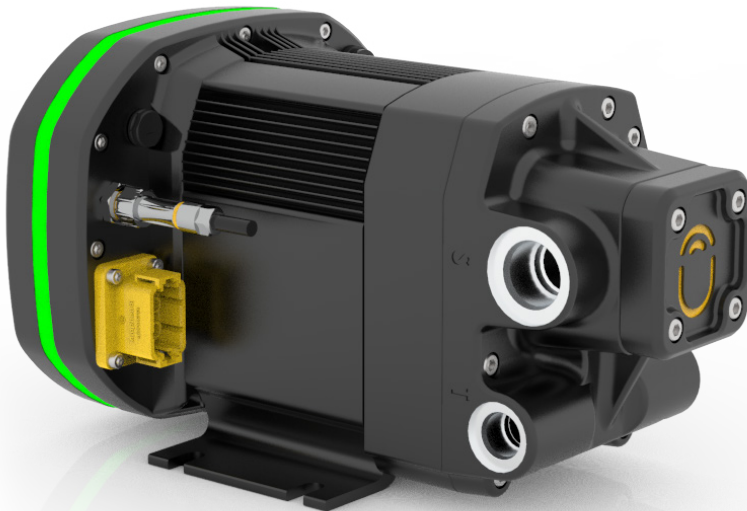


EHSU - ELECTRO-HYDRAULIC STEERING UNIT



Model EHSU-2.5-U



Model EHSU-2.5-UPR shown with optional reservoir



Model EHSU-5-U

Applications:

- Medium & Heavy-duty trucks
- Electric, Hybrid, & Standard Bus
- Trailer steering
- Tag-axle steering
- Off-Highway Vehicles
- Hybrid and Electric Vehicles

The Hydrapulse® EHSU is a ruggedized electro-hydraulic pump unit with integrated motor, controller, and closed-loop feedback that is specifically designed for mobile steering assist and e-steering applications. The EHSU is available in both high and low voltage models and a variety of pump displacements and power levels.

FEATURES

- Power on demand or idle modes
- 3 times smaller overall system size
- Custom options and porting
- Standard SAE hydraulic ports
- CAN J1939 communication interface
- High-voltage models have HVIL connector
- SAE J1455 Environmental rating
- 1.5kw, 2.5kw, and 10kw models
- Plug & Play

TECHNICAL

Temperature Range	-40° to +85°C (Operating) -40° to +125°C (Storage)
Protection	IP 6k9k
Power Input	24v to 48v DC 200v to 800v DC
Supply Voltage	9-36v DC
Supply Current	700 mA (idle @ 12V)
Flowrate Range	0 to 15 gpm
Pressure Range	0 to 4,000 psi

SPECIFICATIONS

EHSU MODEL	EHSU-1.5	EHSU-2.5	EHSU-5.0	EHSU-10
Rated DC Voltage (V)	24 / 48	200 - 800	24 / 48	200 - 800
Rated Power kW (HP)	1.5 (2.0)	2.5 (3.3) @650v	3.6 (4.8) @24v 6.0 (8.1) @48v	10 (13.4) @650v
Rated Current (A)	33A (48v) / 64a (24v)	3.8A (650v)	150A / 125A (24v/48v)	17A (650v)
IP Rating	6k9k	6k9k	6k9k	6k9k
Max Speed (RPM)	4,000	4,000	4,000	4,000
Comms Cable	Samtec IP68 - M12	Samtec IP68 - M12	Samtec IP68 - M12	Samtec IP68 - M12
Power Connector	Hydrapulse LV	Amphenol Mini Magnamate Series	Hydrapulse LV	Amphenol EL Series
Communication Protocol	CAN J1939	CAN J1939	CAN J1939	CAN J1939
Temperature Ratings				
Operating	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Storage	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C
Compliance	SAE J1455, UL 845, 1741 - UL/IEC/EN 61800-5-1 - FCC Radiated Emissions			
Weight (lbs)	31.4	31.4	72.5	72.5
Pump Output	Model # dependant	Model # dependant	Model # dependant	Model # dependant

*Specifications are nominal and subject to change. Consult factory prior to ordering.

