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Green'up Control pre-assembled metal charging stations for electric vehicles

Cat.Nos: 0 580 81/82/83/84
0 580 91/92/93/94

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1. USE

The Green'up Control charging station allows the charging of 1 or 2 electric vehicles in Mode 3
Integrated equipment:
- Required protection devices for each charging point
- RFID reader with 2 badges included,
- MID meter(s),
- 4G GSM module with micro-SIM card slot, allowing connection to the cloud of charging operators.
- OCPP communication 1.6 (evolving towards 2.0.1).

Delivered pre-assembled with front cover and pedestal for floor mounting or front cover for wall-mounting.
Designed for a commercial environment, the charging station can be installed indoors or outdoors.

2. RANGE

2.1 References

Installation	Power	Number of simultaneous charging points	
		1 vehicle	2 vehicles
Wall-mounted	Single-phase 7.4 kW 32A	0 580 81	0 580 91
	Three-phase 22 kW - 32A	0 580 82	0 580 92
Floor-mounted	Single-phase 7.4 kW 32A	0 580 83	0 580 93
	Three-phase 22 kW - 32A	0 580 84	0 580 94

Connector details:
For Mode 3 load: Type T2s socket (three-phase, single-phase compatible) equipped with a locking system with communication wire compliant with IEC 62196-1 and IEC 62196-2. Use only a manufacturer-approved plug. Extension cords and adapters are forbidden.

Details of the indicator lights:

Status report on the front panel of the charging station:
- Solid green: ready for charging
- Solid blue: Charging in progress
- Flashing blue: charging pending
- Red: fault

2.2 Delivery status

MID meter(s) integrated.

Wall-mounted versions

Reference	Delivered protection devices
0 580 81	- 1 x 4 108 59 : RCBO 1P+N 40A Type F 30mA - Icc 10 kA + 1 shunt trip
0 580 82	- 1 x (4 105 33 + 4 079 02) : MCB 4P 40 A + add-on module 4P 40 A Type F 30 mA Icc 10 kA + 1 shunt trip
0 580 91	- 2 x 4 108 59 : RCBO 1P+N 40A Type F 30mA - Icc 10 kA + 2 shunt trip
0 580 92	- 2 x (4 105 33 + 4 079 02) : MCB 4P 40 A + add-on module 4P 40 A Type F 30 mA Icc 10 kA + 2 shunt trip

Floor-mounted version with pedestal

The floor-mounted charging stations include a chassis with 3 rails.

Reference	Delivered protection devices
0 580 83	- 1 x 4 108 59 : RCBO 1P+N 40A Type F 30mA - Icc 10 kA + 1 shunt trip
0 580 84	- 1 x (4 105 33 + 4 079 02) : MCB 4P 40 A + add-on module 4P 40 A Type F 30 mA Icc 10 kA + 1 shunt trip
0 580 93	- 1 x 4 064 81 : isolating switch 4P 63A - 2 x 4 108 59 : RCBO 1P+N 40A Type F 30mA - Icc 10 kA + 2 shunt trip
0 580 94	- 1 x 4 064 89 : isolating switch 4P 100A - 2 x (4 105 33 + 4 079 02) : MCB 4P 40 A + add-on module 4P 40 A Type F 30 mA Icc 10 kA + 2 shunt trip

3. TECHNICAL CHARACTERISTICS

■ 3.1 Mechanical characteristics

Impact protection rating: IK 10
Protection against solid and liquid ingress: IP 55
Protection rating when plug is Mode 3 is engaged: IP55

■ 3.2 Material characteristics

- Casing (side panels) : cold-rolled steel, RAL 7016, polyester powder textured finish
- Front/rear panels: cold-rolled steel, primary epoxy + RAL 9003 white powder coating
- Top cover: PA6.6 HI – RAL 7016
- Mounting system (wall or floor): zinc-nickel reinforced steel

■ 3.3 Electrical characteristics

	Charging stations	
	Ph + N	3 Ph + N
Operating voltage (Ue) determined at 20°C	230 V~	400 V~
Impulse voltage (Uimp)	4 kV	
Insulation voltage (Ui)	500 V	
Frequency (fn)	50 Hz	
Rated voltage	230 V	400 V
Voltage tolerance (V) Regardless of vehicle requirements	208 V -253 V	
Conditional short-circuit	4.5kA / 6kA / 10kA according to upstream protection device	
Allowable thermal stress in DC	16 000 A^2s	
No-load consumption	12 W	

