



GUTOR MODULAR CHARGER

Compact, flexible, redundant, and scalable industrial grade DC power protection.

Fully compliant with UL and CSA standards.

Gutor Modular charger systems are designed for long lifetime, even in harsh environments, with highly flexible configurations.

Designed for Harsh Environments

- Protects against electrical outage with surge protection and galvanic isolation.
- The strong input short circuit capability allows it to be installed near to substation equipments.
- Industrial enclosure with unique framework increases robustness and protection.
- NEMA 1 with ingress protection up to NEMA 2.
- Has 20 year design lifespan.

Enhance System Availability

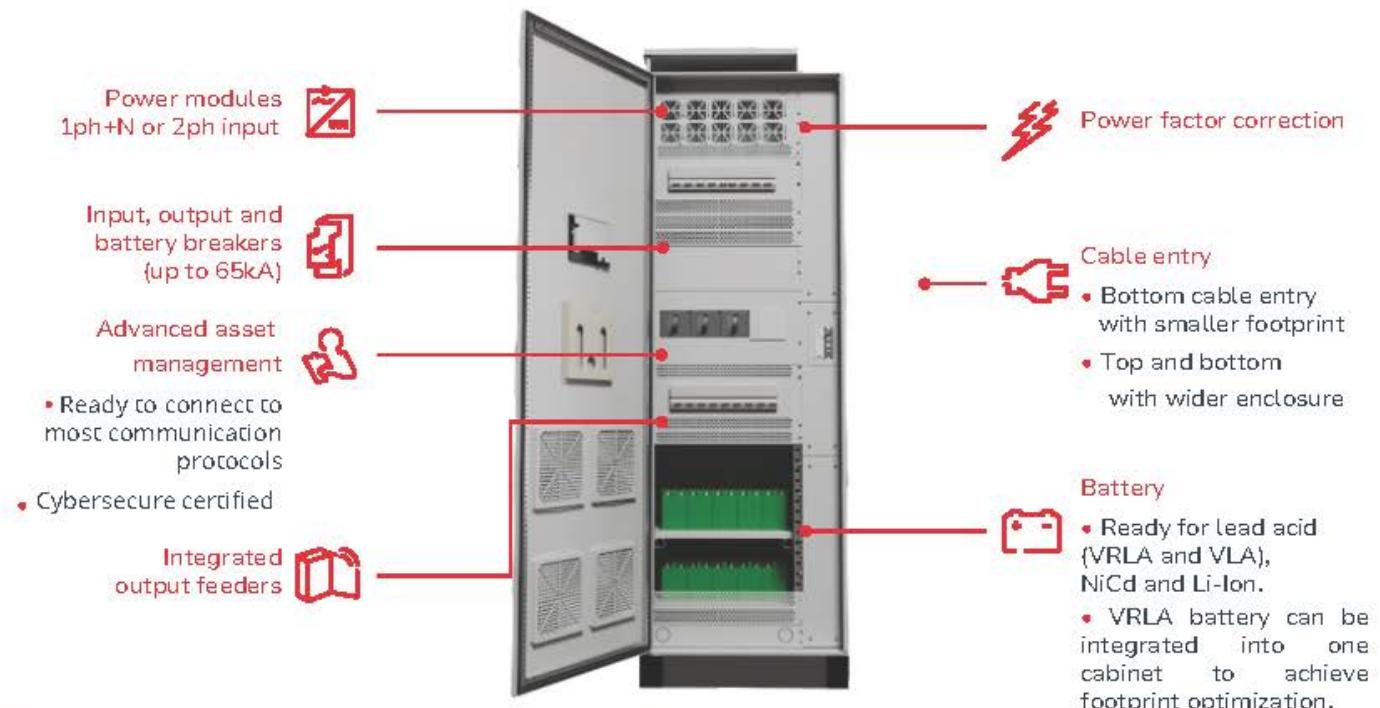
- N+1 or N+x design increases the internal redundancy of the system.
- All power modules with "live swap" concept allows it to be maintained and repaired without interrupting the load.



