

TCP Series

Heavy Duty
2 Seconds, 300kg

*High Speed + Heavy Load
with Cushion on the Bottom End*

All-in-One Design, Tough Structure

The electrical motor, pump, valves and cylinder are built inside steel housing.
Simplified installation, increased durability.

IP68 Protection Grade

High protection grade is an advantage of all-in-one construction.
Working stable even in worst conditions, like underwater.

Highly Corrosion Resistance

The integrated hydraulic cylinder is with stainless steel SS304 housing.
And the rod surface is treated with Liquid Nitro-Carbonizing process, 5 times harder
and 8-10 times corrosion resistance compare with chrome plating.

Easy Installation & Low Maintenance

No Hydraulic pipe, hose or fitting, no Leaking risk, plug and play, extremely low maintenance.

All-weather Capability

The TCP is capability of running in all weather condition.
There is a internal heater(optinal) built-in for extremely cold weather.
A internal thermal switch installed to prevent motor burned after long lasting operation.

IP68 Certificated by **SGS**



TCP Series

Standard Duty & Heavy Duty

	Code	Rated Power (W)	Voltage (V)	Amp (A)	Speed (mm/s)	Max Load	Duty Cycle
Standard Duty	TCP30S*	300W	Single Phase 220-240V, 50Hz	2.7- 3.0A	200 ± 10mm/s	100kg	30 cycles/hour
	TCP30T*	300W	Three Phase 380-415V, 50Hz	1.7- 1.9A	220 ± 10mm/s	130kg	40 cycles/hour
Heavy Duty	TCP65S*	650W	Single Phase, 220-240V, 50Hz	5.5- 6.5A	310 ± 10mm/s	200kg	30 cycles/hour
	TCP70T*	700W	Three Phase, 380-415V, 50Hz	3.0- 3.5A	320 ± 10mm/s	250kg	40 cycles/hour

Stroke: Standard stroke 600mm, other strokes upon customer's requirements.

Functions & Options:

- Emergency Lowering (DC12V)
- Stroke Limit Pressure Switch
(Optional, for cutting off power when rising/lowering to end)
- Bottom Cushion (Optional)
- Built-in Heater (Optional)

Function:

Either Double Acting (power up, and power down), or Single Acting(power up, gravity down)

Hydraulic Fluid:

HV22 or HV32 (ISO VG22 or VG32)
Tank Capacity 3.5- 6.5L

Overheat Protection

Yes, at 75°C

Mounting:

Recommend to do VERTICAL mounting for best performance.

TCP
30
T
2
D25
P
600
N
R
E
-01

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)

1	TCP	All-one Electro-Hydraulic Actuator
2	Rated Power	Rated Power: 30- 300W, 65 -650W, 70-700
3	Voltage	S - 220/240V Single Phase, 50/60Hz F - 115V Single Phase, 50/60Hz T - 380/415V Three Phase, 50/60Hz G - 230V Three Phase, 50/60Hz
4	Pump Disp.	1 - 1.5cc, 2 - 2.0cc
5	Rod Dia.	D20- 20mm , D18 - 18mm
6	Pressure Switch	N - None, P- with Built-in pressure switch
7	Stroke	600 - 600mm, 700 - 700mm ...
8	Bottom Cushion	N – None, B - with Button Cushion
9	Built-in Heater	N – None, R - with Built-in Heater
10	Emergency Override	N - None, E - with 2-Way Solenoid Valve (DC12V)
11	Design Code	Assigned by Mocen

