



Hydraulic Power Unit (HPU)



DESCRIPTION

MIO designs and manufactures Hydraulic Power Unit for steering system of marine vessels and Controllable Pitch Propeller (CPP) according to marine standards. HPU includes two similar but discrete hydraulic packs. One of the circuits operates as the main system and the second circuit operates as the spare and is ready to operate the circuit.

The two sections are electric hydraulic sources that create high flow of hydraulic oil for the performance of rudder and controllable pitch propeller. The power pack is the production resource of hydraulic power for the movement of rudder in suitable direction which is equipped with two similar circuits with 7.5 kW electromotor and hydraulic pressure power of 250 bars. MIO is completely ready to design and produce different types of power pack systems for marine vessels in compliance with international standards and based on the customer's requirements.



SPECIFICATIONS

Dimension (LxWxH)	960x850x1300 mm
Electrical Motor	7.5Kw,3ph,50/60hz,with Space Heater
Tank Capacity	2000 Liter
Relief Valve (Max Pressure Seeng)	350 Bar
Oil	ISO 68
Tank Material	M.s With EPOXY Coaing
Accessories	Standard
Pump	Axial Piston Fixed Pump A2Fo,p=350 Bar
Directional Valve	Parker D3W8CNJW30 24V-1-5A.350 Bar
Filter	Pressure & Return Line
Oil Cooler	N/A
Weight (Without Oil)	760 kg

Data Display System (Gyro Compass)

DESCRIPTION

REP-151 is repeater to indicate simultaneously data for two compass headings (including roll and pitch heading). That's adjusted to carry out data from one input to another output.

- Input/output serial data ports in RS232 and RS422 protocols are configurable
- Full isolation for all serial ports RS232 & RS422
- Adjustable brightness for panel illuminations
- REP-241 is a compass heading tape repeater which is designed on dot matrix basically, to demonstrate true heading in 000 to 360 degree with one digit decimal. It works on NMEA0183 serial connections protocol
- Low electrical power consumption
- Two-way power supply in AC and DC voltage
- Enable to keep the correct performance in carrier Dynamics
- Adjustable brightness for panel illuminations
- Full isolation for all serial ports RS232 & RS422 with separate signal grounds
- Environment IEC60945 standard



SPECIFICATIONS

Parameter	Specification (151/241)	Description
Serial Ports	2 Input Ports and 1 Output Port Isolated	RS232 & RS422
Power Supply	24 VDC & 220 VAC	18~36 DC & 110~240 AC 50/60 Hz
Input Data Protocol	NMEA 0183	\$--HDT, \$--PRDID,...
Shock	30 g in 6 ms (operating)	Half sin. in 3 axis (X,Y,Z)
Vibration	1~13.5 Hz 1mm Movement 13.5~100 Hz 0.7g Acc.	In According to IEC60945
Operation Temp	-10°C to +55°C	----
Dimension	210*100*80 mm / 300*250*100 mm	W*D*H Approx.
Weight	3kg / 4kg	Approx