

Switchmode rectifier

Type LEIF with PFC



*»We store  
the world's energy«*

**Network**

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## Rectifier / DC-UPS with or without batteries · with or without alarm

### Usage

The rectifier is specially designed for charging and maintenance charging of lead acid batteries.

A battery can easily be added inside the rectifier to make a complete unit.

### Applications

The rectifier type LEIF is primary designed for alarm applications, but suits most industrial purpose that needs continuous power or as a backup power unit.

### Technology

The charger is primary switched with high frequency (100kHz) which gives good load and line regulation, small dimensions high efficiency and low weight.

### Internal batteries

A battery can easily be added to the unit. Suitable batteries are valve regulated 12V 7Ah types, with a typical lifetime of 5 years.

### Design

The charger LEIF is designed for indoor wall mounting. The cabinet has 2 downward directed inlet holes for cables. The charger is built in a metal case and is lacquered in a gray color.

### Fuses

The charger is short circuit proof and is protected by fuses. The battery has 2 fuses one in each branch. The battery fuses protects the battery and load. The fuses are of Autofuse type.

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##### Benefits for the user

- > Complete unit - every thing ready in one unit.
- > Easy installation - ready, only cable in / out.
- > Tested in factory - saves time and money.
- > Small dimensions - easy to install.
- > Excellent load and line regulation - increased lifetime of the battery.
- > High efficiency - low energy consumption.
- > Low noise level - almost totally silent.
- > Powerfaktor PF 0.99 - sine wave input.

##### Product program

Made for fixed installation, input 230VAC 1-phase 50 or 60Hz and output 12V, 24V, 48V or 110V DC

Art-no	Order code	Voltage Volt	Current Rec. linefuse		Rom for batteries	Dim. i mm			Weight with and without batt.	
			Amp	Amp		W	H	D	kg	kg
E52 431 00	LEIF 12/2.5	12V	2.5A	6A	1pcs.	265	155	80	2,2	6
E52 431 02	LEIF 12/5	12V	5A	6A	1-2 pcs.	300	315	80	4,4	7
E52 431 04	LEIF 12/10	12V	10A	6A	1-2 pcs.	300	315	80	4,4	12
E52 431 06	LEIF 12/20	12V	20A	6A	-	435	370	150	8	-
E52 431 10	LEIF 24/1.25	24V	1.25A	6A	2 pcs.	300	315	80	4,2	10
E52 431 12	LEIF 24/2.5	24V	2.5A	6A	2 pcs.	300	315	80	4,2	11
E52 431 14	LEIF 24/5	24V	5A	6A	2 pcs.	300	315	80	4,4	12
E52 431 16	LEIF 24/10	24V	10A	6A	-	435	370	150	8	-
E52 431 18	LEIF 24/15	24V	15A	6A	-	435	370	150	9	-
E52 431 20	LEIF 24/20	24V	20A	6A	-	435	370	150	10	-
E52 431 22	LEIF 24/35	24V	35A	10A	-	435	370	150	10	-
E52 431 30	LEIF 48/2.5	48V	2.5A	6A	-	435	370	150	10	-
E52 431 32	LEIF 48/5	48V	5A	6A	-	435	370	150	10	-
E52 431 34	LEIF 48/10	48V	10A	6A	-	435	370	150	10	-
E52 431 36	LEIF 48/15	48V	15A	10A	-	435	370	150	10	-
E52 431 40	LEIF 110/2.5	110V	2.5A	6A	-	435	370	150	10	-
E52 431 42	LEIF 110/5	110V	5A	6A	-	435	370	150	10	-
E52 431 44	LEIF 110/7.5	110V	7.5A	10A	-	435	370	150	10	-
E52 431 90	Battery case	12-48V	16A		1-4pcs	310	315	80	2	-

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#### Product program charger with alarm

The electronic alarm board contains the following standard alarms: Mains power failure, Charger failure, and two voltage level alarms, that either can be configured as Charge level over/under voltage limit or as Low battery voltage and High battery voltage. The charger has a green OK LED and a red sum-alarm LED on the front panel. Alarm that goes away are automatically reset.

Sum-alarm is signaled by one relay with potential free changeover contact.

