

UPSI-2406

24 VDC / 6 A

- ✓ 24V DC UPS (Open frame PCB version)
- ✓ Intelligent power sharing
- ✓ Regulated output voltage
- ✓ Min. load disconnect
- ✓ Battery disconnect
- ✓ Power fail timer
- ✓ Battery start function
- ✓ External signal shutdown
- ✓ Battery hot swap
- ✓ Reboot function
- ✓ Fuel gauge



NEW



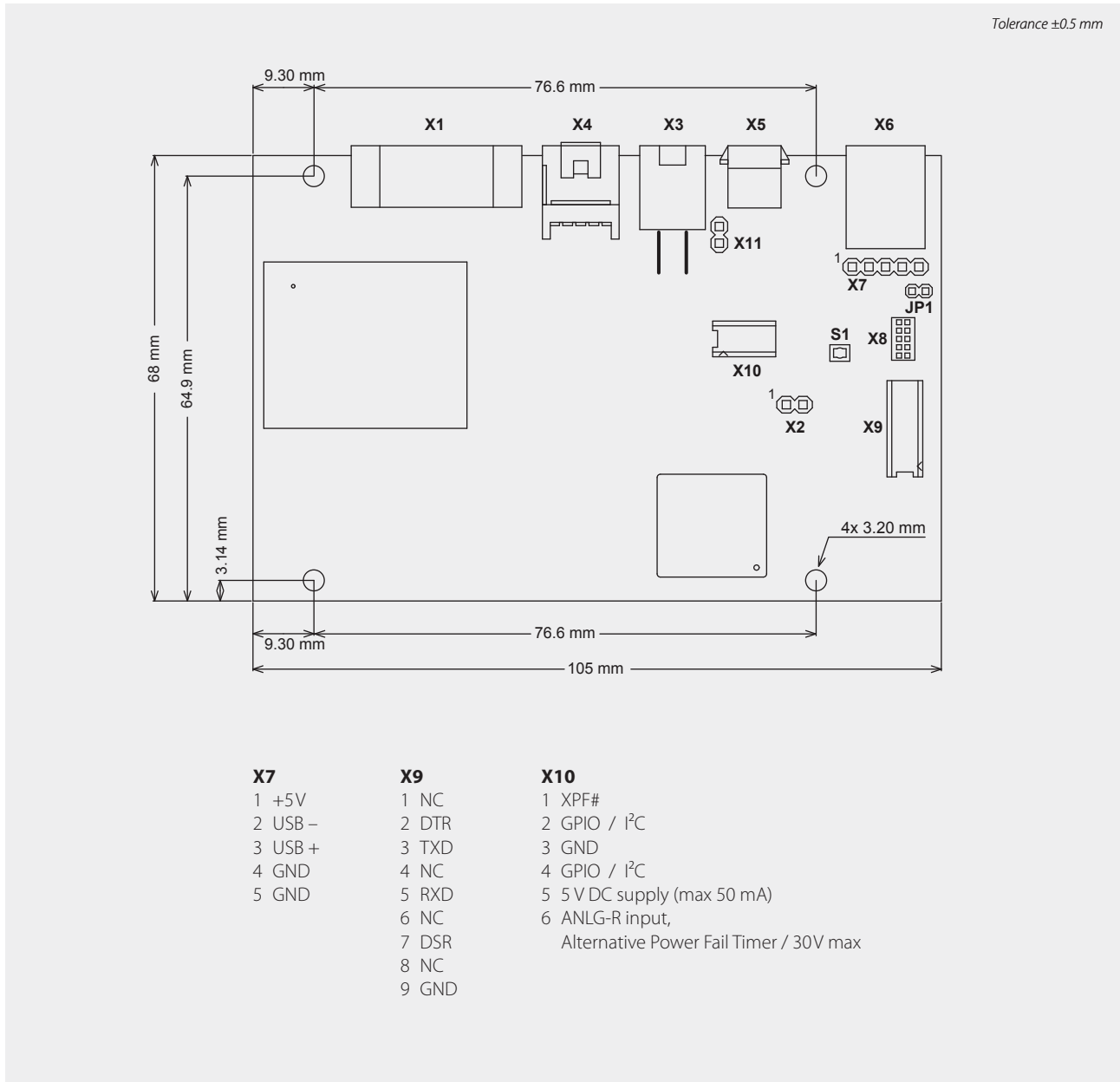
Also available as
DIN Rail version
UPSI-2406D

