

**MODEL: Etrel INCH Lite (Basic charger)**

## CHARGER POWER SUPPLY INFORMATION

<b>NOMINAL VOLTAGE</b>	90 V AC to 253 V AC supported (single-phase) and up to 440 V AC (three-phase) Charging station can be connected single-phase or three-phase.
<b>NOMINAL CURRENT PER PHASE</b>	Max 32 A per phase Three phase model 3 x 32 A, single phase model 1 x 32 A. Can be adjusted (lowered) through charger settings.
<b>MAXIMUM CHARGING POWER</b>	7,4 kW (single phase) and 22 kW (three phase) Max power can be adjusted (lowered) when the charging station is installed.
<b>FREQUENCY</b>	47 Hz – 63 Hz
<b>SUPPORTED GROUNDING SYSTEMS</b>	The charging station must be properly grounded. Following grounding system are supported: TN-S, TN-C, TN-C-S and TT under special conditions. Where this is possible local grounding should be done. 1-phase connection of IT grounding system is supported and 3-phase IT with use of transformer.
<b>STANDBY OWN ENERGY CONSUMPTION</b>	Own consumption power from 1 W up to 3 W.
<b>DEVICE OVERVOLTAGE SENSITIVITY</b>	Category III EN 60664

## CHARGER OUTPUT

<b>NUMBER OF CHARGING OUTPUTS (SOCKETS)</b>	1
<b>NOMINAL VOLTAGE (SINGLE-PHASE VEHICLE CONNECTED)</b>	Power supply voltage 230 V AC (-10 % , +10 %) and 120 V AC (-10 % , +10 %) On-board car charger nominal voltage depends on the car specification and typically reaches values between 100 V DC and 500 V DC.
<b>NOMINAL VOLTAGE (THREE-PHASE VEHICLE CONNECTED)</b>	Power supply voltage 400 V AC (-10 % , +10 %) and 208 V AC (-10 % , +10 %) On-board car charger nominal voltage depends on the car specification and typically reaches values between 100 V DC and 500 V DC. On a three phase charging station single and three phase vehicles can charge.
<b>NOMINAL CURRENT PER PHASE</b>	Max 32 A per phase Three phase model 3 x 32 A, single phase model 1 x 32 A. Can be adjusted through charger settings.
<b>MAXIMUM CHARGING POWER</b>	7,4 kW (single phase) and 22 kW (three phase) Max. power can be adjusted (lowered) when the charging station is installed or later.
<b>CHARGING SOCKET TYPE</b>	Type 2 socket Compliant with IEC 62196-2
<b>CHARGING CABLE TYPE (ALTERNATIVE)</b>	With Type 2 connector supporting IEC 62196-2 type plug.

## ELECTRICAL PROTECTION

<b>DIFFERENTIAL PROTECTION</b>	Residual current device with $\Delta I = 30 \text{ mA}$ . Different options possible: • DC fault current sensor 6 mA, default option. • RCD Type A, RCD Type A EV, RCD Type B, optionally. One protection can be installed inside the charging station. If differential protection is integrated in the charging station then overcurrent protection needs to be installed in the electric cabinet or vice versa. Compliant with the following standards: • IEC 61851, IEC 62955, IEC/EN 62423 (Type B).	Optional
<b>SURGE AND OVERVOLTAGE PROTECTION</b>	Should be installed in external electrical cabinet.	✘
<b>OVERCURRENT PROTECTION</b>	MCB between 16 A and 40 A, characteristics C. One protection can be installed inside the charging station. If differential protection is integrated in the charging station then overcurrent protection needs to be installed in the electric cabinet or vice versa. Rated short time withstand current: 6 kA.	Optional

