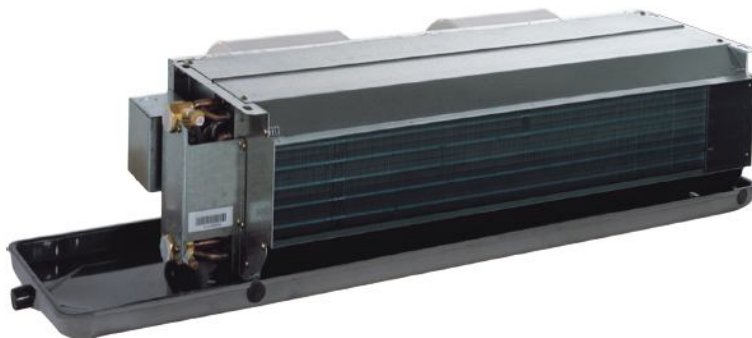




FCU SERIES

PRODUCT BROCHURE

Ducted Type Fan Coil Unit



50/ 60Hz Unified

Four Speeds Motor

ESP 0-12-30-50Pa



Features

High Performance
Cooling Up to 12 kW
Easy Installation
Compact Height Design
Flexible Positioning
3 Row Pipes Configuration
Low Noise Level
Three-Way Valve(optional)
Ducted or Non-ducted Installation

Technology advantage

Structure

Fan coil unit for every type is mainly composed with the fan (worm gear, spiral casing), motor, heat changer (coil), air filter, electrical adjuster, with the main features as following:

Fan

The fan, including the worm gear and the spiral casing, is the major part of the unit. It is selected due to its large discharge coefficient, small volume, high wheel radius rate, large amount of the blades, and the relatively wide forward blades centrifugal type fan. The blade wheel leads the advanced technology in china with its few parts, superb techniques, and the high strength. The arc-shaped air inlet is designed for the spiral casing, and 5mm gap is kept between the air inlet and the blade wheel inlet according to the fan coil installation mode and the allowable cascade momentum of the motor shaft. The section of the spiral casing is rectangular, and the logarithmic helix shaped female screw is designed for the spiral casing. The fan runs with good dynamic balancing performance and low noise.

Motor

The motor is produced by the authorized manufacture according to the special requirements proposed by the research department, fitting for the international unit FC-02—FC-14 (British system 200CFM—1400CFM) with static pressure 12Pa-30Pa-50Pa. The special asynchronous motor with single phase capacitance is applied to the fan coil unit, with the voltage adjusting range 200-240V, 50/60HZ. The quality of the motor is in the leading status at home for its high efficiency, little temperature rise and vibration.

Heat exchanger

The aluminum foil used in the heat exchanger is processed with aluminum foil. The copper tube of $\Phi 9.52 \times 0.33$ is used and shaped as “U” through the mechanical processing, thus the welding points will be reduced to half, and the chances of leakage will also be decreased. Through the mechanical tube expansion, the surface and inside should be purged ultrasonically with the cleanser, and then baked, to ensure the tight contact between the tube and the fin, as well as the clean surface, further to improve the heat conduction effect.

Braze welding intensity: the 5B silver solder (welding ring) is adopted due to its low melting point and good fluidity, which will make the weld neat and firm. The coil trial pressure is 1.5MPa, work pressure is 1.2MPa, and the requirement for the gas tightness is higher than the national standard (the work pressure of which is 1.0MPa).

The water inlet and outlet are made of the brass, and the water current distribution mode varies according to the unit model. Keep the current distributed equably, with little resistance.

Air filter

The strainer should be installed in the unit inside and the unit buried mounting should be finished during the project, thus the filter with different specification can be supplied according to the requirement of the user and the project and the quality of the air will be improved in this way.

Cabinet

The cabinet is made of the superb galvanized steel, processed with numerical control stamping folding machine, which contributes to its firm structure, little distortion, and good process coherence.

Condensate pan

No water leakage--superb cold rolling steel is adopted with the mould processing it holistically, and the plastic sprayed to its surface and the inner wall. The 10mmPE insulate sponge wholly sticks on the water pan, which will avoid the condensate and the water leakage. The width and the length of the water pan contain the tubing space for the electrical valves of the water in and out pipes, which will ensure the catchments effect.