Technical data	
Input voltage	24 VDC (22.5...29 V)
Input current	7.5 A max.
Output voltage	Normal mode: $V_{in} - 0.3 V$ (Full load) Backup: 23.5 V DC
Output current	6 A max.
Capacitive Load	3000 μF (24 V Startup)
Battery charge current nom.	3 A max. on input
Charging method	CC/CV/CP
Protection	Deep discharge protection Overcurrent protection Reverse polarity 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 (WxDxH)	105 x 68 x 17 mm ± 0.5 mm
Weight (net)	0.09 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 VDC

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.

Drawing UPSI-2406



- | | | |
|-----------|-----------|----------------------------------------|
| X7 | X9 | X10 |
| 1 +5V | 1 NC | 1 XPF# |
| 2 USB - | 2 DTR | 2 GPIO / I ² C |
| 3 USB + | 3 TXD | 3 GND |
| 4 GND | 4 NC | 4 GPIO / I ² C |
| 5 GND | 5 RXD | 5 5 V DC supply (max 50 mA) |
| | 6 NC | 6 ANLG-R input, |
| | 7 DSR | Alternative Power Fail Timer / 30V max |
| | 8 NC | |
| | 9 GND | |

Connection

Connector	Description	Part No.	Counterpart
X1	Vin / Vout	WE 691325310004	WE 691364300004
X2	LED pin header		
X3	Battery pack power	WE 64900429522	WE 649004113322
X4	I2C and SP to battery pack	WE 62400821722	WE 624008213322
X5	Relais	WE 691305140002	WE 691304130002
X6	USB	WE 61400416121	
X7	USB Pin header 2.54 mm	WE 61300511121	
X8	JTAG Pin header 1.27 mm	WE 62101021021	
X9	RS232	WE 690367281076	WE 690157001072
X10	System info (+5 VDC, PF#, 2x Dig. I/O, ANLG-R)	WE 690367280676	WE 690157000672
X11	Pin header – cold start		
S1	Reset button		
JP1	Jumper	WE 62000211121	WE 60800213421

Battery packs and Backup time for UPSI-2406

Nominal backup time, measured at +21 °C			
	50 W	100 W	140 W
BP-LFP-1325	~ 33 min	~ 16 min	~ 12 min
BP-LFP-1375	~ 99 min	~ 48 min	~ 36 min
BP-SUC-1615	~ 29 sec	~ 14 sec	~ 10 sec
BP-SUC-1645	~ 95 sec	~ 45 sec	~ 30 sec
BP-SUC-2120	~ 39 sec	~ 19 sec	~ 14 sec
BP-SUC-16090	~ 190 sec	~ 90 sec	~ 60 sec

Back up time depends on battery capacitance, load and temperature.
At very high or low temperatures a reduction of backup time occurs.
Larger capacities on request

P/N explanation battery packs

BP - **XXX** - **YYZZ**
Battery Pack LFP = LiFePO4 **YY** Approx. nom. V
 SUC = Supercaps **ZZ** Capacitance (LiFePO4 in 10⁻¹ Ah) or useful energy (Supercaps in 10⁻¹ kJ)

Example:

BP-LFP-1325

BP Battery Pack

LFP Storage medium: LiFePO4

13 13.2 V_{nom}

25 2.5 Ah

Scope of delivery

Quantity	Description
1x	UPSI-2406 - DC UPS
1x	V _{in} / V _{out} connector counterpart
1x	Relay connector counterpart

Specification is subject to change without notice. Errors excepted. Status as at: 21.02.2020

DC UPS