Keor Compact 10-15-20kVA

311100-311101-311102 311103-311104-311105

1. General Specifications

Keor Compact is a three phase Uninterruptible Power Supply (UPS), Online Double Conversion, transformarless, 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 0.21m2 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 sart 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 feedbaks 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)

87045 LIMOGES Cedex
Telefono : (+33) 05 55 06 87 87 – Fax : (+33) 05 55 06 88 88

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2. Technical Specifications

1 General Characterisitics

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 (<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 80% Load(1) 60% Load(1)	 3.5 7.0 10	 5.0 10 15	 7.0 14 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) (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: 20-25ºC)
Storage and Operation Humidity	20-95% (Non-Condensing)
Operating Altitude	<1000 m without derating (power derate -1% every additional 100m)
Estimated content of circular economy derived materials	**≈39%**
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	**≈71%**

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.