



# Outdoor integrated intelligent site

## MTS9514A-AM2001

### Introduction

MTS9514A-AM2001 is a new type of integrated AC/DC output power system designed by Huawei, with the maximum capacity of 24kW and user space of 19U. The cabinet adopts DC air conditioner for cooling. With the features of end-to-end high efficiency, supporting modular evolution, intelligent peak shaving and intelligent staggering power, full digitalization and intelligentization.

### Features

- Large power capacity (24kW), large user space (19U)
- Supports smooth evolution expansion of rectifier, power distribution, and heat dissipation modules
- Support hybrid use of lead-acid and lithium batteries through original battery current sharing technology
- Intelligent peak shaving enables grid free from modernization
- Intelligent staggering power unleash the potential of sites: grid adaptive adjustment, make full use of difference between peak and valley power price, reduce electric cost
- Intelligent management: online remote maintenance reduces site visits and maintenance costs

#### Optional Parts

DC Distribution Expansion Unit



BoostLi Lithium Battery



DC Air Conditioner



NetEco



#### Mandatory Part



## Specifications

Product Type		MTS9514A-AM2001		
System	Dimension (W × D × H)	Cabinet: 750mm × 750mm × 2000mm (include base) Base: 750mm × 750mm × 150mm		
	Weight	< 180kg (without rectifier module, battery and packaging)		
	Temperature control mode	Default: PC3000D-1 DC air conditioner (another PC3000D-1 / PC1500D-1 air conditioner can be optionally installed on the door, reaching cooling capacity 4500W / 3500W in total)		
	Installation mode	Grounding\ rooftop		
	Cabling mode	At the bottom, inlet/outlet downwards		
	Maintenance mode	In front		
	Noise level	Satisfied GR487, ≤ 65dBA @1.5m		
	Protection level	IP55		
	Cabinet material	Sandwich steel panel		
	Battery space	Default: 2 sets of 190 Ah lead-acid battery; Supports 4 sets of ESM-48150B1 lithium batteries or ESM-48100B1(Optional li-battery racks are required).		
	User space	19U		
	MTBF	≥ 200,000 hours (excluding battery)		
	Height of power embedded power *	3U		
	Number of module slots *	6		
AC Distribution	Input mode	Three phase compatible with single phase		
	Input voltage	Three phase: 147VAC - 519VAC; single phase: 85VAC - 300VAC		
	Input frequency	45Hz - 65Hz, rated value: 50Hz/60Hz		
	Input capacity	1 × 63A/3P MCB		
	SPD	Nominal lightning strike discharge current 30ka (8/20μs)		
DC Distribution	Output voltage	Normal mode: 42VDC - 58VDC, rated value: 53.5VDC 5G mode: 57VDC constant (must integrate with BoostLi lithium battery)		
	Maximum capacity	Three phase: 24kW; single phase: 18kW		
	Battery branch	4 × 125A MCB (installed on the side wall of power cabinet)		
	LLVD branch	2 × 125A MCB, 3 × 63A MCB		
	BLVD branch	2 × 63A MCB, 2 × 32A MCB, 2 × 16A MCB		
	SPD	Nominal lightning strike discharge current: Differential mode - 10ka (8/20μs); Common mode - 20ka (8/20μs)		
Rectifier	Type	R4875G5	R4850G5	
	Input voltage	85VAC - 300VAC, rated 220VAC		
	Rated power	4000W (176VAC - 300VAC) 4000W - 1600W (175VAC - 85VAC Linear derating)	3000W (176VAC - 300VAC) 3000W - 1250W (175VAC - 85VAC Linear derating)	
	Efficiency	Maximum 97% ≥ 96% (230VAC, 30% - 80% load rate)	Maximum 96% ≥ 95% (230VAC, 20% - 80% load rate)	
	Working temperature	-40°C to +75°C		
	Dimension (W × D × H)	105mm × 281mm × 40.8mm		
	Weight	≤ 2.2kg	≤ 2.0kg	
	Power factor	≥ 0.99		
	THD	≤ 5%		
Controller	Signal input	2 AI (battery temp., ambient temp.) 4 DI (gate, smoke, water, 1 reserved )		
	Alarm output	8 DO		
	Communication port	RS232, RS485, CAN, FE		
	Storage capacity	Up to 1000 historical records		
	Display mode	LCD, support optional mobile APP		
	Networking mode	IP, GPRS, In-band		

\* Can be deleted when communicating with customers

Note: Preliminary Issue. Any datasheet issued previously is invalid when new version releases.

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Environment	Operating temperature	-40°C to +45°C (+ solar radiation) with lead-acid battery -20°C to +45°C (+ solar radiation) with lithium battery
	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)

## Specifications – Optional Accessories

Optional Hardware	DC air conditioner	1 set of PC3000D-1 or PC1500D-1 air can be optionally installed on the cabinet door, and maximum cooling capacity can be up to 4500W or 3500W	
	BoostLi lithium battery	Maximum support 5 sets of ESM-48100B1 BoostLi	<b>Note:</b> When installing BoostLi, a lithium battery bracket is required
	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	<b>Note:</b> 1U height, 19-inch rack installation, used for DC output expansion
	AC Distribution Expansion Box	Option 1: 3 × 16 A/1P MCB Option 2: 1 × 16 A/1P MCB, with a service outlet unit(Optional all-purpose, German-standard and British-standard sockets)	<b>Note:</b> This box can be optionally installed on the side wall of cabinet for AC 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	<b>Note:</b> 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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