



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Datasheet

Power line filter



for shielded rooms & secure area

250/277/480 V, 50/60 Hz, 1-100 A, 40 °C

Ordering code: B84299D6***A(B)00*

Date: 2011-07-22

Version: 06

Technical data and measuring conditions

| | | | |
|---|------------|--------------------------------------|------|
| Rated frequency | f_R | 50/60 | Hz |
| Rated temperature | T_R | 40 | °C |
| Overload capability (thermal) for 3 min per hour or for 30 s per hour | | $1.5 \times I_R$ $2.5 \times I_R$ | |
| Climatic category (IEC 60068-1) | | 25/85/21 | |
| Rated frequency | f_R | 50/60 | Hz |
| B84299D60*0B003 - Rated voltage | U_R | 250 | V AC |
| Test voltage line to line for 2 s | U_{test} | 1768 | V DC |
| Test voltage line to case for 2 s | U_{test} | 2121 | V DC |
| B84299D6300B000 - Rated voltage | U_R | 250 | V AC |
| Test voltage line to line for 2 s | U_{test} | 1768 | V DC |
| Test voltage line to case for 2 s | U_{test} | 2121 | V DC |
| B84299D6*00B003 - Rated voltage | U_R | 480 | V AC |
| Test voltage line to line for 2 s | U_{test} | 2158 | V DC |
| Test voltage line to case for 2 s | U_{test} | 2200 | V DC |
| B84299D6101A003 - Rated voltage | U_R | 277 | V AC |
| Test voltage line to line for 2 s | U_{test} | 2158 | V DC |
| Test voltage line to case for 2 s | U_{test} | 2200 | V DC |

Characteristics and ordering codes

| I_R | LINE terminals: threaded studs | LOAD terminals: cabels | $I_{leak}^2)$ | R_{typ} | Approx. weight | Ordering code | Approvals for USA, Canada: UL (listed) cUL (listed) |
|-------|-----------------------------------|---------------------------|---------------|-----------|----------------|-----------------|--|
| A | | | mA | $m\Omega$ | kg | | |
| 1 | #6-32 UNC 2A | AWG 18 | 1.6 | 107 | 1.9 | B84299D6010B003 | x |
| 5 | #6-32 UNC 2A | AWG 18 | 1.6 | 107 | 1.9 | B84299D6050B003 | x |
| 30 | M6 | AWG 12 | 157 | 3.2 | 1.5 | B84299D6300B000 | x |
| 30 | M6 | AWG 10 | 1706 | 7.7 | 10.8 | B84299D6300B003 | x |
| 60 | M8 | AWG 6 | 1714 | 6 | 22 | B84299D6600B003 | x |
| 100 | M10 | AWG 2 | 3751 | 3 | 11.5 | B84299D6101A003 | x |

