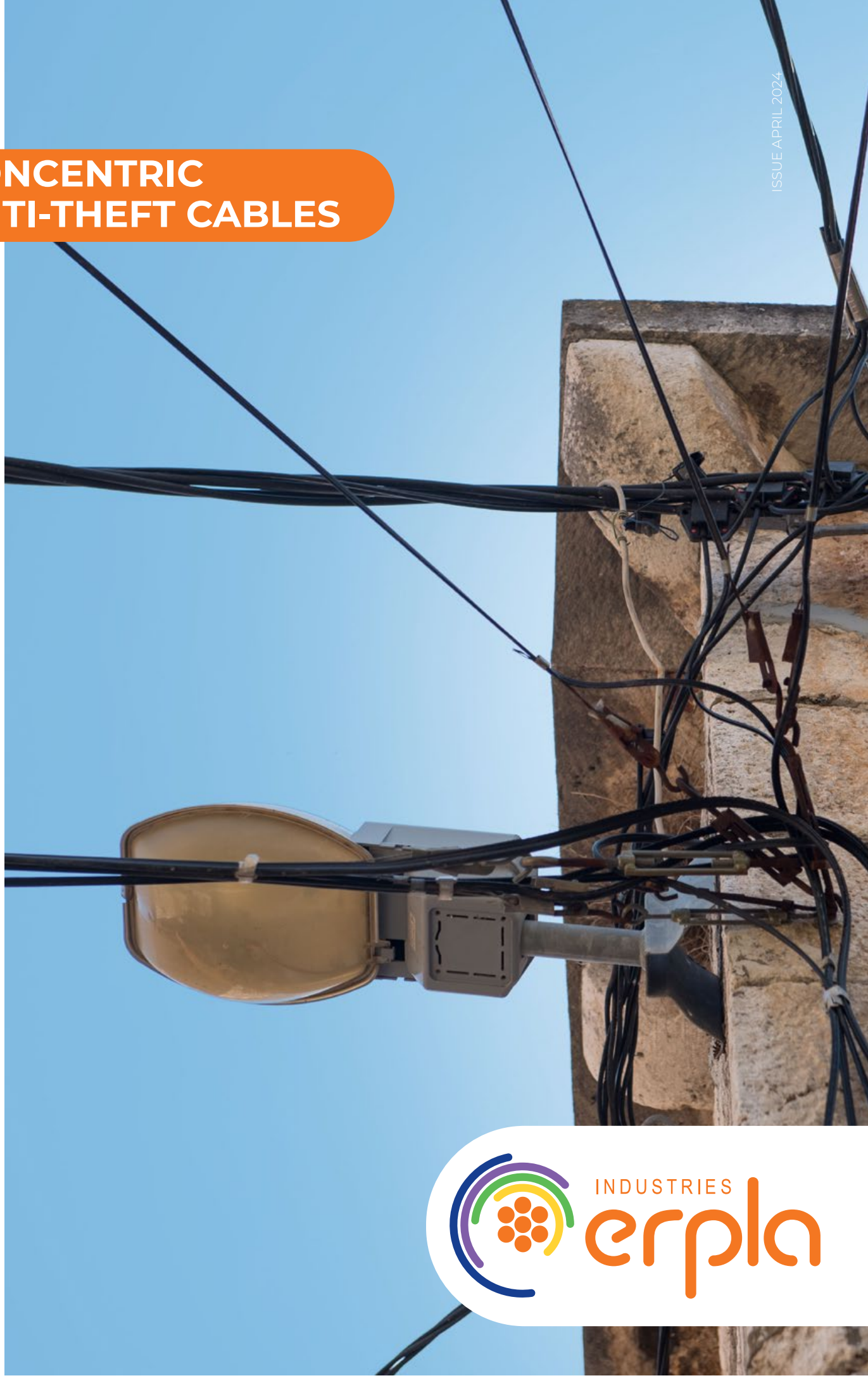
CONCENTRIC ANTI-THEFT CABLES

ISSUE APRIL 2024



INDUSTRIES erpla

www.industriaserpla.com.ar

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Concentric Anti-Theft Cables

Specially designed for single-phase service drops from pre-assembled low-voltage overhead lines.