Order numbering

EHSU - 1.5 - 1.0 - 06 - B P x^{1,2}

Model type

EHSU - Electro-Hydraulic Steering Unit

Power

1.5 - 1.5 kW (frame size 100)

2.5 - 2.5 kW (frame size 100)

5.0 - 5.0 kW (frame size 200)

10 - 10 kW (frame size 200)

Pump C.C.

1.0 - 1.0 cubic centimeters

2.0 - 2.0 cubic centimeters

5.0 - 5.0 cubic centimeters

Customization

C - Custom options

Options

P - Circulation Circuit
(Must be ordered with reservoir and "U" direction code)

Direction

B - Bi-Directional

U - Uni-Directional

Reservoir Size

06 - 1 Gallon

12 - 1.8 Gallon

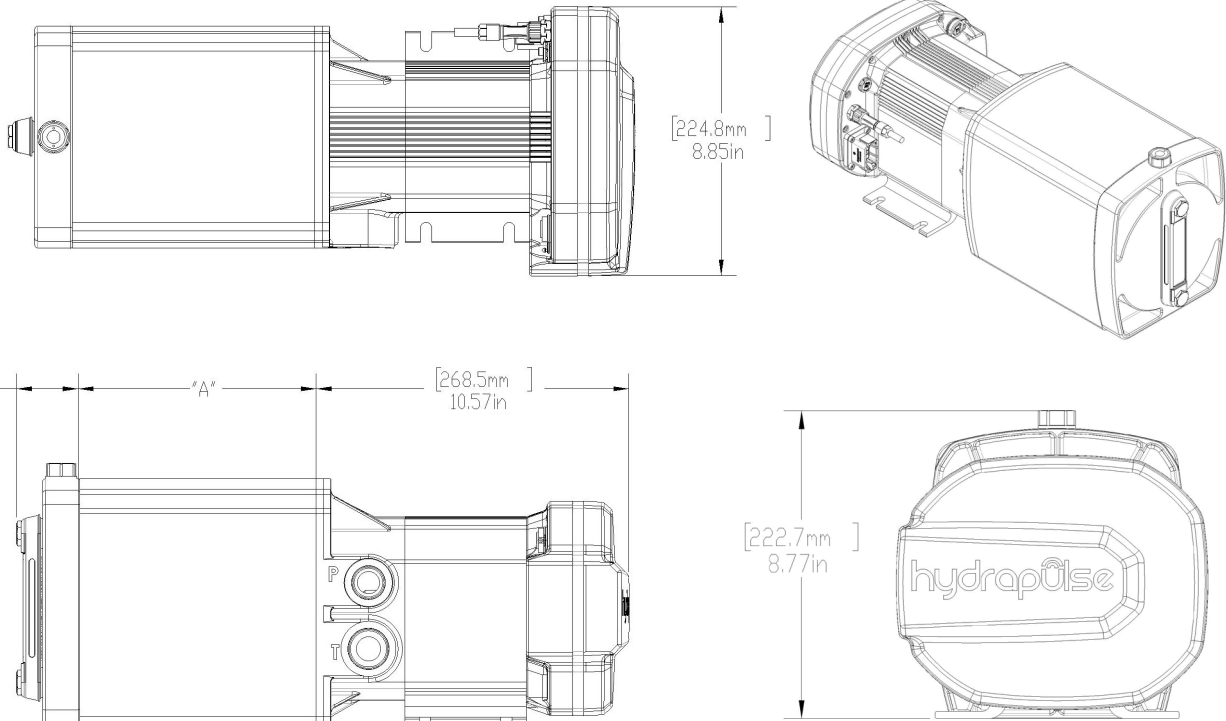
18 - 2.8 Gallon

¹ Leave off if not used

² Options include non-standard c.c. or custom reservoir size

INSTALLATION DRAWINGS - 100 FRAME SIZE

MODEL EHSU-2.5-UPR



"A" Dimension

