

# NIMpact 300W with Fan Tray



## NIMpact 300W with Fan Tray Bulletpoints

- 300 W linear regulated power supply
- Outputs:  $\pm 6$  V,  $\pm 12$  V,  $\pm 24$  V, optional 115 VAC
- 12 slots for NIM modules
- 5U height, 19" rack-mount design
- Integrated fan tray for improved thermal management
- Low-noise performance for sensitive electronics

# Technical Information

<b>Electrical Parameters:</b>	
<b>Inputs</b>	
Mains input range	100 V ( $\pm 10\%$ ) / 115 V oder 230 V AC, 47–63 Hz
Input current	-
Inrush current	Soft-start vorhanden
Input fuse	external, internal on request
<b>Outputs</b>	
Number of channels	12-slot crate, powered via NIM backplane connectors
Output Voltages / Currents (depending on PSU variant):	– I23: $\pm 6\text{ V} / 11.5\text{ A}$ , $\pm 12\text{ V} / 3.4\text{ A}$ , $+24\text{ V} / 3.4\text{ A}$ , 115 VAC / 0.5 A – I24: $\pm 6\text{ V} / 15\text{ A}$ , $\pm 12\text{ V} / 3.4\text{ A}$ , $+24\text{ V} / 3.4\text{ A}$ , 115 VAC / 0.5 A – I26: $\pm 6\text{ V} / 7\text{ A}$ , $\pm 12\text{ V} / 15\text{ A}$ , no $+24\text{ V}$ , 115 VAC / 0.5 A – I27: $\pm 6\text{ V} / 8.6\text{ A}$ , $\pm 12\text{ V} / 3.4\text{ A}$ , $\pm 24\text{ V} / 6.9\text{ A}$ , 115 VAC / 0.5 A
Output Power	300 W linear regulated
Overvoltage protection	Crowbar trip-off, typically at 125 % of max. output voltage
Overcurrent protection	Fold-back and trip-off, reverse-bias diodes
Ripple and Noise	$< 3\text{ mVpp}$ (full load), $< 1\text{ mVpp}$ (80 % load), $< 0.6\text{ mVrms}$
Efficiency	-
<b>Monitoring &amp; Control</b>	
Voltage	Status comparator ( $\pm 0.3\%$ ) with trip-off
Current	Status control, trip-off when exceeding set limits
Status LED	Yes, per channel and on front panel
<b>Isolation</b>	
Input - Output	-
Input - Chassis	clean earth wiring with $0.25\text{ mm}^2$
Output - Chassis	-
<b>Environment and Cooling:</b>	
Operation temperature:	0...50 °C (derating above 40 °C by 2 %/°C up to max. 60 °C)
Cooling media	Fan tray with 3 DC blowers (airflow front or bottom, depending on configuration)
<b>Mechanical Parameters</b>	
Dimensions	19" $\times$ 7U (311 mm) $\times$ 518 mm
Weight	approx. 26 kg
Input Connector	AC mains inlet on rear panel (factory default 220 V, optional 100 / 110 / 240 V)
Output connector	NIM backplane standard connectors
Mounting	Rack-mount 19" crate, 7U high with integrated fan tray

Other	
Communication Protocols	Optional CAN-bus interface for remote monitoring and control (via 9-pin Sub-D on rear side)
Reliability	<ul style="list-style-type: none"> <li>- Thermal protection with multiple switches</li> <li>- Status control with fold-back, over-/undervoltage, overtemperature protection</li> <li>- Crowbar circuits and reverse diodes for safety</li> <li>- Active fan tray for improved long-term reliability</li> </ul>
Warranty / Maintenance	2 years / 5 years

## Electrical, Environmental & Compliance Data

### Main Power

- **Output Voltages / Currents:  $\pm 6$  V,  $\pm 12$  V,  $\pm 24$  V, optional 115 VAC (depending on PSU variant, higher total capacity than 150 W versions)**
- **Current max ratings per slot/bin:  $\pm 6$  V 13 A / 26 A,  $\pm 12$  V 13 A / 13 A,  $\pm 24$  V 13 A / 13 A, GND 13 A, 115 VAC 0.5 A**
- **Regulation (load change 10–100 %):  $\pm 6$  V < 0.2 %,  $\pm 12$  V /  $\pm 24$  V < 0.1 %**
- **Regulation (line change  $\pm 10$  %): < 0.02 %**
- **Ripple & Noise (full load):  $\pm 6$  V < 3 mVpp,  $\pm 12$  V < 5 mVpp,  $\pm 24$  V < 10 mVpp**
- **Recovery time (10–100 % load): < 0.15 ms**
- **Output impedance (static/dynamic @ 100 kHz): 1.5 m $\Omega$  / 0.5  $\Omega$**

### Auxiliary Power

- **Pre-amp power output via DSUB9**

### Compliance

- **NIM standard (AEC report TID20893)**
- **CE conformity**

### Environmental

- **Operating temperature: 0 °C to +50 °C (derating above 40 °C by 2 %/°C, up to max. 60 °C)**
- **Storage temperature: -20 °C to +80 °C**
- **Clean earth wiring: 0.25 mm<sup>2</sup>**
- **Chassis: Non-ventilated rigid chassis or with optional fan tray**

### Communication / Monitoring

- **Optional CAN-bus interface for DC voltage monitoring and remote on/off**

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