

EHPS

24V Electro Hydraulic Power Steering Pump

Description

The Electro Hydraulic Power Steering Pump (EHPS) is designed for bus and truck applications either using conventional or modern electric/hybrid propulsion systems. The system consists of a hydraulic pump, directly coupled to an electric motor which is controlled by an integrated ECU with power electronics.

The EHPS unites Magna's experience, covering electronics and motor technology to a highly integrated and still robust solution. The product allows easy and flexible integration into existing 24V vehicle architectures, is designed to provide demand-based steering support and covers a wide range of additional benefits.

Product Features

- Compact solution with integrated ECU and power electronics
- Configurable steering map for demand based oil volume flow with vehicle speed and steering wheel angle rate as its inputs.
- Enabling a cost effective overall solution for power steering with no need for additional components.
- Standard hydraulic interface compared to conventional ICE driven steering pumps
- Designed for an entire vehicle life at constant performance without additional service request
- Integrated self-protection and derating strategies
- Compliant with ISO 16750 (code F-Q-H-E-D-IPX6K/IPX9K)
- Liquid ingress protection: IPX6K/IPX9K
- Solid particle protection: Dust Test acc. to ISO 16750-4
- CAN communication interface adjustable to fit your vehicle network
- Diagnostic interface according to SAE-J1939

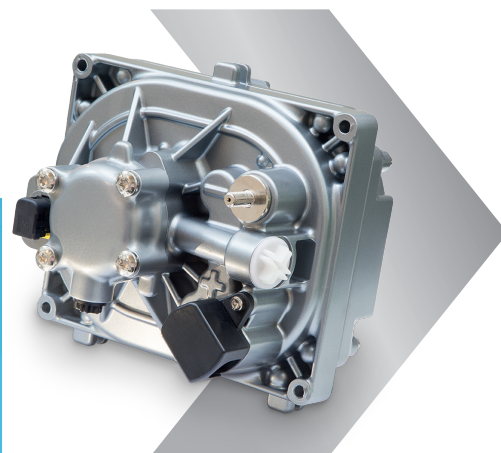
Benefits

- Shorter hydraulic connections significantly reduce losses of oil flow in the system.
- Highest possible steering comfort with easy operation during parking and firm feedback at high speeds
- Dynamic response behaviour for instantly available hydraulic power even with engine in standstill
- Individual optimization of steering behaviour via steering map and parameter configuration
- Reduced fuel consumption and emissions due to higher global efficiency

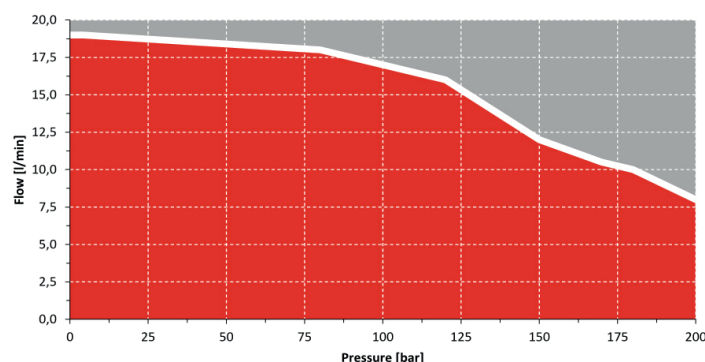
Applications

- Coach & City Buses
- Heavy Duty Commercial

Ready for pure Electric Driving-Capable Hybrids and EVs



Model	eLF1
Hydraulic Performance	Up to 200 bar Up to 19 l/min Up to 3.2 kW
Voltage Level	24 V (acc. to ISO 16750-2 code F)
Current Consumption	up to 125 A (cont.) / up to 250A (peak)
Electric Interfaces	TERM 31 (M10 stud) and TERM 30 (M8 stud) for power electronics TERM 15 and TERM 30 required for ECU
Vehicle Communication	Control and status info via CAN Bus (250k/500k) via HDSCS signal connector
Hydraulic and Mechanic Interface	M18x1.5 (pressure port) M26x1.5 (suction port) 4 x Ø9x28 - 205x230 (hole distance)
Dimensions	250x190x232 mm (LxWxH)
Weight	Approx. 15.5kg
Cooling	Oil cooled / air-cooled
Oil Temperature	-40°C ... 80°C (derating starts at 70°C)
Ambient Temperature	-40°C ... 90°C
Protection	IPX6K/IPX9K (acc. ISO 20653:2013-02) Dust Test (acc. ISO 16750-4:2010)
EMC	UN ECE-R10.05
Functional Safety	QM (acc. ISO 26262)



We reserve the right to make technical changes.

The data correspond to the technical state at the time of printing.

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