

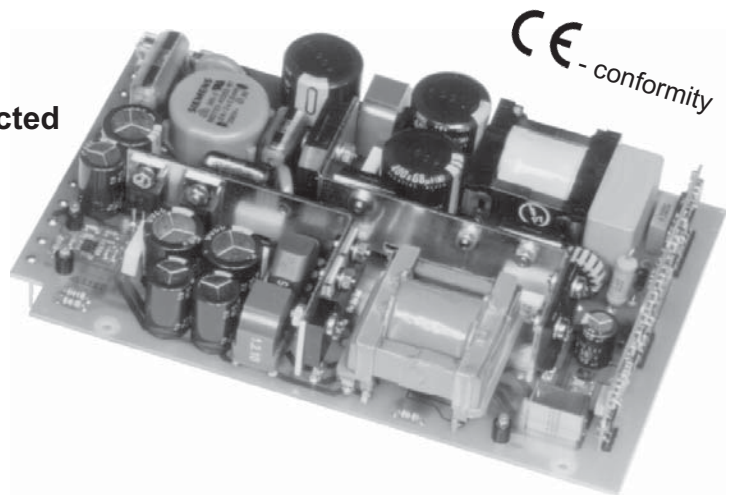
double
up to 50 Watt

UC/DC-wide range-
power supplies isolated



- **Universal-Input 48/60/110/220 V_{DC} and 110/230V_{AC} without switch-over**
- **CE-conformity declaration on request**
- **EN 55022.B EN 61000-4-4/5 level 3**
- **Short circuit, no-load, over load protected**
- **PCB or chassis mounting**
- **Hold-up time up to 200ms (constant from minimum input voltage)**
- **Active transient protection filter (SYKO patent no. 3804074 and 0402367)**

for telecommunications/ automation
and railway applications



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Series EWS 04

Main points:

Output 1 [Output 2] :

- Accuracy absolute $\pm 1\%$ [$\pm 4\%$]
- Regulation $\pm 1\%$ [$\pm 3\%$]
- Short circuit current $1,2 I_{nom}$ [$1,1 I_{nom}$]
- No-load, static over load protected
- Ripple $< 20 \text{ mV}_{pp}$ (const. over T_U)
- Spikes $< 100 \text{ mV}_{pp}$ (T 1:1/50MHz)
- Response time $\Delta I = 50\% \leq 250 \mu\text{s}$
- No crosswise interference

Input:

- Universal input voltage range (DC/AC)
- Input filter EMC EN 55011.B
- Disturbance protection EN61000-4 (Burst) level 3
EN61000-5 (Surge) level 3
- Active Transient protection (SYKO-patent)
- Network interruption-Hold-up time up to $> 100 \text{ ms} > U_{in\min}$
- VDE 0160 / long term transients (Option)

General:

- Isolation test voltage
Input - output 3,75 KV AC
Ground - Output 2,50 KV AC
Output - Output 0,50 KV AC
- CE conformity proofed
- Ambient temperature $-20^\circ\text{C} / +70^\circ\text{C}$ without Derating
- Free air convection
- MTBF on request
- Weight approx. 470 g
- Open frame $175 \times 110 \text{ mm}^2$
- Height $< 40 \text{ mm}$
- PCB mounting (pins)
- Option: connection with screw terminal or plug on request
- integrated input fuse 2,5 A T

<u>U_{in}</u> V	<u>U_{out1-2}</u> V	<u>I_{out1-2}</u> A	Model number
82 - 264 V AC	5,1-5,1	5,0-3,0	EWS 04-20-05-05-50-30
40 - 360 V DC			
surge proof	5,1-12	5,0-2,0	EWS 04-20-05-12-50-20
	5,1-15	5,0-1,7	EWS 04-20-05-15-50-17
	5,1-24	5,0-1,0	EWS 04-20-05-24-50-10
	12-12	2,0-2,0	EWS 04-20-12-12-20-20
	15-15	1,7-1,7	EWS 04-20-15-15-17-17
45 - 158 V DC	5,1-5,1	5,0-3,0	EWS 04-10-05-05-50-30
surge proof			
1,8kV / 5Ω	5,1-12	5,0-2,0	EWS 04-10-05-12-50-20
RIA 12 A-L ¹⁾			
polarity free	5,1-15	5,0-1,7	EWS 04-10-05-15-50-17
	7,5-7,5	3,0-3,0	EWS 04-10-07-07-30-30
	12-12	2,0-2,0	EWS 04-10-12-12-20-20
	15-15	1,7-1,7	EWS 04-10-15-15-17-17
Modification costs for possible changes above values:			on request

