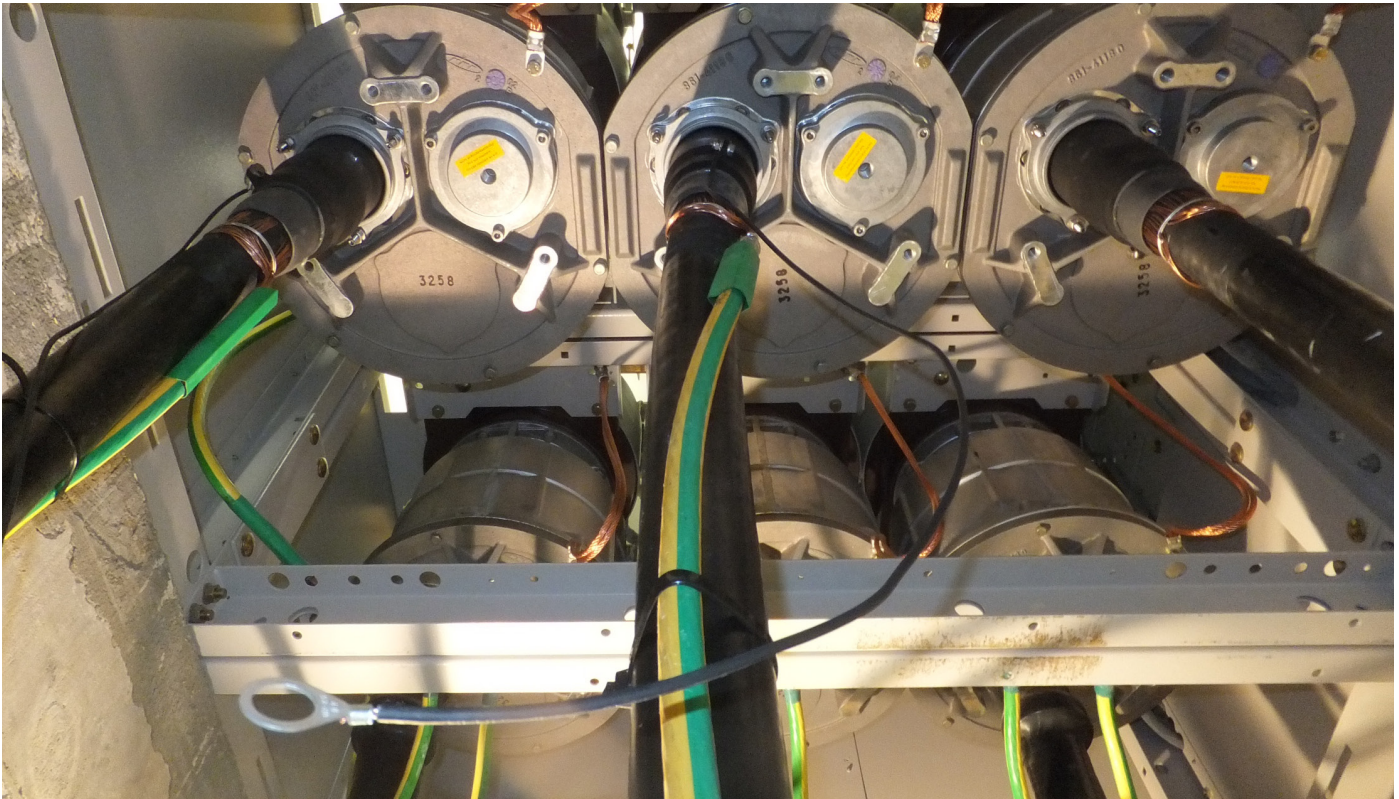


## nkt cables CPI Inner Cone Connectors

Easy to install, range-taking MV switchgear connections for EN 50180/50181 Sizes 2 and 3



**nkt cables manufactures a wide range of cables and cable accessories and is the leading supplier of medium voltage screened connectors across much of Australasia.**

nkt cables was the first to manufacture silicone rubber cable terminations and now has 50 years' experience, in applications up to 400 kV.

