

System Modules



NT255 Power Supply Module

With the NT255 Bachmann electronic sets new standards for the power supplies of CPUs and backplane-supplied modules. As a result of intensive development work and in consideration of field experiences with several thousand supply modules, the NT255 combines long term knowledge with the latest technologies.

Best possible, selected components and lifetime optimized design form the reliable base for the module. Recent planar transformer technologies ensure a significantly increased efficiency, the integrated heat dissipation in the circuit board (>coolPCB technology<) prevents even minimal local warming and thus the early ageing of components. Moreover, because of the extremely reduced weight of the parts, the module is even more robust against shock and vibrations.

In spite of the primary design focus on a long service life and robust design, the NT255 also offers outstanding technical features: up to 80 % longer buffer time at short voltage drops and generous power reserves (55 W peak power) for temporary overload ensure safety and reliability in every respect.

- Input voltage range 18 to 34 VDC
- Provides all the necessary CPU voltages as well as supply for modules on backplanes
- 45 W output power (55 W peak power)
- Galvanic isolation input/ground
- Galvanic isolation input/system
- Electronic reverse polarity protection
- 2 state indicators allow differentiation between supply failures and internal errors
- Monitored supply voltage
- Monitored output voltages
- Power-fail signal and state information for CPU module (processable from application)

Item	Item No.
NT255	00031426-00
NT255 CC	00031427-00

System Modules

NT255		
Input		
Voltage range	18 to 34 VDC	
Input voltage, peak value	+40 V at t < 1 s/min	
Power consumption	Max. 68 W	
Reverse polarity protection	Electronic	
Starting current limitation	Max. 8 A after 5 ms	
Fuse	SMD wire fuse 7 A at device defect	
Input voltage monitoring	Yes, for power fail message	
Output		
Output power	45 W (55 W)	
Output voltage / output current	+5 V/ 6 A (8 A peak) +15 V / 0.5 A -15 V / 0.5 A	
Power-fail bypass	18 ms, power-fail message after 3 ms	
Monitoring		
State indication	Power-fail on processor	
State display	LEDs (Power, Error, Ready)	
Galvanic isolation	500 V (input/system), 100 V (input/ground)	
Approvals / Certificates		
General	CE, UL/cUL, CCC	
Marine	GL/DNV, LR, ABS, BV	
Ambient conditions	Standard	ColdClimate (❄)
Operating temperature	-30 to +60 °C	
Rel. humidity operation	5 to 95 % without condensation	5 to 95 % with condensation
Storage temperature	-40 to +85 °C	
Rel. humidity storage	5 to 95 % without condensation	5 to 95 % with condensation
Pollution degree	2 (without condensation; according to IEC 60664-1)	2 (according to IEC 60664-1)

Order Codes NT255		
Item	Item No.	Description
NT255	00031426-00	Power supply 45W (55W); 24V; 5V 6A; ±15V 0.5A
NT255 CC	00031427-00	Like NT255; ColdClimate (❄)
Accessories		
KZ 51/03 B	00012052-00	Terminal 03-pins grid 5,08; cage clamp terminal with labeling strip