

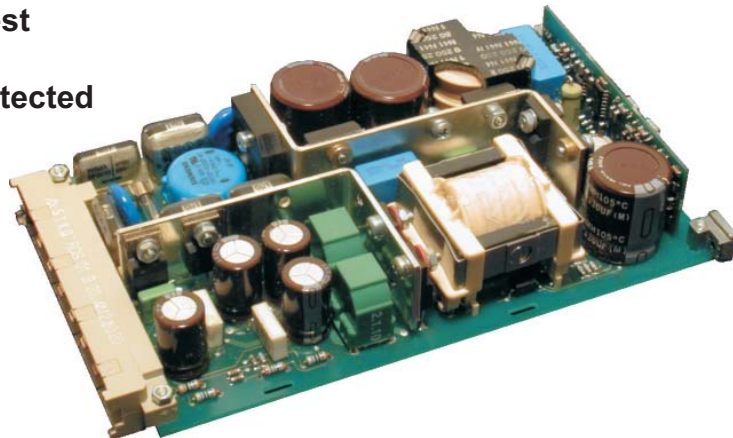
single, double, triple
up to 60 Watt

UC/DC-wide range-
power supplies isolated



- Universal operation an 48/60/110/220V_{DC} - 110/230V_{AC}-networks without switch-over
- CE-conformity declaration on request
- EN 55022.B - EN61000-4-5 level 3
- Short circuit, no-load, over load protected
- 5 mm air and creepage distances
- Active Hold-up time
25 ms > U_{in min} (optionally up to 1s)
- Active transient protection filter
(SYKO patent no. 3804074 and 0402367)

for industry / telecommunications / instrumentation / railway



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Series ROS 01

Main points:

Outputs:

- Accuracy absolute $\pm 1\%$
- Regulation $\pm 1\% \Sigma(U_{in} / I_{out} / T_U)$
- Short circuit current $\leq 1,2 I_{nom}$
- No-load, static over load protected
- Ripple <10 mV_{pp} (const. over T_U)
- Spikes <50 mV_{pp} (T 1:1/50MHz)
- Response time $\Delta I = 50\% \leq 250 \mu s$
- Power Fail (aktiv low)

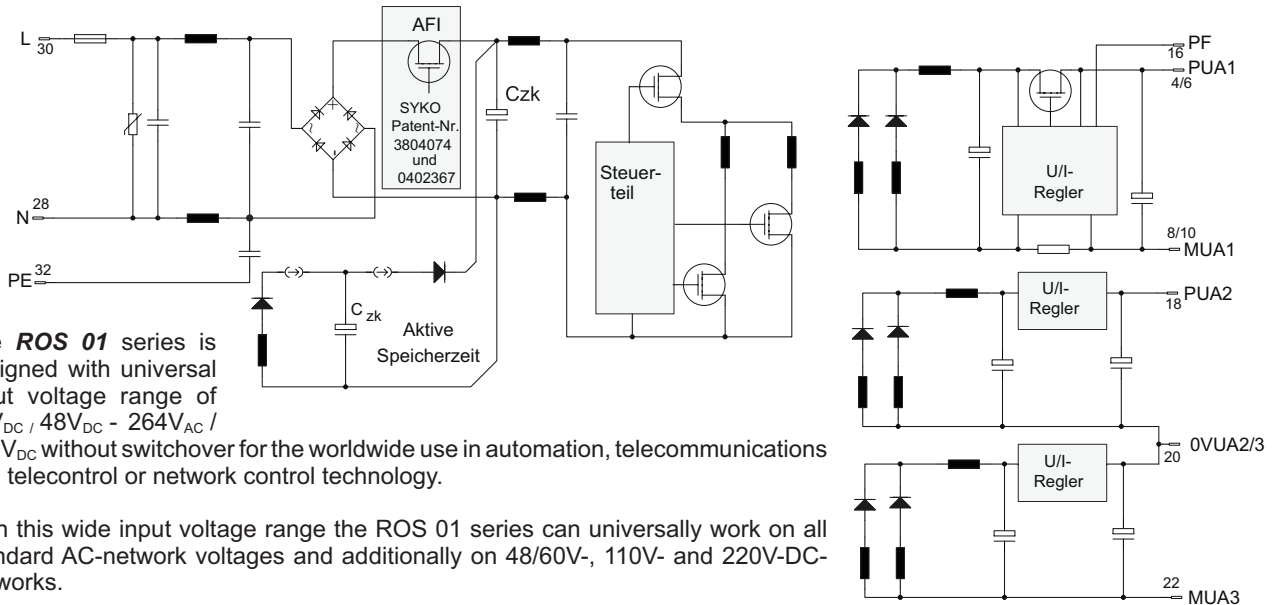
Input:

