



CONTACT

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AFN - Outdoor slip-on termination, silicone, for multiple voltage levels up to 42 kV

STANDARDS

Test CENELEC HD 629.1

DESCRIPTION

Application

AFN 10, AFN 20, AFN 30 and AFN 36 slip-on terminations are suitable for outdoor installation on polymeric insulated medium voltage cables with extruded easy strip conductive screen or bonded extruded conductive screen.

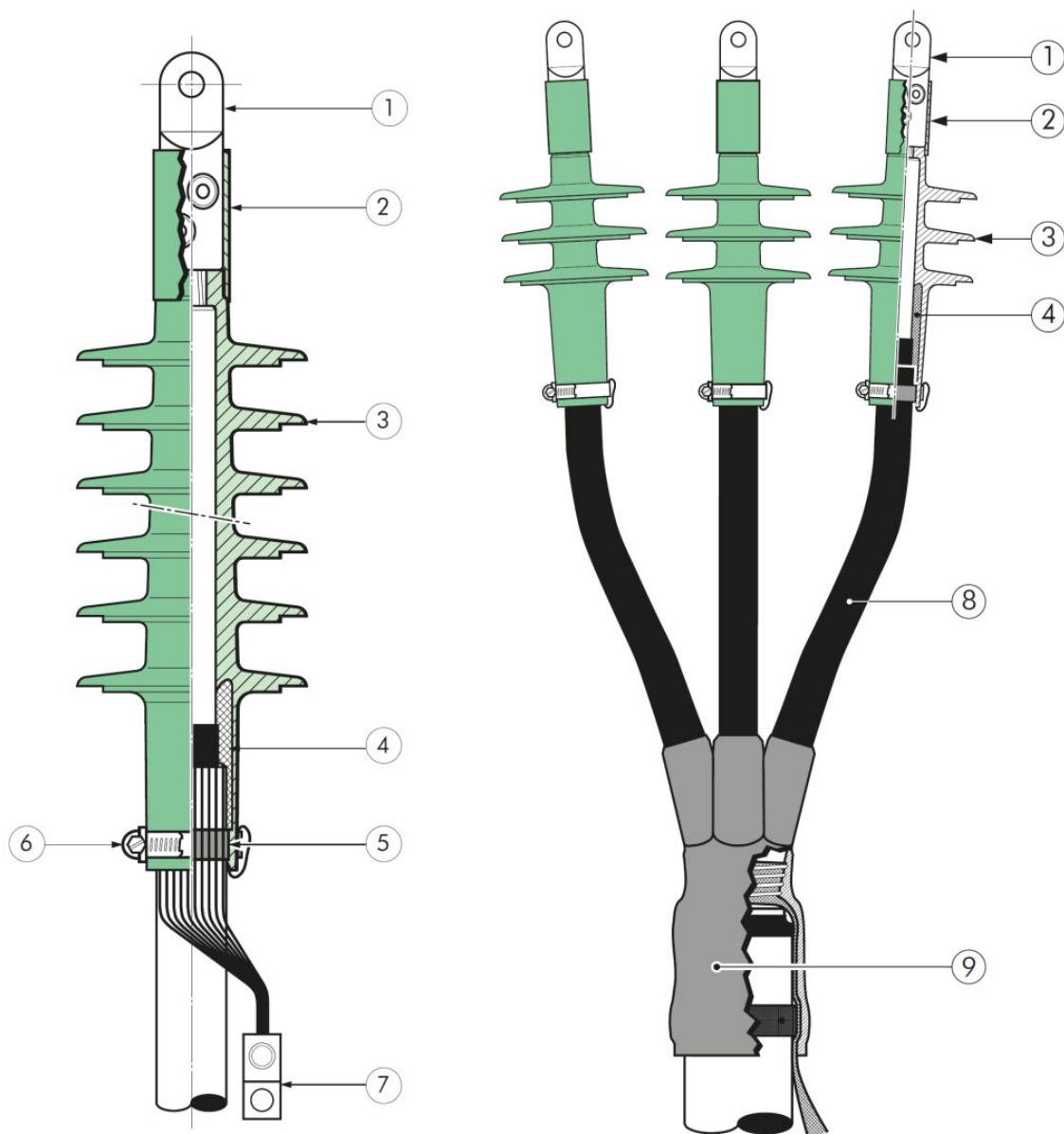
With this high-quality silicone termination, the entire range of cross-sections is covered with just a few sizes per voltage level. Another benefit given by using the AFN termination is the quick and easy assembly.

