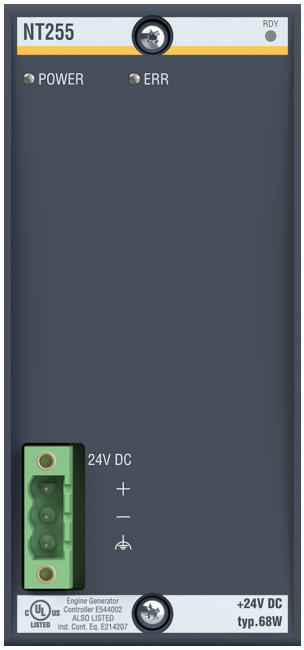

Part type designation	Part number
NT255	00031426-00
NT255 CC	00031427-00

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 tens of thousands power 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 lifetime 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 security and reliability in every respect.

Features

- Input voltage range 18 V DC to 34 V DC
- Provides all 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
- Powerfail signal and state information for CPU module (processable from application program)

NT255

Input	
Voltage range	18 V DC to 34 V DC
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 fuse 7 A at device defect
Input voltage monitoring	Yes, for powerfail 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	Powerfail on processor
State display	LEDs (Power, Error, Ready)
Galvanic isolation	500 V (input/system), 100 V (input/ground)
Approvals/Certificates	
General	CE, UKCA, cULus
Marine	ABS, BV, DNV, KR, LR, NK, RINA

Environmental conditions	Standard	ColdClimate (❄)
Operating temperature	-30 °C to +60 °C	
Relative humidity, operation	5 % to 95 % noncondensing	5 % to 95 % with condensation
Storage temperature	-40 °C to +85 °C	
Relative humidity, storage	5 % to 95 % noncondensing	5 % to 95 % with condensation
Pollution degree (IEC 60664-1)	2 (noncondensing)	2

Order data

Part type designation	Part number	Description
NT255	00031426-00	Power supply unit 45 W (55 W); 24 V; 5 V 6 A; ±15 V 0.5 A
NT255 CC	00031427-00	Like NT255; ColdClimate (❄)

Accessories

Part type designation	Part number	Description
KZ 51/03 B	00012052-00	Terminal 03-pin pitch 5.08; cage clamp terminal with labeling strips