- Universal input voltage range
- Input filter EN 55011 curve B
- Disturbance protection
EN61000-4-4 (Burst) level 3
EN61000-4-5 (Surge) level 3
- Active Transient protection (SYKO-patent)
- Network interruption-Hold-up time 25 ms
(at U_{in min} and const. over U_{in}-range)
- Option: extendable externally up to 1s
- Option: VDE 0160 (long-term transient)

General:

- Isolation test voltage
Input - output 3,75 KV AC
Input - Ground 2,50 KV AC
Output - Ground 2,50 KV AC
Output - Output 0,50 KV AC
- CE conformity proofed
- Ambient temperature -20°C / +60°C
Railway -35°C / +85°C
- Derating 1,5%/°C >60°C
- Free air convection
- MTBF on request
- Weight approx. 470 g
- Style Euro card 160 x 100 mm²
- Height 8 TE front panel
- Connector DIN 41612, 15-pol., style H
- Option: connection with screw terminal or other connector on request
- Intergrated input fuse 2,5 A T

U _{in}	U _{out1-2}	I _{out1-2}	Model number	
V	V	A		
82 - 264 V AC	5,1	12,0	ROS 01-U 20-05-120	
40 - 320 V DC	12	5,0	ROS 01-U 20-12-050	
	15	4,0	ROS 01-U 20-15-040	
	24	2,0	ROS 01-U 20-24-020	
	*5,0 A stat	5,1-5,1	*6,0-3,0	ROS 01-B 20-05-05-60-30
6,0 A dyn	5,1-12	*6,0-2,0	ROS 01-B 20-05-12-60-20	
	5,1-15	*6,0-1,7	ROS 01-B 20-05-15-60-17	
	5,1-24	*6,0-1,0	ROS 01-B 20-05-24-60-10	
	12-12	2,0-2,0	ROS 01-B 20-12-12-20-20	
	15-15	1,7-1,7	ROS 01-B 20-15-15-17-17	
	5,1±12	5,0±0,7	ROS 01-T 20-05-12-50-07	
	5,1±15	5,0±0,7	ROS 01-T 20-05-15-50-07	
	36 - 158 V DC	5,1-5,1	5,0-3,0	ROS 01-B 10-05-05-50-30
	RIA 12 A-L 1)	5,1-12	5,0-2,0	ROS 01-B 10-05-12-50-20
		5,1-15	5,0-1,7	ROS 01-B 10-05-15-50-17
polarity free		7,5-7,5	3,0-3,0	ROS 01-B 10-07-07-30-30
12-12		2,0-2,0	ROS 01-B 10-12-12-20-20	
application	15-15	1,7-1,7	ROS 01-B 10-15-15-17-17	
railway	5,1±12	5,0±0,7	ROS 01-T 10-05-12-50-07	
	5,1±15	5,0±0,7	ROS 01-T 10-05-15-50-07	
17 - 36 V DC	5,1-12	*6,0-2,0	ROS 01-B 24-05-12-60-20	
	*5,0 A stat	5,1-15	*6,0-1,7	ROS 01-B 24-05-15-60-17
	6,0 A dyn	5,1-24	*6,0-1,0	ROS 01-B 24-05-24-60-10
Modification costs for possible changes above values:			on request	



The **ROS 01** series is designed with universal input voltage range of $40V_{DC} / 48V_{DC} - 264V_{AC} / 320V_{DC}$ without switchover for the worldwide use in automation, telecommunications and telecontrol or network control technology.

