

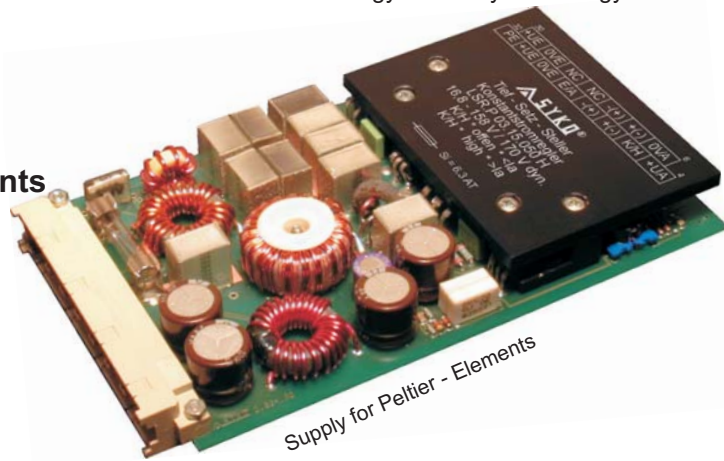
single output
up to 80 Watt

Switching Regulators
without isolation



- Input voltage range up to > 1 : 10
- Euro card 3U / 5TE (-front panel)
- Over voltage protection (Thyristor)
- Regulated output current
- Output polarity changeable (Bridge)
(Control-signal K/H) for peltier-elements
- Noise suppression
better than EN 55022.B

for Vehicle applications / Installation
technology / Railway technology



© registered trade mark of company SYKO GmbH & Co. KG

Series LSR-P

Main points:

Output:

- Accuracy absolute $\pm 3\%$
- Regulation $\Sigma(U_{in}+U_{out}+T_U) < \pm 2,5\%$
- Ripple $< 20 \text{ mV}_{\text{rms}}$ over T_U
- Spikes $< 100 \text{ mV}_{\text{rms}}$ (T 1:1/50MHz)
- Response time $\Delta I=50\% \leq 2 \text{ ms}$
- Over voltage limitation
- Output spike filter (C - L² - C)
- Over voltage protection $1,2 U_K$ (Thyr.)
- Polarity change (H-bridge, pin K/H)

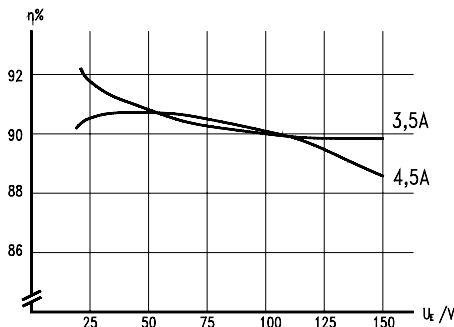
Input:

- Wide input voltage range
- Input fuse on PCB
- Input-reverse polarity protection (fuse)
- EMC acc. to 55022.B / VDE 0871.B
- ON-OFF-control (Inhibit)
- No external application circuit necessary

General:

- 15-pol connector DIN41612 (style H)
- Ambient temperature $-25^\circ\text{C} / +70^\circ\text{C}$,
Option: $-40^\circ\text{C} / +85^\circ\text{C}$
- Derating 2% / $^\circ\text{C} > 65^\circ\text{C}$
- Free air convection
- Common 0V input-output
- MTBF on request
- Shock/vibration acc. to EN 50155
- Weight approx. 380 g

Efficiency:



<u>U_{in}</u>	<u>U_{out}</u>	<u>I_{out}</u>	Model number	
V	V	A		
16,8 - 85	13,8	6,0	LSR-P	85-14-060
	14,8	6,0	LSR-P	85-15-060
16,8 - 158	13,8	5,0	LSR-P	03-14-050
	14,8	5,0	LSR-P	03-15-050

(H) -40°C up to $+85^\circ\text{C}$

Additional
charge

Modification costs for possible changes above values

on request

Other connector (with given pin-assignment)

