

AFIRENAS XZ1 (S) AI

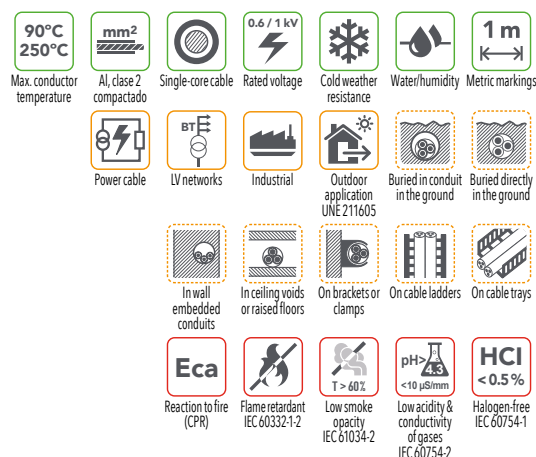
DoP : ME1000XZ1AL

MIGUELÉLEZ ARTICLE GROUP

850



- **Standards (construction/tests):** UNE-HD 603-5X (Type 5X-1).
- **Technical Designation:** XZ1 (S) 0.6/1 kV AL.
- **Construction:**
 - **Conductor:** Aluminium, class 2, circular compacted stranded conductor (EN 60228 / IEC 60228).
 - **Insulation:** Cross-linked polyethylene (XLPE). XLPE (IEC 60502-1) and Type DIX 3 (HD 603-1).
 - **Oversheath:** Halogen-free thermoplastic polyolefin. Type DMO 1 (HD 603-1).
- **Rated Voltage (Uo/U):** 0.6/1 kV AC; 1.5/1.5 kV DC.
- **Maximum conductor temperature. Normal operation / short-circuit ($t \leq 5s$):** 90 °C / 250 °C.
- **Range:** Single-core cable. Configurations: 1X(16-...-630) mm².
- **Reaction to fire (CPR - EN 50575 & EN 13501-6):** Eca.
- **Additional fire performance features (when CPR Regulation is not applicable):** Flame retardant, halogen-free and low gas and smoke emission with low opacity/toxicity/corrosivity/conductivity (IEC 60332-1-2, IEC 60754-1, IEC 60754-2 and IEC 61034-2).
- **Applications:** Halogen-free power cable, especially suitable for fixed installations in low-voltage distribution networks, buried or underground service connections, photovoltaic systems and industrial installations. Suitable for indoor and outdoor installations, on supports in the air, in conduits or buried. Weather and UV resistant: Condition AN3 (HD 60364-5-51).
The adherence between insulation and oversheath ensures a high sealing index. Suitable for installation under condition AD7 (HD 60364-5-51 - partial or intermittent immersion with a cumulative immersion period not exceeding 2 months per year and a water depth not exceeding 150 mm).
Permanent submersion in water (e.g., submerged pump power supplies) is strictly prohibited.
Abrasion Resistance: High resistance thanks to its special oversheath.
- **Connections and joints:**
 - Must be secure, permanent, mechanically robust, corrosion-resistant, and of low electrical resistivity.
 - Conductor connections should ensure perfect continuity of the conductor and its insulation.
 - Use appropriate splicing, connecting, and branching techniques to avoid material deterioration, thermal expansion issues and galvanic corrosion risks.
 - Avoid unnecessary joints and connections.
- **Temperature ranges:**
 - **Minimum ambient temperature:** –30 °C (fixed, static installation, protected against mechanical damage, shock, or vibration).
 - **Maximum ambient temperature:** +70 °C.
 - **Maximum storage temperature:** +50 °C.
 - **Minimum laying temperature:** 0 °C.
- **Minimum Bending Radius:**
 - **During installation:** 15xD.
 - **Final position:** 10xD.
D = overall diameter of the cable (mm).
- **Maximum pulling force during Installation:**
 - $F = 30 \times S$ (N). "S" = cross-sectional area of the conductor (mm²), applied to the aluminium conductors.
 - $F = 5 \times D^2$ (N). "D" = overall diameter (mm), applied to the oversheath.
- **Identification:** Insulation color → No coloration / Oversheath color → Black (92).
- **Packaging and Presentation:** Drum/cut to length (03).
- **Other Features:**
 - Metric markings on the oversheath every 1.0 m.
 - 100% recyclable packaging. Wooden reels (PEFC and SFC certified).
 - Inclusion of manufacturing order number for total traceability.



Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (DC)
	mm ²	mm	mm	kg/km	Ω/km
885001001609203	1 X 16	0.8	8.8	90	1.91
885001002509203	1 X 25	1.0	10.5	130	1.20
885001003509203	1 X 35	1.0	11.5	160	0.868
885001005009203	1 X 50	1.0	12.6	205	0.641
885001007009203	1 X 70	1.1	14.9	272	0.443
885001009509203	1 X 95	1.1	16.2	344	0.320
885001012009203	1 X 120	1.2	17.9	430	0.253
885001015009203	1 X 150	1.4	19.5	523	0.206
885001018509203	1 X 185	1.6	22.0	652	0.164
885001024009203	1 X 240	1.7	24.6	835	0.125
885001030009203	1 X 300	1.8	27.7	1,050	0.100
885001040009203	1 X 400	2.0	30.0	1,356	0.0778
885001050009203	1 X 500	2.2	33.8	1,667	0.0605
885001063009203	1 X 630	2.4	38.6	2,143	0.0469