

TriMOD 30 kW
Three-phase modular UPS system

Cat.No : 3 112 85 – 3 112 95 – 3 112 96 - 3 113 02 - 3 113 03 - 311304 - 3 113 08 - 3 113 09



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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 30kVA – 30kW.

The system is composed by identical modules (3.4, 5 or 6.7 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 85	12	6x 5kVA	3/3	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 95	-	6x 5kVA	3/3	1	A
3 112 96	12	6x 5kVA	3/3	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
3 113 02	-	6x 5kVA	3/3	1	A
3 113 03	-	6x 5kVA	Multi In/Out	1	A
3 113 04	12	6x 5kVA	3/3	1	B
3 113 08	-	6x 5kVA	Multi In/Out	2	A
3 113 09	12	6x 5kVA	3/3	2	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	3-3*
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*
Voltage range[%]	-20 +15
Frequency [Hz]	50/60 (autosensing)
THDlin [%]	<3.5
Power Factor	>0.99

*standard configuration with 3-3 (multi in/out setting available upon request)

3. TECHNICAL DATA (continued)

3.3 Output

Nominal voltage [V]	380, 400, 415 3F+N+PE*
Nominal power	30 kVA
Active power	30 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	112.5% 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 Environmental 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]	124 ~142
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 5" touch screen display with multicolor LED status bar, provides an user-friendly interface for monitoring the UPS in real time.

Historical alarm logs and messages facilitate maintenance and resolution of problems. The predictive diagnostics anticipates potential faults, ensuring maximum business continuity.

Input	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
Output	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
Batteries	Voltage	
	Capacity	
	Current	
	History data	
Miscellaneous	Residual capacity	
	Charging status	
	Internal Temperature	
	Fan Speed	
Data Log.	HV DC BUS voltage	
	By-pass intervention	
	Overheats	
	Overloads	
	Battery interventions	
	Total discharge	
	Events	
Alarms		

The UPS allows also the following settings by display:

Output	Voltage Frequency
Input	Enable freq. synchronizing
By-pass	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



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.