

Indoor Integrated Power System

MTS9604B-N20B1



Introduction

MTS9604B-N20B1 is a new type of AC/DC indoor integrated power system designed by Huawei with the features of end-to-end high efficiency, supporting modular evolution, full digitalization and intelligentization. It is suitable for enterprise indoor sites.

Features

- System-level efficiency and energy saving: efficient conversion, efficient power distribution, and efficient energy storage
- Supports smooth evolution: the innovative architecture design enables smooth expansion of rectifier and power distribution
- Intelligent management: online remote maintenance reduces site visits and maintenance costs



Application Scenarios

- Enterprise indoor telecom sites

Specifications

Product Type		MTS9604B-N20B1
System	Dimension (W × D × H)	600mm × 600mm × 2000mm
	Weight	≤120kg (without rectifier modules or batteries)
	Cooling mode	Natural cooling
	Installation mode	Ground installation (antistatic floor or ground installation)
	Cabling mode	Top inlet and top outlet
	Maintenance mode	Front operation and maintenance; support installation against the wall
	Protection level	IP20
	User space	12U
	Battery space	4 sets of ESM-48100B1 BoostLi
	Number of module slots *	8
AC Distribution	Input mode	220VAC/380VAC three-phase four-wire
	Input voltage	Rectifier support 85VAC - 300VAC
	Input frequency	45Hz - 66Hz, rated value: 50Hz/60Hz
	Input capacity	1 × 100A/3P MCB
	AC output	1 × 32A/3P MCB (support 5G Indoor Blade Power access)
	SPD	Nominal lightning strike discharge current 20kA (8/20μs); Maximum lightning strike discharge current 40kA (8/20μs)
DC Distribution	Output voltage	Default: -57VDC constant voltage (adjustable voltage range: -48VDC to -57VDC)
	Maximum capacity	24kW
	Battery branch	4 × 125A/1P MCB
	LLVD branch	2 × 100A/1P MCB, 4 × 63A/1P MCB, 2 × 32A/1P MCB, 2 × 16A/1P MCB, 2 × 100A (fuse)
	BLVD branch	2 × 100A/1P MCB, 2 × 63A/1P MCB, 2 × 16A/1P MCB, 2 × 10A/1P MCB
	SPD	Nominal lightning strike discharge current: Differential mode - 10kA (8/20μs); Common mode - 20kA (8/20μs)
Rectifier	Model	R4875G1
	Max. output power	4000W (176VAC - 300VAC) 4000W - 1600W (175VAC - 85VAC Linear derating)
	Efficiency	Maximum 97% ≥ 96% (230VAC, 30% - 80% load rate)
	Dimension (W × D × H)	105mm × 281mm × 40.8mm
	Weight	≤2.2kg
Controller	Signal input	5 AI (Battery temp., ambient temp., ambient humidity, temp1, temp.2) 9 DI (Water, smoke, gate, 6 common DI)
	Alarm output	8 dry contacts
	Communication port	RS232, RS485, FE
	Storage capacity	Up to 1000 historical records and alarm
	Display mode	LCD
Environment	Operating temperature	-10°C to +45°C (including batteries)
	Storage temperature	-40°C to +70°C
	Operating humidity	5% - 95% (non-condensing)
	Altitude	0 - 4000m (High temperature derating in the environment of 2000m - 4000m, the operating temperature is reduced by 1°C for every 200m increase)

* Can be deleted when communicating with customers

Specifications – Optional Accessories

Optional Hardware	5G Indoor Blade (AC Version, 2U height)	Maximum support 1pcs, with 9kW rectifier & maximum 6kW load capacity & 5×40A FUSE	Note: Optionally installed when power capacity and DC distribution are insufficient, to realize fast deployment of one band of 5G without modernization
	5G Indoor Blade (DC Version, 1U height)	Maximum support 1pcs, with maximum 6kW load capacity & 5×40A FUSE	Note: Optionally installed when power capacity is enough, but need provide power for large-power remote AAU/RRU
	BoostLi lithium battery	Maximum support 3 sets of ESM-48100B1 BoostLi	
	DC Distribution Expansion Box (DCDB48-200-16B)	Secondary load: 6 × 63A MCB, 4 × 32A MCB Important load: 2 × 32A MCB, 2 × 20A MCB, 2 × 16A MCB	Note: 1U height, 19-inch rack installation, used for DC output expansion
Optional Software Features	Intelligent boosting	Support -57VDC constant voltage output by software configuration, suitable for high power load and long distance power supply	Note: must integrate with BoostLi lithium battery
	Intelligent peak shaving	When the peak load exceeds commercial power supply, the power system can control the battery to discharge and share the burden, reducing the peak load of grid power	
	Intelligent staggering power	Grid adaptive adjustment, make full use of the difference between peak and valley power price, reduce electric cost	
	Intelligent management	Support NetEco, can perform statistical analysis on energy efficiency of single station and the whole network, can carry out targeted upgrades and improve the operation efficiency, reduce maintenance cost	

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HUAWEI TECHNOLOGIES CO., LTD.

Huawei Industrial Base

Bantian Longgang

Shenzhen 518129, P.R. China

Tel: +86-755-28780808

www.huawei.com