

DC Hydraulic Power Unit (HPU)

The HLK-91100 series HPU provides a versatile range of input power options, making them suitable for the majority of ROV systems available today. Designed with adaptability in mind, they are particularly well-suited for small to medium-sized ROVs and manned submersibles, delivering reliable hydraulic power for operating manipulators, pan-and-tilt mechanisms, and other low-flow tooling. These units can also serve as compact hydraulic power sources for larger work-class vehicles.

The pump manifold features a direct-acting pressure relief valve, which offers infinite adjustability between 0–207 bar, depending on the pump size.



Features:

- Input Voltage Options:
 - Three DC options: 24Vdc, 48Vdc, and 200–375Vdc
 - One AC option: 90–240Vac, single-phase (50/60Hz)
- Motor Configuration:
 - Powered by three 150W brushed DC motors, offering a combined 450W input to the pump drive
- Connectivity:
 - A variety of Subconn connector options, depending on the chosen voltage
- Pressure and Flow Options:
 - Two pump configurations available:
 - 0.8 lpm @ 140 bar
 - 0.4 lpm @ 207 bar

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Technical Specifications

General

Pump Type	Fixed Displacement Gear Pump
Motor Type	3x 150W Brushed DC Motors
Materials	6082 Aluminium
Seal Materials	Nitrile/NBR/Buna-N, PTFE
Product Finish	Hard Anodised
Work Ports	1/8" NPTF (ANSI B1.20.3)
Compensation Ports	7/16" SAE (SAE J1926-1)
Dimensions	(D) 100mm x (L) 323mm (3.9" x 12.7")
Weight in Air	5.5kg (12.1lb)
Weight in Water	2.9kg (6.4lb)
Electrical Connector Type & Pin	Various Subconn Depending on Voltage

Hydraulic Requirements

Max. Working Pressure	0.45cc @ 140bar (2000psi) 0.24cc @ 207bar (3000psi)
Flow	0.45cc @ 0.8lpm (0.24gpm) 0.24cc @ 0.4lpm (0.11gpm)
Fluid Type	Mineral: DIN 51524, ISO 11158, ISO 6743-4 Synthetic: Panolin Atlantis, HLP-Synth
Viscosity	16cSt to 220cSt. VG 22-32 Recommended
Fluid Temperature	5-60°C (41-140°F)
Cleanliness Requirements	ISO 4406:20/19/16, NAS 1638:10, AS4059:11A/10C/10C

Electrical Requirements

Supply Voltage	24Vdc, 48Vdc, 200-375Vdc, 90-240Vac
Power	3000W (0.2hp) Maximum
Current Consumption	24Vdc = 12.4A Maximum 48Vdc = 6.2A Maximum 200-375Vdc = 2.25-1.2A Maximum 90-240Vac = 5-1.9A Maximum
Frequency	50/60HZ 9AC Model)

Environmental

Operational Depth (msw)	2000msw (6,560ft)
Operating Temp (C)	5-60°C (41-140°F)
Storage Temp (C)	0-70°C (32-158°F)
Humidity (%)	0% to 100% Condensing

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SPECIFICATIONS MAY CHANGE WITHOUT PRIOR NOTICE AND ARE SUBJECT TO SYSTEM CONFIGURATION