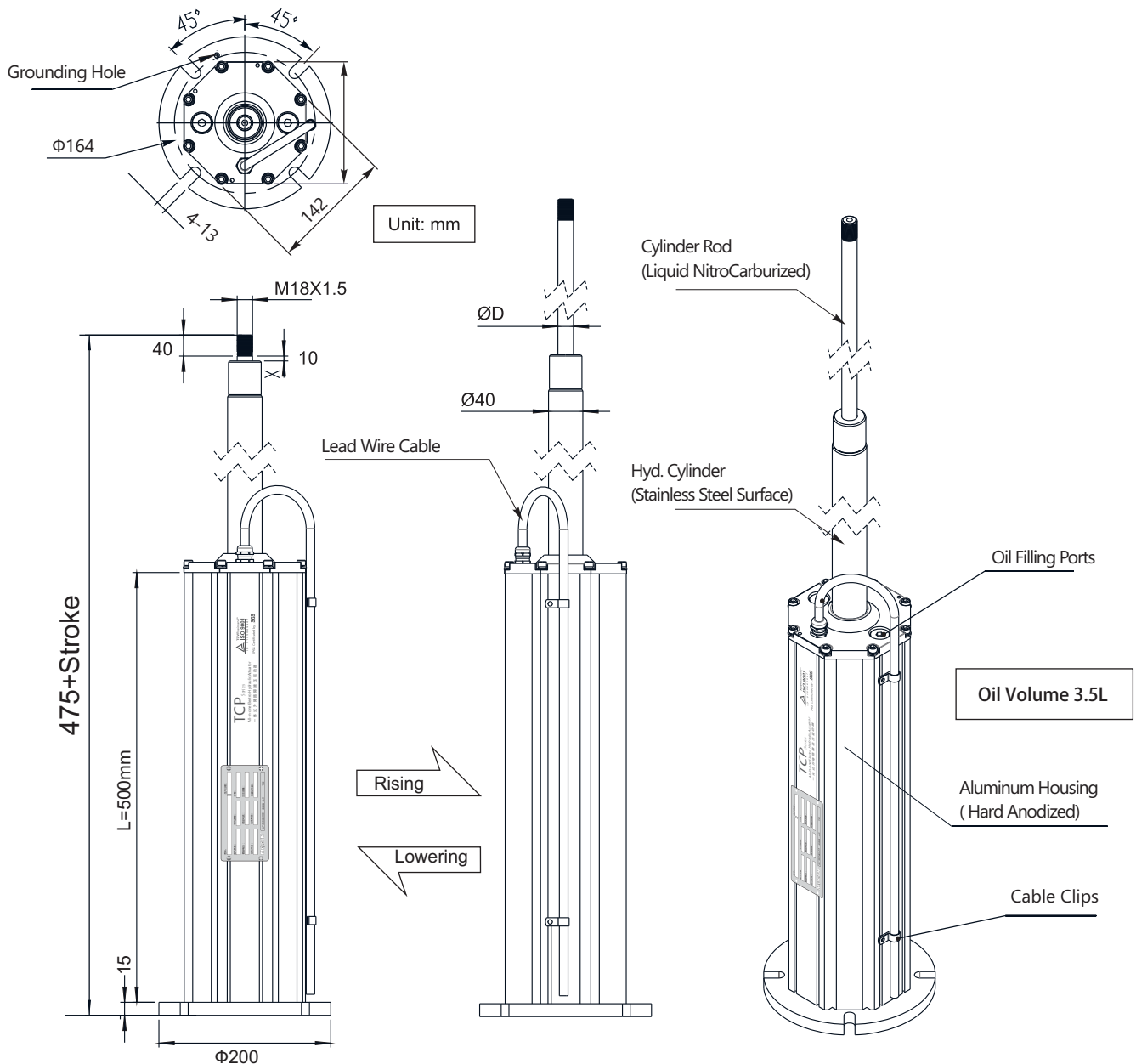
TCP Series

Standard Duty & Heavy Duty

Housing Length "L"

The standard size of L is 500mm, with oil capacity 3.8L maximum. Filling more oil is helping increasing the cycling frequency .

Longer "L" size will let you have higher oil capacity. Changes of size "L" will not affect overall length.

