovative foam-PS combination technology, the plastic surface thickness reaches 1 mm. These features make the drip tray structure firmer and also avoid leakage;
- The unit reserve central control function, which can combine several independent units into a central-controlled system by concentrator.
- Safe and reliable, long-term lifetime: Each fan coil unit is conducted by leakage test with pressure; the inlet/outlet pipes (copper head) adopt forging brass structure to ensure its reliability.
- High EER: The unit design is customized and adopts high efficiency heat exchanger, which makes a perfect combination of large air flow volume, low noise fan and motor, in order to enhance heat transfer ability and make the unit EER more superior.
- The unit reserve auto-restart function;
- The unit adopts brand new diversified micro-pc control system, and with remote controller;
- The unit is equipped with failure auto-check function. If it gets failure, the light will blink and failure code will display on the wired controller, which makes troubleshooting easier.

Function Introduction

Type	Item	MHW					
		18	27	35	45	54	72
Protect	Sensor failure alarm	■	■	■	■	■	■
	Failure code display function	■	■	■	■	■	■
Comfort	Cooling	■	■	■	■	■	■
	Heating	■	■	■	■	■	■
	3-Speed	■	■	■	■	■	■
	Adjustable ESP	—	—	—	—	—	—
	Auto-restart(Optional)	■	■	■	■	■	■
	Timing ON/OFF	■	■	■	■	■	■
Control	Time display	■	■	■	■	■	■
	Operation mode display	■	■	■	■	■	■
	Fan speed display	■	■	■	■	■	■
	Timing ON/OFF display	■	■	■	■	■	■
	Wind angle display	■	■	■	■	■	■
	Sleeping mode display	■	■	■	■	■	■
Operation	Auto operation	■	■	■	■	■	■
	Dehumidification operation	■	■	■	■	■	■
	Ventilation mode	■	■	■	■	■	■
	Long-distance control function	■	■	■	■	■	■
Health	Washable air filter	■	■	■	■	■	■
	Fresh air interface	—	—	—	—	—	—
Installation	Left/right drainage	■	■	■	■	■	■
	Left/right pipe connection	■	■	■	■	■	■
	Down/back air suction	—	—	—	—	—	—
	Installation indicating board	—	—	—	—	—	—

Remarks:

■ Stands for “YES”

— Stands for “NO”

2.2. SPECIFICATION

Model			MHW 18	MHW 27	MHW 35
Air Volume	High Speed	CFM	200	300	400
		m ³ /h	340	510	680
	Medium Speed	CFM	150	225	300
		m ³ /h	255	382.5	510
	Low Speed	CFM	100	150	200
		m ³ /h	170	255	340
Cooling Capacity	High Speed	W	1808	2712	3618
	Medium Speed	W	1537	2305	3075
	Low Speed	W	1175	1763	2352
Heating Capacity	High Speed	W	2709	4070	5418
	Medium Speed	W	2303	3460	4605
	Low Speed	W	1761	2646	3522
Noise Level		dB(A)	42/39/36	42/39/36	43/40/37
Fan Motor	Fan Quantity		1	1	1
	Motor Quantity		1	1	1
	Power Input	W	52	52	62
Water Flow Volume		kg/h	350	610	800
Hydraulic Resistance		kPa	30	30	30
Max.Working pressure		MPa	1.6	1.6	1.6
Dimension (W×D×H)	Net		850×300×198	850×300×198	850×300×198
	Packing	mm	885×360×270	885×360×270	885×360×270
Net/Gross Weight		kg	11/12.5	11/12.5	12.6/14.5
Inlet/Outlet Water Pipe			Rc1/2"(DN15)	Rc1/2"(DN15)	Rc1/2"(DN15)
Drain Pipe			R1/2"(DN15)	R1/2"(DN15)	R1/2"(DN15)
Stuffing Quantity(20/40/40H)			328/672/756	328/672/756	328/672/756

Note:

1. Cooling working condition: inlet air DB temperature is 27 °C, WB temperature is 19.5 °C, inlet water temperature is 7 °C, outlet water temperature is 12 °C;
2. Heating working condition: inlet air DB temperature is 21 °C, inlet water temperature is 60 °C;
3. The parameter of water flow volume, water resistance and noise in the above chart is in high-level air speed condition;
4. Above published parameter may change due to products performance improvement. Mycond LTD reserve the right to better product design without prior notice. Everything should subject to the figure on nameplate.

