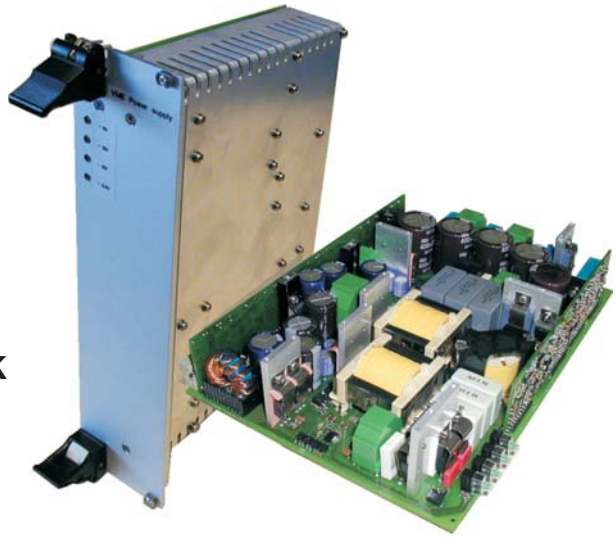
- **Double-Euro card 6 U / 10 TE[1)]**
- **Input noise suppression EN 55022.B**
- **Disturbances EN 61000-4-4/5 level 3**
- **Active hold-up time > 100ms (up to Ui_{min})**
- **Wide on-board network voltage range**
- **VME-BUS-signals**
- **No basic load necessary**
- **Inrush current limitation (active) ICL**
- **Long term transient protection (active) TK**



Series VME5.Vxx

Main points:

Output:

- Operational signal 4xLED
- No basic load necessary
- Intergr. run-up (no overshooting)
- Functional independent Output
- 5,1V / ± 12V / 3,3V isolated
- Regulation Σ (Uin+Iout+TU)<±1%
- Accuracy absolute ± 1%
- Ripple < 20 mVpp (const. over TU)
- Spikes < 100 mVpp (T 1:1/50MHz)
- Response time ΔI=50% / 500µs
- Short circuit current < 1,2 Io max
- Dyn. / stat. over load, short circuit proof
- Load compensation Uo3 / Uo4 (Σ 0,4V)

Input:

- Stand-by power approx.12 Watt
- Under voltage monitoring with hysteresis and delayed restart (0,6s)
- Low input capacity
- Input filter acc. to EN 55022.B
- Option LA01G level 4
- Input emergency fuse
- Lenght rev. polarity protection (diode)
- Active transient protection and inrush current limitation (AFI)
- Active dU/dt-current limitation

In general:

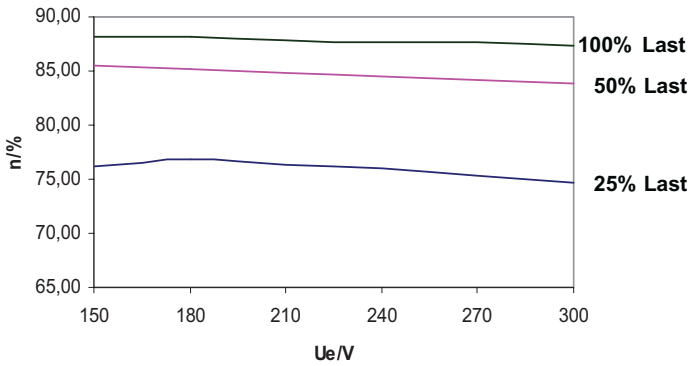
- Connector DIN 41612, style H15
- Two stage-topology
- Efficiency 87%
- Clock frequency approx. 80kHz
- Test voltage 1,5 KV_{AC} i-o // 0,5 KV_{AC} o-o
- Ambient temperature -25°C / +50°C 190W (option) -40°C / +60°C 160W (T)
- Derating 2W/°C >60°C for[1)] 12TE Front
- CE-conformity on request
- MTBF on request
- Shock/vibration acc. to EN 50155
- Weight 1700g

