

# Product Information

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User guide I-2420

Din forhandler



GACELL A/S - Sletten 17 - DK 7500 Holstebro - 961 02 961

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## ***Foreword***

The charger is manufactured and constructed for industrial use and is used for 230V only. Supply cord is standard open wires, but can be customized upon request. Drive-off protection (NO or NC contacts) is optional. Separate fused cabling is provided if the option is installed. Remote indication is optional. Remote indication is connected to the 3.5mm auxiliary connector.

The charger is equipped with intelligent cable loss compensation. Please use charging cable as specified to avoid overcharging (using shorter cables result in overcharging, and longer cables will give longer charging time).

## **High Quality Switch Mode Battery Charger**

- 24V 20A
- Water and dust tight with decent protection classification (IP64)
- Environment friendly
  - highly efficient with ultra-low usage during standby
- Fully programmable
- Onboard or stand-alone operation

## ***Features***

15 onboard charging curves selectable by the service-technician without opening the cabinet.

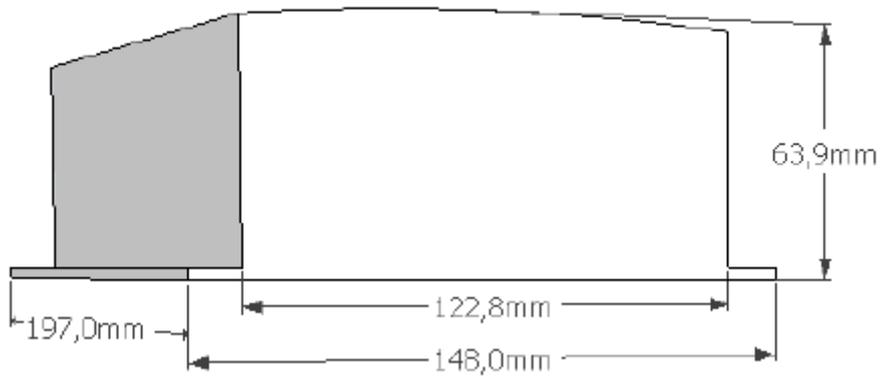
Possible of charging all standard lead-acid, GEL and AGM batteries. Lilon, dV/dT and customized charging curves available upon request. All types of charging curves can be freely mixed into the set of 15 onboard charging curves. Even the current of charging can be programmed individually for each specific charging curve.

Charging batteries from as low as 0.5V and automatically revives deeply discharged batteries by operating with special charging algorithm. Drive-Off protection with optional opportunity of integrating NC and NO contacts.

Intelligent cable loss compensation for even faster charging. High Frequency Switch Mode – advanced technology. Conversion efficiency up to 94% leading to low CO<sup>2</sup> emission and thus low power usage in general. Maximum standby power at 0.5W equals low CO<sup>2</sup> emission. All operational charging processes are fully controlled by microprocessors.

### **Manufacturing options and equipment:**

- Full logging of charging cycle – up to 200 logs for retrieval and analyze on any PC.
- Integrated temperature sensor to adjust charging voltage to battery temperature.
- Remotable charging-indicator with single 3-color or separate LEDs.
- Digital read-outs of voltage, current, time and capacity through a remote display.
- Menu operation can both be onboard or remote.
- Cabling (length, plugs etc.).
- Vibration Absorbation Kit.



### ***Technical Data***

Cabinet	Black painted aluminum
Input voltage (mains voltage)	230Vrms $\pm$ 10%
Power factor	=1
Conversion efficiency	Max. 94%
Output voltage	Up to 32V (nominal: 24V battery)
Output current	20A
Output ripple	<100mVpp
Protection classification	IP64
Dimensions (LxWxH)	197x148x64 mm
Weight (excl. cables)	1,400 kg

## User guide/Instruction manual

### Indicators, not charging

 		<i>Short flash/second ½ sec on, ½ sec off</i>	<i>Mains connected, no battery connected. Battery connected, Mains disconnected. *</i>
 			
 			
 		<i>Fast flashing</i>	<i>Battery error!</i>

*\*) Some models will have Green LED off when mains is disconnected.*

### Indicators, charging

 		<i>Steady</i>	<i>Battery fully charged, charger in battery maintenance mode (please see charging curve documentation)</i>
 		<i>Slow flashing</i>	<i>Absorbion charging. Constant voltage while current is reduced.</i>
 		<i>Slow flashing</i>	<i>Bulk charging. Constant current charging. Voltage is rising.</i>
 		<i>Fast flashing</i>	<i>Battery error!</i>

### Charging curve selection

The charger comes with various amounts of charging curves depending on pre-manufactured condition.

Selecting charging curve is done without opening the charger by following the steps:

1. Disconnect the charger from Mains
2. Short circuit the battery connections (Bat + and Bat -)
3. Connect Mains
4. The charger will now display a LED pattern depending on the charging curve selected. To select the next charging curve, open the short circuit within 3 seconds and close it again. The charger is then advanced to the next charging curve. Open and close the battery connections until the wanted pattern is shown and wait 3 seconds. All four LEDs flash a couple of times to signal that the new charging curve has been stored and the charger is ready for use. The standard curve is displayed by the red LED only.