

OPERATION MANUAL

LBC Series: LBC8000-1110S102G, LBC12000-1110S101G
Battery Charger / PSU



MODELS:

LBC8000-1110S102G
LBC12000-1110S101G

AC INPUT:

~ 3 PHASE
VOLTAGE: 350 – 528 V line to line, 3 W + PE
CURRENT: max. 14 / 21 A
FREQUENCY: 50 / 60 Hz

DC OUTPUT:

VOLTAGE: adjustable 85 – 137.5 V
CURRENT: max. 73 / 110 A
POWER: 8000 / 12000 W @ 110 V

SAFETY APPROVALS

- UL/CSA 60950-1 2nd
- IEC 60950-1 2nd
- EN 60950-1 2nd
- CE Mark for LVD



CAUTION

These component level power supplies are intended exclusively for installation within other equipment by an industrial assembly operation or by professional installers. These are Class 1 power supplies; the unit must be properly connected to earth ground in end use. A component power supply should be installed in end-use equipment according to the requirements of the safety standard used for that equipment. This power supply is not designed to be operated outside of an enclosure which provides a means of mechanical, electrical, and fire protection.

PROTECTIVE EARTHING

The Power Supply must be properly grounded to mains protective earth termination at end use.

ENVIRONMENTAL CONDITIONS:

TRANSPORTATION & STORAGE: Ambient Temperature Range -40 °C to +85 °C
Relative Humidity Range: 5% to 95% RH Non-Condensing
Altitude: to 12192 m (40 000 feet) ASL
OPERATION: Ambient Temp. Range -25°C to +55°C (at 100% load)
Relative Humidity Range: 10% to 90% RH Non-Condensing
Altitude: to 3048 m (10 000 feet) ASL

INSTALLATION REQUIREMENTS

Recommended power wires dimensions you can find in charts below. The mate parts of connectors are also described below. For the air inlet and outlet there is required to maintain a minimum open space 10 cm. For chassis fastening you will need 6x screws M8x10.

WARNING

- The equipment is for business use (Class A), and has acquired electromagnetic conformity registration. So sellers and users are required to take caution in this regard.
- The AC Leakage current exceeds 3.5 mA at maximal input voltage and frequency (3 x 528 VAC / 60 Hz). It is necessary to take appropriate measures (additional fixed grounding of the chassis).

SAFETY INSTRUCTIONS

Switch off the input power and disconnect battery (X2) together with connector X3 before doing any maintenance on the unit!

SERVICING

In case of failure, the unit must be returned to the Bel Power Solutions Authorized Service Center. There are no user serviceable parts inside. In case of failure of the fan this can be replaced without whole chassis opening. Only remove four outer screws on the front panel containing the non-running fan (not those holding the grill) and pull the panel out. Disconnect the fan connector from the PC board by pressing the latch. Replace the part for an original replacement part (contact our Service Center).

LIMITED WARRANTY

Bel Power Solutions warrants each power supply of its manufacture for a period of two years from the date of original shipment. This warranty applies to defects in materials and workmanship that result in non-performance to published specifications. The product(s) must be returned to a Bel Power Solutions Authorized Service Center for repair with a Bel Power Solutions pre-assigned RMA number.

Bel Power Solutions assumes no liabilities for consequential damages of any kind through the use or misuse of its products by any user. No other obligations are expressed or implied.

Please note that the specifications, terms, and conditions stated are subject to change without notice.

NUCLEAR AND MEDICAL APPLICATIONS

Bel Power Solutions products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of Bel Power Solutions.

