

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

23 YEARS OF IMCO POWER
ON THE BACK_UP POWER SUPPLY MARKET

IMCO POWER, s.r.o.



PRODUCT CATALOGUE

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DC/DC CONVERTERS
GENERAL POWER SUPPLIES
BATTERY CHARGERS
BACK UP POWER SUPPLIES DIN RAIL
BACK UP POWER SUPPLIES 19"
BACK UP POWER SUPPLIES PLUG-IN
POWER SUPPLIES WITH PoE

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The basic parameter for the availability of electronic services is quality, reliability and the uninterruptible operation of technologies, which cannot 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 backup power supply only postpones the irreversible technology and service failure without surveillance.

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



DC/DC CONVERTERS

ADC01.H (DIN rail, 48V/24V, 100W)

ADC02.H (DIN rail, 24V(48V)/150V, 100W)

TIC100.H (DIN rail, 100W)

TIC200.H (DIN rail, 200W)

ADC01.H (DIN rail, 48V/24V, 100W)

DC/DC CONVERTERS

- Nominal input voltage 48V DC
- Output voltage 24V(4A) / 100W output power
- Galvanically isolated output 1.5kV
- High efficiency, up to 92%
- Doubled output terminals + PE
- Mounting type: DIN rail



DC/DC converters type ADC01.H convert 48V DC input voltage to 24V DC output voltage. 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

The installation position is on a horizontal DIN rail, venting slits are above and below. 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 2.5mm². Using the part no. IP.0000.000.04 mounting kit, it is possible to install the ADC01.H into 19" frames.



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

ADC02.H (DIN rail, 24V(48V)/150V, 100W)

DC/DC CONVERTERS

- Nominal input voltage 24V(48V) DC
- Output voltage 150V / 100W output power
- Galvanically isolated output 1.5kV
- High efficiency, up to 90%
- Doubled output terminals + PE
- Mounting type: DIN rail



DC/DC converters type ADC02.H with 24V (48V) 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. The LED on the front panel indicates the presence of the output voltage.

Model specification:

- ADC02.H ZZ_XXYY - H = designed for DIN rail mounting, ZZ = nominal input voltage, XX = nominal output voltage, YYY = max. output current

The installation position is on a horizontal DIN rail, venting slits are above and below. 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 with a drafted PE (protective earth) terminal. The converter allows cable connecting with a conductor cross section up to 2.5mm². Using the part no. IP.0000.000.04 mounting kit, it is possible to install the ADC01.H into 19" frames.



MODEL SPECIFICATIONS	ADC02.H 24_150006 24V/150V(0.6A)	ADC02.H 48_150006 48V/150V(0.6A)
Input voltage	24V(18 - 35V)	48V(40-60V)
Output voltage	150V(0.6A)	150V(0.6A)
Output power	100W	100W
Efficiency	90%	92%
Insulation strength	min. 1500V	min. 1500V
Operating temperature	-25 - +60°C	-25 - +50°C
Output voltage stability	3%	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, 19"
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.1431.633.201	IP.1431.633.204

- Nominal input voltage 12V (24V, 48V)
- Outputs 12V (18V, 24V, 48V) / 100W output power
- Galvanically isolated output 1.5kV
- High efficiency, up to 92%
- Overvoltage and Undervoltage protection
- DC OK relay contact
- Mounting type: DIN rail



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

Model specification:

- TIC100.H ZZ_XXYY – H = DIN rail, ZZ = nominal input voltage, XX = nominal output voltage, YY = maximum output current.

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 wire conductor cross section up to 2.5mm².

MODEL SPECIFICATION	TIC100.H 12_4802 12V/48V(2A)	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_2404 48V/24V(4A)	TIC100.H 48_4802 48V/48V(2A)
Input voltage	12V(10.5 - 15V)	24V(18 - 35V)	24V(18 - 35V)	24V(18 - 35V)	24V(18 - 35V)	48V(35 - 72V)	48V(35 - 72V)	48V(35 - 72V)
Output voltage	48V(2A)	12V(8A)	24V(4A)	48V(2A)	48V(1.5A), 12V(2.5A)	12V(8A)	24V(4A)	48V(2A)
Output power	100W	100W	100W	100W	100W	100W	100W	100W
Efficiency	86%	85%	87%	89%	90%	88%	91%	92%
No load power consumption	140mA	100mA	100mA	100mA	100mA	30mA	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%	1%	5% / 1%	1%	1%	1%
Local signalization	LED	LED	LED	LED	2 x LED	LED	LED	LED
Remote signalization	Relay contact Converter ERR	Relay contact Converter ERR	Relay contact Converter ERR	Relay contact Converter ERR	Relay contact 2x Converter ERR 1, 2	Relay contact Converter ERR	Relay contact Converter ERR	Relay contact Converter ERR
Air flow	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 (kg)	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 No.	IP.1431.633.198	IP.1431.633.120	IP.1431.633.139	IP.1431.633.121	IP.1432.633.177	IP.1431.633.123	IP.1431.633.124	IP.1431.633.191

- Nominal input voltage 24V (48V)
- Output voltage 12V (24V, 48V, 220V) / 200W output power
- Galvanically isolated output 2.5kV
- High efficiency, up to 90%
- Overvoltage and undervoltage protection
- LED signalization, output voltage trim
- Mounting type: DIN rail



The 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 specification:

- 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 connections are via 6mm² 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 / current	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 signalization	LED	LED	LED	LED	LED	LED	LED
Remote signalization	-	-	-	-	-	-	-
Air flow	forced	forced	forced	forced	forced	forced	forced
Short circuit protection	Yes	Yes	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 (kg)	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 No.	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



GENERAL POWER SUPPLY

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

ALC02.H (DIN rail, 48V / 70W)

ALC03.H (DIN rail, 54.5V / 100W)

ALC04.H (DIN rail, 55.2V / 140W)

IC750.H 22003 (DIN rail, 220V/3A, 660W)

ALCxx.H (DIN rail, 24V (48V), up to 140W)

GENERAL POWER SUPPLY

- Universal Power Supply 100-265VAC - ALC01, ALC02, ALC04
- Output voltage 24V/48V, output power 50-140W
- Use in an industrial environment from -25°C - +60°C
- Galvanic isolation 4kV, extra PE clamp for Vout grounding
- Long life used components
- Mounting type: DIN rail
- Standards: EN 60950, EN 55032, EN 61000-3-2



Power supplies type ALCxx.H are used to supply devices with 24V (48V, 54.5V, 55.2V) output voltage up to 140W output power. Types ALC01, ALC02 and ALC04 can operate with universal input 100-265V~50/60Hz. 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. The ALC03 and ALC04 have additionally a PFC. ALC04 output is with IU voltage characteristic, which makes it suitable for operation as a battery charger.

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

Model specification:

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

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows a connection with wire cross-section up to 2.5 mm². Output plug allow connection with wire cross-section up to 2.5 mm². Types ALC02, ALC03 ALC04 have output terminals doubled with a drafted PE (protective earth) terminal. Using the part no. IP.0000.000.04 mounting kit, it is possible to install the ALCxx.H into 19" frames.



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

- ☐ Input voltage 230V ~ 50 / 60Hz
- ☐ Output voltage 220V(3A), output power up to 660W
- ☐ Use in an industrial environment from -25°C - +50°C
- ☐ Galvanic isolation, signaling – mains failure
- ☐ Long life used components
- ☐ Mounting type: DIN rail
- ☐ Standards: EN 60950, EN 55032



The power supply type IC750.H 22003 is intended for to supply devices with 220VDC input voltage and up to 660W. The IC750 allows long life operation in industrial environments from -25°C up to +50°C ambient temperature. Class D surge protection, short-circuit protection and galvanically isolated output are some of main features of the power supply IC750.H 22003 types additionally have an output with IU voltage characteristic.

The LED on the front panel indicates the power supply operation. Potential free relay contact is on when the mains or the power supply unit is OK.

Model specification:

- IC750.H XXXYY – H = DIN rail mounting, XX = nominal output voltage, YYY = max. output current.

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with wire cross-section up to 2.5 mm². The output plug allows connection with wire cross-section up to 6mm².

MODEL SPECIFICATIONS	IC750.H 22003
Input voltage	230V~50Hz
Output voltage	220V/3A
Output power	660W
Dielectric strength input/output	4kV
Operating temperature	-25°C - +50°C
Signalization	Output voltage - LED Mains / power supply failure – relay contact
Efficiency	92%
Short circuit resistance	3.3A
Output voltage stability	1%
Mounting type	DIN rail
Dimensions W x H x D (mm)	76 x 218 x 136 mm
Weight (kg)	1.5kg
Degree of protection	IP20
Part No.	IP.2131.633.11



BATTERY CHARGERS

LS110.T (Desktop, 150W / 280W)

LS700.T (Desktop, 350W / 700W)

IC750.H (DIN rail, up to 830W)

IC3000 (19 inch, 2U, up to 5.4kW)

DL3U 2825 (19 inch, 4115, 5515, 8207, 11006)
ASSEMBLY

LS110.T (Desktop, 150W / 280W)

BATTERY CHARGERS

- ☐ Input voltage 230V ~ 50 / 60Hz
- ☐ Active PFC, LLC resonant converter, -30°C ÷ +60°C
- ☐ Charging curve IUoU temperature controlled
- ☐ Output power 150W / 280W
- ☐ Signaling – LED – boost / float charging
- ☐ Mounting type: Desktop design
- ☐ Standards: EN 60950, EN 61000-3-2, EN 55032



Battery chargers type LS110.T is used to charge lead acid batteries with 12V, 24V or 48V. LS110.T disposes with a PFC and LLC resonant converter built in the most advanced energy conversion technology with respect to maximum efficiency. IUoU charging curve is temperature compensated to maximize the battery life. The LS110 is produced in power ranges from 150W to 280W.

LED on the front panel indicates the boost and float charging.

Model specification:

- LS110.T XXY – T = desktop model, XX = output voltage, YY = max. output current.

