

# Two-Stage Electric Pump (2.2 kW)

## ■MP-12 series

- A pump combining both high- and low-pressure pumps to be driven by one motor to improve the work speed.
- Equipped with a double-safety mechanism of a safety valve and pressure switch to prevent overload.
- A two-point push-button and a control box are set in the MP-12SW-PA/SB-PA type package pump. Simply connect the power and the pump is ready to use.
- See P. 73 and 74 for the description of each model and the instructions.

⚠ Power should not be supplied continuously to the solenoid valve of the MP-12SL/12SW/12SB types for more than one minute to prevent adhesion of the spool.

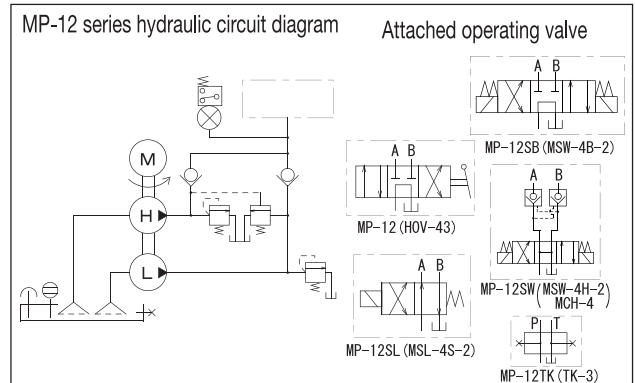
### Description of the type

MP — 1 2

Series No

Electric pump

- No mark : For double-acting cylinder (manual change valve)
- SL : For single-acting cylinder (solenoid operated directional valve)
- SW : For double-acting cylinder (solenoid operated directional valve, pressure maintenance included)
- SB : For double-acting cylinder (solenoid operated directional valve, w/o pressure maintenance)
- SW-PA : Package pump for double-acting cylinder (solenoid operated directional valve, pressure maintenance included)
- SB-PA : Package pump for double-acting cylinder (solenoid operated directional valve, w/o pressure maintenance)
- TK : For separately installed operating valve (w/o operating valve)



## ■Motor specification

Insulation type	Voltage (number of phase) (V)	Output (kW)	Rated current (A)		Load current (A)		Number of revolutions (rpm)	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Type E, totally-enclosed fan-cooled type	200 (Three phase)	2.2	10.0	9.0	9.6	10.5	1500	1800

※The load current is a current value at 70 MPa.

## ■Pump specification

Type	Maximum operating pressure (MPa)		Discharge volume (L/min) (50Hz/60Hz)		Tank oil level (L)	Effective oil level (L)	Attached operating valve	Approximate weight (kg)
	High pressure	Low pressure	High pressure	Low pressure				
MP-12	70	8	1.5/1.8	8.5/10.2	21.0	12.0	HOV-43	121
MP-12SL							MSL-4S-2	125
MP-12SW							MSW-4H-2	131
MP-12SB							MCH-4	126
MP-12TK							None	119

### MP — 1 2

No.	Name	Remarks
1	Oil tank	
4	Motor	
5	Electromagnetic switch	
6	Start switch	
13	High-pressure safety valve	
14	Low-pressure safety valve	
15	Unloader valve	
18	Pressure switch	DPS-100
22	Direction-control valve	HOV-43
27	Air breather	
29	Oil gauge	
34	Oil-drain port	Rc3/8
35	Return inlet	Rc3/4
36	Outlet port	Rc3/8

※The wiring of the direction-control valve isn't installed for the standard MP-12SL/12SW/12SB types.

●The above numbers don't correspond to the part numbers of the product. See the operation manual for the part numbers of the product.

Hydraulic Pumps