TNS, TT,compatible earthing system.
In the event of an IT earthing system, this can be changed locally by adding an isolating transformer.
Built-in residual current circuit breakers: 6mA DC fault current detection
Built-in overload detection : 8 s to 125% In

■ 3.4 Electromagnetic compatibility

General interference classification: IEC 61000-6-1 and IEC 61000-6-3 criteria A
EMC : IEC 61851-21-2

- Immunity to electrostatic discharge (IEC 61000-4-2):
± 8kV in air / ± 4kV on contact criteria B

- Immunity to fast transients (IEC 61000-4-4) :
± 2kV on command / ±4kV on power criteria A

- Immunity to lightning shock waves (IEC 61000-4-5) :
±2kV differential mode criteria A on power
±4kV common mode criteria A on power
±1kV coupling clamp criteria A on command

- Immunity to magnetic fields (IEC 61000-4-8) : 100A/m

- Immunity to voltage dips (IEC 61000-4-11 / IEC 61000-4-34) :
0% residual voltage for 250/300 cycles at 50/60Hz criteria C ,
0% residual voltage for 1 cycle at 50/60Hz criteria B,
70% residual voltage for 25/30 cycles at 50/60Hz criteria B,
40% residual voltage for 10/12 cycles at 50/60Hz criteria B.

- Immunity short interruption: IEC 61000-4-11 / IEC 61000-4-34

- Immunity to Conducted RF fields:
IEC 61000-4-6: 10V/m from 0.15 MHz to 80MHz, 80% AM - 1KHz criteriaA
ETSI301489-1 ; 3V/m criteria A

- Immunity to electromagnetic fields radiated at radioelectric frequencies:
IEC 61000-4-3: 10V/m from 80 MHz to 6 GHz criteria A
ETSI301489-1 : 3V/m criteria A

■ 3.5 Climate characteristics

Operating temperature: -25° C à + 55° C
Storage temperature: -25° C à + 70° C
Humidity: Severity 4, very humid, according to IEC 68.2.38
Indoor or outdoor installation
Salt fog: Severity C4
Resistance to sulfur dioxide (SO2): Severity C4

■ 3.6 RFID reader characteristics

RFID compatibility at a frequency of 13.56 MHz
Badge technology: ISO/IEC 14443 type A, MIFARE.

4. CONNECTION

Delivered with integrated and pre-wired protections.
Upstream protection devices (not supplied) must be installed in the electrical panel and comply with regulatory requirements.

Power supply connection:
- Wall-mounted charging stations:
Cat.Nos 0 580 81/91: connection on MCB or RCBO with rigid copper cable H07 V R/U or flexible H07 V K with ferrule
Max capacity: 2.5-16 mm^2 (rigid) / 2.5-10 mm^2 (flexible, with or without ferrule)

Cat.Nos 0 580 82/92: connection on MCB or RCBO with rigid copper cable H07 V R/U or flexible H07 V K with ferrule
Max capacity: 2.5-35 mm^2 (rigid) / 2.5-25 mm^2 (flexible, with or without ferrule)

- Floor-mountedcharging stations:
Cat.Nos 0 580 83/84: connection on MCB or RCBO with rigid copper cable H07 V R/U or flexible H07 V K with ferrule
Capacité max. des bornes :
- pour réf. 0 580 83 : 2.5-16 mm^2 (rigid) / 2.5-10 mm^2 (flexible, with or without ferrule)
- pour réf. 0 580 84 : 2.5-35 mm^2 (rigid) / 2.5-25 mm^2 (flexible, with or without ferrule)

Cat.Nos 0 580 93/94 : connection on isolating switch with rigid copper cable H07 V R/U or flexible H07 V K with ferrule
- Cat.No 0 580 93 : 2.5-35 mm^2 (rigid) / 2.5-25 mm^2 (flexible, with or without ferrule)
- Cat.No 0 580 94 : 4-50 mm^2 (rigid) / 4-35 mm^2 (flexible, with or without ferrule)

Charging station permanently connected to the AC power supply network.

