

TTC Wärtsilä JOVYSTAR DELTA

PRODUCT LEAFLET



UPS systems of the TTC Wärtsilä JOVYSTAR DELTA series are available in the performance ranges of 40 kVA up to 150 kVA. The UPS systems are especially robust and therefore ideal for industrial application, also in extreme grid conditions. As online systems TTC Wärtsilä JOVYSTAR DELTA UPS systems protect against system interferences and failures of any kind in a secure and economic way. They are characterised by low operation costs, high user-friendliness as well as by the possibility of remote maintenance.

ONLINE UPS SYSTEMS

As online systems (Double Converter, Continuous Transducers Technology) TTC Wärtsilä JOVYSTAR DELTA UPS systems protect against system interferences and failures of any kind in a secure and economic way.

REMOTE CONTROL AND EASY OPERATION

The display and operating elements of these UPS systems are ergonomically and user-friendly designed. The menu-driven programme guides the user easily through all display and operating functions of the system. Measurements, alarms and status reports are displayed on a comfortable text display. Also the automatic or manual battery test is initiated via the menu-driven programme. A comfortable monitoring and diagnostic system provides all necessary information about the USP system at all times. The modern management software enables economical setting and monitoring of the TTC Wärtsilä JOVYSTAR DELTA systems. With our software you may obtain the system state online on your screen.

PERFORMANCE INCREASE VIA PARALLEL CONNECTION

For redundant operation (half-load parallel operation, n+1 operation) or for increased performance parallel operation of up to four UPS systems is possible. Systems of different power performance can be linked for achieving subsequent increased performance. In this way the UPS system can be quickly and easily customised in the event of increased power requirements.

EASY TO SERVICE

All main structural components are accessible at the front in just a few moves. Connection and start-up can be done without any previous knowledge of the system. The cable routing is done from below. A microprocessor takes over the control of TTC Wärtsilä JOVYSTAR DELTA, which controls and monitors the entire system via trouble-free digital technology. The batteries can be fitted or exchanged in only a few steps. Due to the modular battery system all performance level categories are available with autonomy up to three hours.

Tab.1 Type Overview

TYPES TTC Wärtsilä JOVYSTAR DELTA

	Dimensions W x H x D [mm]	Weight without battery [kg]	Autonomy times [min]
TTC Wärtsilä JOVYSTAR DELTA 40	690 x 1340 x 865	389	0 - 6 - 13 - 25 - 55 - 120
TTC Wärtsilä JOVYSTAR DELTA 60	690 x 1340 x 865	450	0 - 6 - 15 - 30 - 70
TTC Wärtsilä JOVYSTAR DELTA 80	690 x 1340 x 865	511	0 - 11 - 25 - 40
TTC Wärtsilä JOVYSTAR DELTA 100	815 x 1670 x 825	813	0 - 8 - 35
TTC Wärtsilä JOVYSTAR DELTA 125	815 x 1670 x 825	853	0 - 13 - 25
TTC Wärtsilä JOVYSTAR DELTA 150	815 x 1670 x 825	905	0 - 8 - 13

further autonomy times on request

TECHNICAL DATA

Power 40 kVA / 60 kVA / 80 kVA / 100 kVA / 120 kVA / 150 kVA

INPUT

Voltage 3 x 380/220V 3 x 400/230 V 3 x 415/240 V ±10%

Phases three phases (3:3)

Frequency 50 Hz / 60 Hz ± 5 %

Efficiency 0,8 ind.

Battery sealed, lead acid batteries
lifetime 10-12 years acc. to EUROBAT
number of battery cells: 192

Battery-charging voltage 436 V (2,27 V per cell)

End-point voltage 326 V (1,7 V per cell)

OUTPUT

Voltage 3 x 380/220V 3 x 400/230 V 3 x 415/240 V
± 1% static load / ± 2% static, asymmetric load /
± 5% dynamic load (load step 0 % -->100 % --> 0 %)

Frequency 50 Hz / 60 Hz (adjustable)

Transient time 20 ms onto ±1% of nominal value

Efficiency at 100% load >90 % (normal operation)
>93 % (battery operation)
98% (ECO mode)

THDI <2% at linear load,
<5% at non linear load

Overload capacity inverter > 100 % up to 125 % for 10 min
> 125 % up to 150 % for 1 min
> 150 % up to 199 % for 10 s

Overload capacity static switcher 150 % permanent
200 % for 1 min
2000% for 1 period

SETTING

Noise level <62 dB(A)

Temperature 0°C up to +40°C
(15°C up to +25°C recommended, battery: 20°C)

Humidity < 95 %, no condensation

MTBF >100 000 h

Protection degree IP 20

Classification VFI SS 111

COMMUNICATION

All system data can be accessed via an RS 232 / USB interface. For parallel remote display the RS485 interface is useable - optional system data can be transmitted via SNMP adapter or Modbus adapter.

ONLINE UPS SYSTEM
VFI /Double Converter Technology offers maximum safety for connected consumer /load

VERY ROBUST
INDUSTRY UPS
also for extreme mains conditions

COMFORTABLE OPERATION
via menu-driven display and text output

INTERFACES
RS 232 for the monitoring of all system data, RS485 for parallel remote display

INCREASE OF PERFORMANCE
via parallel connection of several systems is feasible

LOW OPERATING COSTS
due to very high efficiency

Fig.1 TTC Wärtsilä JOVYSTAR DELTA