The LS110.T input contains power cord to connect to the mains. There are two plug connectors to connect the battery and the temperature sensor. Both are to be connected by cables with a wire cross-section up to 2.5mm²

MODEL SPECIFICATIONS	LS110.T 1210 13.8V/10A	LS110.T 2405 27.6V/5A	LS110.T 2410 27.6V/10A	LS110.T 48025 55.2V/2.5A	LS110.T 4805 55.2V/5A
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Charging voltage / current	14.4V/13.8V(10A)	28.8V/27.6V(5A)	28.8V/27.6V(10A)	57.6V/55.2V(2.5A)	57.6V/55.2V(5A)
Output power	150W	150W	280W	150W	290W
Efficiency	92%	92%	92%	92%	92%
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 signaling	LED - Boost / float charging	LED - Boost / float charging	LED - Boost / float charging	LED - Boost / float charging	LED - Boost / float charging
Battery voltage (Lead acid)	12V / 30Ah _{min}	24V / 15Ah _{min}	24V / 30Ah _{min}	48V / 9Ah _{min}	48V / 15Ah _{min}
Cooling	Forced	Forced	Forced	Forced	Forced
Temperature compensation	-17mV / °C / battery	-33mV / °C / battery	-33mV / °C / battery	-66mV / °C / battery	-66mV / °C / battery
Dimensions W x H x D (mm)	130 x 60 x 170mm	130 x 60 x 170mm	130 x 60 x 170mm	130 x 60 x 170mm	130 x 60 x 170mm
Weight (kg)	0.6kg	0.6kg	0.7kg	0.6kg	0.7kg
Degree of protection	IP20	IP20	IP20	IP20	IP20
Part No.	IP.2131.423.62	IP.2131.423.67	IP.2131.423.63	IP.2131.423.62	IP.2131.423.67

LS700.T (Desktop, 350W / 700W)

BATTERY CHARGERS

- Input voltage 230V ~ 50 / 60Hz
- Output voltage 14.1V/25A(50A), 28.2V/12.5A(25A) / 350W / 700W output power, parallel operation
- Signaling – charging state, fuse, polarity
- Battery reverse polarity protection, potential free cables
- Mounting type: Desktop
- Standards: EN 60950, EN 61000-3-2, EN 55032



Battery charger type PS700.H is determined to charge lead acid batteries with 12V or 24V. It disposes with a converter built in the most advanced energy conversion technology with respect to maximum efficiency. The total output power is 350W (700W). Charging cables are potential free until the battery will be connected with a right polarity. When the battery is charged, charging will stop.

LEDs on the front panel indicate the charging status, battery fuse status and reverse polarity battery terminals connection.

Model specification:

- LS700.T XXY – T = desktop model, XX = output voltage, YY = max. output current.

The LS700.T XXY is delivered with mains cord and with charging cables 5m long.

MODEL SPECIFICATIONS	LS700.T 1425	LS700.T 1450	LS700.T 2812	LS700.T 2825
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	14.1V(25A)	14.1V(50A)	28.2V(12.5A)	28.2V(25A)
Output power	350W	700W	350W	700W
Efficiency	92%	92%	93%	93%
Dielectric strength input/output	4kV	4kV	4kV	4kV
Operating temperature	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C
Local signaling	charging, fuse err, reverse polarity	charging, fuse err, reverse polarity	charging, fuse err, reverse polarity	charging, fuse err, reverse polarity
Minimum battery capacity	12V/75Ah	12V/150Ah	24V/33Ah	24V/75Ah
Cooling	Fan controlled	Fan controlled	Fan controlled	Fan controlled
Charging current	25A	50A	12.5A	25A
Battery protection (fuse)	30A	2x30A	15A	2x15A
Dimensions W x H x D (mm)	112 x 125 x 310mm	112 x 125 x 310mm	112 x 125 x 310mm	112 x 125 x 310mm
Weight (kg)	1.85kg	2.45kg	1.85kg	2.45kg
Degree of protection	IP20	IP20	IP20	IP20
Part No.	IP.2131.465.14	IP.2131.465.15	IP.2131.465.16	IP.2131.465.17

- ☐ Input voltage 230V ~ 50 / 60Hz
- ☐ Output voltage 13.8V, 27.6V, 41.4V, 55.2V, 124.2V / up to 830W output power, parallel operation
- ☐ Use in an industrial environment from -25°C - +50°C
- ☐ Galvanic isolation, signaling – mains failure – LED, relay contact
- ☐ Long life used components
- ☐ Mounting type: DIN rail
- ☐ Standards: EN 60950, EN 55032



Power supplies type IC750.H can be used as general power supplies or as battery chargers to charge lead acid batteries with 12V, 24V, 36V, 48V, 108V nominal voltage and up to 830W output power. The unit is designed to long life operation in industrial environments from -25°C up to +50°C ambient temperature. Class D surge protection, short-circuit protection and galvanically isolated output are some of main features of the power supplies. IC750.H additionally has an output with IU voltage characteristic and it is possible to use it without connected battery.

The LED on the front panel indicates the power supply operation. Potential free relay contact is “ON”, when the mains or IC750 is OK.

Model specification:

- IC750.H XXXXX – H = DIN rail mounting, XX = nominal output voltage, YY = max. output current.

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with wire cross-section up to 2.5 mm². The output plug allows connection with wire cross-section up to 6mm².

MODEL SPECIFICATIONS	IC750.H 1425	IC750.H 2825	IC750.H 4115	IC750.H 5515	IC750.H 12406
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	13.8V/25A	27.6V/25A	41.4V/15A	55.2V/15A	124.2V/6.5A
Output power	350W	700W	620W	830W	800W
Efficiency	90%	92%	92%	94%	93%
Dielectric strength input/output	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
Over temperature protection	85°C	85°C	85°C	85°C	85°C
Short circuit resistance	Output voltage - LED	Output voltage - LED	Output voltage - LED	Output voltage - LED	Output voltage - LED
Output voltage stability	Mains / power supply failure – relay contact	Mains / power supply failure – relay contact	Mains / power supply failure – relay contact	Mains / power supply failure – relay contact	Mains / power supply failure – relay contact
Parallel operation	Yes	Yes	Yes	Yes	Yes
Short circuit protection	27.5A	27.5A	16.5A	16.5A	7.2A
Mounting type	DIN	DIN	DIN	DIN	DIN
Dimensions W x H x D (mm)	76 x 218 x 136 mm	76 x 218 x 136 mm	76 x 218 x 136 mm	76 x 218 x 136 mm	76 x 218 x 136 mm
Weight (kg)	1.5kg	1.5kg	1.5kg	1.5kg	1.5kg
Degree of protection	IP20	IP20	IP20	IP20	IP20
Part No.	IP.2131.633.02	IP.2131.633.04	IP.2131.633.27	IP.2131.633.06	IP.2131.633.10

IC3000 (19 inch, 2U, up to 5.4kW)

RECTIFIERS / BATTERY CHARGERS

- ☐ Input voltage 3x 230V~50Hz
- ☐ Output voltage 27.6V, 55.2V, 124.2V, 248.4V / up to 5.4kW output power, parallel operation
- ☐ Voltage adjustable range (-13% ÷ + 6%)
- ☐ LED bar to display the load size
- ☐ Remote ON/OFF, temperature controlled charging (-3mV/°C/cell), remote control
- ☐ Mounting type: 19" / 2U
- ☐ Standards: Electrical safety - EN 60950, EMC - STN EN 55032



IC3000 rectifiers are used to power 24V, 48V, and 108V (110V) and 220VDC systems or as a battery charger. The input voltage of the rectifier is 3x 230V ~ 50Hz. For higher performance, units can be set in parallel. The output voltage can be set locally by a trimmer on the front panel or remotely from the PSMS4 (Power Supply Management System). IC3000 can also be used as a stand-alone power source without a connected battery.

Model specification:

- IC3000.T XYYY - T = 3 phase input, XX indicates the output voltage, YY indicates the output current.

The input is connected via a 5-wire front connector. The output terminals are also on the front panel. LEDs on the front panel indicate the presence of each phase, LED bar specifies the output load size in %. Potential free relay contact (rectifier OK/failure), output voltage control, temperature sensor (to control the charging voltage with -3mV/°C/cell), remote on/off feature are also connected to RJ12 connectors on the front panel.

The IC3000 is designed for 19" frame mounting. For parallel operation is recommended to connect each output (equally long) through a circuit breaker.

MODEL SPECIFICATIONS	IC3000.T 2875	IC3000.T 28125	IC3000.T 5545	IC3000.T 5590	IC3000.T 12420	IC3000.T 12440	IC3000.T 25007	IC3000.T 25015
Input voltage	3x230V~50Hz	3x230V~50Hz	3x230V~50Hz	3x230V~50Hz	3x230V~50Hz	3x230V~50Hz	3x230V~50Hz	3x230V~50Hz
Output voltage / current	27.6V(24÷29.3)/ 75A	27.6V(24÷29.3) / 125A	55.2V(48÷58.6) / 45A	55.2V(48÷58.6) / 90A	124.2V(108÷131.8) / 20A	124.2V(108÷131.8) / 40A	248.4V(220÷263.6)/ 7.5A	248.4V(220÷263.6)/ 15A
Output power	2.2kW	3.7kW	2.7kW	5.4kW	2.7kW	5.4kW	2.0kW	4.0kW
Dielectric strength input/output	4kV							
Operating temperature	-25°C - +50°C							
Over temperature protection	85°C							
Local signaling	LED							
Remote signaling	Presence of phase L1, L2, L3, presence of output voltage, converter failure, output power							
Parallel operation	Potential free relay contact							
Overcurrent protection	Rectifier failure							
Mounting type	Yes							
Dimensions W x H x D (mm)	82A	138A	50A	99A	23A	46A	8.2A	16.5A
Weight (kg)	19" / 2U							
Degree of protection	436 x 88 x 374 mm	436 x 88 x 492 mm	436 x 88 x 374 mm	436 x 88 x 492 mm	436 x 88 x 374 mm	436 x 88 x 492 mm	436 x 88 x 374 mm	436 x 88 x 492 mm
Part No.	7.1kg	9kg	7kg	10kg	7.1kg	10kg	7.1kg	10kg
	IP20							
	IP.2341.735.14	IP.2341.735.23	IP.2341.735.16	IP.2341.735.21	IP.2341.735.18	IP.2341.735.22	IP.2341.735.20	IP.2341.735.24

DL3U 2825 (19 inch, 4115, 5515, 8207, 11006) ASSEMBLY UPS EXTERNAL BATTERY CHARGERS

- Input voltage 230V ~ 50 / 60Hz
- Output voltage 27.6V, 41.4V, 55.2V, 82.5V, 110.4V / up to 830W output power, parallel operation
- 2-pole battery breaker C63A
- Mounting type: 19", 3U rack chassis
- Standards: EN 60950, EN 55032



Battery chargers are intended to charge external UPS 24V (36V, 48V, 60V, 72V or 96V) lead acid battery. For higher battery capacities chargers can be set in parallel. Assembly contains 2-pole 63A battery breaker.

Model specification:

- DL3U XYYY – XX = output voltage, YY = max. output current.

DL3U chargers are designed for mounting in 19" frames. After removing the front cover, a cable connection is possible. The input is 3-wire connection L, N, and PE terminals are due wire cross section cables up to 2.5 mm². The battery input (2-pole breaker) is possible to connect with wire cross section cables from 10mm² to 16mm². The battery output is possible to connect with cables from 10mm² up to 25mm².

