

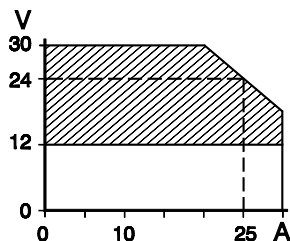


## 600 W SWITCHED MODE DC POWER SUPPLY

**600 S 24 24 V 25 A**

ADJUSTABLE 12 - 30 V

Max. current: 20 A at 30 V  
25 A at 24 V  
30 A at 12 - 15 V



### Features:

- Very high reliability, MTBF 1 000 000 hrs
- Natural convection cooling
- Thermally over-rated for high ambient temperature without derating
- Built-in diode for redundant parallel operation
- Under-voltage alarm contact
- Low output ripple, 7 mV rms
- No RFI problems, RFI filters in input and output
- Meets EN 61000-3-2 and V DE 0160 class 2
- Low inrush current
- High efficiency 89%
- Short circuit protected
- Analog programmable

### Specifications:

**Input voltage** : AC 198-264 V 48-62 Hz  
3.8 Arms, fuse 6.3 A T  
crest factor 2.0  
AC 99-132 V 48-62 Hz  
7.6 Arms, fuse 12.5 A T  
DC contact factory

#### Insulation

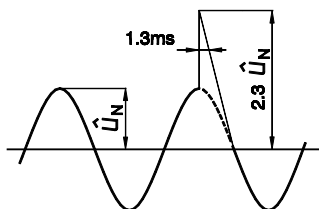
Input / output : 3750 V rms (1 min.)  
Input / case : 2500 V rms (1 min.)  
Output / case : 500 V DC

**Inrush current** : Limited by 47 Ohm (shorted after start up).

**Power factor** : 0.76 at 230 V AC input and full load.

**EMC** : EN 61204-3 Power Supply Standard  
EN 61000-6-3 Emission (EN 55022B)  
EN 61000-6-2 Immunity

**VDE0160 impulse test**: Input withstands non periodic impulse  
2.3  $\hat{U}_N$  1.3 ms of VDE0160 class 2.



**Line distortion** : Harmonic current meets EN 61000-3-2.

**Safety** : EN 60950 EN 61010 SELV / PELV

**Output voltage** : Screwdriver adjustable with 10-turn potmeter at the rear side. Factory set at 24.0 V.  
Also analog programmable by 2 - 5 V.

**Efficiency** : 89% at 230 V AC input and 600 W output (max. heat dissipation 74 W)

**Temp. coeff.** :  $5 \cdot 10^{-5}$  per °C.

**Stability** :  $3 \cdot 10^{-4}$  during 8 hrs under constant conditions, after 1 hr warm up.

**Regulation**  
Load 0 - 100% : Better than 10 mV.  
Line 198 - 264 V : Better than 5 mV.

**Ripple + noise** : Max. 7 mV rms, 20 mV p-p.

**Output imp.** : Less than 0.05 Ohm up to 100 kHz.

**Recovery time** : 0.3 milliseconds to recover to within 100 mV after a 50 to 100% load step  
Max. deviation 300 mV.

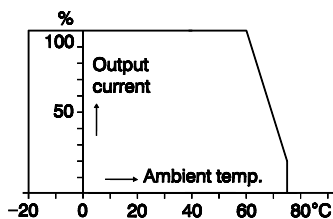
**Hold-up time** : 30 ms at 115 or 230 V AC input and full load. 60 ms at half load.

**Series operation** : Up to 500 V total voltage.

**Parallel oper.** : No restrictions.

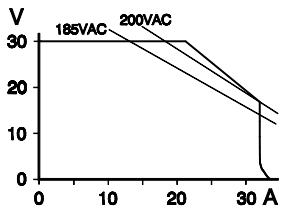
**Redundant parallel operation** : Use R+ connection via built-in Schottky diode to separate the outputs.  
Do not use remote sensing.

- Under voltage alarm contact** : Changes over when output voltage drops to 10% below the set value. Gold contact, rating 100 mA/30 V.
- Remote control** : Is possible with a 10 kΩ potmeter.
- Remote progr.** : Output voltage is programmable with 2 - 5 V, corresponding with 12 - 30 V. Programming speed is 100 ms from 12 - 30 V at max. current. Programming input is not isolated (connected to - output).
- Remote sensing** : Max. 3 V per load lead. However the sum of voltage across load + leads cannot exceed 30 V. With parallel operation remote sensing is not recommended.
- Remote on/off** : By 5 V, optocoupler isolated.
- Ambient temperature**  
Storage : - 40 to + 85 °C.  
Operating : - 20 to + 60 °C.  
Derate to 20% at 75 °C.

