

# **HGDT20**

- Lightning impulse current and surge arresters type T1+T2.
- The products consist of gas discharge tube with high discharge ability.
- Installed at the boundaries of LPZ 0 LPZ 2, in TN-S, TT power supply systems and in a special design also in IT power supply system.
- Balance the potential between the N and PE conductors in 1+1, 3+1 connection modes.
- Ensures zero leakage current through the PE conductor.
- **M** indication specifies a type of construction with removable module.

Туре		HGDT20
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1, T2
System		TN-S, TT
Maximum continuous operating voltage AC	U <sub>C</sub>	255 V
Impulse discharge current for class I test (10/350) N/PE	$I_{imp}$	20 kA
Charge (N/PE)	Q	10 As
Specific energy for class I test (N/PE)	W/R	100 kJ/Ω
Nominal discharge current for class II test (8/20) N/PE	I <sub>n</sub>	20 kA
Voltage protection level at I <sub>imp</sub>	$U_p$	< 1.4 kV
Temporary overvoltage test (TOV) for $t_T = 0.2 s$ (N/PE)	U <sub>T</sub>	1 200 V
Response time (N/PE)	t <sub>A</sub>	< 100 ns
Follow current interrupt rating	I <sub>fi</sub>	0.1 kA <sub>rms</sub>
Lightning protection zone		LPZ 0-1, LPZ 1-2, LPZ 2-3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	Э	-40 ÷ 70 °C
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T1	S	6 mm² (L, N) 16 mm² (PE, PEN)
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T2	S	2.5 mm <sup>2</sup> (L, N) 6 mm <sup>2</sup> (PE, PEN)
Clamp fastening range (solid conductor)		1.5 ÷ 25 mm <sup>2</sup>
Clamp fastening range (stranded conductor)		1.5 ÷ 16 mm <sup>2</sup>
Tightening moment		3 Nm
Installation		On DIN rail 35 mm
Modular width		1 TE
Operating position		Any
Signalling at the device		None
Remote signalling		No
Lifetime		> 100 000 h
Modular design		No

# Gas discharge tubes for lightning and surge arresters T1+T2



#### Designed according to standards

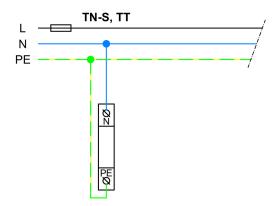
Requirements and test methods for SPDs connected to low-voltage power systems		IEC 61643-11:2011
Safety of Flammability of Plastic Materials		UL 94
Application standards		
Protection against lightning		IEC 62305:2010
Selection and erection of electrical equipment – Switchgear and controlgear		HD 60364-5-53:2022
Selection and application principles for SPDs connected to low-voltage power systems		CLC/TS 61643-12:2009
Ordering, packaging and additional data		
Mass	m	80 g
Mass (including the packaging)	m	91 g
Packaging dimensions (H x W x D)		26 x 98 x 73 mm
Packaging value	V	0.19 dm <sup>3</sup>
Customs tariff no.		85363010
EAN code		8590681160244
Art. number		30 050



**The link in the QR code** leads to the online presentation of the **HGDT20**. 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** 



### Application wiring diagram (installation)



### Internal diagram

