



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

- ☒ 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 XYYY – 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)

- ☒ 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 XYYY – T = desktop model, XX = output voltage, YY = max. output current.

The LS700.T XYYY 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 XYYYY – 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 Potential free relay contact Rectifier failure							
Parallel operation	Yes							
Overcurrent protection	82A	138A	50A	99A	23A	46A	8.2A	16.5A
Mounting type	19" / 2U							
Dimensions W x H x D (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	436 x 88 x 374 mm	436 x 88 x 492 mm
Weight (kg)	7.1kg	9kg	7kg	10kg	7.1kg	10kg	7.1kg	10kg
Degree of protection	IP20							
Part No.	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 XXYY – 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
Overttemperature 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