



## 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 x $I_R$ 2.5 x $I_R$	
Climatic category (IEC 60068-1)		25/85/21	
Rated frequency	$f_R$	50/60	Hz
<b>B84299D60*0B003</b> - 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
<b>B84299D6300B000</b> - 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
<b>B84299D6*00B003</b> - 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
<b>B84299D6101A003</b> - 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

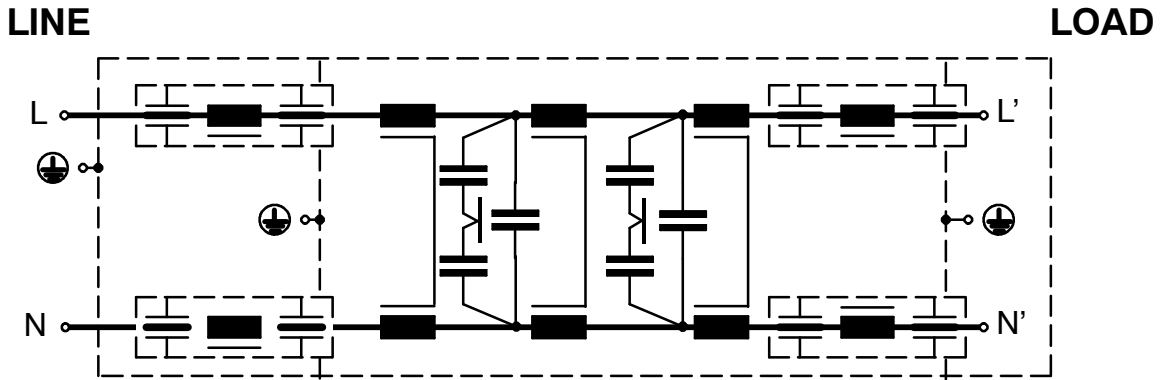
**Characteristics and ordering codes**

$I_R$	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	mΩ	kg		
1	#6-32 UNC 2A	AWG 18	1.6	107	1.9	B84299D6010B003	<b>x</b>
5	#6-32 UNC 2A	AWG 18	1.6	107	1.9	B84299D6050B003	<b>x</b>
30	M6	AWG 12	157	3.2	1.5	B84299D6300B000	<b>x</b>
30	M6	AWG 10	1706	7.7	10.8	B84299D6300B003	<b>x</b>
60	M8	AWG 6	1714	6	22	B84299D6600B003	<b>x</b>
100	M10	AWG 2	3751	3	11.5	B84299D6101A003	<b>x</b>

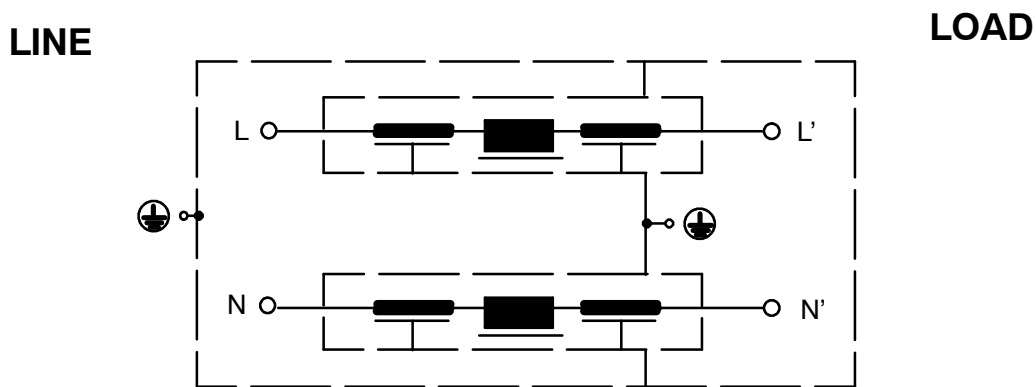
2) Calculation according draft proposal IEC 60939-1 Ed. 3 (2008-10-29), annex A, "Calculation of leakage current" at 50Hz.

