

# GUTOR MODULAR

Compact, flexible, redundant, and scalable industrial grade AC UPS power protection.

Fully compliant with UL and CSA standards.

Gutor Modular UPS systems are designed and built to last - even in harsh environments - with highly flexible configurations.

## Designed for Harsh Environments

- Protects against electrical outage with surge protection and galvanic isolation.
- The short circuit capability allows it to be installed near substation equipments.
- Industrial enclosure with unique framework increases robustness and protection.
- NEMA Type 1 with ingress protection up to IP42.
- Has a 20+ years design lifespan.

## Enhance system availability

- N+1 or N+x design increases the internal redundancy of the system.
- All Gutor Modular power modules have a “live swap” element, a concept that allows the power modules to be maintained and repaired without interrupting the load.



## Flexible and Scalable Design

Independent modular chargers with internal redundant capability



Input, output and battery breakers (up to 65kA)

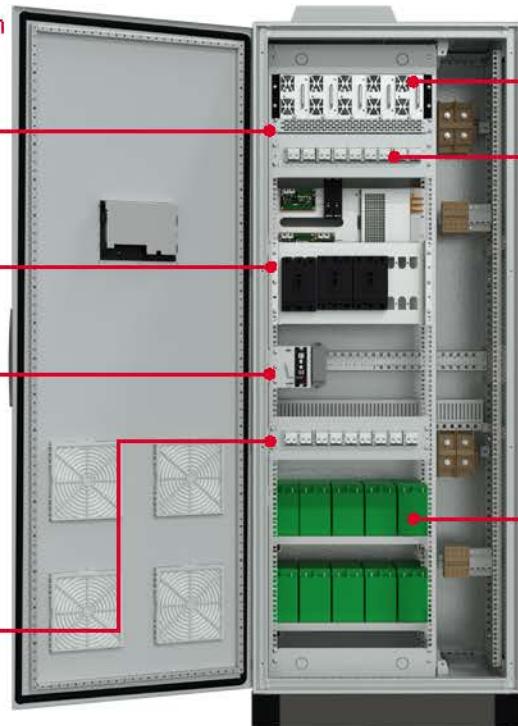


Advanced asset management



- Ready to connect to most communication protocols
- Cybersecure certified

Integrated output feeders



Power factor correction



Modular inverters associated with static and manual bypass switch



Cable entry

- Bottom cable entry allows for a smaller footprint
- Top and bottom cable entry with a wider enclosure



Battery

- Ready for lead acid (VRLA and VLA), NiCd and Li-Ion.
- VRLA battery can be integrated into one cabinet to achieve footprint optimization.

**GUTOR**

## Technical Data

Model	GUMUPS
<b>Rectifier input</b>	
Input voltage tolerance (VAC)	1ph 175-277V (3ph input and other voltage upon request)
Frequency	50 / 60 Hz $\pm$ 10 % (other frequency upon request)
THDi harmonic	$\leq$ 5 %
Power factor	up to 0.99
Withstand short circuit (kA)	15kA up to 65kA on option
Voltage range (VDC)	Depending of battery configuration
Efficiency	up to 95%
<b>Inverter output</b>	
Output voltage tolerance (VAC)	1ph 120V (1ph+N) - other voltage upon request
Output power	2.0 kVA / 1.6kW per module for 60Vdc bus. Other Vdc bus upon request
Frequency	60 Hz $\pm$ 5 % / free running $\pm$ 0.1 %
Static Voltage tolerance	$\pm$ 1 %
Dynamic Voltage tolerance	$\pm$ 10 % @ full load
ThDU	typical $\leq$ 3 % linear loads
Overload	125% / 30sec - 140% / 4sec - 250% / 0.5sec
Efficiency	up to 91.6%
<b>Static bypass input</b>	
Input voltage tolerance (VAC)	1ph 120V (1ph+N)
Current	100A
Frequency	60 Hz $\pm$ 5 %
Power factor	0.8 lag to 0.8 lead
switching time	2 ms typical
Overload	120% / 10min and 1000% / 10ms
Built in backfeed protection	yes
<b>General arrangement</b>	
Configuration	N+0, N+1, N+x. N+N between rack (dual input feeder capable)
Input Neutral earthing type	TN or IT or HRG
Display	front 10" touch display with up to 39 leds for warning or alarms
Communication	minimum 2 output dry contacts Modbus TCP / Modbus RS485 / SNMP ready for EcoStruxure IEC 61850 in option. Other communication protocol upon request
EPO	Emergency Power Off input with NO terminals for 24VDC supply MTBF > 270 000h
Serviceability	Very low MTTR with live swap concept to replace any power module without switching off the system
Battery protection	Breakers are included
Output earthing system	Galvanic isolation through double conversion line. Earthing system follows input of static & manual bypass
Battery	Built-in VRLA battery or separate battery such as flooded lead-acid, NiCd and Li-ion
Output distribution breakers	up to 9 output breakers w. signal contact
<b>General data</b>	
Dimensions (width x depth x height)	Top entry. NEMA 1: 31.5 x 23.7 x 82.7 inch (800 x 600 x 2100 mm) / NEMA 12: height 86.7 inch (2200 mm) Bottom entry only. NEMA 1: 23.7 x 23.7 x 82.7 inch (600 x 600 x 2100 mm) / NEMA 12: height 86.7 inch (2200 mm)
Cable entry	Bottom entry / Top and bottom entry option with additional 7.8 inch (200 mm) width
Ambient temperature range for operation	-10°C to 40°C. Higher ambient condition under request
Noise level	55....68dBA
Airflow	from front to top
Allowable air humidity	up to 95% non condensing
Altitude above sea level	nominal up to 2000m, max 5000m with derating
Paint	RAL 7035, similar as ANSI-61
Standards	NEMA PE5, UL1778 & CAN/CSAC22.2 No.107.3, IEC 62040-2
<b>Options</b>	
Built-in configuration	additional dry contacts, analogic metering, input voltage adaption, Voltage dropper, DC/DC converter, inverter, multiple battery string protection ...

Contact your local sales representatives for a secure power solution customized for your site requirement.