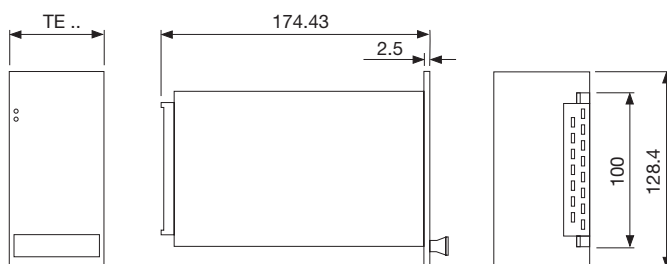


**AC / DC POWER SUPPLY
PRIMARY SWITCHED MODE WITH PFC
SINGLE OUTPUT
P 90 SERIES**



- 19" plug-in module
- Wide input range 94 – 264 VAC with Power Factor Correction (PFC) according to EN 61000-3-2
- Mains buffering > 80 ms
- Output permanent short-circuit proof and SELV according to EN 60950
- Overtemperature and overvoltage protection
- EMC Standards EN 50081-1 and EN 50082-2



3HE

Front panel: 8TE - 40.3
Handle width: 3TE

| ORDER DATA | | | | <i>Order numbers in italics</i> |
|--|-----------------------|---------------------------|----------------------------|--|
| Vo V | Io A | Width TE | Height HE | Type No. |
| 5.1 | 0 – 14 | 8 | 3 | P90-05151 <i>15.8241.700</i> |
| 12 | 0 – 7.5 | 8 | 3 | P90-12071 <i>15.8241.800</i> |
| 15 | 0 – 6.5 | 8 | 3 | P90-15061 <i>15.8241.900</i> |
| 24 | 0 – 4.2 | 8 | 3 | P90-24041 <i>15.8242.000</i> |
| Additional output voltages upon request | | | | |
| Additionally: | | | | |
| Front panel (nature anodized) | | 33.1571.006.011 | | |
| Assembly kit for DIN-rail | | 15.7140.000.190 | | |
| Assembly kit for wall mounting | | 15.7140.000.290 | | |

**AC / DC POWER SUPPLY
PRIMARY SWITCHED MODE WITH PFC
SINGLE OUTPUT
P 90 SERIES**

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------------------|----|----|----|----|----|----|---|--|---|----|----|----|----|----|----|--|----|----|----|----|----|----|---|--|---------|----|----|----|----|----|----|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|----|
| INPUT | SAFETY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input voltage range AC 94 – 264 V, 50/60 Hz or DC 140 – 360 V Efficiency typ. 77 – 86% Input current limitation $\leq 25 A_{peak}$ typ. – in cold state $\leq 35 A_{peak}$ typ. – in hot state Fuse 3.15 AT | IEC 60950, EN 60950 / VDE 0805 Safety Class I, VDE 0100 UL 1950 / CSA 22.2-950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OUTPUT | OPERATING DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjustment range V_o $\pm 5\%$ Operation indicator Green LED for V_o Ripple $< 30 mV_{pp}$ Noise voltage $< 80 mV_{pp}$ typ. (band width 20 MHz) Temperature coefficient $\leq 0.025\% / K$ Switch on/switch off performance No overshooting of V_o (soft-start) Rise-delay time $< 0.7 s$ Run-up time $\leq 30 ms$ | Temperature range 0...+70°C, at free convection Derating 2.5% / K at +50°C (see diagram) Power Factor Correction Active PFC with regulated, sinusoidal current input: $\lambda > 0.95$ Weight 0.45 kg Ventilation from bottom to top of the power supply and the housing-specific heatradiation must not be obstructed when installing the power supply. Ensure fire protection by means of the surrounding housing system. In general, kindly refer to the MGV user instructions before use. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REGULATION | MECHANICS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Line regulation $< 0.1\%$ for V_o at $V_{imin} - V_{imax}$ Load regulation $< 0.2\%$ for V_o at $I_o 0 - 100\%$ Response time $< 1 ms$ at $I_o 20 - 80\%$ | Dimensions 19" plug-in module according to DIN 41494 Part 5 Connection Connector H 15 / DIN 41612 codable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROTECTION AND CONTROLLING | PIN CONNECTIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Overvoltage protection 125% $\pm 5\%$ $V_{nominal}$ automatically repeating Current limitation Switches off at exceeding 110% $I_{nominal}$, automatically repeating, output permanent short-circuit proof Overtemperature protection Switches off when inside temperature becomes too high at V_o , periodical restart Mains buffering 80 ms at 100% load | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">H15 DIN 41612</td> <td style="width: 20px;">30</td> <td style="width: 20px;">26</td> <td style="width: 20px;">22</td> <td style="width: 20px;">18</td> <td style="width: 20px;">14</td> <td style="width: 20px;">10</td> <td style="width: 20px;">6</td> </tr> <tr> <td></td> <td>N</td> <td>1)</td> <td>1)</td> <td>1)</td> <td>-L</td> <td>-L</td> <td>-F</td> </tr> <tr> <td></td> <td>32</td> <td>28</td> <td>24</td> <td>20</td> <td>16</td> <td>12</td> <td>8</td> </tr> <tr> <td></td> <td>PE ⊕</td> <td>L1</td> <td>1)</td> <td>1)</td> <td>1)</td> <td>+L</td> <td>+L</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+F</td> </tr> </table> <p>1) internally connected Additional connections available!</p> | H15 DIN 41612 | 30 | 26 | 22 | 18 | 14 | 10 | 6 | | N | 1) | 1) | 1) | -L | -L | -F | | 32 | 28 | 24 | 20 | 16 | 12 | 8 | | PE ⊕ | L1 | 1) | 1) | 1) | +L | +L | | | | | | | | 4 | | | | | | | | +F |
| H15 DIN 41612 | 30 | 26 | 22 | 18 | 14 | 10 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N | 1) | 1) | 1) | -L | -L | -F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 32 | 28 | 24 | 20 | 16 | 12 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PE ⊕ | L1 | 1) | 1) | 1) | +L | +L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | +F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMC | EXPLANATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mains feedback (PFC) EN 61000-3-2: 1995 Class D Interference suppression/interference immunity EN 50082-2: 1992 EN 61000-4-2 Intensity 4 EN 61000-4-3 Noise level 10 V/m EN 61000-4-4 Intensity 4 EN 61000-4-5 Intensity 4 EN 61000-4-6 Noise level 10 V EN 61000-4-11 ENV 50204 Interference emission EN 50081-1: 1992 EN 55011 / EN 55022 Class B, interference transmission depends on assembly. A folding ferrite (Würth, Art.: 742-7122) connected at the load terminal will improve emmission | PE ⊕ Protective conductor Do not use supply without PE-connection! L1 / N Mains phase / neutral conductor L Load connection (14 A max. for each contact) F Sense connection (Signal line) For a safe operating mode of the device, it is mandatory to connect +L with +F and -L with -F. Maximum voltage compensation of 0.25 V of each line. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

