

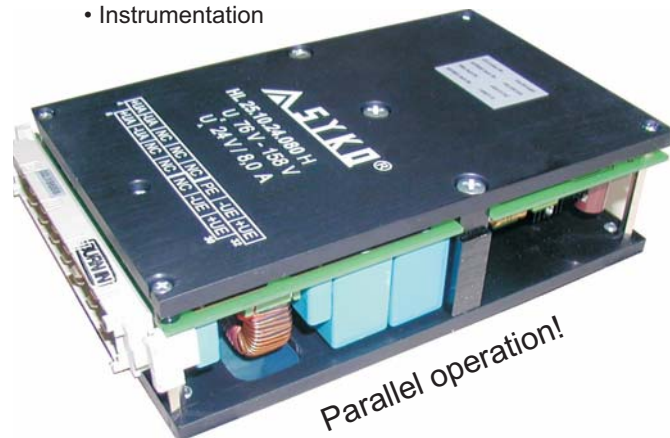
single output
up to 200 Watt

DC/DC system converters
isolated



- Euro card 3 U / 10 TE
- Chassis mounting height 45 mm
- Wide input voltage range
- Active transient protection filter (SYKO-Patent no. 3804074 and 0402367)
- Inrush current limitation (ICL)
- Input noise suppression EN 55022.A
- Input / output spike filter
- Shock/vibration EN 50155
- Parallel operation

- for
- Railway
 - Vehicles
 - Instrumentation



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Series HL25.U

Main points:

Output:

- Regulation $\Sigma (U_{in} + I_{out} + T_U) < \pm 1,5\%$
- Accuracy absolute $\pm 1\%$
- Ripple $< 50 \text{ mV}_{pp}$ (over T_U)
- Spikes $< 250 \text{ mV}_{pp}$ (T 1:1/50MHz)
- Response time $\Delta I = 50\% \leq 500 \mu\text{s}$
- Constant current limitation $< 1,2 I_{o,max}$
- Output spike filter (C - L² - C)
- No-load, over load, short circuit proof
- Reset 0,9 U_{out} (Open Collector)
- Parallel operation (Bus)

Input:

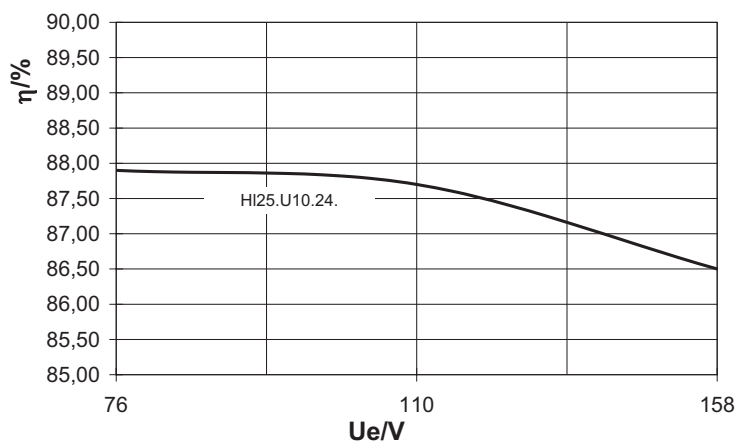
- Stand-by power approx. 2 Watt
- ON-OFF-application (inhibit)
- On-Off-switch and time hysteresis at under voltage
- Input filter acc. to EN 55022.A
- Low input capacity (13mJ/110V - 9mJ/60V - 4mJ/24V)
- Input fuse external (application)

In general:

- Connector DIN 41612, style H15
- Forward converter principle
- Parallel operation
- Clock frequency $> 120 \text{ kHz}$
- Isolation test voltage 1,5 KV_{AC} 1 min
- Ambient temperature $-25^\circ\text{C} / +70^\circ\text{C}$
Option: $-40^\circ\text{C} / +85^\circ\text{C}$ (LES-DB)
- Derating 1,5%/°C $> 60^\circ\text{C}$
- MTBF on request
- Shock/vibration acc. to EN50155
- Weight 600g
- CE-certificate on request
- Limit temperature on KK-★ 95°C
- Front panel acc. to specification (Option)

U_{in}	P_{out}	U_{out}	I_{out}	Eff.	Model number
V	W	V	A	%	
36 - 76	150	12	11,0	84	HL25-U60-12-110
100V dyn		15	9,0	84	HL25-U60-15-090
		24	6,0	85	HL25-U60-24-060
C E $\leq 6\mu\text{F}$		48	3,0	84	HL25-U60-48-030
76 - 158	200	12	13,0	85	HL25-U10-12-130
190V dyn		15	11,0	85	HL25-U10-15-110
		24	8,0	86	HL25-U10-24-080
C E $\leq 3\mu\text{F}$		48	4,0	85	HL25-U10-48-040
front panel					additional charge
HL25 (H)			-40°C up to $+85^\circ\text{C}$		additional charge
Option: output voltages 60V / 110V					on request
Modification costs of possible changes above values:					on request
Chassis mounting (HC 25)					on request

Efficiency:

