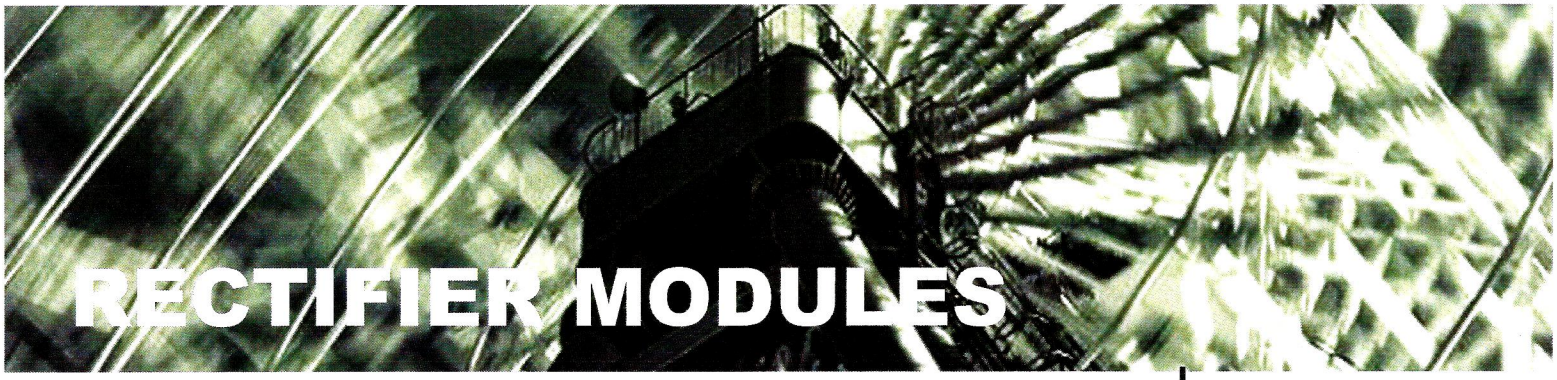

RECTIFIER MODULES

Rectifier modules – Smart Power II Series

Smart Power II 48/2000 HE

Features

- High efficiency and highest power density

  96%efficiency and 22.40 W/ in^3 power density.
- 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 synthetize ensure suitable working environment and high reliability
- Disconnect mains when hazardous input

  Smart Power II 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
- Global approvals

  Smart Power I is CE marked, UL recognized and TUV certified for worldwide application.

Introduction

Smart Power II 48/2000 HE is a digitalized rectifier with outstanding reliability, efficiency and power density. It is specially designed for telecom, network access, center data room applications with outstanding reliability and performance as DC power.

Applications

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

Technical Specifications

Input	
AC Supply	85-300VAC (Nominal 176-300VAC)
Over-voltage alarm	305±5VAC hysteresis voltage>10V
Under-voltage alarm	80±5 VAC, hysteresis voltage >15V
Frequency	45~65Hz
Input current	≤18Arms at nominal input ≤21Arms at 176Vac input
Power Factor	>0.99 at 40% load or more
Startup time	3S-8S
Input protection	Varistors for transient protection

Output	
Output Voltage	53.5VDC (±0.15V) (42--58VDC adjustable)
Output Power	2000W at nominal input
Output Current	37.9A±0.5A@normal input
Voltage Regulation	±0.6%
Efficiency	Typical 95%，max 96%
Current sharing	≤±5% unbalance of average current of all paralleled modules
Holdup time	>10ms Constant power 2000W when output voltage from 53.5V to 42V.
Output protection	59±1VDC Overvoltage shutdown Short circuit proof High temperature protection Fuse

Other specifications	
Isolation	3.0KVAC-input and output 1.5KVAC-input and earth 0.5KVAC-output and earth
Alarm	Mains over or under voltage Mains over voltage disconnection High or low ambient temperature Short on output from outside
Faults	Fan failure PFC failure Over voltage shutdown on output internal Over temperature on hot point Communication failure between primary and secondary
Protection level	IP20
Cooling	One fan (front to back airflow)
MTBF	> 300, 000 hours (T ambient : 25°C)
Fan speed	Temperature and output current regulated
Acoustic noise	<55dBA at nominal input and Full load(Tambient < 30°C)
Operating temp	-40 to +75°C (-40 to +167°F)
Temp range	-40 to +55°C(-40 to +131°F) full load
Storage temp	-40 to +85°C (-40 to +185°F)
Humidity	Operating: ≤95% non-condensing; Storage: ≤99% non-condensing
Dimensions	108W x 327.2D x 41.4 H (mm)
Weight	2.2kg

Applicable Standards	
Electrical Safety	IEC60950 UL60950
EMC	EN55022 ClassB(emission) 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 compiant