Electrical specification

METERING		
MID METER	<p>MID meter can be installed inside the charging station, but not connected with the station's controller (readings can be done by user directly from the meter display). Accuracy meter rating: Class 1 for active energy according to EN 62053-21 and class B according to EN 50470-3.</p> <p>When MID meter is installed inside the charging station all protection devices need to be installed in the el. cabinet. This guarantees sufficient protection of household loads, EV and user during charging.</p>	Optional
COMMUNICATION INTERFACES WITH ELECTRIC VEHICLES		
IEC 61851	<p>Digital communication according to IEC 61851-1:2017 is supported.</p> <ul style="list-style-type: none"> <li>Older versions of the standard are also supported.</li> </ul>	
COMMUNICATION PROTOCOLS		
OCPP	Not supported	Upgradable on request (requires HW change)
USER INTERFACES		
STATUS LED	Indicates charger's present status.	●
BASIC MECHANICAL SPECIFICATION		
DIMENSIONS (HXWXD)	<p>45 x 27 x 13.5 [cm] (model with socket) 45 x 27 x 13.5 [cm] (model with cable holder)</p> <ul style="list-style-type: none"> <li>The cable dimensions are not included in the specified dimensions of the product. Approximate height of the tidied up cable on holder is 0.5 m.</li> </ul>	
WEIGHT	<p>8.2 [kg] (model with socket), including package 9.5 [kg] 11.1 [kg] (model with 5 m cable), including package 12.7 [kg] 12.3 [kg] (model with 7 m cable), including package 13.9 [kg]</p>	
DIMENSION INCLUDING PACKAGING (HXWXD)	<p>60 x 40 x 18 [cm] (model with socket) 60 x 40 x 25 [cm] (model with cable)</p>	
CASING MATERIAL	Aluminium, cover plate Polycarbonate Lexan.	
CASING COLOR	Anthracite grey.	
MOUNTING OPTIONS	<p>Wall mounted:</p> <ul style="list-style-type: none"> <li>With back-plate for wall mounting.</li> </ul> <p>Self-standing with use of additional pole:</p> <ul style="list-style-type: none"> <li>With pole and accessories for mounting of one charger.</li> <li>With pole and accessories for mounting of two chargers.</li> </ul>	Optional (pole)
INLET CABLE HANDLING		
POWER CABLE ENTRANCE DIRECTION	Power cables can be inserted into the station from the back and from bottom of the charging station. Alternately, with the special wall mounting frame also from the top side.	
POWER CABLE DIMENSIONS	<p>From 3 x 2,5 mm<sup>2</sup>, to 5 x 10 mm<sup>2</sup></p> <ul style="list-style-type: none"> <li>In special condition also 5 x 16 mm<sup>2</sup> cable can be used.</li> <li>The use of fine-wire cables of appropriate diameter is recommended. Solid-wire cables are also suitable.</li> </ul>	
CHARGING CABLE HANDLING		
CABLE TYPE	Straight cable	●
CABLE LENGTH	Multiple lengths supported: 5 m (default in model with cable) or 7 m (optional).	●
CABLE HOLDER	Cable holder for charging station with embedded cable.	●
PLUG HOLDER	Magnetic holder	●

## ENVIRONMENTAL SPECIFICATIONS

<b>INGRESS PROTECTION</b>	IP 56 in testing with IK10. The cable plug could have lower IP.	●
<b>TEMPERATURE RANGE</b>	Operation temperature range: -25°C to +65°C Storage temperature range: -40°C to +70°C	●
<b>HUMIDITY</b>	Up to 95 % relative humidity, non-condensing	●
<b>MAXIMUM ALTITUDE</b>	2000 m	●

## VANDALISM PROTECTION

<b>IMPACT PROTECTION</b>	IK10	●
<b>PLUG LOCKING</b>	Not supported	✘

## MAINTENANCE

<b>ACCESS TO SERVICE AREA</b>	Service doors with screw, or service doors with MID window and key.	●
<b>FUNCTIONS SUPPORTED THROUGH SERVICE AREA</b>	Access to: <ul style="list-style-type: none"><li>• manual setting of max. charging current,</li><li>• protection manipulation,</li><li>• RCD protection test button.</li></ul>	●
<b>CLEANING</b>	<ul style="list-style-type: none"><li>• Cloth and water or water-based or alcohol-based cleaners.</li><li>• Do not use solvent-based cleaners.</li></ul>	●