3) **X** = approval granted      **P** = pending      **D** = design complies with      **-** = none

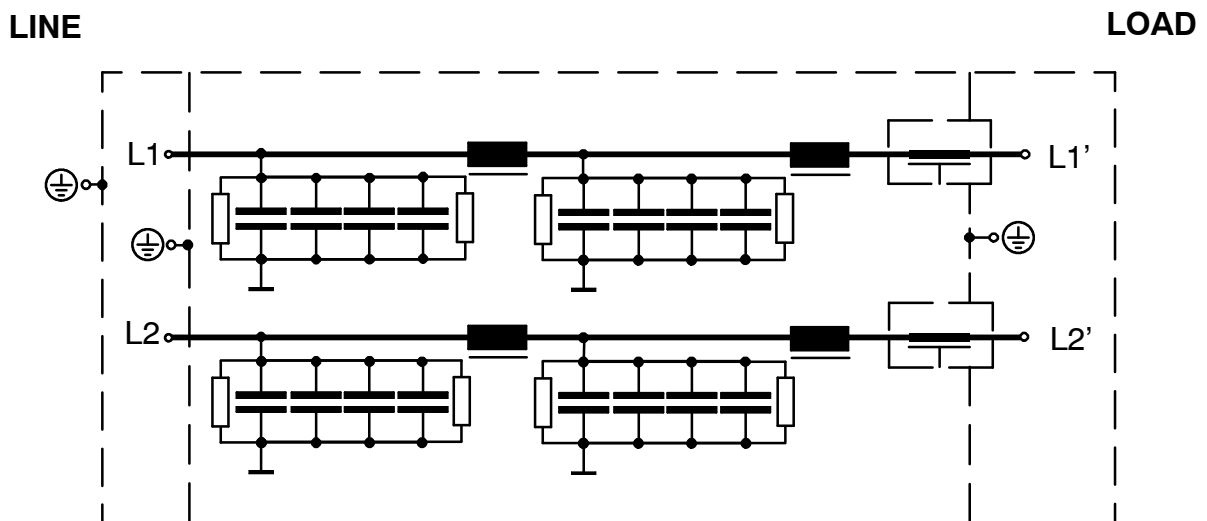
**Circuit diagram for B84299D6010B003 and B84299D6050B003**



