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UXR100030G



30kW@1000V High-Performance Fully Potted Power Module for International Markets



The UXR100030G is a fully potted charging module designed to meet the IEC 61851-23:2023 standard. It features ultra-high full-load operating temperature and ultra-wide constant power range. The module also offers high reliability, efficiency, power factor, power density, wide output voltage range, low noise, low standby power consumption, and excellent EMC performance.

Application scenarios

Super-fast charging stations

Electric heavy-duty truck charging and swapping stations

+ Excellent advantages

High efficiency **96.8**%

Utilizes SiC semiconductors, maintaining high efficiency across the entire operating range to reduce energy loss.

Fully potted protection

Enhances reliability and environmental adaptability.

Low noise and ultra-wide output voltage range provide a quieter and more comfortable fast-charging experience for users.

Highway service areas Industrial parks

Full load working during ultra-high temperature: 55 °C



Reliable operation between -40°C and 75°C, with full-load capability from -40°C to 55°C.

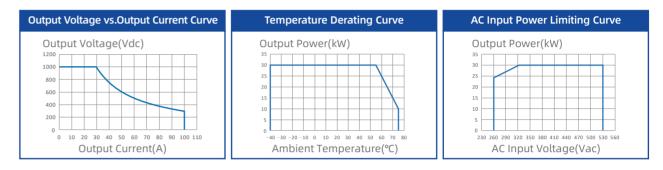
EMC Class B compliance

Low electromagnetic radiation and strong interference resistance.

Complies with CE and UL certifications, meets the latest IEC 61851-23:2023 standard, and achieves EMC Class B requirements.

+ Key features

- Ultra-wide output voltage range of 50-1000Vdc;
- Ultra-wide constant power output range of 300-1000V at 30kW;
- No current retraction in low voltage areas for faster charging;