Its main feature is the reduction of energy theft. To fulfill its purpose, the installation requires the use of overhead protections that act in case of short circuits due to attempts of clandestine connections, thus interrupting the power supply and revealing the theft attempt.

Features

- IRAM 63001 — Manufacturing standard
- 0,6/1,1 kV — Nominal voltage
- 90°C — Service temperature
- Flexible strands
- Water absorption resistance
- Abrasion resistance
- UV resistance
- Cold resistance
- Aislamiento sin plomo — Eco-friendly blends

All ERPLA cables are manufactured under the ISO 9001:2015 Quality Management System and ISO 14001:2015 Environmental Management System, certified by IRAM.

CENTRALFLEX PLUS

VC-32CU / VC-93AL

Bipolar copper or aluminum cables, with concentric XLPE insulated neutral.

Applications: Single-phase tap connection from the three-phase power distribution pre-assembly line to the customer's meter.

Conductor // Class 2 electrolytic copper

Annealed copper or 1350 aluminum wires of high conductivity applied concentrically on the insulation; intended to act as neutral conductor. Internal and external cross-linked polyethylene (XLPE) insulation, black color.

Malleable, durable, non-toxic, resistant, antimicrobial, energy conductive.
100% recyclable

IRAM 63001 CERTIFICATIONS

ACCORDING TO NM-280 / IEC 60228 MANUFACTURING STANDARDS

Cable assembly	Conductor assembly	Insulation thickness	Cover thickness	Ø Ext. Approx
N° x mm	N° x mm	mm	mm	mm
1x4+4	7x0.85	1.00	1.20	9
1x6+6	7x1.05	1.00	1.20	10
1x10+10	7x1.35	1.00	1.20	11
1x16+16	7x1.70	1.00	1.20	12

Technical Parameter	Value	Unit
Conductor Material	Annealed Copper or Aluminum 1350	-
Insulation Material	Cross-linked polyethylene XLPE	-
Sheath Material	Cross-linked polyethylene XLPE	-
Type (Flexibility)	2	-
Service Temp.	90	°C
Max. Service Temp.	130	°C
Short circuit	250	°C
Operating voltage (Uo/U)	0.6 / 1	kv
Manufacturing range	4 a 16	mm^2

