

# Lightning- and Surge Protection

## IsoPro Compact BC TNC / TNS

IPK BC TNC 275 (/FM)  
IPK BC TNS 275 (/FM)

Combined three- resp. four-pole lightning current and surge arrester meeting the requirements of protection categories **T1+T2** (BC), class I+II

To be used as equipotential bonding lightning conductor in TNC- or TNS-Power Net Systems



IPK BC TNC 275



IPK BC TNS 275

- High current lightning and surge protective device (SPD)
- Based on hermetically sealed gas filled spark-gaps
- No blow-out vents, making the observance of safety distances for installation unnecessary
- Protection level  $\leq 2,5$  kV
- Lightning impulse current 100 kA
- High insulation resistance  $R_{isol} > 10^{10} \Omega$
- Function control with potential-free remote signal contact (optional)
- Visual function indicator

### Product description:

**IPK BC TNC 275 (/FM)** is a **three-pole** lightning current surge arrester for the protection of TNC-Power Net Systems.

**IPK BC TNS 275 (/FM)** is a **four-pole** lightning current surge arrester for the protection of TNC-Power Net Systems.

The device consists of a two stage protection circuit. First stage contains a hermetically sealed isolating heavy duty spark-gap filled with inert gas and a second stage with a high performance MOV serial connected to a heavy duty GDT.

This makes dangerous blow-out vents unnecessary. It also saves you from keeping the safety distance to adjoining electrical components usually necessary to avoid damages by unwanted electric arcs. The devices are usually installed in main-distribution panels.

There is no risk of leakage current which could corrode grounding system!

The protective circuit is installed in an easy-to-handle compact housing with snap-on clips for 35 mm DIN rail mounting with screw terminals for wire connections. There is an optional potential-free remote signal contact (/FM) inside the housing.

Protects People and Valuables

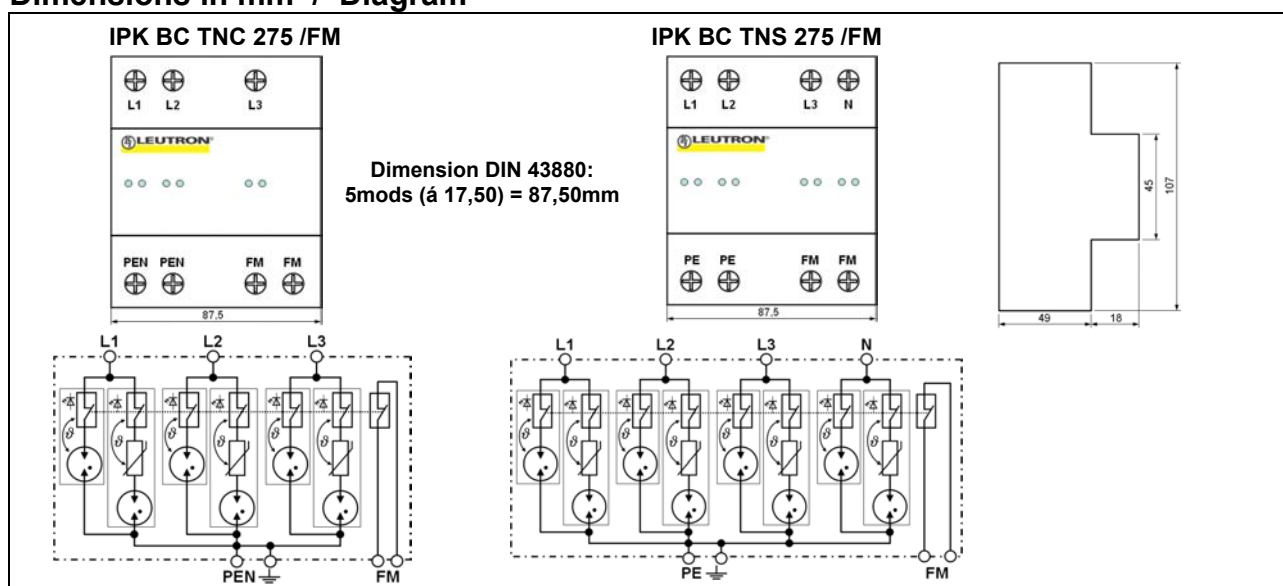


## Technical Data:

Type	Art. Nr.:	Remarks
IPK BC TNC 275	38 11 70	for three phases (L1, L2, L3 –PE)
IPK BC TNC 275 /FM	38 11 71	with potential-free remote signal contact
IPK BC TNS 275	38 11 72	for three phases and neutral (L1, L2, L3, N – PE)
IPK BC TNS 275 /FM	38 11 73	with potential-free remote signal contact

Protection category acc. to: IEC 61643-1 EN 61643-11 E DIN VDE 0675-6 11/98-A1				class I+II <b>T1+T2</b> (BC)
Nominal power supply voltage 50/60 Hz	$U_n$	[V]	230 / 400	
Rated voltage (max. continuous operating voltage) 50/60 Hz	$U_c$	[V]	255	
Voltage protection level at 100 % lightning impulse spark over voltage (1,2/50 $\mu$ s)	$U_p$	[kV]	$\leq 1,4$	
Voltage protection level at $I_{imp}$ (8/80 $\mu$ s)	$U_p$	[kV]	$\leq 2,5$	
Insulation resistance	$R_{isol}$	[ $\Omega$ ]	$> 10^{10}$	
Response time	$t_A$	[ns]	$< 50$	
Lightning impulse current $i_{imp}$ (10x 8/80 $\mu$ s)	$I_{peak}$ Q W/R	[kA] [As] [kJ/ $\Omega$ ]	<b>TNC</b> 75kA (15kA 10/350 $\mu$ s) 10 5x 10	<b>TNS</b> 100kA (20kA 10/350 $\mu$ s) 10 5x 10
Max. permissible line resp. backup fuse F2		[A]	160 A gL/gG	
Operating temperature range	$t$	[ $^{\circ}$ C]	-40 ... +85	
Max. cross-sectional area		[mm <sup>2</sup> ]	stranded 50 / flexible 35	
Recommended cross sectional area		[mm <sup>2</sup> ]	25	
Recommended connection torque		[Nm]	4,5	
Max. cross-sectional area for remote signal contact terminal		[mm <sup>2</sup> ]	1,5	
Max. switching capacity of remote signal contact			250V / 0,5A	
Material of housing / colour			Keripol / yellow-grey Noril SE100	
Ambient protection category (IEC/EN 60529)			IP 20	
Mounting on			DIN rail 35 mm (DIN/EN 50 022)	

## Dimensions in mm / Diagram



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Subject to technical modifications and  
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LEUTRON GmbH  
Overvoltage Protection  
Humboldtstraße 30-32  
D-70771 Leinfelden-Echterdingen  
GERMANY

Phone +49 711 / 9 47 71-0  
Fax +49 711 / 9 47 71-70  
Email: [info@leutron.de](mailto:info@leutron.de)  
Website: [www.leutron.de](http://www.leutron.de)