

# 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

Power modules  
1ph+N or 2ph input



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

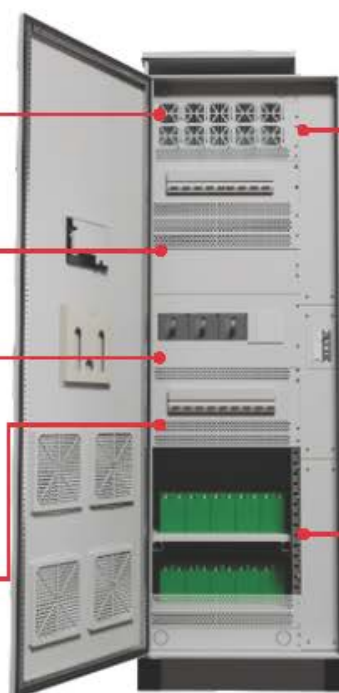


Advanced asset  
management



- Ready to connect to most communication protocols
- Cybersecure certified

Integrated  
output feeders



Power factor correction



Cable entry

- Bottom cable entry with smaller footprint
- Top and bottom with 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

Typical configuration		GUMADC 24		GUMADC 48, GUMADC 110, GUMADC 125, GUMADC 220	
Nominal input voltage		120V (1ph)	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 deratingh							
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.