MODEL SPECIFICATIONS	DL3U 2825 ASSEMBLY	DL3U 4115 ASSEMBLY	DL3U 5515 ASSEMBLY	DL3U 8207 ASSEMBLY	DL3U 11006 ASSEMBLY
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage / charge current	27.6V / 25A	41.4V / 15A	55.2V / 15A	82.5V / 7A	110.4V / 6A
Output power	690W	620W	830W	580W	660W
Efficiency	92%	93%	93%	93%	93%
Dielectric strength input/output	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
Overtemperature protection	85°C	85°C	85°C	85°C	85°C
Parallel operation	Yes	Yes	Yes	Yes	Yes
Minimum battery capacity	90Ah	55Ah	55Ah	33Ah	28Ah
Battery protection	C63A 2P	C63A 2P	C63A 2P	C63A 2P	C63A 2P
Dimensions W x H x D (mm)	436 x 132.5 x 160 mm	436 x 132.5 x 160 mm	436 x 132.5 x 160 mm	436 x 132.5 x 160 mm	436 x 132.5 x 160 mm
Weight (kg)	2.7kg	2.7kg	2.7kg	2.7kg	2.7kg
Degree of protection	IP20	IP20	IP20	IP20	IP20
Part No.	IP.9131.755.55	IP.9131.755.64	IP.9131.755.65	IP.9131.755.54	IP.9131.755.66



BACK UP POWER SUPPLIES DIN RAIL

PS70.H (DIN rail, 70W) - 2 outputs

PS110.H (DIN rail, 110W) – 2 outputs

LS110.H (DIN rail, 150W) 1(2) outputs, SNMP,
automatic capacity test

LS110.H (DIN rail, 280W) 1(2) outputs, SNMP,
automatic capacity test

PS1000.H (DIN rail, 870W) 1(2) outputs

PS70.H (DIN rail, 70W) - 2 outputs

BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltages 13.8V & 24V or 48V DC – common ground / 70W output power
- Only 1x 12V backup battery
- IUoU charging curve
- Signaling - mains failure, battery capacity < 50%
- Mounting type: DIN rail
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55032



The PS70.H backup power supply is designed for reverse supply 12V/5A and 24V/1.5A or 48V/0.8A. The total output power is 70W. In case of mains failure, the connected 12V battery provides the uninterruptable backup supply on both outputs. When the battery capacity drops to a critical level, the power supply will ensure 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 charging status (boost / float). Remote signaling indicates mains failure and battery capacity - < ½.

Model specification:

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

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with a wire cross-section up to 2.5 mm². Outputs, signalization, battery allow connection with wire cross-section up to 2.5 mm². Using the part no. IP.0000.000.04 mounting kit, it is possible to install the PS70.H into 19" frames.



MODEL SPECIFICATION	PS70.H 12240602 13.8V(5A), 24V(1.5A)	PS70.H 12480601 13.8V(5A), 48V(0.8A)
Input voltage	230V~50Hz	230V~50Hz
Output voltages	13.8V(5A) / 24V(1.5A)	13.8V(5A) / 48V(0.8A)
Output power	70W	70W
Efficiency	86%	86%
Insulation strength input / output	4kV	4kV
Operating temperature	-25°C - +60°C	-25°C - +60°C
Output voltage stability 12V / 24V(48V)	± 1% / ± 0.5%	± 1% / ± 0.5%
Air flow	Convection	Convection
Boost/float voltage/charge current	14.4V/13.8V/1A	14.4V/13.8V/1A
Overtemperature protection	85°C	85°C
LVD (low voltage disconnect)	10.5V	10.5V
Local signalization LED	12V, 24V, Low bat, boost charging	12V, 48V, Low bat, boost charging
Remote signaling (OE 24V/50mA)	Mains failure, Vbat<10.5V	Mains failure, Vbat<10.5V
Mounting type	DIN rail	DIN rail
Dimensions W x H x D (mm)	106 x 90 x 68 mm	106 x 90 x 68 mm
Weight (kg)	0.32 kg	0.32 kg
Degree of protection	IP20	IP20
Part No.	IP.4122.633.08	IP.4122.633.09

PS110.H (DIN rail, 110W) – 2 outputs

BACK UP POWER SUPPLIES

- ☐ Input voltage 230V~50Hz
- ☐ Output voltages 13.8V & 24V or 48V DC – common ground / 110W output power
- ☐ Only 1x 12V backup battery
- ☐ IUoU temperature controlled charging curve
- ☐ 4 levels charging current setting
- ☐ Signaling - mains failure, battery capacity < 50%
- ☐ Standards: EN 60950, EN 55032



The PS110.H backup power supply is designed for reverse supply 12V/8A and 24V/4A or 48V/2A. The total output power is 110W. In case of mains failure, the connected 12V battery provides the uninterruptable backup supply on both outputs. When the battery capacity drops to a critical level, the power supply will ensure its correct disconnection. After the mains powers up, the battery will be automatically recharged to its full capacity. The charging current can be set in at 4 levels according to 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 < 1/2.

Model specification:

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

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with a wire cross-section up to 2.5 mm². Outputs, signalization, battery allow connection with wire cross-section up to 2.5 mm².

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%
Insulation strength input / output	4kV	4kV
Operating temperature	-25°C - +60°C	-25°C - +60°C
Output voltage stability	± 1%	± 1%
Temperature compensation	-17mV / °C / battery	-17mV / °C / battery
Air flow	Convection	Convection
Battery charge voltage	13.8V	13.8V
Charge current (setting in 4 levels)	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 (kg)	0.58 kg	0.58 kg
Degree of protection	IP20	IP20
Part No.	IP.4132.633.03	IP.4132.633.04

LS110.H (DIN rail, 150W) 1(2) outputs, SNMP, automatic capacity test BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz, active PFC, -30°C - +60°C
- Output voltages 13.8V, 27.6V, 55.2V or 27.6V/48V / 150W output power
- IUoU temperature controlled charging curve
- Signaling: mains failure, battery capacity < 50%
- SNMP with WEB page, 2x IP watchdog, automatic/manual reboot of connected devices, events history, manual or automatic battery capacity test (monthly, 1/4 1/2, 1x yearly)
- Mounting type: DIN rail;
- Standards: EN 60950, EN 61000-3-2, EN 55032



Backup power supply of LS110.H type with 1 (2) output voltage is designed for reverse supply 12V, 24V, 48V or 24/48V up to 150W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 24V battery provides the backup supply of connected load. The charging voltage is thermally controlled.

LEDs on the front panel inform about the mains, output voltage, charging and battery condition status. Remote signaling indicates mains failure and battery capacity < 1/2. The SNMP adapter with its own WEB page sends traps, e-mails 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 (reboot by watchdog of IP address, manual ON/OFF or any power supply failure). SNMP agent allows to execute battery capacity test with own connected load manually or automatically with period 1x per month, 1/4, 1/2, or 1x per year and it sends traps and e-mails with capacity test results.

Model specification:

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.

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with wire cross-section up to 2.5 mm². Outputs, relays, battery and power source signaling plug allow connection with wire cross-section up to 2.5 mm². RJ45 connects LAN network.

MODEL SPECIFICATION	LS110.H 1210	LS110.HS 1210 SNMP	LS110.H 2405	LS110.HS 2405 SNMP	LS110.H 48025	LS110.HS 48025 SNMP	LS110.H 24480502	LS110.HS 24480502 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	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	150W/100W
Efficiency	93%	93%	93%	93%	93%	93%	93% / 27.6V 91% /48V	93% / 27.6V 91% /48V	93% / 27.6V 91% /48V	93% / 27.6V 91% /48V
Insulation strength input / output	4kV									
Operating temperature	-30°C - +60°C									
Local signalization	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP
Remote signalization	Mains failure Bat.capacity <1/2	Mains failure Bat.capacity <1/2 SNMP	Mains failure Bat.capacity <1/2	Mains failure Bat.capacity <1/2 SNMP	Mains failure Bat.capacity <1/2	Mains failure Bat.capacity <1/2 SNMP	Mains failure Bat.capacity <1/2	Mains failure Bat.capacity <1/2 SNMP	Mains failure Bat.capacity <1/2	Mains failure Bat.capacity <1/2 SNMP
Parallel operation	No									
Air flow / Overtemp. protection	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
Dimensions WxHxD (mm)	60x128x134	100x128x134	100x128x134	100x128x134	600x128x134	100x128x134	100x128x134	100x128x134	100x128x134	100x128x134
Weight (kg)	0.7kg	0.7kg	0.7kg	0.7kg	0.7kg	0.7kg	0.7kg	0.8kg	0.7kg	0.8kg
Degree of protection	IP20									
Part No.	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

LS110.H (DIN rail, 280W) 1(2) outputs, SNMP, automatic capacity test BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz, active PFC, -30°C - +60°C
- Output voltages 13.8V, 27.6V, 55.2V or 27.6V/48V / 280W output power
- IUoU temperature controlled charging curve
- Signaling: mains failure, battery capacity < 50%
- SNMP with WEB page, 2x IP watchdog, automatic/manual reboot of connected devices, events history, manual or automatic battery capacity test (monthly, ¼ ½, 1x yearly)
- Mounting type: DIN rail;
- Standards: EN 60950, EN 61000-3-2, EN 55032



Backup power supply of LS110.H type with 1 (2) output voltage is designed for reverse supply 12V, 24V, 48V or 24/48V up to 280W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 24V battery provides the backup supply of connected load. The charging voltage is thermally controlled.

LEDs on the front panel inform about the mains, output voltage, charging and battery condition status. Remote signaling indicates mains failure and battery capacity < ½. The SNMP adapter with its own WEB page sends traps, e-mails 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 (reboot by watchdog of IP address, manual ON/OFF or any power supply failure). SNMP agent allows to execute battery capacity test with own connected load manually or automatically with period 1x per month, ¼, ½, or 1x per year and it sends traps and e-mails with capacity test results.

Model specification:

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.

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with wire cross-section up to 2.5 mm². Outputs, relays, battery and power source signaling plug allow connection with wire cross-section up to 2.5 mm². RJ45 connects LAN network.

