





trak | charger HF mini

The unique HOPPECKE HF battery charger for small traction applications

Traction batteries are designed for special applications and form a system together with their charger. The operation of your vehicle and maximum life of your battery can be ensured only when this system is working in perfect harmony.

So that you may always be offered the very best system, HOPPECKE has designed and developed the trak | charger HF mini range in Germany.

The trak | charger HF mini charger series has been specially developed for smaller industrial trucks, electric forklifts, order picking trucks, lifting and working platforms, and cleaning machines. This series can be used for all lead motive power batteries on the market with a voltage of up to 48 V and guarantees optimal charging.

Thanks to HOPPECKE HF technology, the trak | charger HF mini has the lowest energy consumption with minimal losses when compared with conventional systems, and therefore gives the best energy efficiency. These especially energy-saving chargers merit a top spot on the rating scale for energy consumption, namely efficiency class 1A

HOPPECKE PRINTS PROJUNDO trak | charger HF mini

Typical Applications:

- Electric lift trucks
- Small industrial trucks
- Order pickers
- Cleaning machines
- Lifting and work platforms

Product benefits:

trak | charger HF mini

- High-frequency (HF) charging technology
- Cost reduction through energy saving of around 12% compared to conventional chargers with every charging operation
- Great flexibility in operation
 - modular charger design
- Optimal use of space in the charging station
 - compact and lightweight design











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Customer benefits and features

- Modular charger design, good flexibility: the charger may be adapted at any time to the circumstances in operation on site.
- Maximum possible operating reliability compared to standard chargers - faults do not lead to failure.

The trak | charger HF mini comprises one to four power modules, which may be retrofitted at any time, to increase the rating of the charger (12V to 24V and 5A to 60A).

Fast and clear information in the charging station

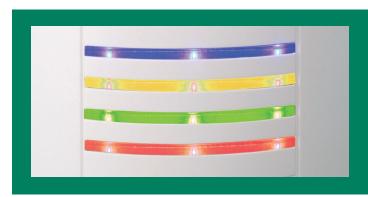
Power LEDs make it possible to read the state of charge of the battery from a greater distance.

Optimal use of space in the charging station

This single-phase charger has a compact and lightweight design. The lower volume and weight make wall mounting possible. Rack installation is also an option. The bracket for rack mounting and the rear panel holes for wall mounting are available as standard features.

Enhanced operating safety

All chargers in the range have been tested to the current EMC standard. Each individual module is given additional protection by primary and secondary fuses.



LED display

Blue = unit on standby
Yellow = unit is charing
Green = end of charging
Red = fault

STOP = interruption of charging

Standard equipment

- Power Factor Correction (PFC) Function
- Programmable external chip
- Complete plug-in mains and charging cable
- Fixture for wall and rack mounting
- Large LED display
- Stop button

Optional equipment features

- Charging plug connector
- Steel underframe for easy and rapid installation and reduction of contamination
- Special charging characteristic to reduce charging times
- Air filter for operation in dusty environments







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Customer benefits and features

- Enhanced operating reliability
- Gentle and optimal charging of the battery

The regulated HF charging system with automatic correction of possible mains power fluctuations of \pm 15% rules out insufficient charging or damage (or overcharging) due to mains power fluctuations.

- Lower electrical installation costs
- Lower energy costs since there are no additional costs for power factor correction

Thanks to the HF technology with controlled power factor correction – integrated PFC function – only effective power is drawn from the mains ($\cos \phi \approx 0.98$).

 Energy saving and reduction of costs by around 12% at each charging operation compared to conventional chargers

The primary-cycled high-frequency charging system leads to an improvement of electrical efficiency of over 92%.

- May be used with all types of battery Freedom to decide on type of battery purchased.
- High level of flexibility in operation

trak | charger HF mini may be used to charge all types of battery: lead-acid, AGM/lead gel, nickel-cadmium, nickel-metal hydride. Just change the chip installed in the front panel.

Perfect harmonisation with all battery types

The ampere-hour balanced charging process allows charging with different characteristics as for example PUIOU, IUIa, IU or I.

More reliable operation without monitoring

Thanks to the charging electronics used, after mains power failure the charging curve is automatically adapted to the actual state of charge of the battery.

Easy to operate - automatic start and stop

With its regulated automatic charging feature, the charger starts and stops automatically. If required, the charging process may be interrupted by using the stop button on the front panel.

- Constant ease of updating
- No specialist skills required on site

The microprocessor-controlled charging electronics of the trak | charger HF mini may be programmed by plugging in an external chip.

Safer in operation, even at high ambient temperatures

Equipment cooling is ensured through a temperature- and output-controlled fan.





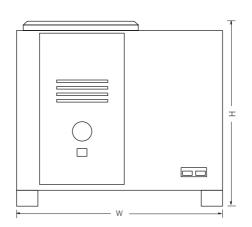
Type list **trak |** charger нғ mini

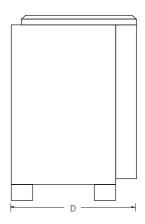
PzS batteries Vented (Ah C ₅) HOPP 3/IUOIa		GEL-AGM system Sealed (Ah C ₅)	Charger type	Mains output [VA]	Mains current [A]	Mains fuse rating [A]
approx. 8 h	approx. 12 h	approx. 10 h	_			
38 - 115	60 - 180	60 - 100	E 12/15 HOHF mini	245	1.2	10
77 - 250	121 - 360	100 - 260	E 12/30 HOHF mini	450	2.2	10
114 - 345	180 - 525	150 - 390	E 12/45 HOHF mini	720	3.5	10
154 - 465	242 - 690	201 - 520	E 12/60 HOHF mini	960	4.6	10
38 - 115	60 - 180	60 - 100	E 24/15 HOHF mini	450	2.2	10
77 - 250	121 - 360	100 - 260	E 24/30 HOHF mini	890	4.3	10
114 - 345	180 - 525	150 - 390	E 24/45 HOHF mini	1335	6.5	10
154 - 465	242 - 690	242 - 520	E 24/60 HOHF mini	1780	8.6	10

Casing dimensions (W x H x D): $300 \times 336 \times 296 \text{ mm}$

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