Model			MHW 45	MHW 54	MHW 72
Air Volume	High Speed	CFM	500	600	800
		m ³ /h	850	1020	1360
	Medium Speed	CFM	375	450	600
		m ³ /h	637.5	765	1020
	Low Speed	CFM	250	300	400
		m ³ /h	425	510	680
Cooling Capacity	High Speed	W	4514	5406	7210
	Medium Speed	W	3837	4595	6129
	Low Speed	W	2934	3514	4687
Heating Capacity	High Speed	W	6767	8155	10807
	Medium Speed	W	5752	6898	9186
	Low Speed	W	4399	5275	7025
Noise Level		dB(A)	47/43/40	47/43/40	49/45/41
Fan Motor	Fan Quantity		1	1	1
	Motor Quantity		1	1	1
	Power Input	W	76	96	134
Water Flow Volume		kg/h	950	1080	1390
Hydraulic Resistance		kPa	30	40	40
Max.Working pressure		MPa	1.6	1.6	1.6
Dimension (W×D×H)	Net		970×315×235	970×315×235	1100×330×235
	Packing	mm	1010×380×300	1010×380×300	1140×390×300
Net/Gross Weight		kg	15/17	16/18	20/23
Inlet/Outlet Water Pipe			Rc1/2"(DN15)	Rc1/2"(DN15)	Rc1/2"(DN15)
Drain Pipe			R1/2"(DN15)	R1/2"(DN15)	R1/2"(DN15)
Stuffing Quantity(20/40/40H)			238/476/544	238/476/544	210/434/496

Note:

1. Cooling working condition: inlet air DB temperature is 27 °C, WB temperature is 19.5 °C, inlet water temperature is 7 °C, outlet water temperature is 12 °C;
2. Heating working condition: inlet air DB temperature is 21 °C, inlet water temperature is 60 °C;
3. The parameter of water flow volume, water resistance and noise in the above chart is in high-level air speed condition;
4. Above published parameter may change due to products performance improvement. Mycond LTD reserve the right to better product design without prior notice. Everything should subject to the figure on nameplate.

2.3. CAPACITY AMENDMENT

2.3.1. Table of variable working condition performance for cooling capacity

Table of variable working condition performance parameter under cooling mode

Unit: W

Air inlet temperature °C			26 °C DB/18.7 °C WB						27 °C DB/19 °C WB					
Water inlet temperature °C			5		7		9		5		7		9	
Model	Water flow (kg/h)	Water pressure drop (kPa)	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
18	150	2.3	1404	1064	1241	997	1064	872	1433	1123	1308	1056	1101	923
	250	5.5	1606	1199	1413	1110	1214	969	1650	1265	1458	1169	1258	1029
	350	10	1913	1300	1688	1195	1457	1038	1957	1360	1733	1255	1502	1113
	450	14.5	2091	1327	1861	1216	1601	1053	2143	1394	1883	1283	1653	1120
27	300	3.5	1906	1445	1686	1355	1445	1184	1947	1525	1776	1435	1495	1254
	400	5.9	2181	1628	1919	1507	1648	1316	2241	1718	1980	1588	1708	1397
	500	8.7	2575	1750	2273	1609	1961	1398	2635	1831	2333	1690	2022	1499
	600	12	2854	1811	2540	1660	2186	1437	2925	1902	2570	1751	2257	1528
35	430	8.1	2549	1932	2254	1811	1932	1583	2603	2039	2375	1918	1999	1677
	550	11.5	2914	2176	2565	2014	2202	1759	2995	2296	2646	2122	2283	1867
	650	15.5	3440	2338	3037	2150	2620	1868	3521	2446	3118	2258	2701	2002
	750	20	3807	2417	3389	2214	2916	1917	3902	2538	3429	2336	3011	2039
45	600	18	3184	2413	2815	2262	2413	1977	3251	2547	2966	2396	2497	2095
	700	24	3639	2717	3203	2516	2750	2197	3740	2868	3304	2650	2851	2331
	800	30	4296	2920	3793	2685	3272	2333	4397	3054	3893	2819	3373	2500
	900	37	4750	3015	4228	2762	3638	2392	4868	3167	4278	2914	3756	2543
54	750	21.5	3817	2893	3375	2712	2893	2371	3897	3054	3556	2873	2993	2511
	850	26.8	4361	3256	3839	3015	3296	2633	4482	3437	3959	3175	3417	2794
	950	32.7	5138	3492	4536	3211	3914	2790	5258	3653	4656	3372	4034	2990
	1050	39	5688	3611	5063	3308	4357	2864	5830	3792	5124	3490	4498	3046
72	900	14.8	5644	4278	4991	4011	4278	3506	5763	4516	5258	4248	4426	3713
	1100	21	6450	4815	5677	4458	4874	3894	6628	5082	5855	4696	5053	4131
	1300	28	7611	5173	6719	4757	5798	4133	7790	5411	6898	4995	5976	4430
	1500	36	8402	5333	7478	4886	6436	4231	8611	5601	7568	5154	6644	4499