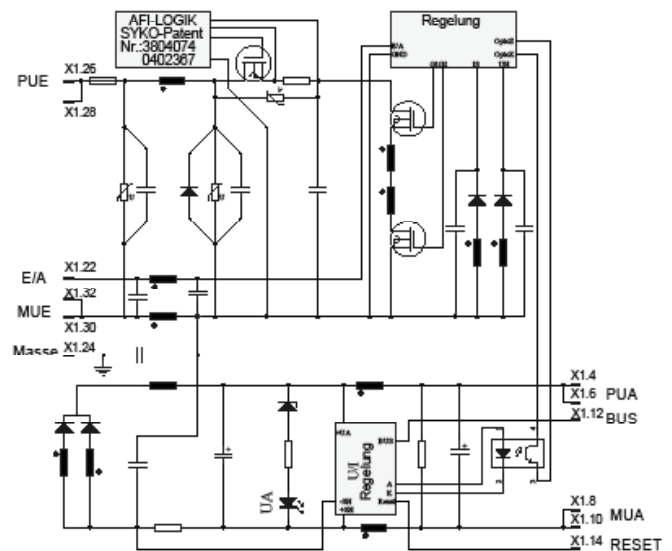


The **HL25.U** series with an output power up to 200W is developed for mobile applications and high operational reliability.

Inrush currents are limited and long term transients are absorbed with the used SYKO-Patent of an active filter. The converter works with low input capacity of max. 3µF (6µF) and the chopping capacitors are chosen as high current capable foil capacitors.

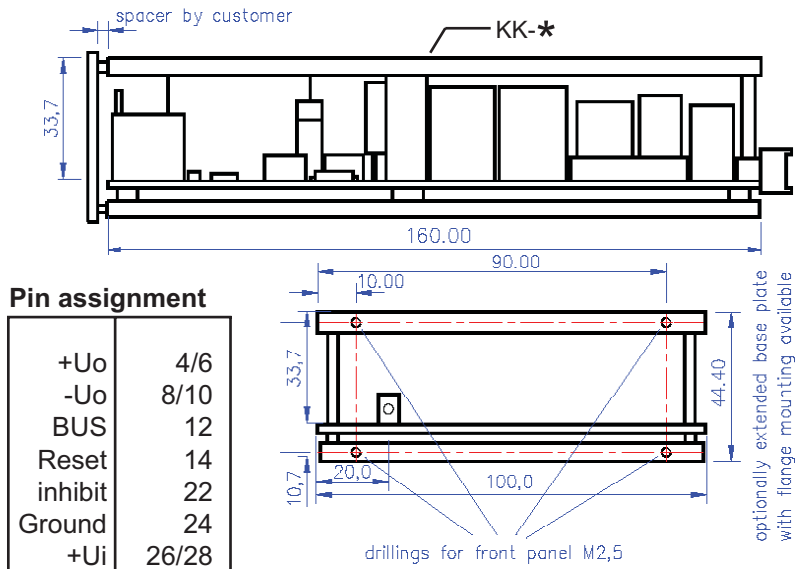
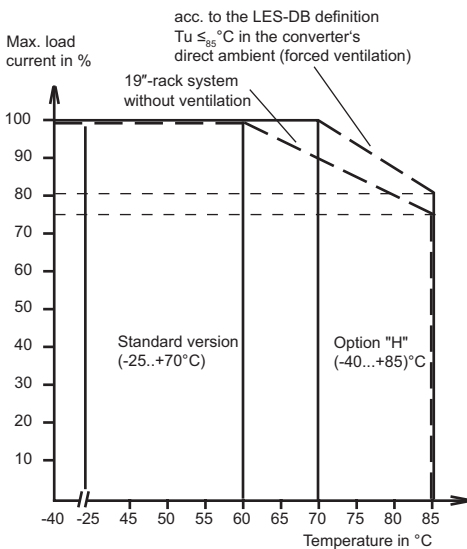
The clever mechanical build up allows the heat conduction to the heat sink. The direct chassis mounting allows very good heat transmission over the extended flange heat sink. The converter is equipped with an under voltage monitoring function with amplitude- and time hysteresis (5V/250ms). The integral switch on current limitation is done with an internal power limitation.

The functionality is secured in the whole operational range up to limit values based on the chosen components, filters, security circuits, dynamical and statically current limitation and over voltage protection.



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Derating curve

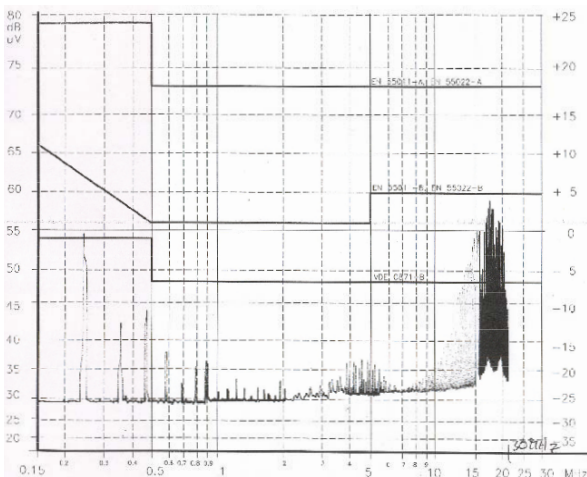


Pin assignment

+Uo	4/6
-Uo	8/10
BUS	12
Reset	14
inhibit	22
Ground	24
+Ui	26/28
-Ui	30/32

It is recommended to switch an input fuse in series

Measurement of radio interference



Application, external circuit