Bottom entry

Top and Bottom entry

Flexible and Scalable Design



GUTOR

Technical Data

Typical configuration		GUMADC 24		GUMADC 48, GUMADC 110, GUMADC 125, GUMADC 220	
Nominal input voltage		120V (1ph) 208V (3ph or 2ph) 480V (3ph+N)	240V or 277V (1ph) 208V (3ph or 2ph) 480V (3ph+N)	120V (1ph)	240V or 277V (1ph) 208V (3ph or 2ph) 480V (3ph+N)
Output (kW)	1 rack	up to 4.5kW	up to 9kW	up to 7.5kW	up to 15kW
	2 racks	up to 9kW	up to 18kW	up to 15kW	up to 30kW
	3 racks	up to 13.5kW	up to 27kW	up to 22.5kW	up to 45kW

Model	GUMADC 24	GUMADC 48	GUMADC 125	GUMADC 220
Rectifier input				
Input voltage range (VAC)	1ph 120 – 277 V +/-10% (other voltage upon request)			
Frequency	50 / 60 Hz +/-10% (same typing as Frequency)			
THDi harmonic	≤ 5%			
Power factor	Up to 0.99			
Withstand short circuit (kA)	up to 65 kA upon request			
DC output				
Voltage range (VDC)	19.0 - 33.6 V	36.0 - 67.5 V	88.0 - 153.9 V	170.0 - 297.0 V
Dynamic Load Regulation	± 5% (transient time < 10 ms, load (90-10-90) %, di/dt < 200 A/ms)			
Charging Characteristic	IPU / IU (Constant current - constant voltage)			
DC Ripple Acc. EN 300132-	< 20 mV & 1% < 60 mV & 1%		< 60 mV & 1%	
2 DC overcurrent capability	130% for < 4s			
Blocking Diode feature	included in each module			
Efficiency	up to 95%			
General arrangement				
Configuration	N+0, N+1, N+x. Dual input feeder capable (2N configuration)			
Input neutral earthing type	TN or IT or High Resistive Ground			
Display	10" touch display with up to 39 virtual LEDs for warning or alarms			
Communication	Minimum 2 output dry contacts Modbus TCP / Modbus RS485 / SNMP, IEC 61850 in option Other communication protocol upon request			
EPO	Emergency power off input terminal with an internal 24 V DC power supply			
Serviceability	MTBF > 300 000 h. A low MTTR with the live swap concept - replacing the power module without switching off the system			
Battery protection	Built-in battery breaker possible			
Output earthing system	Floating DC with optional ground fault detection			
Battery	Built-in VRLA battery or standalone battery such as flooded lead-acid, Ni-Cd and Li-ion			
Output feeders	Up to 9 built-in output breakers with signal contact			
Dimensions (width x depth x height)				
	Top entry - NEMA 1 : 31.5 x 23.7 x 82.7 inches (800 x 600 x 2100 mm) Bottom entry - NEMA 1 : 23.7 x 23.7 x 82.7 inches (600 x 600 x 2100 mm) For NEMA 2 (Top entry / Bottom entry), the height is 86.2 inches (2191 mm)			
Cable entry	Bottom entry / Top and bottom entry option with additional 7.8 inch (200 mm) width			
Ambient temperature range for operation	14°F to 113°F (-10°C to 45°C) Higher ambient condition upon request			
Noise level	55....68 dBA			
Air flow	from front to top.			
Allowable air humidity	up to 95% non-condensing			
Altitude above sea level	nominal up to 6,600 feet (2,000 m), max 10,000 feet (3,000 m) with derating			
Paint	RAL 7035, similar as ANSI-61			
Standards	UL 1012 and CAN/CSAC22.2 No.107.2			
Options				
Built-in configuration	additional dry contacts, analogic metering, input voltage adaptation, 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.