Uin V	ΣCE µF	Uout V	Iout A	Model number
36 - 75	40	+12	5,0	VME5.V48.01
		-12	2,0	
		5,1	15,0	
		3,3	6,0	
66 - 154	13,2	+12	5,0	VME5.V10.01
		-12	2,0	
		5,1	15,0	
		3,3	6,0	
150 - 330	2,72	+12	5,0	VME5.V22.01
		-12	2,0	
		5,1	15,0	
		3,3	6,0	

Version T	-40°C up to +70°C:	additional charge
Version H	-40°C up to +85°C:	additional charge
Modification costs of possible changes above values:		on request

Possible output voltages:
Uo1/2: ±12V / ±15V
Uo3: 3,3V / 5,1V / 8V / 24V
Uo4: 3,3V / 5,1V / 12V / 24V

Efficiency

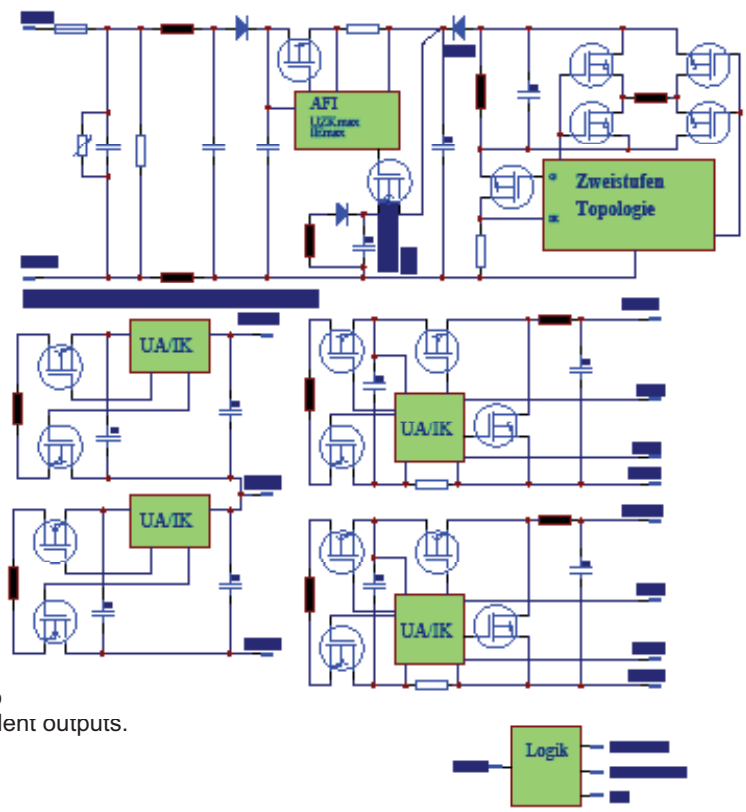


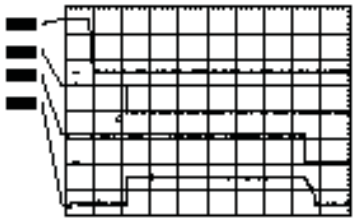
The ***VME5.V*** series with an output power up to 130 (160) [190] W is developed for mobile applications and high operational reliability (railway, ship, special vehicles) and secured functionality and ambient temperatures up to 85 (70) [60] °C.

The outputs are functional independent from no-load up to short circuit and isolated in-between each other. Uo3/Uo4 are equipped with sense lines for load compensation.

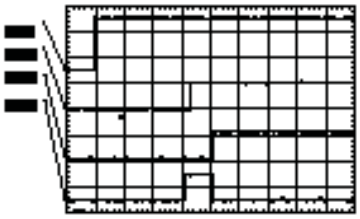
Primary reverse polarity protection (diode), low filter capacity, active transient protection filter with active inrush current limitation, constant hold-up time, which is working from Uin min and the choice of switching topology and components results the converter's high efficiency and the secured functionality up to limit values.

The condition of the input voltages and the output is indicated with the signals: DC-fail, SYS-reset and power good (LED´s indicate the output's condition). The customer can expect a converter of the highest quality level based on the SYKO development of a three-stage topology with fanke-resonance, synchronous rectifying, synchronous Buck regulators for Uo3/Uo4, the output's integral run-up (without oversho statically short circuit protected and functional independent outputs.

