

# UXR100040G



40kW@1000V ClassB ACDC High-Protective Charging Power Module



## + Introduction

The UXR100040G is a fully potted charging module developed in accordance with the IEC 61851-23:2023 standard. It features ultra-high full-load operating temperature and an ultra-wide constant power range as its industry-leading advantages. It is characterized by high reliability due to its full potting process, which significantly enhances the module's lifespan and environmental adaptability. Additionally, it boasts high efficiency, a high power factor, high power density, a wide output voltage range, low noise, low standby power consumption, and excellent EMC performance.

## + Excellent advantages

High efficiency: **96%**

Third-generation semiconductor SiC design, module efficiency up to 96%, can be maintained throughout the operating range of efficient operation, effectively reducing energy loss, energy-saving and environmentally friendly.

## Fully potting technology

Fully potted process improves the reliability and service life of the module, with stronger environmental adaptability.

With ultra-low noise and ultra-wide output voltage range, UXR100040G provides users with a quieter and more comfortable fast charging experience.

Full load working temperature: **55°C**

Reliable operation over a wide range of temperatures from -40°C to 75°C with -40°C to 55°C at full load, maintaining a fast and stable charging experience in extreme environments.

## Electromagnetic compatibility

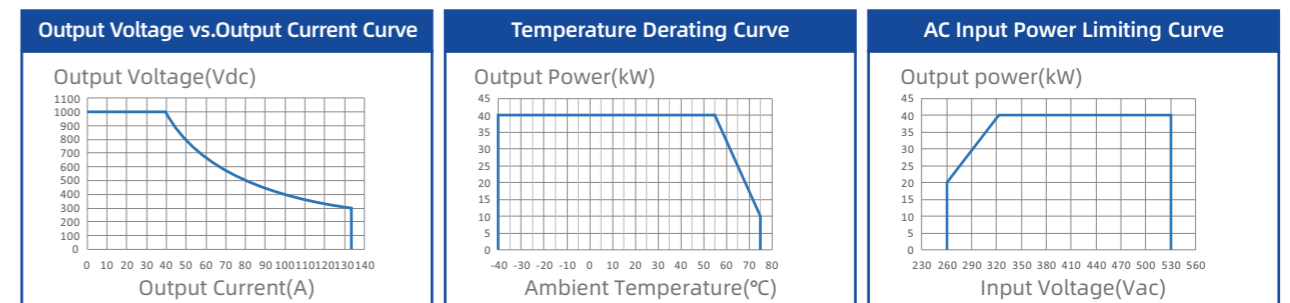
meets **Class B**

EMC complies with Class B, with low electromagnetic radiation and high interference immunity.

Meet the requirements of CE/UL certification, comply with IEC 61851-23: 2023 standard, electromagnetic compatibility (EMC) to meet CLASS B requirements

## + Key features

- Ultra-wide output voltage range, 50~1000Vdc, suitable for different types of EVs;
- Ultra-high output power within the 300V~1000V output voltage range, 40KW constant power output;
- High efficiency of 96%, maintaining high efficiency across the full working range for better energy savings;
- Full-power wide working temperature range, -40~55°C;
- No current retraction in low voltage range, faster charging rate;
- Built-in residual voltage releasing circuit, lower cost and higher reliability;
- Industry-leading volume design with a power density of 46.7W/in<sup>3</sup>;
- Meets CE / UL / UKCA certification requirements;



Item		Specifications
Basic Specifications	Dimensions	85mm (H) x360mm (W) x459mm (D)
	Weight	≤ 20 kg
	Efficiency (full load)	>95.5%
	Standby Power Consumption	<13W
	Cooling Mode	Fan cooling
	Communications bus protocol	CAN bus
	No. of Parallel Modules	≤60pcs
Input Characteristics	Indicator	Green: normal operation Yellow: alarm Red: fault
	Input Voltage	260Vac~530Vac, 3P+PE
	Input Current	<80A
	Grid Frequency	45Hz~65Hz
	Power Factor	≥0.95 (8KW<output power<20KW); ≥0.98 (20kW < output power<40KW)
Output Characteristic	ITHD	≤5%
	Output Power	40kW
	Voltage Range	50Vdc ~ 1000Vdc
	Current Range	0A~133.3A
	Voltage stabilized accuracy	≤±0.5%
	Current stabilized accuracy	≤±1%
Environmental Conditions	Current Sharing Imbalance	≤±3%
	Ripple voltage peak value coefficient	≤1%
	Operating Temperature	- 40°C to +75°C, output derating at above 55°C
	Storage Temperature	- 40°C to +75°C
	Relative Humidity	≤ 95% RH, non-condensing
Protection Specifications	Altitude	≤2000m
	MTBF	>500,000 hours
	Input Over/Undervoltage Protection	Automatic recovery after power-off
	Output Overvoltage Protection	Manual recovery after power-off
	Overcurrent and Short-circuit Protection	Manual recovery after power-off
Over temperature Protection	Automatic recovery after power-off	