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# Rectifier Module – DZY Series

## FEATURES

**High efficiency and highest power density**  
Typical 96%

**Digitalized control**  
Digitalized Primary and secondary controls could realize excellent monitoring and regulation.

**High reliability design**  
One fan front-to-back air flow with latest thermal solution and experienced electric synthesize ensure suitable working environment and high reliability.

**Disconnect mains when hazardous input**  
DZY-48/50H I will disconnect mains to protect itself when it can not sustain the input voltage.

**Excellent EMC performance**

**Lower interference and excellent susceptibility give module better reliability**

DZY 48/50 I



## INTRODUCTION

DZY-48/50H I is a digitalized rectifier module with outstanding reliability. Over 96% power efficiency and automatic sleep function could save much energy consumption. DZY series and Smart Power series rectifier module and the power system is a big family of -48V DC power system which could cover global demand for telecom applications with wide operating temperature and wide input voltage range.



## APPLICATIONS

- Wireless communication
- Broadband and network access
- Satellite communication ground station
- 3G/ 4G / 5G base station
- Telecom roadside cabinets

- Switch Mode Power System
- Remote Monitoring System
- Renewable Energy Solution

- Distribution Cabinet
- DC/DC Converter
- Hybrid Power System

- Inverter
- UPS/EPS
- HVDC UPS

# SPECIFICATIONS

AC Input	
AC supply	Nominal: 220/240Vac 1ph Tolerances: 85-300Vac 1ph
Frequency	50~60Hz
Input current	≤13Arms at nominal input ≤16Arms at 185Vac input
Power Factor	>0.99
Input protection	Varistors for transient protection
THD	<5% at 50-100% load

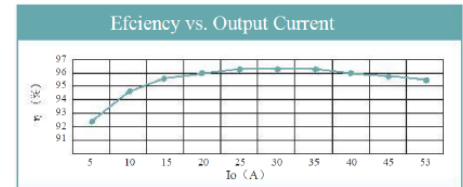
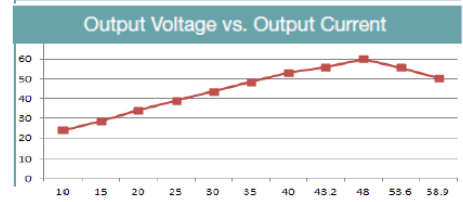
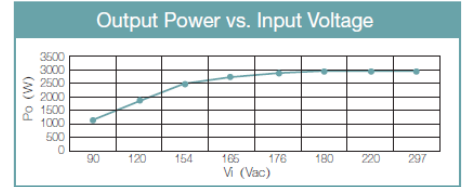
Applicable Standards	
Electrical Safety	IEC60950 UL60950
EMC	IEC61000-4-6(conducted immunity)
	IEC61000-4-3(radiated immunity)
	IEC61000-4-2(electrostatic discharge)
	IEC61000-4-4(fast transients)
	IEC61000-4-5(surge immunity)
	IEC61000-4-11
	IEC61000-3-3
Harmonics	EN 61000-3-2

Environment	ETSI EN 300 019-2(-1,-2,-3)
	ETSI EN 300 132-2
	Telcordia NEBS GR63 CORE Zone 4
	RoHS compliant

DC Output	
Output voltage	Nominal output: 48VDC Standby test range: 42~58VDC
Output power	2900W at nominal input Constant Power: >53.6VDC Derating below:1140W at 85Vac
Output current	60.5A at nominal input
Efficiency	Typical:96%
Current sharing	≤±5% unbalance of average current of all paralleled modules
Static Voltage Regulation	±0.5% from 5% to 100% load
Dynamic voltage regulation	±5% for 25-50% or 50-75%load variation, regulation time <200us
Holdup time	>10ms, (50A when output voltage from 53.6V to 43.2V.
Ripple and Noise	<200mV p-p, 20MHz bandwidth <2.0mVrms psophometric
Output protection	Overvoltage shutdown Short circuit proof High temperature protection Output fuse

Other Specifications	
Alarm	Mains over or under voltage
	Mains over voltage disconnection
	High ambient temperature
	Short on output from outside
Cooling	One fan (front to back airflow)
Fan speed	Temperature and output current regulated
MTBF	>100,000 hours
Acoustic noise	<55dBA at nominal input and Full load (Tambient<30°C)
Operating temp	-5 to +55°C (-40 to +167°F) -40 to +55°C (full load)
Storage temp	-40 to +85°C (-40 to +185°F)
Humidity	Operating:≤95% non-condensing Storage:≤99% non-condensing
Dimensions	73W×312D×133H (mm)
Weight	2.5 kg

## DIAGRAMS



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\*Subject to change without notice.

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