

Variable speed drive for Cargo Pumps



EVE-frequency converter



Cargo Pump

Characteristics of the Cargo Pump System

- Power up to 2,6 MW
- Standard motor (IP54 or ATEX certified)
- DC-braking, if thruster is out of use
- Exact torque and speed control without the need of feedback devices.
- Reliable
- Easy to control
- Minimal cabling because of the bus concept
- Interface for Power Management System
- Specific cargo pump functionality: 'dry-running' and 'no-flow' detection

Eekels has over 25 years of experience in developing and manufacturing frequency converters. Because Eekels is also well known in developing ship installations, drives for cargo pumps are a logical spin off.

Next to the propulsion system, the most important engineering system aboard a tanker is the cargo discharge system. This system consist of pumps, drives and pipes to enable the safe and efficient discharge of the cargo.

The EVE frequency drives make it possible to adjust the speed and capacity of the pumps from minimum to maximum, with maximum torque depending on the mass and viscosity of the medium.



Product range marine drive systems:

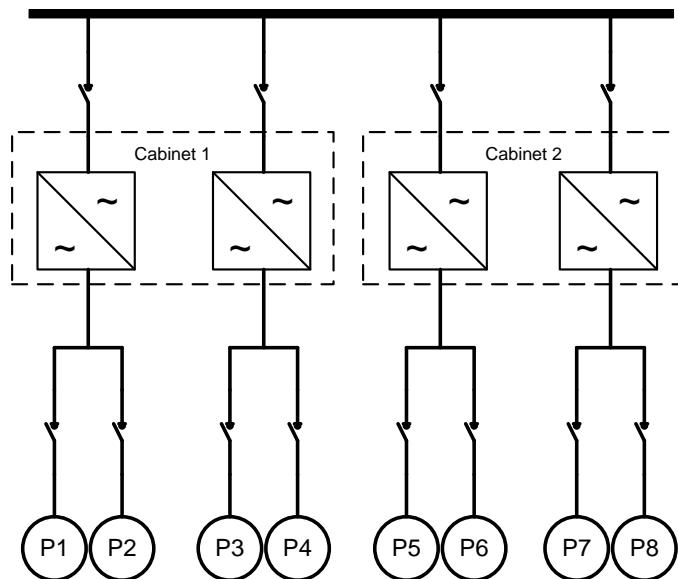
- Cargo pumps
- Cargo fans
- Cranes
- Winches
- Frequency converters up to 2,6 MW
- Bi-directional supply units and choppers
- Soft starters



Technical specifications

	Variable speed drive for Cargo Pumps
EVE-frequency converter	(Refer to standard documentation)
Max. Motor power	2,6MW
Supply voltage range	400-690V/6 or 12 pulse
Frequency range	0-100,00Hz / 0-200,00Hz
Efficiency	Higher than 98%
Cooling method	Both water- as air-cooled are available
Communication	Profibus-DP, MODBUS-RTU, Ethernet TCP/IP
Interference protection	IEC 61800-3 (EN 55011 optional)
Line disturbance	According Energiened directive with internal AC-choke
Pump protection	Dry-running and No-flow detection
Standard E-motor	
Protection class	IP 54 or ATEX certified
Thermistor protection	PTC's
Anti condensation heating	Yes

Configuration



Most cargo pump solutions consist of large groups of pumps and drives. Eekels can provide solutions consisting of one or more drives in a single cabinet which can be connected to multiple pumps.

The Eekels frequency convertors can operate multiple pumps with their own specific set points.