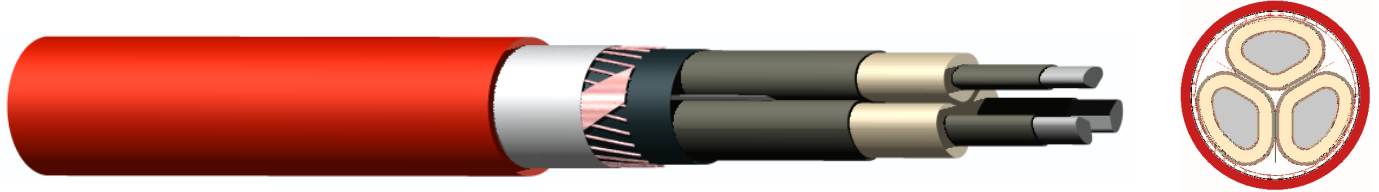


**PEX-S-AL**

6/10(12) kV

CENELEC HD 620 S2:2010 Part 10 Section D

**Medium voltage aluminium power cable****CONSTRUCTION**

Conductor:	Solid 120° sector-shaped aluminium conductors (IEC 60228 class 1).
Conductor screen:	Semi-conducting cross-linked polyethylene with nominal thickness of 0,5 mm.
Insulation:	Extruded cross-linked polyethylene (XLPE) having nominal thickness of 3,4 mm.
Insulation screen:	Semi-conducting XLPE with nominal thickness of 0,8 mm. Insulation screen is strippable.  Conductor screen, insulation and insulation screen are all extruded in the same operation by triple-extrusion. Phase number identification is printed on each insulated conductor.
Asseby:	Insulated phase conductors laid-up together with plastic tapes between the conductors. A lapped layer of semiconducting tape over conductor assembly as a binder.
Metallic screen:	Cu-screen made of helically applied copper wires with a counter helix copper tape. Lapped plastic tapes wrapped over copper screen.
Sheath:	Red weather resistant polyethylene (PEMD) sheath.
Temperature limits:	Max. conductor temperature 90 °C Max. short circuit temperature 250 °C (duration not exceeding 5 sec.)  Min. temperature during handling and installation - 20 °C Min. temperature during transport - 40 °C
Applications:	Cable is intended for fixed installations indoors and outdoors, on cable ladders, in conduits and cable ducts. Not for submarine applications.

**PEX-S-AL**

6/10(12) kV

CENELEC HD 620 S2:2010 Part 10 Section D

**Technical details**

Product code	3x50+16 1187703	3x95+25 1187705	3x150+25 1187707	3x240+35 1187709	3x300+35 1187710
Nominal width of conductor (mm)	10,0	13,6	17,6	23,4	26,8
Nominal height of conductor (mm)	6,2	8,9	11,0	14,0	16,0
Nominal thickness of insulation (mm)	3,4	3,4	3,4	3,4	3,4
Nominal cross section of metallic screen (mm <sup>2</sup> )	16	25	25	35	35
Nominal thickness of sheath (mm)	2,4	2,7	2,9	3,2	3,3
Diameter of cable, approx. (mm)	40	47	51	58	63
Weight of cable, approx. (kg/km)	1345	2025	2610	3710	4490
Maximum pulling force when pulled by stocking (kN)	5,0	7,5	10,0	15,0	17,5
Minimum bending radius during installation (m)	0,40	0,47	0,51	0,58	0,63
Max resistance of conductor at 20 °C (Ω/km)	0,641	0,320	0,206	0,125	0,125
Max resistance of metallic screen at 20 °C (Ω/km)	1,15	0,727	0,727	0,524	0,524
Inductance (mH/km) <sup>1</sup>	0,47	0,44	0,40	0,37	0,36
Capacitance (μF/km) <sup>1</sup>	0,19	0,24	0,28	0,34	0,38
Charging current (A/km) <sup>2</sup>	0,3	0,4	0,5	0,6	0,7
<b>CURRENT RATINGS</b> (according to HD 620 S2:2010 part 10 section F)					
- Cables in air (25 °C), conductor temperature 90 °C (A)	160	230	305	400	460
- Cables in ground (15 °C), thermal resistivity of soil 1,0 K.m/W, laying depth 0,7 meter, conductor temperature 65 °C (A)	145	205	260	340	380
<b>Max 1 second thermal short-circuit current (kA)</b>					
-conductor (temp. at the beginning 90 °C, final temp. 250 °C)	4,7	8,9	14,1	22,6	28,2
-metallic screen (temp. at the beginning 80 °C, final temp. 250 °C)	2,4	3,7	3,7	5,2	5,2

1) Calculated value, for guidance only

2) Calculated value for guidance, with operational voltage U = 10 kV