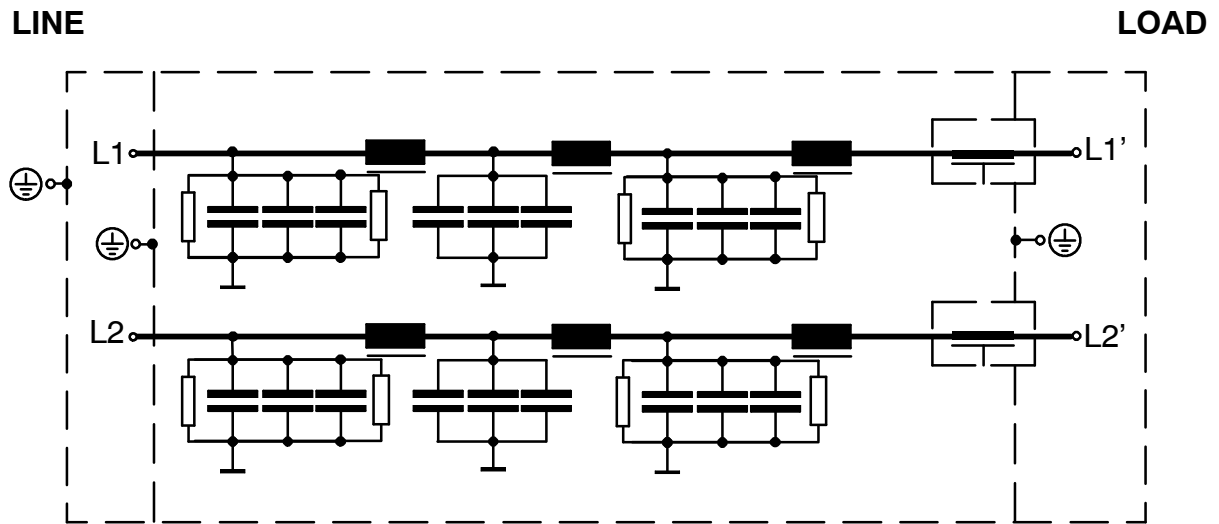
**Circuit diagram for B84299D6300B000**



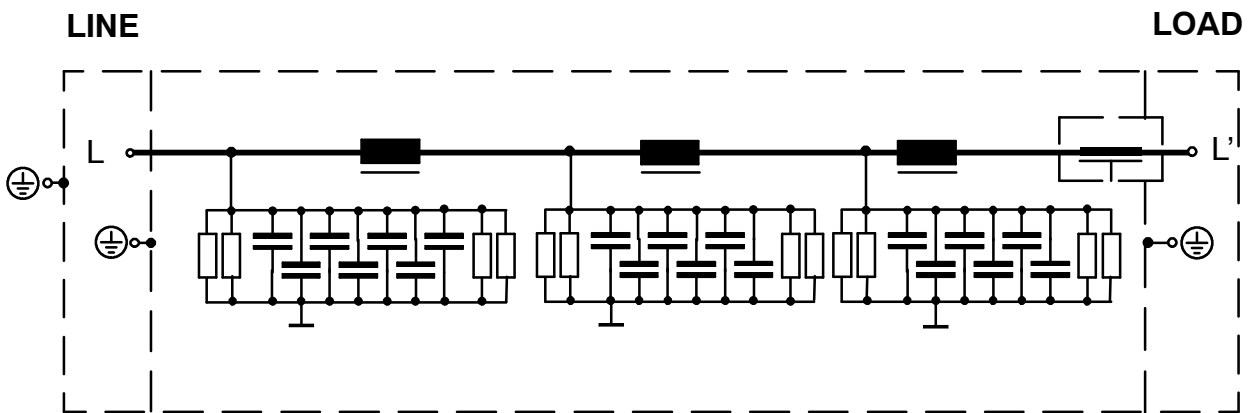
**Circuit diagram for B84299D6300B003**