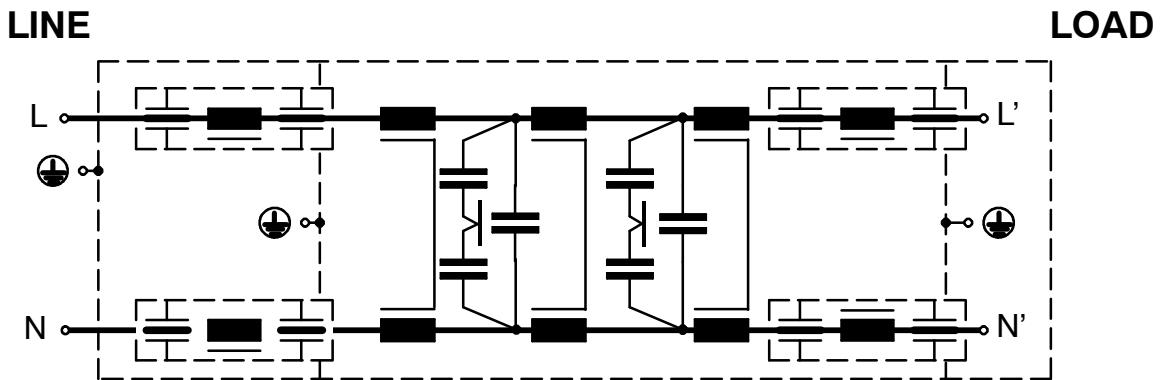
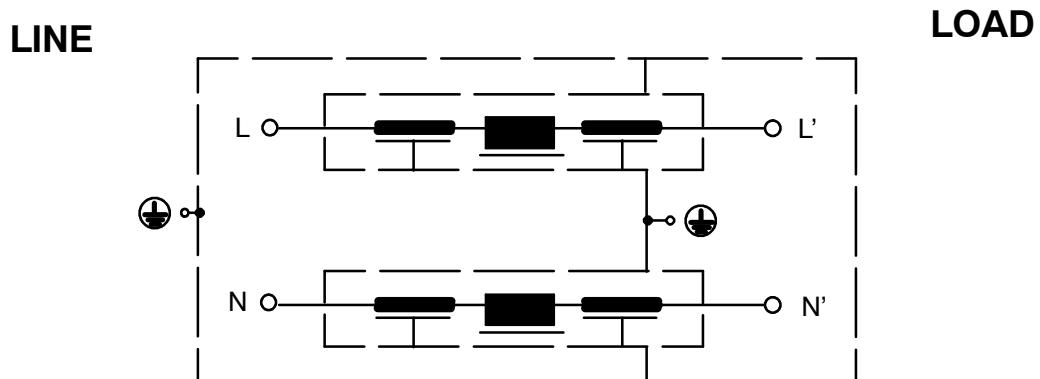
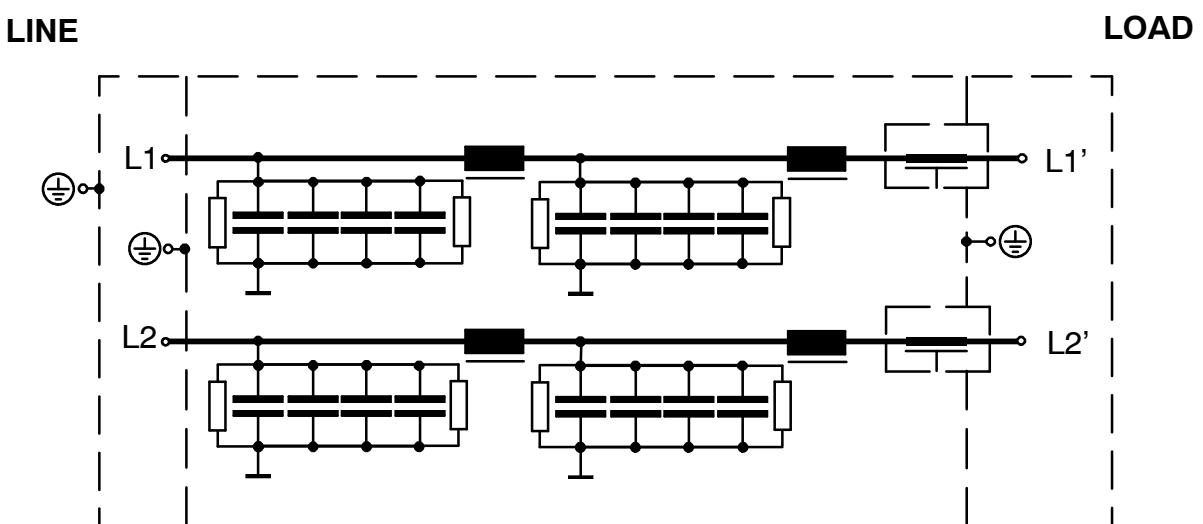
2) Calculation according draft proposal IEC 60939-1 Ed. 3 (2008-10-29), annex A, "Calculation of leakage current" at 50Hz.

