Rectifier Module

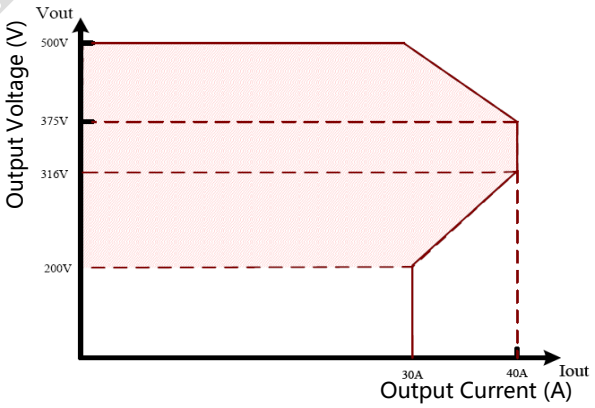
R50030G1

Introduction

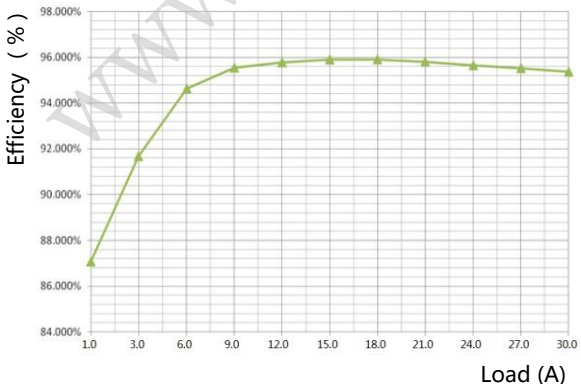
R50030G1 is a high efficiency and high power density 15kW AC-DC rectifier. It supports 3 phases 260Vac~456Vac input voltage and 500Vdc nominal output. It is built in isolated CAN bus port to communicate with the control unit using CAN protocol. The output can be adjusted through the control unit. Features including soft start, input output protections, low noise and parallelable.

Features

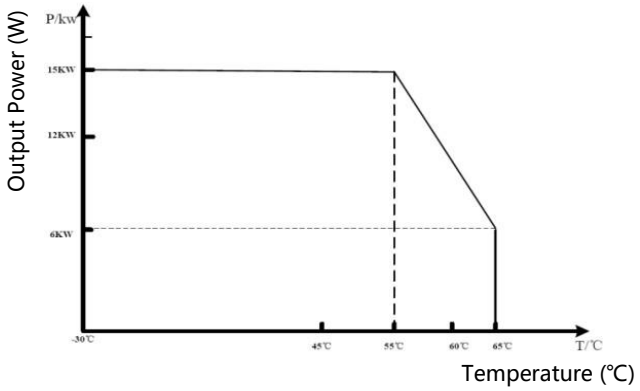
- Efficiency Over 95.8%
- Wide Input Voltage Range 260Vac ~ 456Vac
- Operating Temperature −30℃ ~ +65℃
- THD ≤ 5%
- Hot Swap
- Digital Control
- Supports CAN communication Protocol
- Supports Voltage Adjustment, Current Adjustment and Current Sharing
- RoHS Compliant



Output Curve



Efficiency Curve



Derating Curve

Parameters

Product		R50030G1
Basic Information	Dimensions	83 (H) mm × 206 (W) mm × 470 (D) mm
	Weight	≤ 12.0kg
	Cooling	Fan Cooling (Digital Control)
Input	Input Voltage	260Vac ~ 456Vac
	Input Mode	3 phases 4 lines
	Input Frequency	40Hz ~ 70Hz Nominal 50Hz/60Hz
	Input Current	< 33A
	Power Factor	≥ 0.98 (Load ≥ 50%) , ≥ 0.99 (Full Load)
	THD	≤ 5% (Load ≥ 50%)
Output	Output Voltage	200Vdc ~ 500Vdc Nominal 500Vdc
	Output Power	15000W (304Vac ~ 456Vac) 7500W (260Vac , 260Vac ~ 304Vac linear derating)
Environment	Operating Temperature	–30℃ ~ +65℃ , Output de-rate above 55℃
	Storage Temperature	–40℃ ~ +75℃
	Relative Humidity	5% ~ 95% (Non condensing)
	Altitude	≤4000m (2000 ~ 4000m temperature derating, reduce 1℃ for every 200m rising)
Protection	Input Over Voltage	470Vac ~ 490Vac (line to line voltage)
	Input Under Voltage	230Vac ~ 260Vac (line to line voltage)
	Output Over Voltage	510Vdc (+/- 5Vdc)
	Output Short Circuit	Short circuit protection (can be long time) and auto restart after fault removed
	Over Temperature	≥ 65℃ trip protection , ≤ 60℃ auto resume
Reliability	MTBF	> 400,000 hours
Noise	Indication	≤ 55dB
Safety/EMC/ Lightning	Safety Approval	Pending
	EMC	CISPR22 IEC61000-3-11 IEC61000-3-12 IEC61000-4-2 IEC61000-4-3 IEC61000-4-4 IEC61000-4-5 IEC61000-4-6 IEC61000-4-11
	Lightning	5KA

General Disclaimer

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