



General Specifications.....1

Technical Specifications.....2

## 1. General Specifications

Keor Compact is a three phase Uninterruptible Power Supply (UPS), Online Double Conversion, transformerless, with the possibility to have N+X on site parallel redundancy up to total 6 units. Rated Power 10 – 15 -20 kVA with output PF=0,9.

Batteries are lead acid, sealed, free maintenance, valve regulated (VRLA), and installed inside the UPS and dedicated Battery Cabinets.

The architecture of this UPS is a Tower type. The cabinet is compact corresponding to a foot print of 0.21m<sup>2</sup> with possibility to install from up to 40 internal battery blocks. The UPS is also equipped with moving wheels for easier installation and Positioning.

### 1. Architecture

Keor Compact UPS is composed by following parts:

- IGBT Rectifier/PFC
- IGBT Inverter
- Logic System
- 4.5" TFT Touch Panel
- Automatic Static Bypass
- Dual Input Distribution
- Manual Bypass
- Backfeed Protection
- Internal Battery Drawer Shelves

The UPS can be easily Installed and configured on site.

It is possible to arrange the dedicated bypass input by removing bridge connection on each input phase and with the cold start function it is possible to start up the UPS with out input mains bujust with batteries.

Embedded Backfeed protection provides additional protection at the input in the event of failure preventing energy feedbacks without the need to install an external dedicated device in up stream panel.

## 2. Redundancy

The Redundancy of the UPS allows N+X redundant configurations. Up to 6 units of same size UPS can be connected in parallel.

## 3. Bypass

Keor Compact has internal both static bypass and mechanical (maintenance) bypass as standard. Addition to this input and bypass inputs can easily be separated to obtain dual input by removing the bridge on the connector.

## 4. Autonomy

Keor Compact can house internal batteries for standard autonomy in typical applications. For longer autonomy it is just enough to connect dedicated battery cabinets to reach specific back up time.

## 5. Control and monitoring

Keor Compact is equipped with a touch screen graphic TFT display that provides mimic UPS diagram with relevant information, measurements, statuses and alarms of the UPS in different languages

A dedicated software of remote monitoring and management, installed on a PC connected to the UPS, allows to monitor and set all working parameters.

Optional software or Net Interface card (CS141 SK)

allows the multi server shutdown and UPS remote control on the LAN.

Keor Compact is equipped also with complete set of interface ports:

- RS232 Serial Communication Port
- Emergency Power Off (UPS OFF)
- Generator Contact (GEN ON)
- Dry Contact Information
- Optional ModBus (over RS485)

# Keor Compact 10-15-20kVA

311100-311101-311102 311103-311104-311105

## 2. Technical Specifications

### 1 General Characteristics

| Models                 | Keor Compact 10                                   | Keor Compact 15 | Keor Compact 20 |
|------------------------|---|-----------------|-----------------|
| Nominal Power (kVA)    | 10  | 15              | 20              |
| Active Power (kW)      | 9   | 13,5            | 18              |
| Technology             | On-line double conversion VFI-SS-111              |                 |                 |
| Waveform               | Sinusoidal  |                 |                 |
| Architecture           | Stand Alone or Distributed Parallel up to 6 units |                 |                 |
| Efficiency             | up to 95%   |                 |                 |
| Efficiency in ECO mode | up to 98,5%                                       |                 |                 |
| Back Feed Protection   | Embedded  |                 |                 |

### 2 Input Characteristics

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Voltage (V)                          | 400 3Ph + N                           |
| Voltage Tolerance                    | ±20% @100% load, -40% ~-20% @50% load |
| Frequency (Hz)                       | 40 ~ 70                               |
| Power Factor                         | > 0.99                                |
| THDi                                 | <3% at full load                      |
| Dual Input                           | Yes                                   |
| Compatibility with Diesel Generators | Yes                                   |

### 3 Output

|                             |   |
|-----------------------------|---|
| Voltage                     | 380/400/415 3Ph + N   |
| Voltage Tolerance           | ±1% (Static Load)   |
| Frequency (Hz)              | 50/60   |
| Frequency Tolerance         | ±0.01% (free running)   |
| Power Factor                | 0.9   |
| Crest Factor                | 3:1   |
| Voltage Harmonic Distortion | < 2% with linear load, <5% with distorted load  |
| Overload                    | 110% for 60 minutes, 125% for 10 minutes, 150% for 1minutes<br>(<105% overload continuously without alarm, >= 105% <110% continuously with alarm) |

### 4 Bypass

|                     |                              |
|---------------------|------------------------------|
| Voltage             | 380/400/415 3Ph + N          |
| Voltage Tolerance   | ±10% (Adjustable ±5% ~ ±15%) |
| Frequency (Hz)      | 50/60                        |
| Frequency Tolerance | ±1Hz / ±3Hz (Selectable)     |
| Bypass Type         | Built in Static and Manual   |

### 5 Battery

|                         |                    |     |     |
|-------------------------|--------------------|-----|-----|
| Type                    | VRLA 12V           |     |     |
| Internal                | Available up to 40 |     |     |
| Cold Start              | Yes                |     |     |
| Charging Current (A)    |                    |     |     |
| 100% Load               | 3.5                | 5.0 | 7.0 |
| 80% Load <sup>(1)</sup> | 7.0                | 10  | 14  |
| 60% Load <sup>(1)</sup> | 10                 | 15  | 21  |

(1) Enabling by SW

### 6 HMI & Communication

|                             |  |
|-----------------------------|--|
| Display and MMI             | 4.3" Colorful LCD Touch Screen   |
| Built-in Communication Port | RS-232, EPO, Dry Contacts  |
| Optional Communication      | 2 Communication Slots for SNMP Card, RS-485 MODBUS Card, Programmable Dry Contact Card |

### 7 Physical characteristics

| Ventilation   | Forced with FANs from front to rear                   |     |      |
|---|---|-----|------|
| Max Heat Disipation (W)<br>(100% load, battery in recharge) | 600   | 900 | 1300 |
| Protection Grade  | IP20  |     |      |
| Color   | RAL9017 (Black-cabinet) RAL9003 (White-control panel) |     |      |
| Dimensions (W x D x H) mm                                   | 260 x 850 x 890                                       |     |      |
| Weight (without Batteries) (kg)                             | 74  | 76  | 76   |
| Weight (with Batteries) (kg)                                | 149   | 166 | 176  |
| Transport Packaging   | Carton Box on Pallet                                  |     |      |
| Noise (at 1 meter) (dBA)                                    | <52   |     |      |

### 8 Environmental conditions

|   |   |
|---|---|
| Storage Temperature (°C)  | -20 ~ 70  |
| Operation Temperature (°C)  | 0 - 40 (Recommended temperature for longer Battery Life: 20-25°C) |
| Storage and Operation Humidity  | 20-95% (Non-Condensing)   |
| Operating Altitude  | <1000 m without derating (power derate -1% every additional 100m) |
| <b>Estimated content of circular economy derived materials</b>                                    | <b>≈39%</b>   |
| <b>Recyclability rate calculated using the method described in technical report IEC/TR 62635*</b> | <b>≈71%</b>   |

### 9 Compliance

|                             |  |
|-----------------------------|--|
| Reference product standards | IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3 |
|-----------------------------|--|

\*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.