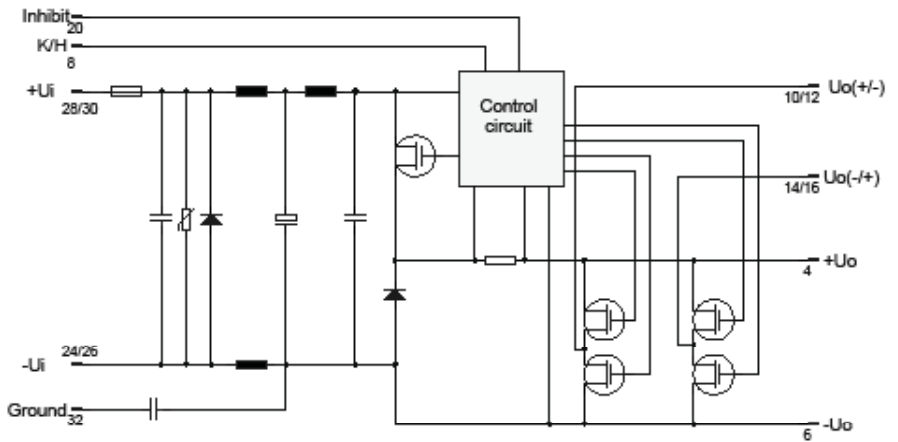
on request

Screw terminal

on request

The **LSR.P** series is designed especially for the use as a Peltier-element supply for the heating and cooling of electronic equipment in mobile applications. The converter's output includes an active full-bridge, which is changeable in its polarity with a simple logic signal (K/H) and on/off-controllable with the inhibit signal (on/off).

The „output current“ is the regulated value (impressed) and the output voltage is limited to U_K by no-load. It is the users possibility to supply sensitive electronic equipment e.g. LC-Displays in the recommended temperature window with a simple control circuit. The LSR.P series works with an extreme wide input voltage range, which allows the use in all usual on-board networks in the field of railway applications. Furthermore as a constant current supply with voltage limitation this converter is capable to charge batteries (e.g. Lead-batteries).

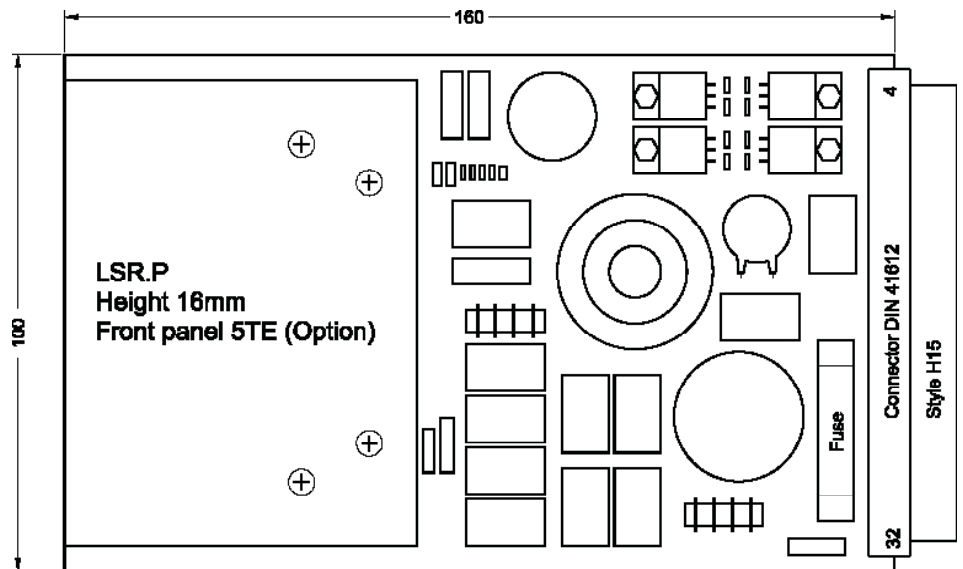


© registered trade mark of company SYKO GmbH & Co. KG

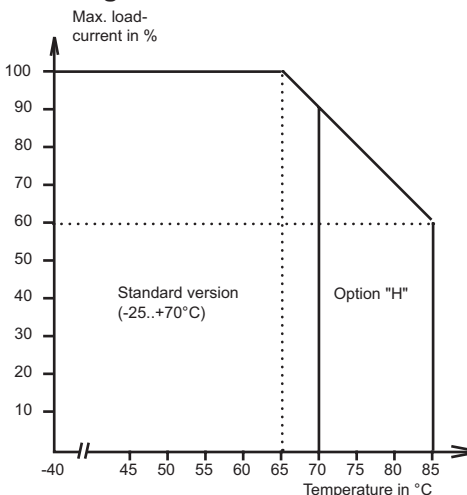
Based on the shock and vibration capable build-up (as euro-card for 19"-racks), this converter is ideal for the use in mobile applications as well as for higher industrial stationary requirements.

Pin-assignment:

	LSR.P
4	+Uo
6	-Uo
8	K/H
10	Uo(+/-)
12	Uo(+/-)
14	Uo(-/+)
16	Uo(-/+)
20	Inhibit
24	-Ui
26	-Ui
28	+Ui
30	+Ui
32	Ground



Derating curve



Measurement of radio interference

LSR.P 03.15.050
without external noise suppression