MODEL SPECIFICATION	LS110.H 2410	LS110.HS 2410 SNMP	LS110.H 4805	LS110.HS 4805 SNMP	LS110.H 24481002	LS110.HS 24481002 SNMP
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	27.6V(10A)	27.6V(10A)	55.2V(5A)	55.2V(5A)	+27.6V(10A), -48V(2A)	+27.6V(10A), -48V(2A)
Output power	280W	280W	280W	280W	280W/100W	280W/100W
Efficiency	93%	93%	93%	93%	93% / 27.6V 91% / 48V	93% / 27.6V 91% / 48V
Insulation strength input / output	4kV	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	-30°C - +60°C
Local signalization	LED	LED, SNMP	LED	LED, SNMP	LED	LED, SNMP
Remote signalization	Mains failure Bat.capacity < ½	Mains failure Bat.capacity < ½ SNMP	Mains failure Bat.capacity < ½	Mains failure Bat.capacity < ½ SNMP	Mains failure Bat.capacity < ½	Mains failure Bat.capacity < ½ SNMP
Parallel operation	No	No	No	No	No	No
Air flow / Overtemperature protection	Convection / 85°C	Convection / 85°C	Convection / 85°C	Convection / 85°C	Convection / 85°C	Convection / 85°C
Battery charge current	2A	2A	2A	2A	2A	2A
LVD (low voltage disconnect)	21V / 10A	21V / 10A	42V / 5A	42V / 5A	21V / 10A	21V / 10A
Dimensions WxHxD (mm)	60 x 128 x 134 mm	100 x 128 x 134 mm	60 x 128 x 134 mm	100 x 128 x 134 mm	100 x 128 x 134 mm	100 x 128 x 134 mm
Weight (kg)	0.8kg	0.9kg	0.8kg	0.7kg	0.7kg	0.8kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.4131.633.93	IP.4131.633.94	IP.4131.633.95	IP.4131.633.96	IP.4132.633.97	IP.4132.633.98

PS1000.H (DIN rail, 870W) 1(2) outputs

BACK UP POWER SUPPLIES

- ☑ Input voltage 230V~50Hz
- ☑ -30°C - +60°C
- ☑ Output voltages 13.8V, 27.6V, 55.2V or 27.6V/48V / 870W output power
- ☑ IU temperature controlled charging curve
- ☑ Signaling: mains failure, battery capacity < 50%
- ☑ Mounting type: DIN rail
- ☑ Standards: EN 60950, EN 55032



Backup power supply of PS1000.H type with 1 (2) output voltage is designed for reverse supply 12V, 24V, 48V or 24/48V up to 870W total. In case of mains failure, the connected battery provides the backup supply of connected load. The charging voltage is thermally controlled. PS1000.H 24482503 contains an additional DC/DC converter to 48V (3A) with galvanically isolation from 24V.

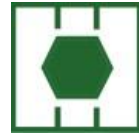
LEDs on the front panel inform about from mains or "ON battery" operation. Remote signaling indicates mains failure and battery capacity < 1/2.

Model specification:

PS1000.H XXxxYYyy – H = DIN rail mounting, XXxx = nominal output voltage 1 (2), YYyy = maximum output current 1 (2).

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with wire cross-section up to 2.5 mm². The main output and battery terminals are doubled. All terminals allow connection with wire cross-section up to 2.5 mm².

MODEL SPECIFICATION	PS1000.H 1225	PS1000.H 2425	PS1000.H 4815	PS1000.H 24482503
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	13.8V(25A)	27.6V(25A)	55.2V(15A)	27.6V(25A) / 48V(3A)
Output power	360W	720W	870W	720W
Efficiency	88%	92%	94%	92%
Insulation strength input / output	4kV	4kV	4kV	4kV
Operating temperature	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C	-25°C - +50°C
Local signalization	LED – Mains / On battery	LED – Mains / On battery	LED – Mains / On battery	LED – Mains / On battery
Remote signalization	Mains failure battery capacity < 1/2	Mains failure battery capacity < 1/2	Mains failure battery capacity < 1/2	Mains failure battery capacity < 1/2
Parallel operation	No	No	No	No
Cooling	Forced	Forced	Forced	Forced
Overtemperature protection	85°C	85°C	85°C	85°C
Battery charge current	25A	25A	15A	25A
Temperature compensation	-17mV / °C / battery	-33mV / °C / battery	-66mV / °C / battery	-33mV / °C / battery
LVD (low voltage disconnect)	10.5V	21V	42V	21V
Mounting type	DIN rail	DIN rail	DIN rail	DIN rail
Dimensions WxHxD (mm)	76 x 218 x 136 mm	76 x 218 x 136 mm	76 x 218 x 136 mm	90 x 218 x 136 mm
Weight (kg)	1.5 kg	1.5 kg	1.5 kg	1.6 kg
Degree of protection	IP20	IP20	IP20	IP20
Part No.	IP.4131.633.12	IP.4131.633.11	IP.4131.633.13	IP.4132.633.15



BACK UP POWER SUPPLIES

19"

LS110.J (19", 150W) 1(2) outputs, SNMP,
automatic capacity test

LS110.J(S) (19", 280W) 1(2) outputs, SNMP,
automatic capacity test

LS150 (19" 1U, 350W) – SNMP

LS150 (19" 1U, 350W) – 2 outputs, SNMP

PS1500.J(S) (19" 1U, 830W) - SNMP

PS1500 (19" 2U, 5220W) - SNMP

LS110.J (19“, 150W) 1(2) outputs, SNMP, automatic capacity test

BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz, active PFC, -30°C - +60°C
- Output voltages 27.6V or 27.6V/48V / 150W output power
- IUoU temperature controlled charging curve
- Signaling: mains failure, battery capacity < 50%
- SNMP with WEB page, 2x IP watchdog, automatic/manual reboot of connected devices, events history, manual or automatic battery capacity test (monthly, ¼ ½, 1x yearly)
- Mounting type: 19” 1U; Standards: EN 60950, EN 61000-3-2, EN 55032



Backup power supply of LS110.J(S) type with 1 (2) output voltage is designed for reverse supply 24V or 24/48V up to 150W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 24V battery provides the backup supply of connected load. The charging voltage is thermally controlled.

LEDs on the front panel inform about the mains, output voltage, charging and battery condition status. Remote signaling indicates mains failure and battery capacity <½. The SNMP adapter with its own WEB page sends traps, e-mails 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 (reboot by watchdog of IP address, manual ON/OFF or any power supply failure). SNMP agent allows to execute battery capacity test with own connected load manually or automatically with period 1x per month, ¼, ½, or 1x per year and it sends traps and e-mails with capacity test results.

Model specification:

LS110.J(S) XXxxYYyy – J = 19”, S = SNMP with WEB, XXxx = nominal output voltage 1 and 2, YYyy = maximum output current 1 and 2.

LS110.J is designed for 19” rack mounting. Connection to the mains is through flexible cable on the rear panel. Outputs, relays, battery and power source signaling plug allow connection with wire cross-section up to 2.5 mm². RJ45 connects LAN network.

MODEL SPECIFICATION	LS110.J 2405	LS110.JS 2405 SNMP	LS110.J 24480502	LS110.JS 24480502 SNMP
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	27.6V(5A)	27.6V(5A)	+27.6V(5A); -48V(2A)	+27.6V(5A); -48V(2A)
Output power	150W	150W	150W/100W	150W/100W
Efficiency	93%	93%	91%	91%
Insulation strength input / output	4kV	4kV	4kV	4kV
Operating temperature	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C
Local signalization	LED	LED	LED	LED
Remote signalization	Mains failure Battery capacity <½	Mains failure Battery capacity <½ SNMP	Mains failure Battery capacity <½	Mains failure Battery capacity <½ SNMP
Parallel operation	No	No	No	No
Air flow / Overtemperature protection	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C
Battery charge current	2A	2A	2A	2A
LVD (low voltage disconnect)	21V / 5A	21V / 5A	21V / 5A	21V / 5A
Dimensions WxHxD (mm)	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm
Weight (kg)	1.2kg	1.35kg	1.25kg	1.4kg
Degree of protection	IP20	IP20	IP20	IP20
Part No.	IP.4131.763.89	IP.4131.763.90	IP.4132.763.91	IP.4132.763.92

LS110.J(S) (19“, 280W) 1(2) outputs, SNMP, automatic capacity test BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz, active PFC, -30°C - +60°C
- Output voltages 27.6V, 55.2V, +27.6V/-48V, +27.6V/-48V/150V, -55.2V/24V/150V / 280W output power
- IUoU temperature controlled charging curve
- Signaling: mains failure, battery capacity < 50%
- SNMP with WEB page, 2x IP watchdog, automatic/manual reboot of connected devices, events history, manual or automatic battery capacity test (monthly, 1/4, 1/2, 1x yearly)
- Mounting type: 19" 1U; Standards: EN 60950, EN 61000-3-2, EN 55032



Backup power supply of LS110.J(S) type with 1 (2, 3) output voltage is designed for reverse supply 24V or 48V or combination of them up to 280W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 24V (48V) battery provides the backup supply of connected load. The charging voltage is thermally controlled. Special feature is a DC converter 150VDC/100W to supply device with input voltage 100÷230VAC~50(60) Hz.

LEDs on the front panel inform about the mains, output voltage, charging and battery condition status. Remote signaling indicates mains failure and battery capacity < 1/2. The SNMP adapter with its own WEB page sends traps, e-mails 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 (reboot by watchdog of IP address, manual ON/OFF or any power supply failure). SNMP agent allows to execute battery capacity test with own connected load manually or automatically with period 1x per month, 1/4, 1/2, or 1x per year and it sends traps and e-mails with capacity test results.

Model specification: LS110.J(S) XXxx_{xx}YYyy_{yy} – J = 19", S = SNMP with WEB, XXxx_{xx} = nominal output voltage 1 (2, 3), YYyy_{yy} = maximum output current 1 (2, 3).

LS110.J is designed for 19" rack mounting. Connection to the mains is through flexible cable on the rear panel. Outputs, relays, battery and power source signaling plug allow connection with wire cross-section up to 2.5 mm². RJ45 connects LAN network.

MODEL SPECIFICATION	LS110.J 2410	LS110.JS 2410 SNMP	LS110.J 24481002	LS110.JS 24481002 SNMP	LS110.J 2448150100201	LS110.JS 2448150100201 SNMP	LS110.J 4805	LS110.JS 4805 SNMP	LS110.JS 4824150050401 SNMP	LS110.J 481500501	LS110.JS 481500501 SNMP
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage	27.6V(10A)	27.6V(10A)	+27.6V(10A) -48V(2A)	+27.6V(10A) -48V(2A)	+27.6V(10A) -48V/2A, 150V(0.6A)	+27.6V(10A) -48V/2A, 150V(0.6A)	-55.2V(5A)	-55.2V(5A)	-55.2V(5A) 24V(4A), 150V(0.6A)	-55.2V(5A) 150V(0.6A)	-55.2V(5A) 150V(0.6A)
Output power	280W	280W	280W/100W	280W/100W	280W/100W/100W	280W/100W/100W	280W	280W	280W/100W/100W	280W/100W	280W/100W
Efficiency	93%	93%	93%	93%	93%	93%	91%	91%	91%	91%	91%
Insulation strength in /output	4kV	4kV	4kV	4kV	4kV	4kV	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	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C
Local signalization	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED
Remote signalization	Mains failure Bat.capacity < 1/2	Mains failure Bat.capacity < 1/2 SNMP	Mains failure Bat.capacity < 1/2	Mains failure Bat.capacity < 1/2 SNMP	Mains failure Bat.capacity < 1/2	Mains failure Bat.capacity < 1/2 SNMP	Mains failure Bat.capacity < 1/2	Mains failure Bat.capacity < 1/2 SNMP	Mains failure Bat.capacity < 1/2 SNMP	Mains failure Bat.capacity < 1/2	Mains failure Bat.capacity < 1/2 SNMP
Parallel operation	No	No	No	No	No	No	No	No	No	No	No
Air flow / Overtemperature protection	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C	Forced / 85°C
Battery charge current	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A
LVD (low voltage disconnect)	21V / 10A	21V / 10A	21V / 10A	21V / 10A	21V / 10A	21V / 10A	42V / 5A	42V / 5A	42V / 5A	42V / 5A	42V / 5A
Dimensions WxHxD (mm)	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm	436x45x150mm
Weight (kg)	1.2kg	1.45kg	1.35kg	1.5kg	1.4kg	1.55kg	1.3kg	1.45kg	1.55kg	1.35kg	1.5kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.4131.763.99	IP.4131.763.100	IP.4132.763.105	IP.4132.763.106	IP.4133.763.107	IP.4133.763.108	IP.4131.763.101	IP.4131.763.102	IP.4133.763.133	IP.4132.763.103	IP.4132.763.104

LS150 (19" 1U, 350W) – SNMP

BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz, active PFC, -30°C - +60°C
- Output voltages +13.8V, 27.6V and 55.2V adjustable, 350W output power
- IUoU temperature controlled charging curve
- LED, LCD display with management system
- Signaling: mains failure, battery capacity < 50%
- SNMP with WEB page, events history, traps, time server, e-mail server
- Mounting type: 19" 1U; Standards: EN 60950, EN 61000-3-2, EN 55032



The LS150 1U type with 1 output voltage is designed for reverse supply 13.8V, 27.6V or -55.2V up to 350W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 12V (24V, 48V) battery provides the backup supply of connected load. The charging voltage curve is thermally controlled and the charging current can be set at 4 levels. Output is dimensioned to 41A.