The conductor can be alternatively connected with mechanical or compression cable lugs. The termination is available with additional splitting accessories for three-core, copper wire screened or copper tape screened and armored cables.

Specifications and standards

Meets the requirements of CENELEC HD 629.1

DRAWING AFN



DESIGN AFN

1. Longitudinally sealed mechanical or compression cable lug
2. Silicone tube or cap as additional sealing at the transition of cable lug to the termination housing when using mechanical cable lugs
3. High flexibility silicone rubber housing, ensuring a perfect fit to the cable even during load changes
4. Integrated conductive rubber insert
5. Water sealing mastic
6. Earthing clamp
7. Earth cable lug
8. Heat-shrinkable tube
9. Heat-shrinkable break-out

TECHNICAL DATA AFN

Termination type	Nominal voltage U_0/U (kV)	Conductor cross-section (mm ²) ¹⁾	
		min.	max.
AFN 10	6/10	25	1000 (1200)
AFN 20	12/20	35	1000 (1200)
AFN 30	18/30	50	1000 (1200)
AFN 36	20.8/36	50	1000 (1200)

¹⁾ Other cross-sections are available on request.

KIT CONTENTS AFN

- 3 termination housings
- 3 mechanical or compression cable lugs for the conductor
- 3 mechanical or compression screen wire cable lugs
- Installation instructions
- Silicone grease
- Assembly incidentals

ORDERING INSTRUCTIONS AFN

Table 1 - Classification and dimensions

Table 2 - Ordering part number

Indicate the part number when ordering (see table).

Order example:

1 AFN 20 kit for 12/20 kV, for 95-240 mm² with mechanical cable lug (palm hole diameter 13 mm).
Order according to table 2: 1 kit – AFN 20 size 2 with part number 48793.

TABLE 1 - CLASSIFICATION AND DIMENSIONS AFN

Table 1 - Classification and dimensions

Nominal voltage U_0/U (kV)	Conductor cross-section (mm ²)		Dia. over core insulation (mm)		Number of sheds	L (mm)	Dia. D (mm)	Creep-age distance (mm)	Ordering part number
	min.	max.	min.	max.					
6/10	25	95	12.7	20.8	3	210	90	369	3 x AFN 10 Gr.1
	120	240	19.2	28.4	3	210	96	365	3 x AFN 10 Gr.2
	300	500	27.4	36.4	3	210	105	360	3 x AFN 10 Gr.3
	630	800	34.0	45.0	4	240	118	462	3 x AFN 20 Gr.4
	1000		39.0	50.0	7	405	127	755	3 x AFN 36 Gr.5
	1200		46.0	58.0	7	405	127	755	3 x AFN 36 Gr.6
12/20	35	70	18.3	23.5	4	240	100	480	3 x AFN 20 Gr.1
	95	240	22.5	33.0	4	240	112	499	3 x AFN 20 Gr.2
	300	500	31.0	41.0	4	240	118	462	3 x AFN 20 Gr.3
	400	630	34.0	45.0	4	240	118	462	3 x AFN 20 Gr.4
	630	800	39.0	50.0	7	405	127	755	3 x AFN 36 Gr.5
	1000	1200	46.0	58.0	7	405	127	755	3 x AFN 36 Gr.6
18/30	50	70	23.8	28.4	6	300	115	695	3 x AFN 30 Gr.1
	95	240	27.1	37.6	6	300	115	694	3 x AFN 30 Gr.2
	240	400	31.5	42.8	6	300	127	718	3 x AFN 30 Gr.3
	400	630	39.0	50.0	7	405	127	755	3 x AFN 36 Gr.5
	630	1200	46.0	58.0	7	405	127	755	3 x AFN 36 Gr.6
20.8/36 ²⁾	50	70	23.8	28.4	6	300	115	695	3 x AFN 30 Gr.1 ³⁾
	95	240	27.1	37.6	6	300	115	694	3 x AFN 30 Gr.2 ³⁾
	240	400	31.5	42.8	6	300	127	718	3 x AFN 30 Gr.3 ³⁾
	400	630	39.0	50.0	7	405	127	755	3 x AFN 36 Gr.5
	630	1200	46.0	58.0	7	405	127	755	3 x AFN 36 Gr.6

2) Since the dimensions for cables at voltage level 20.8/36 (42) kV are not yet standardised, the conductor cross-sections and their assignment of diameters over core insulation given in the table are to be considered approximate values. When ordering accessories, we would like to ask you to indicate the checked diameters over core insulation.

