ETREL

a Landis+Gyr company

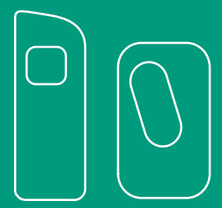
INCH

Charging Stations

LAYING GROUNDS FOR A LASTING E-MOBILITY

EVs ARE NOT ECO FRIENDLY*

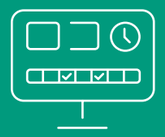
**by themselves. Etrel charging solutions help electric vehicles become an essential part of the electric grid.*



Etrel INCH AC charging stations cater to various home or business use cases, offering advanced connectivity options, usage pattern recognition and dynamic power management. Considering user demands, local consumption, local energy production, tariffs and DSO signals, the charging power varies during the charging session to accommodate dynamically changing conditions. The product durability has been well received on diverse markets across 5 continents.

Why Choose Etrel Charging Solutions?

Configurable chargers for multiple use cases
Configurability and custom setup straight from the production line, packed in the familiar housing, offer broad applicability with the same installation process.

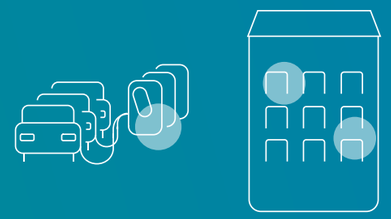


Back-end agnostic for increased convenience
Integrated and in operation with numerous charge point and energy management systems, INCH chargers offer a comprehensive documentation library for seamless integration via OCPP or Modbus TCP.

Same platform across the product range
A unified INCH firmware platform running across the entire product range significantly reduces the setup and maintenance times and ensures smooth operation.

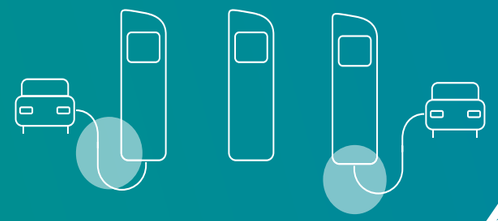
INTERACTIVE CHARGING

1 INTERACTION WITH THE USER

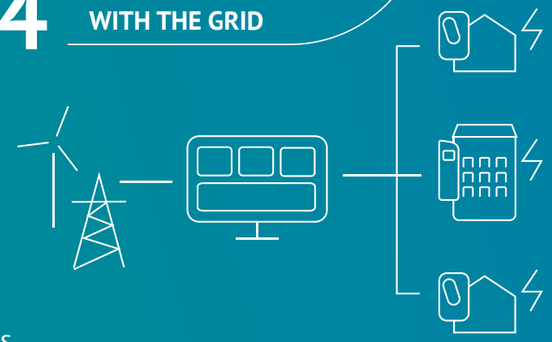


2 INTERACTION WITH THE BUILDING

3 INTERACTION WITH OTHER CHARGING STATIONS



4 INTERACTION WITH THE GRID



50%

Interactive charging can reduce emissions of EVs up to 50 % by adapting charging schedules to the grid conditions, including local energy production.

I N C H

Etrel INCH works with two priorities in mind – to enable the best user experience and reduce operating costs, dynamically balancing charging power for more energy-efficient charging.

INCH can remember and predict known users' charging habits by creating charging profiles from use patterns and energy tariffs, ensuring a smooth and cost-efficient charging experience. Unique magnetic cable holder allows EV drivers to handle and store the charging cable faster. A touch LCD screen, indicator light and sounds enable the user to adopt a preferred method of charger interaction for immediate convenience.

Advanced load management algorithms ensure safe installation on almost any location without costly grid connection point upgrades. Coupled with the Load Guard sensor or connected to the building energy management system, chargers utilise dynamic load management algorithms to adjust charging power to other buildings' consumers and prevent overloads.

When connected in a cluster with limited available charging power, the power is distributed intelligently among all chargers, based on EV characteristics and priorities.

Design And Durability

Iconic housing with a shatterproof acrylic glass plate, secured in an aluminium housing, grants durability and longer operation life.

Connectivity and integration possibilities

The charger can seamlessly integrate with a building energy management system or a back-office solution via different connectivity options and open protocol support

Powerful web interface

A powerful web interface is readily available with every individual charger and allows safe and convenient management of small charging clusters as well as setting up local advertising.

INCH FAMILY

EXPAND INCH CHARGER CAPABILITIES

Load Guard

Smart sensor Load guard helps INCH chargers deliver full battery at the desired time without overloading the grid connection point. It does so by feeding the charger's load management algorithms with real-time measurements of the local consumption.

Large Cluster Solution

Local load management capabilities ensure stable operation regardless of an external connection availability. With Etrel Large Cluster Solution INCH chargers seamlessly operate in large installations, such as residential buildings or fleet car parks, keeping the total consumption within the grid connection point limitation.

Refurbishment

We are helping our partners keep their assets up-to-date and at top performance by taking used Etrel chargers, making them up-to-date, substantially extending their lifespan and reducing their environmental impact.