TECHNICAL REVISIONS

The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

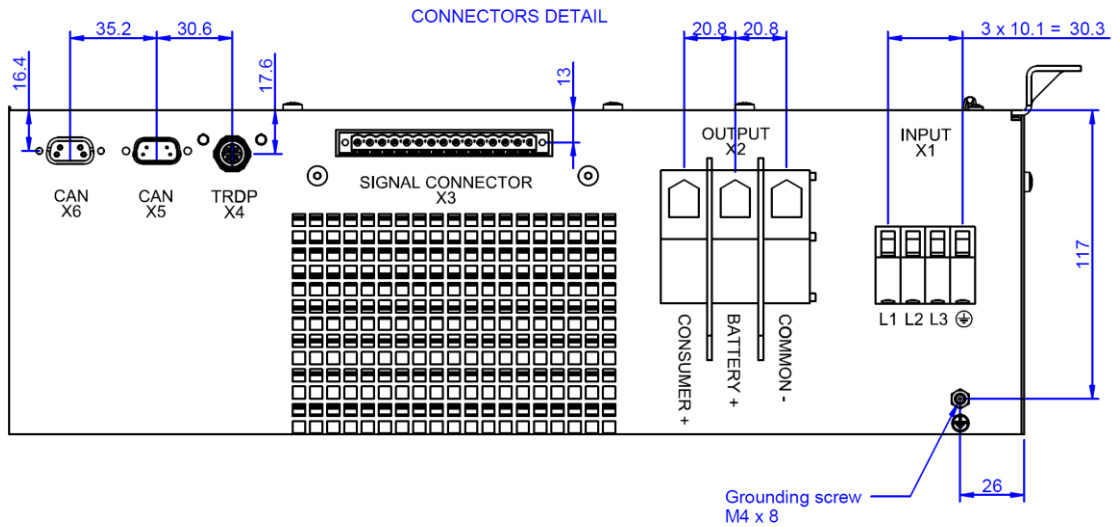


Fig. 1 Rear View - Connectors Position

INPUT POWER CONNECTOR X1 – PINOUT

SIGNAL NAME	PIN #	TYPE	RECOMMENDED WIRES	V MAX I MAX
Earth	⊕	Earth / Chassis	Min. 4 mm ²	528 Vrms (line to line) 14/21 Arms (per line)
AC Line 1	L1	Input Power AC Fused	Min. 4 mm ²	
AC Line 2	L2	Input Power AC Fused	Min. 4 mm ²	
AC Line 3	L3	Input Power AC Fused	Min. 4 mm ²	

Connector type: Weidmüller 1081850000
Mating part: Weidmüller 1173520000

OUTPUT POWER CONNECTOR X2

SIGNAL NAME	PIN #	TYPE	RECOMMENDED WIRES	V MAX I MAX
CONSUMER+		Output Power DC	Min. 16/25 mm ²	137.5 VDC, 73/110 A
BATTERY+		Output Power DC	Min. 16/25 mm ²	
COMMON-		Output Power DC_return	Min. 16/25 mm ²	

Connector type: 3-pin terminal block HDFK 50/Z (Phoenix Contact)
Mating part: Wires

SIGNAL CONNECTOR X3 – PINOUT

SIGNAL NAME	PIN #	TYPE	SIGNAL REFERENCE	LOW LEVEL HIGH LEVEL	V MAX I MAX
Vt1	1	Battery Voltage Sense Vt1	Vb2		
Vm1	2	Battery Voltage Sense Vm1	Vb2		
Vb1	3	Battery Voltage Sense Vb1	Vb2		
Vt2	4	Battery Voltage Sense Vt2	Vb2		
Vm2	5	Battery Voltage Sense Vm2	Vb2		
Vb2	6	Battery Voltage Sense Vb2			
TB1H	7	Temperature sensor 1 High	TB1L		
TB1L	8	Temperature sensor 1 Low			
TB2H	9	Temperature sensor 2 High	TB2L		
TB2L	10	Temperature sensor 2 Low			
N.C.	11				
INH	12	Inhibit, pull high to inhibit charger	Vb2	0 – 138 V	
P_LIM	13	Power Limitation, pull high to limit power	Vb2	0 – 138 V	
FA	14	Floating relay contact, normally open,			
FB	15	closed when in fault condition			

Connector type: Combicon MSTB2.5/15-GF-1776825 male (Phoenix Contact)
Mating part: Combicon MSTB2.5/15-STF-1786967 female (Phoenix Contact)

ETHERNET CONNECTOR X4 – PINOUT (S102 Version)

SIGNAL NAME	PIN #	TYPE	SIGNAL REFERENCE	NOTE	V MAX I MAX
TxData+	1	Communication Data		10/100 Mbit	
RxData+	2	Communication Data		10/100 Mbit	
TxData-	3	Communication Data		10/100 Mbit	
RxData-	4	Communication Data		10/100 Mbit	

Connector type: 4-pin M12 D-coded female 1534630 (Phoenix Contact)
Mating part: 4-pin M12 D-coded male 1521258 (Phoenix Contact)

CAN-BUS CONNECTOR X5, X6 – PINOUT (S101 Version)

SIGNAL NAME	PIN #	TYPE	SIGNAL REFERENCE	NOTE	V MAX I MAX
CAN +	7	Communication Data	CAN-		
CAN -	2	Communication Data	CAN+		
GND	3				

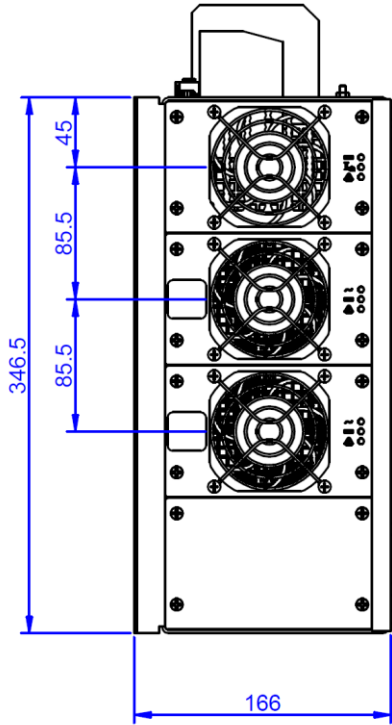
Connector type: X5: 9-pin D-SUB male (Harting) X6: 9-pin D-SUB female (Harting)
Mating part: 9-pin D-SUB female / male

NOTE

CAN Communication Commands are a part of separate Communication document.

MECHANICAL DIMENSIONS

LBC8000-1110S102G



LBC12000-1110S101G