With this wide input voltage range the ROS 01 series can universally work on all standard AC-network voltages and additionally on 48/60V-, 110V- and 220V-DC-networks.

An input sided active transient protection filter AFI (SYKO-patent DE 3804 074 C2) prevents the breakthrough of dynamical switch-on flanks to the hold-up and chopping capacitors Czk. In combination with varistors the surge pulses in acc. to the EN61000-4-5 level 3 (option level 4) standards are kept.

Differential inrush currents are actively limited and transients are absorbed. SYKO's circuit concept allows any constant hold-up time (>500ms) in the case of a network interruption (25ms standard) starting from the minimum input voltage by extreme wide input voltage ranges.

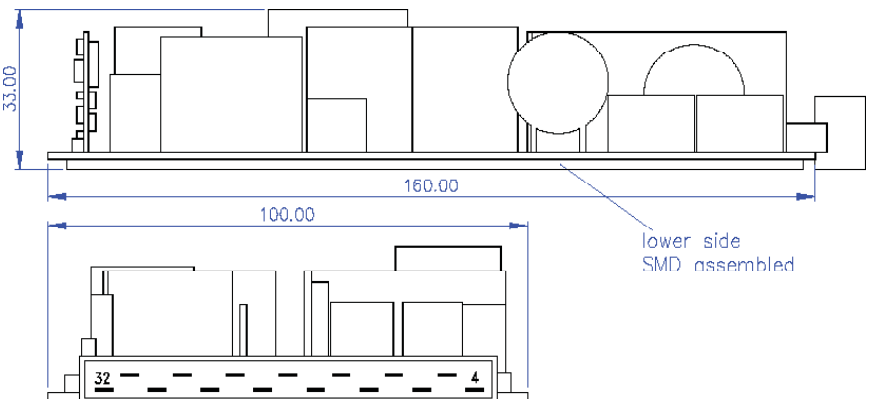
The switching topology and the special designed transformers allow output sided any amplitude and combination (3V-200V) and quantity (>6) of output voltages optionally.

Option:

As **ROS04** type this series can be delivered for in high radiation loaded applications (radiation tolerant).

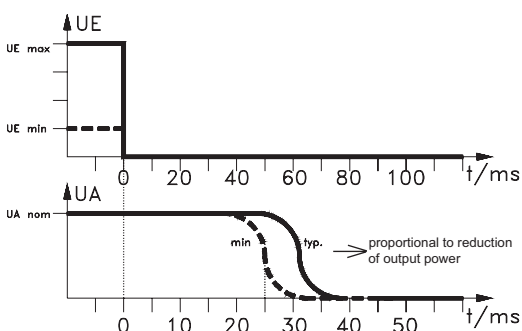
Pin assignment

	ROS01.U	ROS01.B	ROS01.T
4	+Uo	+Uo1	+Uo1
6	+Uo	+Uo1	+Uo1
8	-Uo	-Uo1	-Uo1
10	-Uo	-Uo1	-Uo1
12	sense +	NC	NC
14	sense -	NC	NC
16	PF	PF	PF
18	NC	NC	+Uo2
20	NC	+Uo2	0VA2/3
22	NC	-Uo2	-Uo3
24	NC	NC	NC
26	NC	NC	NC
28	N(-Ui)	N(-Ui)	N(-Ui)
30	L (+Ui)	L (+Ui)	L (+Ui)
32	Ground	Ground	Ground



Hold-up time-diagram

> $U_{in\ min}$



Measurement of radio interference

