



ETR⁺ 6048

Efficient : Trusted : Reliable

PRODUCT DESCRIPTION

The fully Digital Controlled true 3-phase ETR⁺ 6048 rectifier module is designed and optimized for the demanding power needs across different applications and industries.

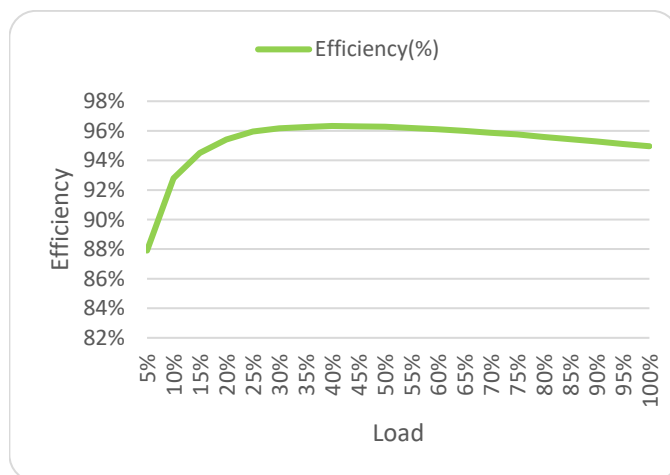
The modularity design, coupled with its cost effectiveness package, power density and reliability, ensures the overall availability of the system solution.

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

- Core Network
- Fixed Line
- Wireless
- FTTX
- Broadband Access
- IDC (Internet Data Centres)



TECHNICAL SPECIFICATIONS

PART NUMBER	381060.100
Capacity	6000W
AC INPUT	
Voltage Range	250Vac to 475Vac (Nominal @ 323Vac to 456Vac)
Frequency	45Hz to 66Hz
Maximum Input Current	12A / Phase
Power Factor	≥0.99
Input Protection	Varistors for transient protection, Mains Fuse for both input lines Shutdown @ > 475Vac with hysteresis
DC OUTPUT	
Output Voltage	53.5Vdc (adjustable 43Vdc to 58Vdc)
Output Power (Maximum)	6000W @ nominal input
Output Current (Maximum)	125A @ 48Vdc with nominal input
Peak Efficiency	up to 96%
Current Sharing	≤ ±5% of max current from 20% to 100% load
Static Voltage Regulation	≤±0.5% from 5% to 100% load
Dynamic Voltage Regulation	≤±5% for 10%-90% or 90%-10% load variation, regulation time <50ms
Hold Up Time	>10ms; output voltage >43.5Vdc @ 3000W
Ripple and Noise	≤200mVp-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 shutdown, 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	-10°C to +65°C (de-rates above 50°C)
Storage Temperature Range	-40°C to +70°C
Relative Humidity	Operating: 5% to 98% RH non-condensing
	Storage: 0% to 98% RH non-condensing
Acoustic Noise	≤58dB @ full load, 40°C
PHYSICAL	
Dimensions WxDxH (mm)	210 x 345 x 86 (2U)
Net Weight (kg)	≤6.2
DESIGN STANDARDS	
Electrical Safety	EN/IEC62368-1
EMC	EN ETSI 300 386 V2.1.1, EN61000-4-2/-3/-4/-5/-11
Others	CE, RoHS compliant