Kinds of selectable parts

The following plans are to be selected according to the user's need:

- 1, Backward / downward return air box;
- 2, Electrical heating type

Instruction of model

FCU 02 CC 23 2 P1 L

① ② ③ ④ ⑤ ⑥ ⑦

① FCU(FP): Fan coil unit

② 02(34): Air flow (02×100 CFM or 34×10 m³/h)

③ Product type:

CC: Ceiling Concealed

CD: Ceiling Concealed with Down Return Plenum

CB: Ceiling Concealed with Back Return Plenum

CH: Ceiling Concealed with Large Air Flow and High Static Pressure

CT: Ceiling Concealed Ultra-Thin Type

VC: Vertical Concealed

CE: Ceiling Exposed

VE: Vertical Exposed

CL: Ceiling Concealed with Large Drain Pan

CA: Cassette Four-Way

CS: Cassette Single-Way

CF: Ceiling Floor

DC: Ceiling Concealed with District Cooling Application

④Coil Layout:

22: 2 Pipes-2 Rows

23: 2 Pipes-3 Rows

24: 2 Pipes-4 Rows

42: 4 Pipes-2 Rows Cooling+2 Rows Heating

43: 4 Pipes-3 Rows Cooling+1 Row Heating

⑤Power Supply

Phase1=220V/50Hz/1

Phase2=220V/60Hz/1

Phase3=380V/50Hz/3

Phase4=380V/60Hz/3

Phase5=115V/60Hz/1

Phase6=460V/60Hz/3 Phase

⑥Static Pressure:

P1: 12Pa/30Pa

P2: 50Pa

⑦L: Left type

R: Right type

Technical data

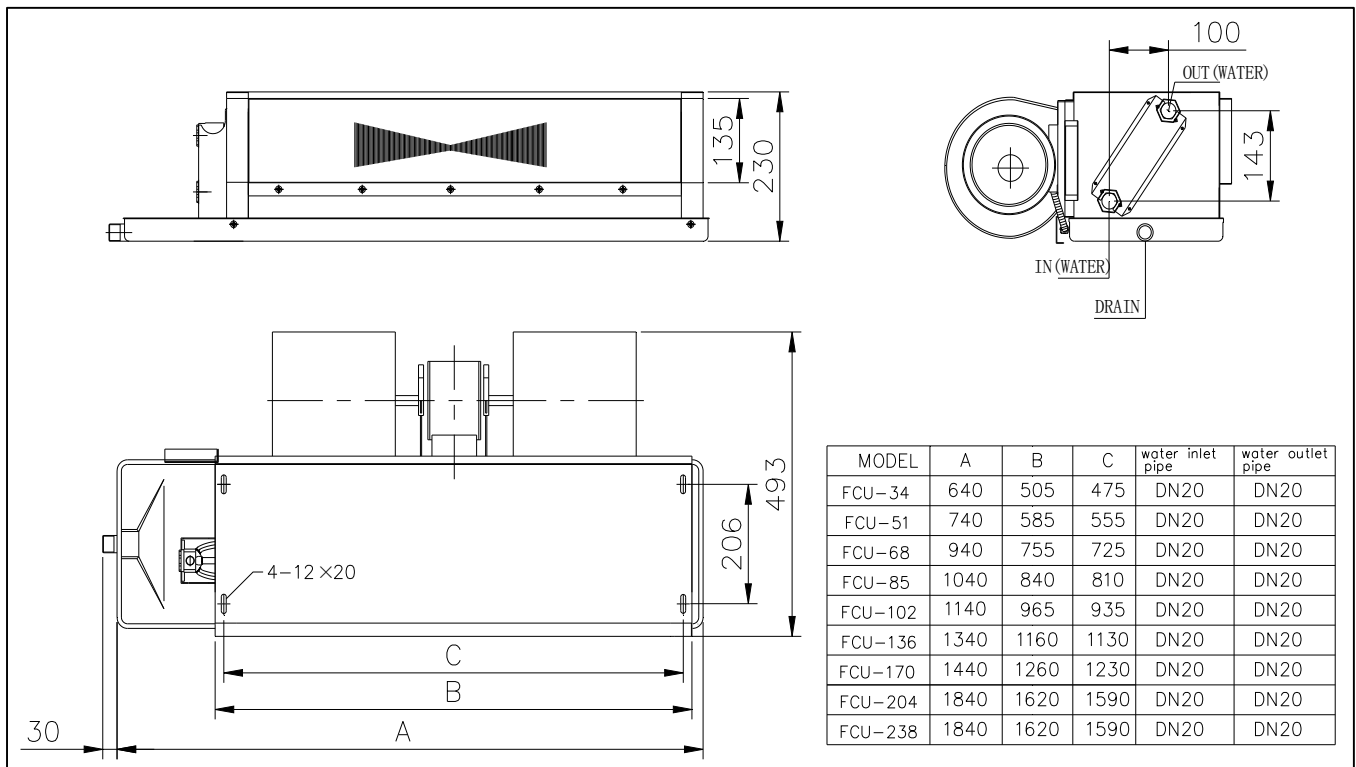
Horizontal /Vertical fan coil unit (three rows) Performance parameters

