

# Traction unit

The traction units are composed of an electric motor which can be DC motor, AC motor or BLDC, coupled to a gearbox. The choice concerns the weight of the door leaves, the speed and the requests from the shipyard and / or the certifying body.

### **DC MOTORS**







- Stator: with permanent magnets in sintered ferrite
- Bearings: high quality, lubricated for life, locked at the front
- Degree of protection: IP 44
- Service: continuous (S1), intermittent (S2)
- Electrical characteristics: by design

### **AC MOTORS**





- Motor: three-phase asynchronous driven by a 220 Volt single-phase vector inverter
- Standard: IEC 56,63,71, coupling flange B14
- Degree of protection: IP 44
- Body and external components in anodized aluminum
- Electrical characteristics: by design

### **BLDC**





- Brushless synchronous motor
- Power supply voltage: 24/48 Vdc
- Degree of protection: IP 44
- Electrical characteristics: by design



### **WORM GEARBOXES**



- Single stage worm gearbox
- Die-cast aluminum body, worm screw in cmt / tmp steel
- Bronze crown on cast iron hub, ball bearings
- Degree of protection: reducer body: IP66
- Mechanical characteristics: by design

## PLANETARY GEARBOXES



- Multistage planetary gearbox
- Steel body, aluminum inlet and outlet flanges
- Shafts in hardened and tempered alloy steel
- Gears: in alloy steel for case-hardening and tempering, with ground teeth
- Mechanical characteristics: by design