LEDs on the front panel inform about the converter and battery condition status. Remote signaling indicates mains failure and battery capacity <1/2.

LCD display informs about output voltage, current, load, battery and fault status. The SNMP adapter with its own WEB page sends traps, e-mails and gives information about the whole power system. It allows monitoring up to two binary states – relay contacts (battery breaker, output breaker, door contact etc.)

Model specification: "J" = 1x input 230V~50Hz, LED signalization, remote signalization + potential-free relay contacts = BASIC

- Extended (JE) - LS150.JE – Basic + power supply management system
- SNMP (JS) - LS150.JS – Extended + SNMP adapter with WEB page

LS150 is designed for 19" frames. 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 6mm².

MODEL SPECIFICATION	LS150.J 1225	LS150.J 2412	LS150.J 4806	LS150.JE 1225	LS150.JE 2412	LS150.JE 4806	LS150.JS 1225	LS150.JS 2412	LS150.JS 4806
	-	-	-	PSMS	PSMS	PSMS	PSMS+SNMP	PSMS+SNMP	PSMS+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%
Insulation strength input / output	4kV			4kV			4kV		
Operating temperature	-30°C - +60°C			-30°C - +60°C			-30°C - +60°C		
Local signalization	LED			LED, LCD			LED, LCD		
Remote signalization	Relay contacts Mains failure, battery capacity <1/2			Relay contacts Mains failure, battery capacity <1/2			Relay contacts Mains failure, battery capacity <1/2, SNMP		
Parallel operation	No			No			No		
Air flow / Overtemperature 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) / I _{max}	<10.5V (41A)	<21V (41A)	<42V (41A)	<10.5V (41A)	<21V (41A)	<42V (41A)	<10.5V (41A)	<21V (41A)	<42V (41A)
Dimensions W x H x D (mm)	436x44.5x180			436x44.5x180			436x44.5x180		
Weight (kg)	1.7kg			1.7kg			1.8kg		
Degree of protection	IP20			IP20			IP20		
Part No.	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" 1U, 350W) – 2 outputs, SNMP

BACK UP POWER SUPPLIES

- Input voltage 230V~50Hz, active PFC, -30°C - +60°C
- Output voltages +27.6V/-48V, -55.2V/24V adjustable, 350W output power
- IUoU temperature controlled charging curve
- LED, LCD display with management system
- Signaling: mains failure, battery capacity < 50%
- SNMP with WEB page, events history, traps, time server, e-mail server
- Mounting type: 19" 1U; Standards: EN 60950, EN 61000-3-2, EN 55032



The LS150 1U type with 2 output voltage is designed for reverse supply +27.6V/-48V or -55.2V/+24V up to 350W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 24V (48V) battery provides the backup supply of connected load. The charging voltage curve is thermally controlled and the charging current can be set at 4 levels. Output is dimensioned to 41A.

LEDs on the front panel inform about the converter and battery condition status. Remote signaling indicates mains failure and battery capacity <1/2.

LCD display informs about output voltage, current, load, battery and fault status. The SNMP adapter with its own WEB page sends traps, e-mails and gives information about the whole power system. It allows monitoring up to two binary states – relay contacts (battery breaker, output breaker, door contact etc.)

LS150 are manufactured in 2 accessory sets:

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

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

LS150 is designed for 19" frames. 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 6mm².

MODEL SPECIFICATION	LS150.JE 24481202	LS150.JS 24481202 SNMP	LS150.JE 24481203	LS150.JS 24481203 SNMP	LS150.J 24481202R	LS150.J 48240604
Input voltage	230V~50Hz		230V~50Hz		230V~50Hz	230V~50Hz
Output voltage	+27.6V(12.5A); -48V(2A)		+27.6V(12.5A); -48V(3A)		+27.6V(6.25A); +48V(2A)	-55.2V(6.25A); +24V(4A)
Output power	350W / 100W		350W / 150W		350W / 100W	350W / 100W
Efficiency	93% / +27.6V; 91% / -48V		93% / +27.6V; 91% / -48V		93% / +27.6V; 91% / -48V	94% / -55.2V; 89% / +24V
Insulation strength input / output	4kV		4kV		4kV	4kV
Operating temperature	-30°C - +60°C		-30°C - +60°C		-30°C - +60°C	-30°C - +60°C
Local signalization	LED, LCD		LED, LCD		LED	LED
Remote signalization	Relay contacts Mains failure, batt. capacity <1/2	Relay contacts Mains failure, batt. capacity <1/2 SNMP	Relay contacts Mains failure, batt. capacity <1/2	Relay contacts Mains failure, batt. capacity <1/2 SNMP	Relay contacts Mains failure, batt. capacity <1/2	Relay contacts Mains failure, batt. capacity <1/2
Parallel operation	No		No		No	No
Air flow / Overtemperature protection	Controlled / Yes		Controlled / Yes		Controlled / Yes	Controlled / Yes
Battery / charge current	24V lead acid / 2A, 3A, 8A, 12.5A		24V lead acid / 2A, 3A, 8A, 12.5A		24V lead acid / 2A, 3A, 8A, 12.5A	48V lead acid / 1-1.5-4-6A
LVD (low voltage disconnect) / I _{max}	<21V (41A)		<21V (41A)		<21V (41A)	<42V (41A)
Dimensions W x H x D (mm)	436x44.5x180		436x44.5x180		436x44.5x180	436x44.5x180
Weight (kg)	1.8kg		1.8kg		1.7kg	1.7kg
Degree of protection	IP20		IP20		IP20	IP20
Part No.	IP.4132.768.75	IP.4132.768.76	IP.4132.768.75	IP.4132.768.76	IP.4132.768.87	IP.4132.768.88

PS1500.J(S) (19" 1U, 830W) - SNMP

BACK UP POWER SUPPLIES

- ☐ Input voltage 230V~50Hz, active PFC
- ☐ Output voltage 48V(15A) adjustable / 830W output power, 3x electronically protected outputs 6A
- ☐ IUoU temperature controlled charging curve
- ☐ LED, LCD display unit, 4x potential-free relay contacts, SNMP with WEB, events history
- ☐ Signaling: mains failure, battery capacity < 50%
- ☐ SNMP with WEB page, events history, traps, time server, e-mail server
- ☐ Mounting type: 19" 1U; Standards: EN 60950, EN 61000-3-2, EN 55032



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 and the charging current can be set at 4 levels. 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 specification:

PS1500.J(S) XXYY 1U- J = 1x 230V~50Hz, S = SNMP with WEB, XX = nominal output voltage, YY = maximum output current, 1U = high 44.5mm

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

MODEL SPECIFICATION	PS1500.J 4815 1U PSMS	PS1500.JS 4815 1U PSMS + 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 signalization	LED, LCD	LED, LCD
Remote signalization	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, 3x 6A	16.5A, 3x 6A
Charge voltage / current	55.2V / 10A	55.2V / 10A
Temperature compensation	-66mV / °C / battery	-66mV / °C / battery
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

PS1500 (19" 2U, 5220W) - SNMP

BACK UP POWER SUPPLIES

- Input voltage 1 (3)x 230V~50Hz
- Output voltage 24V (48V) adjustable / up to 5220W output power
- IUoU temperature controlled charging curve
- LED, LCD display unit, 2x potential-free relay contacts – converter err, battery capacity < 50%
- SNMP with WEB page, events history, traps, time server, e-mail server
- Mounting type: 19" 2U
- Standards: EN 60950, EN 55032



The PS1500 2U is designed for reverse supply of 24V (48V) devices with output power up to 5220W. The input voltage range is 1 (3)x 230V~50Hz. PS1500 2U allows parallel operation up to 2(3) units with respect to LVD output current. 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 IUoU voltage charging curve is temperature controlled.

The user is about the state of power supply informed locally (LEDs, LCD display) or remotely thru potential-free relay contacts (converter err, battery capacity < 1/2) and SNMP adapter. The own website obtains all information about power supply condition. The PS1500 can monitor 2 binary input signals - output and battery breaker contacts.

Model specification:

- PS1500.T(S) XYYY - T = 3x 230V ~ mains input, S = SNMP with WEB page, XX = nominal output voltage, YY = nominal output current
- For units paralleling is necessary to use a communication cable type PS1500.USB – IMCO POWER part number: IP.4000.033.01

The power supply is designed for 19" frames. Mains connection is on the rear. Battery, outputs, binary inputs, signalization and SNMP are ready to be connected on the front panel.