Product Type			FCU34	FCU51	FCU68	FCU85	FCU102	FCU136	FCU170	FCU204	FCU23
Air Flow	High	m ³ /h	340	510	680	850	1020	1360	1700	2040	2380
	Middle	m ³ /h	255	382	510	637	765	1122	1402	1683	1927
	Low	m ³ /h	170	255	340	425	510	850	1062	1275	1487
Total cooling capacity	High	W	2170	3120	4090	4750	6070	8210	9380	11650	12490
	Middle	W	1953	2819	3738	4349	5452	7469	8535	10495	11478
	Low	W	1579	2323	3010	3404	4385	6043	6889	8479	9268
Sensible cooling capacity	High	W	1565	2115	3065	3535	4235	5745	7600	8900	10465
	Middle	W	1450	1965	2655	3015	3730	4895	6490	7980	9430
	Low	W	1240	1680	2045	2400	3050	3955	5310	6570	7810
Total heating capacity	High	W	3497	5014	6738	7618	9760	13176	14812	18030	19700
	Middle	W	3044	4358	5652	6817	8254	11297	12880	15737	17052
	Low	W	2518	3710	4986	5637	7027	9486	10664	13161	13987
Fan quantity			1	2	2	2	2	3	4	4	4
Fan motor Input power	12Pa	W	28	34	55	68	87	125	152	185	205
	30Pa	W	42	55	68	87	108	142	174	210	253
	50Pa	W	49	66	84	100	118	174	210	250	300
Power Supply		V/PH/Hz	220/1/50/60								
Noise	12Pa	dB(A)	34	35	38	42	43	44	46	48	49
	30Pa	dB(A)	37	38	41	44	45	46	48	48	49
	50Pa	dB(A)	42	44	46	47	49	50	52	54	56
Water Flow		kg/h	373	536	703	851	1044	1412	1613	2004	2148
Water Resistance		kPa	4.2	7.8	15.1	21.5	32.1	12.6	20.5	23.6	26.7
Draining pipe		mm	Rc3/4"(DN20)								
Weight	Horizontal concealed	Kg	11	14	15	16	18	23	27	29	34
	Horizontal exposed	Kg	24	26	31	36	40	46	55	66	75
	Vertical concealed	Kg	16	20	21	23	26	33	39	41	47
	Vertical exposed	Kg	31	33	35	36	41	47	57	59	65

