



IN THE COMPETITIVE STRUGGLE AMONG TELECOM OPERATORS,  
THE BASIC PARAMETER FOR SERVICE QUALITY ASSESSMENT IS  
THEIR **AVAILABILITY WITHOUT DROP - OUT.**

20 YEARS OF IMCO POWER  
ON THE BACK\_UP POWER SUPPLY MARKET

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## PRODUCT CATALOGUE

2016

DC/DC CONVERTERS  
DC/AC INVERTERS  
GENERAL POWER SUPPLIES  
BACK UP POWER SUPPLIES  
UPS  
PLUG-IN BACK UP POWER SUPPLIES

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The basic parameter for the availability of electronic services is quality, reliability and the uninterruptible operation of technologies, that can not work without backup power supplies with 24-hour surveillance. What is limited autonomy time, given by the size and condition of the backup batteries, if we do not have any information concerning the status of a primary power supply failure? If a standby technician does not respond to the failure of the primary power supply, which ultimately overcomes the energy of the batteries, the back up power supply only postpones the irreversible technology and service failure without surveillance.

**A BACKUP POWER SUPPLY WITHOUT SURVEILLANCE IN SUCH CASES IS NOT JUSTIFIED!**



## DC/DC CONVERTERS

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ADCxx.H (DIN rail, 100W)

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TC20.H (DIN rail, 20W)

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TIC100.H (DIN rail, 100W)

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TIC200.H (DIN rail, 200W)

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## ADCxx.H (DIN rail, 48V/24V(150V), 100W)

## DC/DC CONVERTERS

- Nominal input voltage 24V(48V) DC
- Output voltage 24V(150V) / 100W output power
- Galvanically isolated output
- High efficiency, up to 92%
- Doubled output terminals
- Mounting type: DIN rail



DC/DC converters type ADC01.H convert 48V DC input voltage to 24V DC output voltage. ADC02.H type converters with 24V DC input voltage are designed to supply devices with input voltage 100-230V~50/60Hz up to 100W without needs a DC/AC inverter. For this purpose, a part of the delivery is a special cable for supplying of this device. Output is galvanically isolated from the input, output terminals are doubled. The LED on the front panel indicates the presence of the output voltage.

Model specification:

- ADC01.H ZZ\_XXYY - H = designed for DIN rail mounting, ZZ = nominal input voltage, XX = nominal output voltage, YY = max. output current
- ADC02.H ZZ\_XXYY - H = designed for DIN rail mounting, ZZ = nominal input voltage, XX = nominal output voltage, YY = max. output current

The model is designed for DIN rail mounting. The input connection is through a removable plug at the bottom of the converter, the output voltage connection is on the top of the converter. Output terminals are doubled and with a drafted PE (protective earth) terminal. The converter allows cable connecting with a conductor cross section up to 2.5mm<sup>2</sup>.

MODEL SPECIFICATIONS	ADC01.H 48_2404 48V/24V(4A)	ADC02.H 24_150006 24V/150V(0.6A)
Input voltage	48V(35 – 72V)	24V(18 - 35V)
Output voltage	24V(4A)	150V(0.6A)
Output power	100W	100W
Efficiency	92%	90%
Insulation strength	min. 1500V	min. 1500V
Operating temperature	-25 - +60°C	-25 - +60°C
Output voltage stability	1%	3%
Local signalization	LED	LED
Remote signalization	-	-
Air flow	Convection	Convection
Short circuit protection	Yes	Yes
Overtemperature protection	85°C	85°C
Undervoltage protection	Yes	Yes
Mounting type	DIN rail	DIN rail
Dimensions W x H x D (mm)	71 x 90 x 68 mm	71 x 90 x 68 mm
Weight	0.2kg	0.2kg
Degree of protection	IP20	IP20
Part No.	IP.1431.633.200	IP.1431.633.201

## TC20.H (DIN rail, 20W)

## DC/DC CONVERTERS

- Nominal input voltage
- Nominal output voltage 24V (48V) / 20W output power
- Galvanically isolated output
- High efficiency, up to 90%
- Mounting type: DIN rail



TC20.H DC/DC converters TC20.H type convert 12V input voltage to 24V (48V) with galvanic separation. Converters are equipped with a local LED indication located on the front panel.

Model Numbering:

- TC20.H ZZ\_XXYY – H = DIN rail, ZZ = nominal input voltage, XX = nominal output voltage, YY = maximum output current.

Installation position is on a horizontal DIN rail, venting slits are above and below the case. The input and output connection is via removable connector at the top and bottom side with a conductor cross section up to 1.5mm<sup>2</sup>.

MODEL SPECIFICATION	TC20.H 12_2401 12V/24V(0.84A)	TC20.H 12_48005 12V/48V(0.42A)
Input voltage	12V (10.5-15V)	12V (10.5-15V)
Output voltage	24V(0.84A)	48V(0.42A)
Output power	20W	20W
Efficiency	90%	87%
No load power consumption	48mA	83mA
Insulation strength	min. 1500V	min. 1500V
Operating temperature	-25-+60°C	-25-+60°C
Output power ripple	20mV	50mV
Output voltage stability	0.5%	0.5%
Local signalisation	LED	LED
Remote signalisation	-	-
Cooling	Convection	Convection
Short circuit protection	1.3A	0,7A
Overvoltage protection	No	No
Undervoltage protection	Yes	Yes
Mounting type	DIN rail	DIN rail
Dimensions W x H x D (mm)	36x90x68	36x90x68
Weight	0.13kg	0.13kg
Degree of protection	IP20	IP20
Part number	IP.1421.633.189	IP.1421.633.190

## TIC100.H (DIN rail, 100W)

## DC/DC CONVERTERS

- Nominal input voltage 24V ( 48V)
- 1(2) outputs 12V (18V, 24V, 48V) / 100W output power
- Galvanically isolated output
- High efficiency, up to 92%
- Overvoltage and undervoltage protection
- DC OK relay contact
- Mounting type: DIN rail



DC/DC converters TIC100.H type convert 24V (48V) input voltage to 1(2) outputs 12V (18V, 24V, 48V) with galvanic separation. DC/DC converters are equipped with a local LED indication located on the front panel. Remote signalisation is made though to use DC OK potential-free relay contact.

Model numbering:

- TIC100.H ZZ\_XXYY – H = DIN rail, ZZ = nominal input voltage, XX = nominal output voltage, YY = maximum output current.
- TIC100.H ZZ\_XXxxYYyy – H = DIN rail, ZZ = nominal input voltage, XXxx = nominal output voltages (2), YYyy = maximum output currents

The installation position is on a horizontal DIN rail, venting slits are above and below. The input, output and OK relay connection is via removable connector at the bottom side with a conductor cross section up to 2.5mm<sup>2</sup>.

MODEL SPECIFICATION	TIC100.H 24_1208 24V/12V(8A)	TIC100.H 24_2404 24V/24V(4A)	TIC100.H 24_4802 24V/48V(2A)	TIC100.H 24_48120203 24V/48V(1.5A), 12V(2.5A)	TIC100.H 48_1208 48V/12V(8A)	TIC100.H 48_1806 48V/18V(5.5A)	TIC100.H 48_2404 48V/24V(4A)	TIC100.H 48_4802 48V/48V(2A)
Input voltage	24V(18-35V)	24V(18-35V)	24V(18-35V)	24V(18-35V)	48V(35-72V)	48V(35-72V)	48V(35-72V)	48V(35-72V)
Output voltage	12V(8A)	24V(4A)	48V(2A)	48V(1.5A), 12V(2.5A)	12V(8A)	18V(5.5A)	24V(4A)	48V(2A)
Output power	100W	100W	100W	100W	100W	100W	100W	100W
Efficiency	85%	87%	89%	90%	88%	90%	91%	92%
No load current consumption	100mA	100mA	100mA	100mA	30mA	40mA	40mA	50mA
Insulation strength	min. 1500V	min. 1500V	min. 1500V	min. 1500V	min. 1500V	min. 1500V	min. 1500V	min. 1500V
Operating temperature	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C
Output voltage stability	1%	1%	1%	5%/1%	1%	1%	1%	1%
Local signalisation	LED	LED	LED	2xLED	LED	LED	LED	LED
Remote signalisation	OK relay Converter ERR	OK relay Converter ERR	OK relay Converter ERR	OK relay 2x Converter ERR 1, 2	OK relay Converter ERR	OK relay Converter ERR	OK relay Converter ERR	OK relay Converter ERR
Cooling	Convection	Convection	Convection	Convection	Convection	Convection	Convection	Convection
Short circuit protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overtemperature protection	75°C	75°C	75°C	75°C	75°C	75°C	75°C	75°C
Overvoltage protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Undervoltage protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mounting type	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail
Dimensions W x H x D (mm)	45x135x105	45x135x105	45x135x105	45x135x105	45x135x105	45x135x105	45x135x105	45x135x105
Weight	0.42kg	0.42kg	0.42kg	0.42kg	0.42kg	0.42kg	0.42kg	0.42kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part number	IP.1431.633.120	IP.1431.633.139	IP.1431.633.121	IP.1432.633.177	IP.1431.633.123	IP.1431.633.187	IP.1431.633.124	IP.1431.633.191

## TIC200.H (DIN rail, 200W)

## DC/DC CONVERTERS

- Nominal input voltage 24V ( 48V)
- Output voltage 12V (24V, 48V, 220V) / 200W output power
- Galvanically isolated output
- High efficiency, up to 90%
- Overvoltage and undervoltage protection
- LED signalisation, output voltage trim
- Mounting type: DIN rail



TIC200.H DC/DC converters convert 24V (48V) input voltage to 12V (24V, 48V, 220V) output voltage with galvanic separation. DC/DC converters are equipped with a local LED indication located on the front panel. There is possibility of output voltage trimming (see specification table).