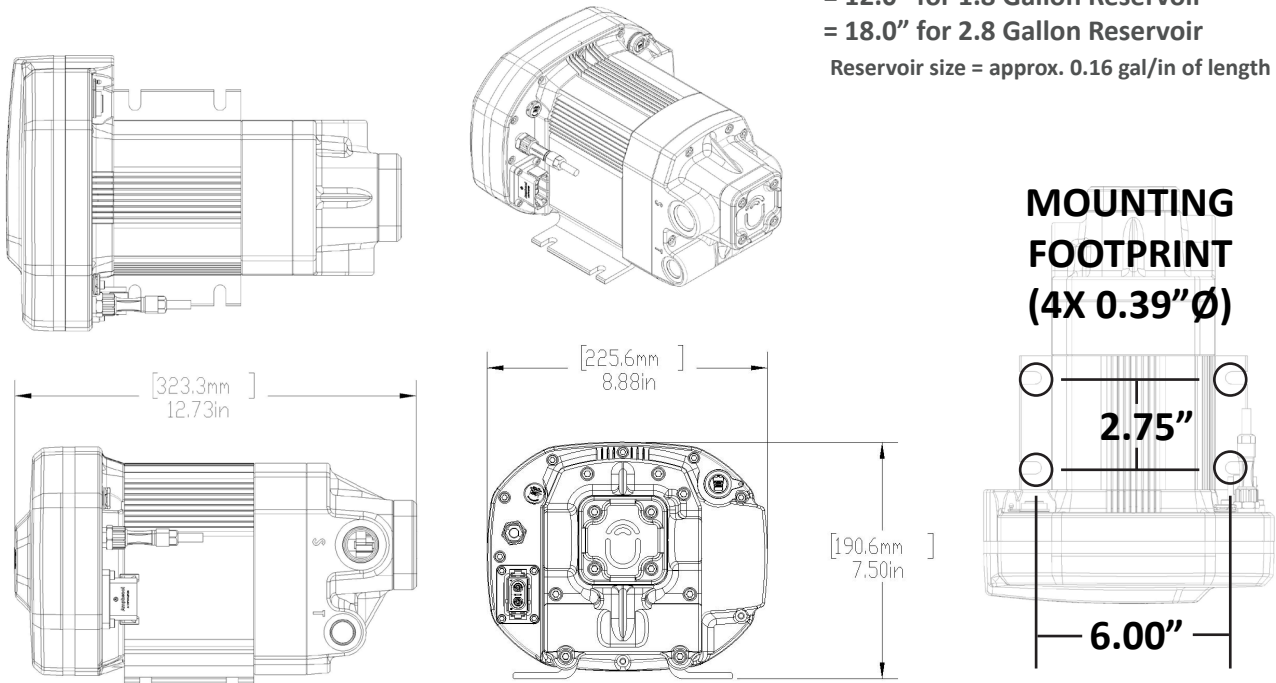
= 6.0" for 1 Gallon Reservoir

= 12.0" for 1.8 Gallon Reservoir

= 18.0" for 2.8 Gallon Reservoir

Reservoir size = approx. 0.16 gal/in of length

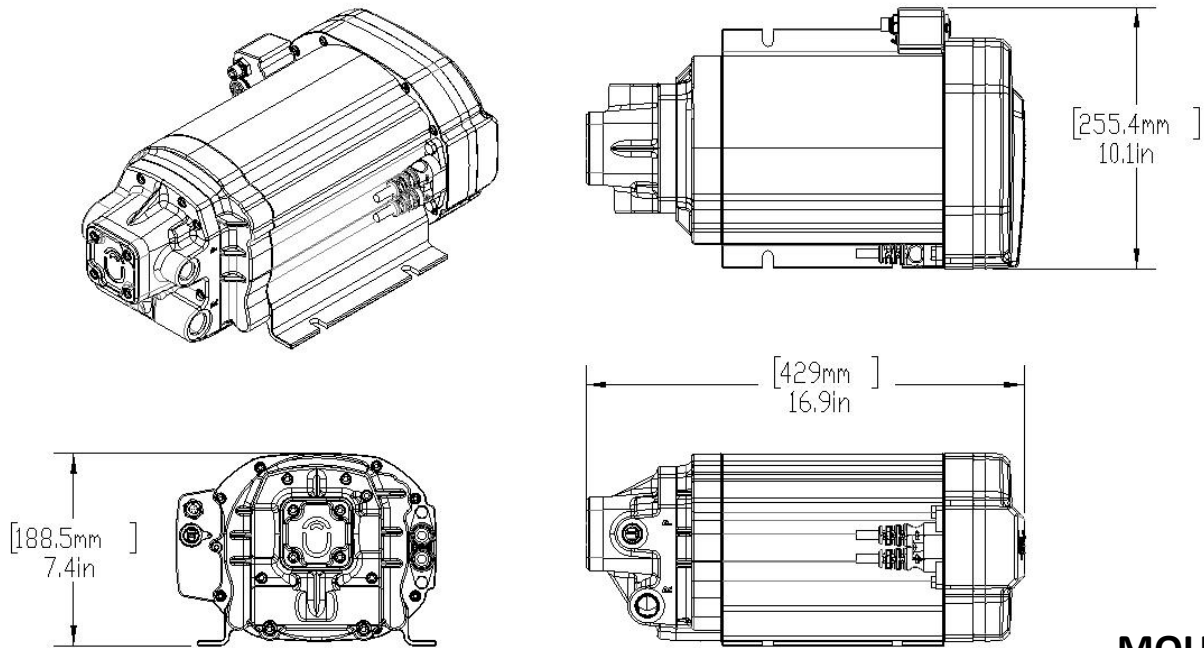
MODEL EHSU-2.5-U



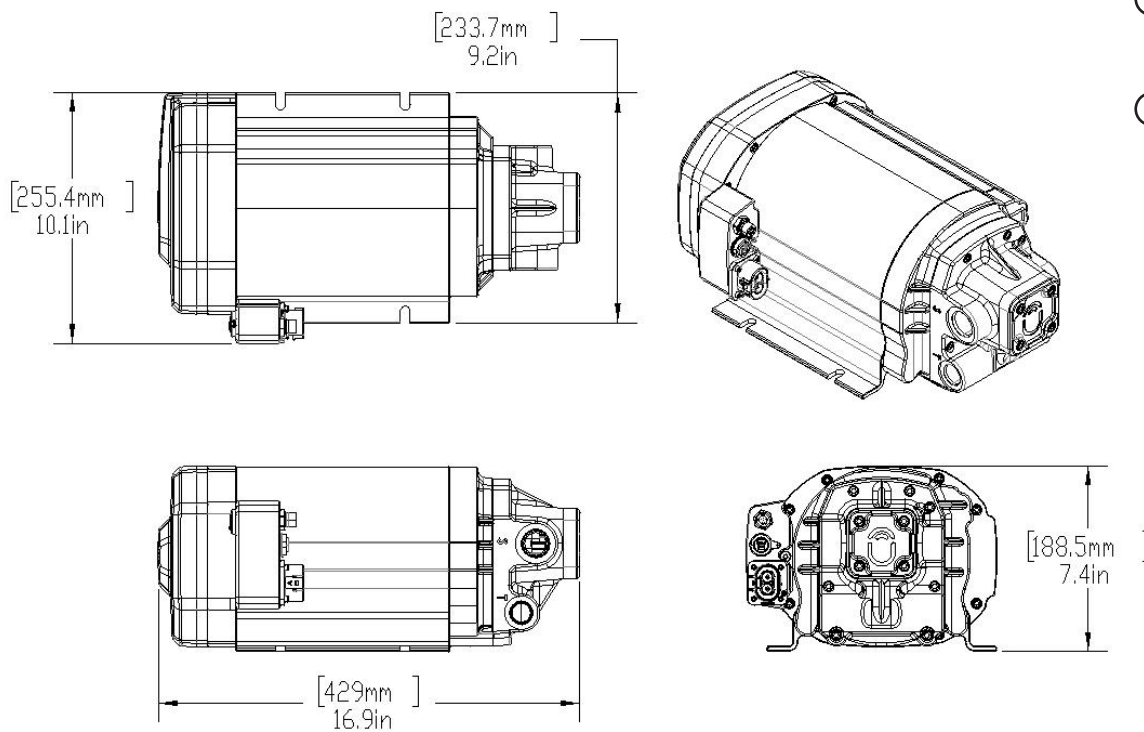
**MOUNTING
FOOTPRINT
(4X 0.39"Ø)**

INSTALLATION DRAWINGS - 200 FRAME SIZE

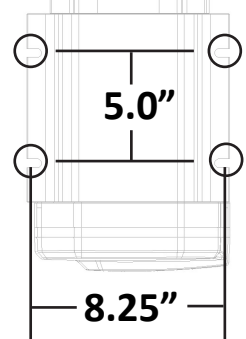
MODEL EHSU-5-U