4. CONNECTION (continued)

Network connection:
OCPP 1.6 connected terminal (upgradeable to 2.0.1)
Connection via Wi-Fi, LAN, GSM 4G, WLAN
Ethernet network connection: maximum distance 100 m with Category 6. F/UTP or F/FTP cable
Wi-Fi connection: IEEE 802.11b/g/n 2.4 GHz

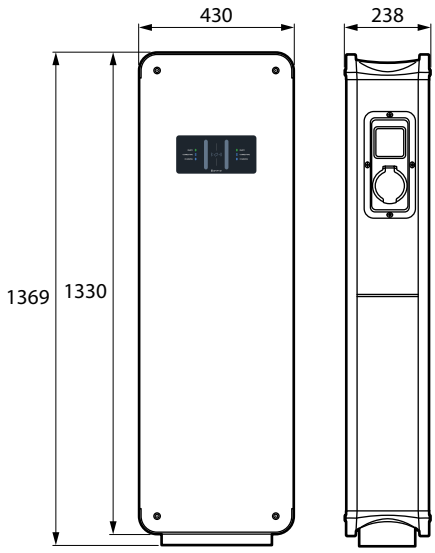
External meter connection for DLM
RS 485 connection: maximum distance 1200 m using Belden 9842 or Belden 3106A cable.

Wired connection (RJ 45) possible from one terminal to another in daisy chain (series).

Setting:
Access via web page with PC connection to the electronic board (see details in installer guide)

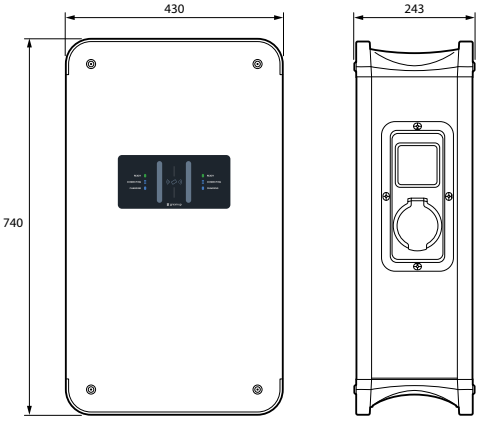
5. DIMENSIONS (mm) AND WEIGHTS

With pedestal for floor fixing



0 580 83 : 42.5 kg
0 580 93 : 48 kg
0 580 84 : 43.5 kg
0 580 94 : 50 kg

With front cover for wall mounting



0 580 81 : 25.5 kg
0 580 91 : 28 kg
0 580 82 : 26 kg
0 580 92 : 29 kg

6. CARE

Caution : Always test before using special cleaning products.

Resistant to the following products: 96% Ethanol, Ethylene glycol, Fuel, Hexane, 5W40 motor oil, Ergacid 1% solution, Ergagem 1% solution, white spirit.
Clean the surface with a cloth with soapy water, diluted ammonia, bleach diluted to 10%, window-cleaning products, pre-impregnated wipes

7. STANDARDS AND REGULATIONS

Electric vehicle charging stations are designed in accordance with the following standards:
- IEC 61851-1: Product standard for conductive charging systems for electric vehicles
- UTE C 17-722 guide: Installations for powering electric or plug-in hybrid vehicles using power outlet sockets
- IEC 60364-7-722 requirements for special installations and locations for electric vehicles
- ISO 15118 Communication (PLC) with support for plug & charge authorization, charge management and automatic recharging

Radio: ETSI EN 300 328 - V2.2.2 : 2019

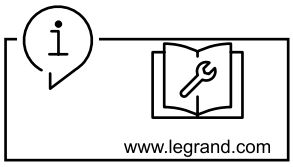
RoHS
Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

REACH
The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product

WEEE Directive (2012/19/EU)
The sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste

Packaging
Design and manufacture of packaging compliant with European Directive 94/62/CE.

8. OTHER INFORMATION



Instruction sheet: mounting information, available on e-catalog

Installator guide: configuration information available in the e-catalogue

PEP sheet: available on e-catalogue