

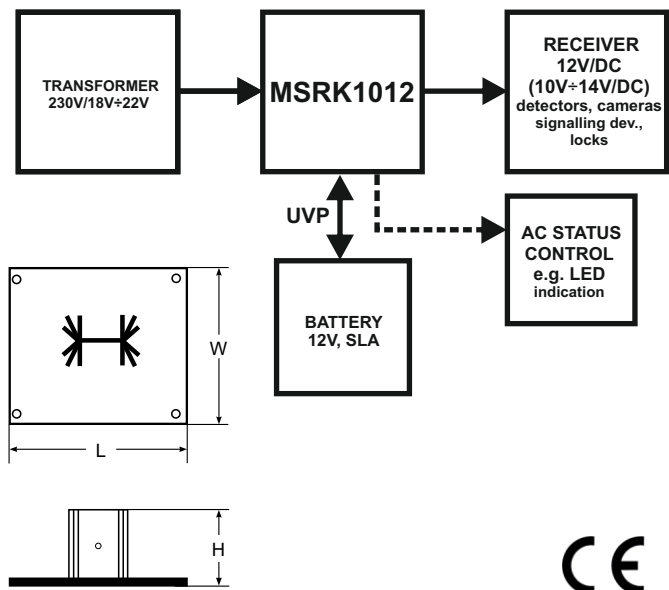
MSRK series power supply module

Buffer switch mode power supply module 13,8V DC with technical outputs



CODE: **MSRK 1012** v.1.0/IV
TYPE: **MSRK 13,8V/1A/OC Buffer, switch mode power supply module with technical outputs.**

EN**



Features:

- DC 13,8V/1A uninterruptible power supply
- high efficiency 86%
- low voltage ripple
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery output full protection against short-circuit and reverse polarity connection
- jumper selectable battery charge current 0,2A/0,5A
- START facility for manual battery connection
- LED indication
- EPS technical output indicating AC power loss – OC type
- PSU technical output indicating PSU failure – OC type
- LoB technical output indicating battery low voltage – OC type
- adjustable times indicating AC power failure
- protections:
 - SCP short-circuit protection
 - OLP overload protection
 - OHP overheat protection
 - overvoltage protection
- warranty – 5 year from the production date

DESCRIPTION

A buffer PSU module is intended for an uninterrupted supply to devices requiring stabilised voltage of **12V DC (+/- 15%)**. The PSU module provides voltage of **13,8V DC** with current capacity:

1. Output current **1A + 0,2A battery charge**
2. Output current **0,7A + 0,5A battery charge**

Total device current + battery: 1,2A max.

In case of power failure, a battery back-up is activated immediately.

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SPECIFICATIONS	
Mains supply	18V±22V AC 30VA min. (e.g. AWT150, AWT468)
Current up to	1,4A max
Power	17W
Efficiency	86%
Output voltage	11V± 13,8V DC – buffer operation 10V± 13,8V DC – battery-assisted operation
Output current	1A + 0,2A battery charge 0,7A + 0,5A battery charge
Voltage adjustment range	12V± 14,5V DC
Ripple	50 mV p-p max.
Battery charging current	0,2A / 0,5A - I _{BAT} jumper selectable
Short-circuit protection SCP	Electronic - current limitation and/or activation of the F _{BAT} melting fuse in the battery circuit (failure requires fuse replacement). Automatic return.
Overload protection OLP	110% ± 150% (@25°C) of power supply, manual restart (the fault requires disconnection of the DC output circuit)
Battery circuit SCP and reverse polarity protections	F2A - current limitation, F _{BAT} fuse (in case of a failure, fuse-element replacement required)
Surge protection	varistors
Excessive discharge protection UVP	U<10V (± 5%) – disconnect of connection battery, configuration by the P _{BAT} jumper
Technical outputs: - EPS; output indicating AC power failure - PSU; output indicating DC absence / PSU module failure - LoB output indicating battery low voltage	- OC type: 50mA max. Normal operation: L state (0V), failure: hi-Z state, - delay time 10s/60s (+/-20%) – jumper selectable T _{AC} - OC type: 50mA max. Normal operation: L state (0V), failure: hi-Z state, - OC type, 50mA max. Normal operation (U _{BAT} >11,5V): L state (0V), failure (U _{BAT} <11,5V): hi-Z state The power supply module unit does not feature a battery detection function.
LED indication	Yes - LEDs
Operating conditions	2nd environmental class, -10°C ÷ +40 °C
Dimensions	L=86, W=58, H=25 [+/- 2mm]
Net/gross weight	0,06kg / 0,14kg
Fixation	Dowel pins x 4 (PCB fi=4,2 mm)
Declarations, warranty	CE, 5 year from the production date
Connectors	Outputs: Φ0,41±1,63 (AWG 26-14) Battery output BAT: 6,3F-2,5, 30cm