

**ICAL-CAA/RA - ALUMINIUM CONDUCTORS WITH ALUMINIUM CLAD STEEL CORE (ACSR/AW)**

ICAL-176,9-CAA/RA-DOTTOREL

**Description**

ACSR/AW is suitable for energy transmission in urban and rural overhead lines. The CAA/RA aluminum cable is an aluminum conductor, alloy 1350 (H19 temper) stranded (class 2), concentric with an aluminum coated steel core ALUMOSTEEL, which ensures greater mechanical performance compared to bare aluminum cables and higher resistance to corrosion compared to cables with zinc plated steel core.



**Datasheet**

<b>International Code</b>	Dottorel
<b>Cross Section (AWG/MCM)</b>	176,9
<b>Area</b>	
Al (mm <sup>2</sup> )	89,410
Aço (mm <sup>2</sup> )	52,150
Total (mm <sup>2</sup> )	141,560
<b>Formation</b>	
Al (fios/Ømm)	12 x 3,08
Aço (fios/Ømm)	7 x 3,08
<b>Nominal Diameter of Steel Core (mm)</b>	9,24
<b>Nominal Diameter of Cable (mm)</b>	15,40
<b>Nominal Mass</b>	
Al (kg/km)	248
Aço (kg/km)	345
Total (kg/km)	593
<b>Breaking Load (kN / kgf)</b>	75,14 / 7662
<b>Maximum Resistance to 20°C in DC (ohms/km)</b>	0,2704
<b>Modulus of Elasticity to 20°C Final (Mpa)</b>	102x10 <sup>3</sup>
<b>Coef. of Linear Thermal Expansion (1/°C)</b>	17,4 x 10 <sup>-6</sup>
<b>Ampacity (A)</b>	515
<b>Characteristics of Aluminium Wires</b>	
Seção Nominal (mm <sup>2</sup> )	7,45
Condutividade Mínima (%IACS)	61,0

Resistência à Tração Média - Mín. (MPa)	172
Along. à Ruptura Média Mín. (%)	1,8
<b>Characteristics of Aluminium-Steel Wires</b>	
Seção Nominal (mm <sup>2</sup> )	7,45
Condutividade Mínima - 20°C (%IACS)	20,3
Resistividade Máxima - 20°C (ohms.mm <sup>2</sup> /km)	
Resist. à Tração Média - Mín. (MPa)	1344
Resist. à Tração a 1% de Alongamento (MPa)	1206
Along. à Ruptura Média Mín. (%)	1,5
<b>Package</b>	
Tipo de Bobina	127/70
Lance Nominal (m)	2120
Massa Líq. por Bobina (kg)	1252,00
Massa Bruta da Bobina com Fechamento (kg)	1377,00