3) X = approval granted

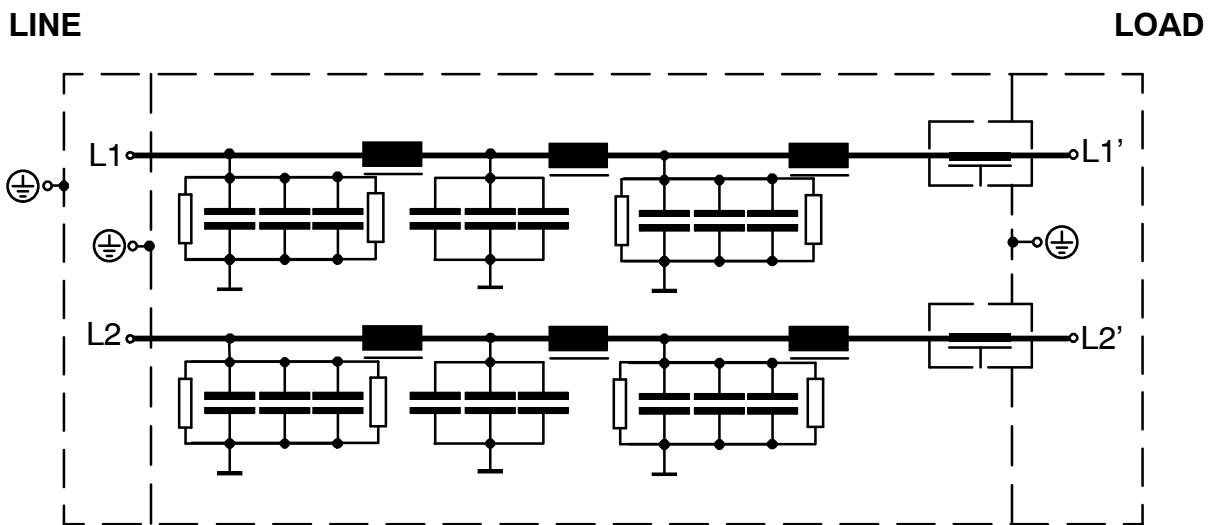
P = pending

D = design complies with

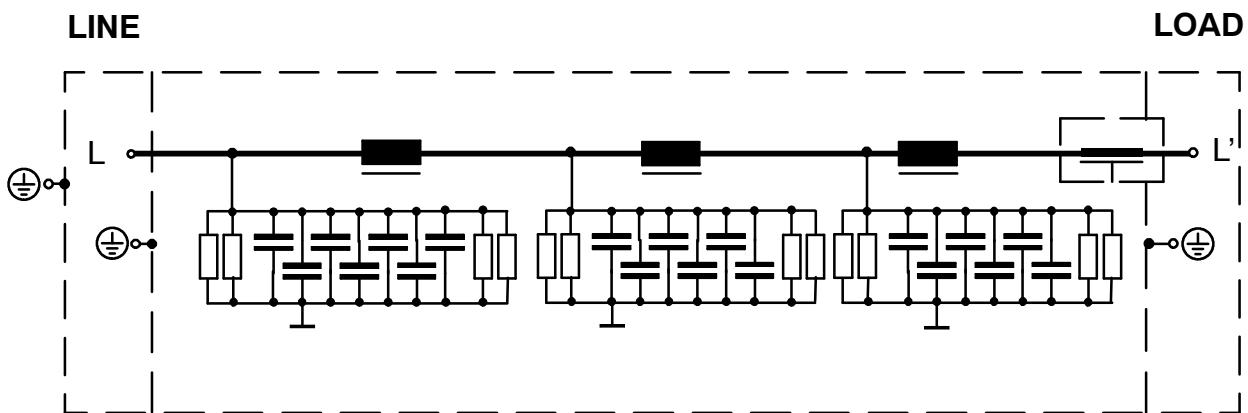
