

ZHR483KG

Power rectifier AV220V to DC 48V, 3000W

PROSE

The appearance of the ZHR483KG rectifier module is shown below.



Parameter	Min.	Typical	Max.	Unit	Remark
Input					
Input voltage range	185	230	275	Vac	Single-phase/full load (275~305VAC can work, no index assessment)
Input voltage range	90		185	Vac	Single-phase/power-limited
Input frequency	45	50	66	Hz	Rated load
Input current	/	13	18	A	
Power factor	/	0.99			Rated I/O, 100% of maximum power
	/	0.99			Rated I/O, 50% of maximum power
	/	0.97			Rated I/O, 30% of maximum power
Harmonic currents	/	< 5%			Rated I/O, 100% of maximum power
		< 8%			Rated I/O, 50% of maximum power
	/	< 12%			Rated I/O, 30% of maximum power
The impulse current is instantaneous when the machine is turned on	≤Maximum steady-state input 150% of peak current				Rated input/rated load
Output					
Output voltage	42	53.5	58.5	Vdc	Customer setting, performance for 43.0V~58.0V
Output current		50	62.5	A	When input 185~275Vac Output 48.0V-58.0V
Output power			3000	W	When input 185~275Vac Output 48.0V-58.0V
Voltage regulation accuracy			±0.6	%	10%-100% Rated load
Loading effect			±0.5	%	10%-100% Rated load

Source effects			±0.1	%	
efficiency	95.0			%	100% of Rated load
	96.0			%	50% of Rated load
	95.5			%	30% of Rated load
Temperature coefficient			±0.02	%/℃	
Dynamically respond to recovery times			200	us	25%-50%-25% lo load change 50%-75%-50% lo load change
			50	ms	10%-90%-10% lo load change
Boot time	3		10	s	
Switching on and off overshoot			5	%	
Fluid averaging			±5	%	50%-100% rated load
Steady flow accuracy			±3	%	20%-100% rated load
Environment data					
Operating temperature	-40 to +75			℃	
Storage temperature	-40 to +85			℃	
relative humidity	≤90			%	
atmospheric pressure	70-106			kPa	
Cooling method	Air-cooled				
noises	< 58			dB	
Ground resistance	≤0.1			Ω	
Leakage current	≤3.5			mA	
Safety standards					
ESD immunity requirements: EN/IEC 61000-4-2, level 3					
Radiation immunity: EN/IEC 61000-4-3, level 3					
Fast transient burst immunity requirements: EN/IEC 61000-4-4, level 3					
Lightning strike: EN/IEC61000-4-5 Level 4, ANSI C62.41 Level A3					
Conductive immunity: EN/IEC 61000-4-6 level 3					
Harmonic emission: EN/IEC61000-3-2					
Radiated emissions*: EN55022, Class B					
Conducted emissions: EN55022, AC- Class B, DC- Class A					
Environment alarms					
Items	Description			Remark	
Short-circuit protection	The current retracts to a given			Automatically resume work after the	

	current value	fault is eliminated
Overvoltage protection	Setable, default is 59.7Vdc Cannot be restored and needs to be rebooted and restored	There is no DC output after protection
Undervoltage alarm	Less than setting, default is 42Vdc	Still DC output after protection This feature is not available for individual modules
Overvoltage protection point	$\geq 305\text{Vac}$, Recoverable	No DC output after protection
Undervoltage protection point	$< 185\text{Vac}$	No DC output after protection
	$< 75\text{Vrms} \pm 5\text{V}$, module shutdown	No DC output after protection
Over-temperature protection	When $> 75^{\circ}\text{C}$, output power 0 Watter	
Power over-temperature protection	When the PFC power temperature $> 105^{\circ}\text{C}$ or the SR power temperature $> 115^{\circ}\text{C}$, the module shuts down, and the module powers back on when the PFC power temperature $< 80^{\circ}\text{C}$ and the SR power temperature $< 100^{\circ}\text{C}$	Module shutdown protection; When the temperature drops to the recovery point, work can be automatically resumed
Fan temperature control	Adopt a temperature-controlled fan rotation method	
Limited power control	When the output voltage is 48.0V~58.0V, the constant power control, the maximum output power is 3000W, and when the output voltage is 42.0~48.0V, the maximum output current limiting point is 62.5A; When the ambient temperature $T_a > 55^{\circ}\text{C}$, the power limit is started	

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