Available color of insulation and sheaths

Black

Presentation

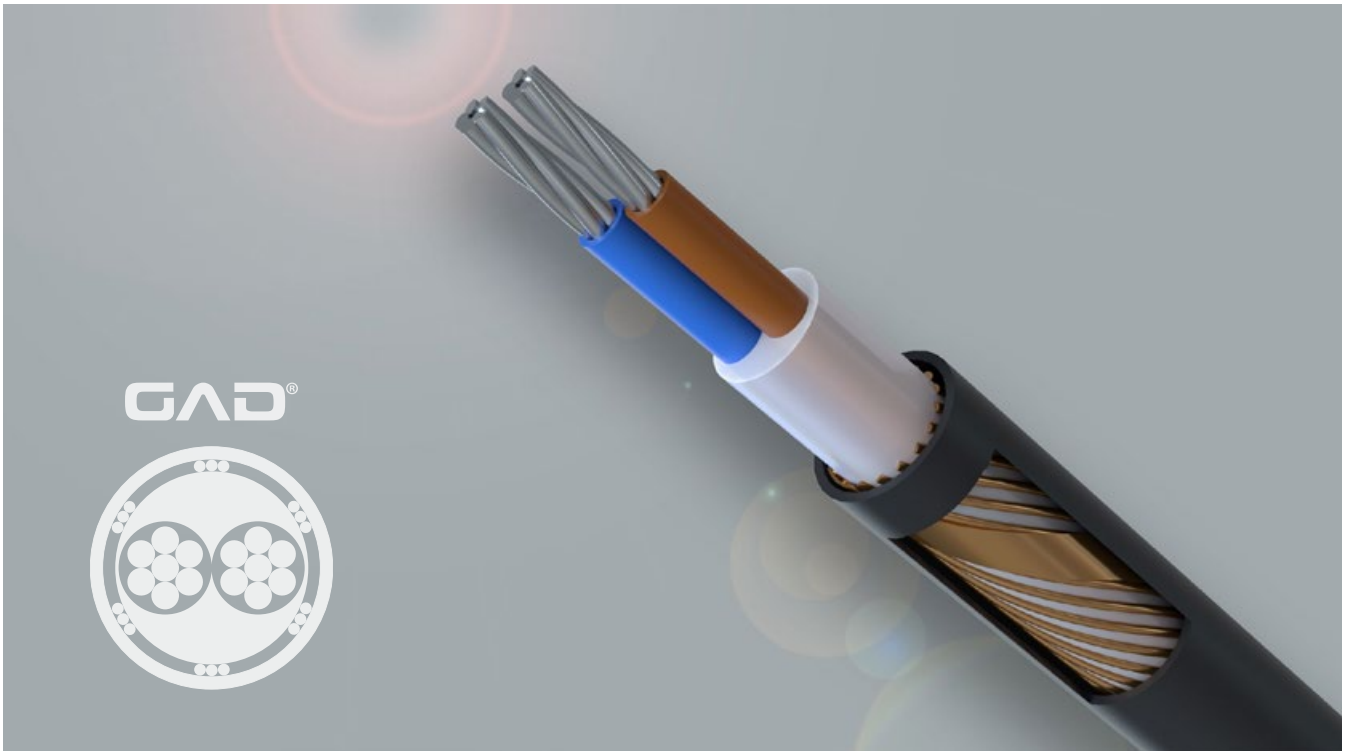
Reel [? =R]
100m

Wooden Coil [?=B]
Miscellaneous

GAD AL

VC87-8

Phase conductors in aluminum and neutral conductor in copper, arranged concentrically over a separator filling and wrapped with a helically applied copper tape.



Applications: Tunnel installations, metros, hospitals, airports, schools, universities, and theaters.

CERTIFICATIONS
IRAM 62266 | 63001 | 2263

Constructive standards:: NBR-13248
Fire standard: ICEA T 30-520 | IEC 60332-3-24 | IRAM NM IEC 60332-3-24
Halogen standard: IEC 60754-1/2
Smoke standard: IEC 61034
Toxicity standard: NES 713/CEI 20-37
Conductor standard: ASTM B 172, ASTM B 173, ASTM B 174

Non-flame propagating, halogen-free, and with low emission of opaque, toxic, and corrosive fumes.

Available colors for insulation

Wires	Black [#=N]	Black brown
1	•	
2		•

GAD AL VC87-8

GENERAL CHARACTERISTICS		Unit			
Nominal section		mm^2	2 x 16 (AL) +10 (CU)	2 x 25 (AL) +16 (CU)	2 x 35 (AL) +25 (CU)
Approximated outside diameter		mm	20,90	23,78	27,42
Approximated total weight		Kg/Km	430,00	579,00	796,00
Nominal insulation voltage		Kv	0,6/1	0,6/1	0,6/1
CONSTRUCTIONAL CHARACTERISTICS		**Unit**			
Conductor material			Al (Aluar Arg)	Al (Aluar Arg)	Al (Aluar Arg)
Central conductor wire diameter		mm	1,70	2,15	2,55
Number of central conductor wires		N°	7 (Class 2)	7 (Class 2)	7 (Class 2)
Concentric conductor wire diameter		mm	0,81	1,01	1,35
Number of concentric conductor wires Cu		N°	18	18	18
Copper tape		mm	10 x 0,10	10 x 0,10	10 x 0,10
Insulation of central conductors: Material			PE. Ret. (XLPE) Borealis (Sweden)	PE. Ret. (XLPE) Borealis (Sweden)	PE. Ret. (XLPE) Borealis (Sweden)
Sheath	Average thickness	mm	0,70 LSOH Certificate IRAM	0,90 LSOH Certificate IRAM	0,90 LSOH Certificate IRAM
	Average thickness	mm	1,90	1,90	1,90
Maximum service temperature		°C	90	90	
Short circuit temperature		°C	250	250	
ELECTRICAL CHARACTERISTICS		**Unit**			
Inductance (Approximate)		Mh/Km	163,00	237,00	237,00
CENTRAL CONDUCTORS (AL)					
Maximum resistance at 20 °C		W/Km	1,91	1,20	0,87
Minimum insulation resistance at 20 °C		M W/Km	620	597	597
CONCENTRIC CONDUCTOR (CU NEUTRAL)					
Maximum resistance at 20 °C		W/Km	1,83	1,15	0,72
INSULATION CHARACTERISTICS		**Unit**			
Minimum tensile strength before aging		daN/mm^2	1,25	1,25	1,25
Minimum elongation before aging		%	200	200	200
Minimum tensile strength after aging		daN/mm^2	1,25 (-25 +25 %)	1,25 (-25 +25 %)	1,25 (-25 +25 %)
Minimum elongation after aging		%	200 (-25 +25 %)	200 (-25 +25 %)	200 (-25 +25 %)