Table of variable working condition performance parameter under cooling mode (continued)

Unit: W

Air inlet temperature °C			27 °C DB/19.5 °C WB						28 °C DB/22 °C WB					
Water inlet temperature °C			5		7		9		5		7		9	
Model	Water flow (kg/h)	Water pressure drop (kPa)	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
18	150	2.3	1485	1101	1315	1019	1211	1016	1862	1380	1684	1306	1522	1128
	250	5.5	1709	1236	1517	1140	1321	1080	2139	1546	1946	1462	1754	1268
	350	10	2047	1345	1808	1233	1577	1169	2533	1664	2324	1584	2092	1374
	450	14.5	2217	1379	1987	1253	1736	1176	2780	1730	2536	1599	2269	1411
27	300	3.5	2017	1495	1786	1385	1645	1380	2528	1874	2288	1774	2067	1532
	400	5.9	2321	1678	2060	1548	1794	1467	2904	2099	2643	1985	2382	1722
	500	8.7	2756	1810	2434	1660	2123	1574	3410	2240	3128	2133	2816	1850
	600	12	3026	1882	2712	1710	2369	1604	3795	2361	3461	2182	3097	1926
35	430	8.1	2697	1999	2388	1851	2199	1845	3381	2506	3059	2371	2764	2049
	550	11.5	3102	2243	2753	2068	2397	1960	3881	2806	3532	2653	3183	2301
	650	15.5	3682	2419	3252	2217	2836	2102	4555	2993	4179	2849	3763	2472
	750	20	4037	2511	3618	2282	3161	2140	5063	3149	4617	2911	4131	2570
45	600	18	3368	2497	2983	2313	2747	2304	4223	3131	3821	2962	3452	2559
	700	24	3874	2801	3438	2583	2994	2448	4847	3504	4411	3313	3975	2873
	800	30	4598	3021	4061	2769	3542	2625	5689	3737	5219	3558	4699	3087
	900	37	5036	3133	4514	2847	3944	2671	6316	3929	5760	3632	5154	3206
54	750	21.5	4038	2993	3576	2772	3293	2762	5063	3753	4580	3551	4139	3068
	850	26.8	4643	3356	4120	3095	3587	2933	5808	4199	5286	3971	4763	3443
	950	32.7	5499	3613	4857	3312	4236	3140	6804	4470	6242	4256	5620	3692
	1050	39	6031	3752	5406	3409	4723	3198	7564	4706	6899	4350	6173	3840
72	900	14.8	5971	4426	5288	4100	4869	4085	7486	5550	6773	5251	6120	4537
	1100	21	6866	4964	6093	4577	5305	4338	8590	6210	7817	5872	7044	5092
	1300	28	8146	5352	7195	4906	6275	4651	10079	6621	9246	6304	8325	5469
	1500	36	8909	5542	7985	5035	6976	4724	11173	6950	10190	6426	9117	5672