Model numbering:

- TIC200.H ZZ\_XXYY – H = DIN rail, ZZ = nominal input voltage, XX = nominal output voltage, YY = maximum output current.

Installation position is on a horizontal DIN rail, venting slits are above and below. Input and output connection is via 6mm<sup>2</sup> screw terminals on the top. Output terminals are doubled.

MODEL SPECIFICATION	TIC200.H 24_1213 24V/12V(13A)	TIC200.H 24_2408 24V/24V(8A)	TIC200.H 24_4804 24V/48V(4A)	TIC200.H 24_22001 24V/220V(0.6A)	TIC200.H 48_1214 48V/12V(14A)	TIC200.H 48_2408 48V/24V(8A)	TIC200.H 48_22001 48V/220V(0.6A)
Input voltage	24V(18-35V)	24V(20-28V)	24V(20-35V)	24V(18-35V)	48V(42-72V)	48V(42-72V)	48V(42-72V)
Output voltage	12V(10-14V)/13A	24V(22-28V)/8A	48V(44-56V)/4A	220V(210-230V)/0.6A	12V(10-14V)/14A	24V(22-28V)/8A	220V(210-230V)/0.6A
Output power	180W	224W	224W	138W	196W	224W	138W
Efficiency	83%	84%	86%	86%	88%	90%	85%
Insulation strength	min. 2500V	min. 2500V	min. 2500V	min. 2500V	min. 2500V	min. 2500V	min. 2500V
Operating temperature	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C	-25-+50°C
Output voltage stability	1%	1%	1%	1%	1%	1%	1%
Local signalisation	LED	LED	LED	LED	LED	LED	LED
Remote signalisation	-	-	-	-	-	-	-
Cooling	Forced	Forced	Forced	Forced	Forced	Forced	Forced
Short circuit protection	Yes	Yes	Yes		Yes		Yes
Overtemperature protection	85°C	85°C	85°C	85°C	85°C	85°C	85°C
Overvoltage protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Undervoltage protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mounting type	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail
Dimensions W x H x D (mm)	105x126x88	105x126x88	105x126x88	105x126x88	105x126x88	105x126x88	105x126x88
Weight	0.6kg	0.6kg	0.6kg	0.6kg	0.6kg	0.6kg	0.6kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part number	IP.1431.633.128	IP.1431.633.129	IP.1431.633.130	IP.1431.633.131	IP.1431.633.132	IP.1431.633.133	IP.1431.633.134



## **INVERTERS**

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AF30.J (19 inch, 2(3)kW)

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STR2 (19 inch, 500VA)

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STR10 (19 inch, 1kVA)

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STR30 (19 inch, 3kVA)

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## AF30.J (19 inch, 1U, 2(3)kW)

## DC/AC INVERTERS~

- 4-pole active filter for STR 30 inverter types
- 2kW/24VDC; 3kW/48VDC
- Minimizes the impact of harmonic distortions to the supply bus
- Stabilizes the inverter power supply voltage and increases the input voltage range
- Overload protection
- Mounting type: 19" / 1U
- Standards: ETS 300 132-2



Inverters with PWM control in general copy the output current curve to the input. The low frequency (50/60Hz) interference is possible to filter using a low pass filter with very high inductance and capacity. This results in a significant increase in size and consequently in weight of the inverter. In addition, there is also a problem with large inrush current after plug in to the power source.

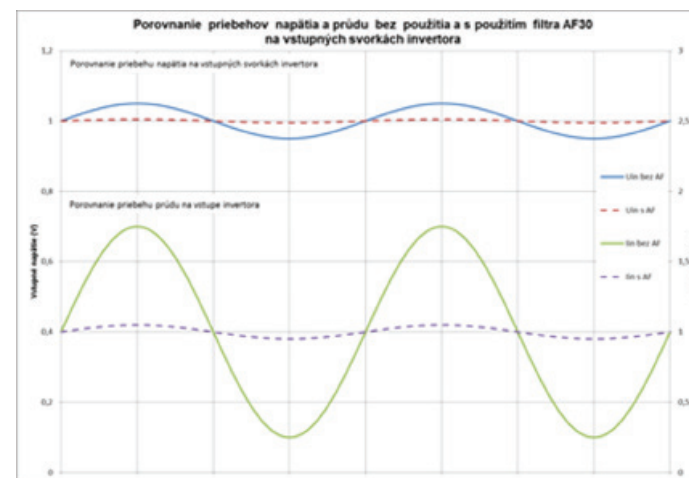
The AF30 active filter effectively prevents the interference transfer with content of higher harmonics to the input. AF30 provides almost DC current source input load (in other words, the inverter at the input acts as a resistive load).

The AF30 considerably expands the inverter's input voltage range, as well as immunity against overvoltage spikes on input.

Model numbering: - AF30.J 2420 – 24V input voltage, 2kW output power  
- AF30.J 4830 – 48V input voltage, 3kW output power

AF30 is designed for 19" rack mounting. Connection to input DC voltage and inverter input is on the front panel and allow cables up to 16mm<sup>2</sup>.

MODEL SPECIFICATION	AF30.J 2420	AF30.J 4830
Input voltage	21V-28V	42V-56V
Output power	2000W	3000W
Efficiency	95%	96%
Switching frequency	90kHz	90kHz
No load current / Stand By	200mA	120mA
Operating temperature	-25 +50°C	-25 +50°C
Local signalisation	No	No
Remote signalisation	No	No
Parallel operation	No	No
Air flow	forced	forced
Overttemperature protection	No	No
Reverse polarity protection	No	No
Mounting type	19" / 1U	19" / 1U
Dimmensions W x H x D (mm)	436x44.5x340	436x44.5x340
Weight (kg)	4kg	4kg
Degree of protection	IP20	IP20
Part No.	IP.1441.755.184	IP.1441.755.185



## STR 2 (19 inch, 1U, 500VA)

## DC/AC INVERTERS~

- Input voltage 48V(24V)DC
- Output voltage 230V ~ 50Hz, pure sine wave
- Galvanic isolation input / output, up to 500VA output power
- Overvoltage, overload, short circuit, overtemperature protection
- LCD display unit
- Remote monitoring – potential-free relay contact, SNMP with WEB page
- Mounting type: 19" / 1U (44mm)



The STR 2 type pure sine wave inverters convert DC 48V (24V) input voltage to 230V ~ 50Hz AC output voltage.

STR 2 inverters are available in three accessory sets:

- Basic - STR 2 XXYYTLF - Inverter is equipped with local LED indication, remote indication is through a potential-free relay contacts
- Extended - STR 2.E XXYYTLF - Basic equipment + power supply management system (option of monitoring 2 external inputs – output breaker, user...)
- SNMP - STR 2.S XXYYTLF - Extended equipment + SNMP adapter with WEB page

XX = nominal input DC voltage, YY = nominal output power x 100VA, TL = possibility of capacitive loads compensation, F = active filter to prevent the interference transfer of higher harmonics to the input

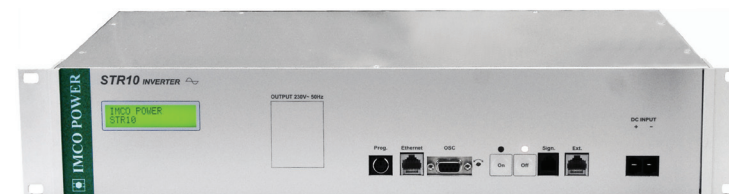
The STR 2 inverter is designed for 19" rack mounting. The outputs (2x IEC 320 - C13 type) are on the rear panel. The DC input is via a removable plug on the front panel with a wire cross-section up to 6 mm<sup>2</sup>.

MODEL SPECIFICATION	STR2 2403TLF 24/230V~50Hz~300VA	STR2.E 2403TLF 24/230V~50Hz~300VA PMver1	STR2.S 2403TLF 24/230V~50Hz~300VA PMver1 + SNMP	STR2 4805TLF 48/230V~50Hz~500VA	STR2.E 4805TLF 48/230V~50Hz~500VA PMver1	STR2.S 4805TLF 48/230V~50Hz~500VA PMver1 + SNMP
Input voltage	20-35V	20-35V	20-35V	42-60V	42-60V	42-60V
Output voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output power	300VA	300VA	300VA	500VA	500VA	500VA
Efficiency	84%	84%	84%	88%	88%	88%
No load current consumption	0.3A	0.3A	0.3A	0.2A	0.2A	0.2A
Insulation strength input / output	3kV	3kV	3kV	3kV	3kV	3kV
Operating temperature	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C
Frequency stability	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Local signalisation	LED	LED. LCD	LED. LCD	LED	LED. LCD	LED. LCD
Remote signalisation	Relay contact	Relay contact	Relay contact, SNMP	Relay contact	Relay contact	Relay contact, SNMP
Parallel operation	No	No	No	No	No	No
Air flow	forced	forced	forced	forced	forced	forced
Overtemperature protection	85°C	85°C	85°C	85°C	85°C	85°C
Mounting type	19" / 1U	19" / 1U	19" / 1U	19" / 1U	19" / 1U	19" / 1U
Dimensions W x H x D (mm)	436x44.5x197	436x44.5x197	436x44.5x197	436x44.5x197	436x44.5x197	436x44.5x197
Weight (kg)	2.3 kg	2.4 kg	2.5 kg	2.3 kg	2.4 kg	2.5 kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.3431.736.21	IP.3431.736.20	IP.3431.736.23	IP.3431.736.22	IP.3431.736.19	IP.3431.736.24

## STR10 (19 inch, 2U, 1kVA)

## DC/AC INVERTERS~

- Input voltage 24VDC, 48VDC, 110VDC
- Output voltage 230V ~ 50Hz pure sine wave, up to 1kVA output power, parallel operation
- Galvanic isolation input / output
- Overvoltage, overload, short circuit, overtemperature protection
- LCD display unit
- Remote monitoring – potential-free relay contact, SNMP with WEB page
- Mounting type: 19" / 2U(88mm)



The STR10 type pure sine wave inverters convert DC 48V (24V, 110V) input voltage to 230V ~ 50Hz AC output voltage. Inverters allow parallel operation using STR.OSC module.