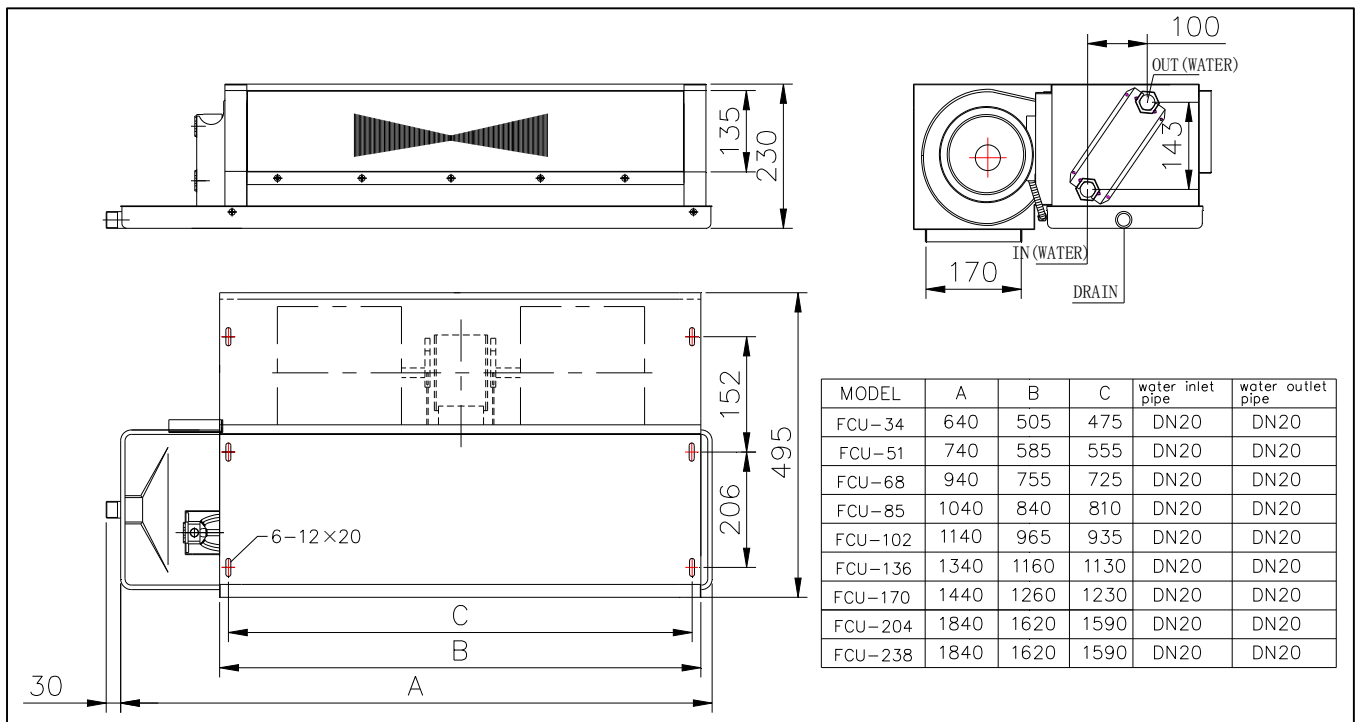
Performance values refer to the following conditions: *Cooling capacity is measured under the condition : Air inlet temperature DB 27°C/WB 19.5°C ,water inlet/outlet temperature 7°C/12,*Heating capacity is measured under the condition : Ambient temperature DB 21°C ,water inlet temperature 60°C

Physical dimension

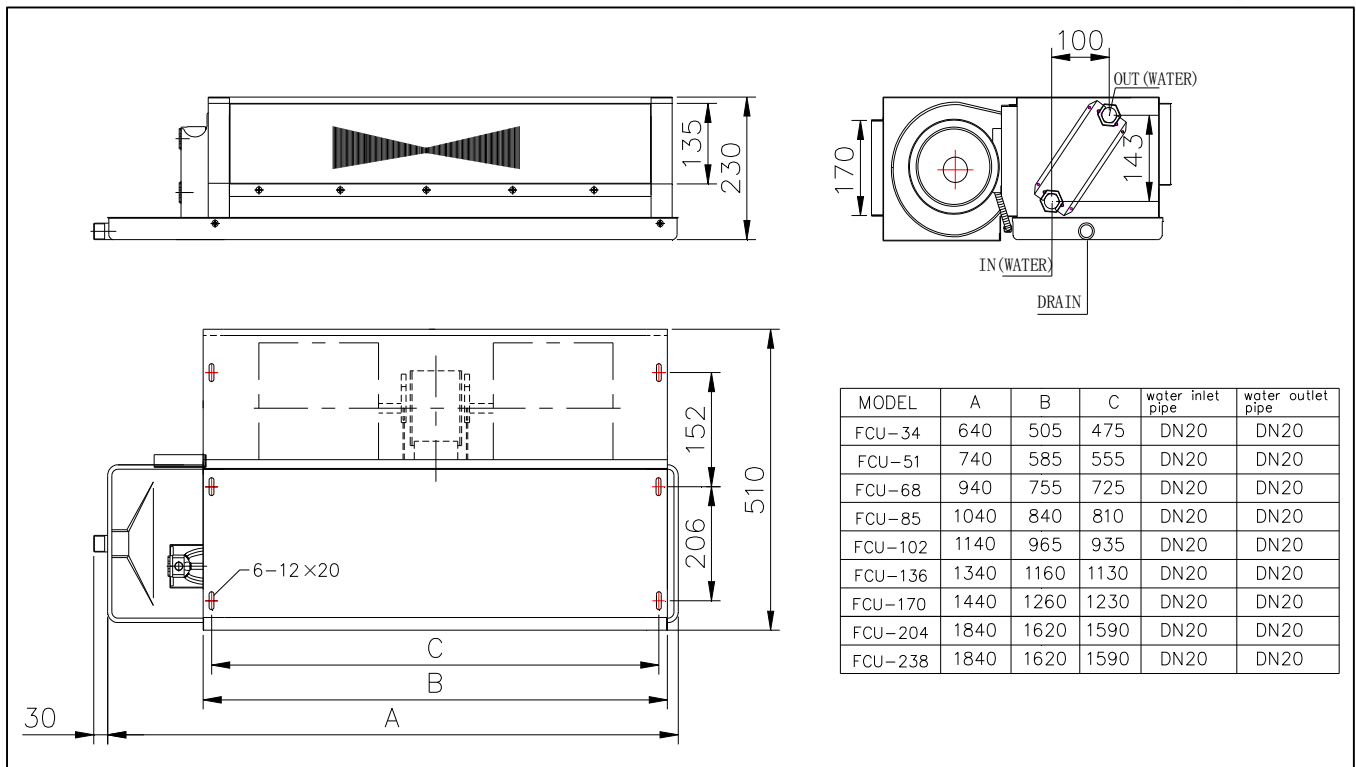
Horizontal concealed without return air box



