



HL120

- Voltage limiting device class 2.2 for AC or DC traction systems public transportation as are tram or trolleybus systems.
- Intended for the protection of non-live parts of metal structures.
- Ensure the equipotential bonding between inactive parts, which are not conductively interconnected due to the operating conditions.
- Used for effective protection of persons who may get in touch with these parts in the event of a lightning strike or traction line failure.
- Installed directly on the protected construction structure with connection to the track.
- In the event of a fault by short-circuiting the structure with the track, a quick-release switch will react and interrupt the power supply of the traction line.
- Resistant to vandalism, acid rain and mechanical damage.

Type		HL120
Class of VLD according EN 50526-2		2.2
Type of VLD according EN 50122-1:2011		VLD-F, VLD-O
Maximum non-triggering AC voltage	U_W	60 V
Nominal triggering DC voltage	U_{Tn}	120 V
Short time withstand current DC (25 ms repeatable)	I_W	4.7 kA
Short time withstand current DC (100 ms unrepeatable)	I_W	20 kA
Rated current DC (60 min)	I_r	105 A
Lightning current impulse (8/20)	I_{imp-n}	40 kA
High charge impulse (10/350)	I_{imp-hc}	40 kA
Varistor voltage DC at 1 mA	U_V	180 V
Residual voltage at I_{imp-n}	U_{res}	≤ 500 V
Response time at lightning current impulse	t_R	< 25 ns
Response time of thyristor	t_R	< 1.2 ms
Operating temperature	ϑ	-40 ÷ 55 °C
Altitude		Without limits
Tightening moment		16 Nm
Degree of protection		IP67
Installation		Using two M12 screws
Operating position		Vertical
Product placement environment		External

Designed according to standards

Railway applications – Protective provisions against electric shock	EN 50122-1:2011
Railway applications – Fixed installations – D.C. surge arresters and voltage limiting devices	EN 50526-2:2014
Requirements and test methods for SPDs connected to low-voltage power systems	IEC 61643-11:2011
Surge arresters – Part 4: Metal-oxide surge arresters without gaps for a.c. systems	IEC 60099-4:2014

Ordering, packaging and additional data

Mass	m	4.7 kg
Mass (including the packaging)	m	4.819 kg
Packaging dimensions (H x W x D)		122 x 214 x 133 mm
Packaging value	V	3.47 dm ³
Customs tariff no.		85363010
EAN code		8590681102404
Art. number		10 240



The link in the QR code leads to the online presentation of the HL120. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit www.hakel.com



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Internal diagram