CPI is a screened inner cone cable connector made of silicone rubber for connecting to medium voltage switchgear, RMUs and transformers fitted with bushings Size 2 or 3 according to EN 50180/50181.

The silicone rubber grade used in the CPI is durable, UV and ozone resistant, waterproof, non-flammable, self-extinguishing and heat resistant. Together with its excellent mechanical and electrical properties, this makes silicone rubber a preferred material for 11-33 kV inner cone connectors.

In addition to offering high quality electrical insulation and superior corona and tracking resistance, the elasticity of silicone rubber facilitates a wide application range for each CPI. So one product can be used for many different conductor cross-sections.

This connection type delivers a compact and reliable in-line interface with XLPE and EPR cables.

Installation is straightforward and fast thanks to the design of the CPI. The unique shear-bolt connector simplifies assembly and provides assurance of correct fit; the multi-range stress cone allows realistic cable preparation tolerances; the unique connector casing eliminates the requirement for special tools.

The outer screen is a fully bonded conductive layer. The cable screen can be tested without disassembly. Operation is maintenance free.

# Product Data Sheet

## nkt cables screened connectors for Size 2 and Size 3 interfaces

Hamer Code	Interface type	Continuous nominal current A	System voltage		Application range		Dimensions		
			22kV	33kV	Cross Section <sup>1</sup> , mm <sup>2</sup>		Insulation diameter, mm		Approx length <sup>2</sup> mm
					Min	Max	Min	Max	
NKTCPI236120	2	800	✓	✓	50	120	21.2	33.6	190
NKTCPI236185	2		-	✓	150	185	28.9	40.0/44.0 <sup>3</sup>	190
NKTCPI236300	2		✓	✓	240	300	28.9	40.0/44.0 <sup>3</sup>	190
NKTCPI336120	3	1250	✓	✓	95	120	21.2	33.6	195
NKTCPI336185	3		✓	✓	120	185	21.2	33.6	195
NKTCPI336300	3		✓	✓	240	300	28.9	37.8 <sup>3</sup>	195
NKTCPI336630	3		✓	-	400	630	34.0	45.6	195
NKTCPI336630A	3		-	✓	400	630	39.1	51.0	195

## Test requirements

Test	Test voltage	Requirements
Partial discharge	42kV	XLPE cable: ≤5 pC  No breakdown or flashover
AC withstand 5 min	117kV	
DC withstand 15 min	125kV	
Impulse withstand ±10x	200kV	

# Product Data Sheet

## nkt cables screened coupling surge arresters

Hamer code	Residual voltages							
	Max continuous operating voltage, Uc	Rated voltage, Ur	Nominal discharge current, In	Steep current impulse (5/10 kA, 1/50 µs)	Long duration current impulse (125 A, 30/60 µs)	Lightning current impulse (5/10 kA, 8/20 µs)	Partial discharge at 1.05x Uc	Approx length <sup>9</sup>
	kV	kV	kA	kV	kV	kV	pC	mm
NKT-SPI2-24-5	24	30	5	125	60.6	79.7	<5	340
NKT-SPI3-42-10	42	52.5	10	200	99.4	140.0	<5	460

## nkt cables accessories for inner cone connectors

Hamer code	Description	Max system voltage kV	Notes
NKT-FPI2	Final plug for Size 2 (set of 3)	42	Insulating plug for equipment interface
NKT-FPI3	Final plug for Size 3 (set of 3)	52	Insulating plug for equipment interface
NKT-PASTE	Assembly paste (60 g tube)	-	Always use the correct assembly paste

### Notes

- Maximum size is for AL or CU RMV conductor
- From mounting face to end of stress cone
- Three core cables only
- Uc = 6 kV / U = 10 kV / Um = 12 kV
- Uc = 12 kV / U = 20 kV / Um = 24 kV
- Uc = 18 kV / U = 30 kV / Um = 36 kV
- Uc = 20.8 kV / U = 36 kV / Um = 42 kV
- AC withstand 15 min
- From mounting face to end of arrester (excluding earth stud)