



## HLSA6,5 PV 400 Module

- Removable modules for lightning impulse current and surge arresters type T1+T2 intended for photovoltaic systems (PV).
- They are installed on the DC side in PV applications with external LPS, where a sufficient distance "s" is not observed.
- Suitable for level LPL III or IV.
- Ensure the equipotential bonding of plus and minus busbars of PV systems and the elimination of transient overvoltage resulting from the atmospheric discharges (including direct lightning strike to the PV system) or switching processes.

Type		HLSA6,5 PV 400 Module
Test class according to EN 61643-11:2012 and EN 61643-31:2019		T1, T2
Maximum continuous operating voltage (+/-)	$U_{CPV}$	400 V DC
Maximum continuous operating voltage ( $\pm$ /PE)	$U_{CPV}$	400 V DC
Impulse discharge current for class I test (10/350)	$I_{imp}$	6.5 kA
Nominal discharge current for class II test (8/20)	$I_n$	20 kA
Voltage protection level at $I_n$ (+/-)	$U_p$	< 1.6 kV
Voltage protection level at $I_n$ ( $\pm$ /PE)	$U_p$	< 1.9 kV
Spare module for		16 384, 16 385
<b>Designed according to standards</b>		
Requirements and test methods for SPDs for photovoltaic installations		IEC 61643-31:2018
Safety of Flammability of Plastic Materials		UL 94
<b>Application standards</b>		
Protection against lightning		IEC 62305:2010
Selection and application principles for SPDs connected to photovoltaic installations		IEC 61643-32:2017
Selection and application principles for SPDs connected to photovoltaic installations		CLC/TS 51643-32:2020
Low-voltage electrical installations – Photovoltaic (PV) systems		HD 60364-7-712:2016
<b>Ordering, packaging and additional data</b>		
Mass	m	47 g
Mass (including the packaging)	m	58 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		8590681187500
<b>Art. number</b>		<b>16 390</b>



The link in the QR code leads to the online presentation of the **HLSA6,5 PV 400 Module**. 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](http://www.hakel.com)



**Internal diagram**