3) Pollution class is B. If higher pollution class is requested, please contact our sales representative.

Note: The classification does only apply for polymeric insulated XLPE cables (dimensions acc. to DIN VDE 0276 620) with extruded conductive screen and stranded conductors. Please contact our sales representative, when using other cable types.

DIMENSIONS AFN

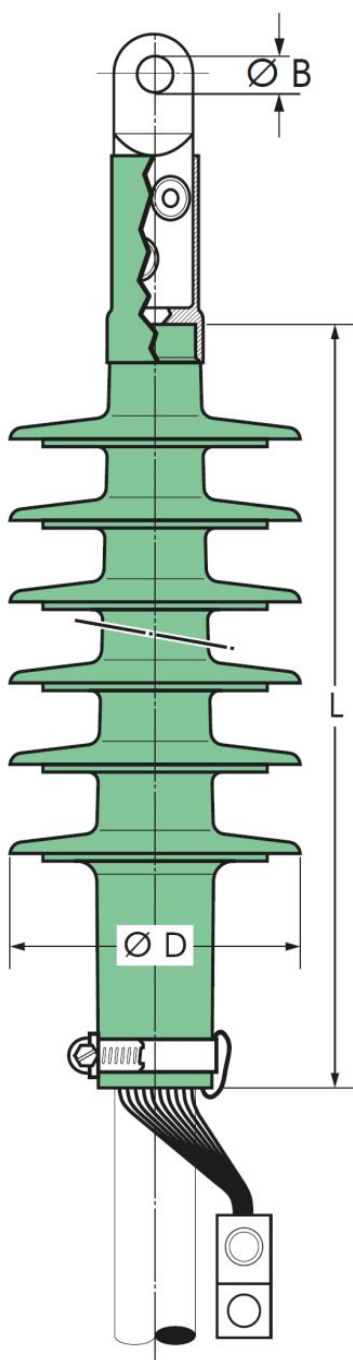
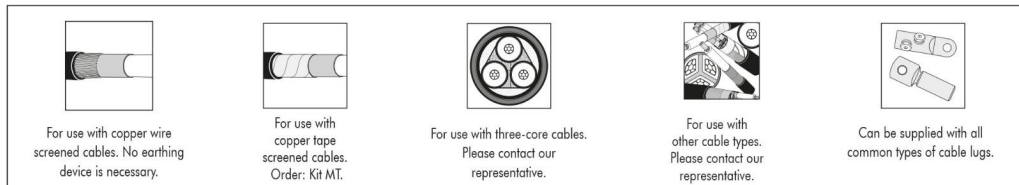


