

IT Racks and Power Distribution Units
Micro Data Center

PLUG & POWER MICRO DATA CENTER





Introduction

Plug&Power Micro Data Center is a new-generation edge data center solution, which integrate the UPS, PDU, cooling, monitoring, system connection, remote and distributed management in one system.

It is pre-tested, pre-installed, and pre-commissioning before delivery, enabling quick deployment on site.

The remote web-based monitoring function enables remote O&M for a single site. The on-site set up can be applied even at remote or distributed locations.

Features & Value

Simple

- Standardized design with configurable options tailored to your needs, provides for easier future expansion and scalability
- Pre-configuration saves more than 65% time on on-site installation compared to conventional solutions
- 1-hour fast installation for single rack
- Centralized monitoring system with a single interface to easily manage your infrastructure

Green

- Prefabrication and modular construction saves on-site installation cost
- In-rack cooling system eliminates the need for room-level cooling system and cooling loss thus reducing total infrastructure costs
- Saves electricity bills with PUE as low as 1.34
- Unified system saves communication cost

Reliable

- Reliable dehumidification at low load to avoid condensation in the data center
- Complies with industry standard / certification to ensure a safe and reliable system
- Supports multiple configurations of single unit, N+1 redundancy, 2N redundancy
- Centralized monitoring system to ensure the reliability

Application Scenario



Financial Institutions
Branches and business locations



Government / Education
Server/Computer Rooms



Industrial
Small Factories



Commercial
Chain Store/Branch office



Medical
Hospital IT departments



Telecom
Relay stations



Basic single rack

Item No.	Basic single rack
System Size (W*D*H)-mm	600x1200x2000 (42U); 600x1000x1200 (24U)
Power input	220/230/240Vac, 50/60Hz, 1Ph+N+PE
Enclosure type	Mesh door
Color	RAL9005-Black
System IP rating	IP20
UPS rating	3kVA/6kVA
Recommended IT load	2.4~4.8kW
Available U space	18U-24U enclosure; 36U-42U enclosure
Cooling	N/A
PDU outlets	1x basic (12*C13+4*C19)-24U; 1x basic (20*C13+4*C19)-42U
User interface	10.1 inch touch screen
Connectivity	SNMP/HTTP
Remote monitoring	PC end, mobile APP
Sensor included	1x smoke/1x water leakage/1x T/H
Options	ATS/EMB/BMS/intelligent PDU...etc *
* Please contact local sales representative	

SECURE RACK

- IP20 protection
- Perforated door
- 24U/42U options

RACK PDU

- IEC outlet
- Basic type as standard config
- Monitor/Manage type for option
- 1 per rack for standard config

PDM

CENTRAL MONITOR

- Lighting/ Smoke/ Leakage Temp/ Humidity

UPS

- High efficiency UPS (3-6kVA) provides best in class protection for all your critical applications



Standard single rack

Item No.	Standard single rack
System Size (W*D*H)-mm	600*1200*2000
Power input	220/230/240Vac, 50/60Hz, 1Ph+N+PE
Enclosure type	Enclosed cold and hot aisle Glass front door + solid metal rear door
Color	RAL9005-Black
System IP rating	IP50
UPS rating	3kVA/6kVA
Recommended IT load	2.4-3.5kW
Available U space	28U-32U
Cooling	Self-contained DX 2kW Split DX -4.2kW
PDU outlets	1x basic 20*C13+4 *C19
User interface	10.1 inch touch screen
Connectivity	SNMP/HTTP
Remote monitoring	PC end, mobile APP
Sensor included	1x smoke/1x water leakage/1x T/H
Options	ATS/EMB/BMS/intelligent PDU...etc *
* Please contact local sales representative	

SECURE RACK

- IP50 protection, earthquake rated
- Can bear 20% higher load than other brands
- Glass front door + metal rear door
- Intelligent Electrical door lock and release

PREFAB POWER DISTRIBUTION

- Infrastructure devices in the cabinet are factory preinstalled and wiring
- Intelligent PDM to tracking the load and PUE
- Lighting

POWER PROTECTION

- High efficiency UPS (3-10kVA) provides best in class protection for all your critical applications



INTELLIGENT MANAGEMENT

- SNMP connectivity
- Remotely manage via internet Web or phone APP
- 10.1" Touch LCD provides information and control at your fingertips
- Cybersecurity passed

DYNAMIC MONITORING

- Built in sensors track environmental parameters and provides timely alerts
- Temp and humidity sensors to track environment status
- Smoke and water leak sensors to prevent any environment risk
- Status lighting system – 3 colors

PRECISION COOLING

- CE certified in-rack air-conditioning circulates air quickly due to proximity to heat sources.
- R410A environment friendly refrigerant
- Have Split and Self-contained option.
- Compatible for both Gravity drain and condensate pump