STR10 inverters are available in three accessory sets:

- Basic - STR10 XXYYTLF - Inverter is equipped with local LED indication, remote indication is through a potential-free relay contacts
- Extended - STR10.E XXYYTLF - Basic equipment + power supply management system (option of monitoring 2 external inputs – output breaker, user...)
- SNMP - STR10.S XXYYTLF - Extended equipment + SNMP adapter with WEB page

XX = nominal input DC voltage, YY = nominal output power x 100VA, TL = possibility of capacitive loads compensation, F = active filter to prevent the interference transfer of higher harmonics to the input

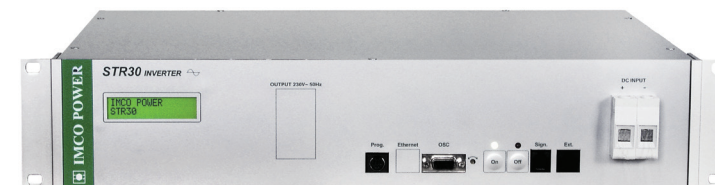
The STR10 inverters are designed for 19" rack mounting. The outputs (4x) are on the rear panel (2x sockets, 2x IEC 320 - C13 type). The DC input is via a removable plug on the front with a wire cross-section up to 16 mm<sup>2</sup>.

MODEL SPECIFICATION	STR10 2406TLF 24/230V~50Hz – 600VA	STR10.E 2406TLF 24/230V~50Hz – 600VA PM	STR10.S 2406TLF 24/230V~50Hz – 600VA PM + SNMP	STR10 4810TLF 48/230V~50Hz – 1kVA	STR10.E 4810TLF 48/230V~50Hz – 1kVA PM	STR10.S 4810TLF 48/230V~50Hz – 1kVA PM + SNMP	STR10 11010TL 110/230V~50Hz – 1kVA	STR10.E 11010TL 110/230V~50Hz – 1kVA PM	STR10.S 11010TL 110/230V~50Hz – 1kVA PM + SNMP
Input voltage	21-30V	21-30V	21-30V	42-60V	42-60V	42-60V	82-130V	82-130V	82-130V
Output voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output power	600VA	600VA	600VA	1000VA	1000VA	1000VA	1000VA	1000VA	1000VA
Efficiency	89%	89%	89%	93%	93%	93%	93%	93%	93%
No load current consumption	0.5A	0.5A	0.5A	0.3A	0.3A	0.3A	0.2A	0.2A	0.2A
Insulation strength input / output	3kV	3kV	3kV	3kV	3kV	3kV	3kV	3kV	3kV
Operating temperature	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C
Frequency stability	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Local signalisation	LED	LED. LCD	LED. LCD	LED	LED. LCD	LED. LCD	LED	LED. LCD	LED. LCD
Remote signalisation	Relay contact	Relay contact	Relay contact, SNMP	Relay contact	Relay contact	Relay contact, SNMP	Relay contact	Relay contact	Relay contact, SNMP
Parallel operation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overtemperature protection	85°C	85°C	85°C	85°C	85°C	85°C	85°C	85°C	85°C
Mounting type	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U
Dimensions W x H x D (mm)	436x88x278	436x88x278	436x88x278	436x88x278	436x88x278	436x88x278	436x88x278	436x88x278	436x88x278
Weight (kg)	4.5 kg	4.6 kg	4.7 kg	4.5 kg	4.6 kg	4.7 kg	3.7 kg	3.8 kg	3.9 kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.3441.736.19	IP.3441.736.20	IP.3441.736.21	IP.3441.736.22	IP.3441.736.23	IP.3441.736.24	IP.3441.736.16	IP.3441.736.17	IP.3441.736.18

# STR30 (19 inch, 2U, 3kVA)

# DC/AC INVERTERS~

- Input voltage 48VDC, 110VDC, 220VDC
- Output voltage 230V ~ 50Hz pure sine wave, 3kVA output power, parallel operation
- Galvanic isolation input / output
- Overvoltage, overload, short circuit, overtemperature protection
- LCD display unit
- Remote monitoring – potential-free relay contact, SNMP with WEB page
- Mounting type: 19" / 2U(88mm)



The STR30 type pure sine wave inverters convert DC 48V (110V, 220V) input voltage to 230V ~ 50Hz AC output voltage. Inverters allow parallel operation using STR.OSC module.

STR30 inverters are available in three accessory sets:

- Basic - STR30.XXYYTL - Inverter is equipped with local LED indication, remote indication is through a potential-free relay contacts
- Extended - STR30.E.XXYYTL - Basic equipment + power supply management system (option of monitoring 2 external inputs – output breaker, user...)
- SNMP - STR30.S.XXYYTL - Extended equipment + SNMP adapter with WEB page

XX = nominal input DC voltage, YY = nominal output power x 100VA, TL = possibility of capacitive loads compensation

The STR30 inverter is designed for 19" rack mounting. The outputs (4x) are on the rear panel (2x sockets, 2x IEC 320 - C13 type). The DC input is via a terminals on the front with a wire cross-section up to 25 mm<sup>2</sup>.

MODEL SPECIFICATION	STR30 4830	STR30.E 4830	STR30.S 4830	STR30 11030	STR30.E 11030	STR30.S 11030	STR30 22030	STR30.E 22030	STR30.S 22030
	48/230V~50Hz – 3kVA	48/230V~50Hz – 3kVA	48/230V~50Hz – 3kVA	110/230V~50Hz – 3kVA	110/230V~50Hz – 3kVA	110/230V~50Hz – 3kVA	220/230V~50Hz – 3kVA	220/230V~50Hz – 3kVA	220/230V~50Hz – 3kVA
		PM	PM + SNMP		PM	PM + SNMP		PM	PM + SNMP
Input voltage	42-60V	42-60V	42-60V	82-130V	82-130V	82-130V	185-285V	185-285V	185-285V
Output voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output power	3000VA	3000VA	3000VA	3000VA	3000VA	3000VA	3000VA	3000VA	3000VA
Efficiency	91%	91%	91%	92%	92%	92%	93%	93%	93%
No load current / Stand By	600mA / 60mA	600mA / 60mA	600mA / 60mA	300mA / 40mA	300mA / 40mA	300mA / 40mA	150mA / 25mA	150mA / 25mA	150mA / 25mA
Insulation strength input / output	3kV	3kV	3kV	3kV	3kV	3kV	3kV	3kV	3kV
Operating temperature	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C
Frequency stability	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Local signalisation	LED	LED. LCD	LED. LCD	LED	LED. LCD	LED. LCD	LED	LED. LCD	LED. LCD
Remote signalisation	Relay contact	Relay contact	Relay contact,SNMP	Relay contact	Relay contact	Relay contact, SNMP	Relay contact	Relay contact	Relay contact, SNMP
Overtemperature protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reverse polarity protection	No	No	No	No	No	No	No	No	No
Mounting type	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U	19" / 2U
Dimmensions W x H x D (mm)	436x88x340	436x88x340	436x88x340	436x88x340	436x88x340	436x88x340	436x88x340	436x88x340	436x88x340
Weight (kg)	6.0 kg	6.1 kg	6.2 kg	6.0 kg	6.1 kg	6.2 kg	6.0 kg	6.1 kg	6.2 kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.3441.726.01	IP.3441.726.02	IP.3441.726.03	IP.3441.726.04	IP.3441.726.05	IP.3441.726.06	IP.3441.726.07	IP.3441.726.08	IP.3441.726.09



## **GENERAL POWER SUPPLY**

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ALC01.H (DIN rail, 24V (48V) / 50W)

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## **ACCESSORY**

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ABL01.H (DIN rail, LVD)

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## ALC01.H (DIN rail, 24V (48V), 50W)

## GENERAL POWER SUPPLY

- Universal Power Supply 100-265V ~ 50 / 60Hz
- Output voltage 24V/48V, output power 50-140W
- Use in an industrial environment from -25°C - +60°C
- Galvanic isolation, grounding terminal for Vout grounding
- Long life used components
- Mounting type: DIN rail
- Standards: EN 60950, EN 55022, EN 61000-3-2



Power supplies of ALCxx.H type are used to supply devices with 24V (48V, 54.5V, 55.2V) output voltage up to 140W output power. The unit allows long life operation in industrial environments from -25°C up to +60°C ambient temperature. Class D surge protection, short-circuit protection and galvanically isolated output are some of main features of the power supplies. ALC04 type additionally has an active PFC and output with IU voltage characteristic, which makes it suitable for operation with a backup battery (via an ABL01 module).

The LED on the front panel indicates the power supply operation.

Model specification:

- ALCxx.H XXYYY – xx = type, H = DIN rail mounting, XX = nominal output voltage, YYY = max. output current.