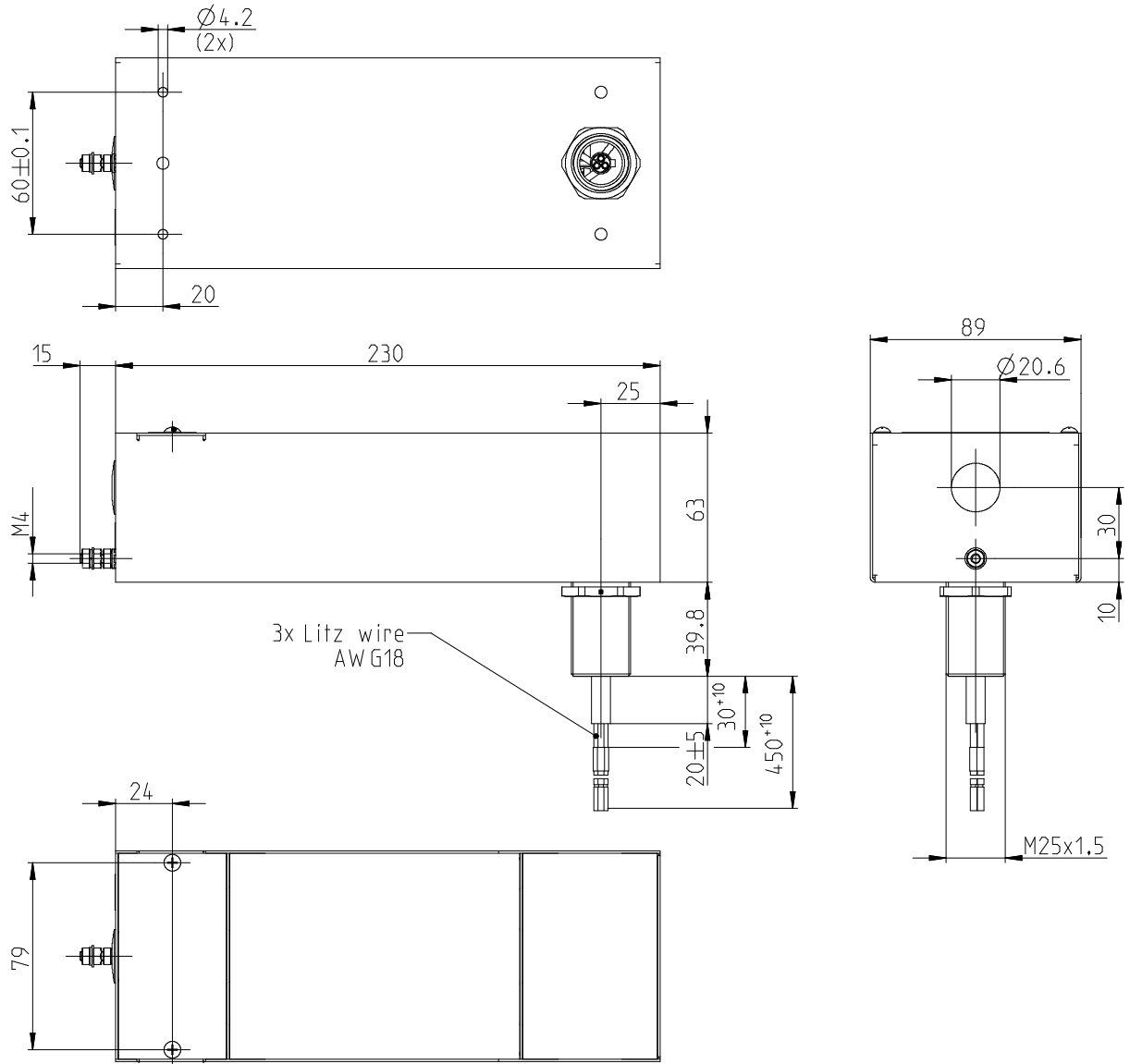
**Circuit Diagram for B84299D6600B003**



**Circuit Diagram for B84299D6101A003**

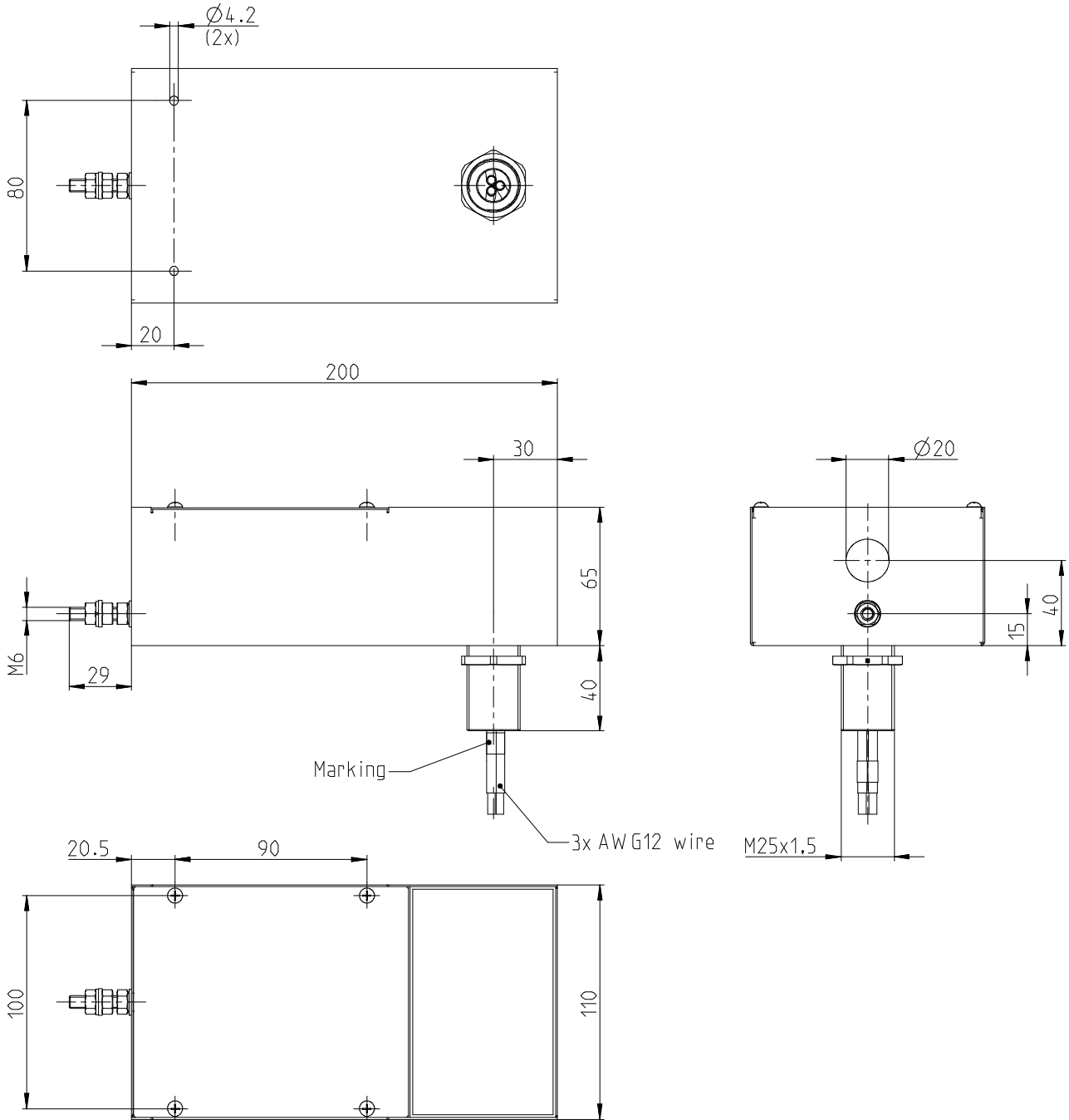


