

# Green'up Control metal charging stations to be equipped for electric vehicles

Cat.Nos: 0 580 18/19/28/29/38/39



CONTENTS	Page
1. Use.....	1
2. Range .....	1
3. Technical characteristics .....	1
4. Connection.....	2
5. Dimensions (mm) and weights .....	3
6. Care .....	3
7. Standards and regulations .....	3
8. Other information .....	3

## 1. USE

The Green'up Control charging station allows the charging of 1 or 2 electric vehicles in Mode 3 or Mode 2 + Mode 3.

Integrated equipment:

- RFID reader with 2 badges included,
- 4G GSM module with micro-SIM card slot, allowing connection to the cloud of charging operators.
- MID meter(s),
- OCPP communication 1.6 (evolving towards 2.0.1).

The charging station must be equipped with appropriate electrical protection and a mounting accessory Cat.No 0 590 53 for wall mounting or Cat.No 0 590 54 for floor mounting with a stand. It can be connected to a single-phase or three-phase power supply, offering a charging power between 7 kW and 22 kW. Configuration is carried out via a web interface to adapt the parameters to the intended use.

Designed for a commercial environment, the charging station can be installed indoors or outdoors.

## 2. RANGE

### 2.1 References

Puissance	Type of load	Number of simultaneous charging points	
		1 vehicle	2 vehicles
Single-phase 7,4 kW or Three-phase 22 kW	Mode 3	0 580 18	0 580 19
	Mode 2 + Mode 3	0 580 28 (Type E French standard) 0 580 38 (Type F German standard)	0 580 29* (Type E French standard) 0 580 39* (Type F German standard)

\* Only 1 socket Mode 2

### 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.

- For Mode 2 charging: reinforced 2P+E (16A 250V) socket, type E or type F Green'up Access (a Legrand Group technology) with Green'up System recognition patent enabling presence detection within a secure infrastructure. Compliant with NF C 61-314 and IEC 60884-1. The use of extension cords and adapters is prohibited.

The 16A charge is guaranteed with the use of a cord equipped with a plug incorporating Green'up Access technology (to be checked with the car manufacturer).

Integrated MID meter(s)

**Electrical protection:** refer to page 2 for recommended protective devices.

### 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

## 3. TECHNICAL CHARACTERISTICS

Specifications shown for charging stations equipped with a front cover or stand (not supplied).

### 3.1 Mechanical characteristics

- Protection against impacts: IK 10
- Protection against solid bodies/liquids: IP 55
- Protection rating when plug is Mode 3 is engaged: IP55

### 3.2 Material characteristics

- Casing: Cold-rolled steel RAL 7016 with textured polyester powder coating
- Fixing accessories Cat.Nos 0 590 53 and 0 590 54: Cold-rolled steel with polyester paint and ZeroZinc epoxy primer undercoat, frosted white powder coating RAL 9003

**3. TECHNICAL CHARACTERISTICS** *(continued)*

**■ 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 <sup>2</sup> s	
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 criteria A  
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**

Upstream protection devices (not supplied) must be installed in the electrical panel and comply with regulatory requirements.

Charging stations are supplied without protection, below are the recommended protections to install :

- Specified upstream RC protection:  
30mA Type A or F for single-phase terminals (1 phase + N)  
30mA Type F for three-phase terminals (3 phases + N)  
Or according to local regulations 30mA Type F for all the charging terminal.

- Specified overcurrent protection:  
for charging station with 16A current strength: MCB 20A C curve  
for charging station with 20A current strength: MCB 25A C curve  
for charging station with 25A current strength: MCB 32A C curve  
for charging station with 32A current strength: MCB 40A C curve

- Shunt trip: 12 V to 48 V  
Safety command (output signal): by 12 V= pulsed signal controlling a shunt trip Cat. No. 4 062 76 on upstream protection device

**Supply connection:**

Connection to integrated Viking terminal block with rigid copper cable H07 V R/U or flexible cable H07 V K with ferrules

Maximum capacity of the terminals:

- rigid cable: 1,5 to 25 mm<sup>2</sup>  
- flexible cable: 4 to 16 mm<sup>2</sup>

Charging station permanently connected to the AC power supply network.

**Network connection:**

OCP 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.

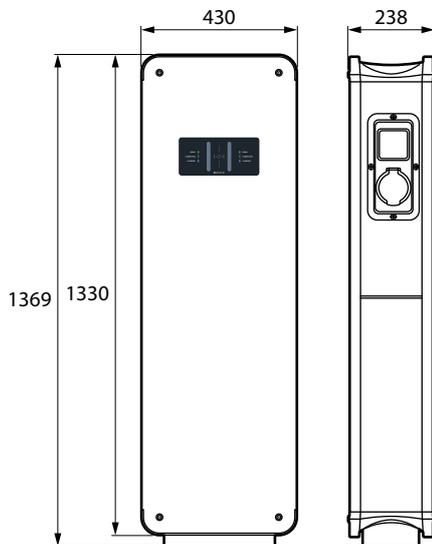
Wired connection (RJ 45) possible from one terminal to another in daisy chain (series).

**Setting :**

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

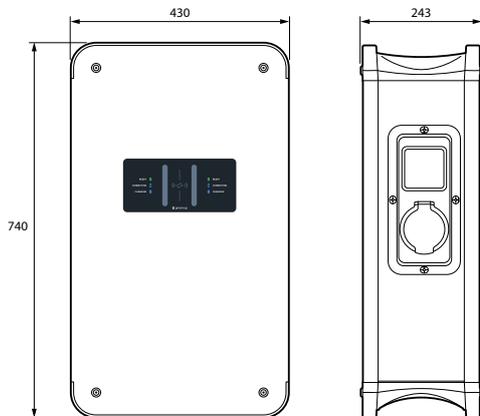
## 5. DIMENSIONS (mm) AND WEIGHTS

### Floor fixing with front cover Cat.No 0 590 54



0 580 18 + 0 590 54:	43.5 kg
0 580 19 + 0 590 54:	45.5 kg
0 580 28 + 0 590 54:	44.4 kg
0 580 29 + 0 590 54:	46.4 kg
0 580 38 + 0 590 54:	44.4 kg
0 580 39 + 0 590 54:	46.4 kg

### Wall mounting bracket with front cover Cat.No 0 590 53



0 580 18 + 0 590 53:	25 kg
0 580 19 + 0 590 53:	27 kg
0 580 28 + 0 590 53:	25.9 kg
0 580 29 + 0 590 53:	27.9 kg
0 580 38 + 0 590 53:	25.9 kg
0 580 39 + 0 590 53:	27.9 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

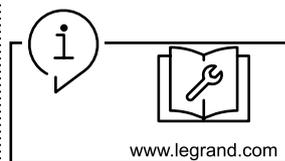
### WEEE Directive (2012/19/EU)

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

**Installer guide:** configuration information available in the e-catalogue

**PEP sheet:** available on e-catalogue