SHIFTING THE LIMITS

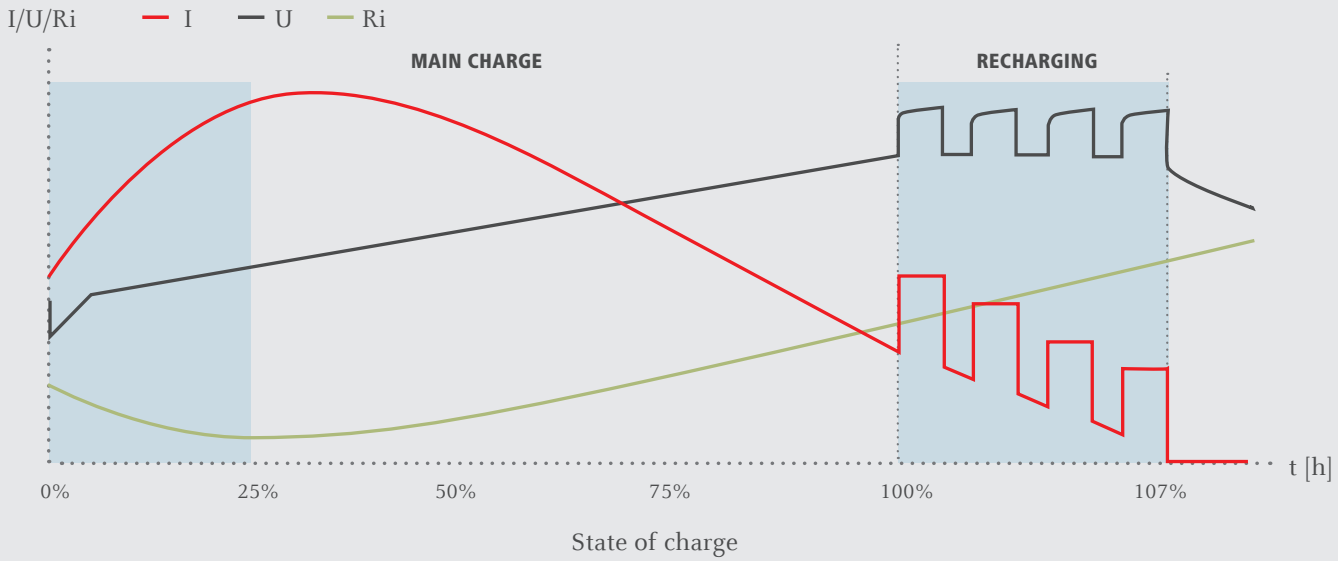
ACTIVE INVERTER TECHNOLOGY WITH Ri-CHARGING PROCESS

/ Selectiva battery charging systems for intralogistics

/ The new three-phase Selectiva battery charging systems for 24V, 36V, 48V and 80V batteries feature a brand new charging process. The successful Active Inverter Technology with the revolutionary Ri-charging process adapts itself to the requirements of the battery and only charges the battery with the current that it actually needs. Conventional battery charging technologies work on the basis of a predefined, fixed charging characteristic and totally ignore the state of the battery.

NEW Ri-CHARGING PROCESS

/ The state of the battery is determined by its effective inner resistance.
/ The charging characteristic is adapted according to the age, temperature and state of charge of the battery.
/ The appropriate level of current is fed to the battery during each phase of the charging process.
/ Every single charging cycle is hence unique and has its own characteristic.



Adapting the current to the battery prevents charging losses when charging commences and during the recharging phase. The battery only receives the current that it actually needs.

The new Ri-charging process therefore guarantees the coolest and gentlest charge, extending the battery service life to its maximum.

MAXIMUM ENERGY EFFICIENCY

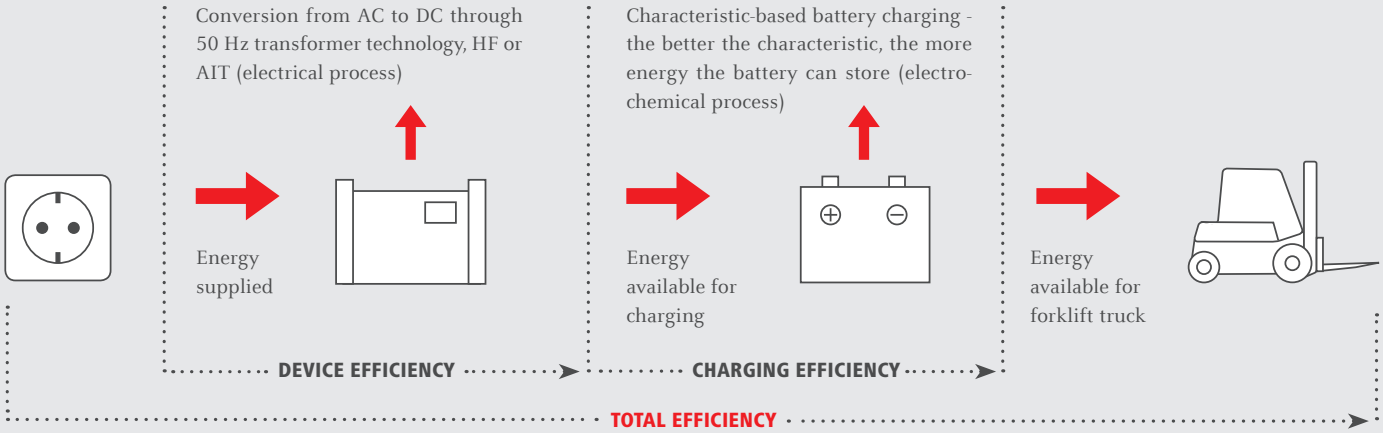
When charging a traction battery, the flow of energy from the socket via the charger to the battery is represented in the form of total efficiency.

/ As a first step, the energy coming from the socket into the battery charger is converted from AC to DC. What is important here is the battery charging technology that the charger employs. This electrical process determines the device efficiency.

/ This is followed by an electrochemical process in which the battery is charged by means of a charging characteristic. This is referred to as charging efficiency.

/ Multiplying both processes together gives the total efficiency.

REPRESENTATION OF TOTAL EFFICIENCY



TECHNOLOGY	DEVICE EFFICIENCY	CHARGING EFFICIENCY	TOTAL EFFICIENCY
50 Hz	80%	70%	56%
HF	90%	75%	68%
Fronius AIT	92%	80%	74%
Fronius AIT with Ri	93%	90%	84%

The innovative Ri-charging process ensures the highest levels of total efficiency from the socket to the forklift truck. This enables the new Selectiva battery charging systems to deliver maximum energy efficiency.

/ Battery Charging Systems / Welding Technology / Solar Electronics

WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS.

/ Whether Battery Charging Systems, Welding Technology or Solar Electronics - our goal is clearly defined: to be the technology and quality leader. With around 3,000 employees worldwide, we shift the limits of what's possible - our more than 850 active patents are testimony to this. While others progress step by step, we innovate in leaps and bounds. Further information about all Fronius products and our global sales partners and representatives can be found at **www.fronius.com**

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