UPSI-2412

24 V DC / 12 A

- **Powerful 12 A circuit board**
- **Intelligent power sharing**
- **Regulated output voltage at backup**
- **Min. load disconnect**
- **Battery start function**
- **External signal shutdown**
- **Reboot function**

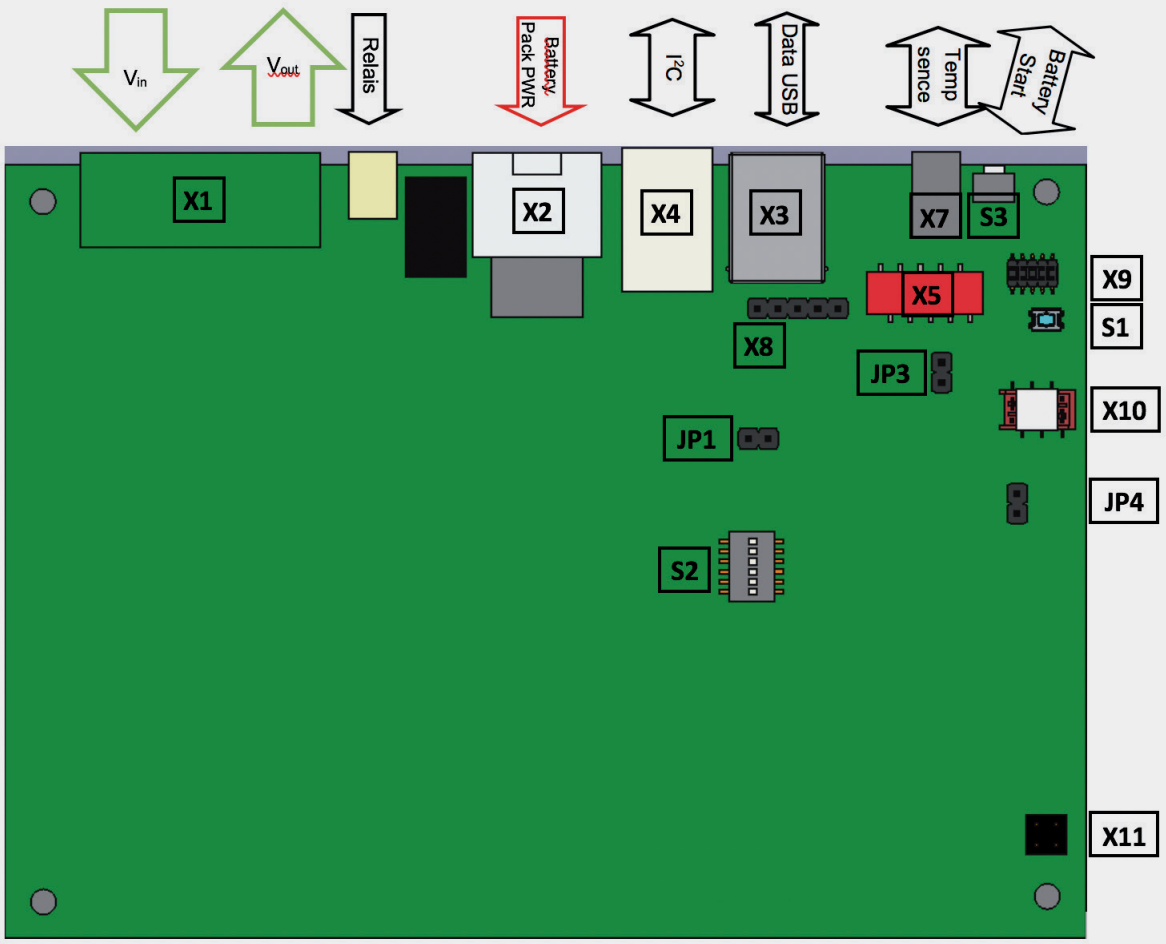
Technical data	
Input voltage	24 V DC (22.5…30 V)
Input current	12 A max. (~2 sec)
Output voltage	Normal mode: V_{in} – 0.5 V (Full load) Backup: 23.5 V DC regulated
Output current	10 A / 12 A <2 s
Battery charge current nom.	4.5 A max. on input
Charging method	CC / CV / CP
Protection	Overvoltage protection up to 80 V Overcurrent protection
Interface	USB, RS232, USB-HID
Type of battery	LiFePO4, Supercaps
Temperature	Operating: -20…+70 °C / Storage: -20…+70 °C
Derating (depending on temperature)	Backup mode: +55…+70 °C, 100 mA (2.35 W) / °C
Max. operation altitude	5000 m
Derating (depending on operation altitude)	1500 m operation altitude or higher: 5.7 W / 500 m or reduction of operation temperature of 3.5 °C / 500 m
Humidity	Operating: 10…85 % RH, non-condensing / Storage: 10…90 % RH, non-condensing
Dimensions (W x D x H)	137 x 98 x 20 mm ±0.5 mm
Weight (net)	0.125 kg