- = none

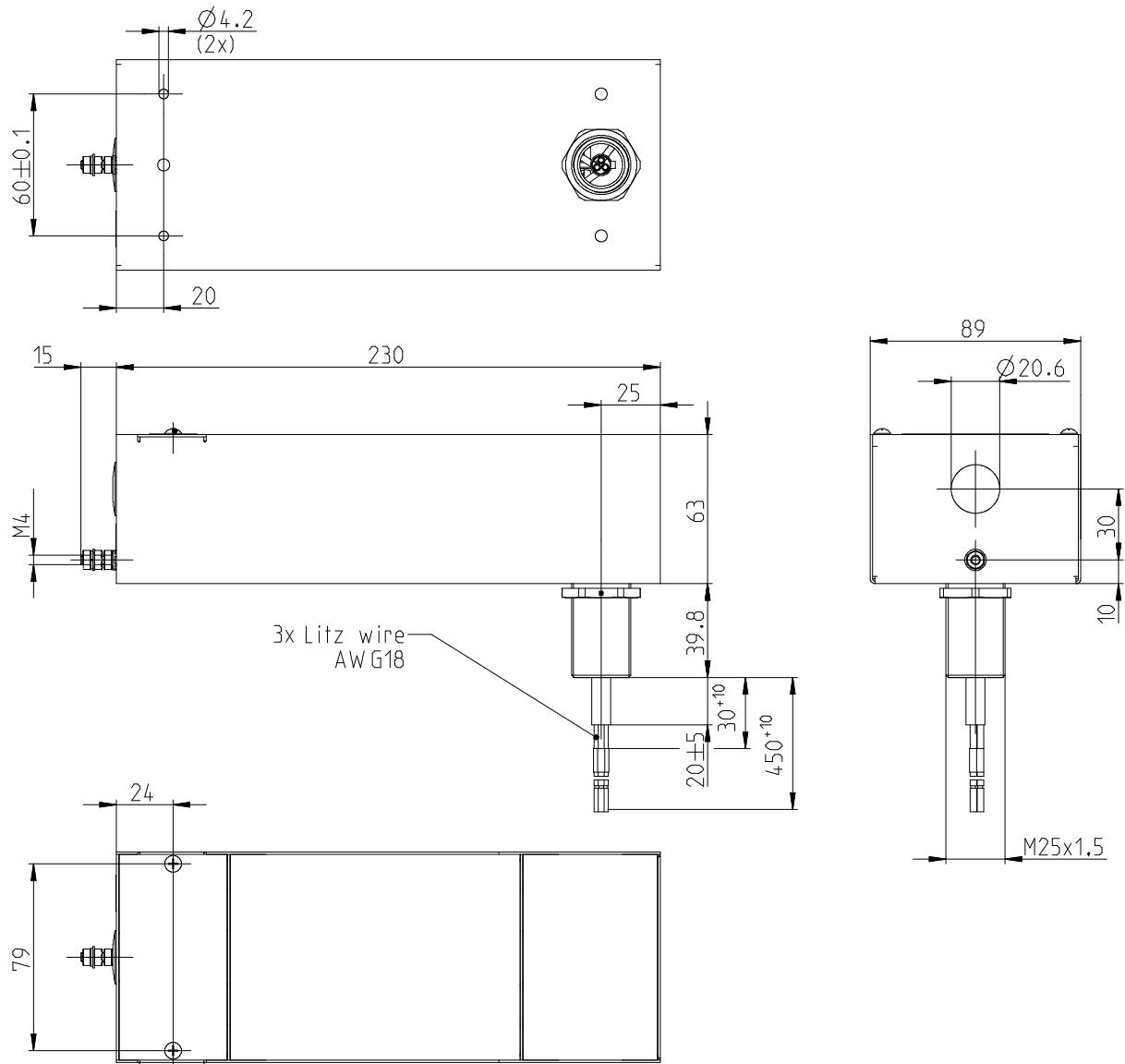
Circuit diagram for B84299D6010B003 and B84299D6050B003