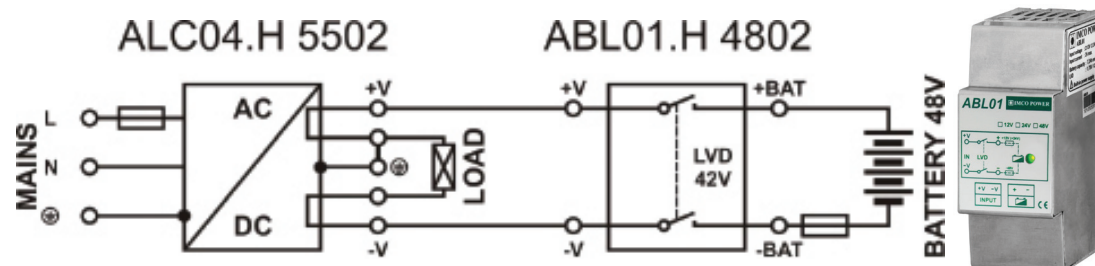
The ALCxx is designed for DIN rail mounting. The 3-wire input plug allows a connection with wire cross-section up to 2.5 mm<sup>2</sup>. Output plug allow connection with wire cross-section up to 2.5 mm<sup>2</sup>. Types ALC02, ALC03 ALC04 have extra output terminals doubled with a drafted PE (protective earth) terminal.

MODEL SPECIFICATIONS	ALC01.H 2402	ALC01.H 4801	ALC02.H 48015	ALC03.H 5502	ALC04.H 55025
Input voltage	230V~50Hz	100-265V~50/60Hz	100-240V~50/60Hz	230V~50Hz	100-240V~50/60Hz
Output voltage	24V(2A)	48V(1A)	48V(1.5A)	54,5V(2A)	55.2V(2.5A)
Output power	50W	50W	70W	110W	140W
Dielectric strength input/output	4kV	4kV	4kV	4kV	4kV
Operating temperature	-25°C - +60°C	-25°C - +60°C	-25~+60°C	-25~+50°C	-25~+50°C
Local signalization	LED	LED	LED	LED	LED – presence of output voltage (Vout >36V)
Efficiency	88%	91%	90%	88%	92%
Output voltage ripple	100mV	150mV	150mV	250mV	250mV
Short circuit resistance	2.2A	1.1A	1.6A	2.2A	2.6A
Output voltage stability	4%	4%	4%	1%	1%
Mounting type	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail
Dimensions W x H x D (mm)	71x90x68	71x90x68	106x90x68	106x90x68	106x90x68
Weight (kg)	0.28 kg	0.28 kg	0.33kg	0.47kg	0.34kg
Degree of protection	IP20	IP20	IP20	IP20	IP20
Part No.	IP.2121.633.33	IP.2121.633.34	IP.2121.633.48	IP.2131.633.49	IP.2131.633.50

## ABL01.H (DIN rail, 48V/2A (12V/8A, 24V/5A))

## LCD (low voltage disconnect)

- Battery protection unit against excessive discharging
- LED indication of charge status
- Use in an industrial environment from -25 °C - +60 °C
- Two-pole battery disconnecting, reverse polarity protection
- Internal polyswitch fuse protection
- Mounting type: DIN rail



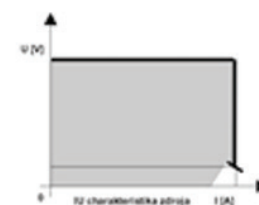
The ABL01 unit for connecting a battery to DC power supply is designed for the creation of supply systems with UPS function. The connected battery is protected against excessive discharge. After power mains failure, the device has further uninterrupted supplied. After restoring the mains supply the connected battery is automatically recharged and ready for next mains failure.

The unit is designed for connection a backup battery to power supplies with output voltages 13.8V or 27.6V or 55.2V and with IU charging characteristic. The LED on the front panel indicates the battery discharge status.

Model specification:

- ABL 01.H XX YY - H = designed for DIN rail mounting, XX = nominal battery voltage, YY= nominal output current.

The module is designed for DIN rail mounting. The input and battery connections are through a removable plugs with cross-section conductors of up to 2.5mm<sup>2</sup>.



MODEL SPECIFICATIONS	ABL01.H 1208	ABL01.H 2405	ABL01.H 4802
Input voltage	10.5-14.7V	21-29.4V	42-58.8V
Nominal battery voltage	12V	24V	48V
Current consumption	61mA	34mA	21mA
Output current	Max. 8A	Max. 5A	Max. 2A
Operating temperature	-25°C - +60°C	-25°C - +60°C	-25°C - +60°C
Local signaling	Green LED – Vbat>11.4V	Green LED – Vbat>22.8V	Green LED – Vbat>45.6V
	Red LED - Vbat<11.4V	Red LED - Vbat<22.8V	Red LED - Vbat<45.6V
	Dark – battery disconnected	Dark – battery disconnected	Dark – battery disconnected
LVD (low voltage disconnect)	Vbat<10.5V	Vbat<21V	Vbat<42V
Mounting type	DIN rail	DIN rail	DIN rail
Dimensions W x H x D (mm)	36x90x68	36x90x68	36x90x68
Weight (kg)	0.13kg	0.13kg	0.13kg
Degree of protection	IP20	IP20	IP20
Part No.	IP.5430.633.07	IP.5430.633.08	IP.5430.633.09



## **BACK UP POWER SUPPLIES**

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PS50.H (DIN rail, 1(2) output voltages, 50W)

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PS70.H (DIN rail, 2 output voltages, 70W)

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PS110.H (DIN rail, 12V/24(48)V, 110W)

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LS110.H (DIN rail, 150W) 1(2) output voltages, SNMP

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LS150 (19 inch, 350W)

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LS150 (19 inch, 350W) – 2 output voltages

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PS1500.J(S) (19 inch 1U, 48V - 830W)

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PSI10 (19 inch, 2U, 850W)

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## PS50.H (DIN rail, 50W) – 1(2) galvanically isolated outputs

## BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltage(s) 12V/3.5A or 12V(3.5A); 24V(1A) / 50W output power
- Galvanic isolation between input and output and among both outputs
- Only one 12V backup battery, auxiliary DC/DC converter 12V to 24V DC
- Signalling – main failure, battery capacity < 50%
- Mounting type: DIN rail
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



The PS50.H back-up power is designed for reverse supply 12V/3.5A or 12V(3.5A) and 24V/1A. The total output power is 50W, the output power of the 12V/24V DC/DC converter is 24W. In case of mains failure, the connected 12V battery provides the back-up supply of the connected load. After the mains power up, the backup power supply ensures battery charging to its full capacity. The LEDs on the front panel inform about output voltages and battery status. Remote signaling indicates the mains failure and battery condition - < 1/2.

Model numbering:

- PS50.H XXYY – H = DIN rail mounting, XX = nominal output voltage, YY = maximum output current, or
- PS50.H XXxxYYyy – H = DIN rail mounting, XXxx = nominal output voltage 1 and 2, YYyy = maximum output current 1 and 2

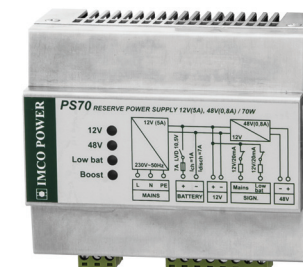
The power supply is designed for DIN rail mounting. The 3-wire input plug allows a connection with wire cross-section up to 2.5mm<sup>2</sup>. Outputs, battery and the power source signalling plug allows conductor cross connection up to 2.5mm<sup>2</sup>.

MODEL SPECIFICATION	PS50.H 1204 13.8V(3.5A)	PS50.H 12240401 13.8V(3.5A), 24V(1A)
Input voltage	230V~50Hz	230V~50Hz
Output voltage	13.8V(3.5A)	13.8V(3.5A); 24V(1A)
Output power	50Wfully	50Wfully
Efficiency	91%	90%
Insulation strength input/output	4kV/-	4kV / 1.5kV
Operating temperature	-25°C - +50°C	-25°C - +50°C
Output voltage stability	±1%	±1%
Parallel operation	No	No
Cooling	Convection	Convection
Charge voltage	13.8V	13.8V
Battery charge current	3.5Amax.	3.5Amax.
LVD (low voltage disconnect)	10.3V	10.3V
Mounting type	DIN rail	DIN rail
Dimensions W x H x D (mm)	45x127x104mm	45x127x104mm
Weight	0.33 kg	0.37 kg
Degree of protection	IP20	IP20
Part number	IP.4121.633.06	IP.4122.633.07

## PS70.H (DIN rail, 70W) - 2 output voltages

## BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltages 12V/24V or 12V/48V DC / 70W output power
- Backup from one 12V battery, DC/DC converter 24V or to 48V DC (common ground)
- Boost battery charging
- Signalling - mains failure, battery condition < 50%
- Mounting type: DIN rail
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



PS70.H backup power supply are designed for reverse supply 12V/5A and 24V/1.5A or 12V/5A and 48V/0.8A. The total output power is 70W. In case of mains failure, the connected 12V battery provides the uninterruptable backup supply of 12V and 24V (48V) load. In case of battery discharge, the power supply will provide its correct disconnection. After the mains powers up, the battery will be automatically recharged to its full capacity.

LEDs on the front panel informs about the output voltages status, battery status and boost charging mode (boost/float). Remote signaling indicates mains failure and battery condition - < 1/2.

Model numbering:

- PS70.H XXxxYYyy - H = DIN rail mounting, XXxx = nominal output voltage 1 and 2, YYyy = maximum output current 1 and 2

The model is designed for DIN rail mounting. The 3-wire input plug allows connection with a wire cross-section up to 2.5 mm<sup>2</sup>. Outputs, signalization, battery allow connection with wire cross-section up to 2.5 mm<sup>2</sup>.