MODEL EHSU-10-U



**MOUNTING
FOOTPRINT
(4X 0.39" Ø)**



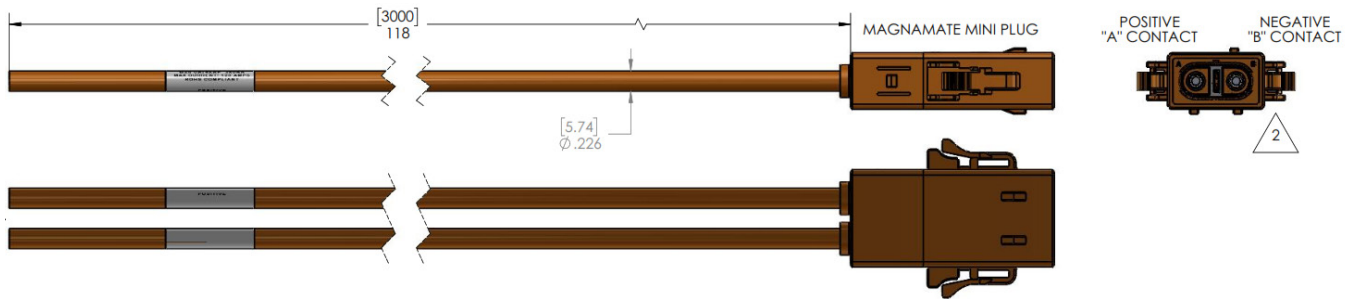
M12 COMMUNICATIONS CABLE - (ORDER CODE 200-00051)



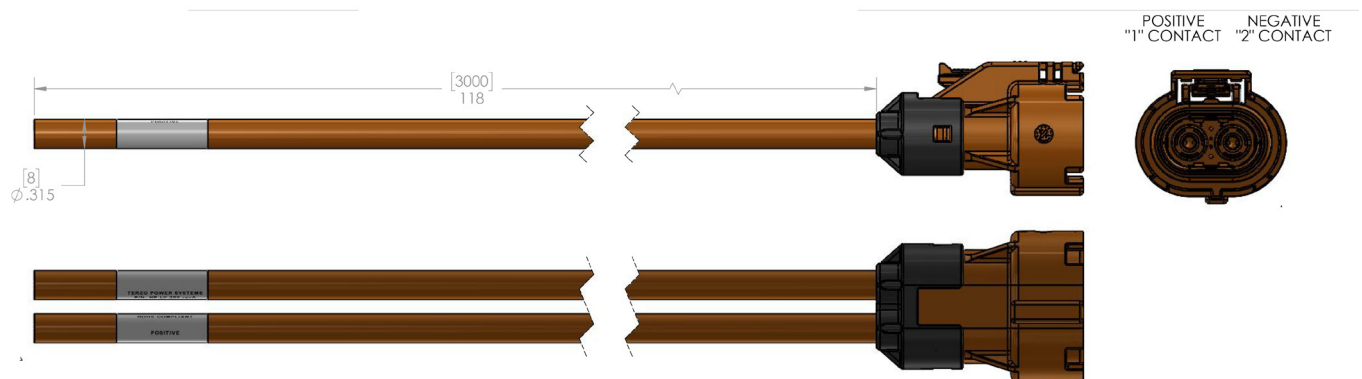
NAME	PIN	COLOR	DESCRIPTION
VCC	1	Brown	9-36V control power
GND	2	Red	9-36V control ground
CAN-H	3	Orange	CAN High
CAN-L	4	Yellow	CAN Low
STO-0	5	Green	E-Stop 0 (safe torque off)
STO-1	6	Blue	E-Stop 1