Horizontal concealed with return air box(below return air)

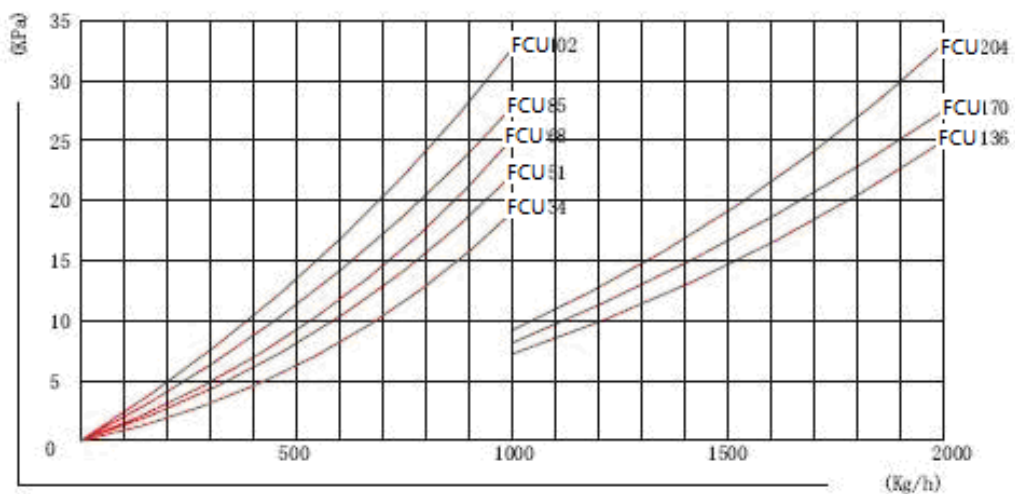


Horizontal concealed with return air box(back return air)



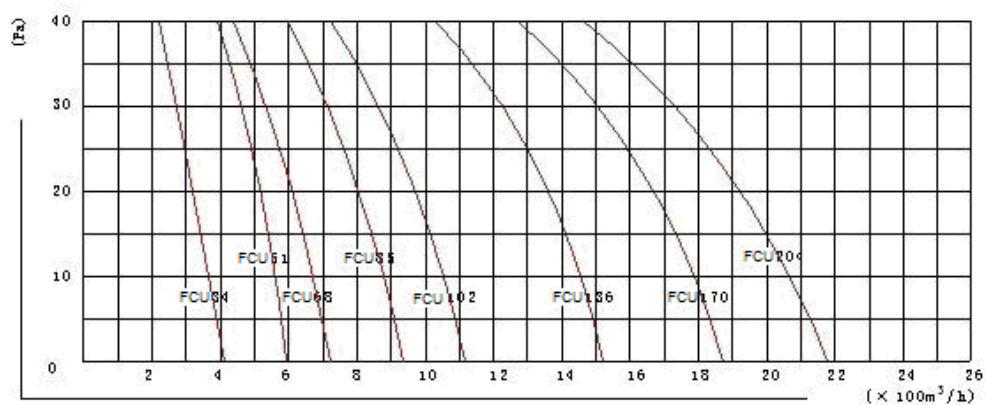
Curve diagram

Water Resistance (KPa) ----water flow (Kg/h)