MODEL SPECIFICATIONS	PS70.H 12240602	PS70.H 12480601
	13.8V(5A), 24V(1.5A)	13.8V(5A), 48V(0.8A)
Input voltage	230V~50Hz	230V~50Hz
Output voltage	13.8V(5A), 24V(1.5A)	13.8V(5A), 48V(0.8A)
Output power	70W	70W
Efficiency	86%	86%
Dielectric strength primaries/secondaries	4kV	4kV
Operating temperature	-25°C - +60°C	-25°C - +60°C
Output U stability 12V/24V(48V)	± 1% / ± 0.5%	± 1% / ± 0.5%
Cooling	convection	convection
Boosts/maintenance of charging/charging current	14.4V/13.8V/1A	14.4V/13.8V/1A
Thermal protection	85°C	85°C
LVD (low voltage disconnect)	10.5V	10.5V
Local LED signalization	12V, 24V, Low batt, boost (boost charging)	12V, 48V, Low batt, boost (boost charging)
Remote signalization (OE 24V/50mA)	Mains failure, Vbat<10.5V	Mains failure, Vbat<10.5V
Mounting type:	DIN rail	DIN rail
Dimension W x H x D (mm)	106 x 90 x 68 mm	106 x 90 x 68 mm
Weight	0.32 kg	0.32 kg
Degree of protection	IP20	IP20
Part number	IP.4122.633.08	IP.4122.633.09

## PS110.H (DIN rail, 110W) - 2 output voltages 12V/24V or 12V/48V

## BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltages 12V/24V DC or 12V/48V DC / 110W output power
- Only one 12V backup battery, auxiliary DC/DC converter 12V to 24V(48V) DC (common ground)
- -25°C - + 60°C temperature range operation, boost / temperature controlled battery charging in at 4 levels
- Signalization – mains failure, battery capacity < ½
- Mounting type: DIN rail
- Standards: SElectrical safety - STN EN 60950, EMC - STN EN 61000-3-2, STN EN 55022



The PS110.H backup power supply with two output voltages is designed for reverse supply 12V and 24V or 12V and 48V devices. The total output power is 110W, the output power of the 24V(48) DC/DC converter is also 110W. In case of mains failure, the connected 12V battery provides the backup supply of the connected load. After the mains powers up, the backup power supply ensures boost battery charging to its full capacity. The charging voltage is thermally controlled. The charging current can be set in at 4 levels according to the used battery.

LEDs on the front panel informs about the output voltages status and battery condition. Remote signaling indicates the mains failure and the battery condition < ½.

Model numbering

- PS110.H XXxxYYyy – H = DIN rail mounting, XXxx = nominal output voltage 1 and 2, YYyy = maximum output current 1 and 2

The power supply is designed for DIN rail mounting. The 3-wire input plug allows a connection with a wire cross-section up to 2.5mm<sup>2</sup>. Outputs, batteries and power source signalling plug allow connection with a wire cross-section up to 2.5mm<sup>2</sup>.

MODEL SPECIFICATION	PS110.H 12240804 13.8V(8A), 24V(4A)	PS110.H 12480802 13.8V(8A), 48V(2A)
Input voltage	230V~50Hz	230V~50Hz
Output voltage	13.8V(8A); 24V(4A)	13.8V(8A), 48V(2A)
Output power	110W	110W
Efficiency	90%	90%
Dielectric strength primary / secondary	4kV	4kV
Operating temperature	-25°C - +60°C	-25°C - +60°C
Output voltage stability	± 1%	± 1%
Temperature charge voltage compensation	-3mV / °C	-3mV / °C
Cooling	Convection	Convection
Charge voltage (20°C)	13.8V	13.8V
Charging current – 4 levels of setting	1.6A, 2.1A, 3.5A, 5.6A	1.6A, 2.1A, 3.5A, 5.6A
LVD (low voltage disconnect)	10.3V	10.3V
Mounting type	DIN rail	DIN rail
Dimensions W x H x D(mm)	60 x 128 x 134 mm	60 x 128 x 134 mm
Weight	0.58 kg	0.58 kg
Degree of protection	IP20	IP20
Part number	IP.4132.633.03	IP.4132.633.04

## LS110.H (DIN, 150W) 1(2) output voltages, SNMP

## BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltages 12V(10A), 24V(5A), 48V(2.5A), or 24V/48V / 150W output power, PFC
- -30°C - + 60°C temperature range operation, boost / temperature controlled battery charging
- LED signaling – mains failure, battery capacity < 50%
- SNMP with WEB page, 2 x IP watchdog, automatic / manual restart of connected devices
- Mounting type: DIN rail
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



Backup power supply of LS110.H type with two output voltages is designed for reverse supply 12V, 24V or 48V devices, as well as combined devices with 24V and 48V input voltage. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. The total output power is 150W, the output power of 48V DC/DC converter is 100W. In case of mains failure, the connected 24V battery provides the backup supply of connected load. After the mains powers up, the backup power supply ensures boost battery charging to its full capacity. The charging voltage is thermally controlled.

LEDs on the front panel informs about the mains status, output voltages status, boost charging mode and battery condition. Remote signaling indicates mains failure and battery condition - < 1/2. The SNMP adapter with its own WEB page sends traps and gives information about the whole power system. It allows monitoring up to two binary states – relay contacts and it can control two independent relays (watchdog of 2x IP address, manual ON/OFF or any power supply failure).

Model numbering:

LS110.H(S) XXxxYYyy – H = DIN rail mounting, S = SNMP with WEB, XXxx = nominal output voltage 1 and 2, YYyy = maximum output current 1 and 2.

The power source is designed for DIN rail mounting. The 3-wire input plug allows connection with wire cross-section up to 2.5 mm<sup>2</sup>. Outputs, relays, battery and power source signaling plug allow connection with wire cross-section up to 2.5 mm<sup>2</sup>.

MODEL SPECIFICATION	LS110.H 1210	LS110.HS1210 SNMP	LS110.H 2405	LS110.HS2405 SNMP	LS110.H 48025	LS110.HS48025 SNMP	LS110.H 24480502	LS110.HS24480502 SNMP	LS110.H 24480502R	LS110.HS 24480502R SNMP
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	
Output voltage	13.8V(10A)	13.8V(10A)	27.6V(5A)	27.6V(5A)	55.2V(2.5A)	55.2V(2.5A)	+27.6V(5A) -48V(2A)	+27.6V(5A) -48V(2A)	+27.6V(5A) +48V(2A)	+27.6V(5A) +48V(2A)
Output power	150W	150W	150W	150W	150W	150W	150W/100W	150W/100W	150W/100W	
Efficiency	93%	93%	93%	93%	93%	93%	93% /27.6V 91%/48V	93% /27.6V 91%/48V	93% /27.6V 91%/48V	
Dielectric strength Input/output	4kV									4kV
Operating temperature	-30°C - +60°C									-30°C - +60°C
Local signaling	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP
Remote signaling	Mains failure, Battery capacity is < 1/2									Mains failure, Battery capacity is < 1/2
Parallel operation	No									No
Cooling / Thermal protection	Convection / 85°C									Convection / 85°C
Battery charge current	4A	4A	2A	2A	1A	1A	2A	2A	2A	2A
LVD (low voltage disconnect)	10.5V /10A	10.5V /105A	21V/5A	21V/5A	42V /2.5A	42V /2.5A	21V/5A	21V/5A	21V/5A	21V/5A
Dimension W x H x D (mm)	100x128x134mm									100x128x134
Weight	0.7kg	0.7kg	0.7kg	0.7kg	0.7kg	0.7kg	0.7kg	0.8kg	0.7kg	0.8kg
Degree of protection	IP20									IP20
Part number	IP.4131.633.35	IP.4131.633.34	IP.4131.633.16	IP.4131.633.15	IP.4131.633.36	IP.4131.633.37	IP.4132.633.11	IP.4132.633.10	IP.4132.633.18	IP.4132.633.17

## LS150 (19 inch, 1U, 350W)

## BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltage 12V(25A), 24V(12.5A), 48V(6.25A) / 350W output power, PFC
- -30°C - + 60°C temperature range operation, boost / temperature controlled/4-level battery charging
- LED, LCD display unit, 2x potential-free relay contacts, SNMP, WEB
- Mounting type: 19"/1U (44mm)
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



The LS150 backup power supply is designed for reverse supply 12V, 24V or 48V DC devices. The LS150 disposes with a converter built in the most advanced technology of the energy conversion with respect to maximum efficiency. The total power of the module is 350W.

In case of mains failure, the connected battery provides the backup supply of the connected load. After the mains powers up, the backup power supply ensures boost battery charging to its full capacity. The charging current can be set at 4-levels according to the connected battery. The charging voltage is thermally controlled. The output current can reach up to 41A and thereby the power supply can be used as a emergency lighting supply (24V type allows load up to 1kW and 48V up to 2kW)

LS150 are manufactured in 3 accessory sets:

- |                     |  |  |
|---------------------|--|--|
| Basic               | – LS150.J  | – Equipped with local LED signalization, remote signalization (potential -free relay contacts) |
| Extended – LS150.JE | – Basic equipment + power supply management system |  |
| SNMP                | – LS150.JS   | – Extended equipment + + SNMP adapter with WEB page  |

Designation "J" = 1x input 230V~50Hz

LS150 is designed for 19" rack mounting. Connection to the mains is through a flexible cable on the rear panel. All other connections are on the front panel. Terminals for battery and output allow wire connection up to 6mm<sup>2</sup>.

