# RAPID 120/180

## Ultra-fast charging points that allow up to three vehicles to be charged simultaneously

Being able to respond to current market needs is always a challenge, which requires constant transformation. In order to develop the new RAPID range, at Ingeteam, we asked ourselves countless new questions, as these new units had to cover not only current but also future needs in a constantly evolving sector.

Ingeteam presents the new range of **RAPID 120 kW and 180 kW chargers for ultra-fast charging**, to match the potential of the most demanding vehicles. They have been designed to meet the highest quality and performance standards in terms of power management, communications, reliability and efficiency.

They are compatible with the CCS and CHAdeMO standards. The Trio models also incorporate a 22 kW Type 2 socket for alternating current charging, allowing up to three vehicles to be charged simultaneously. Moreover, they feature power management between the different outputs on the unit, or between various units in one installation.

| | RAPID 120 / 180 | | | |
| | One | One+ | Duo | Trio |
|---|---|---|---|---|
| Connectors | 1 | 2 | 2 | 3 |
| Simultaneous charging | ✓ | ✓ | ✓ | ✓ |
| Connector type | CCS | CCS + AC T2S | CCS + CCS<br>CCS + CHAdeMO | CCS + CCS + AC<br>CCS + CHAdeMO + AC |

## RAPID 120/180 FEATURES

### Functions

- Highly resistant enclosure, either galvanized steel or stainless steel.
- Modular electronics. The 120 kW units can be expanded to 180 kW.
- Cable management system (CMS).
- Ambient light.
- Simultaneous AC and DC charging:
  - DC: DC charging at 180 kW. Dual charging at 90 kW. CHAdeMO up to 80 kW.
  - AC: 22 kW.
- Integrated DC wattmeters.
- AC MID wattmeters.

### HMI

- RGB status LEDs.
- RFID reader.
- 7" color touchscreen, multi-language.

### Communications and software

- Ethernet, RS485.
- OCPP, Autocharge, Plug & Charge.

- DLM, static and dynamic power management with other Ingeteam DC and AC units.
- Web Manager.
- Modbus TCP, MQTT.
- Automatic software updates.
- Update via USB.

### Safety

- Built-in electrical protections.
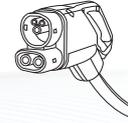- Security lock with key.
- Door-opening sensor.

### Options

- GPRS - 2G/3G/4G communication.
- Ethernet switch kit for 8 ports.
- Contactless bank card reader.
- Emergency button.
- 21" Full HD advertising screen.
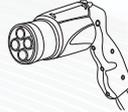- Parked vehicle detector.
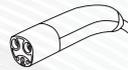- Smart DLM.
- Cloud Manager.

## CONNECTORS

**CCS1 200**
CCS Type 1 200 A

**CCS2 250**
CCS Type 2 250 A

**CHA200**
CHAdeMO 200 A

**NACS**

**AC 22 kW**
Type 2 socket with shutters

PEP
eco
PASS
PORT

2,300 mm

730 mm          774 mm

| | RAPID 120 | RAPID 180 |
|---|---|---|
| **AC INPUT** | | |
| Voltage | 3 phases + N + PE; 380/400 Vac ±15% | |
| Frequency | 50/60 Hz ±5% | |
| Rated current | 222 A (190 A + 32 A) | 312 A (280 A + 32 A) |
| Rated power | 142 A (120 kW + 22 kW) | 202 A (180 kW + 22 kW) |
| **DC OUTPUT** | | |
| Voltage range | 150 - 1,000 V | |
| Maximum current | 400 A (200 + 200 A) ǀ 1 x 500 A @boost | 500 A (250 + 250 A) ǀ 1 x 500 A @boost |
| Maximum power | 120 kW (60 + 60 kW) | 180 kW (90 + 90 kW) |
| Charging connectors | CCS ǀ CCS + CCS ǀ CCS + CHAdeMO | |
| **AC OUTPUT (OPTIONAL)** | | |
| Voltage | 400 Vac ±15% | |
| Maximum current | 32 A | |
| Maximum power | 22 kW | |
| Charging connectors | Type 2 socket with shutters | |
| **REGULATIONS AND SAFETY** | | |
| Standards | IEC 61851-1, IEC 61851-21-2, IEC 61851-23, IEC 61851-24, IEC 62196-2, IEC 62196-3, IEC 61000, DIN 70121, ISO 15118 | |
| Overcurrent | Curve C circuit breaker protections (25 kA) | |
| Indirect contacts | 30 mA Type A (DC) differential protections<br>30 mA Type B (AC) differential protections | |
| Overvoltages | Type 2 protection against permanent and transient overvoltages, both on DC inputs and outputs | |
| **FUNCTIONALITIES AND ACCESSORIES** | | |
| Communication interfaces | Ethernet, RS485,<br>GPRS - 2G/3G/4G (optional), dual SIM (optional) | |
| Communication protocols | OCPP 1.6, 2.0.1, Modbus RTU, Modbus TCP, MQTT | |
| HMI | 7" color touchscreen, multi-language<br>RFID reader (Mifare Classic 1K&4K, Mifare DesFire EV1, NFC)<br>RGB status LEDs<br>Contactless bank card reader (optional) | |
| Advertising screen | 21" Full HD (optional) | |
| Plug & Charge | Yes | |
| **GENERAL INFORMATION** | | |
| Stand-by consumption | < 60 W | < 85 W |
| Efficiency and power factor | > 95% at rated power; > 0.98 | |
| Energy measurement | AC (MID) and DC meter[1] | |
| Hose length | 6.5 m (4,6 m usable length) with cable management system (CMS) included[2] | |
| Operating temperature | -25 ℃ to 55 ℃ (derating from 40 ℃) ǀ Low temperature kit at -35 ℃ (optional) | |
| Humidity | < 95% | |
| Maximum altitude | 2,000 m (for higher altitudes, consult Ingeteam) | |
| Weight | 380 kg | 420 kg |
| Dimensions (h x w x d) | 2300 x 774 x 730 mm | |
| Enclosure | Galvanized steel or stainless steel (optional) | |
| Protection class | IP54 / IK10 (IK08 display) / C5H | |
| Markings | CE | |
| Directives | Low Voltage Directive: 2014/35/EU ǀ EMC Directive: 2014/30/EU ǀ RED Directive 2014/53/EU | |

**Notes**
[1] MID certification (optional) and Eichrecht certification in process.
[2] Optional 10 m without cable management system (CMS).