

Cascading  
n x 6000 W

**Battery charger**  
with isolation  
for traction line 600/750/1200V<sub>DC</sub>



- Use directly on traction line acc. EN50163
- Voltage cascaded front-end
- Unit cascading up to 4x6 KW
- Parallel operation on-board grid / battery
- No-load capability, 100% load step
- Regulated current splitting in the battery
- Charging end voltage = f (T<sub>BAT</sub>)
- Improved isolation parameters PD2/OV2
- Shock / vibration acc. EN61373 (any mounting position)
- Optional external inrush current limitation ASD or impedance



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## Series HBL.H

**Battery charger from high voltage with air or water cooling**

for rolling stock, vehicles, special technology

### Main points:

#### Input:

- converter starts out of input source
- fuse as emergency protection
- integral power run-up
- Inhibit floating and polarity independent, constant current
- Protection against inrush current/surge<sup>1)</sup>
- Connection:  
Power: cage clamps 4 mm<sup>2</sup>  
Interface: phoenix 2,5 mm<sup>2</sup>

#### Output:

- Accuracy absolute <± 1%
- Ripple <100 mV<sub>pp</sub> (without battery)
- Spikes <250 mV<sub>pp</sub> (T 1:1/50MHz)
- Regulation ±1% = f(T<sub>a</sub>/I<sub>o</sub>/U<sub>i</sub>)
- charging end voltage = f (T<sub>BAT</sub>)
- constant short circuit level I<sub>o</sub>-max
- Option: power constant
- no-load, over load, short circuit proof
- U/I-intertwined regulation
- Screw connectors M8

#### In general:

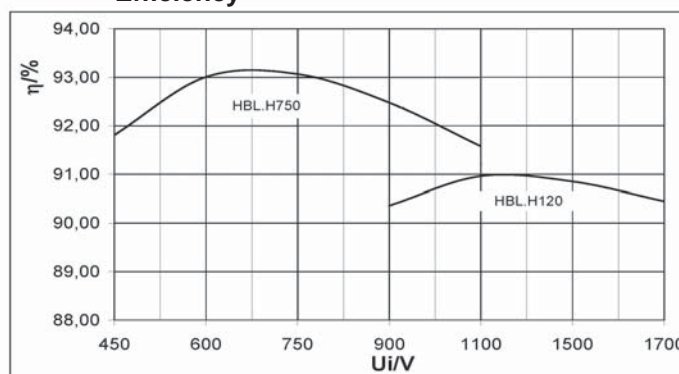
- Efficiency 93 %
- Pollution degree PD2
- Over voltage category OV2
- 11 mm air/creepage distances
- Isolation test voltage 2,5 kV AC
- Ambient temperature - 25°C/+ 55°C
- Option: - 40°C/+ 70°C,
- Derating 1,5 %/°C > 55°C
- Heat sink critical temperature 95°C
- regulated fan operation
- Dimension approx: 300x460x180 mm<sup>3</sup>
- Weight: approx. 15kg.  
incl. ribbed heat sink

#### Options:

- 1) Adapted inrush current limitation  
R<sub>i</sub> ≥ 20 Ohm Series ASD
- internal fan replaceable

Input	Battery	I <sub>o</sub> max	Model number
U <sub>i</sub> /V DC	V <sub>nom</sub> DC	A	
<b>420-1000</b>	24	200	HBL.H750.24.200
1270 V/20 ms	36	135	HBL.H750.36.135
1950 V/2 ms	72	70	HBL.H750.72.070
<b>600/750 V traction line</b>	110	47	HBL.H750.10.047
<b>turn off ≥ 1270 V</b>			
<b>operation with external inrush current limiting choke</b>			
<b>900-1500</b>	24	200	HBL.H120.24.200 <sup>3)</sup>
1650 V/20 ms	36	135	HBL.H120.36.135 <sup>3)</sup>
2050 V/20 ms	72	70	HBL.H120.72.070 <sup>3)</sup>
	110	47	HBL.H120.10.047 <sup>3)</sup>
<b>1200V traction line</b>			
<b>turn off ≥ 1650 V</b>			
<b>operation only with external inrush current limiting choke</b>			
<b>Version H</b>	-40°C... 70°C (forced ventilation) <sup>3)</sup>		additional costs
Projecting costs:			auf Anfrage
Modification costs for possible changes above values:			on request
<b>LMB:</b> „charging management board“:			on request
Heat sink for water or air cooling:			on request
CAN communication interface:			on request
3)			on request

### Efficiency



Stand: 10/176

