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)

<table>
<thead>
<tr>
<th>Item</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT255</td>
<td>00031426-00</td>
</tr>
<tr>
<td>NT255 CC</td>
<td>00031427-00</td>
</tr>
</tbody>
</table>
### 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

<table>
<thead>
<tr>
<th>Ambient conditions</th>
<th>Standard</th>
<th>ColdClimate (®)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating temperature</strong></td>
<td>-30 to +60 °C</td>
<td></td>
</tr>
<tr>
<td><strong>Rel. humidity operation</strong></td>
<td>5 to 95 % without condensation</td>
<td>5 to 95 % with condensation</td>
</tr>
<tr>
<td><strong>Storage temperature</strong></td>
<td>-40 to +85 °C</td>
<td></td>
</tr>
<tr>
<td><strong>Rel. humidity storage</strong></td>
<td>5 to 95 % without condensation</td>
<td>5 to 95 % with condensation</td>
</tr>
<tr>
<td><strong>Pollution degree</strong></td>
<td>2 (without condensation; according to IEC 60664-1)</td>
<td>2 (according to IEC 60664-1)</td>
</tr>
</tbody>
</table>

### Order Codes NT255

<table>
<thead>
<tr>
<th>Item</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT255</td>
<td>00031426-00</td>
<td>Power supply 45W (55W); 24V; 5V 6A; ±15V 0.5A</td>
</tr>
<tr>
<td>NT255 CC</td>
<td>00031427-00</td>
<td>Like NT255; ColdClimate (®)</td>
</tr>
</tbody>
</table>

**Accessories**
- **KZ 51/03 B**: 00012052-00 Terminal 03-pins grid 5,08; cage clamp terminal with labeling strip