

# product specification

## DC power supply unregulated: PSU5024S

input: 230Vac - output: 24Vdc / 2.0Amp.



- Smoothed output voltage
- Output separated according to VDE0551
- Extra low safety potential  
PELV (EN 50178) SELV (EN 60950)
- Parallel connection possible
- Operating status shown by LED
- Overload- and open circuit protected  
short circuit proof
- Simple mounting on rail acc. to DIN 46277  
or wall mounting with screws
- Vibration proof, suitable for the tropics - epoxy resin casted
- Conforms to EMC and low voltage directive  $\text{CE}$
- Safety according to VDE, EN, UL, CSA

### Application

The power supplies of the PSU50S series are powerful and robust devices to power electrical loads, like contactors, magnetic switches, magnetic valves, relays or something like that. Power supplies of this type are suitable as well for the most PLC-applications.

By using only few components the uncomplex circuit arrangement guarantees the advantage of a long life span and a high degree of efficiency (>80%).

This power supply is optimally suited for loads requiring high starting current. The output voltage is short circuit proof.

Because of its robust design, casted in a rugged aluminium housing, it is particularly suitable for being used in rough industrial environment, e.g. in shipbuilding. Furthermore it is quite insensitive to surge voltages.

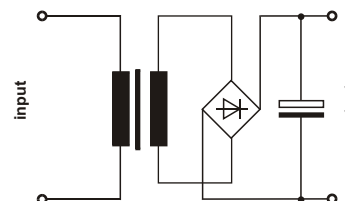
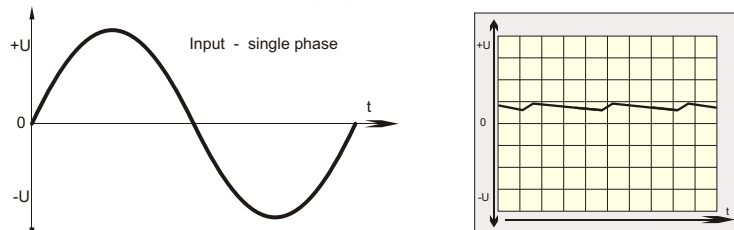


### Functional principle

In the unregulated power supply PSU50S AC voltage is transferred through a 50-Hz transformer. Afterwards the voltage is rectified by a bridge rectifier and the resulting pulsing DC voltage is smoothed with capacitors.

Because this type of power supply has no output voltage stabilization, the output voltage will also float accordingly to the transformation rate, depending on line-voltage fluctuations and consumer load.

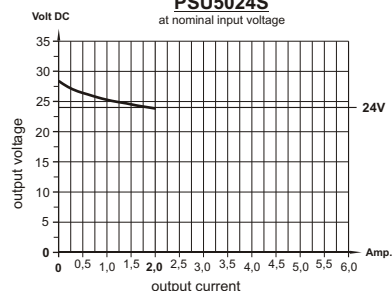
#### Effect of smoothing by electrolytic capacitors



#### load diagram

##### PSU5024S

at nominal input voltage



### Design

Completely embedded with resin in an aluminium housing for mounting on a rail or wall mounting with screws.



Please read the data sheets and the user manual for further information.