

RKA Power

## Switchmode rectifier type HANS with PFC



Fully equipped rectifier with supervision and alarm.

The constant voltage rectifier type HANS is primary switched, and is designed for charging and float charging of lead acid batteries, open or valve regulated, and alkaline batteries.

HANS is standard equipped with supervision and alarm for mains failure, charging failure and charging level over/under voltage limit or high/low battery voltage.

### Applications

HANS is suitable for applications which demands battery surveillance and where alarms for mains failure and charging failure are needed.

### Technical description

The rectifier is primary switched and has a high working frequency (160 kHz), which gives high load and line regulation, high efficiency (>85%), small dimensions and low weight. The sound level of the rectifier is 26 dB (almost totally silent). This technical design means that HANS has a very low ripple voltage, less than 0.05% RMS.

On the unit's front panel there is a combined volt- and ampere-meter and an ON/OFF switch. The push button "U/I" is used for selecting between measurement of the output voltage or the output current.

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|---|--|
| Fully equipped with supervision and alarm | ➔ Perfect system control, easy to install. |
| Power factor 0.99                         | ➔ Sine wave input.                         |
| Excellent load and line regulation        | ➔ Increased battery lifetime.              |
| High efficiency                           | ➔ Low energy consumption.                  |
| Small dimensions                          | ➔ Easy to install.                         |

Manufacturer: RKA Power AB

### Supervision and alarm functions

The alarm board contains the following standard alarms:

- Mains power failure
- Charging failure
- Charging level over/under voltage limit or High/Low battery voltage

Alarms are indicated on a red LED on the front panel, and by a common alarm relay with changeover contacts. The alarm levels can easily be adjusted and they can also be read on

the voltmeter display on the front panel. The green LED marked Normal, indicates that no alarm exists and that normal operating conditions exists.

### Cabinet

HANS is designed for indoor wall mounting. The rectifier is built in a metal case. The unit is lacquered in a grey colour. The cabinet has 4 inlet holes for cables, all directed downwards.

### RFI

The rectifier is made in accordance with EN 55022 B and CISPER 22 B.

### Protection

The rectifier is short circuit proof, and is as standard equipped with 2 output fuses for the rectifier and 2 fuses for battery output.

### Product program

Type	Voltage	Current	Primary fuse	Room for batteries	Cabinet	Weight
HANS 12/5 PFC	12 V	5 A	6 A	2pc	LH 1	7 kg
HANS 12/10 PFC	12 V	10 A	6 A	2pc	LH 1	7 kg
HANS 12/20 PFC LH1	12 V	20 A	6 A	—	LH 1	9 kg
HANS 12/20 PFC	12 V	20 A	6 A	—	LH 2	10 kg
HANS 24/2.5 PFC	24 V	2.5 A	6 A	2pc	LH 1	7 kg
HANS 24/5 PFC	24 V	5 A	6 A	2pc	LH 1	7 kg
HANS 24/10 PFC LH1	24 V	10 A	6 A	—	LH 1	9 kg
HANS 24/10 PFC	24 V	10 A	6 A	—	LH 2	10 kg
HANS 24/15 PFC	24 V	15 A	6 A	—	LH 2	11 kg
HANS 24/20 PFC	24 V	20 A	6 A	—	LH 2	11 kg
HANS 24/35 PFC	24 V	35 A	10 A	—	LH 2	11 kg
HANS 48/2.5 PFC	48 V	2.5 A	6 A	—	LH 2	10 kg
HANS 48/5 PFC	48 V	5 A	6 A	—	LH 2	11 kg
HANS 48/10 PFC	48 V	10 A	6 A	—	LH 2	11 kg
HANS 48/15 PFC	48 V	15 A	10 A	—	LH 2	11 kg

