

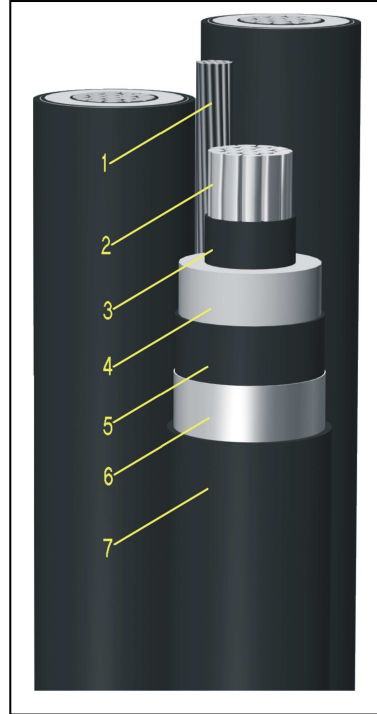
TECHNICAL SPECIFICATION

AHXAMK-W 3x240+35 20 kV acc. to HD 620 S2 10F

CONSTRUCTION

Lay-up: The single-phase cables are twisted around the bare earth conductor.

- 1. Bare earth copper conductor:**
Round, stranded and compacted
- 2. Aluminium phase conductor:**
Round, stranded and compacted, watertight by swelling powder
- 3. Conductor screen:**
Semi-conducting cross-linked compound
- 4. Insulation:**
XLPE polyethylene
- 5. Insulation screen:**
Semi-conducting, fully bonded, cross-linked compound
+ Longitudinal watertightness semi-conducting tape
- 6. Metallic screen:**
Aluminum foil bonded tightly to sheath providing radial watertightness
- 7. Sheath:** Black LLDPE



The picture is informative only, not in scale

APPLICATION

- ☐ Laying in ground
- ☐ Laying in air

Highest permissible conductor temperature

- ☐ Continuous operation 90 °C
- ☐ Short circuit 250 °C
- ☐ Overload 130 °C
(duration max 5 s)

Laying is possible without any special measures at natural cable temperatures not lower than -20 °C

DESCRIPTION	UNIT	DETAILS
CONSTRUCTION DATA		12/20(24) kV
Bare earth conductor		
<input type="checkbox"/> material	-	copper
<input type="checkbox"/> number of wires	No.	7
<input type="checkbox"/> nominal cross sectional area	mm ²	35
<input type="checkbox"/> diameter and tolerance	mm	7.0 ^{+0.15}
Phase conductor		
<input type="checkbox"/> material	-	aluminium
<input type="checkbox"/> number of wires	No.	34
<input type="checkbox"/> nominal cross sectional area	mm ²	240
<input type="checkbox"/> diameter and tolerance	mm	17.9 ^{0.1}
Minimum thickness semi-conducting XLPE on conductor	mm	0.30
Insulation thickness: minimum average XLPE	mm	5.5
Insulation thickness: minimum at a point	mm	4.85
Diameter over insulation, approx.	mm	29.9
Minimum thickness semi-conducting XLPE on insulation	mm	0.30
Thickness of semi-conducting swelling tape, approx.	mm	0.5
Individual metallic screen		
<input type="checkbox"/> width x thickness	mm x mm	105 x (0.2 Al. + 0.05 PE)
<input type="checkbox"/> nominal cross sectional area of aluminium	mm ²	20
Diameter over metallic screen	mm	32.2
Nominal outer sheath thickness	mm	3.1
Approximate overall diameter phase cable	mm	38.9
Approximate overall diameter completed cable (De)	mm	83.5
Weight of complete cable, approx.	kg/km	5 035

DELIVERY DATA		
Diameter x max. width of wooden drum □ type	m	2.50 x 1.25 25
Length per drum ± 5%	m	500
Weight of reel, including cable	kg	3 275
MECHANICAL DATA		
Recommended min. bending radius for laying	m	1.25
Maximum permissible pulling force with a pulling eye on conductors	kN	21.6
SHORT CIRCUIT CURRENTS		
Maximum permissible thermal short-circuit current for 1 sec. Phase conductor 90 → 250 °C	kA	22.6
AMPACITY		
in earth	A	453
in air	A	470

Current rating guideline:

- Ambient air temperature 30 °C
- Load factor 1.0
- Ground temperature 15 °C
- Depth 0.7 m
- Ground thermal resistivity 1.0 K•m/W

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