

### In general

This manual is only valid in combination with the operation manual for the SHE-system type SHEV<sup>®</sup> 3/6

#### 1. In general

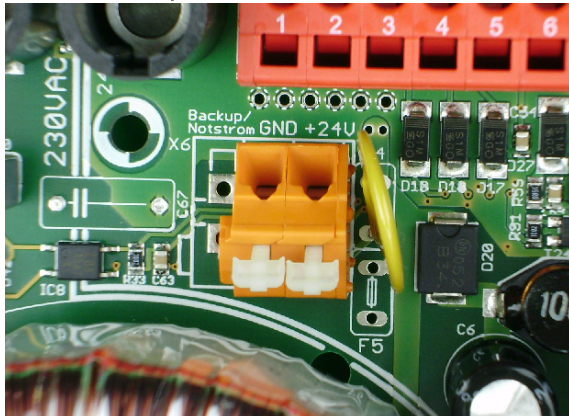


#### ATTENTION

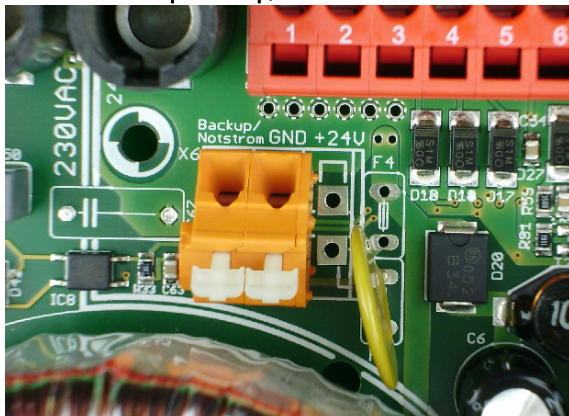
When using the optional clamp, the SHEV<sup>®</sup> 3/6 does not conform to the european norm. Emergency power can not be guaranteed 72 hours.

#### 2. Images

Picture 1. Clamp +24 V



Picture 2. Clamp Backup/Notstrom



#### 2.1 Product description

#### 2.2 Clamp +24 V

The +24 VDC clamp on the terminal block X6 (SHEV<sup>®</sup> 3) respectively X9 (SHEV<sup>®</sup> 6) is connected directly to the switching power supply (SNT) and is not supplied with emergency power means the clamp can only be used in mains operation.

The output is protected by a special PolySwitch fuse F5 (SHEV<sup>®</sup> 3) respectively F11 (SHEV<sup>®</sup> 6).

#### 2.3 Backup/Emergency power

The Backup/emergency power clamp on the terminal block X6 (SHEV<sup>®</sup> 3) respectively X9 (SHEV<sup>®</sup> 6) is connected directly to the battery and will supply emergency power.

The output is protected by a special PolySwitch fuse F4 (SHEV<sup>®</sup> 3) respectively F10 (SHEV<sup>®</sup> 6).

### Technical Data X6, X9

#### 3. Technical Data X6, X9

The technical data are identical with the technical data of the SHEV® 3/6 (see instruction manual SHEV® 3/6, technical data), except of the beneath shown differences.

**Table 1. +24 V clamp**

Output voltage (nominal):	+24 VDC
Output voltage range:	23,0 VDC to 24,5 VDC
Ripple of the output voltage:	≤ 300 mVpp
Maximum current carrying capacity <sup>1</sup> :	1,85 A

1. Data for ambient temperature 20 °C

**Table 2. Backup/emergency power clamp**

Output voltage (nominal):	+24 VDC
Output voltage range:	21,0 VDC to 28,6 VDC
Ripple of the output voltage:	≤ 300 mVpp
Maximum current carrying capacity <sup>1</sup> :	1,85 A

1. Data for ambient temperature 20 °C



#### ATTENTION

The SHEV® 3/6 is not total discharge protected. The battery is in reach of the total discharge voltage is not disconnected. The total discharge is shown as a fault on the yellow LED.



#### ATTENTION

By total discharge, the battery is permanently damaged.



#### ATTENTION

The total current consumption of the SHEV® 3/6 may not be exceeded.

#### 4. Functional description PolySwitch

The PolySwitch device on polymeric base is a self-resetting fuse item.

The operation is based on the PTC-Effect. The resistance of the PolySwitch device is very low in mains operation, with the result that only low power losses appear. In case of failure, e.g. short circuit or overcurrent the resistance increases and protect this device.

After removing the failure on the output X6 respectively X9, disconnected mains supply voltage and disconnected battery of the SHEV®, the PolySwitch device returns rapidly into its low-resistance status. The output X6 respectively X9 can be used again.

#### 5. Assembly



#### DANGER

The valid accident prevention regulations have to be observed. This takes especially effect at handling with tools and machines. Required protective clothes have to be worned (Gloves, goggles and ear protectors).

- See instruction manual SHEV® 3/6.

##### 5.1 Start up

- Accomplish the implementing and the functional check as described in the operation manual SHEV® 3/6: „start up”.

##### 5.2 Troubleshooting, Maintenance

- See instruction manual SHEV® 3/6.