Dimensions: LH 1 = 330 x 315 x 120 mm (W x H x D)  
LH 2 = 430 x 370 x 150 mm

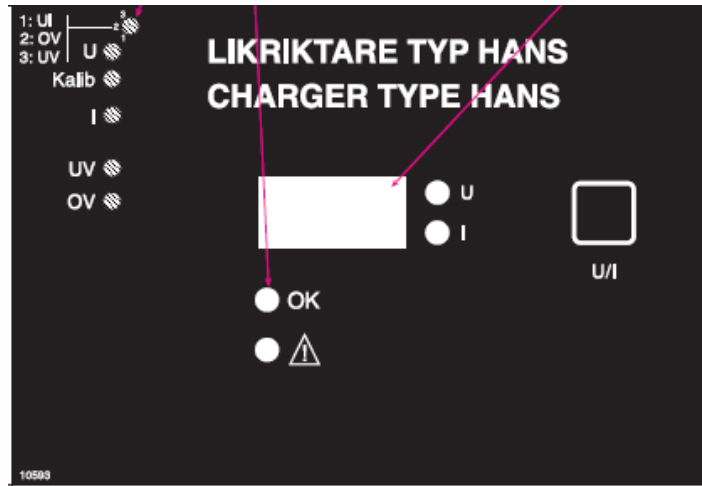
Options:

Battery kit for connecting and fixation of 2 pcs 7Ah batteries. Dimension for batteries 151 x 65 x 94 mm.

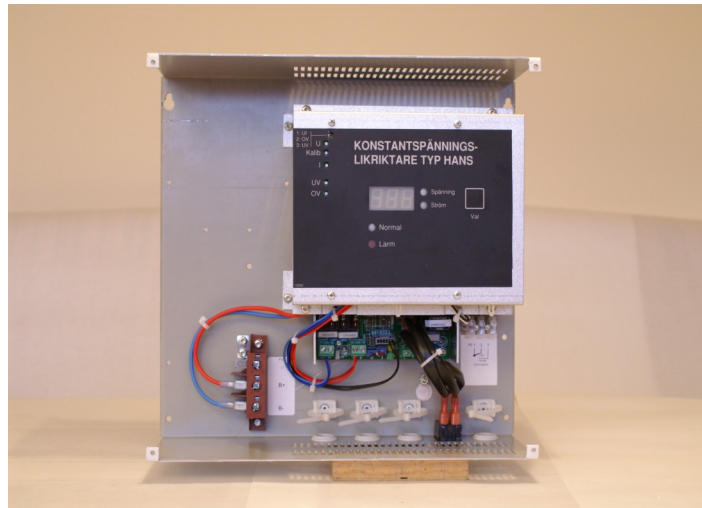
### Technical specification

AC input voltage	230V ± 15%, 1-phase 47-63Hz	Emission	According to EN 50 081-1 and EN 50 081-2 (1993)
Power factor PF	Better than 0.99	Immunity	According to EN 50 082-1 and EN 50 082-2 (1993)
Cos phi	Better than 0.99	EMC	According to EN 61000-3-2
DC output voltage	Nominal 12V, 24V and 48V	RFI / EMI	According to EN 55022 B and CISPER 22 B
Load and line regulation	Better than ± 0.05%	Harmonized standard	According to EN 60742 and EN 60950
Output current limit	102% of nominal current	Cabinet	LH 1 is IP20, LH 2 is IP 40
Constant voltage	I/U according to DIN 41773		
Efficiency	Better than 85%		
Ripple	Better than 0.05% RMS		

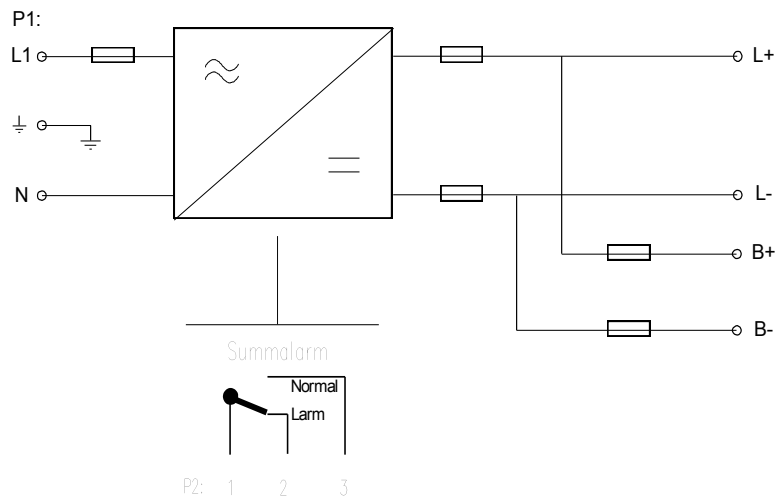
Front panel



Developed and produced in Sweden.



Block diagram



**CE** CE marked.

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HANS\_PFC\_eng 2018

We reserve us the right to change all technical data without prior notice.