

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)

BM

| 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 | | | | | | |

W publikacji podano parametry standardowych modeli. W związku ze stałym udoskonalaniem produktu zastrzega się możliwość zmian parametrów bez uprzedniego informowania.