Product specific data	
Battery monitoring	Battery test is executed in normal mode
Shutdown detection	Via load sensor
Reboot function	Reboot function and time can be configured by software
Load sensor	Configurable via UPSI HID-Battery-Parameter software (download at www.bicker.de) UPS shuts down after 15 sec, if connected load decreases below set value and UPS is being in battery mode
Timer function	Configurable via UPSI HID-Battery-Parameter software in steps of single seconds (3600 sec max)
External signal shutdown	UPS can be configured to shut down on external signal (e.g. ignition) with delay set in steps of single seconds (3600 sec max)
Backup time	See datasheets of battery packs
Relay	Dry contact on power fail (Normal mode: open / Backup mode: closed) Relay switching current max 0.5 A @ 125 V AC / 1 A @ 24 V DC

As a power component this UPS is for assembly purposes only and must not be operated in unassembled condition. The final assembly has to comply with the valid EMC and safety standards.

UPSI-2412: Technical drawing – Connection – Communication

Tolerance ±0.5 mm



Connection

Connector	Description	Part No. or similar	Male or opposite or similar
X1	Power IN/OUT 4Pol.	WE 691317510004	WE 691340500004
X2	Power Akkupack 6Pol.	WE 64900629522	WE 649006113322
X3	USB Typ B.	WE 61400416121	
X4	Akku I²C	WE 62400821722	WE 624008213322
X5	Buchse RS232	WE 690367281076	WE 690157001072
X6	Relais Kontakte	WE 68800211722	WE 688002113322
X7	Temp Sense NTC	DF11-4DP-2DS	DF11-4DS-2C Crimpk. DF11-22SCF
X8	Stuftleiste USB am Board	WE 61300511121	
X9	Steckerleiste JTAG	WE 62101021021	
X10	Steckerleiste SPI	WE 690367280676	WE 690157000672
X11	ANGL-Read und XPF	WE 61300421121	
JP1	Jumper Akkustart Funktion	WE 61300211121	
JP2	Jumper SYNC/RT-Pin	WE 61300211121	
JP3	Jumper CLKOUT Pin4 NXP	WE 61300211121	
JP4	LED	WE 61300211121	
S1	Taster Reset NXP	WE434153017835	
S2	DIP-Schalter Auswahl Akkutyp 6 pol	SOP06 Pinzette	
S3	Taster Akkustart Funktion	WE434331013822	

Battery packs for UPSI-2412

Technology	P/N	Description	P_{out}	Dimensions approx. WxDxH	Temperature (charging & backup)	Nominal backup time
EDLC (Supercaps)	BP-SUC-30090	1p12s 30 V DC, 13.5 kJ (useful 9.0 kJ)	250 W	147 x 121 x 67 mm	-20…+70 °C	~ 171 s @ 50 W ~ 86 s @ 100 W ~ 57 s @ 150 W ~ 33 s @ 240 W
LiFePO4	BP-LFP-2725	LiFePO4 Battery pack	250 W	67 x 106 x 62 mm ±2 mm	-20…+55 °C	~ 33 min @ 50 W ~ 16 min @ 100 W ~ 12 min @ 140 W

Larger capacities on request

Scope of delivery

Quantity	Description
1x	UPSI-2412 - DC UPS
1x	V_{in} / V_{out} connector counterpart
1x	Relay connector counterpart