THE CHOSEN CABLE

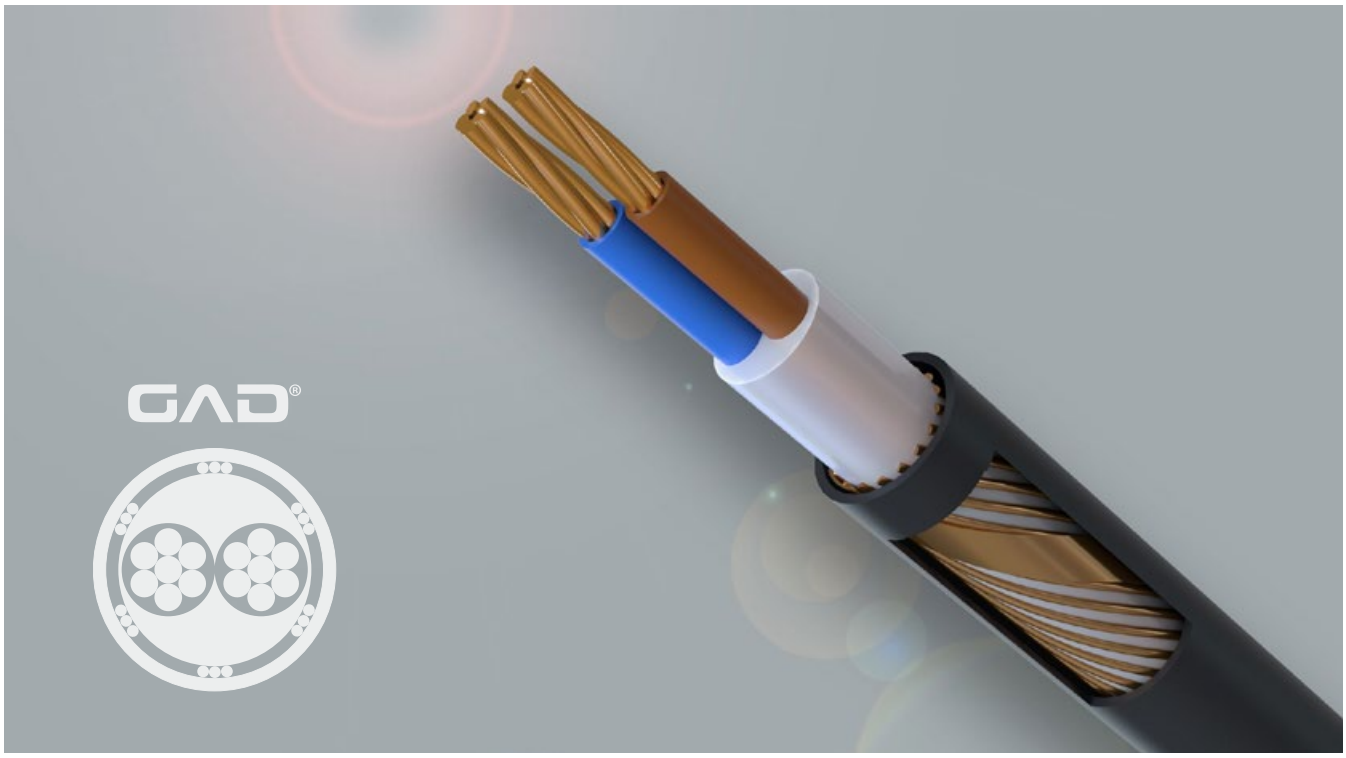
WRAPPING CHARACTERISTICS OF LSHO	Unit			
Minimum tensile strength before aging	daN/mm^2	1,25	1,25	1,25
Minimum elongation before aging	%	150	150	150
Minimum tensile strength after aging	daN/mm^2	1.25 (-25 +25 %)	1.25 (-25 +25 %)	1.25 (-25 +25 %)
WRAPPING CHARACTERISTICS OF LSHO	**Unit**			
Minimum elongation after aging	%	150 (-25 +25 %)	150 (-25 +25 %)	150 (-25 +25 %)
Conditioning		Coils	Coils	Coils
Nominal Length	m	500	500	500
Partial Tolerance	%	±5	±5	±5