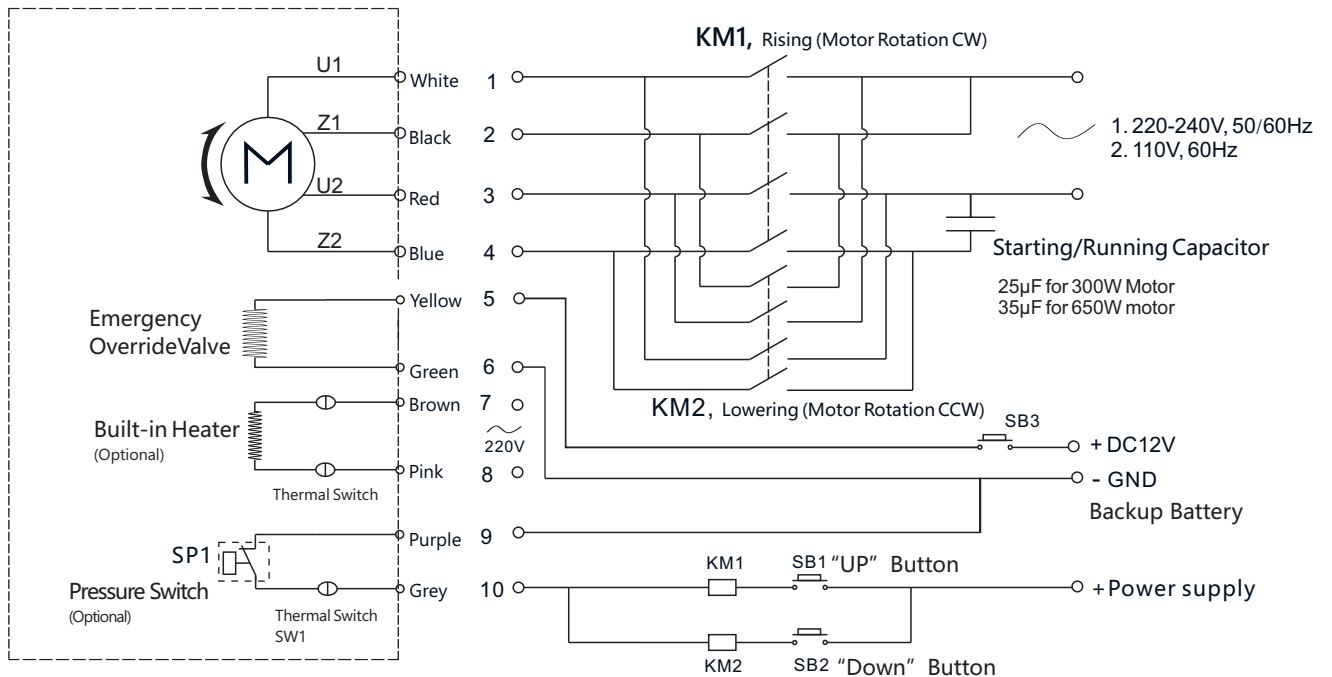


Wiring Diagram

TCP Series

Single Phase

Main Winding: Red and White
Secondary Winding: Blue and Black



* The optional Pressure switch SP1 is Normally Closed, to cutoff the power supply to motor when cylinder extended or retracted to end.

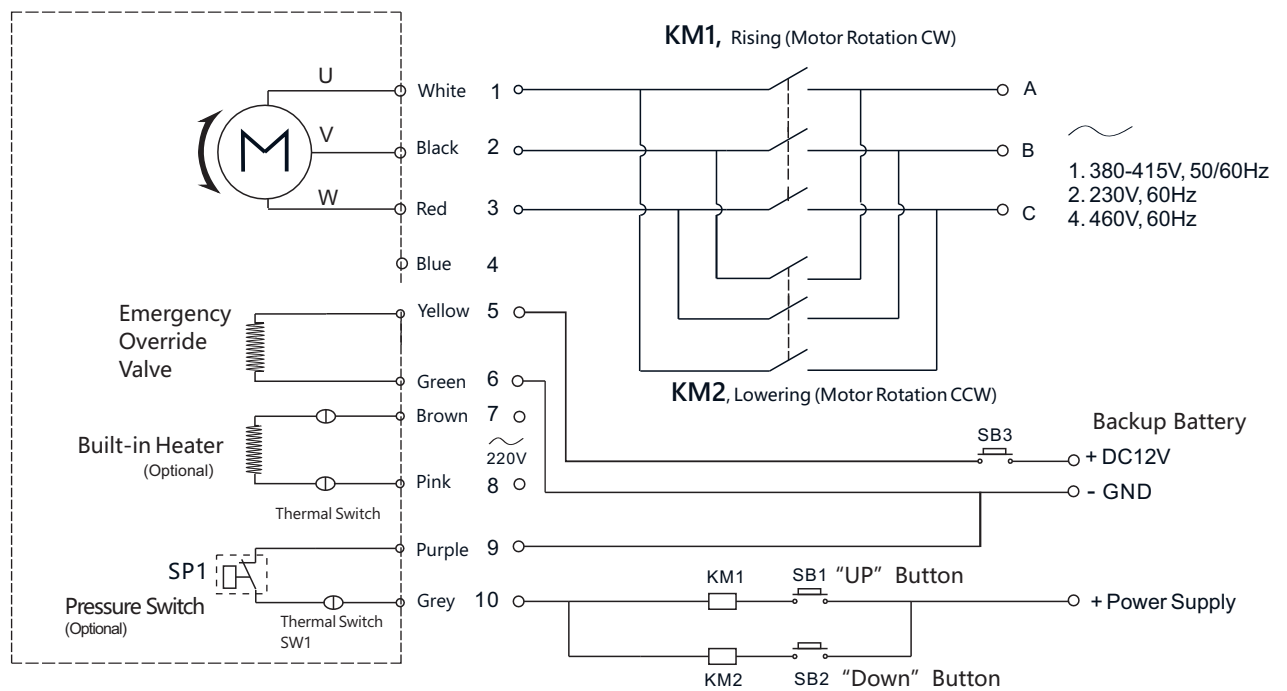
Operation:

