PREDIXON

PREDIXON PRO-CHARGE DC FAST CHARGER SERIES

120–320 kW Scalable / Modular Ultra-Fast DC Charging Station

150–1000 V DC	500 A Peak	>96.5% Efficiency	2× CCS2

Overview

The Predixon Pro-Charge DC Series is engineered for highway service plazas, commercial fleets, public fast-charging sites and ultra-fast charging hubs. Its field-upgradable modular architecture enables power expansion from 120 kW to 320 kW as site demand grows.

Key Features

- Dual CCS2 Outputs: Charges two vehicles simultaneously with intelligent dynamic power sharing.
- Ultra-Wide 150–1000 V DC Output: For today's 400 V and next-generation 800 V vehicle platforms.
- Field-Replaceable SiC Power Modules: 30 kW / 40 kW high-efficiency hot-swappable modules.
- 10.1" Industrial Touchscreen: RFID/NFC, QR, optional POS and ISO 15118 Plug & Charge.
- IP65/IK10 Enclosure: Built for demanding public and commercial environments.

Modular Power Configuration

Model	Module Layout	Voltage	Max. Current	AC Input	Charging Capability
120 kW	4×30 / 3×40 kW	150–1000 V	300 A (500 A peak)	180 A	60+60 kW / 120 kW single
160 kW	4×40 kW	150–1000 V	400 A (500 A peak)	240 A	80+80 kW / 160 kW single
200 kW	5×40 kW	150–1000 V	500 A peak	300 A	100+100 kW / 200 kW single
240 kW	6×40 / 8×30 kW	150–1000 V	500 A peak	360 A	120+120 kW / 240 kW single
320 kW	8×40 kW hot-swap	150–1000 V	500 A continuous / boost	480 A	160+160 kW / 320 kW single

1. Enclosure & Mechanical

Protection Class	IP65 ingress protection / IK10 impact resistance
Operating Temperature	-35 °C to +55 °C; automatic derating above +45 °C
Storage Temperature	-40 °C to +70 °C
Humidity / Altitude	5–95% RH, non-condensing / ≤2000 m
Acoustic Noise	<65 dBA at 1 m under maximum load
Enclosure	Galvanized steel + aluminum chassis; C4/C5 anti-corrosion powder coating
Dimensions (H×W×D)	1950 × 750 × 600 mm (excluding base plinth)
Weight	380 kg (120 kW) – 480 kg (320 kW full configuration)

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2. Electrical Connection & Power

Charging Power	120–320 kW, stepwise field-upgradable
Power Modules	30 kW / 40 kW SiC high-efficiency hot-swappable modules
DC Output Voltage	150–1000 V DC
Max. DC Output Current	500 A peak / dynamic distribution per connector
Connector Type	2 × CCS Type 2; air-cooled / liquid-cooled cable options
Cable Length	5 m standard; optional 7.5 m with cable management system
Peak System Efficiency	>96.5% at nominal output power
AC Input	3-phase + PE (+ optional neutral), 400 V AC ±10%
Frequency	50/60 Hz
Power Factor	>0.99 at full load with active PFC
THDi	≤4% at nominal load
Surge Protection	OVC III, integrated Type 2+3 SPD
Standby Consumption	<60 W with Eco-mode active

3. Electrical Protection & Energy Metering

Electrical Protection	Overcurrent, short circuit, over/under voltage, phase sequence fault
Insulation / Residual Current	Built-in IMD + RCD Type B
Thermal Management	Connector temperature sensors; independent module-level PWM fan control
Short-Circuit Withstand	50 kA SCCR
Emergency Stop	Front-panel mechanical E-Stop push button
Energy Metering	MID-certified DC energy meter, Class B accuracy / PTB compliant

4. Network, Communication & Authentication

Authentication	RFID/NFC (ISO 14443A/B, ISO 15693), QR / mobile app, ISO 15118 Plug & Charge
Interfaces	4G/LTE, 10/100 Ethernet (RJ-45), Wi-Fi, RS-485/CAN Bus
Communication Protocol	OCPP 1.6-J and OCPP 2.0.1; Smart Charging & Autocharge support
Payment	Optional contactless credit-card POS terminal

5. User Interface & Smart Features

Display	10.1" industrial color touchscreen, sunlight-readable
Status Indication	Front-panel RGB LED bars: Ready / Charging / Fault / Completed

6. Standards & Certification

Charging Standard	IEC 61851-1, IEC 61851-23, IEC 61851-24

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Switchgear Standard	IEC 61439-7
EMC	IEC 61851-21-2
Vehicle Communication	ISO 15118-2/-20, DIN 70121
Backend Communication	OCPP 1.6-J / 2.0.1
Conformity Targets	CE / RoHS / LVD / EMC / RED — to be verified against the final certified configuration

7. Maintenance & Customization

Serviceability	Hot-swappable modular power architecture for easy maintenance and field power expansion

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