binensions 85mm (H) x360 mm (W) x459mm (D) Velight ≤20 kg Efficiency(fullload) ≥96.3% Standby Power Consumption Normal standby mode: 13W+/-0.5W Super standby mode: <2W@3804cc Cooling Mode Fan cooling Communication Bus Protocol CAN Bus Indicator Green: normal operation Yellow: alarm Red: fault Indicator Green: normal operation Yellow: alarm Red: fault Input Current <60A Input Current <60A Forew Factor 20.95(6kWs output power \$15kW); 20.98(15kWs output power \$30kW) Velage Range 50/dc - 1000Vdc, default value: 200Vdc Voltage Range 50/dc - 1000Vdc, default value: 200Vdc Voltage Stabilized Accuracy \$5/% Voltage Stabilized Accuracy \$5/% Voltage Stabilized Accuracy \$5/% Voltage Stabilized Accuracy \$5/% Voltage Range \$0/dc - 1000Vdc, default value: 200Vdc Voltage Stabilized Accuracy \$5/% Current Sharing Imbalance \$3/% Retrical Isolation Method High Frequency Isolation Method \$5/% RI, non-	Item		Specifications
Basic SpecificationsEfficiency(full load)≥96.3%SpecificationsStandby Power ConsumptionNormal standby mode: 13W+/-0.5W Super standby mode: <2W@380Vac Confing ModeSpecificationsCooling ModeFan cooling Communication Bus ProtocolCAN BusNo.of Parallel Moduless60 pcsIndicatorGreen: normal operationYellow: alarmInput CharacteristicsInput Voltage260Vac ~ 530Vac , 3P+ PEInput Current<60A	Dable	Dimensions	85mm (H) ×360 mm (W) ×459mm (D)
Basic Specifications Standby Power Consumption Normal standby mode: 13W+/-0.5W Super standby mode: < 2W@380Vac Specifications Cooling Mode Fan cooling Communication Bus Protocol CAN Bus No.of Parallel Modules <60 pcs		Weight	≤20 kg
Specifications Cooling Mode Fan cooling Communication Bus Protocol CAN Bus No.of Parallel Modules s60 pcs Indicator Green: normal operation Input Input Voltage Linput Conversion Grid Frequency 45Hz ~ 65Hz Power Factor 20.95(6kWs output power ≤15kW); ≥0.98(15kW≤ output power ≤30kW) THD ≤5% Output Power 30kW@Output voltage ≥300Vdc Voltage Range 50Vdc ~ 1000Vdc, default value: 200Vdc Voltage Range 50Vdc ~ 1000Vdc, default value: 200Vdc Current Range 0A ~ 100A Voltage Stabilized Accuracy ≤±1% Current Sharing Imbalance ≤±3% Ripple Voltage Peak Value Coefficient <1%		Efficiency(full load)	≥96.3%
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No.of Parallel ModulesSoft parallel ModulesNo.of Parallel ModulesSoft parallel ModulesIndicatorGreen: normal operation Yellow: alarm Red: faultInput Uoltage260Vac ~ 530Vac, 3P+ PEInput Current< 60A		Cooling Mode	Fan cooling
IndicatorDespinationIndicatorGreen: normal operationYellow: alarmRed: faultInput Current< 60A		Communication Bus Protocol	CAN Bus
Input CharacteristicsInput Voltage260Vac ~ 530Vac , 3P+ PEInput Current< 60A		No.of Parallel Modules	≤60 pcs
Input CharacteristicsInput Current< 60AGrid Frequency45Hz ~ 65HzPower Factor>0.95(6kWs output power <15kW); >0.98(15kWs output power <30kW)		Indicator	Green: normal operation Yellow: alarm Red: fault
Input CharacteristicsGrid Frequency45Hz ~ 65HzPower Factor≥0.95(6kWs output power ≤15kW); ≥0.98(15kWs output power ≤30kW)iTHD≤5%OutputVoltage RangeOutput Power30kW@Output voltage ≥300VdcVoltage Range50Vdc ~ 1000Vdc, default value: 200VdcCurrent Range0A ~ 100AVoltage Stabilized Accuracy≤4.0.5%Current Stabilized Accuracy≤4.1%Current Sharing Imbalance≤±3%Ripple Voltage Peak Value Coefficient≤1%Electrical IsolationHigh Frequency IsolationMethodLiectrical IsolationConditionsQuerating TemperatureAtitude<95%RH, non-condensing		Input Voltage	260Vac ~ 530Vac , 3P+ PE
Grid Frequency 45Hz ~ 65Hz Power Factor >0.95(6kWs output power <15kW); >0.98(15kWs output power <30kW)		Input Current	<60A
Power Factor≥0.95(6kWs output power ≤15kW); ≥0.98(15kWs output power ≤30kW)iTHD≤5%0utput Power30kW@Output voltage ≥300VdcVoltage Range50Vdc ~ 1000Vdc, default value: 200VdcCurrent Range0A ~ 100AVoltage Stabilized Accuracy≤±0.5%Current Stabilized Accuracy≤±1%Current Sharing Imbalance≤±3%Riple Voltage Peak Value Coefficient51%Electrical Isolation MethodElectrical Isolation MethodMethodCorgar TemperatureActive Humidity<90%RH, non-condensing		Grid Frequency	45Hz ~ 65Hz
Number Note Output Power 30kW@Output voltage ≥300Vdc Voltage Range 50Vdc ~ 1000Vdc, default value: 200Vdc Current Range 0A ~ 100A Voltage Stabilized Accuracy ≤±0.5% Current Stabilized Accuracy ≤±1% Current Sharing Imbalance ≤±3% Ripple Voltage Peak Value Coefficient ≤1% Electrical Isolation Electrical Isolation Method High Frequency Isolation Method Operating Temperature -40°C ~ +75°C, output derating at above 55°C Storage Temperature -40°C ~ +75°C Storage Temperature Conditions 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 Input Over / Undervoltage Protection Automatic recovery after power-off Output Overvoltage Protection Manual recovery after power-off		Power Factor	≥0.95(6kW≤ output power ≤15kW); ≥0.98(15kW≤ output power ≤30kW)