1. Push the button SB1, motor run in CW, cylinder extending.
2. The pressure switch SP1 (if installed) will be triggered to open when cylinder extended to end.
3. Push the button SB2, motor run in CCW, cylinder retracting.
4. The pressure switch SP1 (if installed) will be triggered to open when cylinder retracted to end.
5. Energize the Emergency Override Valve with a DC12V battery in case of blackout or motor failed.
6. Turn on the built-in heater (optional, if installed) in extremely cold weather, to reach better performance.
7. Thermal Switch Sw1 is Normally Closed, it will be triggered to OPEN

Wiring Diagram

TCP Series

Three Phase



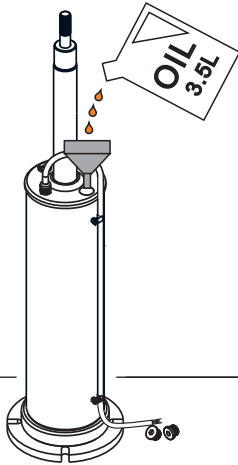
Pressure switch SP1 is Normally Closed, for power cutoff to motor when cylinder extended or retracted to end.

Operation:

1. Push the button SB1, motor run in CW, cylinder extending.
2. The pressure switch SP1 (if installed) will be triggered to open when cylinder extended to end.
3. Push the button SB2, motor run in CCW, cylinder retracting.
4. The pressure switch SP1 (if installed) will be triggered to open when cylinder retracted to end.
5. Energize the Emergency Override Valve with a DC12V battery in case of blackout or motor failed.
6. Turn on the built-in heater (optional, if installed) in extremely cold weather, to reach better performance.

Oil Filling Instruction

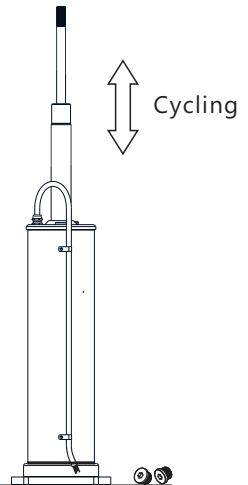
for TCP Series



1, Filling

Removing the both filling port plugs with a 8mm hex wrench, then fill appropriate hydraulic fluid thru one filling port.

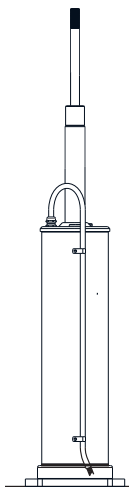
Please don't excess the volume limit and fill up the tank.



2, Venting

Please leave the filling port open and wire up the unit.

Running the unit 10-20 cycles to vent the air inside the cylinder, till it's acting smoothly.



3, Sealing

Extending the cylinder to the end, plug both filling ports with 8mm hex wrench with 5N.M torque.