2.3.2. Table of variable working condition performance for heating capacity

Table of variable working condition performance parameter under heating mode

Unit: W

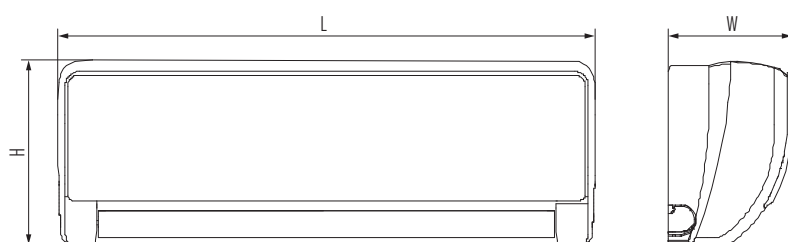
Air inlet temperature °C			18 °C DB						20 °C DB					
Water inlet temperature °C			40	45	50	60	70	80	40	45	50	60	70	80
Model	Water flow (kg/h)	Water pressure drop (kPa)												
18	150	2.3	1312	1608	1913	2505	3099	3700	1194	1498	1787	2387	2988	3581
	250	5.5	1409	1728	2055	2692	3338	3976	1283	1602	1921	2566	3204	3850
	350	10	1530	1881	2224	2918	3619	4306	1396	1739	2090	2791	3478	4179
	450	14.5	1613	1988	2348	3076	3811	4546	1470	1830	2205	2933	3668	4403
27	300	3.5	1882	2308	2744	3594	4445	5306	1712	2148	2563	3424	4285	5136
	400	5.9	2021	2479	2947	3862	4788	5703	1841	2298	2756	3681	4596	5522
	500	8.7	2182	2682	3171	4161	5161	6140	1990	2480	2980	3980	4959	5959
	600	12	2297	2831	3344	4380	5427	6474	2094	2607	3141	4177	5224	6271
35	430	8.1	2508	3075	3656	4790	5924	7072	2282	2863	3415	4563	5711	6845
	550	11.5	2694	3303	3927	5146	6380	7599	2453	3062	3672	4905	6125	7358
	650	15.5	2850	3504	4143	5436	6743	8022	2600	3240	3893	5200	6479	7786
	750	20	3057	3768	4451	5830	7224	8618	2787	3470	4181	5560	6954	8347
45	600	18	3135	3844	4570	5987	7404	8839	2852	3578	4269	5704	7138	8556
	700	24	3366	4128	4907	6431	7972	9496	3065	3827	4588	6130	7653	9195
	800	30	3632	4465	5280	6928	8594	10224	3313	4129	4961	6627	8257	9923
	900	37	3819	4707	5559	7282	9023	10763	3481	4334	5222	6945	8685	10426
54	750	21.5	3762	4612	5483	7183	8883	10605	3422	4293	5122	6843	8564	10265
	850	26.8	4038	4952	5887	7715	9564	11392	3677	4591	5505	7354	9182	11031
	950	32.7	4302	5288	6253	8205	10177	12107	3924	4889	5875	7848	9778	11751
	1050	39	4579	5644	6667	8733	10820	12907	4175	5197	6262	8328	10415	12503
72	900	14.8	5260	6449	7668	10045	12423	14830	4785	6003	7162	9570	11977	14355
	1100	21	5648	6927	8235	10791	13378	15934	5143	6421	7700	10286	12842	15429
	1300	28	6095	7492	8860	11624	14419	17154	5560	6927	8324	11119	13854	16649
	1500	36	7889	9319	12206	15124	18042	20959	7264	8753	11641	14558	17476	20393

Table of variable working condition performance parameter under heating mode (continued)

