

Product Introduction

Traditional miniaturized data centers often suffer from high maintenance costs, extended construction periods, and limited real-time visibility into system performance. To address these challenges, PROSE developed the innovative Smart Micro Data Center. Designed to support the evolving demands of edge computing, the PROSE Smart Micro Data Center features a modular architecture that enables cost-effective, rapid deployment, allowing customers to achieve fast installation and immediate operational readiness.

The solution integrates cabinets, power distribution, cooling, and cabling systems, while ensuring continuous power supply to prevent data loss. It offers remote monitoring via TCP/IP and Cloud App, providing customers with real-time insights into system performance. An integrated temperature and humidity monitoring system, along with an advanced air-cooling mechanism, maintains optimal operating conditions. Additionally, features such as facial and fingerprint recognition enhance data security.

Main Feature

- Lower Investment by 25%
- Fast Installation - Only 2h
- Energy Saving 30%
- PUE Less Than 1.26
- System Emergency Response Protection
- Biometrics Authentication
- Cascading Available for Rack
- Saving Room Space 50%
- Quiet Operation - Less Than 55dB
- DCIM 24h Cloud O&M



System Specification

1 pcs of racks can be put in cascade configuration.

Parameter	Specification
Height Unit (customizable)	42U
Cabinet Size (mm)	800 (W) x 860 (D) x 2.050 (Total Height); 800 (W) x 860 (D) x 2.000With out Caster)
Weight	About 180kg
Static Load	Up to 2200kg
Color	Black
Structure Composition	Welding framework, cabinet seal design as a whole
Meet Standard	ANSI/EIA RS-310-D, IEC297-2, DIN41491, DIN41494, GB/T3047.2-92
IP Level	IP5X
Display Panel	10.1" Touch Panel LCD
Display Languages	English / Chinese
LED Lighting	Bicolor (Red & Blue)
Front Door	Toughened glass door with mechanical lock or fingerprint lock (Support face detector)
Rear Door	Sheet metal door
Safety Standard	RoHS

Power Distribution Box



No.	Parameter	Specification
1	Input Rated Voltage (V)	220VAC (176~264VAC)
2	Input Frequency (HZ)	46~63
2	Input Rated Current (A)	40A
3	Input Switch	40A/1P
4	Output Switch	3*32A/1P+C32A/2P+D20A/1P+16A/1P*4
5	Lightning Protection Level	Class C lightning protection
6	Dimensions (mm)	W*D*H, 483*500*3U
7	Color	Black, off-white or according to customer's specification
8	Ways To Enter and Exit	Top-in and top-out or according to customer's designation
9	Installation	19" Rack mounted
10	Cooling	Natural cooling

Environmental Monitoring System



Item	Specification
CPU	RK3588, Octa-core 64-bit, Up to 2.4GHz
Operating System	Android 12
Memory	8GB DDR (Default), Optional 4GB/16GB/32GB
Flash Rom	64GB eMMC (Default), Optional 16GB/32GB/128GB
GPU	ARM Mali-G610 MP4
Standard Serial Port	2 Ports RS232, 5 Ports RS485, 1 Port CAN Interface
Digital Input Port	4 Ports DI
Digital Output Port	6 Dry Contacts (3 NO + 3 NC)
HDMI Input	1 Port, Up to 4K
HDMI Output	1 Port, Up to 8K
USB Port	2 Ports (1 USB Host + 1 USB OTG)
Debug Port	1 Port Micro USB
Output Supply	8 Ports 12V/1A
Wireless	Reserved for 3G, 4G and Wi-Fi module expansion slot
Ethernet	2 Ports RJ45 10M/100M/1000M
Audio & Video	Built-in Dual-Lens IR Camera, Array Microphone, Dual-Channel Speaker
Operating Voltage	12V DC
Max Power	42W
Size (mm)	363 × 198 × 52.2
ESD Level	Contact: 6KV; Air: 8KV
MTBF	≥100,000h
Operating Temperature	-20~60°C
Operating Humidity	10%~90% RH

PDU (Power Distribution Unit)



Item	Specification
Rated Current	16A
Rated Voltage	176~264VAC, 50/60Hz
Output Ports	12*C13
Max Power	3KW
Outline Size (mm)	713 x 45 x 45
Installation Method	Vertical installation
Function	Lightning protection

