

ER22010/T & ER11020/T Rectifier Modules

Product Features

- 10A@220Vdc or 20A@110Vdc output
- High power density, 2U×4U ultra compact design
- DSP control, high reliability and integration
- All-weather operation at -40°C to +65°C
- Hot swappable, convenient and quick online maintenance
- Convenient fault check with fault code display
- CE certified, European Union RoHS complied, safe and environment-friendly



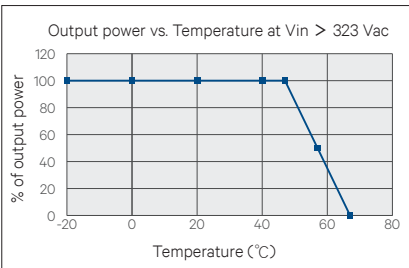
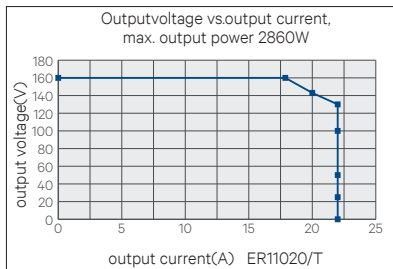
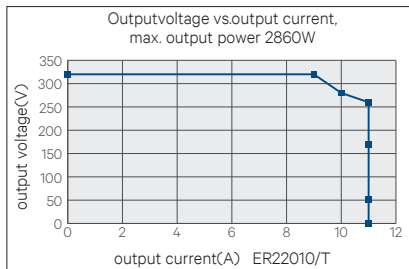
ER22010/T

Description

ER22010/T and ER11020/T rectifiers, using the advanced power technology and process, are designed for the DC systems in various transformer substations, hydropower plants, power plants and other DC power supply applications. They feature high efficiency, high power density, high reliability, intelligent control and aesthetic appearance.

ER22010/T and ER11020/T rectifiers are fitted with fans, features high power density, and are space-saving. 2U × 4U size and built-in blocking diode simplify the system design.

The rectifiers can be used with the EMU series controller to form a DC system. The rectifiers provide CAN communication and can be used with the EMU series controller to achieve simple and intuitionistic rectifier setting, adjustment and control.



Technical Specifications

Output Characteristic		
	ER22010/T	ER11020/T
Output voltage		
Nominal	220VDC	110VDC
Rated	234VDC	117VDC
Maximum	320VDC	160VDC
Minimum	176VDC	88VDC
Output current		
Rated	10A	20A
Maximum	11A	22A
Output power	Max. 2860W	
Efficiency	Up to 92%	
Load Voltage Regulation	± 0.5%	
Voltage stabilizing accuracy	± 0.5%	
Current stabilizing accuracy	± 0.5%	
Output current limit	20% ~ 110% rated current	
Soft start time	3 ~ 8s	
Ripple factor	≤ 0.1% rms	
Load sharing coefficient	± 3% (50% ~ 100% rated load)	
Noise	≤ 52dB	
Input Characteristic		
Input voltage		
Rated	380VAC	
Maximum	475VAC	
Minimum	323VAC	
Phases	3-phase (3W+PE)	
Power factor	≥ 0.92	
THDi	≤ 30%	
Environmental		
Operating temperature	-10°C ~ 45°C	
Minimum start temperature	-40°C	
Maximum operating temperature	65°C	
Relative humidity	≤ 95%	
Rated atmospheric pressure and altitude	80kPa ~ 106kPa (altitude:0 ~ 2000m)	
Transport and storage temperature	-40°C ~ +65°C	
Transport and storage humidity	≤ 95%	
Safety		
Standard	EN 60950-1(CE marked)	
Protection level	IP20	
EMC		
Emission	EN 61000-6-4:2007 (CE& RE CLASS A)	

Immunity	EN 61000-6-2:2005
Reliability	
MTBF	250,000h (Bellcore TR332)
RoHS	R10
Function	
Input protection	
Over-voltage protection	No output after the protection; self-recoverable
Under-voltage protection	No output after the protection; self-recoverable
Phase lack or unbalanced between phases	Half rated power output
Output protection	
Over-voltage protection	Supporting overvoltage protection via hardware and software; no output after the protection; manually recoverable; Hardware threshold higher than 324V or 164V; Software threshold configurable.
Under-voltage protection	Software threshold configurable; output available. Self-recoverable.
Hot swap	Available
Short current limit	110% rated current; self-recoverable
Over-temperature protection	No output after the protection; self-recoverable
Cooling	Forced air cooling
Fan control	Ambient temperature and output current combine to control the fan speed
Communication interface	CAN
Mechanical	
Width	88mm (2U)
Height	176mm (4U)
Depth	315mm
Weight	≤ 6kg