Art-no	Order code	Voltage Volt	Current Rec. linefuse		Rom for batteries	Dim. i mm			Weight with and without batt.	
			Amp	Amp		W	H	D	kg	kg
E52 431 03	LEIF 12/5L	12V	5A	6A	1-2 pcs.	335	315	80	4,6	7
E52 431 05	LEIF 12/10L	12V	10A	6A	1-2 pcs.	335	315	80	4,6	12
E52 431 07	LEIF 12/20L	12V	20A	6A	-	335	315	80	4,6	-
E52 431 13	LEIF 24/2,5L	24V	2,5A	6A	2 pcs.	335	315	80	4,4	11
E52 431 15	LEIF 24/5L	24V	5A	6A	2 pcs.	335	315	80	4,6	12
E52 431 17	LEIF 24/10L	24V	10A	6A	-	435	370	150	9	-
E52 431 19	LEIF 24/15L	24V	15A	6A	-	435	370	150	10	-
E52 431 21	LEIF 24/20L	24V	20A	6A	-	435	370	150	11	-
E52 431 23	LEIF 24/35L	24V	35A	10A	-	435	370	150	11	-
E52 431 90	Battery case	12-48V 16A		-	-	310	315	80	2	-

Typical maximal load currents and backup time for different units:

(Max 15A battery fuse)

Battery	5 min	10min	30 min	1 hour	2 hour	3 hour	5 hour	10 hour	24 hour
7Ah	5A	5A	5A	3.9A	2.3A	1.6A	1.1A	0.6A	0.2A
2x7Ah	10A	10A	10A	7.8A	4.6A	3.2A	2.2A	1.2A	0.4A

#### Technical specification

Rectifier:

AC input voltage	230V +15% -15%, 1-phase 47-63Hz
Powerfactor	Better than 0.99
Cos fi	Better than 0.99
DC output voltage	Nominal 12V, 24V, 48V or 110V DC
Load and line regulation	Better than $\pm 0.5\%$ before output fuses
Output current limit	102% of nominal current
Constant voltage	I/U according to DIN 41773
Efficiency	Better than 85%
Ripple	Better than 0.05% RMS
Emission	According to EN 50 081-1 and EN 50 081-2
Immunity	According to EN 50 082-1 and EN 50 082-2
EMC	According to EN 61000-3-2
RFI / EMI	According to EN 55022 B and CISPER 22 B
Harmoniserad standard	According to EN 60742 and EN 60950
Cabinet	IP 20

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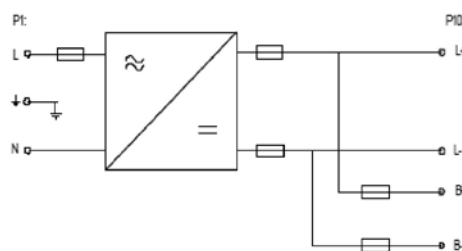
### Switchmode rectifier

#### Battery

Battery capacity	7Ah, 1 x 12V or 2 x 12V
Battery fuse	fuse in positive and negative branch

#### Extra battery case

Battery	12V batteries 6.5-7Ah
Battery size	65x151x94 mm
Number of batteries	1-4 pcs.
Output voltage	12V, 24V or 48V
Battery fuse	16A 2-pole
Dimensions	300x315x80 mm (WxHxD)



Rectifier type LEIF 12/2.5 complete with battery.

**Exide Technologies**, der har aktiviteter i mere end 80 lande og over 120 års erfaring, er en af verdens største virksomheder inden for produktion og genanvendelse af blysyrebatterier. Virksomheden udvikler avancerede energilagringssystemer til både automobilbranchen og industrien generelt. Førende producenter af biler, lastbiler og gaffeltrucks har endvidere valgt Exide Technologies som deres OEM-leverandør. Exide leverer også etablerede og velkendte varemærker til eftermarkedet.

Exide Transportation producerer batterier til både lette køretøjer og erhvervskøretøjer samt til landbrugssektoren, marinsektoren og fritidssektoren. Industrial-markedet, der hører under divisionen **GNB Industrial Power**, omfatter effektive energilagringssystemer til Motive Power-applikationer som f.eks. gaffeltrucks, rengøringsmaskiner og andre elektriske køretøjer, der anvendes i industrien, samt Network Power-applikationer som f.eks. telekommunikationssystemer, vedvarende energianlæg og UPS-anlæg.

Exides ingeniører og teknikere har altid været helt i front, når det gælder udvikling af nye teknologiske løsninger. Exides ISO-/TS-certificerede fabrikker er en garanti for, at produkterne er fremstillet så effektivt som muligt, og at de opfylder de højeste kvalitetskrav samtidig med, at de belaster miljøet mindst muligt.

Exides store salgs- og distributionsnetværk står for kvalitetsservice og levering til aftalt tid. Virksomhedens topmoderne genvindingsanlæg sikrer, at batterierne genanvendes, og yder dermed et positivt bidrag til miljøet. Exide tilbyder også diverse ydelser, tilbehør og energirådgivning.



- Batterifabrikker
- Genvindingsanlæg
- Distributionscentre
- Europæisk hovedkontor
- Salgskontorer

Alle batterifabrikker er certificeret i henhold til ISO 9001  
Alle startbatterifabrikker er certificeret i henhold til ISO/TS 16949  
Alle batterifabrikker er certificeret i henhold til ISO 14001