UXR100040B

40kW@1000V ClassB ACDC Charging Power Module

+ Introduction

UXR100040B is a charging power module specifically designed to address the bottleneck in the charging station industry, boasting prominent advantages such as an ultra-high full-load working temperature and an ultra-wide constant power range within the industry. Meanwhile, key features of this module encompass high reliability, efficiency, power factor, and power density, as well as a wide output voltage range, low noise, minimal standby power consumption, and excellent EMC performance.

+ Excellent advantages

Ultra-wide output voltage range of 100–1000 Vdc

Ultra-wide output voltage range,suitable for a wide range of EVs.

Ultra-wide output constant power range: 300V–1000V

UXR100040B offers output range of 100-1000V, delivering 40kW constant power from 300V to 1000V, setting an industry standard for ultra-wide voltage and power ranges.

Semi-independent air duct design

Higher protection for high-voltage components inside the module to improve adaptability and reliability.

Electromagnetic compatibility meets Class B

Electromagnetic compatibility conforms to Class B exhibiting minimal electromagnetic radiation and robust resistance to interference.

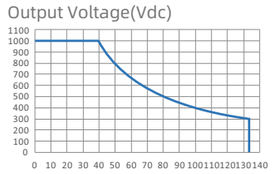
Ultra-wide output voltage range, suitable for various electric vehicle charging scenarios, designed for ultra-fast chargers.

Meets CE/UL certification requirements, complies with IEC-61851-21 standard for EMC Class B.

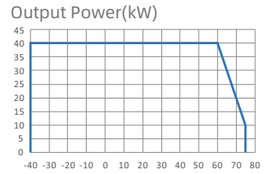
+ Key features

- Ultra-wide output voltage range,100~1000Vdc, suitable for different types of EVs;
- Ultra-high output power within the 300V~1000V output voltage range, 40KW constant power output;
- Full-load working efficiency ≥ 95.5%, high efficiency in full working range, extra energy saving;
- 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 high power density of 46.7W/in³ provides greater flexibility in charger design for equivalent power output;
- Meets CE / UL / UKCA Certification Requirements;

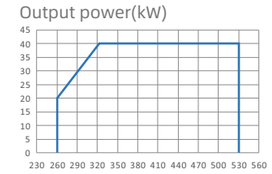
Output Voltage vs.Output Current Curve



Temperature Derating Curve



AC Input Power Limiting Curve



Item		Specifications
Basic Specifications	Dimensions	85mm（H）×360mm（W）×459mm（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
	Indicator	Green: normal operation Yellow: alarm Red: fault
Input Characteristics	Input Voltage	260Vac~530Vac,3P+PE
	Input Current	<80A
	Grid Frequency	45Hz~65Hz
	Power Factor	≥0.99
	ITHD	≤5%
Output Characteristic	Output Power	40kW@output voltage≥300Vdc
	Voltage Range	100Vdc～1000Vdc，default value：200Vdc
	Current Range	0A~133.3A
	Voltage stabilized accuracy	≤±0.5%
	Current stabilized accuracy	≤±1%
	Current Sharing Imbalance	≤±3%
	Ripple voltage peak value coefficient	≤1%
Environmental Conditions	Operating Temperature	- 40℃～+75℃，output derating at above 50℃
	Storage Temperature	- 40℃～+75℃
	Relative Humidity	≤ 95% RH，non-condensing
	Altitude	≤2000m
	MTBF	>500,000 hours
Protection Specifications	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