

**TriMOD 15 kW**  
**Three-phase modular UPS system**

**Cat.No : 3 112 79 – 3 112 80– 3 112 81– 3 112 91– 3 112 92–  
 3 112 99 - 3 113 01**



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**1. CHARACTERISTICS**

High efficiency UPS online double conversion with PWM Hi-Frequency technology. Passing through neutral and Modular Architecture with the possibility to have N+X redundancy for internal power module and power cabinet. The nominal power is 15kVA – 15kW.

The system is composed by identical modules (5 kW 1ph PM) connected in parallel. Each PM is a complete 1ph UPS who works in parallel with the others in order to supply the required power. It's possible to reach different power and redundancy levels according to the PM and power cabinet number.

**■ 1.1 Specific application**

Ideal solution for IT and Data Centre applications

**2. RANGE**

Power cabinet dual input WITH batteries and WITH power modules

Cat. Nos	No. of batt. drawers	No. of PM	No. of phases	No of control	Cabinet type
3 112 79	8	3x 5kVA	Multi In/Out	1	A
3 112 80	12	3x 5kVA	Multi In/Out	1	A
3 112 81	16	3x 5kVA	Multi In/Out	1	B

Power cabinet dual input WITHOUT batteries and WITH power modules

Cat. Nos	No. of installable batt drawers	No. of PM	No. of phases	No of control	Cabinet type
3 112 91	12	3x 5kVA	Multi In/Out	1	A
3 112 92	16	3x 5kVA	Multi In/Out	1	B

Power cabinet dual input WITHOUT batteries and WITHOUT power modules

Cat. Nos	No. of installable batt drawers	No. of installable PM	No. of phases	No of control	Cabinet type
3 112 99	12	3x 5kW	Multi In/Out	1	A
3 113 01	16	3x 5kW	Multi In/Out	1	B

**3. TECHNICAL DATA**

**■ 3.1 General characteristics**

UPS Topology	On line double conversion VFI SS 11
Architecture of the UPS	Modular, scalable, redundant based on single phase Power Modules
In/Out phase Configuration	1-1 / 3-3 / 3-1 / 1-3
Neutral	Neutral Passing through
Output wave form on mains run	Sinusoidal
Output wave form on battery run	Sinusoidal
Bypass type	Static, electro-mechanic and maintenance bypass
Transfer time	Zero

**■ 3.2 Input**

Nominal voltage [V]	380, 400, 415 3F+N+PE (or 220, 230, 240 1F+N+PE)
Voltage range[%]	-20 +15
Frequency [Hz]	50/60 (autosensing)
THDlin [%]	<3.5
Power Factor	>0.99

**3. TECHNICAL DATA (continued)**

■ **3.3 Output**

Nominal voltage [V]	380, 400, 415 3F+N+PE (or 220, 230, 240 1F+N+PE)
Nominal power	15 kVA
Active power	15 kW
Efficiency [%]	96.5
Voltage variation (static)	± 1%
Voltage variation (dynamic 0-100%; 100-0%)	± 1%
THDv on nominal power (linear load) [%]	<1
THDv on nominal power (not linear load P.F.=1)	
Frequency [Hz]	50/60
Frequency tolerance	Synchronized with input frequency adjustable range from +/- 0.5% to +/- 7%
Current Crest Factor	3:1
Overload capability:	
10 min	115% load rate with no bypass intervention
60 sec	135% load rate with no bypass intervention

■ **3.4 Battery**

Type	Lead Acid, sealed, free maintenance VRLA
Unit Capacity	Depending on backup time
Nominal UPS Battery Voltage [Vdc]	240 DC
Battery charger type	PWM hi efficiency, one in each power module
Charging Cycle	Smart Charge technology 3-step advanced cycle
Max Charging Current [A]	2.5 each power module

■ **3.5 Enviromental specs**

Noise level @ 1m [dBA]	58-62
Working temperature range [°C]	from 0°C to +40°C
Stock temperature range	from -25°C to +55°C (excluded batteries)
Humidity range [%]	10-75 not condensing
Protection degree	IP20

■ **3.6 Mechanical characteristics**

Net Weight without batteries with PM [kg]	105~117
Dimensions [WxHxDmm]	414 x 1370/1650 x 628 (cab A/B)
Colour	RAL9003, RAL9011
Technology rectifier/booster/ inverter	IGBT
Communication Interface	1xRS232, 1xslot SNMP, 1xUSB (service), 1xUSB host port

**4. USER INTERFACE**

TriMOD is equipped with an innovative 10" touch screen user-friendly graphic user interface.

The display is housed in a retractable tray and is capable of reading real-time data regarding working conditions, efficiency, consumption, load variations, as well as input / output power, current, voltage, etc.

<b>Input</b>	Current	RMS value Peak value Crest factor
	Voltage	Ph-N RMS value Ph-Ph RMS value Bypass line voltage
	Power	Nominal (VA) Active (W) Power factor Frequency
<b>Output</b>	Output current	RMS value Peak value Crest factor
	Voltage	Ph-N RMS value Ph-Ph RMS value
	Power	Nominal (VA) Active (W) Power factor Frequency
<b>Batteries</b>	Voltage Capacity Current History data Residual capacity Charging status	
<b>Miscellaneous</b>	Internal Temperature Fan Speed HV DC BUS voltage	
<b>Data Log.</b>	By-pass intervention Overheats Overloads Battery interventions Total discharge Events Alarms	

The UPS allows also the following settings by display:

<b>Output</b>	Voltage Frequency
<b>Input</b>	Enable freq. synchronizing
<b>By-pass</b>	Enabling Forced ECO Mode batteries

## 5. STANDARDS AND REGULATIONS

The UPS TriMOD has the CE Mark accordingly with the EU Directives 2006 95 2004 108 and it comply with following standards

- EN 62040-1: General rules for electric safety
- EN 62040-2: Electromagnetic compatibility and immunity (EMC)
- EN 62040-3: Performances and testing rules

### RoHS :

Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

### REACH :

The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product.

### Batteries

The batteries included in this product comply with the requirements set out in European Regulation 2023/1542, according to the application timing indicated therein.

### WEEE

WEEE Directive (2012/19/EU): the sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste

### Packaging :

Design and manufacture of packaging compliant with European Directive 94/62/CE.

The UPS Keor DK is CE marked in accordance with EU directives 2006 95 2004 108



## 6. OTHER INFORMATIONS



**Installation and maintenance manual:** mounting informations and maintenance guide available on e-catalogue

For further technical information, please contact Legrand technical support.

Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards. For different conditions of use of the product, inside electrical equipment or in any different installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system.