Unit: W

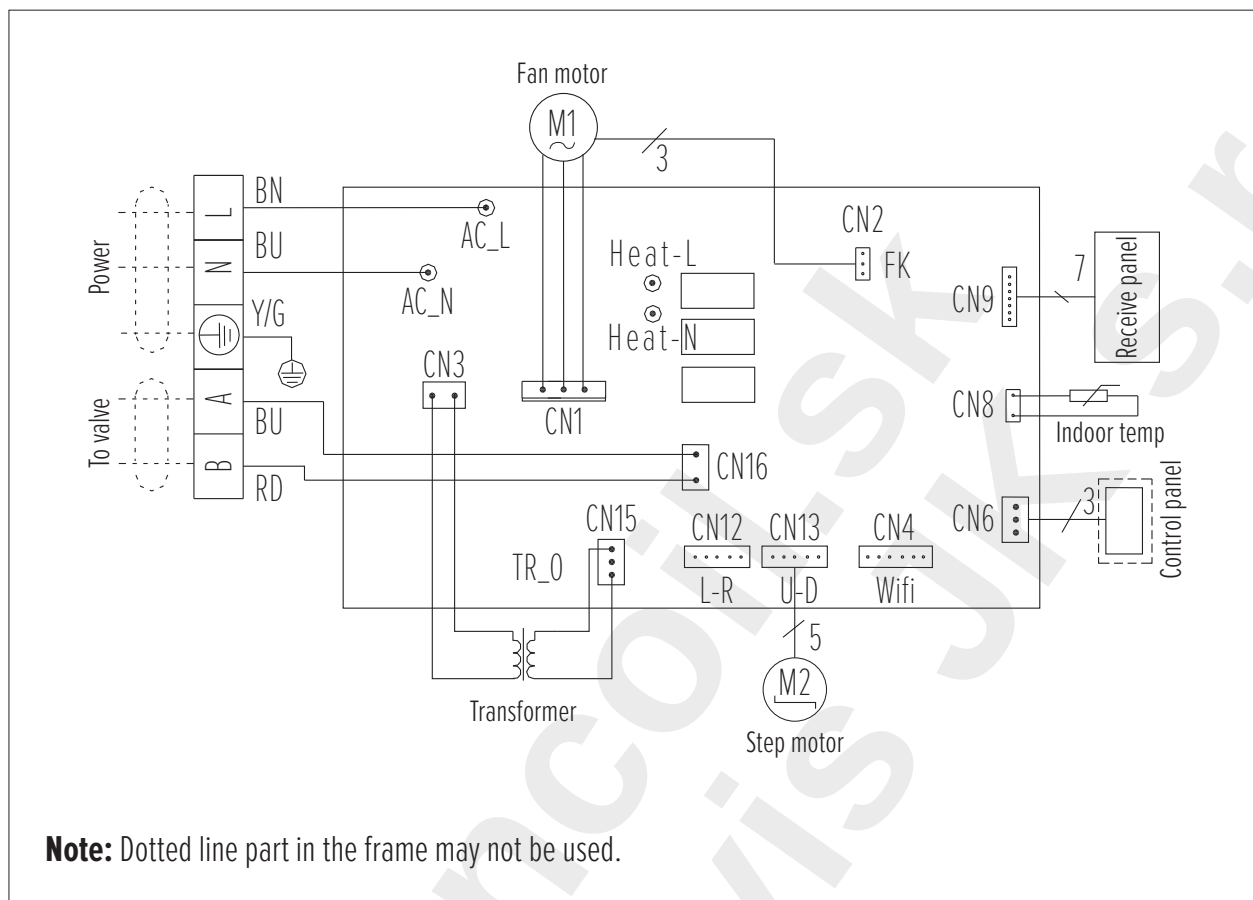
Air inlet temperature °C			21 °C DB						22 °C DB					
Water inlet temperature °C			40	45	50	60	70	80	40	45	50	60	70	80
Model	Water flow (kg/h)	Water pressure drop (kPa)												
18	150	2.3	1142	1431	1727	2328	2929	3514	1075	1364	1668	2269	2862	3455
	250	5.5	1216	1543	1862	2507	3145	3790	1150	1476	1795	2433	3078	3716
	350	10	1321	1672	2015	2709	3411	4097	1254	1597	1948	2642	3336	4037
	450	14.5	1403	1763	2130	2858	3593	4328	1320	1688	2048	2783	3518	4261
27	300	3.5	1638	2052	2478	3339	4200	5040	1542	1957	2393	2854	3405	4955
	400	5.9	1745	2213	2670	3596	4511	5437	1649	2117	2575	3090	3645	5330
	500	8.7	1884	2384	2873	3863	4863	5842	1788	2277	2778	3367	3957	5757
	600	12	1998	2510	3034	4070	5117	6164	1880	2404	2916	3563	4110	6068
35	430	8.1	2182	2735	3302	4450	5598	6718	2055	2608	3189	3837	4570	6604
	550	11.5	2325	2949	3559	4792	6011	7245	2198	2821	3431	4150	4884	7103
	650	15.5	2461	3114	3754	5047	6354	7633	2336	2975	3629	4322	5015	7522
	750	20	2659	3342	4039	5418	6812	8205	2503	3200	3882	4676	5469	8077
45	600	18	2728	3419	4127	5562	6997	8396	2568	3259	3986	4720	5487	8254
	700	24	2905	3685	4447	5988	7512	9053	2746	3525	4287	5011	5752	8876
	800	30	3136	3969	4784	6432	8098	9728	2977	3792	4625	5473	6220	9586
	900	37	3321	4174	5044	6767	8508	10248	3126	3996	4849	5789	6630	10088
54	750	21.5	3273	4102	4952	6673	8394	10073	3081	3910	4782	5603	6403	9903
	850	26.8	3486	4421	5335	7184	9012	10861	3294	4230	5144	6071	6921	10648
	950	32.7	3714	4700	5666	7617	9589	11520	3525	4490	5477	6428	7380	11352
	1050	39	3983	5005	6049	8115	10202	12290	3749	4792	5815	6902	7989	12098
72	900	14.8	4577	5736	6925	9332	11739	14087	4309	5468	6687	7904	9172	13849
	1100	21	4875	6183	7462	10048	12605	15191	4608	5916	7194	8551	9837	14894
	1300	28	5262	6660	8027	10792	13587	16322	4995	6362	7760	9154	10524	16084
	1500	36	6996	8455	11343	14261	17178	20240	6699	8128	9605	11045	12510	16910

2.4. DEMENSION



Model	L	H	W
MHW18	850	300	198
MHW27	850	300	198
MHW35	850	300	198
MHW45	970	315	235
MHW54	970	315	235
MHW72	1100	330	235

III. ELECTRICAL WIRING AND CONNECTION



www.fancoil.sk
Servis JK S.r.o.