Voltage Range 50Vdc ~ 1000Vdc, default value: 200Vdc Current Range 0A ~ 100A Voltage Stabilized Accuracy \$±0.5% Current Stabilized Accuracy \$±1% Current Sharing Imbalance \$±3% Ripple Voltage Peak Value Coefficient \$1% Electrical Isolation Electrical Isolation Method High Frequency Isolation Method Coperating Temperature -40°C ~ +75°C, output derating at above 55°C Storage Temperature -40°C ~ +75°C Relative Humidity Altitude \$95% RH, non-condensing 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 No derating Prover-off Protection Output Overvoltage Protection Automatic recovery after power-off Specifications Overcurrent and Short-circuit Protection Manual recovery after power-off		iTHD	≤5%
Output Characteristics Current Range OA ~ 100A Voltage Stabilized Accuracy ≤±0.5% Current Stabilized Accuracy ≤±0.5% Current Stabilized Accuracy ≤±1% Current Sharing Imbalance ≤±3% Ripple Voltage Peak Value Coefficient <1%		Output Power	30kW@Output voltage≥300Vdc
Output Characteristics Voltage Stabilized Accuracy set0.5% Current Stabilized Accuracy set0.5% Current Stabilized Accuracy set0.5% Current Sharing Imbalance set3% Ripple Voltage Peak Value Coefficient <1%		Voltage Range	50Vdc ~ 1000Vdc, default value: 200Vdc
Characteristics Current Stabilized Accuracy<±0.5%Current Stabilized Accuracy<±1%		Current Range	0A ~ 100A
Current Stabilized Accuracy≤±1%Current Sharing Imbalance≤±3%Ripple Voltage Peak Value Coefficient<1%		Voltage Stabilized Accuracy	≤±0.5%
Ripple Voltage Peak Value Coefficient<1%Electrical Isolation MethodElectrical Isolation MethodHigh Frequency IsolationOperating Temperature-40°C ~ +75°C, output derating at above 55°CStorage Temperature-40°C ~ +75°CRelative Humidity<95%RH, non-condensing		Current Stabilized Accuracy	≤±1%
Electrical Isolation MethodElectrical Isolation MethodHigh Frequency IsolationImage: DescriptionOperating Temperature-40°C ~ +75°C, output derating at above 55°CStorage Temperature-40°C ~ +75°CStorage Temperature-40°C ~ +75°CRelative Humidity≤95%RH, non-condensingAltitudeNo derating@ 2000m. When altitude ≥ 2000m, operating temperature decreases by 1°C for every 100m. The actual altitude value needs to be set @1000mMTBF> 500,000 hrsProtectionInput Over / Undervoltage ProtectionAutomatic recovery after power-offOutput Overvoltage ProtectionManual recovery after power-offOvercurrent and Short-circuit ProtectionManual recovery after power-off		Current Sharing Imbalance	≤±3%
MethodElectrical Isolation MethodHigh Frequency IsolationMethodOperating Temperature-40°C ~ +75°C, output derating at above 55°CStorage Temperature-40°C ~ +75°CRelative Humidity≤95%RH, non-condensingAltitudeNo derating@ 2000m. When altitude ≥ 2000m, operating temperature decreases by 1°C for every 100m. The actual altitude value needs to be set @1000mMTBF> 500,000 hrsProtectionInput Over / Undervoltage ProtectionAutomatic recovery after power-offSpecificationsOvercurrent and Short-circuit ProtectionManual recovery after power-off		Ripple Voltage Peak Value Coefficient	≤1%
Environmental Storage Temperature -40°C ~ + 75°C Relative Humidity ≤95%RH, non-condensing Conditions 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 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		Electrical Isolation Method	High Frequency Isolation
Environmental Conditions Relative Humidity ≤95%RH, non-condensing 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 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		Operating Temperature	-40°C ~ +75°C, output derating at above 55°C
Environmentat Protection 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 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		Storage Temperature	-40°C~ + 75°C
Altitude decreases by 1°C for every 100m. The actual altitude value needs to be set @1000m MTBF > 500,000 hrs 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		Relative Humidity	≤95%RH, non-condensing
Protection Input Over / Undervoltage Protection Automatic recovery after power-off Protection Output Overvoltage Protection Manual recovery after power-off Specifications Overcurrent and Short-circuit Protection Manual recovery after power-off		Altitude	decreases by 1°C for every 100m. The actual altitude value needs to be
Protection Output Overvoltage Protection Manual recovery after power-off Specifications Overcurrent and Short-circuit Protection Manual recovery after power-off		MTBF	> 500,000 hrs
Specifications Overcurrent and Short-circuit Protection Manual recovery after power-off		Input Over / Undervoltage Protection	Automatic recovery after power-off
		Output Overvoltage Protection	Manual recovery after power-off
Over Temperature Protection Automatic recovery after power-off		Overcurrent and Short-circuit Protection	Manual recovery after power-off
		Over Temperature Protection	Automatic recovery after power-off

- · Built-in residual voltage discharge circuit to reduce system cost and enhance reliability:
- Certified by CE, UL, and UKCA;