MODEL SPECIFICATION	PS1500.J 2425 PSMS	PS1500.JS 2425 PSMS + SNMP	PS1500.J 2450 PSMS	PS1500.JS 2450 PSMS + SNMP	PS1500.J 4830 PSMS	PS1500.JS 4830 PSMS + SNMP	PS1500.T 4845 PSMS	PS1500.TS 4845 PSMS + SNMP	PS1500.TS 4890 PSMS + SNMP
Input voltage	1x 230V~50Hz	1x 230V~50Hz	1x 230V~50Hz	1x 230V~50Hz	1x 230V~50Hz	1x 230V~50Hz	3x 230V~50Hz	3x 230V~50Hz	3x 230V~50Hz
Output voltage	27.6V(25A)	27.6V(25A)	27.6V(50A)	27.6V(50A)	55.2V(30A)	55.2V(30A)	55.2V(45A)	55.2V(45A)	55.2V(90A)
Output power	720W	720W	1440W	1440W	1740W	1740W	2610W	2610W	5220W
Efficiency	92%	92%	92%	92%	94%	94%	94%	94%	94%
Insulation strength input / output	4kV	4kV	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	-25°C - +50°C	-25°C - +50°C
Local signalization	LED. LCD	LED. LCD	LED. LCD	LED. LCD	LED. LCD	LED. LCD	LED. LCD	LED. LCD	LED. LCD
Remote signalization	Relay contacts Converter err, Vbat<23V	Relay contacts, SNMP Converter err, Vbat<23V	Relay contacts Converter err, Vbat<23V	Relay contacts, SNMP Converter err, Vbat<23V	Relay contacts Converter err, Vbat<46V	Relay contacts, SNMP Converter err, Vbat<46V	Relay contacts Converter err, Vbat<46V	Relay contacts, SNMP Converter err, Vbat<46V	Relay contacts, SNMP Converter err, Vbat<46V
Parallel operation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overcurrent protection	33A	33A	52A	52A	33A	33A	50A	50A	100A
Charge voltage / current	27.6V/10A	27.6V/10A	27.6V/10A	27.6V/10A	55.2V/10A	55.2V/10A	58.4V/55.2V / 15A	58.4V/55.2V / 15A	58.4V/55.2V / 30A
Temperature compensation	-33mV / °C / battery	-33mV / °C / battery	-33mV / °C / battery	-33mV / °C / battery	-33mV / °C / battery	-33mV / °C / battery	-66mV / °C / battery	-66mV / °C / battery	-66mV / °C / battery
LVD (low volt.disconnect) / Imax.	21V/60A	21V/60A	21V/60A	21V/60A	42V/60A	42V/60A	42V/90A	42V/90A	42V/150A
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)	436x88x328	436x88x328	436x88x328	436x88x328	436x88x328	436x88x328	436x88x446	436x88x446	436x88x506
Weight (kg)	2.8 kg	2.9 kg	5.5 kg	5.6 kg	4.5 kg	4.6 kg	6.2 kg	6.3 kg	12,3 kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.4141.765.07	IP.4141.765.08	IP.4141.765.09	IP.4141.765.10	IP.4141.765.03	IP.4141.765.04	IP.4341.735.13	IP.4341.735.14	IP.4341.735.50



BACK UP POWER SUPPLIES PLUG-IN

LS1500 CHASSIS (19" 1U)

LS1500 CHASSIS (19" 2U)

LS1500.ZS BS (POWER SUPPLY MANAGEMENT UNIT)

LS300.Z (RECTIFIER, 350W/700W)

LS300.Z (DC/DC CONVERTER, 420W)

LS1500 (ACCESSORY)

LS1500 CHASSIS (19" 1U)

- ❑ Chassis for 1-3x rectifiers (DC converters) (12V, 24V, 48V) & 1x SNMP management system
- ❑ 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 mm² terminals for battery and outputs connection
- ❑ Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55032



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 3x 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" frames. 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 ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals
Load output terminals	16mm ² / 1x 70A terminals, no protection	16mm ² / 6x protected output up to 20A	16mm ² / 1x 70A terminals, no protection	16mm ² / 6x protected output up to 20A	16mm ² / 1x 70A terminals, no protection	16mm ² / 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 input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / 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" 2U)

- ❑ Chassis for 1-3x rectifiers (DC converters) (24V, 48V) & 1x SNMP management system
- ❑ 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 mm² terminals for battery and outputs connection
- ❑ Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55032

PLUG-IN POWER SUPPLIES



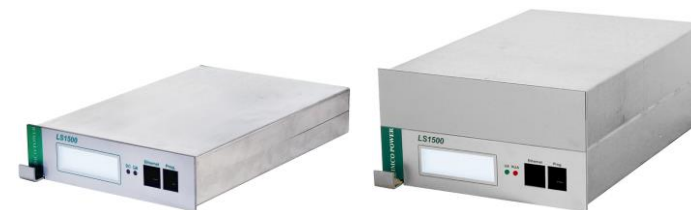
The LS1500 type power sources are designed to back up supply devices and to simultaneously charge the connected battery. In case of mains failure the connected battery continues to supply load without interruption. The power source unit is designed as a plug-in module that can be added or replaced during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

The chassis LS1500 type is designed to connect 1 or 2 independent, or 3x 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" frames. 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 ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals	16mm ² /70A terminals
Load output terminals	16mm ² / 1x 70A terminals, no protection	16mm ² / 6x protected output up to 20A	16mm ² / 1x 70A terminals, no protection	16mm ² / 6x protected output up to 20A	16mm ² / 1x 70A terminals, no protection	16mm ² / 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 input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / battery breaker contact, user contact...	2x input / 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

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



The LS1500.ZS BS 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 (IUoU temperature controlled 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.

LS1500.ZS 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.ZS BS 1U	LS1500.ZS BS 2U
Input voltage	Vin	7 - 60V DC (270-24mA)	7 - 60V DC (270-24mA)
Display	LCD	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
	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
Signalization (2 x LED)	LED1	UR – urgent alarm	UR – urgent alarm
	LED2	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
	TEMP	Temperature sensor	Temperature sensor
Alarm contacts	Relay 1	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
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 89(2U) x 250mm
Weight (kg)		0.45kg	0.57kg
Degree of protection		IP40	IP40
Part No.		IP.6400.043.01	IP.6400.043.03

LS300.Z (RECTIFIER, 350W/700W)

PLUG-IN POWER SUPPLIES

- Input voltage 230V~50Hz
- Output voltage 48V (12V, 24V) / 350W (1U) or 48V(24V) / 700W (2U) output power
- Active PFC, resonant technology
- High efficiency (94%)
- Temperature operating range -30°C~+60°C
- Mounting type: plug-in module
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55032



The LS300.Z type rectifier is a plug-in unit for LS1500 chassis. Rectifier units 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.ZS BS management system unit. The fan is temperature controlled.

The green LED inside informs about rectifier operation.

Model numbering:

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

LS300.Z rectifiers are designed as plug-in units. 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

LS300.Z (DC/DC CONVERTER, 420W)

PLUG-IN POWER SUPPLIES

- ☐ Input voltage 48V (36-72V)
- ☐ Output voltage 24V(15A) adjustable, 420W output power
- ☐ ZVS, parallel operation, soft start,
- ☐ High efficiency (92.5%)
- ☐ Temperature operating range -30°C-+60°C
- ☐ Mounting type: plug-in module
- ☐ Standards: Electrical safety - EN 60950, EMC - EN 55032



The LS300.Z 48_2415 DC converter is a plug-in unit for LS1500 chassis. DC/DC converter is built in most advanced technology with of the energy conversion with respect to maximum efficiency (ZVS). The unit provides 24V adjustable output up to 420W. Soft start, temperature controlled fan switching, input and output filter are some of the main features.

The green LED inside informs about rectifier operation. The LS1500.ZS BS management unit gets information about OK/ERR state of the DC/DC converter.

Model specification:

LS300.Z 48_2415 - Z = plug-in module, 48 = nominal output voltage, 24 = nominal output voltage, 15 = maximum output current

LS300.Z 48_2415 DC/DC converter is designed as plug-in unit. Input pins are on the rear connector, output on the front panel thru removable connector for up to 6mm² cables.

MODEL SPECIFICATIONS	LS300.Z 48_2415 1U
Input voltage	36-72VDC
Output voltage	24V (21-27.6V) / 15A
Output power	420W
Efficiency	92.5%
Dielectric strength input/output	1.5kV
Operating temperature	-30°C - +60°C
Local signalization	LED – DC converter OK
Parallel operation	Yes
Air flow	Temperature controlled fan
Overcurrent protection	17A
Over temperature protection	85°C
Overvoltage protection	-
Undervoltage protection	Yes
Mounting type:	Plug-in module
Dimension W x H x D (mm)	89 x 45(1U) x 250
Weight (kg)	0.5kg
Degree of protection	IP20
Part No.	IP.1431.043.22




- 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 blinder 1U	LS1500 2U blinder 2U
PICTURE			
Description	Output distribution unit with 4 switched on/off breaker outputs up to 10A	1U blinder for proper air venting of LS1500 chassis	2U blinder 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 unit	Plug-in unit	Plug-in unit
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



POWER SUPPLIES WITH PoE

Passive PoE 1Gb (Plug-in / DIN rail)

ALC01, ALC03 (DIN rail), 50W÷83W

PS70.H PoE (DIN rail, 70W)

LS110.JS (19" 1U, 280W), SNMP, 2x PoE 1Gb

LS150.JS (19" 2U, 700W), SNMP, 8x PoE 1Gb

19" DL2U_INJECTOR PoE / DISTRIBUTION (15x)

POWERBOX DC (19" 1U)

GENERAL

Passive PoE 1Gb (Plug-in / DIN rail)

POWER SUPPLIES with PoE

- Passive PoE 1Gb unit, 83W (56V_{max}/1.4A) with surge protection 5kA
- A or B, or A + B PoE mode operation
- Plug-in unit enables setting the supply voltage 24V / 48V
- Signaling: LED – supply voltage and operating mode
- Standards: Electrical safety - EN 55032





Passive PoE unit is a product, that can distribute power to devices with power supply up to 56VDC and up to 1.4A (0.35A / pair) with transmission speeds up to 1Gbps. The total power is 83W. PoE input is locked by a 1.4A fuse. The module includes a power input filter, surge protection on both the LAN and the PoE side.

With jumpers, it is possible to set the mode of operation, i. it is possible to determine by which pair the device will be supplied (A, B or A + B = supply to all 4 pairs). The operating mode is signaled by the 2-color LED on the front panel.

If the module is used in back-up power supplies with two output voltages (+ 24V and -48V), it is possible to set the voltage to the device via jumpers. This state is also indicated by a two-color LED on the front panel of the unit.

The DIN rail units (PoE.H) do not have this setting option; the supply voltage is connected directly to power supply connector +, - and PE.

PoE.Z plug-in modules are designed as modules for backup sources with PoE chassis or PoE distribution strips.