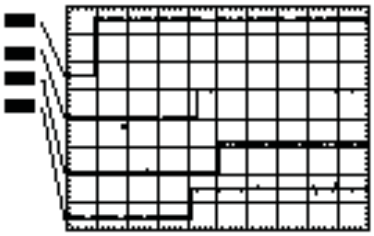




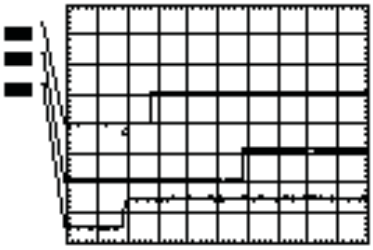
	Y/Div:	Timebase	TRACE
Uin	100V	20ms	m1.1
DC-Fail	5V	20ms	m1.2
SYS Reset	5V	20ms	m1.3
PG	5V	20ms	m1.4



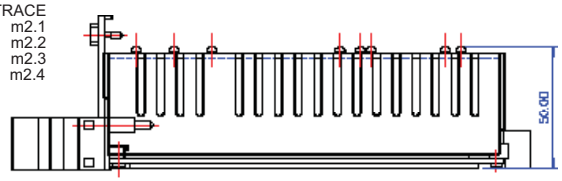
	Y/Div:	Timebase	TRACE
Uin	100V	200ms	m2.1
DC-Fail	5V	200ms	m2.2
SYS Reset	5V	200ms	m2.3
PG	5V	200ms	m2.4



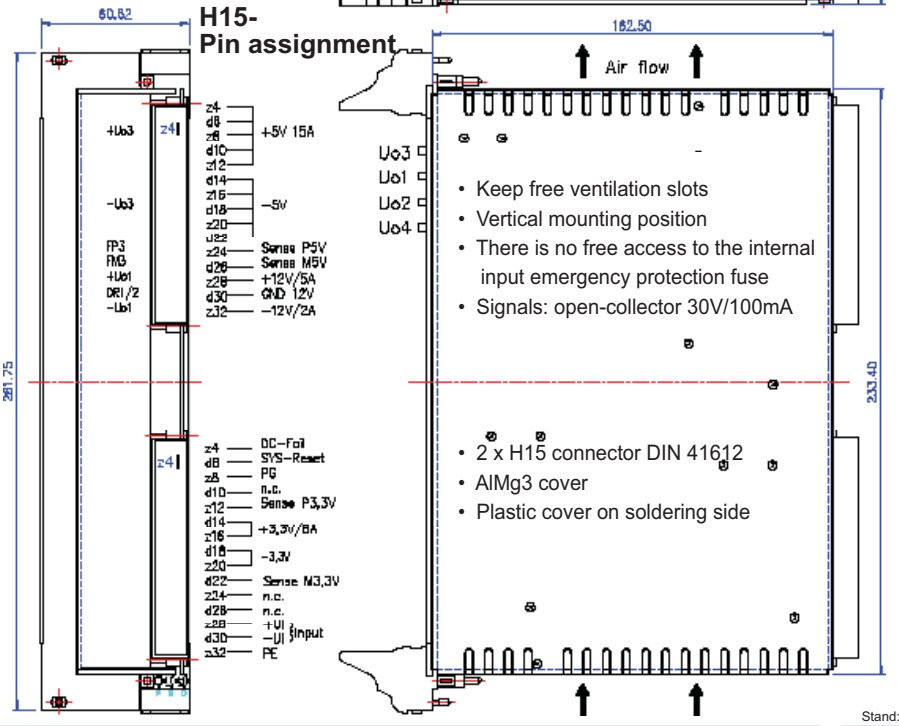
	Y/Div:	Timebase	TRACE
Uin	100V	200ms	m3.1
DC-Fail	5V	200ms	m3.2
SYS Reset	5V	200ms	m3.3
PG	5V	200ms	m3.4



	Y/Div:	Timebase	TRACE
DC-Fail	5V	200ms	m4.2
SYS Reset	5V	200ms	m4.3
PG	5V	200ms	m4.4



H15-
Pin assignment



- Keep free ventilation slots
- Vertical mounting position
- There is no free access to the internal input emergency protection fuse
- Signals: open-collector 30V/100mA

- 2 x H15 connector DIN 41612
- AlMg3 cover
- Plastic cover on soldering side