Circuit diagram for B84299D6300B000

Circuit diagram for B84299D6300B003


Circuit Diagram for B84299D6600B003

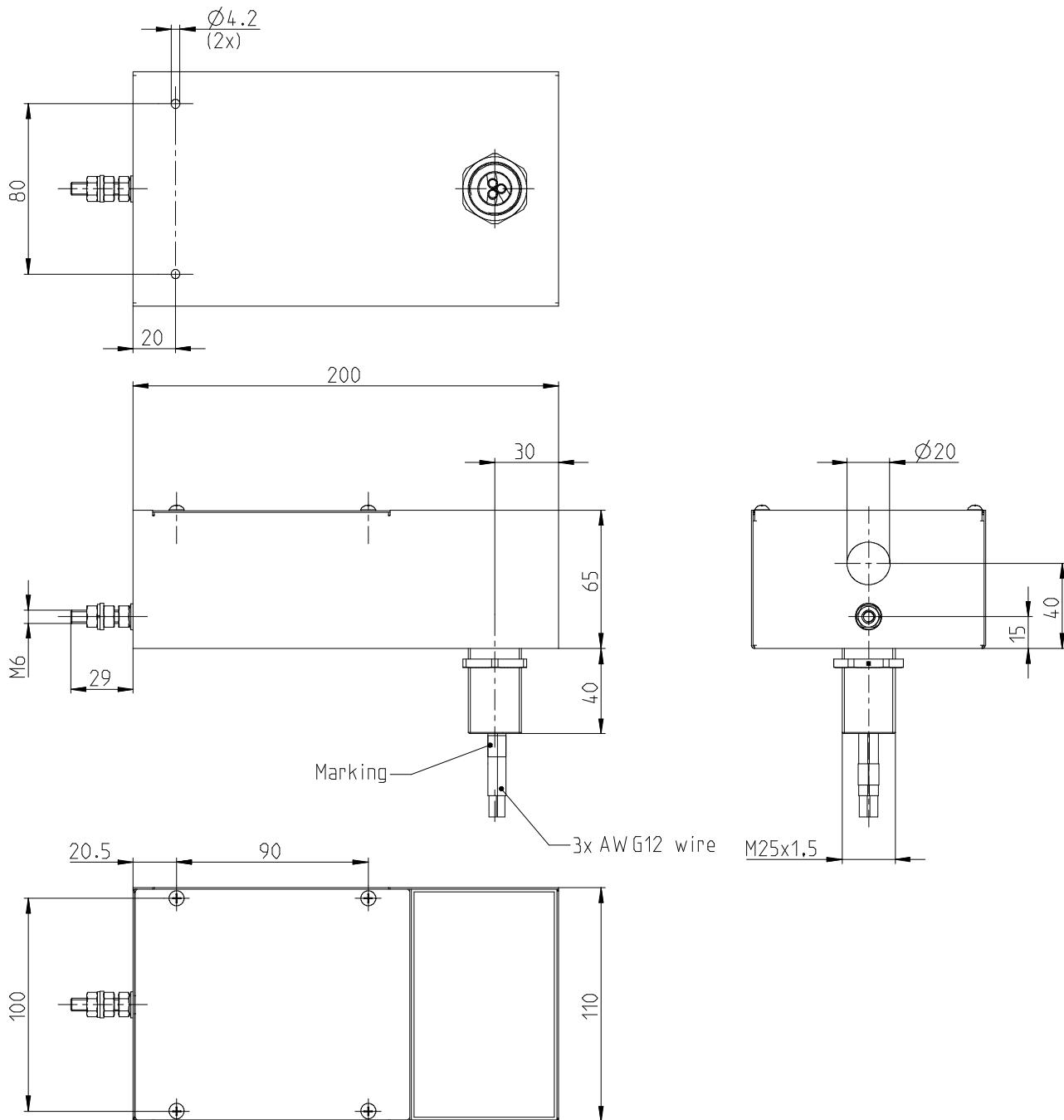


Circuit Diagram for B84299D6101A003

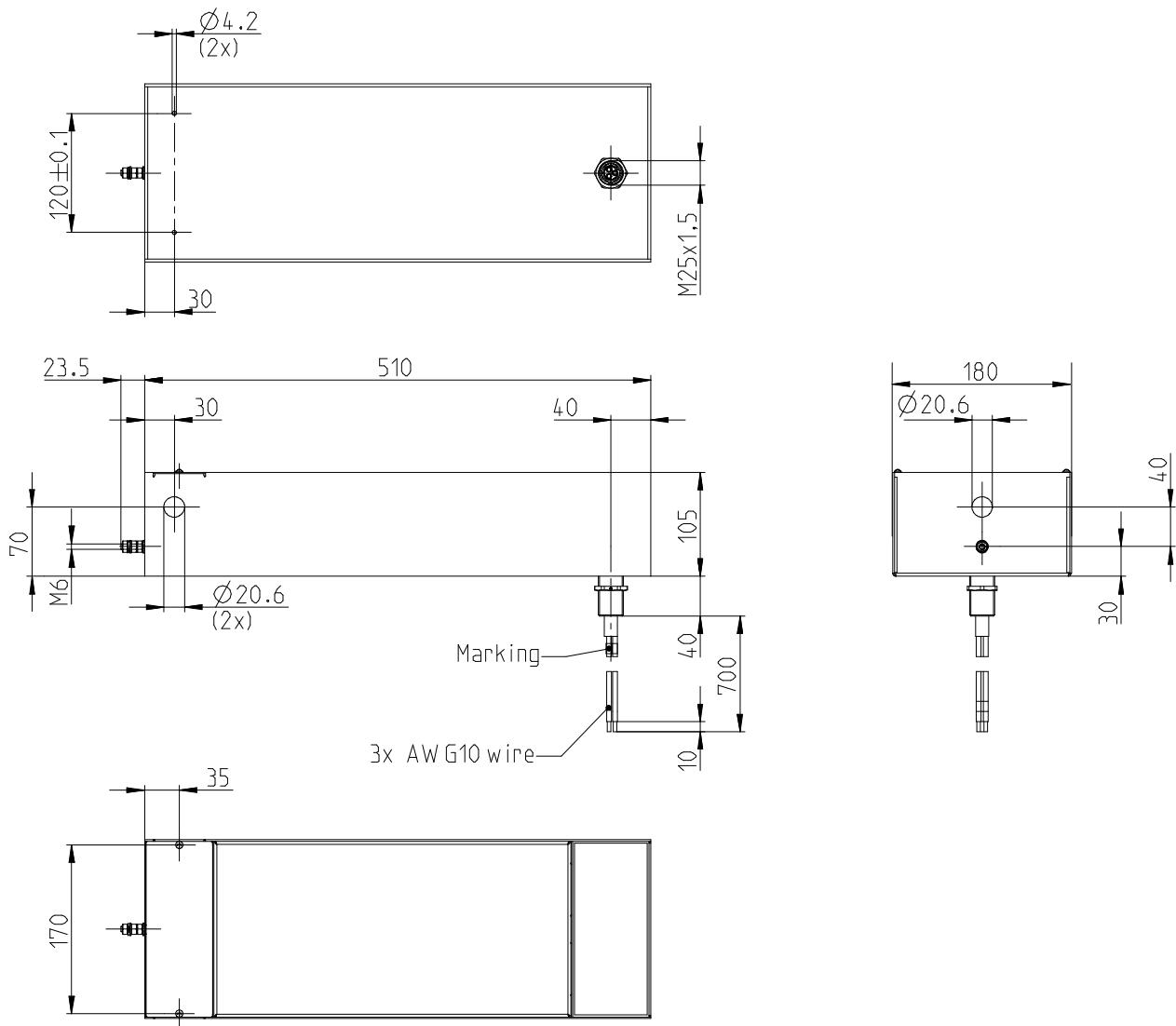


