

TTC Wärtsilä JOVYSTAR HP

PRODUCT LEAFLET



UPS systems of the TTC Wärtsilä JOVYSTAR HP series offer optimal protection for critical consumer loads and are available in different performance ranges of 200 up to 800 kVA. The systems work in online mode with double converter technology (VFI-SS-111) and are equipped with a static bypass. The robust UPS systems of the TTC Wärtsilä JOVYSTAR HP series are outstandingly suitable for emergency power supply in combination with generators.

ONLINE UPS SYSTEM

In online operation the systems of the TTC Wärtsilä JOVYSTAR HP series guarantee optimal supply for the connected consumer loads, as a stable output voltage is ensured permanently free of all standard interference pulses, overlapping currents and fluctuations. Thus critical consumers are provided with secure voltage at all times.

PERFORMANCE INCREASE VIA PARALLEL CONNECTION

For redundant operation (half-load parallel operation, n+1 operation) or for increased performance parallel operation of up to 6 systems is feasible without problems – the UPS system can grow in the event of increased power requirements.

INNOVATIVE TECHNOLOGY

Using a modern IGBT rectifier reduces disturbances in the mains supply significantly. The IGBT rectifier provides for an almost sinusoidal current consumption. The advantages of this technology are evident: thanks to the improved performance factor at the input to the rectifier the UPS systems of these types have a reduced input performance of up to 30% in comparison to common UPS systems with a Thyristor rectifier. The reduction of current at the input to the rectifier during grid feed enables a considerable saving when dimensioning the distribution of fuses and cables on-site. The outstanding performance factor of this type and the small proportion of harmonics therefore sustainably prevent an overload on-site of the supply network, e.g. by generating sets, fuses and switches. The UPS systems of the TTC Wärtsilä JOVYSTAR HP series are equipped with an output transformer and are thus very well suitable for very dynamic loads.

Tab.1 Type Overview

TYPES TTC Wärtsilä JOVYSTAR HP

	Dimensions W x H x D [mm]	Weight without battery [kg]	Autonomy times [min]
TTC Wärtsilä JOVYSTAR HP 200	1220 x 1905 x 895	970	0 - 5 - 10 - 23 - 27 - 42 - 60
TTC Wärtsilä JOVYSTAR HP 250	1220 x 1905 x 895	1090	0 - 6 - 16 - 25 - 52 - 70
TTC Wärtsilä JOVYSTAR HP 300	1220 x 1905 x 895	1170	0 - 5 - 10 - 15 - 23 - 40 - 55
TTC Wärtsilä JOVYSTAR HP 400	1990 x 1920 x 990	1820	0 - 5 - 10 - 23
TTC Wärtsilä JOVYSTAR HP 500	2440 x 2020 x 990	2220	0 - 5 - 10 - 15
TTC Wärtsilä JOVYSTAR HP 600	2440 x 2020 x 990	2400	0 - 5 - 10
TTC Wärtsilä JOVYSTAR HP 700	3640 x 1920 x 990	3600	0 - 5 - 10

further autonomy times on request

TECHNICAL DATA

Power 200 kVA / 250 kVA / 300 kVA / 400 kVA / 500 kVA / 600 kVA / 800 kVA

INPUT

Voltage 3 x 400/230 V +15% -20%
 Phases three phases (3:3)
 Frequency 50 Hz / 60 Hz ± 5 %
 Efficiency 0,99 for 100 % load
 Distortion <3 % for 100 % load
 Battery sealed, lead acid batteries
 lifetime 10-12 years acc EUROBAT
 number of battery cells: 300

Battery charging voltage 680 V (2,27 V per cell)
 I/U-charging acc. DIN 41773
 Ripple of DC voltage max. 1% RMS
 Battery check automatically - manually - standard

OUTPUT

Voltage 3 x 380/220V / 3 x 400/230V / 3 x 415/240V
 ± 1% static load / ± 2% static, asymmetric load /
 ± 5% dynamic load (load step 20 % -->100 % --> 20 %)
 Frequency 50 Hz / 60 Hz (adjustable)
 Transient time 20 ms onto ±1% of the nominal value
 Efficiency at nominal load: >92%,
 at battery operation >95%,
 at ECO Mode >98%
 THDI <1% at linear load,
 <5% (crest-factor: 3:1, 75% of nominal power, linear load)
 Overload capacity inverter 100 - 125 % for 10 min, 125 - 150 % for 1 min,
 >150 % up to 199 % for 10 s, 200% for 100 ms
 Overload capacity static switch 150 % permanent, 1000% for 1 period

SETTING

Noise level <52 dB(A) (in approx. 1 m distance)
 Temperature 0°C up to 40°C (15°C up to +25°C recommended, battery: +20°C)
 Humidity < 95 %, no condensation
 Cooling forced ventilation
 Protection degree IP 20
 Classification VFI SS 11

COMMUNICATION

All system data can be accessed via an RS 232 / USB interface - optional they can be transmitted via SNMP adapter, Modbus adapter, Profibus or via other bus systems.

- **ONLINE UPS SYSTEM**
VFI /Double Converter Technology offers maximum safety for the connected consumer loads
- **PFC Rectifier**
with IGBT-Technology
- **OUTPUT TRANSFORMER**
ideal for the supply of extremely dynamic loads
- **COMFORTABLE OPERATION**
via menu-driven display and text output
- **RS 232-INTERFACE**
for monitoring of all system data
- **PERFORMANCE INCREASE**
via parallel connection of up to six systems feasible
- **INTERNAL MANUAL BYPASS (UP TO 300 kVA)**
ensures the supply of load during maintenance work or disruptions

Fig.1 TTC Wärtsilä JOVYSTAR HP