*PLEASE REFER TO OUR OPERATIONS AND INSTALLATION MANUAL FOR MORE DETAILS

FRAME SIZE 100 HIGH VOLTAGE CABLE - (ORDER CODE 200-00012)*

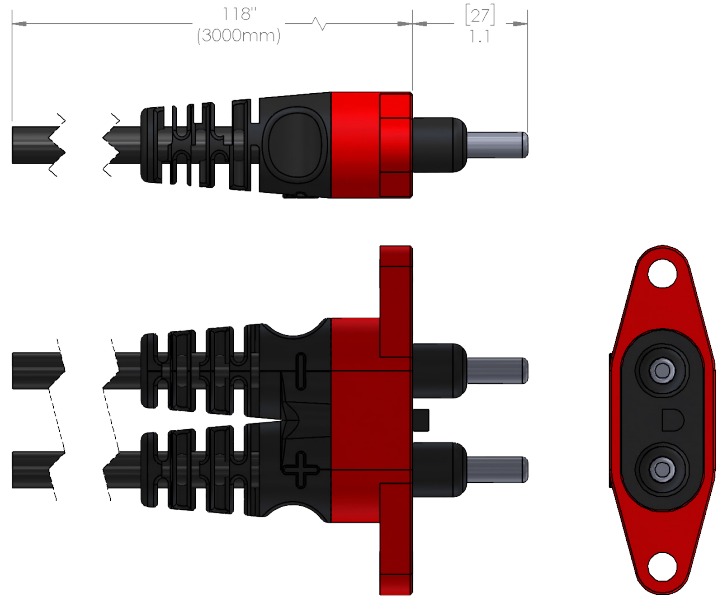
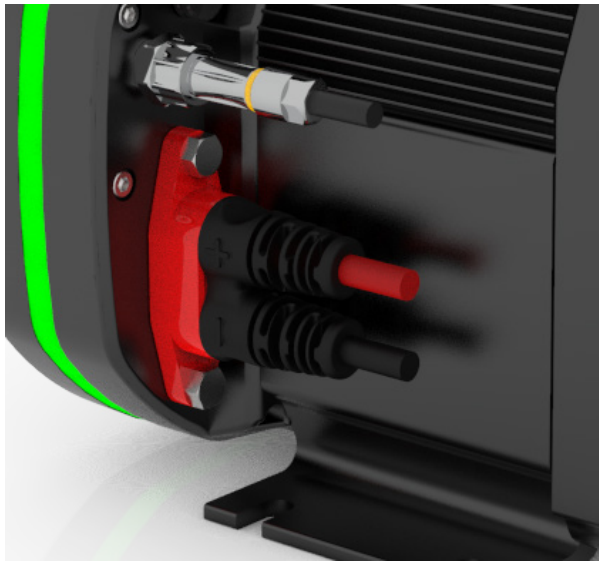


FRAME SIZE 200 HIGH VOLTAGE CABLE - (ORDER CODE 200-00020)*



*STANDARD LENGTH IS 3m. FOR CUSTOM LENGTH PLEASE CONTACT SALES@TERZOPOWER.COM

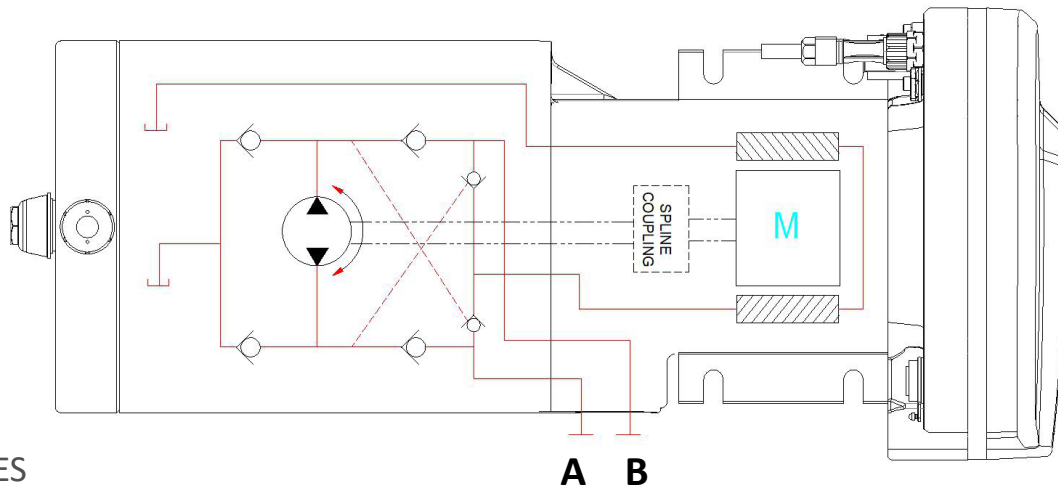
LOW VOLTAGE CABLE - (ORDER CODE 200-00009)*



