

UXR100040S

40kW@1000V High-Power Density Fully Potted Power Module



The UXR100040S is a high-power density, fully potted charging module. It features an ultra-wide voltage range, high full-load operating temperature, and superior efficiency. The module is designed for high reliability, high power factor, low noise, and low standby power consumption.

+ Application scenarios

- Super-fast charging stations
- Electric heavy-duty truck charging stations
- Airport and port charging facilities
- EV production line testing

+ Excellent advantages

Super standby mode

Standby power consumption <2W.

Fully potted protection

Enhances reliability and environmental adaptability.

The UXR100040S can operate at full load in environments up to 55°C, ensuring consistent charging speed.

Zero reactive power

Built-in circuit reduces reactive power loss.

High power density

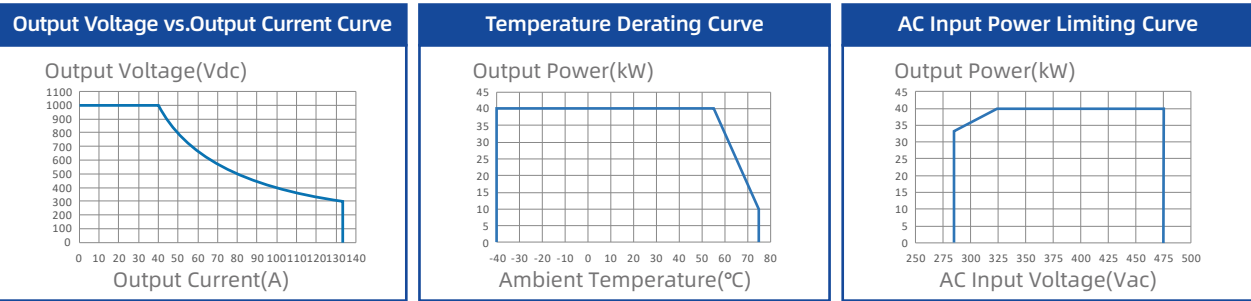
59.7_{W/in³}

The UXR100040S features an industry-leading compact design, saving space.

The ultra-wide constant power voltage range allows it to quickly adapt to various electric vehicle voltage levels, delivering a more efficient charging experience.

+ Key features

- Ultra-wide output voltage range of 50-1000Vdc;
- Constant power output at 40kW from 300-1000V;
- No current retraction in low voltage areas;
- Wide full-power temperature range (-40°C to +55°C);
- Built-in residual voltage discharge circuit,Reduces system costs and enhances reliability.



Item		Specifications
Basic Specifications	Dimensions	84mm (H) ×300 mm (W) ×432.9mm (D)
	Weight	≤17 kg
	Efficiency(full load)	≥96.3%
	Standby Power Consumption	Normal standby mode: 7W+/-0.5W ; Super standby mode: < 2W@380Vac
	Cooling Mode	Fan cooling
	Communication Bus Protocol	CAN Bus
	No.of Parallel Modules	≤60 pcs
	Indicator	Green: normal operation Yellow: alarm Red: fault
Input Characteristics	Input Voltage	285Vac ~ 475Vac , 3P + PE
	Input Current	< 76A
	Grid Frequency	45Hz ~ 65Hz
	Power Factor	≥0.98(8kW≤ output power ≤20kW); ≥0.98(20kW≤ output power ≤40kW)
	iTHD	≤5%
Output Characteristics	Output Power	40kW@output voltage ≥300Vdc
	Voltage Range	50Vdc ~ 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%
Electrical Isolation Method	Electrical Isolation Method	High Frequency Isolation
Environmental Conditions	Operating Temperature	-40°C ~ +75°C, output derating at above 55°C
	Storage Temperature	-40°C ~ + 75°C
	Relative Humidity	≤95%RH, non-condensing
	Altitude	No derating@ 2000m. When altitude ≥ 2000m, operating temperature decreases by 1°C for every 100m. The actual altitude value needs to be set @1000m
	MTBF	> 500,000 hrs
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