Dimensions for B84299D6010B003, B84299D6050B003



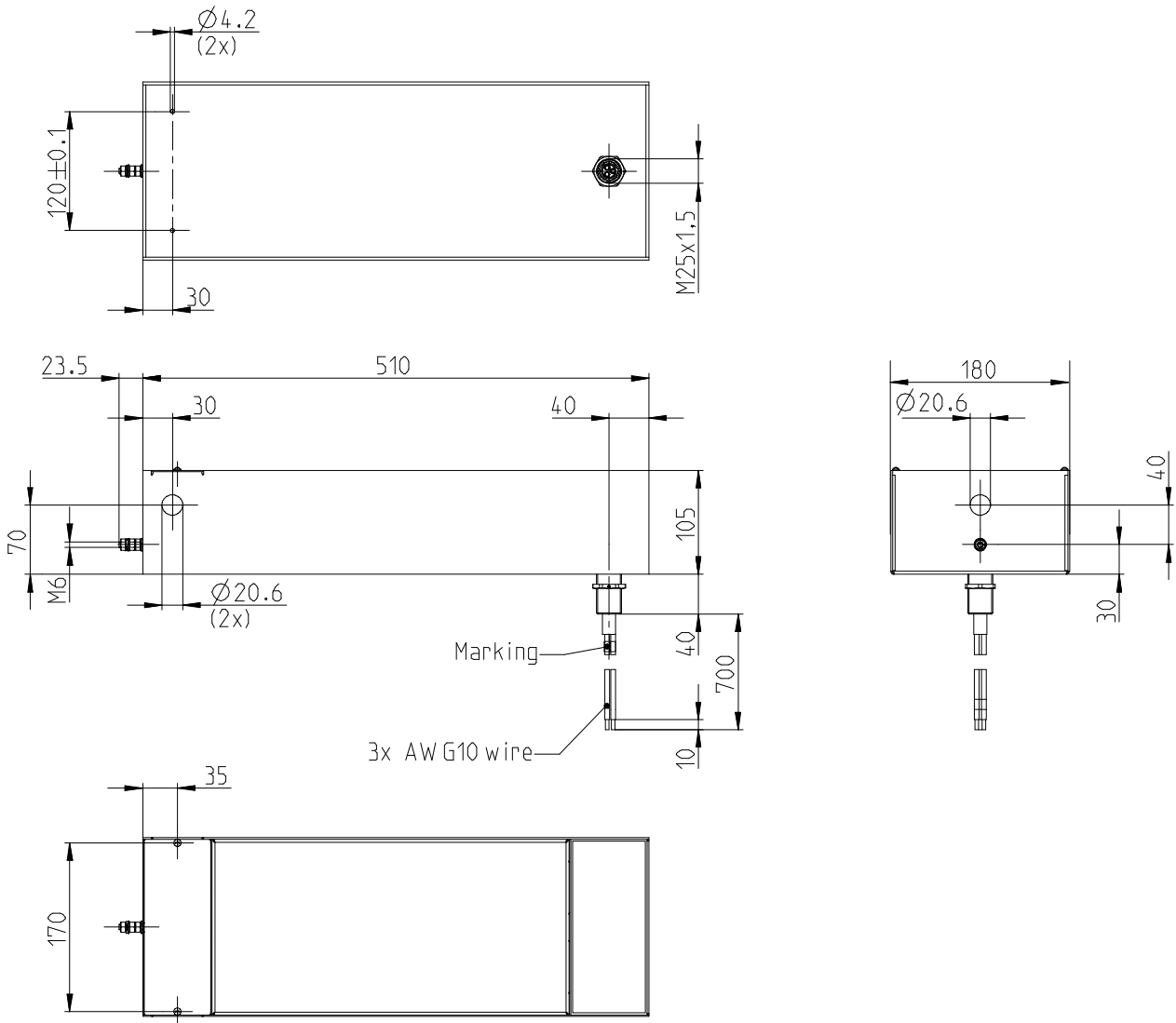
All dimensions are in mm.

Dimensions for B84299D6300B000



All dimensions are in mm.

