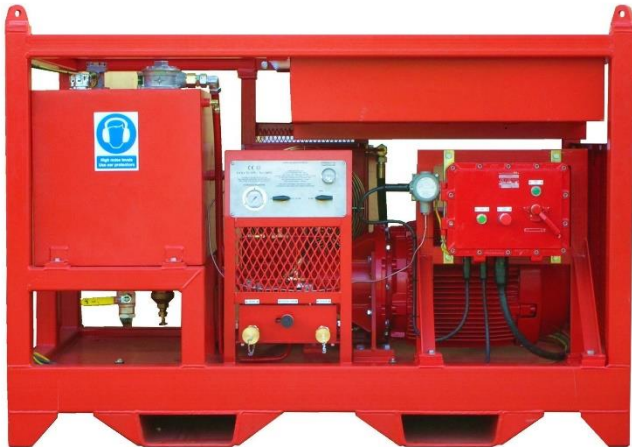

Electric Power Unit – ATEX Group II Cat. 2 (Zone 1) Hazardous Area



General Description

The Enmech variable displacement Zone 1 50 HP (37 Kw) electrically driven hydraulic power unit provides hydraulic power to run a wide variety of rig equipment.

A reservoir mounted float level switch initiates power unit shut down if hydraulic oil level drops to an unacceptable limit.

The unit incorporates an electrically driven fan air blast hydraulic oil cooler.

All electrical equipment on the unit is suitable for Zone 1 hazardous area operation gas groups IIA and IIB with direct on line starting.

Specification

Approximate Dimensions

Length	2150 mm (7' – 5/8")
Width	1550 mm (5' – 1")
Height	1650 mm (5' – 5")
Weight	3000 Kg Operating

Performance

Max. flow	205 L/min (45 imp. gpm) at 1500 rpm (50 Hz supply) 247 L/min (54 imp. gpm) at 1800 rpm (60 Hz supply)
Max. pressure	3000 psi (207 Barg)

Prime Mover

Power is provided by a 50 hp (37 Kw) electric motor running at 1500/1800 rpm from a 400/480 Volt 50/60 Hz 3 phase supply. The motor is flameproof to EN 60079-0 & EN 60079-1 designated Ex d IIB T4.

Exd starting switchgear is included as an integral part of the power unit. Power unit incorporates direct on line starter/isolator for the drive motor. The unit includes all on skid wiring between starter and motor and starter and float level switch, together with all necessary on skid earthing. All electrical equipment on power unit is suitable for Zone 1 hazardous area use with minimum protection to IP55.

Hydraulic System

Hydraulic Pump

Oil pressure is generated by a Kawasaki KV3L140 variable displacement axial piston pump, incorporating constant horsepower control with adjustable pressure cut off, Flow limiter, and load sensing control. The unit is mounted on a bell housing to the motor flange and is coupled to the drive shaft via a ATEX certified flexible coupling.

Flow Select Valve

Control panel mounted valve for selecting full flow or reduced flow as required.

Reservoir

Hydraulic fluid is stored in a minimum 360 Litre, (80 Imp. Gal) useful capacity reservoir. A filler/breather cap is provided at the top and a tank drain at the bottom. Indication of hydraulic fluid level is by means of a reservoir mounted sight gauge.

Hydraulic oil cooler

Power unit incorporates integral fan driven hydraulic oil cooler connected into return line. Cooler incorporates a electrically driven fan motor.

Hydraulic Termination Points

Aeroquip (or equivalent) self-sealing couplings FD51 series:

Supply 1" (-16) male 5100

Return 1¼" (-20) male 5100

Equipment drain connection Snaptite 72 series ½" NPT.

Structure

The power unit is mounted on a fabricated steel base skid. The skid design and construction conform to BS: EN12079 and DNV certification notes N° 2.7-1

Protective Coating

Power Unit fabrications finished in shot blast and zinc rich epoxy primer and finished in a colour to suit customer.

For further information contact us at sales@enmech.co.uk