

# Wärtsilä JOVYPHASE JST

## PRODUCT LEAFLET



Frequency converters of the type Wärtsilä JOVYPHASE JST offer the optimal solution for converting the existing grid frequency into a frequency requested by the customer. Low operating costs, compact design requiring only little space as well as a high efficiency characterise these devices. A comfortable monitoring and diagnosis system provides all necessary information about the operational status of the system.

### **FREQUENCY CONVERTER WITH HIGH EFFICIENCY DUE TO IGBT TECHNOLOGY**

Frequency converters of the type series Wärtsilä JOVYPHASE JST are available with the power ranges of 10 and 20 kVA with single-phase output and for power ranges of 10 up to 600 kVA with three-phase output. As standard products we offer systems of these series with frequencies of 50 and 60 Hz, customised versions, however, are feasible.

The robust mechanical version allows application also under difficult operational conditions. In addition to an excellent sine wave the systems of this type show optimal control characteristics even in the event of a 100% load change.

The intelligent control of the system with integrated microprocessor and newest digital technology enable an early malfunction detection and high interference reliability.

The IGBT technology of the power amplifier provides high efficiency of the systems of up to 92 % to 96%.

### **ONLINE SYSTEMS WITH DOUBLE CONVERTER TECHNOLOGY**

Frequency converters of the Wärtsilä JOVYPHASE JST series are online systems with double converter technology. They dispose of a PFC rectifier as control module, which ensures an excellent single-phase voltage control and guarantees the full functioning of the device even in the event of extremely unbalanced load. The systems dispose of a RS-232 interface for monitoring as well as a RS-485 interface for parallel remote display.

All devices of the type series Wärtsilä JOVYPHASE JST meet the Europe-wide standards for system perturbation, radio interference suppression and EMC.

### **HIGH OPERATOR CONVENIENCE AND EASY TO SERVICE**

The clearly laid out control panel allows simple operation of the systems and the easy setting of all displays and operating conditions via a menu-driven display. The comfortable text display indicates measuring values, alerts and status messages via LCD monitor.

The frequency converters are designed to be easy to service: all main structural components are accessible at the front with only a few moves.

### **HIGH FLEXIBILITY FOR LABORATORIES**

The output voltages of the frequency converters of the type Wärtsilä JOVYPHASE JST can be set by the user as needed via display. Therefore the frequency converters of Wärtsilä JOVYPHASE JST are the optimal solution for test laboratories with frequently changing voltage and frequency requirements.



**TECHNICAL DATA**

Input	voltage: 3 x 400 / 230 V frequency: 50 /60 Hz ± 5%
Output	voltage: variable, adjustable on display max. 3 x 440 V /254 V .  frequency: 50 /60 Hz power: 10- 600 kVA THD < 5%
Efficiency	92-96%
Overload capacity	125 % for 10 min 150 % for 1 min 200 % for 100 ms
Mode of operation	permanent operation
Protection class	IP 20
Ambient temperature	0°C up to 40 °C
Control	digital, microprocessor controlled
Humidity	F
Radio interference	EN 62040-3/C3
Mode of operation	permanent operation

**TYPES**

	Output- power [kVA]	Dimensions W x H x D [mm]	Weight [kg]
<b>SINGLE-PHASE OUTPUT</b>			
Wärtsilä JOVYPHASE JST10/1	10	690 x 1340 x 865	290
Wärtsilä JOVYPHASE JST20/1	20	690 x 1340 x 865	310
<b>THREE-PHASE OUTPUT</b>			
Wärtsilä JOVYPHASE JST10/3	10	690 x 1340 x 865	370
Wärtsilä JOVYPHASE JST20/3	20	690 x 1340 x 865	380
Wärtsilä JOVYPHASE JST30/3	30	690 x 1340 x 865	400
Wärtsilä JOVYPHASE JST40/3	40	690 x 1340 x 865	420
Wärtsilä JOVYPHASE JST60/3	60	560 x 1800 x 940	250
Wärtsilä JOVYPHASE JST80/3	80	560 x 1800 x 940	300
Wärtsilä JOVYPHASE JST100/3	100	560 x 1800 x 940	320
Wärtsilä JOVYPHASE JST125/3	125	560 x 1800 x 940	360
Wärtsilä JOVYPHASE JST150/3	150	560 x 1800 x 940	380
Wärtsilä JOVYPHASE JST200/3	200	1220 x 1905 x 895	970
Wärtsilä JOVYPHASE JST250/3	250	1220 x 1905 x 895	1090
Wärtsilä JOVYPHASE JST300/3	300	1220 x 1905 x 895	1170
Wärtsilä JOVYPHASE JST400/3	400	1990 x 1920 x 990	2220
Wärtsilä JOVYPHASE JST500/3	500	2440 x 2020 x 990	2400
Wärtsilä JOVYPHASE JST600/3	600	2440 x 2020 x 990	3600

- **ONLINE SYSTEMS**  
with double converter technology
- **IDEALLY SUITABLE FOR LABORATORIES**  
Adjustment options of variable output voltages and frequencies corresponding to the respective individual (laboratory) requirements.
- **HIGH OPERATIONAL SAFETY**
- **OVERLOAD PROOF, SHORT CIRCUIT PROOF**
- **MULTITUDE OF OPTIONS**  
e.g. parallel redundancy of the systems, relay cards with four status messages, customised alerts on the relay card, remote display, higher classification classes, customised housing design, coating and more

**Fig.1** Wärtsilä JOVYPHASE JST
