

# Product specification

## Switch mode power supply SNT15048-K



### Application

The switch-mode power supplies of the SNT150 series are powerful and robust devices and they are able to provide sensitive loads in a hard industrial environment with proper regulated voltage.

These features result of a modern construction with a good radio interference protection and high efficiency, integrated in a functional and stable housing fully potted with resin. The short circuit proof output DC voltage of this type can be adjusted from 48.0 to 60.0 V.

The output voltage can be increased up to 150% of the nominal value for a long period, which makes this power supply optimal suited for loads requiring high starting currents. The adjustable current limit of the "Fuse-Mode" guarantees an optimal protection of the connected load.

### Functional principle

The series SNT150 is designed as a full-bridge push-pull converter. This type of converter consists in principle two forward converters, which are connected in parallel.

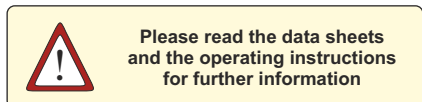
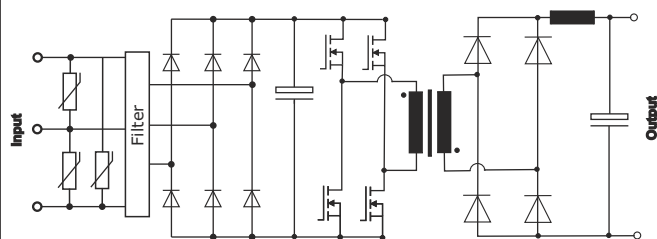
Before the semiconductor-switches alternately being connecting to primary windings of the transformer, a bridge-rectifier rectify the input AC-voltage into a pulsing DC-voltage. Due to this circuit design the transformer core is used in bipolar operation, in order to double the magnetic flux of the core. Compared with a flyback or a forward converter much more power can be transformed with the same core design.

Even during great load fluctuations the push-pull converter generates a smoothed stable output voltage.

### Design

Completely embedded with resin in aluminium housing for mounting on wall.

- Input range: 320 - 550 V<sub>AC</sub> or 450 - 780V<sub>DC</sub>
- Output range: 48.0 - 60.0 V<sub>DC</sub>
- Power: max. 1080 W
- Boostfunction 150% up to 1min  
120% up to 5min
- Fuse-Mode selectable between safe, permanent shutdown on overload or current-limit
- Standby-Function Output can be switched of
- Comprehensive microprocessor-controlled monitoring management with LED display
  - Output voltage deviation
  - Standby and Current-Limiting
  - Phase loss control
  - Load usage (nominal, boost, overload)
  - Temperature-range
- Comprehensive microprocessor-controlled monitoring management with relay contact
  - Phase loss
  - Overtemperature
- Operates with one phase lost without performance reduction ( $U_{IN\ min} > 350\ V_{AC}$ )
- Output voltage adjustment via integrated 0-10V interface (Dimmer)
- Parallel operation possible, short circuit proof, overload and open circuit protected
- Vibration proof, suitable for the tropics - epoxy resin casted
- Conforms to EMC and low voltage directive
- Output separated according to VDE0570
- PFC according to IEC/EN 61000-3-2
- Safety according to VDE, EN, UL, CSA



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