

Fully Liquid-Cooled Ultra-Fast Charging



Advocating For Sustainable Development of Future-Proof Charging Facility

Enhanced **Charging**

Fast and Quiet
High Utilization Rate

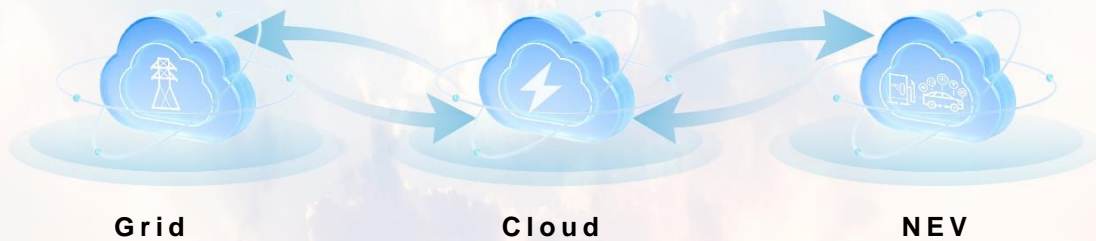
Superior **Quality**

Long Lifespan
Low Failure Rate

Flexible **Architecture**

PV & ESS Convergence
Upgradeable

FusionCharge



Grid

Cloud

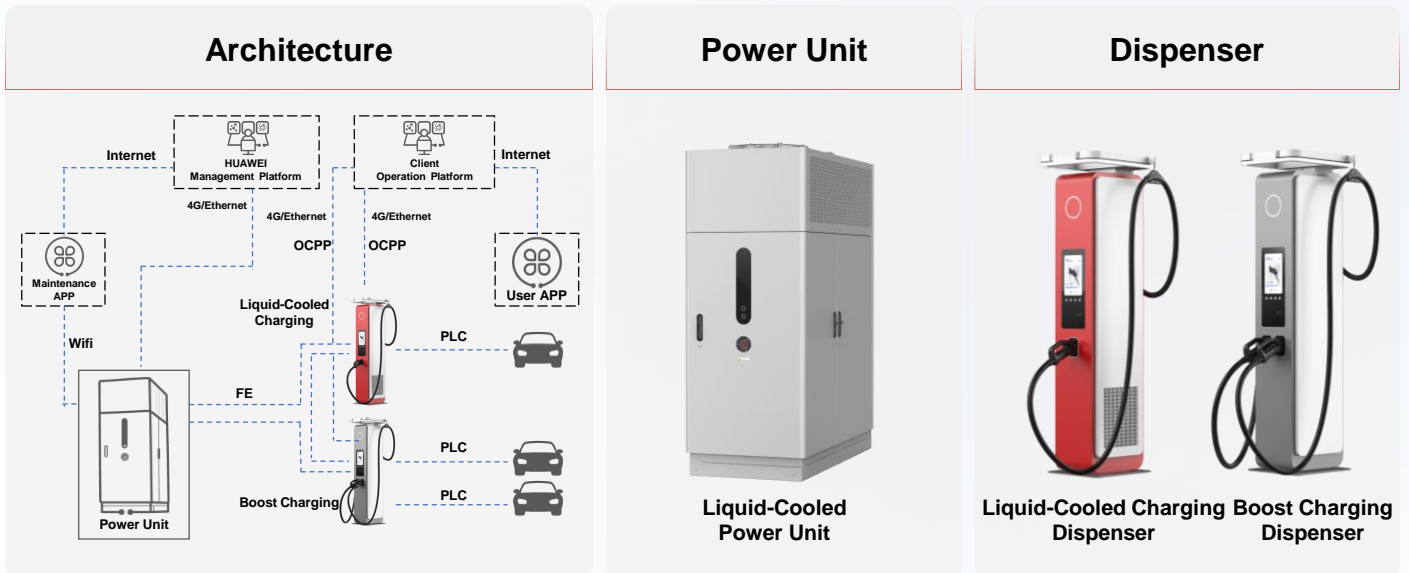
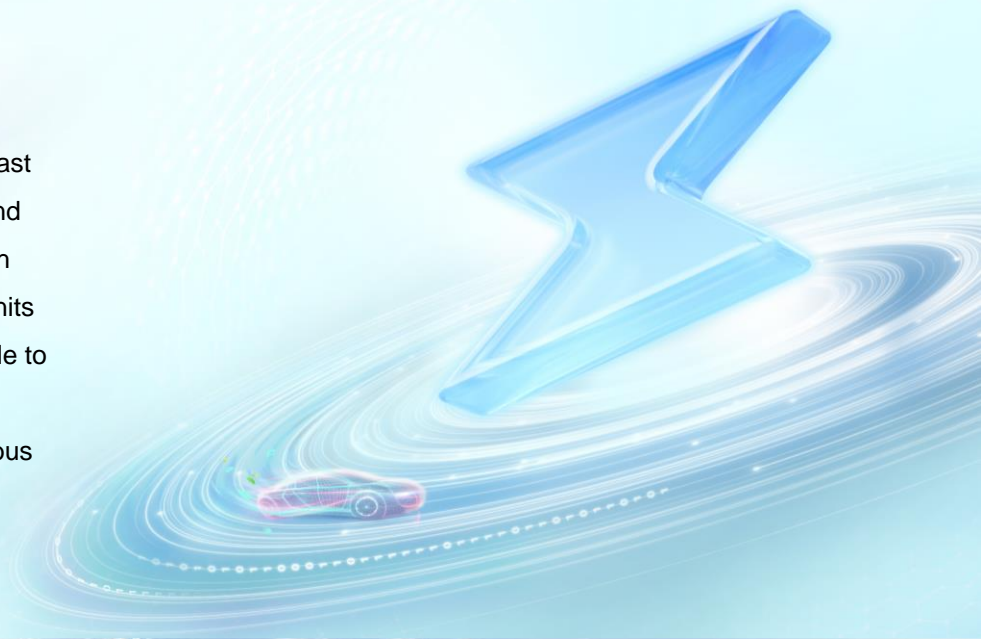
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Introduction