*STANDARD LENGTH IS 3m. FOR CUSTOM LENGTH PLEASE CONTACT SALES@TERZOPOWER.COM

INTERNAL SCHEMATICS

BI-DIRECTIONAL WITHOUT COOLANT PUMP ("B" ORDER CODE)



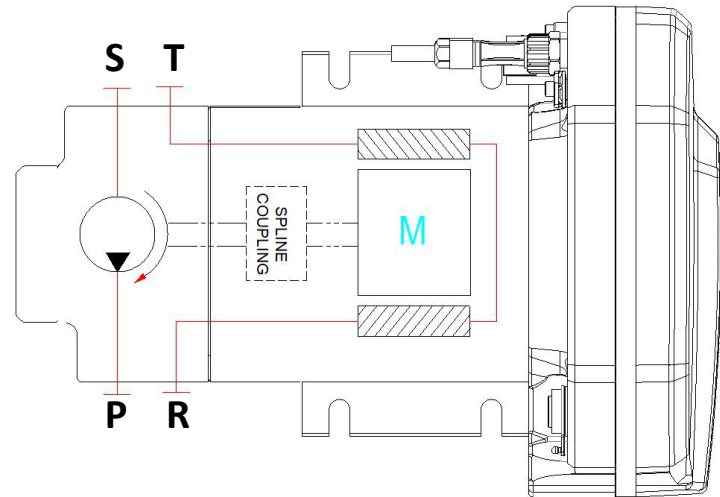
PORT SIZES

PORT	SAE SIZE	THREAD
P	- 12	1 1/16 - 12
T	- 16	1 5/16 - 12

UNI-DIRECTIONAL WITHOUT COOLANT PUMP (“U” ORDER CODE)

PORT SIZES

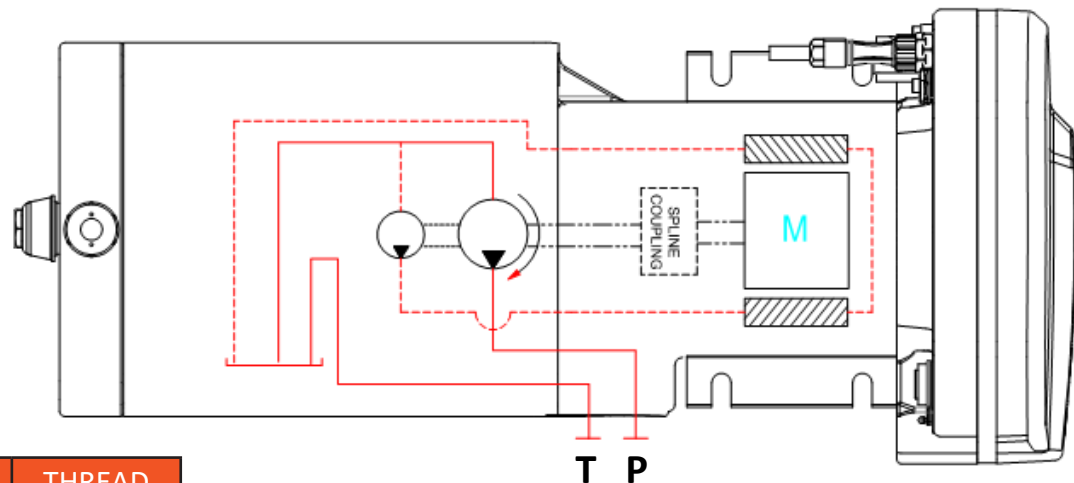
PORT	SAE SIZE	THREAD
P	- 8	3/4 -16
R	- 8	3/4 -16
T	- 8	3/4 -16
S	- 12	1 1/16 - 12



UNI-DIRECTIONAL WITH COOLANT PUMP (“UP” ORDER CODE)

PORT SIZES

PORT	SAE SIZE	THREAD
P	- 12	1 1/16 - 12
T	- 16	1 5/16 - 12



Terzo Power Systems, LLC | 1235 Glenhaven Court Suite 300 El Dorado Hills, CA 95762
 916-245-9660 | info@terzopower.com | terzopower.com

WARNING!

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WARNING

This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.