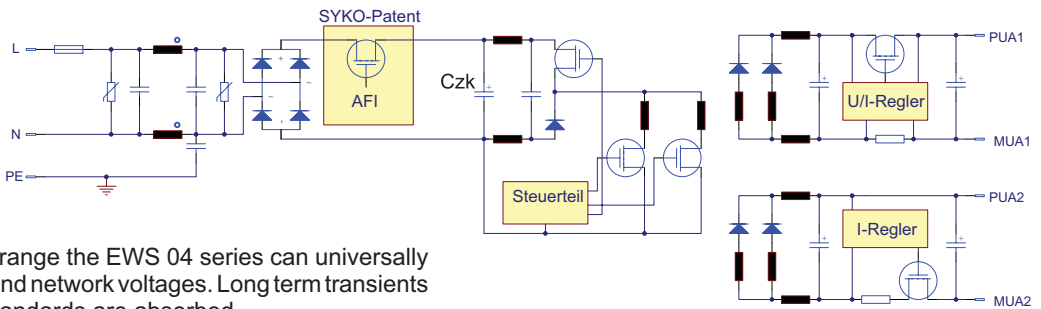
1) No fuse (external!), pre-switch resistor necessary (efficiency)

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The **EWS 04** series is designed with universal input voltage range of $40V_{DC}$ - $264V_{AC}$ / $360V_{DC}$ without switchover for the worldwide use in automation, telecommunications and telecontrol or network control technology.

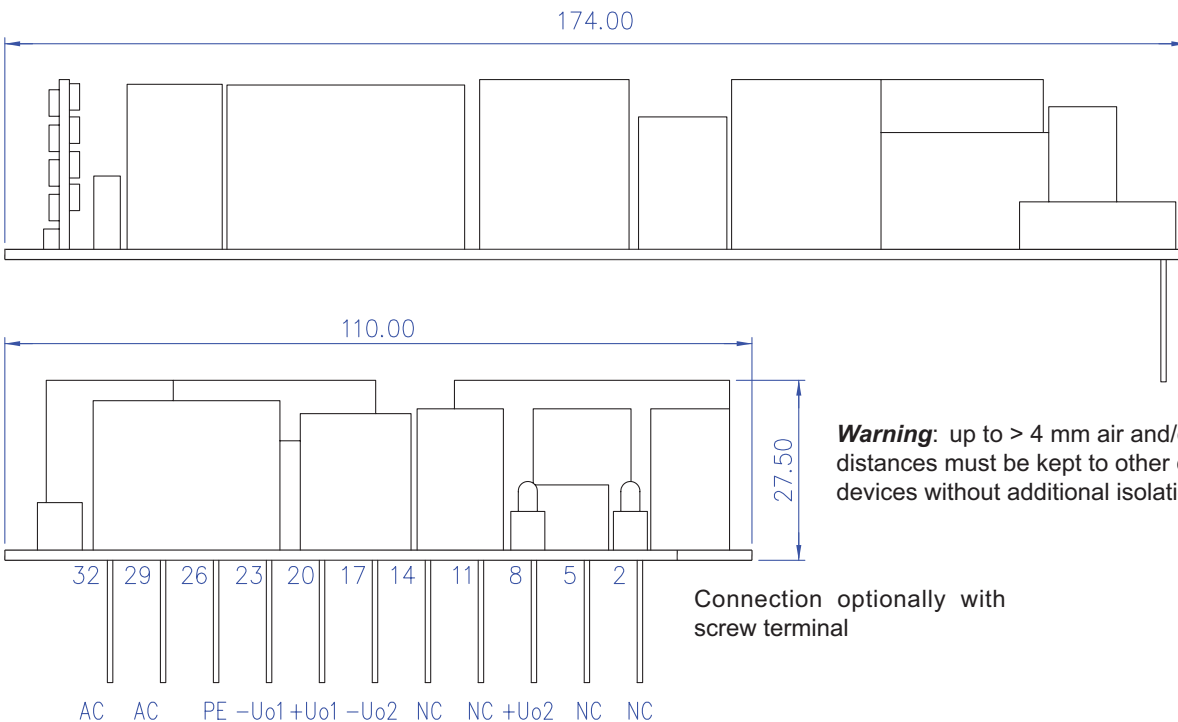


With this wide input voltage range the EWS 04 series can universally work on all standard battery and network voltages. Long term transients of the VDE0160 or RIA12 standards are absorbed.

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 4 standards are kept.

Differential inrush currents are actively limited and transients are absorbed. SYKO's circuit concept allows any hold-up time (100 ms, 200 ms) in the case of a network interruption 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.

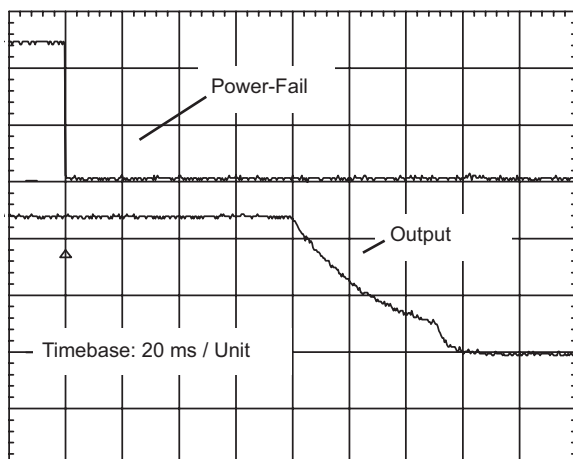


Warning: up to > 4 mm air and/or creepage distances must be kept to other components/ devices without additional isolation !!!

Connection optionally with screw terminal

Hold-up time-diagram

> uper nominal voltage



Measurement of radion interference

