

BM

TECHNOLOGY:	TRUE ON LINE Double Conversion
CLASSIFICATION:	VFI-SS-111
POWER RANGE:	300 - 1200 kW
No. OF PHASES:	3:3



■ APPLICATION

- Large computer networks
- Data processing centers
- Industrial facilities and equipment
- Laboratory equipment
- Telecommunication
- Automation and control systems

■ SPECIFICATION

Technology True On-Line Double Conversion provides excellent output voltage parameters regardless of power disturbances and the type of receivers being powered.

Rectifier IGBT the most advanced technology ensuring very low THDi and high power factor.

Automatic bypass - uninterrupted ensures uninterrupted power supply to critical loads such as overheating or failure.

Service bypass - enables servicing of devices without switching off powered receivers. Separate power supply Bypass track provides the ability to provide a reserve power source for receivers even in the event of a device failure or UPS protection in the main track.

Communication interfaces:

- **RS232, RS485, MODBUS** to monitor and manage the operation of the power supply and receivers,
- **DryContact** relay contacts for cooperation with BMS systems,
- **SNMP** integration with NMS network management systems ,
- **Remote switch connector against Fire (REPO)** to ensure remote disconnection of power supply to receivers in the event of a fire,
- **Switch against Fire (EPO)** on the control panel it enables immediate disconnection of power from the receivers,
- **Touch control and monitoring panel** gives the possibility of diagnostics of parameters and operation mode of the power supply and enables registration of events.

Available languages include Polish English.

Small dimensions , UPS 600 kW takes 1,44 m² and power packing at 416 kW/m².

High efficiency of the device (97%) It reduces the own losses of the device and reduces the heat emitted, making possible cooling of the rooms easier and cheaper.

ECO-Mode (HE) It allows for a significant reduction of the unit's operating costs and virtually eliminates heat emission.

Dual Input Lines i.e. the possibility of using separate power supply lines for the rectifier and Bypass increases the availability of power to the receivers.

Automatic diagnostics with FTM (Fault Trace Management) and fully digital control (32 bit DSP x2) guarantees full device efficiency, control of components and operating parameters without the need for user intervention.

High value of the input power factor limits the value of the current consumed by the device from the network.

Maximum value of the output power factor PF = 1 provides 20% more active power than standard solutions with PF = 0.8.

Maximum wide input voltage range -40% ÷ + 25% in normal operation mode, it ensures stable operation of the device without the need to use batteries, which significantly affects the extension of their service life.

A wide range of input frequencies in the normal operation mode, it allows free use of the power supply in a network with unstable parameters and power supply from the generator set.

Simplicity of use ease of connection to the network and simple switching on and off of the device does not require special qualifications from the user.

Advanced battery management it guarantees optimal charging and use of batteries, increases their lifespan and lowers operating costs.

Excellent quality of output voltage achieved thanks to the use of the IGBT inverter using highly advanced PWM control technology, it provides voltage with stable parameters, regardless of the power disturbances and the type of powered equipment.

High overload provides device protection and continuity of power supply in the presence of transient transients, and reduces the need for oversizing the device in relation to the power of the receivers.

Advanced software allowing the user full control over the device and powered receivers.

Configurable work parameters nominal voltages, frequencies, preferred modes of operation, communication method - significantly broadens the range of possible applications.

Redundant configurations:

- redundant work for increased reliability
- capacitive parallel operation for increased power
- HotStandby operation (separated rectifier and bypass power supply)

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Model	BM						
Power	300 kVA / 300 kW	400 kVA / 400 kW	500 kVA / 500 kW	600 kVA / 600 kW	800 kVA / 800 kW	1000 kVA / 1000 kW	1200 kVA / 1200 kW
No of phases IN : OUT	3:3						
Input							
Nominal Voltage	380 / 400 / 415 VAC						
Voltage range	-40% ÷ +25%						
Frequency	50 / 60 Hz						
Frequency range	-10% ÷ +10%						
THDi	<3%						
Input power factor	≥0,99						
Output							
Nominal voltage	380 / 400 / 415 VAC						
Power factor	1,0						
Static / dynamic voltage regulation	±1% / ±3%						
Nominal frequency	50 / 60 ± 0,1 Hz						
Inverter overload resistance	130% - 10 min., 150% - 60 s, >150% - 200 ms						
Efficiency in On-Line mode	97%						
Efficiency in Eco mode	99%						
Battery							
No. of batteries in string	32 – 44 psc. batteries 12V			38 – 48 psc. batteries 12V			
Charging current	25 – 100 A			25 – 200 A			
Charging time	3 - 8 hours to 90% capacity (configurable)						
Charging cycle	According to DIN 41773 with automatic shutdown of charging according to the criterion of current and voltage, with time control.						
Dimensions and weight							
Dimensions and weight of UPS (W x D x H)	1000 x 900 x 1950 mm		1400 x 900 x 1950 mm		1900 x 900 x 1950 mm		3000 x 900 x 1950 mm
	750 kg		1100 kg		1 300 kg		2 400 kg
Signaling and communication ports							
Work status indicator	Touch display, LED indicators, audible alarm						
Standard communication	RS232, RS485, MODBUS, USB, Dry Contact, SNMP (option), REPO, Parallel slots, interface for gensets						
Environmental conditions							
Noise level	<75 dB @ load. 100%, <65 dB @ load. 50%						
Permissible operating temperature	0°C ÷ 40°C						
Recommended working temperature	15°C ÷ 25°C						
Storage temperature	-20°C ÷ 40°C						
Humidity	0 ÷ 95% (without condensation)						
Standards							
Resistance to interference	EN 62040-2:2005, EN 62040-2:2006						
Safety	IEC62040-1-1, CE, 62040-3 :2001						
Optional equipment							
- Uninterruptible Bypass External, - Sensor for battery voltage compensation, - SNMP card,	- Batteries in rack or in battery modules, - Parallel card						