

Rectifier Module

3000U Series



AC Input

Voltage	85Vac~ 300Vac (nominal 100Vac to 240Vac)
Frequency	45Hz-65Hz
Power factor	$\geq 0.99@220\text{Vac}/50\text{A}$, $\geq 0.98@220\text{Vac}/25\text{A}$
Input protection	L-line fuse 25A Varistors for transient protection
THD	$\leq 5\%$ (for 50%~100% load)

DC Output

Voltage	+53.5Vdc
Output power	3000W(175Vac~300Vac), 1200W(85Vac~174Vac)
Maximum current	55A
Current sharing	5%
Dynamic voltage regulation	$\pm 5.0\%$ for 10-90% or 90-10% load variation, regulation time < 200us
load regulation	$\pm 0.5\%$ from 10% to 100% load
Ripple and noise	< 200 mV peak to peak, 30 MHz bandwidth, < 2 mV rms psophometric
Output protection	Overvoltage shutdown Hot swappable - Inrush current limiting Fuse Short circuit proof High temperature protection



Overview

The innovative design makes great customer advantages of high efficiency, reliable and cost-effective. With up to 93% efficiency, the power loss will be 60% reduced by, as well as a big TCO reduction.

Efficiency

- **3000US:** $\geq 93.0\%$ @220Vac@peak,
 $\geq 92.5\%$ @220V ac@100% load
- **3000UM:** $\geq 95.0\%$ @220Vac@peak,
 $\geq 94.0\%$ @220V ac@100% load
- **3000UH:** $\geq 96.0\%$ @220Vac@peak,
 $\geq 95.0\%$ @220V ac@100% load

Applications

- BTS, fiber and switch telecom

Telecommunication carriers consume more and more energy, reducing the power consumption is carriers' overwhelming society duty, and they have to cut TCO by power saving to face competition.

The LongXing high efficiency module has high efficiency in a wide load range, it's bigger than 92% from 20% to 80% load rate with peak 94%, it benefits from LongXing's standout synchronous resonance technology.

- Network access

For medium and small power network access, the high efficiency module is key component of power supply operation in indoor/outdoor harsh environment with high reliability.

- Data center, powers server and computer

The high efficiency module is also designed for data center to replace UPS power, comparing with UPS's born disadvantage—low efficiency, low reliability, high maintenance cost, the high efficiency module suits for data center excellently.

The power supply for data center, it powers from 3KW to 400KW.

- Self protection and reliability

DSP control with advanced software ensures the overall functions to meet almost all requirements from customers.

The basic protection of input/output fuse, and input/output low voltage/over voltage protection, also high level protection of power de-rated when input low voltage and high temperature, and temp. regulated fan speed, all these functions create high reliability.

Hot-plug and easy maintenance

The monitor will automatically recognize new plug module and communicate, and communication between modules via RS485 for load sharing even when the monitor is fault.

The module is spring screw locked with its light weight and small dimension, zero setting, the module replacement is non-tool and very easy, the low technology worker is certificated.

Design Standards

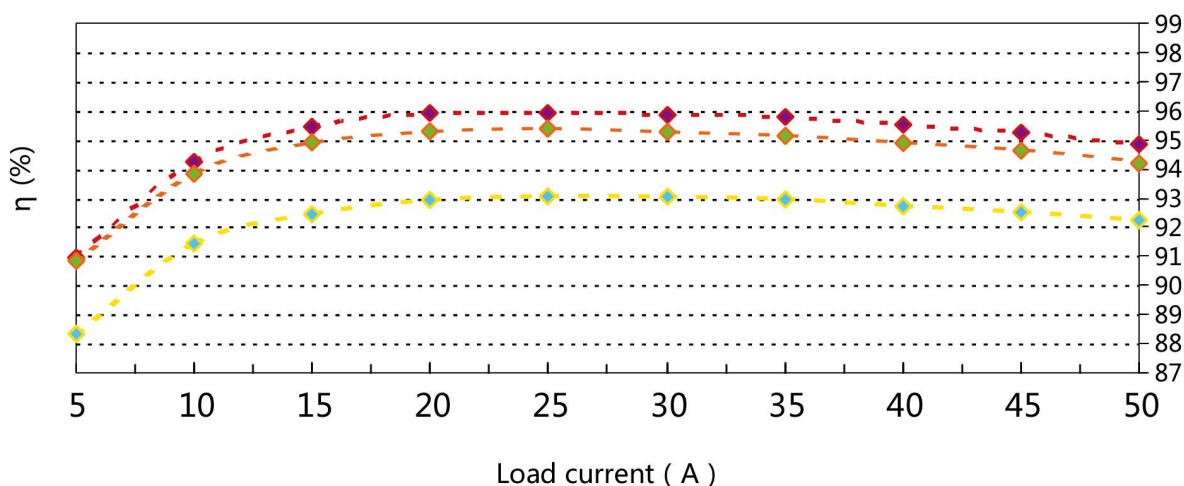
Safety	IEC 60950-1
EMC	EN 61 000-6-1 (immunity, light industry)
	EN 61 000-6-2 (immunity, industry)
	EN 61 000-6-3 (emission, light industry)
	EN 61 000-6-4 (emission, industry)
Environment	ETSI EN 300 019-2 RoHS compliant



Other Specifications

Isolation	3.0 KVAC – input and output 1.5 KVAC – input earth 0.5 KVDC – output earth
Indicator LEDs	Green--normal Yellow--protection warning Red--failure
Alarms	Low mains shutdown High temperature shutdown Rectifier Failure Output overvoltage shutdown Fan failure
Warnings	Rectifier in power derate mode Remote battery current limit activated Input voltage out of range Low voltage alarm LVD activated
Operating temp	-40~+55°C 100% power output +55~+65°C, 50% power derated output
Storage temp	-40 to +70°C
Cooling fan	Temperature regulated air front to back
MTBF	500000 hours
Acoustic noise	50dB
Humidity	10%~95% no condensing
dimensions	107mm(W)*295mm(D)*42mm(H)
Weight	1.7kg

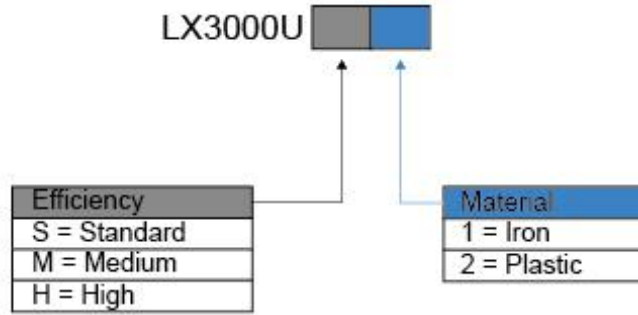
3000US : - - ◆ - - η @ /220Vac
 3000UM : - - ◆ - - η @ /220Vac
 3000UH : - - ◆ - - η @ /220Vac



Part Details



Catalog Number



Ordering Example:

LX3000UM1: Medium efficiency, Iron panel.

More relevant designs for your reference.

Output power	Efficiency: @220VAC@peak	Material	Height
1800S	≥93.2%	Iron	1U
1800M	≥95.5%	Iron	1U
1800H	≥96.1%	Iron	1U
3000S	≥93.2%	Iron/Plastic	2.5U/2U(P)
3000M	≥95.2%	Iron/Plastic	2.5U/2U(P)
3000H	≥96.4%	Iron/Plastic	2.5U/2U(P)
3000US	≥93.0%	Iron	1U
3000UM	≥95.2%	Iron	1U
3000U-H	≥96.0%	Iron	1U