MODEL SPECIFICATIONS	PoE.Z 1Gb passive PoE 1Gb 83W plug-in unit with surge protection 	PoE.H 1Gb passive PoE 1Gb 83W DIN rail unit with surge protection 
Input voltage	24V/48V – selectable via jumpers	8V-56V _{max}
Output current	1.4A (0.35A/pair)	1.4A
Output power max.	83W	83W
Fuse	1.5A polyswitch fuse	1.5A polyswitch fuse
Local signaling	<u>MÓDE OF OPERATION (2- colors LED)</u> Mode A – green LED (+1, 2 - 3, 6) Mode B – red LED (+4, 5 - 7, 8) Mode A-B – orange LED (+1, 2, 4, 5 - 3, 6, 7, 8) <u>POWER SUPPLY (2-colours LED)</u> 8-38V – green LED 38-56V – red LED	<u>MÓDE OF OPERATION (2- colors LED)</u> Mode A – green LED (+1, 2 - 3, 6) Mode B – red LED (+4, 5 - 7, 8) Mode A-B – orange LED (+1, 2, 4, 5 - 3, 6, 7, 8) <u>POWER SUPPLY (2-colours LED)</u> 8-38V – green LED 38-56V – red LED
Operating temperature	-30°C - +60°C	-30°C - +60°C
Dimensions W x H x D (mm)	27.5 x 66 x 62 mm	27.5 x 75 x 62 mm (DIN lišta)
Weight (kg)	0.05kg	0.055kg
Degree of protection	IP00	IP20
Part No.	IP.8421.143.11	IP.8421.633.15

ALC01, ALC03 (DIN rail), 50W÷83W

POWER SUPPLIES with PoE

- General power supply with 1Gb passive PoE
- Surge protection
- Use in industrial environments from -25°C to + 60°C
- Galvanic isolation 4kV
- Long life used components
- Mounting type: DIN rail
- Standards: EN 60950, EN 55032, EN 61000-3-2



The ALC01.H 5501 PoE and ALC03.H 55015 PoE power supplies are used for remote power supply of transmission devices over Ethernet with a transfer rate 1Gbps and up to 83W output power. Both LAN and PoE outputs are surge protected. The power supplies are capable of long-term operation in the industrial environment from -25°C to +60°C; they are used components that are not subject to rapid aging. Power supplies have an over-voltage class D protection in addition to their input. The output is short circuit resistant and galvanic isolated from the input.

The LED "Vout" on the front panel indicates the operation of the source. The "MODE" LED indicates the setting of A or B, or A + B PoE mode operation. The PoE mode can be set by the jumpers on the side.

Model specification:

- ALC01.H 5501 PoE - H = DIN rail version, 55 = Output voltage 55.2V, 01 = Output current 0.9A.
- ALC03.H 55015 PoE - H = DIN rail version, 55 = Output voltage 55.2V, 015 = Output current 1.5A.

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows a connection with wire cross-section up to 2.5 mm². Using the part no. IP.0000.000.04 mounting kit, it is possible to install the ALCxx.H into 19" frames.



MODEL SPECIFICATIONS	ALC01.H 5501 PoE	ALC03.H 55015 PoE
Input voltage	100-240V±10%~50/60Hz	230V~50Hz±10%~50Hz
Output voltage / current	55.2V / 0.9A	55.2V / 1.5A
Output power	50W	83W
Dielectric strength input/output	4kV	4kV
Operating temperature	-25°C - +60°C	-25°C - +60°C
Local signaling	LED „Vout“ – power supply is OK LED „MODE“ green – mode „A“ - PoE red – mode „B“ - PoE orange – mode „A+B“ - PoE	LED „Vout“ – power supply is OK LED „MODE“ green – mode „A“ - PoE red – mode „B“ - PoE orange – mode „A+B“ - PoE
Efficiency	91%	90%
Output voltage ripple	100mV	250mV
Overcurrent protection	0.9A	1.5A
Output voltage stability	4%	1%
Mounting type	DIN rail	DIN rail
Dimensions W x H x D (mm)	91 x 90 x 68 mm	124 x 90 x 68 mm
Weight (kg)	0,33 kg	0,5 kg
Degree of protection	IP20	IP20
Part No.	IP.2121.633.55	IP.2131.633.59

PS70.H PoE (DIN rail, 70W)

BACK UP POWER SUPPLIES with PoE

- ☐ Input voltage 230V~50Hz
- ☐ Output voltages 13.8V & 55.2V DC – common ground / 70W output power
- ☐ Only 1x 12V backup battery (Pb or LiFePO4)
- ☐ IUoU charging curve, in case of 1.5Ah LiFePO4 battery the charging time takes 1.5 hours
- ☐ Signaling - mains failure, battery capacity < 50%
- ☐ Mounting type: DIN rail
- ☐ Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55032



The PS70.H backup power supply is designed for reverse supply 13.8V/5A and 55.2V/0.7A for PoE. Both power supplies contain a passive PoE 1Gb unit. The passive 1Gb PoE is in industrial design with surge protection. Version PS70.H 12550601B PoE has a built-in 1.5Ah LiFePO4 battery, which can back up the 50W load up to 20 minutes. The sources allow a connection of external 12V lead acid or LiFePO4 12.8V/3Ah battery (BM1204_03 LiFePO4 – IP.7421.633.23).

The LiFePO4 battery has a 20-year service life or 2500 charge/discharge cycles, fast recharging times, high operating temperature (up to +60° C), small dimensions and low weight (up to 5 times more power with comparable lead acid capacity).

LEDs on the front panel inform about the output voltages status, battery status and charging status (boost / float). Remote signaling indicates mains failure and battery capacity < 1/2. PoE unit allows operating mode setting – A, B, and A+ B. It is indicated though LEDs.

Installation position is on a horizontal DIN rail, venting slits are above and below. The 3-wire input plug allows connection with a wire cross-section up to 2.5 mm². Outputs, signalization, battery allow connection with wire cross-section up to 2.5 mm². Using the part no. IP.0000.000.04 mounting kit, it is possible to install the PS70.H into 19" frames. RJ45 connects LAN network and PoE output.



MODEL SPECIFICATIONS	PS70.H 12550601 PoE 12V(5A), 55.2V(0.7A)	PS70.H 12550601B PoE 12V(5A), 55.2V(0.7A)
Input voltage	230V~50Hz	230V~50Hz
Output voltage / current	13.8V(14.4V)-5A / 55.2V(0.7A)	13.8V(14.4V)-5A / 55.2V(0.7A)
Output power	70W	70W
Efficiency	86%	86%
Dielectric strength input/output	4kV	4kV
Operating temperature	-25°C - +60°C	-10°C - +60°C
Cooling	convection	convection
Boost / float / max. current charging	14.4V/13.8V/1A	14.4V/13.8V/1A
Battery LiFePO4 12.8V	-	1.5Ah
LVD (low voltage disconnect)	10.5V	10.5V
Local signaling	12V, 55V, Low bat, boost	12V, 55V, Low bat, boost
Remote signaling (OE max. 50mA)	Mains failure, Vbat<11.5V	Mains failure, Vbat<11.5V
Dimensions W x H x D (mm)	126 x 90 x 68 mm	180 x 90 x 68 mm
Weight (kg)	0.36 kg	0.7 kg
Degree of protection	IP20	IP20
Part No.	IP.4122.633.138	IP.4122.633.139

LS110.JS (19" 1U, 280W), SNMP, 2x PoE 1Gb

BACK UP POWER SUPPLIES with PoE

- Input voltage 230V ~ 50Hz, active PFC, with 2x 1Gb passive PoE
- 1÷3 output voltages 24V, 48V, 150V (DC conv. for supply devices with AC input 100÷230V~50/60Hz)
- IUoU temperature controlled charging curve
- Signaling: mains failure, battery capacity < ½, PoE mode and supply voltage
- SNMP with WEB page, 2x IP watchdog, automatic/manual reboot of connected devices, events history, manual or automatic battery capacity test (monthly, ¼ ½, 1x yearly)
- Standards: EN 60950, EN 61000-3-2, EN 55032



The backup power supply of LS110.JS type with 1 (2, 3) output voltages and 2x passive 1Gb PoE unit is designed for reverse supply 24V or 48V or combination of them up to 280W total. It disposes with a converter built in most advanced technology of the energy conversion with respect to maximum efficiency. In case of mains failure, the connected 24V (48V) battery provides the backup supply of connected load. The charging voltage is thermally controlled. Special feature is a DC converter 150VDC/100W to supply device with input voltage 100÷230VAC~50(60) Hz.

LEDs on the front panel inform about the mains, output voltage, charging and battery condition status, PoE mode and supply voltage. Remote signaling indicates mains failure and battery capacity <½. The SNMP adapter with its own WEB page sends traps, e-mails 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 (reboot by watchdog of IP address, manual ON/OFF or any power supply failure). SNMP agent allows to execute battery capacity test with own connected load manually or automatically with period 1x per month, ¼, ½, or 1x per year and it sends traps and e-mails with capacity test results.

Model specification: LS110.J(S) XXxx_{xx}YYyy_{yy} – J = 19", S = SNMP with WEB, XXxx_{xx} = nominal output voltage 1 (2, 3), YYyy_{yy} = maximum output current 1 (2, 3).

The LS110.JS is designed to 19" frames. Input connection is from the rear of the device. The output, relay contacts, battery are connected via removable connectors with a cross section of up to 2.5mm² on the front panel, as well as a LAN and PoE RJ45 plugs. The 150VDC (100-230V ~ 50Hz devices) output is on the rear. The grounding terminal is on the rear panel separately and also on the main output connector. Setting the PoE modes is at the top via jumpers. It is possible to set voltage (24V or 48V operation for each PoE), A, B and A+B for PoE+ standards. Both LAN and PoE are surge protected.

MODEL SPECIFICATIONS	LS110.JS 2448150100201 PoE(2x) SNMP, WEB, 2xPoE	LS110.JS 2448150100301 PoE(2x) SNMP, WEB, 2xPoE	LS110.JS 48025 PoE(2x) SNMP, WEB, 1xPoE	LS110.JS 4805 PoE(2x) SNMP, WEB, 2xPoE	LS110.JS 48240504 PoE(2x) SNMP, WEB, 2xPoE	LS110.JS 481500501 PoE(2x) SNMP, WEB, 2xPoE
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Output voltage / current	+27.6V(5A); -48V(2A); 150V(0.6A)	+27.6V(5A); -48V(3A); 150V(0.6A)	+55.2V(2.5A)	+55.2V(5A)	-55.2V(5A); +27.6V(4A); 150V(0.6A)	-55.2V(2A); 150V(0.6A)
Output power max. / conv.	280W/100W/100W	280W/150W/100W	150W	280W	280W/100W/100W	280W/100W
Dielectric strength input/output	4kV	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	-30°C - +60°C
Local signaling	LED, SNMP, WEB	LED, SNMP, WEB	LED, SNMP, WEB	LED, SNMP, WEB	LED, SNMP, WEB	LED, SNMP, WEB
Remote signaling	Mains failure Battery capacity <1/2	Mains failure Battery capacity <1/2	Mains failure Battery capacity <1/2	Mains failure Battery capacity <1/2	Mains failure Battery capacity <1/2	Mains failure Battery capacity <1/2
Cooling /Overtemperature	Convection / 85°C	Convection / 85°C	Convection / 85°C	Convection / 85°C	Convection / 85°C	Convection / 85°C
Battery charging current	2A	2A	2A	2A	2A	2A
Battery (lead acid) / LVD	24V / 21V	24V / 21V	48V / 42V	48V / 42V	24V / 21V	24V / 21V
Dimensions W x H x D (mm)	436 x 45 x 150 mm	436 x 45 x 150 mm	436 x 45 x 150 mm	436 x 45 x 150 mm	436 x 45 x 150 mm	436 x 45 x 150 mm
Weight (kg)	1,65kg	1,65kg	1,4kg	1,5kg	1,6kg	1,6kg
Degree of protection	IP20	IP20	IP20	IP20	IP20	IP20
Part No.	IP.4134.763.114	IP.4134.763.115	IP.4131.763.117	IP.4131.763.110	IP.4134.763.123	IP.4134.763.129

LS150.JS (19" 2U, 700W), SNMP, 8x PoE 1Gb

BACK UP POWER SUPPLIES with PoE

- Input voltage 230V ~ 50Hz, PFC, -30°C - +60°C
- Backup supply +24V, -48V, 150V (DC converter for supply AC devices with 100÷230V~50/60Hz)
- 8x plug-in slot for PoE or distribution unit
- IUoU charging curve temperature controlled, battery capacity test
- LCD display, LED / relay contacts – mains failure and battery capacity < ½
- SNMP with WEB, NTP server, email server, events history
- Mounting type: 19" / 2U
- Standards: Electrical safety - EN 60950, EMC - EN 61000-3-2, EN 55032



The LS150.JS back-up power supply is intended to supply +24V and -48V devices and 100-230VAC devices up to 100W. It contains 8x plug in slot, where is possible to plug PoE.Z or DL.Z units. The LS150 is built with the most advanced energy conversion technology with respect to maximum efficiency. The total output power is 700W. In case of mains failure, the connected battery ensures uninterrupted power supply. After mains restoring, the LS150 will charge the battery to its full capacity. The charging IUoU curve is temperature controlled. LS150 contains SNMP adapter with own WEB page. The "START" button allows power up from the connected battery.