Technical parameter	Value	Unit
Conductor material	Class 2 Aluminum	-
Neutral conductor material	Copper	
Insulation material	XLPE-HF	-
Covering	LSZH	
Sheath Material	LSOH Certificate IRAM	-
Screen	Copper tape helically applied over concentric copper conductors	
Installation Mounting	Minimum bending radius = 7	x outer diameter of cable
Maximum traction applied to copper conductors	5	daN/mm²
Mounting temperature	≤ 5	°C
Service temperature	90	°C
Maximum overload temperature	130	°C
Short circuit	250	°C
Nominal voltage	0,6 / 1	kv

GAD CU

VC-33

Phase and neutral conductors, both in copper, arranged concentrically over a separator filling and wrapped with a helically applied copper tape.



Applications: Tunnel installations, metros, hospitals, airports, schools, universities, and theaters.

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Constructive standards: NBR-13248

Fire standard: ICEA T 30-520 | IEC 60332-3-24 | IRAM NM IEC 60332-3-24

Halogen standard: IEC 60754-1/2

Smoke standard: IEC 61034

Toxicity standard: NES 713/CEI 20-37

Conductor standard: ASTM B 172, ASTM B 173, ASTM B 174

Non-flame propagating, halogen-free, and with low emission of opaque, toxic, and corrosive fumes.

Available colors for insulation

Wires	Black [#=N]	Black brown
1	•	
2		•

GAD CU V33 XLPE

GENERAL CHARACTERISTICS	Unit		
Nominal section	mm^2	2 x 10 +10	2 x 16 +16
Manufacturing standard	IRAM	63001/2263	
Approximate outer diameter	mm	19,00	21,30
Approximate total weight	Kg/Km	537,79	761,74
Nominal insulation voltage	Kv	0,6/1	0,6/1
CONSTRUCTIONAL CHARACTERISTICS	**Unit**		
Conductor material		CU. Electrolytic	CU. Electrolytic
Central conductor wire diameter	mm	1,35	1,70
Number of central conductor wires	N°	7 (Class 2)	7 (Class 2)
Concentric conductor wire diameter	mm	0,67	0,83
Number of concentric conductor wires	N°	24	26
Insulation of central conductor: Material Average thickness	mm	0,90 PE. Ret.(XLPE)	0,90 PE. Ret.(XLPE)
Insulation of concentric conductor: Material Average thickness	mm	1,90 PE. Ret.(XLPE)	1,90 PE. Ret.(XLPE)
Maximum service temperature			
Short circuit temperature			
ELECTRICAL CHARACTERISTICS	**Unit**		
CENTRAL CONDUCTOR			
Maximum resistance at 20 °C	W/Km	1,83	1,15
Minimum insulation resistance at 90 °C	MW/Km	0,96	1,00
Minimum insulation resistance at 20 °C	MW/Km	9,58	1005
CONCENTRIC CONDUCTOR (NEUTRAL)			
Maximum resistance at 20 °C	W/Km	1,83	1,91
Minimum insulation resistance at 90 °C	MW */Km	542	3,56
XLPE INSULATION CHARACTERISTICS	**Unit**		
Minimum tensile strength before aging	daN/mm^2	1,25	1,25
Minimum elongation before aging	%	200	200
Minimum tensile strength after aging	daN/mm^2	(-25 +25 %)	(-25 +25 %)
Minimum elongation after aging	%	200 (-25 +25 %)	200 (-25 +25 %)

