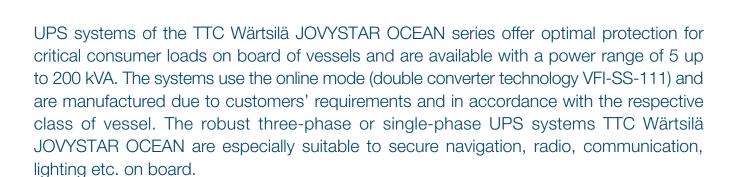


TTC Wärtsilä JOVYSTAR OCEAN

PRODUCT LEAFLET



ONLINE UPS SYSTEM

As online systems (double converter technology) TTC Wärtsilä JOVYSTAR OCEAN UPS systems protect against system interferences and failures of any kind in a secure and economic way.

RELIABLE ON BOARD TECHNOLOGY

UPS Systems of the TTC Wärtsilä JOVYSTAR OCEAN series are available with a performance range of 5 up to 30 kVA (3-ph. input/ 1-ph. output) or 5 up to 200 kVA (3-ph. input/output). The micro-process-driven monitoring of the inverter, rectifier and static bypass as well as of the battery guarantee the high operational safety of our vessel UPS systems. Automatic fault memory enables the precise localisation of the failure even at a later date. A built-in RS

232 interface offers the possibility of remote maintenance or error analysis via satellite or cell phone. The standard RS 485 interface enables a connection to an optionally available remote display. Also optional is the SNMP-capable surveillance software for installation on the PC network on board.

INDIVIDUALLY CUSTOM-BUILT

Each vessel UPS system is individually manufactured for the respective class of vessel and in accordance with the consumer loads to be supplied. We use only robust steel sheet cabinets approved by the classification society. Installing the electronics we ensure easy to service assembly of the structural components. All structural components are accessible via the front and can be exchanged in just a few moves in order to reduce maintenance costs.

TYPES TTC Wärtsilä JOVYSTAR OCEAN

	Power [kVA]	Phases	UPS System Dimensions [mm] WXHXD	Battery cabinet Dimensions [mm] W X H X D]	Autonomy times [min]
TTC Wärtsilä JOVYSTAR OCEAN 3/1	5 - 30	3:1	800 x 1970 x 800	600 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	5 - 30	3:3	800 x 1970 x 800	600 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	40	3:3	800 x 1970 x 800	600 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	60	3:3	800 x 1970 x 800	1200 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	80	3:3	800 x 1970 x 800	1200 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	100	3:3	800 x 1970 x 800	1800 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	120	3:3	1200 x 1970 x 800	1800 x 2170 x 800	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	150	3:3	1200 x 1970 x 800	2400 x 2170 x 1000	30
TTC Wärtsilä JOVYSTAR OCEAN 3/3	200	3:3	1200 x 1970 x 800	3000 x 2170 x 1000	30

further autonomy times on request

TECHNICAL DATA

The technical data of our vessel UPS systems TTC Wärtsilä JOVYSTAR OCEAN are custom specific and adaptable to the individual needs and different ship types.

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Power 5 - 30 kVA 5 - 200 kVA

INPUT

Voltage according to customer request

Phases single-phase (3:1) three phases (3:3)

Frequency $50 \text{ Hz} / 60 \text{ Hz} \pm 5 \text{ Hz}$ Effficiency >0.99 Distortion <4 % (PFC)

OUTPUT

Voltage according to customer request

Frequency 50 Hz (60 Hz)

Power factor cos phi = 0,9 inductive

THDI < 2% linear load

< 5% non-linear load ati 75% NP

DC Voltage 720 V (2 x 360 V)

Short time load 125 % for 10 min. 200 % for 100 ms,

1000 % for 1 period via bypass

Crest Factor 3:1

SETTINGS

Protection degreee IP 23

further protection classes on request

Classification VFI SS 111

Temperature UPS System: 0°C up to +45°C

Battery: 0°C up to +25°C; optimal +20 °C

Humidity < 95 % (without condensation) Radio Interference acc EN 50091-2, class "A"

COMMUNICATION

All system data can be accessed via an RS 232 / USB interface. An RS485 interface is useable for remote control - optional system data can be transmitted via SNMP adapter or Modbus adapter, Profibus, etc.

CLASSIFICATIONS

Classifications according to DNVGL, Lloyds Register of Shipping, American Bureau of Shipping, Bureau Veritas, R.I.N.A. and further more

ONLINE UPS SYSTEM

VFI /Double Converter Technology offers maximum safety for connected consumer loads

CUSTOMER SPECIFIC CON-STRUCTION ACCORDING TO SHIP CLASSIFICATION

All Classifications possible

— COMFORTABLE OPERATION

and simple service

- INTERFACES RS 232 AND RS 485

for monitoring of all system data/remote monitoring

VIBRATION PROOF

robust assembly and shockresistant

— DUAL SUPPLY

of MSB and ESB

Fig. 1 TTC Wärtsilä JOVYSTAR OCEAN