TABLE 2 - ORDERING PART NUMBER AFN

Table 2 - Ordering part number

Conductor cross-section (mm²)	Dia. over core insulation (mm)		Ordering part number (1 Kit = 3 Items)					Termination type (Kit)															
			with mechanical connector		with compression connector																		
	min.	max.	Ordering part number	Dia. B	Al - rm(V)	Cu - rm(V)	Dia. B																
Nominal voltage U ₀ /U 6/10 kV																							
25 35 50 70 95	12.7	20.8	52190	13	52196 52198 52199 52200 52201	52197 48330 49750 49877 48939	13 13 13 13 13	AFN 10 Gr. 1															
120 150 185 240					19.2	28.4	52191		13	52202 45599 52203 45384	47989 45730 52204 45090	13 13 17 17	AFN 10 Gr. 2										
300 400 500										27.4	36.4	52194		17	52205 52206 48084	47969 45733 -	17 17 17	AFN 10 Gr. 3					
630 800															34.0	45.0	54863		21	- -	- -	21 21	AFN 20 Gr. 4
1000																				39.0	50.0	57242	
1200	On request																						
Nominal voltage U ₀ /U 12/20 kV																							
35 50 70	18.3	23.5	51355	13	49628 45315 49624	45481 45365 45521	13 13 13	AFN 20 Gr. 1															
95 120 150 185 240					22.5	33.0	48793		13	44564 49625 44189 49626 44340	45109 45749 44668 44643 44487	13 13 13 17 17	AFN 20 Gr. 2										
300 400 500										31.0	41.0	59080		17	45477 45598 49630	45403 45164 44563	17 17 17	AFN 20 Gr. 3					
400 500 630	34.0	45.0	54965	17				54966 54866 -							59081 - -	17 17 21	AFN 20 Gr. 4						
630 800								39.0							50.0	57245			21	- -	- -	21 21	AFN 36 Gr. 5
1000																				46.0	58.0	59758	
1200	On request																						
Nominal voltage U ₀ /U 18/30 kV																							
50 70	23.8	28.4	51367	13	49635 49637	45140 49636	13 13	AFN 30 Gr. 1															
95 120 150 185 240					27.1	37.6	51369		13	48677 49640 49641 48002 44670	49638 49639 48085 45396 44669	13 13 13 17 17	AFN 30 Gr. 2										
240 300 400										31.5	42.8	52213		17	52220 49642 45235	52219 44791 48108	17 17 17	AFN 30 Gr. 3					
400 500 630	39.0	50.0	57273	17				57274 48577 -							57275 - -	17 17 21	AFN 36 Gr. 5						
630 800								46.0							58.0	54857			21	- -	- -	21 21	AFN 36 Gr. 6
1000																				- -	- -	21 21	
1200	On request																						
Nominal voltage U ₀ /U 20.8/36 kV																							
50 70	23.8	28.4	57250	13	57253 57254	57263 57264	13 13	AFN 30 Gr. 1															
95 120 150 185 240					27.1	37.6	57251		13	57255 57256 57257 57258 57259	57265 57266 57267 57268 57269	13 13 13 17 17	AFN 30 Gr. 2										
240 300 400										31.5	42.8	57252		17	57260 57261 57262	57270 57271 57272	17 17 17	AFN 30 Gr. 3					
400 500 630	39.0	50.0	57276	17				57277 57278 -							57280 - -	17 17 21	AFN 36 Gr. 5						
630 800								46.0							58.0	54860			21	- -	- -	21 21	AFN 36 Gr. 6
1000																				- -	- -	21 21	
1200	On request																						

PICTOGRAMS AFN



TECHNICAL INSTRUCTIONS AND APPLICATION INFORMATION (ACCESSORIES)

The data given were determined diligently, but do not release our customers of the duty to carry out tests themselves in order to check the suitability of the products delivered by us for the intended use. We reserve the right to modify characteristic and performance data according to the present state of technology. Processing and use of the products cannot be controlled by us and are therefore exclusively in your field of responsibility.

Our products meet the VDE standards respectively correspond to DIN pages and IEC recommendations.

Attention: Before first design in please contact manufacturer.

The products, described in this catalogue, are designed for connection of bare energy cable conductors (Class 1 & 2) with description of round solid (RE), round stranded (RM), as well as sector solid (SE), sector stranded (SM) and round stranded compacted (RMV) for conductor temperatures up to 90 °C. All conductor filling materials like tapes, yarn, powder or similar need to be completely removed before the installation. A check on basis of the actual existing conductor dimensions by the user is indispensable. This applies also for the application of Class 6 conductors or other special conductor types.

Impact wrenches have to be approved by Nexans! Depending on different conductor material or conductor type, indicated values may differ from test values acc. to IEC 61238-1. The use of fine stranded conductors has to be approved by Nexans Power Accessories Germany GmbH.

Our responsibilities are only those listed in the latest edition of "General terms and conditions for the supply of products and services of the electrical and electronics industry". We can provide a copy on request.

Our products are mainly delivered in cartons. We only use package materials able to be recycled due to the latest packing system. Collapsible cardboard boxes are not taken back. Please try to order complete standard packages.

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Hof, May 2021