

ECPS4-XT (Electric Cryo Pump System XT)

The electrical pump system ECPS4-XT is the systematic and innovative development of the previously offered systems for the operation of direct drive centrifugal pumps for cryogenic applications. The frequency converter system enables operation at variable speeds in order to reach the desired pump pressure depending on the medium.



The system is designed for a capacity of 37 kW and thus enables full utilization of the 63 amp three phase AC technology at the delivery site. The main control cabinet and the control box are manufactured from high quality stainless steel and therefore guarantee a high level of protection against mechanical damage and moisture penetration.

In contrast to many systems offered on the market, the main control cabinet with the frequency converter is completely closed. In addition, the cooling system operates independently from an ambient air circulation system and therefore prevents damage from the penetration of moisture.

The design of the control box focuses on intuitive operation. Possible status and fault messages as well as the current load on the system are displayed on a graphic color display, and service is greatly simplified by an integrated fault memory. To protect the cryogenic pump and the seal, the system comes with a cold run monitor as standard equipment.

The system is equipped as standard with the option to supply power from a power cable/mains power supply or from a generator. The type of power supply is selected directly on the control

box before starting the pump. The system is equipped with an operator presence monitor (dead man's switch) that prompts the operator for confirmation at regular intervals. The operator can confirm the prompt by pressing the acknowledge button mounted on the control box or using a wired manual control unit available as an option. This allows the operator to take the control unit to the customer's container.

Technical data:

Main control cabinet

- Frequency converter with 37 kW output (72 ampere), 400-480V AC, 50-60 Hz power supply feed, integrated interference suppression, CAN interface
- Compact, high quality stainless steel cabinet, size 500 x 400 x 320 mm (HxWxD), protection class IP66
- High performance cooling system using a cold plate with external ventilation
- PTC connection to protect the motor from overheating
- Motor connection for a shielded motor supply cable with EMC-compliant ground
- Internal supply of 24V DC power to the controller and volume meter
- External portable fan for extracting heat from the heat sink



Control box

- High performance portable control unit in connection with the portable 7" color display, 800x480 pixels, protection class IP67, CAN interface, integrated fault memory
- Compact control unit, size 300 x 300 x 150 mm (HxWxD), protection class IP66
- Integrated cold run monitor for the connection of a thermocouple (cryo pump temperature monitor)
- Intuitive, menu-driven operation, graphic display of the current load
- The diesel engine/power take-off are operated on the control box (remote start and stop as well as disconnection of the power take-off from the traction vehicle)
- Expansion module for providing special custom functions (possible to adapt flexibly to customer requirements)
- Optional: Modem/remote maintenance via service portal/Internet
- Optional: Wireless dead man's switch
- Optional: Wired dead man's switch, two different versions available



Option: Wired dead man's switch



Version 1



Version 2

Option: Wireless dead man's switch



We would be happy to provide you with additional information!

Wehn Fahrzeugtechnik GmbH