## UNINTERRUPTIBLE POWER SUPPLY



#### JR

TECHNOLOGY: TRUE ON LINE Double Conversion

CLASSIFICATION: VFI-SS-111 (EN 62040-3)

POWER RANGE: **10, 15, 20 kVA** 

No. OF PHASES: 3:3



#### APPLICATIONS

- Computers network
- Data processing centers
- Industrial equipment

- Clusters
- Tele information systems
- Automation and control systems

#### SPECIFICATION

**Technology True On-Line** Double Conversion Technology provides perfect output voltage parameters, regardless of the input voltage and the load.

**Rectifier IGBT** the most advanced technology which provides very load THDi and high power factor.

**Automatic bypass** provides continuous load supply in critical conditions, such as overheating or inverter failure.

**Maintenance bypass** enables service handling without necessity of shutting off the load.

#### **Communication:**

**USB, Intellislot** to monitor and manage the operation of the power supply and receivers,

**DryContact** alarm indicators; work with BMS system **SNMP** integration with systems management network NMS.

**Remote emergency power off (REPO)** provides remote shutting off the load and UPS in the case of emergency.

**Emergency power off (EPO)** on UPS provides very quickly shutting off the load and UPS.

**LCD control panel** displays UPS and power parameters as well as hundreds of useful information.

Small dimensions requires small area for unit operation.

**High efficiency (>96%)** reduces heat dissipation and limits power consumption costs.

**ECO-Mode** gives possibility of significant cost reduction and in practice stops heat emission.

**Automatic diagnostics and fully digital control (2x 32bit DSP)** ensure that components and parameters are controlled without user interference.

 $\mbox{\bf High input power factor 0,99}$  reduces the value of current drawn from the mains.

**The highest output power factor up to 1,0** allows load of versatile characteristics to be powered.

**Wide input voltage range** for normal mode ensures that batteries are used only if necessary – in fact, only when the input voltage is completely lost.

**Wide input frequency range** for normal mode gives possibility for seamless operation with different power sources – as mains or the generating set.

**Simple maintenance** microprocessor control and 24/7 operation mode means that unit does not require specialized handling.

**Advanced battery management** gives reliability of optimal charging and using batteries, elongates its lifetime and reduces operating costs.

**Excellent voltage quality** is provided by 3level IGBT inverter ad high frequency PWM technology, the output voltage has always stable parameters independent of input disturbances and the load characteristics.

Advanced software provides to customer full control of unit and load.

**User configurable settings** enable user to set nominal voltages, frequency, preferred operating modes.

#### Redundancy configurations:

- parallel for capacity or redundancy
- Hot Standby

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| Model   | JR 10  | JR 15                  |            | JR 20         |
|---|--|------------------------|------------|---------------|
| Power   | 10 kW / 10 kVA   | 15 kW / 15 kVA         |            | 20kW / 20 kVA |
| No. Of phases IN : OUT                        |  | 3:3                    |            |               |
| Input   | 1  | 3.5                    |            |               |
| Voltage                                       |  | 380 / 400 / 415        | VAC        |               |
| -   | -53% ÷ +30% for 50% load   |                        |            |               |
| Voltage range                                 | -24% ÷ +20% for 100% load  |                        |            |               |
| Frequency                                     | 50 / 60 Hz   |                        |            |               |
| Frequency range                               | -20% ÷ +20%  |                        |            |               |
| THDi  | <3%  |                        |            |               |
| Input power factor                            |  | ≥0,99                  |            |               |
| Output  | •  | •                      |            |               |
| Voltage                                       |  | 380 / 400 / 415 \      | /AC        |               |
| Power factor                                  | 1,0  |                        |            |               |
| Voltage regulation static/dynamic             | ±1%/±2%  |                        |            |               |
| THDu linear / not linear load                 | <1% / <3%  |                        |            |               |
| Frequency                                     | 50 / 60 ± 0,05 Hz  |                        |            |               |
| Overload capacity inverter                    | 110% - 60 min., 125% - 10 min., 150% - 60 s, >150% - 300 ms      |                        |            |               |
| Overload capacity bypass                      | 125% - continuous, 130% - 10 min., 150% - 1 min., >150% - 300 ms |                        |            |               |
| Shot-circuit resistance                       | 340% value of nominal current for 200 ms                         |                        |            |               |
| Efficiency in On-Line mode                    | >96%   |                        |            |               |
| Efficiency in Eco Mode                        | 99%  |                        |            |               |
| Crest factor                                  | 3:1  |                        |            |               |
| Batteries                                     | 1  | 5.1                    |            |               |
| Cold start                                    |  | Yes                    |            |               |
|   |  |                        |            |               |
| Amount of batteries in string                 |  |                        |            |               |
| Max amount of internal batteries              | 40 psc of 7/9 Ah   |                        |            |               |
| Max charger current                           | 12 A   |                        |            |               |
| Charging time                                 | 3 – 8 hours up to 90% of capacity (configurable)                 |                        |            |               |
| Weight and dimensions                         |  |                        |            |               |
| Dimensions and weight of UPS [mm] (W x D x H) |  | 250 x 627 x 827 ı      | mm         |               |
| without internal batteries                    | 44   | kg                     |            | 47 kg         |
| Communications                                |  |                        |            |               |
| Working indicator                             | LCD + indicators LED, sound alarm                                |                        |            |               |
| Communication                                 | USB , IntelligentSlot, REPO, parallel work                       |                        |            |               |
|   |  | Option: SNMP, DryConta | ct, Modbus |               |
| Environmental                                 |  |                        |            |               |
| Noise level                                   | <58 dB @ load. 100%, <52 dB @ load. 50%                          |                        |            |               |
| Operating temperature for UPS                 | 0°C ÷ 40°C   |                        |            |               |
| Recommended operating temperature for UPS     | 15°C ÷ 25°C  |                        |            |               |
| Storage temperature                           | -20°C ÷ 40°C   |                        |            |               |
| Humidity                                      | 0 ÷ 95% (without condensing)                                     |                        |            |               |
| Certification                                 |  |                        |            |               |
| Standards                                     | EN 62040-2:2005, EN 62040-2:2006                                 |                        |            |               |
| Safety  |  | IEC62040-1-1, CE, 6204 | 10-3 :2001 |               |
| Options                                       |  |                        |            |               |
| - Uninterruptible external maintenance bypass | - Battery Cold Start   |                        |            |               |
| - SNMP card                                   | - Parallel card  |                        |            |               |
| - ModBus card                                 | - DryContact card  |                        |            |               |