



EHPS System Gen-II

Electro Hydraulic Assisted Power Steering

Features

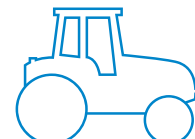
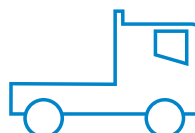
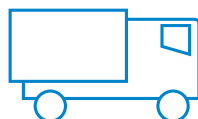
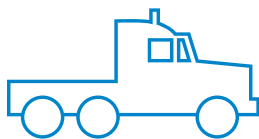
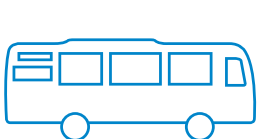
- Provide oil flow for assist steering applications by a range of systems:
- Nominal flow system range: 16 - 25 l/min
- Peak pressure: 195 bar
- Powered by std. 24Vdc battery (Board net)
- Communication with Vehicle Controller via CAN J1939 (CAN Open on request))
- Fault tolerant Fall-back operation mode at system failures
- Low noise pump technology $\leq 55\text{dBA}$ (1500rpm, 195bar)

Benefits

- Power is independent of engine speed
- Up to 4% fuel / energy savings on vehicle
- Reduced installation costs vs. hydraulic piping
- Fast project turn-around with ready-to-start EHPS SW
- Customized control features
- Highly efficient electro-hydraulic system



Ideal for Bus, Heavy-Duty Trucks, Medium-Duty Trucks and Off-Highway



| EHPS Gen-II System **Electro Hydraulic Power Steering**

Our EHPS systems combines an IPM motor, a low noise gear pump and a Schwarzmüller Inverter™. This robust, reliable and safe system range provides oil flow for assisted steering applications allowing a 30 - 50% energy saving by “power on demand” for a fast project turn-around and an adjustable steering performance. It is perfectly adapted for any bus applications while allowing a more modular design.

Motor and Pump Features

- 3-phase IPM permanent magnet motor
- High torque and power density
- Inherent low noise pump design
- Noise level reduced by ~15 dBA compared to a conventional gear pump
- Variants of Pump port's available

Standards

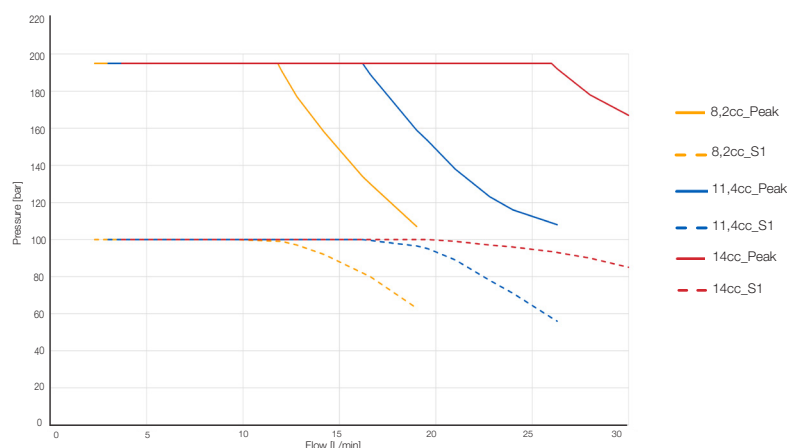
- Operating voltage: 16 - 36 Vdc
- System protection: IP 65 (67*)
- External corrosion resistance: Salt mist, chemical products
- Automotive grade components*: (AEC-Q100, -Q101, -Q200)
- Enhanced EMC Performance / E-Marked (ECE-R10)*
- UL 583 Pending* *Inverter

Inverter and Software Features

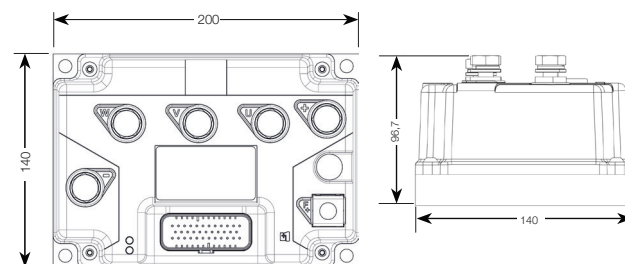
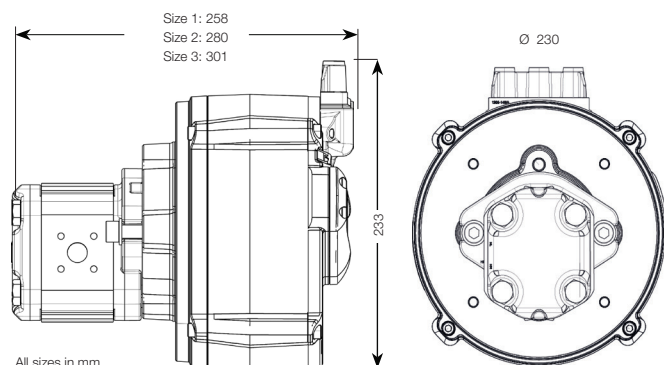
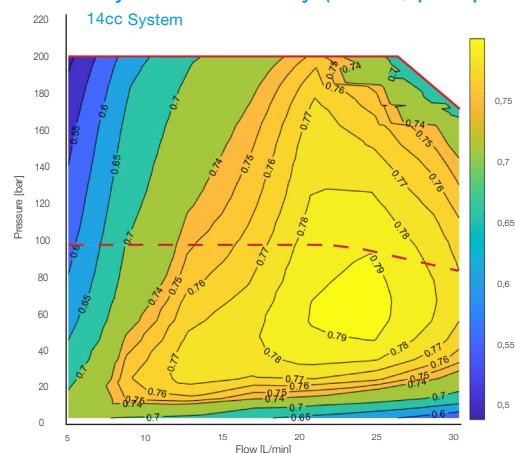
- Ready-to-start EHPS-Application-SW (fall back mode on errors for fault tolerant function, CAN interface, service page, error history...)
- Advanced motor Control performance
- Designed for superior reliability and long life (30k hours)
- Cu-IMS Power Stage design for highest temp-cycling capability

System	Size	Pump	Nominal Flow	Max. Flow	Max. Pressure	Power Nominal	Power Peak	Power Idle	Weight Motor-Pump / Inverter
24V-EHPS-8,2/16/180-PMM1.75-01-P	1	8,2 cc	16 L/min @135 Bar	19 L/min @110 Bar	195 Bar @11 L/min	3,5 kW	5,5 kW	0,65 kW	16 kg / 3 kg
24V-EHPS-11,4/22/180-PMM1.75-01-P	2	11,4 cc	22 L/min @135 Bar	26 L/min @110 Bar	195 Bar @16 L/min	5,0 kW	7,5 kW	0,85 kW	19 kg / 3 kg
24V-EHPS-14/25/180-PMM1.75-01-P	3	14,0 cc	25 L/min @190 Bar	30 L/min @165 Bar	195 Bar @24 L/min	6,5 kW	12 kW	0,98 kW	22 kg / 3 kg

Pressure vs. Flow Performance



Total system efficiency (motor, pump & inverter)



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Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana TM4; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.

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