JOVYATLAS

Immer unter Strom

JOVYSTAR PLUS

PRODUCT LEAFLET

UPS systems of the JOVYSTAR PLUS series are available as single-phase or three- phase systems with an output power of 10 kVA, 15 kVA or 20 kVA. The UPS systems of this type can be operated with double converter / continuous transducers technology in online mode (according to VFI-SS-111) or in standby mode in order to achieve the highest efficiency possible. For redundant operation (half-load parallel operation, n+1 operation) or for performance increase a parallel connection of up to 6 systems is feasible.

ONLINE UPS SYSTEM

In online mode the systems of the JOVYSTAR PLUS series ensure the optimal supply of all 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.

POWER INCREASE BY CONNECTION IN PARALLEL

For redundant operation (half-load parallel operation, n+1 operation) or for performance increase a parallel connection of up to six systems is easily feasible. During parallel operation active current sharing takes place. During this innovative technology based on digitisation via two 32-bit DSPs not only the effective power but also the reactive power is taken into account when controlling the load sharing.

INNOVATIVE TECHNOLOGY

The integrated IGBT rectifier supplies the inverter permanently with a regulated DC voltage and serves also to load the connected battery. The inverter converts the DC voltage coming either from the rectifier or from the battery into an AC voltage regulated by means of pulse width modulation. The inverter is entirely short-circuit proof.
The PFC rectifier in IGBT technology has a very wide input voltage range and a performance factor of cos phi nearly 1. The harmonic component (THDI) of the rectifier is below 4% in the rated operation. This low THDI allows a smaller dimensioning of emergency generators than with conventional rectifiers and Thyristor technology. Using this digital rectifier the battery lifetime can be lengthened significantly. All systems provide high dynamic in the event of load steps as well as an extreme low noise level.

Tab.1 Type Overview

TYPE OVERVIEW JOVYSTAR PLUS

	Dimensions w x h x d [mm]	Weight without battery [kg]	Autonomy Times [min]
JOVYSTAR PLUS 31-10-0	450 x 1200 x 670	100	13 - 30- 60 - 95 - 175
JOVYSTAR PLUS 31-15-0	450 x 1200 x 670	110	5 - 20 - 30 - 55 -110 - 165
JOVYSTAR PLUS 31-20-0	450 x 1200 x 670	110	5 - 13 - 25 - 35 - 55 - 75 - 115
JOVYSTAR PLUS 33-10-0	450 x 1200 x 670	100	13 - 30 - 60 - 95 - 175
JOVYSTAR PLUS 33-15-0	450 x 1200 x 670	110	5 - 20 - 30 - 55 - 110 - 165
JOVYSTAR PLUS 33-20-0	450 x 1200 x 670	110	5 - 13 - 25 - 35 - 55 - 75 - 115

further autonomy times on request

TECHNICAL DATA

Power	10 kVA	15 kVA	20 kVA

INPUT:

Voltage 1-phased (3:1) 3-phased (3:3)	rectifier 3 x 400/230 V +15% -20%; bypass: 230 V rectifier 3 x 400/230 V +15% -20%
Phases	1-phased (3:1) or 3-phased (3:3)
Frequency	50 Hz / 60 Hz ± 5 %
Power factor	0,99
Current THDI	<4 %
Battery	maintenance-free, sealed-lead acid battery lifetime 10-12 Jahre acc to EUROBAT number of battery cells: 2 x 180
Battery charging voltage	2 x 409,5 V (2,275 Vj per cell)
Battery final discharge voltage	2 x 310 V (1,72 Vj per cell)
Battery charging current	max 15 A

OUTPUT:

Voltage 1-phased (3:1)	1 x 220V / 1 x 230V / 1 x 240V ± 1% static load / ± 2% static, asymmetrical load / ± 5% dynamic load (load steps: 20 % -->100 % --> 20 %)
3-phased (3:3)	3 x 380/220V / 3 x 400/230V / 3 x 415/240V ± 1% static load / ± 2% static, asymmetrical load / ± 5% dynamic load (load steps: 20 % -->100 % --> 20 %)
Frequency	50 Hz (60 Hz) ± 0,001 Hz (without bypass)
Efficiency	at nominal load: >92%, at Battery operation >95%, at ECO Mode >98%
Distortion	<2% at linear load, <5% at on-linear load
Overload capacity Rectifier Bypass	 <125 % for 10 min, 125 - 150 % for 30 s, >150 % for 10 s 150 % permanent, 1000 % for 1 period

OTHERS:

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	0 % bis 95 %, no condensation
Placing (altitude)	<1000 m higher NN, power decrease at 1000 m - 2000 m:1% each 100 m
Protection Class	IP 20
Classification	VFI SS 111

COMMUNICATION:

All data are available on an RS232 / USB interface - optional the system data can be transferred via SNMP, MODBUS, PROFIBUS or via other bus systems.

ONLINE UPS SYSTEM
VFI /Double Conversion offers highest safety for the connected loads

PFC-RECTIFIER
with IGBT-Technology

INTEGRATED DIAGNOSYS SYSTEM
detects faults and informs the user via LCD

RS 232-INTERFACE
for monitoring system data and shut down

POWER INCREASE
by connection in parallel

INTERNAL MANUAL BYPASS
ensures the supply of load during maintenance work or disturbances

OVERLOAD AND SHORT CIRCUIT PROOFNESS

LOW WEIGHT
easy to handle

Fig.1 JOVYSTAR PLUS