Single rack typical configuration

	Typical configuration 1	Typical configuration 2	Typical configuration 3
Configuration overview	Basic Single Rack	Standard Single Rack	Standard Single Rack
Unit model	PMSE3K24U	PMSS3K42UA	PMSS6K42U
Power input	220/230/240Vac, 50/60Hz, 1Ph+N+PE		
Recommended IT load	2.4kW	1.7kW	3.5kW
Available U space	18U	29U	32U
PUE (optimized value*)	/	1.6	1.34
System Size (W*D*H)	600*1000*1200	600*1200*2000	600*1200*2000
system protection class	IP20	IP50	IP50
Rack and Enclosure system			
Enclosure type	Mesh door	Fully enclosed Hot and Cold Aisles (Glass front door plus solid sheetmetal rear door)	
Rack Size (W*D*H)	600*1000*1200	600*1200*2000	600*1200*2000
Rack QTY	1	1	1
Door lock	Key lock	Electronic lock	Electronic lock
Seismic level	Level 8	Level 8	Level 8
LED lighting included	N/A	Yes	Yes
atmosphere lights (3 colors)	N/A	Yes	Yes
UPS and power distribution system			
UPS configuration	1x 3kva	1x 3kva	1x 6kva
UPS model	Unity IoT RT 3K	Unity IoT RT 3K	Unity IoT RT 6K
UPS efficiency	93%	93%	95%
EBM included	configurable	configurable	configurable
Power meter included	NA	Yes	Yes
lightning protection	C class, in20kva, lmax 40KA, 8/20us		
PDU type	Basic as standard Switch and managed as option		
PDU QTY	Standard: 1pcs/rack	Standard: 1pcs/rack	Standard: 1pcs/rack
PDU outlets	12*C13+4 *C19	20*C13+4 *C19	20*C13+4 *C19
PDU Certificates	CE	CE	CE
ATS/STS included	No-optional	No-optional	No-optional
Cooling system			
Cooling type	NA	self-contained DX	split DX
Input Voltage/Frequency	NA	200-240V/50-60Hz	200-240V/50-60Hz
Cooling capacity	NA	2kW	4.2kW
Air volume	NA	600m³/h	800m³/h
Form Factor in total	NA	8U	5U
Refrigerant type	NA	R410a	R410a
Condensate Pump included	NA	No-optional	Yes
Pump lift-m (if yes)	NA	NA	5
Certificates	NA	CE	CE
Monitoring system			
User interface	N/A	10.1 inch touch screen	
Connectivity	SNMP/HTTP	SNMP/HTTP	SNMP/HTTP
Remote monitoring	PC end, mobile APP		
Smoke sensor included	1	1	1
water leakage sensor included	1x point type	1x rope type(5m)	1x rope type(5m)
Temp/Humidity sensor	1	1	1
Emergency plan (fire/high temp)	N/A	Pop-up front and rear doors	

Multiple rack

Item No.	Multiple rack row
System Size (W*D*H)-mm	(1800~4200)x1400x2000
Rack quantity	3~7
Power input	380/400/415Vac, 50/60Hz, 3Ph+N+PE
Enclosure type	Enclosed cold and hot aisle Glass front door + solid metal rear door
Color	RAL9005-Black
System IP rating	IP50
UPS rating	10kVA~40kVA
Recommended IT load	7~21kW
Available U space	18U-24U enclosure; 36U-42U enclosure
Cooling	Split DX -8kW
PDU outlets	1x basic 20*C13+4 *C19-main cabinet; 2x basic 20*C13+4 *C19 per IT cabinet
User interface	10.1 inch touch screen
Connectivity	SNMP/HTTP
Remote monitoring	PC end, mobile APP
Sensor included	1~2x smoke, 1x water leakage, 1*T/H per rack
Options	ATS/EMB/BMS/intelligent PDU...etc *

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SECURE RACK

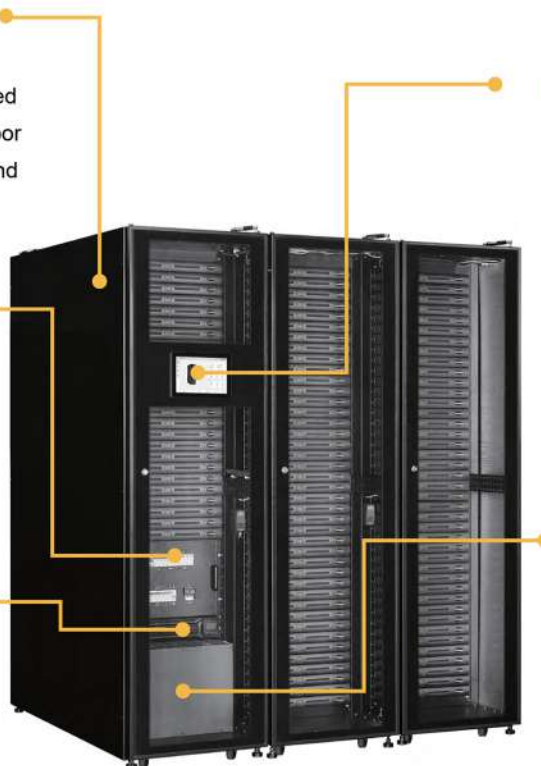
- Cold + Hot Aisle contained
- IP50 protection, earthquake rated
- Glass front door + metal rear door
- Intelligent Electrical door lock and release
- UP to 7 Racks

PREFAB POWER DISTRIBUTION

- Infrastructure devices in the cabinet are factory pre-installed and wiring
- Intelligent PDM to tracking the load and PUE

POWER PROTECTION

- High efficiency UPS (3-10kVA) provides best in class protection for all your critical applications



INTELLIGENT MANAGEMENT

- 10.1" ON-SITE Touch LCD provides information and control at your fingertips
- Remotely manage via internet Web or phone APP
- SNMP connectivity
- Cybersecurity passed
- Built in sensors (Temp/ Humidity/ Smoke/ Leak etc)
- Status Lighting system – 3 colors

PRECISION COOLING

- CE certified in-rack air-conditioning
- 8kw split system
- VSD compressor + EC fan
- R410A environment friendly refrigerant
- Compatible for both Gravity drain and condensate pump