Dimensions for B84299D6010B003, B84299D6050B003


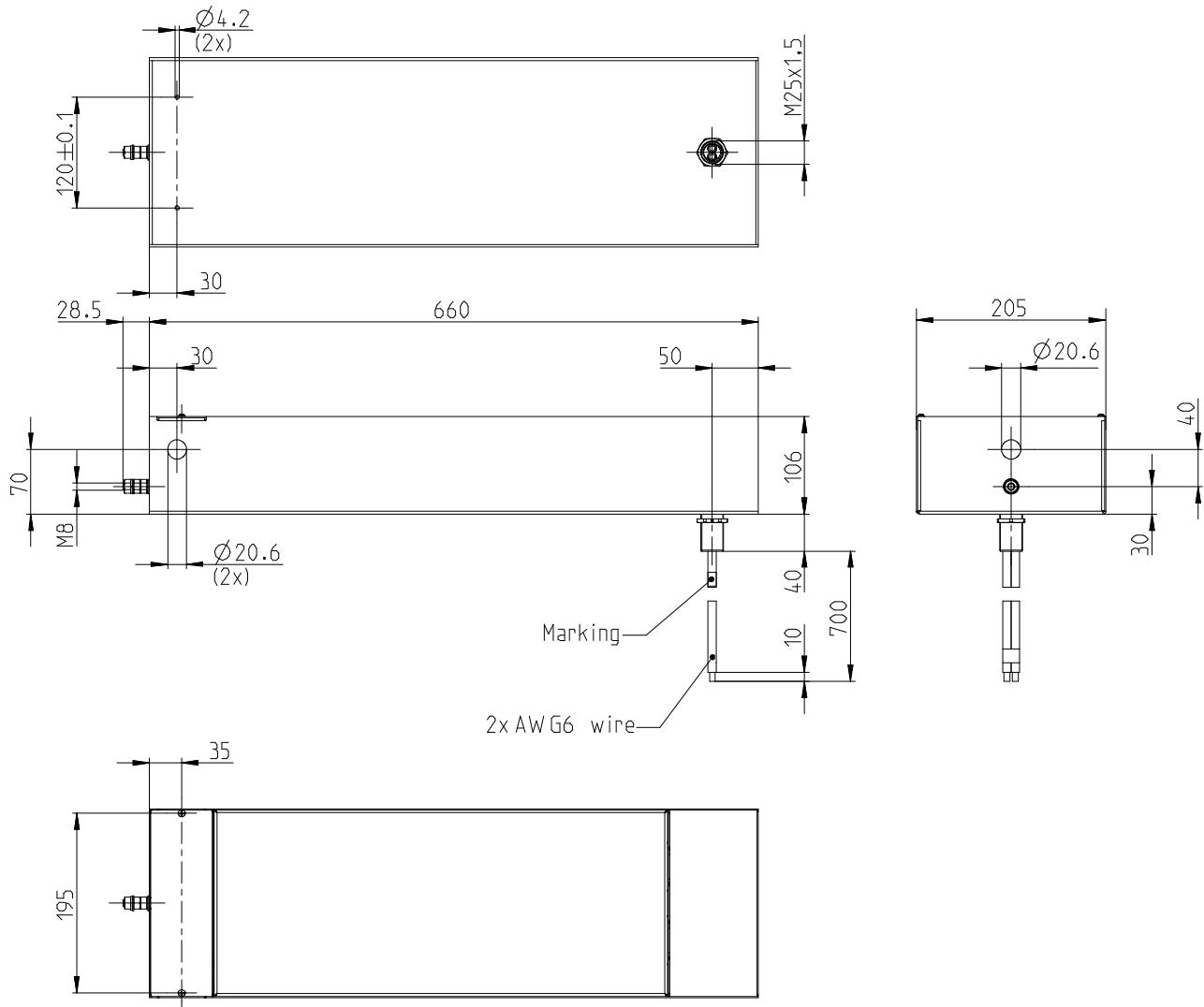
All dimensions are in mm.