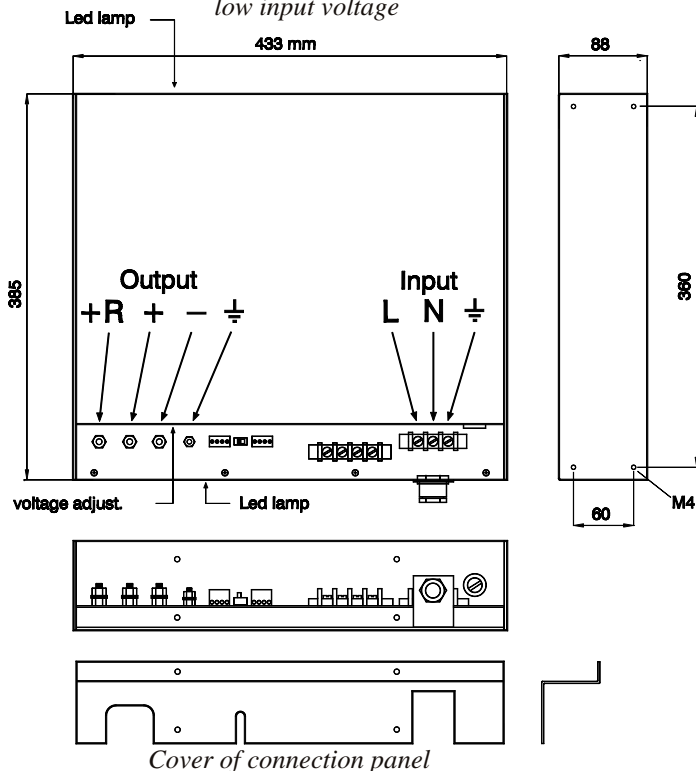


Temperature derating

- Current limit** : From 30 to 18 V the current limit follows more or less a constant power curve. Below 18 V it resembles a constant current curve.

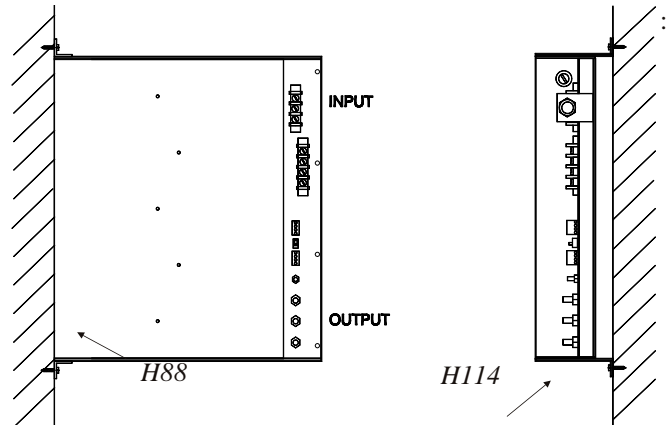


Normal current limit and derating at low input voltage



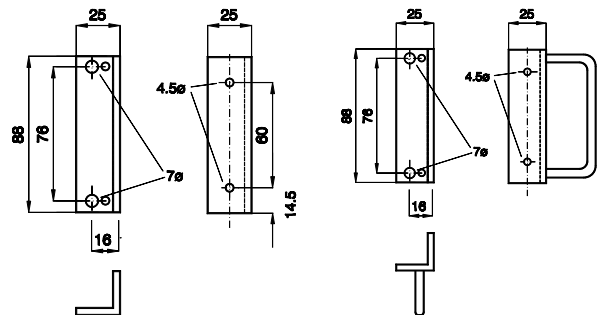
Cover of connection panel

- Overload protection** : Continuous overload and short circuit does not harm the unit. At short circuit the power supply produces an audible bleep.
- Voltage limit** : For safety an extra regulation circuit limits the output voltage to about 31 V in case of malfunction of the normal regulation. This limit is internally adjustable 20 - 31 V (R111).
- Overtemp. protection** : With insufficient cooling the output shuts down.
- Led lamps** : Green LEDs on front and rear panel indicate output voltage.
- Wall mounting** : Any position, as long as the air can flow freely along the unit for cooling.



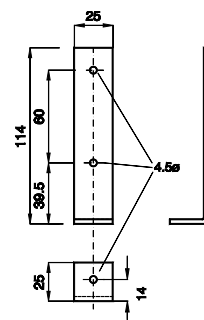
Two ways of vertical wall mounting

- 19 inch rack mounting** : With two brackets H88 with handle the unit can be 19 inch rack mounted (2U height).
- MTBF** : 1 000 000 hrs.
- Dim. and weight** : 88 x 433 x 385 mm (h x w x d), 10.5 kg.



Bracket H88 for vertical wall mounting (2 pcs required)

Bracket H88 with handle for 19" rack mounting (2 pcs required)



Bracket H114 for vertical wall mounting (4 pcs required)