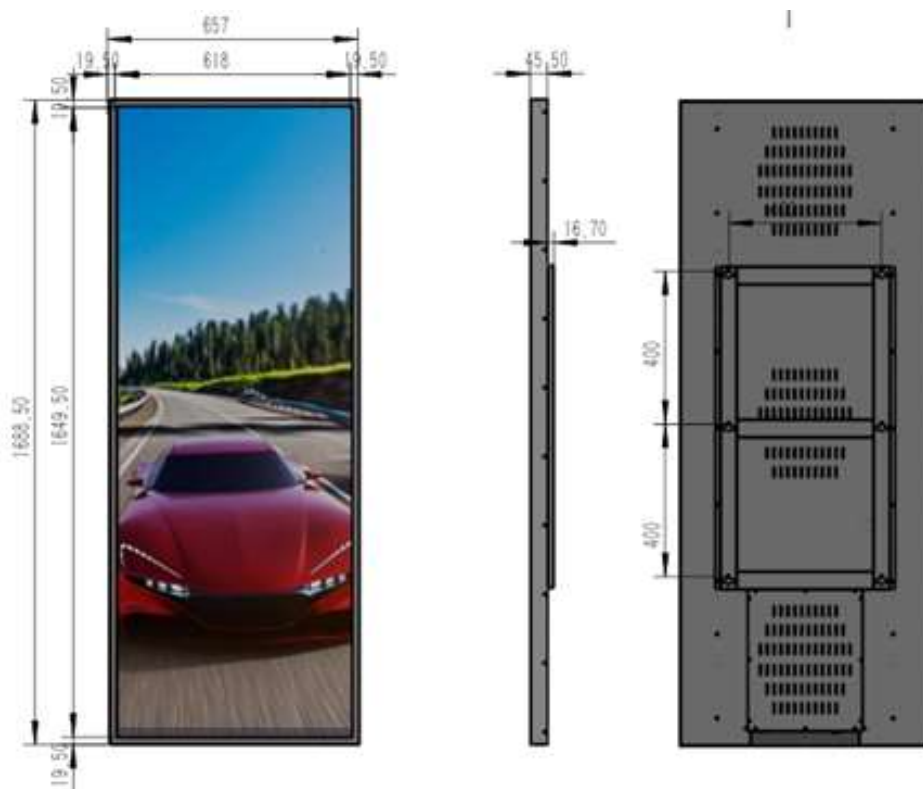
Integrated Door Lock



Type of Device	Specification
Rated Operating Voltage	DC12V
Working Current	Static standby: <250mA Dynamic Electronically Controlled Unlocking: <500mA
Communication Mode	RS485, 9.600bit/s
Service Life	Above 500.000 times
Color	Black
Operating Temperature/humidity	-20°C ~50°C / 20 ~ 90%
Storage Temperature/humidity	-3°C ~6°C / 20 ~ 90%
IP Rate	IP65
3 Unlock Modes	Remote unlocking by monitoring host control software Authorized card writes the card number and swipes card to unlock Mechanicals unlock
Access Control Authorization	500 to 5.000 fingerprints
Authorized Entrance Number	Up to 5.000
Software Authorization	Authorized by system software through network Communication
Event Records	Up to 1.120 history records
Function	Mechanical unlocking, password of the IC card, fingerprint and so on, can be paired with
Communication Interface	RS485 networking real-time monitoring, door status, handle status, real-time clock function

Monitor

Type of Device	Specification
Screen Size	69-inch IPS LCD
Resolution	3840 × 1440 (Full HD)
Viewing Angle	178°
Touch Screen	Not support
Brightness	Min: 350 cd/m ² , Typ: 400 cd/m ²



Product Configuration

PN	Description	Picture
MDC-9121-81H1-E251-11B1	Single Cabinet PROSE MDC: 1 set Cabinet 42U: 600mm x 800mm x 2050mm (with Caster) 1 set UPS capacity is 6KVA 1-phase (Simulation) 8-minute Battery Pack (Simulation) 1 set Panel Distribution Box 1 Phase (Simulation) 1 set Precision Air Cooling 3.5 KW (Simulation) 1 pc Smoke Sensor 1 pc Temperature & Humidity Sensor 2 pc PDU 24 outlet PDU, 32A, 20°C13+4°C19 1 pc Password, Fingerprint, IC card lock 1 pc Automatic Fire Extinguishing Device (Simulation) 1 pc 69-inch Monitor 1 set AI Digital Human Access Control Dual-Screen Host	

GLOBAL FOOTPRINT



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