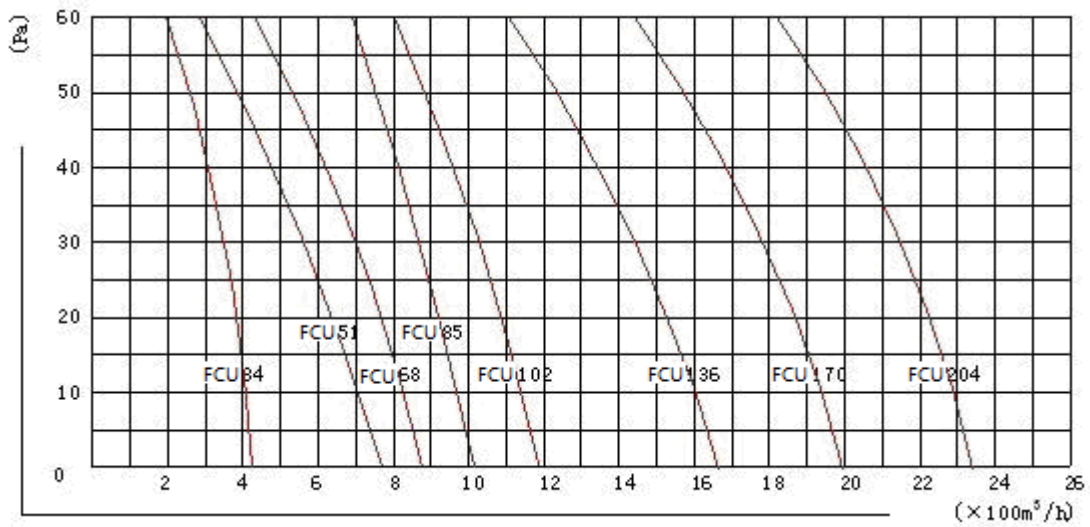


Static press (Pa)----air flow (x100m3/h)

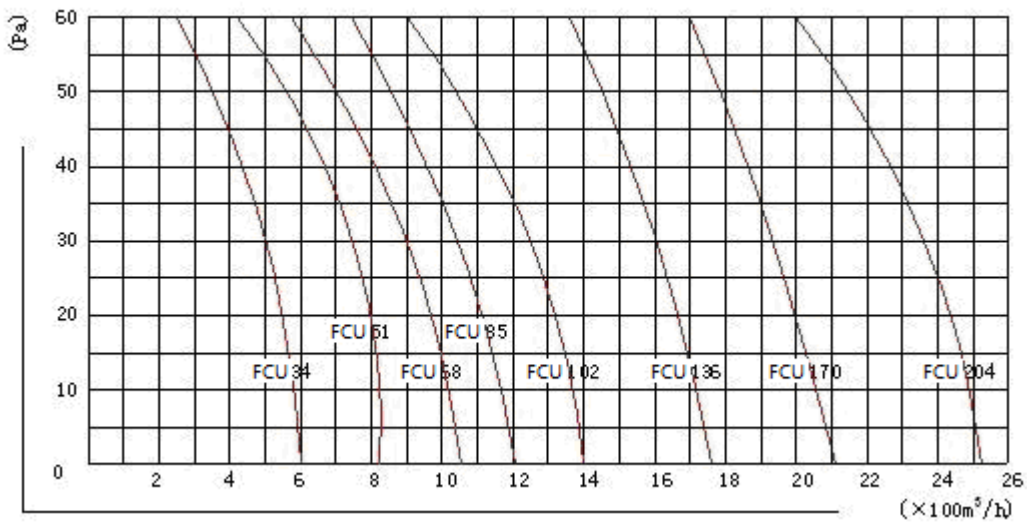
Normal Static press



Middle Static press (30Pa)



High Static press (50Pa)



Wiring diagram

