

UXC100040



40kW@1000V Isolate Unidirectional DCDC Charging Power Module



+ Introduction

UXC100040 is a high-power isolated unidirectional DC-DC charging module with an ultra-wide input and output voltage range, as well as an ultra-wide input and output voltage constant power range. It also boasts high protection and efficiency characteristics. The product is widely used in scenarios such as integrated PV energy storage charging stations, multi-vehicle DC charging stations, wind/solar energy primary stage conversion (MPPT), mobile robot charging, retired battery secondary utilization, and mobile charging vehicles.

+ Excellent advantages

High efficiency: **97.5%**

Operating efficiently across the entire load range, with a full load efficiency of up to 97.5%, saving energy and lowering operational expenses.

Electromagnetic compatibility
meets **Class B**

Complies with the IEC-61851-21 standard for EMC Class B, low electromagnetic radiation and strong anti-interference capability.

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

Ultra-wide
output voltage range: **50-1000**_{Vdc}

UXC100040 has an output voltage range of 50-1000Vdc. Its exceptionally wide voltage range makes it suitable for a variety of charging scenarios, meeting the fast charging needs of various EVs and battery packs.

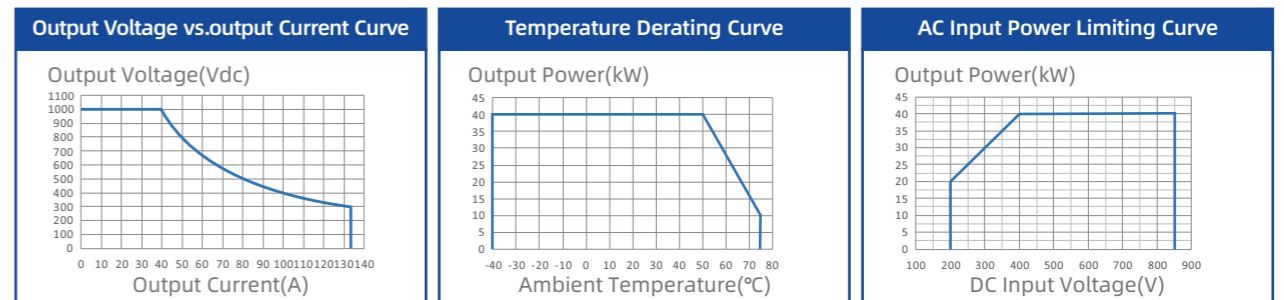
Adjustable **MPPT** Function

Enhance energy efficiency, boost system reliability, and prolong module lifespan.

Ultra-wide input voltage range, suitable for storage and charging applications with DC buses of different voltage levels.

+ Key features

- High power density at 46.7W/in³, leading industry volume design, saving design space and volume for charging stations;
- Adopting a semi-independent air duct design to improve reliability while simplifying maintenance;
- Ultra-wide input voltage constant power range of 400-850Vdc, effectively reducing energy loss and improving energy utilization efficiency;
- Full load peak efficiency up to 97.5%, reducing energy loss and improving energy utilization efficiency;



Item		Specifications
Basic Specifications	Dimensions	85mm (H) ×360mm (W) ×459mm (D)
	Weight	≤ 20 kg
	Efficiency (peak load)	>97.5%
	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	40kW@400-850Vdc, DC input +PE
	Input Current	<110A
	Input constant power range	400Vdc~850Vdc
Output Characteristic	Output Power	40KW
	Voltage Range	50Vdc ~ 1000Vdc
	Current Range	0A~133.3A
	Voltage stabilized accuracy	≤±0.5%
	Current stabilized accuracy	≤±1%
	Current Sharing Imbalance	≤±3%
Environmental Conditions	Peak-Peak Ripple	≤1%
	Operating Temperature	- 40°C ~ +75°C, output derating at above 50°C
	Storage	- 40°C ~ +75°C
	Relative Humidity	≤ 95% RH, non-condensing
	Altitude	≤2000 m
Protection Specifications	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