Dimensions for B84299D6300B000


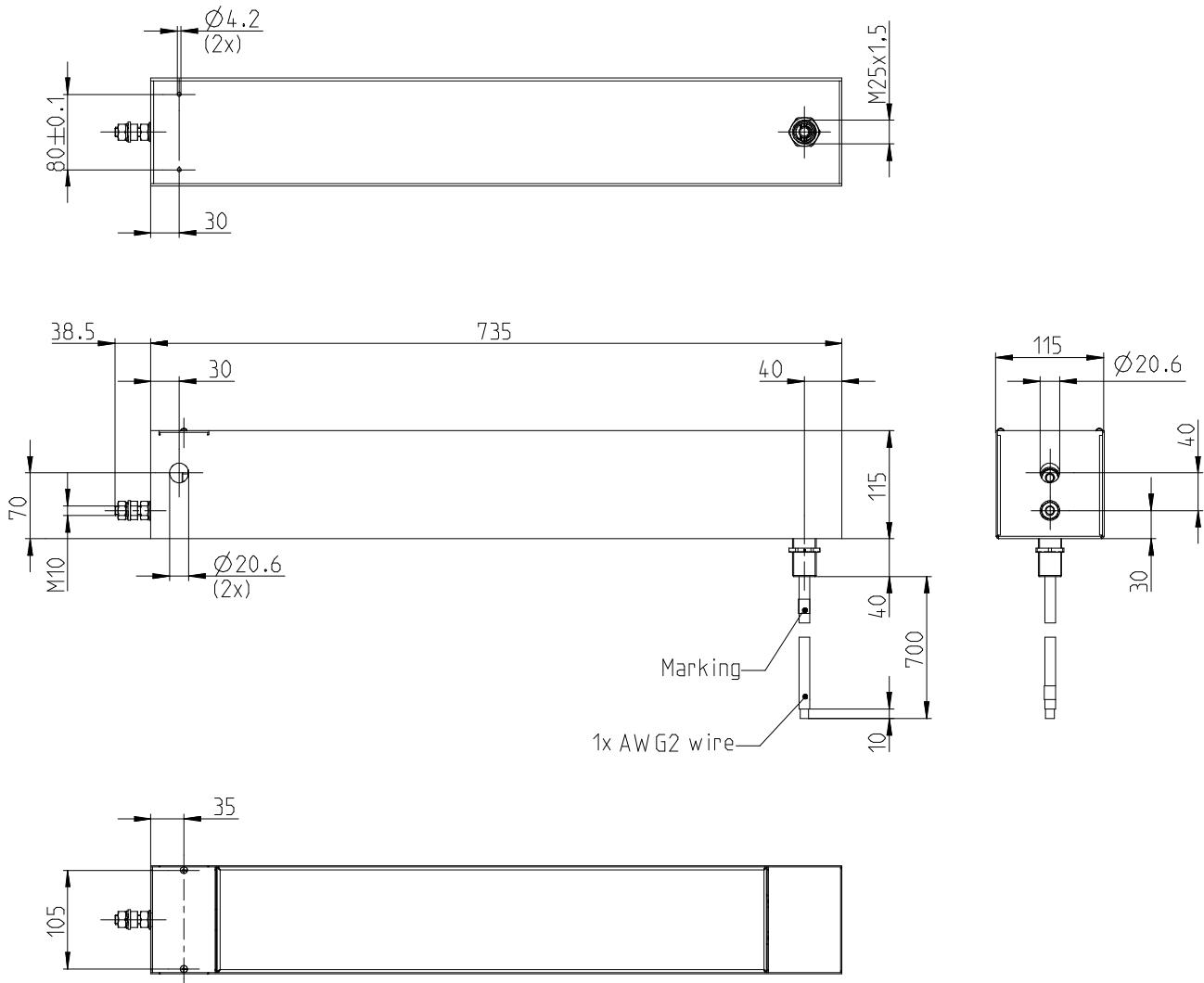
All dimensions are in mm.

Dimensions for B84299D6300B003


All dimensions are in mm.

Dimensions for B84299D6600B003


All dimensions are in mm.

Dimensions for B84299D6101A003


All dimensions are in mm.

Cautions and warnings

- Please note the advices in our data book "EMC Filters" (latest edition); attention should be paid to the chapter "General safety notes".
- It shall be ensured that only qualified persons (electricity specialists) are engaged on work such as planning, assembly, installation, operation, repair and maintenance. They must be provided with the corresponding documentation.
- Danger of electric shock. EMC filters contain components that store an electric charge. Dangerous voltages can continue to exist at the filter terminals for longer than five minutes even after the power has been switched off.
- The protective earth connections shall be the first to be made when the EMC filter is installed and the last to be disconnected. Depending on the magnitude of the leakage currents, the particular specifications for making the protective-earth connection must be observed.
- Impermissible overloading of the EMC filter, such as with circuits able to cause resonances, impermissible voltages at higher frequencies etc. can lead to bodily injury and death as well as cause substantial material damages (e.g. destruction of the filter housing).
- EMC filters must be protected in the application against impermissible exceeding of the rated currents by overcurrent protective.
- In case of leakage currents I_L ⁴⁾ $> 3.5 \text{ mA}$ you shall mount the PE conductor stationary with the required cross section before beginning of operation and save it against disconnecting. For leakage currents I_L ⁴⁾ $< 10 \text{ mA}$ the PE conductor must have a KU value³⁾ of 4.5; for leakage currents $I_L \geq 10 \text{ mA}$ the PE conductor must have a KU value of 6.

3) The KU value (symbol KU) is a classification parameter of safety-referred failure types designed to ensure protection against hazardous body currents and excessive heating. A value of KU = 4.5 with respect to interruptions is attained:

- with a permanently connected protective earth circuit $\geq 1.5 \text{ mm}^2$

- with a protective earth circuit $\geq 2.5 \text{ mm}^2$ connected via shroud connectors (IEC 60309-2).

KU = 6 with respect to interruptions is achieved for fixed-connection lines $\geq 10 \text{ mm}^2$ where the type of connection and line layout correspond to the requirements for PEN conductors as specified in relevant standards.

4) I_L = leakage current let-go

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out that **such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
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