ETR+ 2048

Efficient : Trusted : Reliable

PRODUCT DESCRIPTION

The fully Digital Controlled ETR+ 2048 rectifier module is designed and optimized for demanding power needs across different applications and industries.

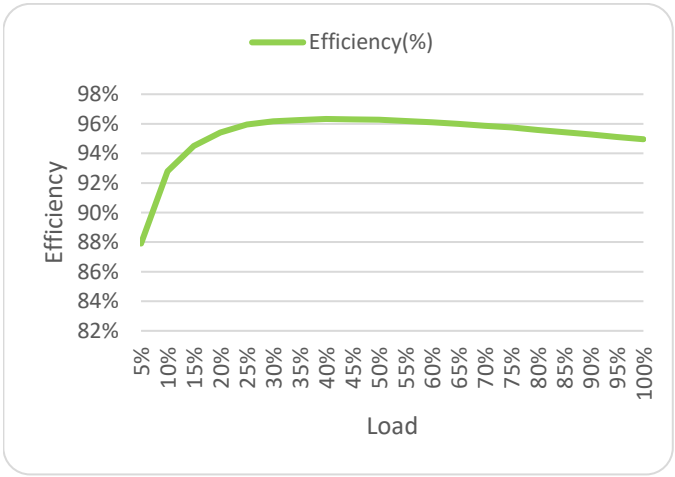
The modularity design, coupled with its cost effectiveness package, power density and reliability, ensures the overall availability of the system solution.

KEY FEATURES

- **Fully Digital Controlled**
  Reduces component count and improves reliability
- **Modular, Scalable and Hot Swappable**
  Flexible installations
- **High Power Density**
  Reduces footprint
- **Highly Efficient @ >96%**
  Reduces losses and lowers operating costs
- **Front-to-back Airflow**
  Unobstructed scalability of shelves
- **Excellent EMC Performance**
  Lower interference and excellent susceptibility
- **Wide Input Voltage Range**
  Continued operation in demanding grid conditions
- **Wide Temperature Range**
  Applications in harsh climatic conditions
- **Compliant with Global Standards**
  Delivers quality, performance and reliability in power solutions

APPLICATIONS

- Macro cell BTS
- Microwave
- LTE / WiMax
- FTTX
- Broadband Access
- Optical Fibre Transmission System
- IDC (Internet Data Centres)



TECHNICAL SPECIFICATIONS

MODEL	ETR+ 2048
Capacity	2000W
AC INPUT	
Voltage Range	85Vac to 305Vac (Nominal @ 185Vac to 275Vac)
Frequency	45Hz to 66Hz
Maximum Input Current	Max 11.6Arms @ 185Vac (full load)
Power Factor	>0.99 @ rated input and ≥50% load
Input Protection	Varistors for transient protection, Mains Fuse for both input lines
	Shutdown @ > 305Vac with hysteresis
DC OUTPUT	
Output Voltage	53.5Vdc (adjustable 43Vdc to 58Vdc)
Output Power (Maximum)	2000W @ nominal input
Output Current (Maximum)	41.7A @ 48Vdc with nominal input
Peak Efficiency	up to 96.5%
Current Sharing	<= ±5% of max current from 20% to 100% load
Static Voltage Regulation	±0.6% from 10% to 100% load
Dynamic Voltage Regulation	±5% for 10%-90% or 90%-10% load variation, regulation time <50ms
Hold Up Time	>20ms; output voltage >43.5Vdc @ 1000W
Ripple and Noise	<150mVp-p, 20MHz bandwidth
	<2mVrms psophometric
Output Protection	Overvoltage shutdown; hot plug-in, inrush current limiting; high temperature protection; short circuit proof
CONTROL and MONITORING	
Rectifier Alarm and Signaling	High & low mains shutdown, high temperature shutdwon, rectifier failure, overvoltage shutdown, fan failure, communication failure
Visual Indications	Alarms - RED
	Warning - YELLOW
	Normal operation - GREEN
OTHER SPECIFICATIONS	
Isolation	Input to Output: 3.0kVac, Input to Earth: 1.5kVac, Output to Earth: 0.5kVdc
Cooling	Fan-cooled, front to back airflow
Fan Speed	Regulated by temperature and output power
MTBF	> 300,000 hrs @ 25°C
ENVIRONMENTAL	
Operating Temperature Range	-40°C to +75°C (de-rates above 55°C)
Storage Temperature Range	-40°C to +85°C
Relative Humidity	Operating: 5% to 95% RH non-condensing
	Storage: 0% to 99% RH non-condensing
Acoustic Noise	<58dB @ full load, 25°C
PHYSICAL	
Dimensions WxDxH (mm)	109 x 310.5 x 41 (1U)
Net Weight (kg)	1.7
DESIGN STANDARDS	
Electrical Safety	EN/IEC62368-1
EMC	EN55022/CISPR22 Class B, EN61000-6-1/-2/-3/-4
AC Harmonics	EN61000-3-2
AC Flicker and Fluctations	EN61000-3-3
Others	CE, RoHS compliant

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Authorised, valued-added distributor

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