



RIZON RODIMUS CUBE

ALL IN ONE LAYER 2 POE SWITCH
UPS SMART NODE



RZE-R107P

Rodimus cube RZE-R107P is an all-in-one smart node that integrates Layer2 POE Switch, UPS, and Battery. The system adopts a small and compact design, which completely revolutionizes the patchwork deployment of traditional outdoor cabinets. Rodimus cube RZE-R107P makes the deployment of scenarios such as Video surveillance, outdoor WIFI, and rural area network coverage more standardized and faster. The system's enclosure is made entirely of cast aluminum shells, which is completely rust-proof and has ingress protection up to IP65/NEMA4 level, making it very suitable for deployment in harsh environmental areas. The system heat dissipation is based on natural heat dissipation of the cast aluminum shell, and there are no fan components, so that the system can run for a long time without maintenance. The system has 802.3at (POE+) and 802.3bt 110W (POE++) capabilities, and can be widely adapted to different types of POE devices.

GOODWE

Deye 德業

GROWATT

victtron energy

SMA

Volttronk Power

SUNGROW

SRNE

EPEVER



Rizon Technologies

75-71, Shelton Street, Covent Garden, London, WC2H9JQ, UNITED KINGDOM

+442081871184

info@rizontechnologies.com



RZE-R107P

General Specifications

- IP65/NEMA4 Waterproof
- W*H*D 295mm*355mm*150mm
- 12.5kg
- Aluminum Cast Enclosure Rust-Proof
- Operating Temperature:-20~+55°C
- Working Humidity:5%~90%
- Power Surge Protection:20Ka
- Layer 2 POE Switch Module Embedded
- 128Gbps Switch Capacity
- 2*1000Base-X WAN Ports
- 7*1000Base-T LAN Ports
- 5 LAN Ports 802.3at
- 2 LAN Ports 802.3bt 110W
- 300W UPS
- 480Wh Lithium Battery(48V10AH)
- Thingsboard Support Optional
- Node-Red Optional

IP65/NEMA4 Rugged Design

The system has achieved IP65/NEMA4 Ingress Protection, which is very suitable for deployment in extreme environments, such as high humidity and high salinity environments, or deserts and other dusty areas. For less extreme environments, it can also better ensure that the system can work stably and reliably in the long term.

UPS Battery Backup

Edge Span has built-in an industrial level UPS designed for outdoor high temperature environments. Its small-scale design based on natural heat dissipation can make the entire system small and easy to deploy. At the same time, it has a built-in 480Wh lithium battery, which can generally provide Edge Span with 2-4 hours of work for the CCTV camera system when the power grid is offline. The UPS and battery are fully monitored and managed by the software system.

System Management and Monitoring

The system has comprehensive monitoring and management features, and can be remotely monitored and managed through Edgware's Convergence software platform. Depending on the project requirements, we can also report data to a third-party software platform.

Natural Heat Dissipation

The system relies on its own cast aluminum shell to dissipate heat naturally, without mechanical heat dissipation parts such as fans, thus ensuring that the system can better achieve maintenance-free and reliable operation outdoors.

Natural Heat Dissipation

Edge Span has a built-in industrial level layer2 POE switch module to adapt to high temperature working environment. As a manageable layer2 switch module, it includes comprehensive layer2 features. In addition, for POE power supply scenarios, 802.3at (30W) and 802.3bt (110W) ports are provided to cover all mainstream POE power supply requirements. The software platform can also remotely control the opening, closing, and restarting of the POE port to remotely restart the POE power-consuming equipment.

Pre-Integration with Plug and Play

Completely revolutionize the installation mode of outdoor power solution. Integrate network, power, battery and enclosure into an all-in-one system. Complete integration test before leaving the factory, and realize plug and play and quick installation at the site.

■ Products specifications described herein are subject to change without prior notification.



Rizon Technologies

75-71, Shelton Street, Covent Garden, London, WC2H9JQ, UNITED KINGDOM

+442081871184

info@rizontechnologies.com

Table 1: Rizon Rodimus cube RZE-R107P Specification

Model :	RZE-R107P
Dimension	351mm*150mm*355.5mm(W*D*H)
Enclosure Material	Aluminum Cast Enclosure
Ingress Protection	IP65/NEMA4
IK Rating	IK08
Weight	12.5kg
Operating Temperature and Humidity	-20~+55°C/10 % to 95 % non-condensing
System Surge Protection	Power Input Surge Protection:20KA Ethernet Port:6KV
System Rated Input Voltage	90~280VAC
System Max Input Current	4A
System Input Impulse Current	10A
UPS Rated Output Voltage	53.50 VDC
UPS Output Voltage Range	42.00-58.00VDC
UPS Rated Output Power	300W
UPS Rated Output Current	5.6A
Battery	480Wh Lithium Battery(48V10AH)
Battery Management	Embedded with BMS
Battery Rated Voltage	54V
Discharging Voltage Cutoff	42V
Max Charging and Discharging Current	20A
Layer2 POE Switch Module	ES33058PFM-BT Manageable Layer 2 POE Switch Module
Ethernet Port	7*10/100/1000Base-T RJ45 ports 2*100/1000Base-X SFP
PoE	Downlink ports 1-3 and 5-7 can support IEEE 802.3af/at 30W POE+, port 4 and 5 support 802.3bt 110W. Total 240W Max
Switch Capacity	128Gbps
MAC Table	8K
VLAN	4K
Port Aggregation	LACP
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Multicast	MLD Snooping v1/v2,Multicast VLAN IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
QoS	Flow-based Rate Limiting Flow-based Packet Filtering 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS,Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR)
ACL	Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port
DHCP	DHCP Client,DHCP Snooping,DHCP Server,DHCP Relay



Table 2:UPS System Specification

	UPS System Specification
Model	EU300W48BMS
Working Temperature	-30°C ~ + 60°C
Working Humidity	5% ~ 90%RH
Rated Input Voltage	90 ~ 280VAC
Rated Output Voltage	53.5VDC
Rated Output Power	300W
Max Input Current	4A
PFC	0.99
Input Impulse Current	10A
Undervoltage Protection	200VDC/ 85VAC
Overvoltage Protection Point	410VDC/ 300VAC
Undervoltage Recovery	220VDC/ 100VAC
Overvoltage Recovery Point	405VDC/ 295VAC
Rated Output Voltage	53.50 VDC
Output Voltage Range	42.00-58.00VDC
System Max Output Current	10A
Rated Output Power	300W
Rated Output Current	5.6A
Maximum Output Current	1.20In(Hardware Constant Current Control)
Efficiency	≥90%
Source Adjustment Rate	≤±1%
Load Regulation	≤±0.6%
Output Ripple and Noise	≤200mV
Shutdown Hold Time	≥10mS
Power-on Output Delay	3-8S
Dynamic Response Overshoot	△V: ≤±5%
Dynamic Response Recovery Time	≤200uS
Output Undervoltage Protection	< 30V
Output Overvoltage Protection	> 62V
Output Overcurrent Protection	≥1.1In, last 30s protection.
Output Short Circuit Protection	Hardware current limit, shutdown after 0.2S
Over Temperature Protection	Temperature switch + software over-temperature protection
Battery Supported	Lead Acid Battery and Lithium Battery
Battery Charging Voltage Range	42 ~ 58V
Recharging Current	1 ~ 4A (Default set up as 2A)
Operating Voltage Range	40-54.6VDC