Liquid-cooled power unit is the core part of ultra-fast DC charging system for public charging station and other sites demanding multiple fast chargers. With AC/DC and DC/DC modules decoupled, power units can better utilize power capacity and be accessible to DC ESS coupling.

An innovative liquid-cooled architecture with DC bus enables enhanced charging, superior quality and flexible architecture.



Product Features

Enhanced Charging



Power Sharing Matrix
Improving power utilization

Superior Quality



Long Life
10 years lifespan

Flexible Architecture



DC Bus
AC or DC ESS coupling supported



Low Noise
≤60dB@25°C



Low Failure Rate
Module failure rate < 0.5%*
* Theoretical values



Modular Design
Multiple dispenser configurations



Power Unit Specification

Basic Specifications	Dimensions (W x D x H)	800 mm x 1700 mm x 2150 mm	
	Power Configuration (AC/DC+DC/DC)	600kW+720kW	240kW+360kW
	Installation Mode	Floor-mounted	
	Efficiency (Full load)	94.7%	
	Efficiency (Maximum)	95.5%	
	Cooling	Liquid cooling	
	IP Rating	IP55	
	Communication Interface	4G, Ethernet (Northbound communication)	
Input Specifications	Standby Power	35W	30W
	Rated Input Voltage	2 X 400Vac, three-phase five-wire system	
	Rated Frequency	50/60 Hz	
	Rated Input Current	≤931 A (Output: 600kW, Input: 400Vac)	≤354 A (Output: 240kW, Input: 400Vac)
	Input Module	120kW AC/DC liquid-cooled module	
	Power Factor	≥0.99 (Load≥50%)	
Output Specifications	THDi	≤5% (Load≥50%)	
	Output Voltage	200~1000 Vdc	
	Output Module	60kW DC/DC liquid-cooled module	
	Current Ripple	≤ 1.5A @frequency<10Hz; ≤ 6A@frequency<5000Hz; ≤ 9A@frequency<150kHz	
	Voltage Ripple	≤ ±5V	
Environmental Specifications	Charging Connector Number	Max. 12 (Max. 8 x ultra-fast)	Max. 6 (Max. 4 x ultra-fast)
	Operating Temperature	-35°C to +50°C	
	Storage Temperature	-35°C to +70°C	
	Altitude	≤4000m	
	Relative Humidity	5%~95% (Non-condensing)	
Compliance	Noise	≤ 55 dB@25°C (Mute Mode), ≤ 60 dB@25°C (Standard mode)	
		IEC 61851-1, IEC 61851-23, IEC 61851-21-2	



Huawei Reference Dispenser Specification

Basic Specifications	Type	Liquid-cooled	Boost
	Dimensions (W x D x H)	≤395 mm × 495 mm × 2150 mm	≤395 mm × 495 mm × 2150mm
	Charging Connector Number	1 (CCS2)	2 (CCS2)
	Charging Cable Length	≥4.5m	≥4.5m
	Installation Mode	Floor-mounted	Floor-mounted
	IP Rating	IP55	IP55
	Cooling	Liquid cooling	Natural cooling
	Authentication	RFID reader(ISO/IEC 14443 A / B, ISO/IEC 15693, NFC) / Credit card reader (Optional) / QR code	RFID reader(ISO/IEC 14443 A / B, ISO/IEC 15693, NFC) / Credit card reader (Optional) / QR code
	Standby Power	45W	50W
	Meter Certification	MID / LNE	MID / LNE
Environmental Specifications	Operating Temperature	-30°C to +55°C (derating from 40°C)	-30°C to +55°C (derating from 40°C)
	Noise	≤55dB@25°C	≤50dB@25°C
	Storage Temperature	-40°C to +70°C	-40°C to +70°C
	Relative Humidity	5%RH~95%RH	5%RH~95%RH
	Altitude	≤2000m	≤2000m
Output Specifications	Output Voltage	200~1000Vdc	200~1000Vdc
	Output Current	425A (continuous, max. 500A)	2 × 375A (continuous, max. 2 × 500A)
Compliance	IEC 61851-1, IEC 61851-23, IEC 61851-21-2, IEC 62196-1, IEC 62196-3, DIN 70121, ISO 15118		
Protections	Overvoltage protection, short circuit protection, grounding protection, overtemperature protection, leakage protection, insulation detection, door opening protection		

Huawei Digital Power Technologies Co., Ltd.




Address: Huawei Digital Power Antuoshan Headquarters, Futian District, Shenzhen

Postal code: 518084

Website: <https://digitalpower.huawei.com>

Email: support@huawei.com

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