Type : Step-Down Converter DC/DC

Description : Versatile switching regulator with a single adjustable stabilized output from a DC source.
The efficiency is essentially independent of input voltage.
Output current need not be derated with increasing input voltage.
The open version guarantees many possibilities of mounting.

Features :

- Adjustable output voltage
- Short circuit protection
- Connecting in parallel
- Stand-by function
- Remote ON/OFF
- High efficiency
- Shake proof
- Vibration-proof by glue-fixed components on the PCB

Fig. 1
(shows SDC 60/30-12 without the hot melt glue)

Safety : acc. to EN 60950

Specifications :

Input

Input voltage range :	10…60Vdc
No load input current :	40mA
Remote ON/OFF :	Inhibit >3V / Operate <1V

Output

Output voltage :	4.5…30Vdc (set with potentiometer R7)
Output current :	0…12A
Tolerance :	<3%
Line regulation :	<2%
Ripple and noise :	150mVpp
Temperature coefficient :	3mVdc/°C
Input/Output differential :	3.5Vdc (Uin >15Vdc) / 5Vdc (Uin <15Vdc)
Remote sense :	remove JP2 for remote sense operation
Output current limit :	17A ±10% factory setting Warning: Higher current limit than factory setting may cause damage and is not allowed. If necessary, turn potentiometer R25 only clockwise to archive a lower current limit. When the units are used in parallel configuration, the current limit should be set at 12A.

General

Efficiency :	typical 75%
Switching frequency :	25kHz
Weight :	0.4kg
Dimension W x H x D :	127mm x 51mm x 137mm

Environment

Thermal performance :	0°C…+50°C (max. heat sink temperature: +80°C)
Relative humidity :	5%…80% no dewfall

Mechanical notes

Remove JP1 to synchronise by master converter
Remove JP2 for –Sense (and +Sense)
No changes on PCB for +Sense (only)

Important Hints

The module should be fixed at the heat sink and the opposite edges of the PCB; an elastic mounting is highly recommended.
The efficiency of the heat sink must be sufficient.
The contacts (INPUT+, OUTPUT+ and GND/RET) are realized by metric stud bolts (diameter: 4mm).
The feedthroughs are intended for the signal contacts.

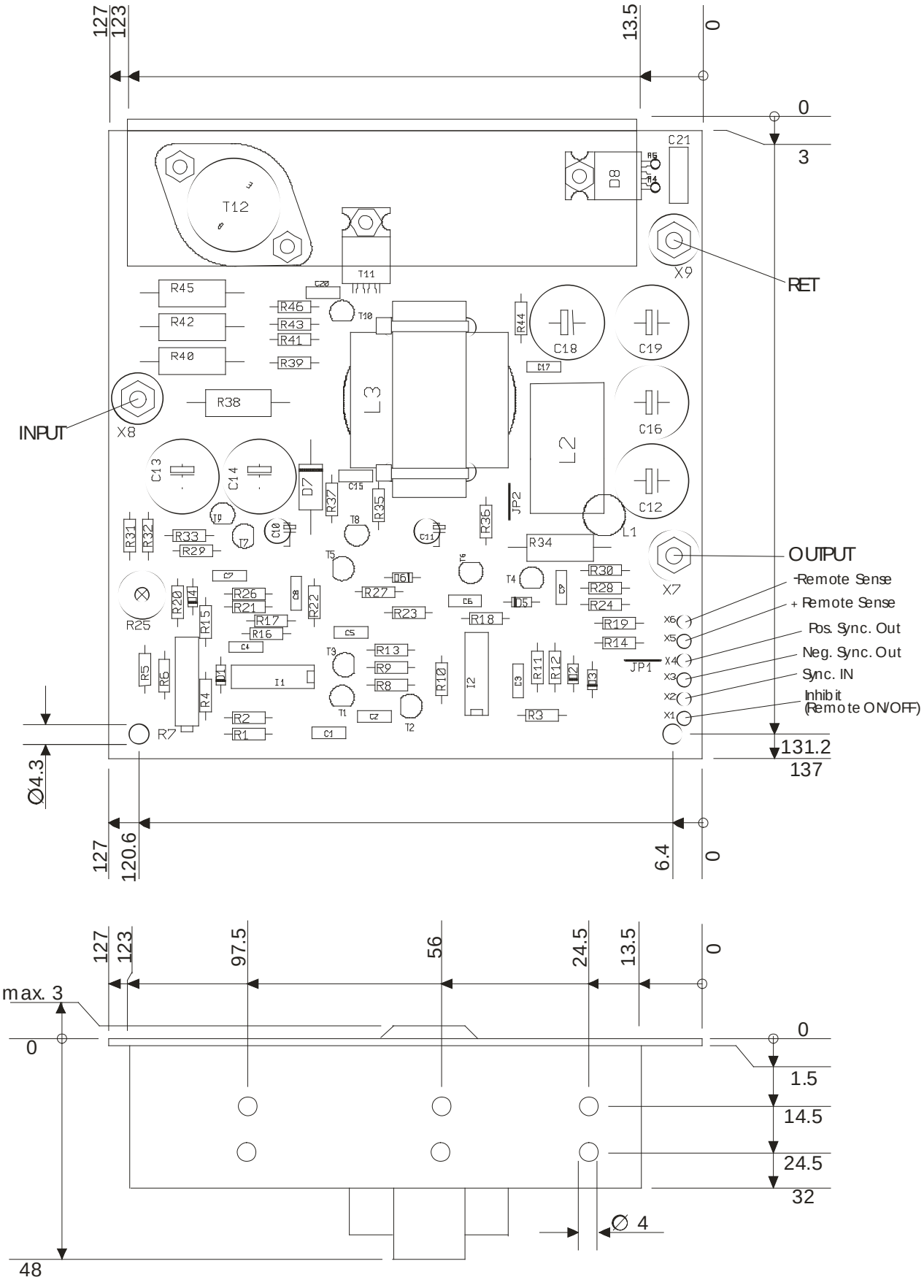

Fig. 2
(All measurements in the draft above are in millimetres [mm].)