



Important warning

1. Turn off the power before installation, maintenance and repair.
2. Cut off the flow during replacing valve body or valve core, open the exhaust valve of fan to completely relieve the pressure before operation.
3. If the valve leaks during function, isolate the valve from the system immediately to exhaust the flow.
4. Choose common driving head, one thermostat can only match for one motorized valve. Otherwise we shall not be responsible for all the sequent caused.

TOUPWELL

MOTORIZED VALVE TP40series

9. Connection manner: conical internal worm (make to order according to the requirements of the customer)

Installation And Operation Manual

Brief Introduction:

This series motorized valve is applicable to on-off control of air conditioner water system, is composed of driver and valve body. The valve body is forged by high-quantity brass, the driver adopts flame resistant plastic, installed limit contact switch internally, the B-type driver internal relay can realize one line control and multi-valve parallel connection. The driver also provided with manual valve-opening machine for convenient debugging and pressure testing of system. This series motorized valve can match all kinds of thermostatic switch to realize the energy-saving function of the air conditioner system.

Technical Index:

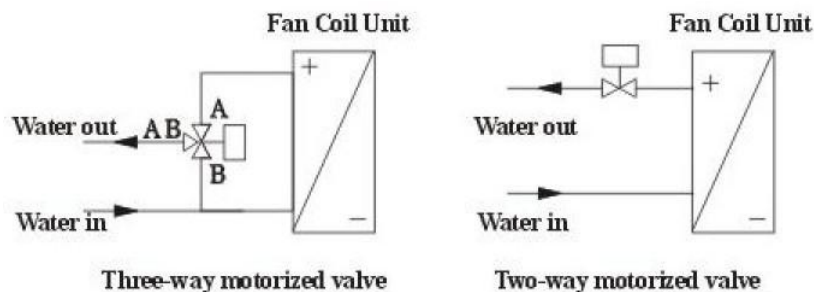
1. Driving voltage: 220VAC(or 12V, 24V, 110V)
2. Power consumption: 5VA(only in on-off process)
3. Valve pressure: 2.0Mpa
4. Allowed pressure differential: 1.0Mpa
5. Applicable medium: cold water, hot water
6. Open and close time: 16 seconds for opening, 16 seconds for closing
7. Applicable medium temperature: 2℃~95℃
8. Applicable ambient temperature: 0℃~60℃

Debugging, maintenance and abnormality

No	Abnormality in debugging and operating	Cause	Solution
1	Reverse direction of valve on and off	Wrong wiring of valve on and off	Exchange the cord of valve on and off
2	The driver move up and down continuously	Short circuit of valve on or off cord, or supply power at the same time, failure of thermostat	Check circuit or change thermostat
		Parallel connection of two or more than two drivers (one thermostat for more motorized valves)	One thermostat can only for one motorized valve, or separate the motorized valves by parallel connection controller, or use B type driver.
		Failure of driver	Replace driver
3	The driver do not work	Wrong wiring ,short circuit of wiring	Check the power, and circuit from thermostat and motorized valve
		Failure of thermostat, failure of valve body assembly	Replace the thermostat and valve body
		Failure of driver	Replace the driver
4	Leakage in connection of valve body and pipe	Overexerting cause the split of worm of valve body. Or too less sealing material	Replace the valve body assembly or add sealing material

5	Leakage between valve stem and valve core (or valve cover)	The driver move up and down for long time, and cause the saling loop damaged earlier	Eliminate the abnormality of driver , replace the components of valve core or the valve body assembly
		Installation cause the extruded part of valve cover broken	Replace the components of valve core or valve body assembly
6	Valve body can not fully open or close,thereis abnormal noise in connection of driver	Too bad water quality, valve is blocked by foreign objects	Clean the pipe or install front filter or replace the valve body
		Failure of mot or of driver	Replace the driver

- The pipe should be clean and without foreign objects before installation , install the 50 micron filter at the front of motorized valve .
- The medium can flow from A to B , also from B to A in two-way motorized valve; the medium can flow from AB to A or B , or from A or B to AB in three-way motorized valve (see water flow in the system drawing).



Water flow drawing

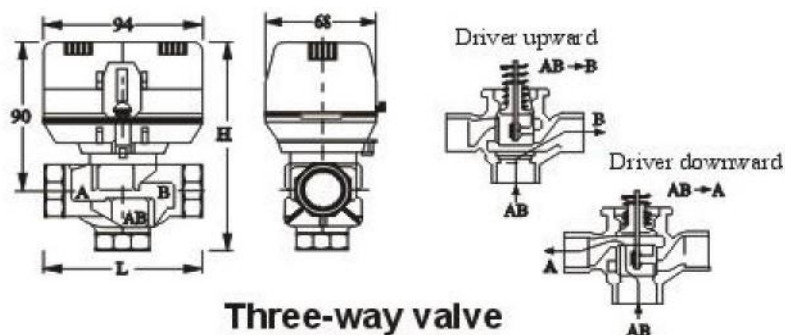
- Never exert on the driver during installation, otherwise the driver might damaged; never exert on the spring valve stem part which extruded out of valve cover when demounting the valve

body to install, otherwise the valve stem might distort and leak. Never wrap the driver in thermo insulating layer (see installation drawing).

Configuration characteristic

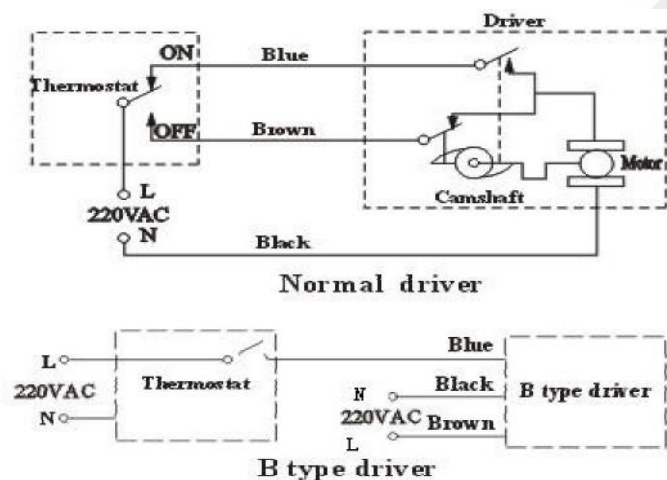
- Installed limit contact switch internally, the motor is not electrified after the valve finishing on-off, therefore, it has long service time, saves energy and especially safe.
- Separated driver and valve body, for fast disassembly and installation.
- Special valve body has bigger allowed pressure differential.
- There is a manual operating lever on the driver for system adjustment and maintain. The manual opening is 70%(push the white manual operating lever downwards to the bottom, then push inwards, the valve and driver come back to automatically position after the power recovered).
- B-type driver internal relay, controlled by one line, can be fit for three-speed switch and realize parallel connection of multi valves.

Appearance, section and main dimension



Name	Caliber parameter		L	H	Kv
Two-way motorized valve	1/2"	DN15	90	114	4.5
	3/4"	DN20	95	116	5.7
	1"	DN25	105	128	8.7
Three-way motorized valve	1/2"	DN15	90	133	4.3
	3/4"	DN20	95	133	5.5
	1"	DN25	105	144	8.3

Wiring and relevant circuit drawing



Key points of installation

1. Read this manual carefully and turns off the power before installation. The installation should be exercised by professional technician, and strictly comply with the wiring drawing.
2. The installation of motorized valve should keep enough maintenance space between peripheral objects, and within the touch of maintainer. There should be no electrical appliance under the valve, to avoid the water leakage of valve and cause danger. The driver should be placed above the level of valve body (see installation drawing).