The LCD display and LEDs on the front panel indicate the status of the mains, output voltages, currents, load, charging state (boost/float), battery status, PoE.Z and DL.Z setting. Remote signaling indicates a mains failure and a drop of the battery capacity to ½. It is also possible to monitor 2 external binary states.

The LS150 is designed to 19" frames. The mains input and the 150VDC (100-230V ~ 50Hz devices) output is on the rear. The extra grounding terminal is on the rear. Setting the PoE mode and operation voltage for the PoE or DL.Z (24V or 48V) is possible to set via jumpers directly on the unit. The DL.Z distribution unit can operate with 2 outputs (24V, 48V) up to 3A. If you set both outputs to the same voltage, then the total maximum current is 3A.

ACCESSORY: PoE.Z 1Gb unit – Part. No.: IP.8421.143.11; DL.Z 24480303 unit – Part. No.: IP.8432.143.14

MODEL SPECIFICATIONS	LS150.JS 2448150250301 PoE(8x) SNMP, WEB, slot for 8xPoE	LS150.JS 481501201 PoE(8x) SNMP, WEB, slot for 8xPoE	LS150.JS 4824150120801 PoE(8x) SNMP, WEB, slot for 8xPoE	PoE.Z 1Gb passive PoE 1Gb 83W unit with surge protection	DL.Z 24480303 Distribution unit
Input voltage	230V~50Hz	230V~50Hz	230V~50Hz	24V/48V – selectable via jumpers	24V/48V selectable via jumpers
Output voltage / current	+27.6V(25A) -48V(3A), 150V(0.6A)	-55.2V(12.5A) 150V(0.6A)	-55.2V(12.5A) +24V(8A), 150V(0.6A)	1.4A (0.35A/pair) 83W	24V/3A and 48V/3A Equal outputs – 3A total
Output power max. / conv.	700W/150W/100W	700W/100	700W/100W/100W	1.5A polyswitch fuse	2x 3A polyswitch fuse
Efficiency	92%	93%	93%	-30°C - +60°C	-30°C - +60°C
Dielectric strength input/output	4kV	4kV	4kV	MÔDE OF OPERATION (2- colors LED)	POWER SUPPLY (2-colours LED)
Operating temperature	-30°C - +60°C	-30°C - +60°C	-30°C - +60°C	Mode A – green LED (+1, 2 - 3, 6) Mode B – red LED (+4, 5 - 7, 8) Mode A-B – orange LED (+1, 2, 4, 5 - 3, 6, 7, 8)	8-38V – green LED 38-56V – red LED
Local signaling	LED, LCD	LED, LCD	LED, LCD	POWER SUPPLY (2-colours LED)	
Remote signaling	Mains failure Battery capacity < ½ SNMP, WEB	Mains failure Battery capacity < ½ SNMP, WEB	Mains failure Battery capacity < ½ SNMP, WEB	8-38V – green LED 38-56V – red LED	
Cooling /Over temperature	Temperature controlled / 85°C	Temperature controlled / 85°C	Temperature controlled / 85°C	27.5 x 66 x 62 mm	27.5 x 66 x 62 mm
Battery (lead acid)	24V, min. capacity 7.2Ah	48V, min. capacity 7.2Ah	48V, min. capacity 7.2Ah	0.05kg	0.05kg
Battery charging current	2-3-8-12A	1-1.5-4-6A	1-1.5-4-6A	IP00	IP00
LVD / max. current	21V / 41A	42V / 41A	42V / 41A	IP.8421.143.11	IP.8432.143.14
Dimensions W x H x D (mm)	436 x 88 x 190 mm	436 x 88 x 190 mm	436 x 88 x 190 mm		
Weight (kg)	3.2kg	3.1kg	3.3kg		
Degree of protection	IP20	IP20	IP20		
Part No.	IP.4133.768.120	IP.4132.768.121	IP.4132.768.130		

19" DL2U INJECTOR PoE / DISTRIBUTION (15x)

ACCESSORY PoE

- Power distribution chassis 24V, 48V for PoE or distribution units
- 32A current capacity for each power branch
- Possibility to connect cables up to 10mm²
- Self-locating earth terminal "PE"
- AL version to rack height 2U (88mm) with position mark



The DL2U PoE / DISTRIBUTION (15x) is a 19" chassis with a height of 2U (88mm) containing 15 positions for passive PoE.Z 1Gb plug-in unit or DL.Z 24480303 power distribution unit. The individual chassis positions are numbered from 1 to 15. The unoccupied positions can be masked with a blind (set of 10 blinds - not included).

The chassis does not contain a power supply; it is designed to connect an existing power supply to the rack. It has two bus bars with a current capacity up to 32A each. The bus is divided into a 24V and a 48V supply branch. They are secured by fuses located on the back of the chassis (the 24V input is secured in "+" and the 48V input is secured in "-" pole of the power supply. For only 48V power supply is a cheaper version which just one bus 48V.

Terminals for power supply connection are located on the back of the chassis. They allow wires to be connected up to 10mm². The ground potential "PE" is on a separate terminal to ensure the correct operation of surge protections in the case of PoE.Z 1Gb units.



ACCESSORY: PoE.Z 1Gb – Part. No.: IP.8421.143.11; DL.Z 24480303 – Part. No.: IP.8432.143.14; PoE Blinder set 10 pcs, Part. No.: IP.0000.000.06




MODEL SPECIFICATIONS	DL2U INJEKTOR PoE /DISTRIBUTION(15x) 24(48)V	DL2U INJEKTOR PoE /DISTRIBUTION(15x) 48V
Input voltage	+24V, -48V (56V max.)	-48V (56V max.)
Input current	32A max. for each bus branch	32A max.
Output power max.	-	-
Fuse	24V – 32A in „+“ pole ,48V – 32A in „-“ pole	48V – 32A in „-“ pole
Local signaling	-	-
Operating temperature	-30°C - +60°C	-30°C - +60°C
Dimensions WxHxD (mm)	436 x 88 x 152 mm	436 x 88 x 152 mm
Weight (kg)	0.6kg	0.6kg
Degree of protection	IP20	IP20
Part No.	IP.9442.733.80	IP.9441.733.86

MODEL SPECIFICATIONS	PoE.Z 1Gb passive PoE 1Gb 83W unit with surge protection	DL.Z 24480303 Distribution unit	Blinder plate 10Pcs set
Input voltage	24V/48V – selectable via jumpers	24V/48V selectable via jumpers	-
Output current	1.4A (0.35A/pair)	24V/3A and 48V/3A Equal outputs – 3A total	-
Output power max.	83W	-	-
Fuse	1.5A polyswitch fuse	2x 3A polyswitch fuse	-
Local signaling	<p><u>MODE OF OPERATION (2- colors LED)</u></p> <p>Mode A – green LED (+1, 2 - 3, 6)</p> <p>Mode B – red L (+ 4, 5 - 7, 8)</p> <p>Mode A+B – orange LED (+1,2,4,5-3,6,7,8)</p> <p><u>POWER SUPPLY (2-colours LED)</u></p> <p>8-38V – green LED</p> <p>38-56V – red LED</p>	<p><u>POWER SUPPLY (2-colours LED)</u></p> <p>8-38V – green LED</p> <p>38-56V – red LED</p>	-
Operating temp.	-30°C - +60°C	-30°C - +60°C	-
Dimensions WxHxD	27.5 x 66 x 62 mm	27.5 x 66 x 62 mm	-
Weight (kg)	0.05kg	0.05kg	0.1kg
Degree of protection	IP00	IP00	-
Part No.	IP.8421.143.11	IP.8432.143.14	IP.0000.000.06

POWERBOX DC (19" 1U)

ACCESSORY

NAME	Part No.	PICTURE	DESCRIPTION
DL1U_10s4i TYP22	IP.9000.755.21		Powerbox DC, 19" 1U Input 1x DC(L+, L-) - 2x 10mm ² terminals Output 8x 4mm ² terminals Configuration: 2x (L-) breaker B6A, 2x (L-) breaker B16A, 4x common (L+) Dimensions (W x H x D): 436 x 45 x 90 mm (19" 1U)
DL1U_10s4i TYP24	IP.9000.755.11		Powerbox DC, 19" 1U Input 1x DC(L+, L-) - 2x 10mm ² terminals Output 8x 4mm ² terminals Configuration: 4x (L-) breaker C10A, 2x (L-) breaker B16A, 4x common (L+) Dimensions (W x H x D): 436 x 45 x 90 mm (19" 1U)

DL3UP1	IP.9000.700.03		Powerbox empty, 19" 3U Front panel straight with a 367.5 x 46 mm window Cable channel 40x60mm in the Cover plates from above and below Dimensions (W x H x D): 436 x 132.5 x 130 mm (19"/3U)
CABLE ENTRY PANEL 19" 1U SET	IP.9000.700.60		19 " 1U cable entry panel, assembly including connecting material Dimensions (W x H x D): 436 x 45 x 152 mm (19"/1U)
KIT RACK POSITIONING FOR UPS & BATTERY BOX	IPPD-XX6-18Z		Kit for rack cabinet positioning, adjustable for 600 and 800 mm rack depth, maximum supported weight is 80kg, complete with fixing screws

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

Motto:

WE BELIEVE THAT YOUR DEVICE WITH OUR POWER SUPPLY WILL CREATE A HIGH QUALITY AND RELIABLE SYSTEM