PREDIXON

PREDIXON PRO-CHARGE SMART 22

Expertise in E-Mobility and Smart Charging Infrastructure

22 kW	32 A / 3-phase	IP54/IP66, IK10	Type 2

Overview

The Predixon Pro-Charge Smart 22 is an advanced AC charging station designed for residential, commercial, fleet and public-infrastructure applications. It combines high-performance power electronics, comprehensive electrical safety, an MID-certified meter, Dynamic Load Management (DLM) and OCPP 1.6J back-end interoperability in an ultra-robust, weatherproof enclosure.

Key Features

- MID-Certified Meter: External Modbus energy-meter interface for Dynamic Load Management (DLM).
- Multi-Layer Authorization: Plug & Charge, RFID card and mobile app in one unit.
- Broad Connectivity: Uninterrupted OCPP communication over Wi-Fi, Ethernet and optional 4G/LTE.
- Comprehensive Electrical Protection: Over/under voltage, phase-sequence fault, earthing and thermal protection combined.
- Robust Enclosure: IP54/IP66 and IK10 rated, operating from -20 °C to +50 °C.

1. Enclosure & Mechanical

Material	UV-resistant reinforced industrial polymer housing, tempered front glass panel; aluminium inner chassis
Dimensions (H×W×D)	385 × 333 × 120 mm
Weight	Approx. 4.5 kg (excluding pedestal / external mounting accessories)
Operating Temperature	-20 °C to +50 °C
Relative Humidity	10–90% (non-condensing)
Protection Class (IP)	IP54 / IP66 (outdoor, water-jet resistant)
Impact Resistance (IK)	IK10

2. Electrical Connection & Power

Input Voltage	1-phase: 230 V (±10%) / 50 Hz; 3-phase: 400 V (±10%) / 50 Hz
Input Current / Power	1-phase: max. 32 A (7.4 kW); 3-phase: max. 16 A (11.0 kW) / max. 32 A (22.0 kW)
Output Voltage	1-phase: 230 V (±10%); 3-phase: 400 V (±10%), 50 Hz
Output Current / Power	1-phase: max. 32 A (7.4 kW); 3-phase: max. 16 A (11.0 kW) / max. 32 A (22.0 kW)
Power Terminal Cross-Section	5 × 25 mm² (L1, L2, L3, N, PE)
Connector Type	IEC 62196-2 Type 2 socket with integrated child lock
Idle Power Consumption	< 25 W (including internal electronics, LCD display and RGB LED ring)

Specifications are subject to change without notice. © PREDIXON OÜ. All rights reserved.

3. Electrical Protection & Energy Metering

Residual Current Protection (RCD/RCM)	Built-in Type A 30 mA AC + 6 mA DC residual-current detection per IEC 62955
Overcurrent / Short-Circuit Protection	Immediate limiting and disconnection if the vehicle draws current above the set limit
Voltage / Grid Monitoring	Over/under voltage, over/under frequency, phase-sequence fault and missing-neutral protection
Earthing Protection	Continuous PE loop continuity and impedance monitoring
Thermal Management	Multi-point internal temperature sensors, automatic dynamic derating and thermal cut-off
Energy Meter	Integrated digital energy meter (MID-certified); external Modbus energy-meter interface for DLM

4. Network, Communication & Authentication

Communication Protocol	OCPP 1.6J JSON — compatible with the Predixon cloud platform and third-party CPO back ends
Charging Standard	IEC 61851-1:2019 (Mode 3 AC charging), IEC 61851-22, IEC 62196-2, IEC 61439-7
Network Connectivity	Wi-Fi (802.11 b/g/n/ac); 10/100 Base-T Ethernet (RJ45); 4G/LTE cellular modem (optional)
Authentication	13.56 MHz RFID/NFC reader (Mifare 1K/4K, Ultralight, DESFire, ISO/IEC 14443-4)
Authorization Modes	Plug & Charge; RFID card (local + central validation); mobile app (remote session control, scheduling)

5. User Interface & Smart Features

Display	Colour LCD showing real-time power (kW), energy (kWh), voltage, current, charging time and system status
LED Status Indicator	Multi-colour dynamic RGB LED ring around the Type 2 socket; Power/Wi-Fi/Fault icons on the top panel
Dynamic Load Management (DLM)	Dynamic current limiting based on total grid capacity and the building energy management system (BEMS)

6. Standards & Certification

Charging Standard	IEC 61851-1:2019, IEC 61851-22
Connector Standard	IEC 62196-2
Switchgear Standard	IEC 61439-7
Communication	OCPP 1.6J

7. Maintenance & Customization

Custom Enclosure / Branding	Optional custom front-panel branding, corporate logo and enclosure colours

Specifications are subject to change without notice. © PREDIXON OÜ. All rights reserved.

	(Predixon-approved)
Mounting Types	Standard wall bracket or free-standing aluminium/stainless-steel pedestal (single/dual socket)
Firmware Updates	Over-the-air (OTA) updates via the OCPP back end or local web configuration portal
Service Access	Lockable front service cover; annual RCD function test and socket contact inspection recommended

Specifications are subject to change without notice. © PREDIXON OÜ. All rights reserved.