XLPE INSULATION CHARACTERISTICS	Unit		
Conditioning		Coils	Coils
Nominal Length	m	500	500
Partial Tolerance	%	±5	±5
20% IN SECTIONS		**SHORTER**	**SHORTER**

GAD CU V33 LSZH

GENERAL CHARACTERISTICS	Unit	
Nominal section	mm^2	2 x 10 AWG
Manufacturing standard	IEC IRAM	60228 62266
Approximate outer diameter	mm	11,50
Approximate total weight	Kg/Km	218,80
Nominal insulation voltage	Kv	0,6/1
CONSTRUCTIONAL CHARACTERISTICS	**Unit**	
Conductor Material		CU. Electrolytic
Conductor wire diameter	mm	0.30
Number of conductor wires	N°	72 (Class 5)
Cable diameter	mm	3.00
Number of braid wires	N°	240
Braid wire diameter	mm	0,11
Insulation of conductors: Material. Average thickness	mm	0.80 LSHO (Halogen Free)
Insulation of concentric conductor: Material. Average thickness	mm	1,90 PE. Ret.(XLPE)
Insulated conductor diameter	mm	4.60
Bunched cable diameter	mm	9.2
Filler: PVC material		PVC
Mylar tape	mm	30 x 0,04

GAD CU V33 XLPE

GENERAL CHARACTERISTICS	Unit		
Nominal section	mm^2	2 x 10 +10	2 x 16 +16
Manufacturing standard	IRAM	63001/2263	
Approximate outer diameter	mm	19,00	21,30
Approximate total weight	Kg/Km	537,79	761,74
Nominal insulation voltage	Kv	0,6/1	0,6/1
CONSTRUCTIONAL CHARACTERISTICS	**Unit**		
Conductor material		CU. Electrolytic	CU. Electrolytic
Central conductor wire diameter	mm	1,35	1,70
Number of central conductor wires	N°	7 (Class 2)	7 (Class 2)
Concentric conductor wire diameter	mm	0,67	0,83
Number of concentric conductor wires	N°	24	26
Insulation of central conductor: Material. Average thickness	mm	0,90 PE. Ret.(XLPE)	0,90 PE. Ret.(XLPE)
Insulation of concentric conductor: Material. Average thickness	mm	1,90 PE. Ret.(XLPE)	1,90 PE. Ret.(XLPE)
Maximum service temperature			
Short circuit temperature			
ELECTRICAL CHARACTERISTICS	**Unit**		
CENTRAL CONDUCTOR			
Maximum resistance at 20 °C	W/Km	1,83	1,15
Minimum insulation resistance at 90 °C	MW/Km	0,96	1,00
Minimum insulation resistance at 20 °C	MW/Km	9,58	1005
CONCENTRIC CONDUCTOR (NEUTRAL)			
Maximum resistance at 20 °C	W/Km	1,83	1,91
Minimum insulation resistance at 90 °C	MW */Km	542	3,56
XLPE INSULATION CHARACTERISTICS	**Unit**		
Minimum tensile strength before aging	daN/mm^2	1,25	1,25
Minimum elongation before aging	%	200	200
Minimum tensile strength after aging	daN/mm^2	(-25 +25 %)	(-25 +25 %)
Minimum elongation after aging	%	200 (-25 +25 %)	200 (-25 +25 %)

XLPE WRAPPING CHARACTERISTICS	Unit		
Minimum Tensile Strength before aging	daN/mm^2	1,25	1,25
Minimum Elongation before aging	%	200	200
Minimum Tensile Strength after aging	daN/mm^2	1,25 (-25 +25 %)	1,25 (-25 +25 %)
Minimum Elongation after aging	%	200 (-25 +25 %)	200 (-25 +25 %)
Conditioning		Coils	Coils
Nominal Length	m	500	500
Partial Tolerance	%	±5	±5
20% IN SMALL SECTIONS		**SHORTER**	**SHORTER**