Dimensions for B84299D6300B003

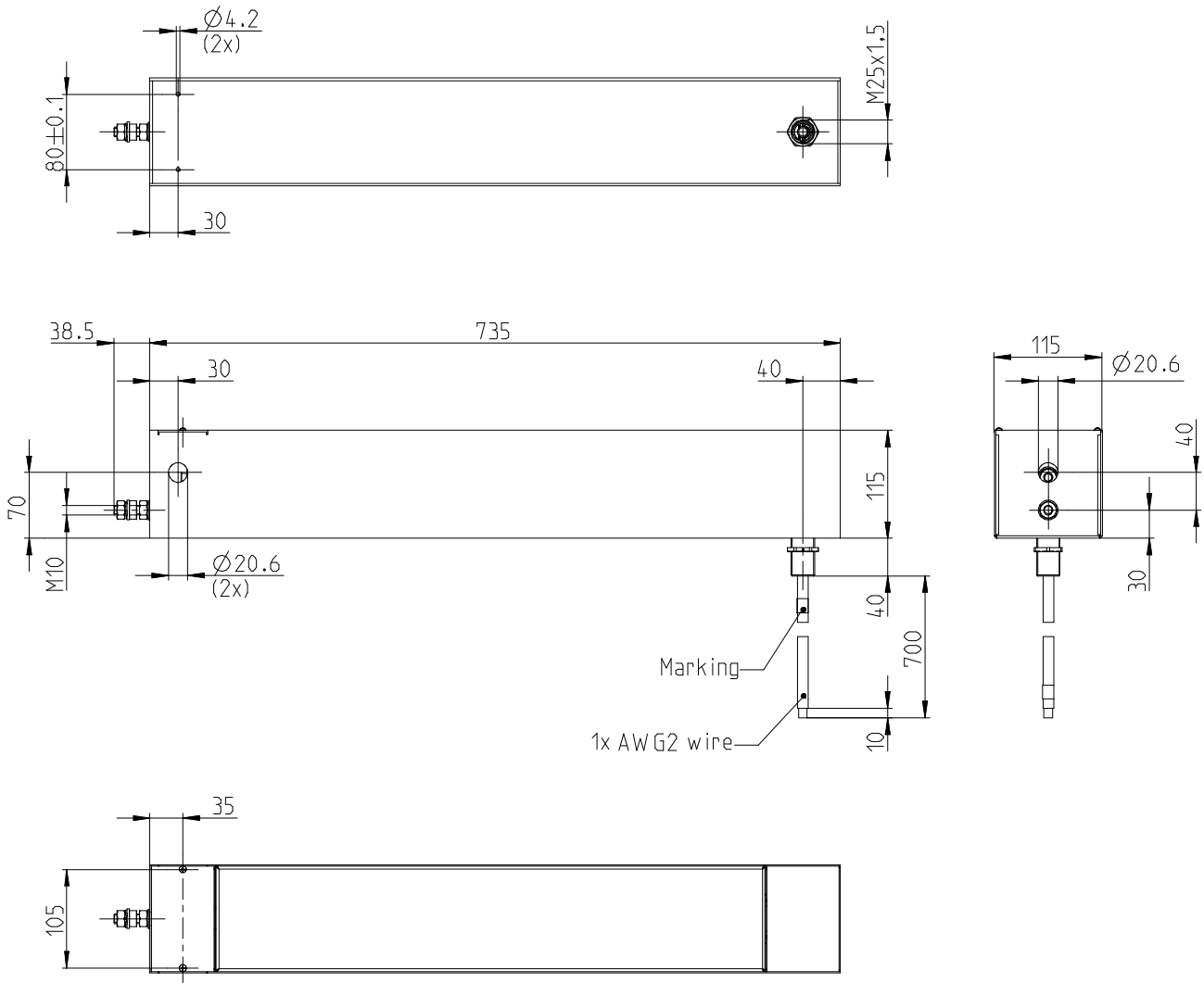


All dimensions are in mm.





Dimensions for 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  $> 3.5$  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  $I_L$  <sup>4)</sup>  $< 10$  mA the PE conductor must have a KU value <sup>3)</sup> of 4.5; for leakage currents  $I_L \geq 10$  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  $\geq 1.5$  mm<sup>2</sup>
- with a protective earth circuit  $\geq 2.5$  mm<sup>2</sup> connected via shroud connectors (IEC 60309-2).

KU = 6 with respect to interruptions is achieved for fixed-connection lines  $\geq 10$  mm<sup>2</sup> 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

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