MODEL SPECIFICATION	LS150.J 1225	LS150.J 2412	LS150.J 4806	LS150.JE 1225 PM	LS150.JE 2412 PM	LS150.JE 4806 PM	LS150.JS 1225 PM+SNMP	LS150.JS 2412 PM+SNMP	LS150.JS 4806 PM+SNMP
	-	-	-						
Input voltage	230V~50Hz, ±10%			230V~50Hz, ±10%			230V~50Hz, ±10%		
Output voltage	13.8V(25A)	27.6V(12.5A)	55.2V(6.25A)	13.8V(25A)	27.6V(12.5A)	55.2V(6.25A)	13.8V(25A)	27.6V(12.5A)	55.2V(6.25A)
Output power	350W			350W			350W		
Efficiency	92%	93%	94%	92%	93%	94%	92%	93%	94%
Dielectric strength Input/output	4kV			4kV			4kV		
Operating temperature	-30°C - +60°C			-30°C - +60°C			-30°C - +60°C		
Local signaling	LED			LED, LCD			LED, LCD		
Remote signaling	Potential – free relay contacts			Potential – free relay contacts			Potential – free relay contacts, SNMP		
	Mains failure, Battery capacity is < 1/2			Mains failure, Battery capacity is < 1/2			Mains failure, Battery capacity is < 1/2		
Parallel operation	No			No			No		
Cooling / Thermal protection	Controlled /Yes			Controlled /Yes			Controlled /Yes		
Battery charge current	4A, 6A, 16A, 25A	2A, 3A, 8A, 12A	1A, 1.5A, 4A, 6A	4A, 6A, 16A, 25A	2A, 3A, 8A, 12A	1A, 1.5A, 4A, 6A	4A, 6A, 16A, 25A	2A, 3A, 8A, 12A	1A, 1.5A, 4A, 6A
LVD (low voltage disconnect)	10.5V /41A	21V/41A	42V/41A	10.5V /41A	21V/41A	42V/41A	10.5V /41A	21V/41A	42V/41A
Dimension W x H x D (mm)	436x44.5x180			436x44.5x180			436x44.5x180		
Weight	1.7kg			1.7kg			1.8kg		
Degree of protection	IP20			IP20			IP20		
Part number	IP.4131.768.64	IP.4131.768.65	IP.4131.768.66	IP.4131.768.67	IP.4131.768.68	IP.4131.768.69	IP.4131.768.70	IP.4131.768.71	IP.4131.768.72

## LS150 (19 inch, 1U, 350W) – 2 output voltages

## BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltages 24V(12.5A) and 48V(2A) / 350W output power, PFC
- -30°C - + 60°C temperature range operation, boosts/temperature controlled/4-level battery charging
- LED, LCD display unit, 2x potential-free relay contacts, SNMP, WEB
- Mounting type: 19" / 1U (44mm)
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



The LS150 backup power supply with two output voltages is designed for reverse supply +24V and -48V DC devices with common ground. It disposes with a converter built in the most advanced energy conversion technology with respect to maximum efficiency. The total output power of the module is 350W.

In case of an AC power failure, the connected battery provides the backup supply of the connected load. After the mains power up, the backup power supply ensures boost battery charging to its full capacity. The charging current can be set at 4 levels according to the connected battery. The charging voltage is thermally controlled. The output current can reach up to 41A and thereby the power supply allows use also as an emergency lighting supply (24V type allows loads up to 1kW)

LS150 are manufactured in 2 packages:

- Advanced – LS150.JE – Basic equipment + power supply management system
- SNMP – LS150.JS – Advanced package + SNMP adapter

Designation "J" = 1x input 230V~50Hz

LS150 is designed for 19" rack mounting. Connection to the mains is through flexible cable on the rear panel. All other connections are on the front panel. Terminals for battery and output allow wire connection up to 6mm<sup>2</sup>.

MODEL SPECIFICATION	LS150.JE 24481202 PM	LS150.JS 24481202 PM+SNMP
Input voltage	230V~50Hz	
Output voltage	+27.6V(12.5A); -48V(2A)	
Output power	350W	
Efficiency	93% / +27.6V; 91% / -48V	
Insulation strength input / output	4kV	
Operating temperature	-30°C - +60°C	
Local signalisation	LED, LCD	
Remote signalisation	Relay contacts	Relay contacts, SNMP
	Mains failure, battery capacity < 1/2	Mains failure, battery capacity < 1/2
Parallel operation	No	
Air flow / Overtemperature protection	Controlled / Yes	
Battery charge current	2A, 3A, 8A, 12.5A	
LVD (low voltage disconnect)	<21V	
Dimensions W x H x D (mm)	436x44.5x180	
Weight (kg)	1.8kg	
Degree of protection	IP20	
Part No.	IP.4132.768.75	IP.4132.768.76

## PS1500.J(S) (19 inch, 1U, 830W) – 48V

## BACK UP POWER SUPPLIES

- Input voltage 1 x 230V~50Hz
- Output voltage 48V(15A) / up to 830W output power, PFC
- 1x main output 15A, 3x electronically protected outputs 6A
- Battery input fuse protection 20A
- LED, LCD display unit, 4x potential-free relay contacts, SNMP with WEB
- Mounting type: 19" / 1U(44.5mm)
- Standards: Electrical safety – EN 60950, EMC - EN 61000-3-2, EN 55022



The PS1500.J(S) backup power supply is designed for reverse supply of 48V devices with output power up to 830W. In case of mains failure, the connected battery provides the backup supply of connected load. After the mains powers up, the backup power supply ensures battery charging to its full capacity. The charging voltage is temperature controlled. The main output can feed the load up to 15A. Other three 6A outputs are electronically protected against overcurrent. The user is about the state of power supply informed locally (LEDs, LCD display) or remotely thru SNMP adapter. The own website obtains all information about power supply condition. The PS1500 disposes with 4x relay contacts – mains failure, power supply failure, overcurrent failure of 1,2,3 outputs and decrease of battery capacity under ½. The PS1500 can monitor 2 binary input signals - output and battery breaker contacts.

Model numbering:

PS1500.J(S) XXYY 1U- J = 1x mains input , S = SNMP with WEB, XX = nominal output voltage, YY = maximum output current, 1U = high 44.5mm

A distribution strip (accessory) is provided with input, 2 pole output and battery breaker and with by-pass battery to the output. Model: DL3U PS1500.J16A, Part Nr.: IP.9131.755.26.

The power supply is designed for 19" rack mounting. Mains connection is through flexible lead on the rear. Battery, outputs, binary inputs, signalization and Ethernet plug are on the front panel.

MODEL SPECIFICATION	PS1500.J 4815 1U	PS1500.JS 4815 1U
	PM	PM+SNMP
Input voltage	230V~50Hz	230V~50Hz
Output voltage	55.2V(15A)	55.2V(15A)
Output power	830W	830W
Efficiency	92%	92%
Insulation strength input / output	4kV	4kV
Operating temperature	-25°C - +50°C	-25°C - +50°C
Local signalisation	LED. LCD	LED. LCD
Remote signalisation	Relay contacts Mains failure, converter ERR Output ERR 1.2.3, Vbat<46V	Relay contacts, SNMP Mains failure, converter ERR Output ERR 1.2.3, Vbat<46V
Parallel operation	No	No
Overcurrent protection	16.5A (Output 1.2.3–6A)	16.5A (Output 1.2.3–6A)
Charge voltage / current	55.2V / 10A	55.2V / 10A
LVD (low voltage disconnect)	42V	42V
Mounting type	19" / 1U	19" / 1U
Dimensions W x H x D (mm)	436x44.5x204 mm	436x44.5x204 mm
Weight (kg)	2.6 kg	2.7 kg
Degree of protection	IP20	IP20
Part No.	IP.4131.763.36	IP.4131.763.55

## PSI10 (19 inch, 2U, 850W)

UPS

- Input voltage 230V~50Hz
- Output voltages DC 48V (12V,24V), AC 230V~50Hz pure sine wave - max. 500VA
- 850W total output power
- Remote signaling – relay contacts (failure of the converter, inverter, battery condition < 50%)
- SNMP with WEB
- Mounting type: 19" rack 2U (88mm)
- Standards: Electrical safety - EN 60950-1, EMC - EN 61000-6-2, EN 55022



UPS PSI10 type is a backup power supply for 48V (24V) devices and also devices with AC 230V ~ 50Hz input voltage. The advantage of this solution in comparison to conventional UPS is the possibility of connecting a large battery capacity and also devices with DC supply voltage. Especially the UPS can be retrofitted with a 12V or 24V DC/DC converter up to 100W.

PSI10 are manufactured in 2 accessory sets:

- Extended – PSI10 – Basic (Equipped with local LED signalization, remote signalization (potential-free relay contacts)) + power supply management system
- SNMP – PSI10.S – Extended equipment + SNMP adapter with WEB page

PSI10 UPS is intended for mounting into 19" racks. UPS connection to the mains is via flexible cord, the inverter output via IEC plug on the back. Battery and outputs connections are via terminals on the front panel.

