

TTC Wärtsilä JOVYREC HC16PS

PRODUCT LEAFLET



The supply rectifier TTC Wärtsilä JOVYREC HC16PS (PS = power supply) comes into use for external DC supply of conventional diesel-driven submarines. With the microprocessor-controlled rectifier of the type TTC Wärtsilä JOVYREC HC16PS it is possible to supply conventional submarines with DC voltage (shore connection rectifier). The supply rectifiers are manufactured customer-specifically according to the differentiated specifications of the respective type of submarine.

SAFETY AND RELIABILITY

Significant feature of the supply rectifiers of the type TTC Wärtsilä JOVYREC HC16PS is a fully controlled thyristor bridge with B12C circuit. Particular attention has been paid to the quality of the DC voltage. Low residual ripple of DC voltage and high dynamic control assure that the sensitive on-board electronics of submarines will not be harmed.

CUSTOMISED MANUFACTURING

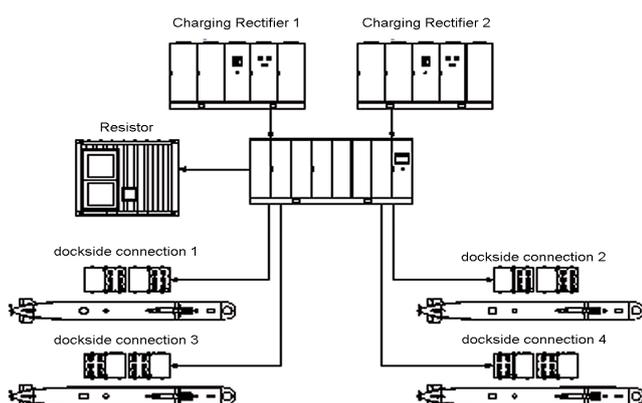
The shore connection rectifiers are modified and manufactured according to our customers' requirements; all technical data can be customer-specifically designed. As a rule we also deliver components for the installation of the infrastructure, e.g. switchover devices, junction boxes and shore connection boxes. Due to our far-reaching ex

periences we can assist you in the project as competent partner already in the planning phase.

COMFORTABLE OPERATION

Systems of the TTC Wärtsilä JOVYREC HC16PS series provide DC voltage as ground supply for a large number of submarines in many ports worldwide. Products of the TTC Wärtsilä JOVYREC HC16PS series are designed for the respective application. A clearly structured design concept as well as high user-friendliness is a matter of course, that way all for the functioning necessary structural elements are accessible from the front and the operating and display instruments are fitted into the front door. We optionally deliver the remote control in a separate housing. The connection of the remote control is effected via an included cable set with plug connectors.

Fig. 1 TTC Wärtsilä JOVYREC HC16PS as a redundant power supply



Installation with two redundant power supplies and a switchboard as well as two shore connection units. Via the switchboards provided by Wärtsilä JOVYATLAS the rectifiers can be switched to the individual mooring positions.

TECHNICAL DATA

Power according to type of submarine

INPUT

Voltage 3 x 400 VAC / 440 VAC / 660 VAC ±10 %

Phases three phases

Frequency 50 / 60 Hz ± 5 %

Power factor approx. 0,95 ind. at full load
circuit feedback <10%

OUTPUT

Voltage 230 - 440 VDC (programmable)

Current max. 1200 A (programmable)

Tolerance of voltage ±1% static

Efficiency 94% at full load

Ripple max. 2 % effective

Schaltung B12C

SETTING

Temperature 0°C up to +40°C
-10°C up to +50°C for container

Humidity < 95 %, no condensation

Protection class IP 20 resp. IP 54 for container

Operation mode permanent operation

COMMUNICATION

All system data can be read out via RS 232/USB-interface

- **SHORE CONNECTION RECTIFIER**
for external DC supply for various types of submarines.
- **DIFFERENT DESIGNS**
as standard versions in control cabinets or as container solution
- **REMOTE CONTROL FEASIBLE**
- **COMFORTABLE OPERATION**
- **CUSTOMISED MANUFACTURING**
- **LOW-NOISE**
- **DIGITAL PROGRAMMING**
according t the respective type of submarine

Fig..1 Wärtsilä JOVYREC HC16PS electronics

