

ENERGY SWITCH FLEX VERSION 2016

ES8000

a smart product by Racktivity



Racktivity new Flex EnergySwitch Smart PDUs equip your data center with the industry's most advanced metering and switching capabilities in a modular design, allowing any combination of C13 and C19 outlets with integrated retention.

All Racktivity EnergySwitch Smart PDUs are built upon Racktivity's real-time operating system, EnergyOS™ to provide the highest degree of granular real-time PowerQuality type metrics. EnergyOS™ implements the hardware-related portions of Racktivity's EnergyDNA™ technology to provide real-time remote PDU-level and outlet-level true RMS monitoring of current (A), voltage (V), power factor (%) and energy consumption (kWh) with +/- 1% accuracy.

All of this allows you to work with current, relevant and actionable power utilization data to make informed decisions on load balancing and managing IT assets based on event triggers and energy consumption to lower total cost of ownership.

The Racktivity PDUs provide you with a powerful system for energy and capacity optimisation with reliable IT asset protection, all in one unit.

benefits

- › Prevents complete racks to go down in case of a short circuit thanks to electronic fast fuse and inrush current protected relays
- › Fore-warned is fore-armed: pro-actively prevent downtime by creating customised alarms
- › Identify and eliminate idle servers
- › identify failing power supplies
- › Plan capacity and avoid inefficient power usage
- › Allowing sensor connection via USB or Racktivity RBUS-V3 which provides highly granular information regarding environmental status
- › Full-feature and easy integration with our DCPM V2(*) solution, ultimate hosting software to monitor, manage and optimise your power usage and environmental information
- › Know exactly how much energy each customer consumes, enabling you to provide correct billing information to your customers

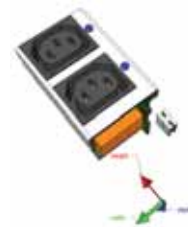
features

- › Real time, true RMS measurement at outlet level: power, apparent power, current, power factor, kiloVolt AmpHrs, consumption
- › Unique Oscilloscope and up to 59th harmonics visualisation per outlet
- › Individual power outlet-level monitoring and switching
- › Server-based authentication
- › EnergyOS operating system, implementing Racktivity's EnergyDNA technology, which leverages Digital Signal Processing (DSP) chipsets including Fast-Fouriere Transformations to provide the utmost detailed understanding about power you can get from any source
- › Detailed audit logging and event management
- › Modular design allowing unlimited combinations of C13 and C19 outlets in a Vertical (0U) form factor
- › Gigabit Internet, USB and Racktivity R-BUS V3 connections

(*) : estimated available Summer 2016

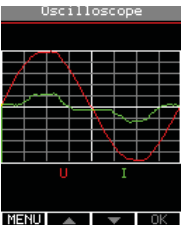
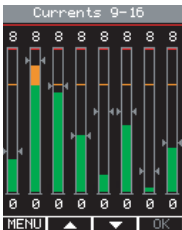
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Racktivity



technical specifications

MEASURE



- › True RMS (25.000 samples/second/outlet)
- › Billing grade accuracy +/- 1%
- › Inlet - PDU totals: Voltage (V), Power (W), Apparent Power (VA), Current (A), Power Factor (%), Frequency (Hz), Energy Consumption (kWh), KiloVolt Amp Hours (kVAh)
- › Outlet: Power (W), Apparent Power (VA), Current (A), Power Factor (%), Energy Consumption (kWh), Kilovolt Ampère Hours (kVAh)
- › Event logging
- › Detailed logging: besides logging all measurements every 5 minutes, all power related behaviour deemed 'deviant' is logged for several seconds before & after occurring
- › Oscilloscope view: real-time wave form graph of voltage & current per outlet

SECURITY & ALARMS

- › SNMP V2,V3,.. TRAPS, SETs, GETs support
- › Secure web site (HTTPS)
- › SSL TLS 1.2 or higher certificate
- › Visible alarm indicator
- › Warning level for Voltage, Power, Current
- › Programmable outlet startup sequence
- › Priority outlet overcurrent management
- › Programmable electronics soft fuse
- › Voltage micro interruptions & phase shift detection
- › Inrush current protection when toggling outlets on or off using zero crossing
- › switching
- › High-level Server-based authentication/authorisation

CONTROL & COMMUNICATION

- › Ethernet : Dual Gigabit auto detecting
- › Racktivity R-BUSV3 connector for connecting Racktivity sensors
- › Remote access web interface through web browser
- › CLI (Commande Line Interface): Telnet SSH
- › NFC I/F : control & monitor outlet states, warnings, voltage, current, power factor, network settings, oscilloscope view via your mobile phone or table..

mechanical specifications

Code	Description	Height in mm	in U	Code	Description	Height in mm	in U		
ES8000-B	Base frame including :			ES8000-CB16	Per power bank - 16A				
	Case cap for inlet cable	1	89		2	Circuit braker Module 16A	1	89	2
	Master Module	1	89		2	Bank Measurement Module	1	44,5	1
	Power Supply and NFC I/F Module	1	89		2	Total	133,5	3	
	Total	267	6						
ES8000-C13	Outlet Module 2 x C13 (2 x 8A)	1	66,75	1,5	ES8000-CB32	Per power bank - 32A			
ES8000-C19	Outlet Module 1 x C19 (16A)	1	44,5	1		Circuit braker Module 2 x 16A	1	89	2
						Bank Measurement Module	1	44,5	1
					Total	133,5	3		

sample configurations

Φ	Input total	C13 (8A)	C19 (16A)	Type	N°	Height in mm	in U
1	32A	18	6	16A - Magnetic	3	1535	35
1	32A	20	4	16A - Magnetic	3	1513	34
1	32A	24	4	16A - Magnetic	3	1647	37
3	32A	6	9	16A - Magnetic	6	1268	29
3	16A	18	6	16A - Magnetic	3	1535	35
3	32A	18	6	16A - Magnetic	6	1535	35
3	16A	24	6	16A - Magnetic	3	1736	39
3	32A	24	6	16A - Magnetic	6	1736	39
3	32A	30	6	16A - Magnetic	6	1936	44
3	32A	30	9	16A - Magnetic	6	2069	47

- › Form-factor: 0U
- › Dimensions (H*W*D)
H: From 10 to 47 U (445 mm to 2069 mm)
W: 50 mm - D : 86 mm
- › 3 external USB ports
- › 2 control buttons
- › RGB LED power ON/OFF and programmable status RGB LED at each outlet
- › Color : Signal white (RAL 9003) - others in option
- › CE/ROHS Compliant
- › Inlet : 3 m (9.84 ft) H07RN-F cable with IEC60309 plug