DC part	PSI10 2425_03	PSI10.S 2425_03 + SNMP	PSI10 2425 (1205)_03 DC/DC conv. 12V + SNMP	PSI10 4815_05	PSI10.S 4815_05 + SNMP	PSI10.S 4815(1205)_05 DC/DC conv. 12V + SNMP	PSI10.S 4815(2405)_05 DC/DC conv. 24V + SNMP
Input voltage	195-265V~50Hz	195-265V~50Hz	195-265V~50Hz	195-265V~50Hz	195-265V~50Hz	195-265V~50Hz	195-265V~50Hz
Output DC voltage	27.6V	27.6V	27.6V	55.2V	55.2V	55.2V/12V	55.2V/24V
Output DC current	25A	25A	25A	15A	15A	15A/5A	15A/5A
Output power	max. 690W	max. 690W	max. 690W	max. 850W	max. 850W	max. 850W	max. 850W
Efficiency	91%	91%	91%	93%	93%	93%	93%
Insulation strength input / output	4kV	4kV	4kV	4kV	4kV	4kV	4kV
Operating temperature	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C
Local signalisation	LED, LCD	LED, LCD	LED, LCD	LED, LCD	LED, LCD	LED, LCD	LED, LCD
Remote signalisation - Relay contacts	Mains/converter failure Voltage Vbat <21V	Mains/converter failure Voltage Vbat <21V, SNMP	Mains/converter failure Voltage Vbat <21V, SNMP	Mains/converter failure Voltage Vbat <42V	Mains/converter failure Voltage Vbat <42V, SNMP	Mains/converter failure Voltage Vbat <42V, SNMP	Mains/converter failure Voltage Vbat <42V, SNMP
Battery charge voltage	27.7V	27.7V	27.7V	55.2V	55.2V	55.2V	55.2V
Battery charge current	Max. 25A	Max. 25A	Max. 25A	Max. 15A	Max. 15A	Max. 15A	Max. 15A
Inverter							
Input voltage	21-30V=	21-30V=	21-30V=	42-60V=	42-60V=	42-60V=	42-60V=
Output voltage	230V~50Hz sine, 300VA	230V~50Hz sine, 300VA	230V~50Hz sine, 300VA	230V~50Hz sine, 500VA	230V~50Hz sine, 500VA	230V~50Hz sine, 500VA	230V~50Hz sine, 500VA
Efficiency	86%	86%	86%	88%	88%	88%	88%
Operating temperature	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C
Local signalisation	LED	LED	LED	LED	LED	LED	LED
Remote signalisation - Relay contacts	Inverter in operation	Inverter in operation	Inverter in operation	Inverter in operation	Inverter in operation	Inverter in operation	Inverter in operation
Undervoltage protection	18V	18V	18V	36V	36V	36V	36V
Mounting type	19" 2U	19" 2U	19" 2U	19" 2U	19" 2U	19" 2U	19" 2U
Dimensions W x H x D (mm)	440x88x280	440x88x280	440x88x280	440x88x280	440x88x280	440x88x280	440x88x280
Weight (kg)	4.5kg	4.5kg	4.5kg	4.5kg	4.5kg	4.5kg	4.5kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.4132.760.03	IP.4132.760.04	IP.4133.760.08	IP.4132.760.05	IP.4132.760.06	IP.4133.760.14	IP.4133.760.15



## **PLUG-IN POWER SUPPLIES**

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LS1500 CHASSIS (19 inch 1U, 1kW)

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LS1500 CHASSIS (19 inch 2U, 2kW)

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LS300.Z (19 inch 1(2)U, 350W/700W)

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LS1500.Z (19 inch 1(2)U, power supply management unit)

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LS1500 (19 inch 1(2)U, accessory)

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## LS1500 CHASSIS (19 inch, 1U, 1kW)

## PLUG-IN BACK UP POWER SUPPLIES

- Chassis for 1-3x 350W plug-in rectifiers (12V, 24V, 48V) & 1x power supply management system unit
- LVD – battery protection circuit against excessive discharge
- Inputs for temperature sensor and two binary input signals (output / battery breaker, user ...)
- Remote signalization – urgent and non-urgent alarm – potential free relay contacts
- 16 mm<sup>2</sup> terminals for battery and outputs connection
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



The LS1500 type power sources are designed to back up supply devices and to simultaneously charge the connected battery. In case of mains failure the connected battery continues to supply load without interruption. The power source unit is designed as a plug-in module that can be added or replaced during operation, without a need to turn the system off.

The chassis LS1500 type is designed to connect 1 or 2 independent, or 3-phase AC 230V~50Hz power source and up to 6x protected outputs. The basic design is with just one non fused output. The power source includes a battery disconnecter. The LS1500 chassis obtains slot for a plug-in power supply management system unit and 3 slots for rectifier units. The set includes power cord(s) and a temperature sensor.

The LS1500 chassis is designed for 19" rack mounting. Mains connection, battery and output terminals, input and output signaling and temperature sensor terminals are on the rear panel. There is no possibility to connect more LS1500 units into parallel operation.

MODEL SPECIFICATIONS	LS1500.J CHASSIS – 1U BASIC	LS1500.J CHASSIS – 1U BASIC	LS1500.D CHASSIS – 1U BASIC	LS1500.D CHASSIS – 1U BASIC	LS1500.T CHASSIS – 1U BASIC	LS1500.T CHASSIS – 1U BASIC
Mains connection	1 input cable (IEC type)	1 input cable (IEC type)	2 input cables (IEC type)	2 input cables (IEC type)	L1, L2, L3 ,N, PE 3-phase terminal connection	L1, L2, L3 ,N, PE 3-phase terminal connection
Battery input terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals
Load output terminals	16mm <sup>2</sup> / 1x 70A terminals, no protection	16mm <sup>2</sup> /6x protected output up to 20A	16mm <sup>2</sup> / 1x 70A terminals, no protection	16mm <sup>2</sup> / 6x protected output up to 20A	16mm <sup>2</sup> / 1x 70A terminals, no protection	16mm <sup>2</sup> / 6x protected output up to 20A
Remote signalization	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm
Temperature sensor connection	Yes	Yes	Yes	Yes	Yes	Yes
Binary input terminals	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...
Dimensions W x H x D (mm)	436 x 45(1U) x 320	436 x 45(1U) x 320	436 x 45(1U) x 320	436 x 45(1U) x 320	436 x 45(1U) x 320	436 x 45(1U) x 320
Weight (kg)	1.90kg	2.00kg	1.90kg	2.00kg	1.90kg	2.00kg
Part No.	IP.4131.765.06	IP.4131.765.14	IP.4231.765.15	IP.4231.765.03	IP.4331.765.16	IP.4331.755.04

## LS1500 CHASSIS (19 inch, 2U, 2kW)

- Chassis for 1-3x 700W hot plug rectifiers (24V, 48V) and power supply management system unit
- LVD – battery protection circuit against excessive discharge
- Inputs for temperature sensor and two binary input signals (output / battery breaker, user ...)
- Remote signalization – urgent and non-urgent alarm – potential free relay contacts
- 16 mm<sup>2</sup> terminals for battery and outputs connection
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



The LS1500 type power sources are designed to back up supply devices and to simultaneously charge the connected battery. In case of mains failure the connected battery continues to supply load without interruption. The power source unit is designed as a plug-in module that can be added or replaced during operation, without a need to turn the system off.

The chassis LS1500 type is designed to connect 1 or 2 independent, or 3-phase AC 230V~50Hz power source and up to 6x protected outputs. The basic design is with just one non fused output. The power source includes a battery disconnecter. The LS1500 chassis obtains slot for a plug-in power supply management system unit and 3 slots for rectifier units. The set includes power cord(s) and a temperature sensor.

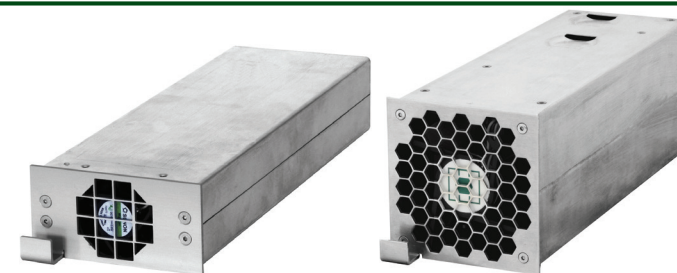
The LS1500 chassis is designed for 19" rack mounting. Mains connection, battery and output terminals, input and output signaling and temperature sensor terminals are on the rear panel. There is no possibility to connect more LS1500 units into parallel operation.

MODEL SPECIFICATIONS	LS1500.J CHASSIS – 2U BASIC	LS1500.J CHASSIS – 2U BASIC	LS1500.D CHASSIS – 2U BASIC	LS1500.D CHASSIS – 2U BASIC	LS1500.T CHASSIS – 2U BASIC	LS1500.T CHASSIS – 2U BASIC
Mains connection	1 input cable (IEC type)	1 input cable (IEC type)	2 input cables (IEC type)	2 input cables (IEC type)	L1, L2, L3 ,N, PE 3-phase terminal connection	L1, L2, L3 ,N, PE 3-phase terminal connection
Battery input terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals	16mm <sup>2</sup> /70A terminals
Load output terminals	16mm <sup>2</sup> / 1x 70A terminals, no protection	16mm <sup>2</sup> / 6x protected output up to 20A	16mm <sup>2</sup> / 1x 70A terminals, no protection	16mm <sup>2</sup> / 6x protected output up to 20A	16mm <sup>2</sup> / 1x 70A terminals, no protection	16mm <sup>2</sup> / 6x protected output up to 20A
Remote signalization	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm	Potential free relay contacts - urgent, non-urgent alarm
Temperature sensor connection	Yes	Yes	Yes	Yes	Yes	Yes
Binary input terminals	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...	2x output / battery breaker contact, user contact...
Dimensions W x H x D (mm)	436 x 89(2U) x 320	436 x 89(2U) x 320	436 x 89(2U) x 320	436 x 89(2U) x 320	436 x 89(2U) x 320	436 x 89(2U) x 320
Weight (kg)	2.8kg	2.86kg	2.8kg	2.86kg	2.8kg	2.86kg
Part No.	IP.4141.765.07	IP.4141.765.13	IP.4241.765.10	IP.4241.765.09	IP.4341.755.08	IP.4341.755.11

## LS300.Z (19 inch, 1U(2U), 350W/700W)

## PLUG-IN BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltage 48V(12V,24V)/350W/1U or 48V(24V)/700W/2U output power
- Active PFC, resonance technology
- High efficiency (94%)
- Temperature range -30°C~+60°C
- Mounting type: plug-in module
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55022



The LS300.Z type rectifier is a plug-in unit for LS1500 chassis. Rectifier modules are built in most advanced technology of the energy conversion with respect to maximum efficiency. The 1U unit provides 48V(12V, 24V) / 350W output, the 2U unit provides 48V(24V) / 700W output power. In LS1500 power supply configuration are rectifiers controlled through LS1500.Z(S) BS management system unit. The fan is temperature controlled.