	INCH LITE	INCH HOME	INCH PRO
Max charging power	7,4 kW (1 x 32 A), 22 kW (3 x 32 A) adjustable		
	Type 2 socket (optional shutter) with a cable lock or Type 2 tethered charging cable		
Level of protection	IP 56, IK 10		
Electrical protection	RCD type A + DC fault current sensors 6 mA (default), RCD Type B or MCB char. C (optional)		
User identification		PIN code, RFID, App*	
Communication		Ethernet, Wi-Fi or 4G LTE	
EV communication	IEC 61851		
Connectivity		OCPP 1.6 SOAP & JSON, Modbus TCP	
Dynamic Load balancing		Yes	
Clustering		Up to 2 chargers	Up to 45 chargers, expandable **
Energy meter	MID optional	Class 2 energy meter, MID optional	
Smart building integration (BEM)		Modbus TCP, custom smart meter integration	
User interfaces	LED status indicator	LCD Screen, embedded web interface My INCH, App*	
Demand response capabilities		Frequency control, digital inputs 12V DC signal optional, OCPP	
Material	Aluminium housing, Polycarbonate Lexan cover plate		
Colour options	Graphite Grey, White optional		

* When connected to a charge point management system.
** Depending on characteristics of charging site.

I N C H D u o

INCH Duo is a durable charger, ready for continuous operation in demanding public locations.

Ergonomic design and a large display with straightforward charging instructions combined with ad hoc payment options offer convenience for new users.

OCPP compliance allows immediate integration in any charge point management system. Several energy management options native to the INCH platform ensure a stable operation with minimum strain on the local grid.

Accepting digital signals through the power lines and frequency monitoring make INCH chargers capable of autonomously responding to grid conditions - managing the charging power and thus impact on the electric grid.

Easy installation& maintenance

A wide-opening service door provides easy access to a charger service area. Modularly combined components allow a fast switch to shorten the field maintenance time, while individual components can be tested and exchanged later at the service workshop.

Advertsing and branding

Large flat surfaces of charger housing offer ample space for branding and visibility, while an on-screen advertising option allows direct communication with the user.

More dimensions to user experience

A large LCD touch screen provides interactive space for user communication. The user interface is designed to inform through the use of colour, signage and sound, making it easier and more intuitive to navigate for new and regular users alike.

INCH DUO FAMILY

EXPAND INCH DUO CAPABILITIES

Contactless Payment Clusters

A contactless payment module allows faster ad-hoc use without registration, thus enhancing user convenience. In a cluster of chargers, the master station can serve as a payment terminal for a cluster installation with non-Etrel chargers for cost-efficient payment clusters, further reducing operational costs of charging infrastructure.

Extended Clustering

“Mix & Match” cluster option allows a combination of different INCH chargers in a single cluster for autonomous operation. Extended clustering capabilities give operators planning flexibility on complex locations or with various use cases.

Expand Your Services, Dive Into The OCEAN

Etrel OCEAN, an EV charging and energy management platform, offers an end-to-end solution for any company aiming to provide excellent charging services to EV drivers or optimise its charging infrastructure management. Coupled with INCH chargers, you have an out-of-the-box seamless solution for a sustainable e-mobility business.

	INCH Duo	*INCH Duo with the Payment terminal*
Max charging power	*2 x 22 kW (3 x 32 A per connector) adjustable*	
	2 x Type 2 socket with a cable lock	
Level of protection	*IP 54, IK 10*	
Electrical protection	*DC fault current sensor 6 mA + RCD type A or RCD Type A EV or RCD Type B, MCB char. C, 40 A*	
User identifcation	*PIN code, RFID, App**	*Credit card, PIN code, RFID, App**
Contactless payment		*Yes, with NFC payment terminal*
Communication	*Ethernet, Wi-Fi, 4G LTE*	
EV communication	*IEC 61851 supported*	
Connectivity	*OCPP 1.6 SOAP & JSON, Modbus TCP*	
Load balancing	*Yes, static and dynamic load balancing*	
Clustering	*Up to 45 connectors, expandable ***	
Energy meter	*Class 1 MID energy meter*	
Smart building integration (BEM)	*Modbus TCP, custom smart meter integration*	
User interface	*LCD Screen, embedded web interface My INCH, App**	
Demand response capabilities	*Frequency control, digital inputs 12V DC signal, OCPP*	
Material	*Stainless steel with anti-corrosion protection and polycarbonate display cover*	
Colour options	*Grey, White, Black*	

** When connected to a charge point management system.*

*** Depending on characteristics of charging site, expandable with large cluster solution.*

ETREL

a Landis+Gyr company

10+ YEARS OF INNOVATION STRENGTHENED BY 125+ YEARS OF SWISS PRECISION AND ENERGY MANAGEMENT EXPERTISE.

Since 2007 Etrel has been designing and developing innovative charging solutions that help transform EVs from static consumers to essential building blocks of smart grid infrastructure

Etrel product portfolio provides stable and scalable solutions to any charge point operator and e-mobility service provider who wants to help EVs become an integral part of the energy infrastructure and facilitate the integration of renewably sourced energy for electric mobility.

In May 2021, Etrel became a part of Landis+Gyr, a leading global provider of integrated energy management solutions for the utility sector. As a competence centre for e-mobility within the Landis+Gyr Group, Etrel continues to pave the way for a sustainable e-mobility and greener world.

40+

Countries

Etrel solutions are in use in more than 40 countries all over the world.

(v10-21)