The green LED inside informs about rectifier operation.

Model numbering:

LS300.Z XXYY - Z = plug-in module, XX = nominal output voltage, YY = maximum output current, P = parallel operation

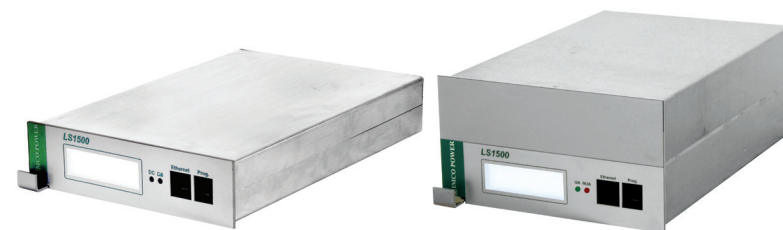
LS300.Z rectifiers are designed as plug-in modules. Input, output and control pins are on the rear connector.

MODEL SPECIFICATIONS	LS300.Z 1225P 1U	LS300.Z 2412P 1U	LS300.Z 4806P 1U	LS300.Z 2425P 2U	LS300.Z 4812P 2U
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	13.8V(25A)	27.6V(12.5A)	55.2V(6.25A)	27.6V(25A)	55.2V(12.5A)
Output power	350W	350W	350W	700W	700W
Efficiency	92%	93%	94%	93%	94%
Dielectric strength input/output	4kV	4kV	4kV	4kV	4kV
Operating temperature	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C
Local signalization	LED - rectifier OK	LED - rectifier OK	LED - rectifier OK	LED - rectifier OK	LED - rectifier OK
Parallel operation	Yes	Yes	Yes	Yes	Yes
Air flow	controlled	controlled	controlled	controlled	controlled
Overcurrent protection	26A	13A	6.5A	26A	13A
Over temperature protection	85°C	85°C	85°C	85°C	85°C
Overvoltage protection	Yes	Yes	Yes	Yes	Yes
Undervoltage protection	Yes	Yes	Yes	Yes	Yes
Mounting type:	Plug-in module	Plug-in module	Plug-in module	Plug-in module	Plug-in module
Dimension W x H x D (mm)	89 x 45(1U) x 250	89 x 45(1U) x 250	89 x 45(1U) x 250	89 x 88 (2U) x 250	89 x 88 (2U) x 250
Weight (kg)	0.65kg	0.65kg	0.65kg	1.2kg	1.2kg
Degree of protection	IP20	IP20	IP20	IP20	IP20
Part No.	IP.2131.044.08	IP.2131.044.02	IP.2131.044.03	IP.2131.044.06	IP.2131.044.05

## LS1500.Z (19 inch, 1(2)U, management unit)

## PLUG-IN BACK UP POWER SUPPLIES

- It supervises and controls the power supply system type LS1500
- LCD display unit 4x20 characters, SNMP agent with WEB page
- RTC real time clock, NTP time server
- Continuity test, remote battery capacity test
- Boost / temperature controlled, float battery charging, LVD (low voltage disconnect)
- Urgent and non-urgent alarms – LED, potential free relay contacts
- Firmware update through Ethernet network



The LS1500.Z module supervises and controls LS1500 power supply system. It informs about back up power system conditions locally through an LCD 4x20 character display and remotely through an SNMP adapter with its own WEB page. In case of AC power failure, the connected battery provides the backup supply of connected load. Information about autonomy time and on battery time is displayed on LCD display. Based on operating conditions the most suitable battery charge procedure is set up with respect to full capacity recharge time and lifetime (boost charging, temperature controlled float charging). Cables continuity is periodically monitored. With respect to discharge current, temperature and battery capacity is the battery switched off and on to the DC power bus. The SNMP adapter allows you remotely perform capacity test. RTC, the real time clock can be synchronized through the NTP time server.

Alarms are classified into 2 levels — urgent and non-urgent, which are displayed via 2x two-color LEDs on the front panel and via 2x potential-free relay contacts on the rear panel of the LS1500 chassis. SNMP has a WEB page, where can be seen or controlled the status of the power supply system. Firmware upgrade can be carried out remotely via the Ethernet connection. The LS1500.Z(S) BS is manufactured with or without SNMP adapter.

LS1500.Z(S) BS is designed as plug-in module with height 1U or 2U (units). Monitoring and control is through a connector on the rear.

MODEL SPECIFICATIONS		LS1500.Z BS - PM – 1U	LS1500.ZS BS - PM + SNMP – 1U	LS1500.Z BS 2U - PM	LS1500.ZS BS 2U - PM + SNMP
Input voltage	Vin	7 - 60V DC (88-18mA)	7 - 60V DC (270-24mA)	7 - 60V DC (88-18mA)	7 - 60V DC (270-24mA)
Display	LCD	4 lines x 20 characters LCD (white backlight)	4 lines x 20 characters LCD (white backlight)	4 lines x 20 characters LCD (white backlight)	4 lines x 20 characters LCD (white backlight)
Communication	Relay	Controlling 2x potential-free relay contacts UR – urgent alarm. NUR – non-urgent alarm	Controlling 2x potential-free relay contacts UR – urgent alarm. NUR – non-urgent alarm	Controlling 2x potential-free relay contacts UR – urgent alarm. NUR – non-urgent alarm	Controlling 2x potential-free relay contacts UR – urgent alarm. NUR – non-urgent alarm
	TCP/IP		Ethernet, SNMP with internal WEB page		Ethernet, SNMP with internal WEB page
	LVD	Low voltage disconnect – controlled switch	Low voltage disconnect – controlled switch	Low voltage disconnect – controlled switch	Low voltage disconnect – controlled switch
Signalization (2 x LED)	LED1	UR – urgent alarm	UR – urgent alarm	UR – urgent alarm	UR – urgent alarm
	LED2	NUR – non-urgent alarm	NUR – non-urgent alarm	NUR – non-urgent alarm	NUR – non-urgent alarm
Signal inputs	BIN	2x bin.input for sign. Ext. failures – user, user2	2x bin.input for sign. Ext. failures – user, user2	2x bin.input for sign. Ext. failures – user, user2	2x bin.input for sign. Ext. failures – user, user2
	TEMP	Temperature sensor	Temperature sensor	Temperature sensor	Temperature sensor
Alarm contacts	Relay 1	UR – urgent alarm - 0.5A/250V DC	UR – urgent alarm - 0.5A/250V DC	UR – urgent alarm - 0.5A/250V DC	UR – urgent alarm - 0.5A/250V DC
	Relay 2	NUR – non-urgent alarm - 0.5A/250V DC	NUR – non-urgent alarm - 0.5A/250V DC	NUR – non-urgent alarm - 0.5A/250V DC	NUR – non-urgent alarm - 0.5A/250V DC
SNMP			WEB interface - HTTP protocol. SNMP protocol		WEB interface - HTTP protocol. SNMP protocol
			Capacity test, continuity test, the history of events (128x), RTC, NTC time synchronisation server		Capacity test, continuity test, the history of events (128x), RTC, NTC time synchronisation server
Dimensions W x H x D(mm)		170 x 45(1U) x 250mm	170 x 45(1U) x 250mm	170 x 89(2U) x 250mm	170 x 89(2U) x 250mm
Weight (kg)		0.4kg	0.45kg	0.5kg	0.57kg
Degree of protection		IP40	IP40	IP40	IP40
Part No.		IP.6400.043.05	IP.6400.043.01	IP.6400.043.04	IP.6400.043.03

## LS1500 (19 inch, 1/2U, accessory)

## PLUG-IN BACK UP POWER SUPPLIES



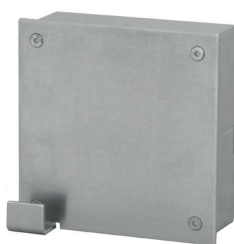
- Accessory modules designed for LS1500 chassis with 1U/2U units high
- Breaker extension unit
- Blind plug-in units for proper air venting

Power supply system of LS1500 type, in addition to power supply management unit and rectifier units, contains several accessory units for output extensions or for blinding free rectifiers positions to ensure a proper air venting.

LS300.Z FB01 module is a plug-in module for output distribution with 4 breakers up to 10A with switch equipped with LED signalization

LS1500 1U blind plug-in unit is intended for proper air venting of LS1500 chassis with 1U high (44mm)

LS1500 2U blind plug-in unit is intended for proper air venting of LS1500 chassis with 2U high (88mm)

MODEL SPECIFICATIONS	LS300.Z FB01 1U	LS1500 1U blind plug-in	LS1500 2U blind plug-in
PICTURE			
Description	Output distribution unit with 4 switched on/off breaker outputs up to 10A	1U plug-in unit for proper air venting of LS1500 chassis	2U plug-in unit for proper air venting of LS1500 chassis
Signalization	LED signalization of switched off output		
Output	4x output up to 10A/80V		
Mounting type	Plug-in module	Plug-in module	Plug-in module
Dimension W x H x D (mm)	89 x 45(1U) x 250	89 x 45(1U) x 36mm	89 x 88(2U) x 36mm
Weight (kg)	0.33kg	0.05kg	0.085kg
Degree of protection	IP20	IP20	IP20
Part No.	IP.9431.043.01	IP.0000.000.02	IP.0000.000.03

**WE THANK TO ALL THOSE, WHO KEPT US IN THEIR FAVOR  
AND WELCOME ALL THOSE, WHOSE FAVOR WE CAN COMPETE FOR.**



**Motto: WE BELIEVE, THAT YOUR DEVICE WITH OUR POWER SUPPLY WILL CREATE A HIGH QUALITY AND RELIABLE SYSTEM!**