GAD CU V33 LSZH

GENERAL CHARACTERISTICS	Unit	
Nominal section	mm^2	2 x 10 AWG
Manufacturing standard	IEC IRAM	60228 62266
Approximate outer diameter	mm	11,50
Approximate total weight	Kg/Km	218,80
Nominal insulation voltage	Kv	0,6/1
CONSTRUCTIONAL CHARACTERISTICS	**Unit**	
Conductor material		CU. Electrolytic
Conductor wire diameter	mm	0.30
Number of conductor wires	N°	72 (Class 5)
Cable diameter	mm	3.00
Number of braid wires CU	N°	240
Braid wire diameter	mm	0,11
Insulation of conductors: Material. Average thickness	mm	0.80 LSHO (Halogen free)
Insulation of concentric conductor: Material. Average thickness	mm	1,90 PE. Ret.(XLPE)
Insulated conductor diameter	mm	4.60
Bunched cable diameter	mm	9.2
Filler: Material		PVC
Mylar tape	mm	30 x 0,04

THE CHOSEN CABLE

XLPE INSULATION CHARACTERISTICS	Unit		
Minimum tensile strength before aging	daN/mm^2	1,25	1,25
Minimum elongation before aging	%	200	200
Minimum tensile strength after aging	daN/mm^2	(-25 +25 %)	(-25 +25 %)
Minimum elongation after aging	%	200 (-25 +25 %)	200 (-25 +25 %)
PVC WRAPPING CHARACTERISTICS	**Unit**		
Minimum tensile strength before aging	daN/mm^2	1.25	1.25
Minimum elongation before aging	%	150	150
Minimum tensile strength after aging	daN/mm^2	1.25 [-25 +25 %]	1.25 [-25 +25 %]
Minimum elongation after aging	%	150 [-25 +25 %]	150 [-25 +25 %]
Conditioning		Coils	Coils
Nominal length	m	500	500
Partial tolerance	%	±5	±5
20% IN SMALL SECTIONS		**SHORTER**	**SHORTER**

Technical Parameter	Value	Unit
Conductor material	Class 2 Copper	IRAM 2004
Neutral conductor	Annealed electrolytic copper, flexible formation, arranged concentrically	
Insulation material	XLPE, LSZH	-
Covering	XLPE/LSZH/PVC	Black colour
Screen	Copper tape helically applied over concentric copper conductors	
Installation mounting	Minimum bending radius = 7	x outer diameter of cable
Maximum traction	5	daN/mm²
Mounting temperature	≤ 5	°C
Service temperature	90	°C
Maximum overload temperature	130	°C
Short circuit	250	°C
Nominal voltage	0,6 / 1	kv

The Company

ERPLA is a national company that has been working in the electrical conductors market since 1969, supplying its products to the entire market throughout the country.

OUR VISION

To be the reference company in the electrical market, providing innovative solutions and services in electrical conduction, with exceptional quality.

OUR MISSION

To attend to the needs of the market, improving the quality of life of our society.

ERPLA currently operates in the local and regional low voltage cable market, supplying certified and high quality products for the following applications:

APPLICATIONS

BARE MEDIUM AND HIGH VOLTAGE OVERHEAD LINES
Cuperflex VC45
Aluflex VC79
Midtensor

MOBILE INSTALLATIONS
Talflex VC50
Bipolo VC54
Planoflex VC52

CONCENTRIC TELEPHONY
GAD

OVERHEAD LINES
Prensal Distribución VC80
Prensal Acometida VC30
Central Flex Al VC93
Central Flex Cu VC32

LOW VOLTAGE POWER
Suflex PVC VC625
Suflex XLPE VC725
Suflex LSOH VC635

PROTECTED OVERHEAD LINES
Alprotec

RENEWABLE ENERGY
Solarflex

CONTROL AND COMMAND
Suflex Comando
Talflex ComandoVC51

FIXED INSTALLATIONS
Uniflex VC39
Vidaflex VC45

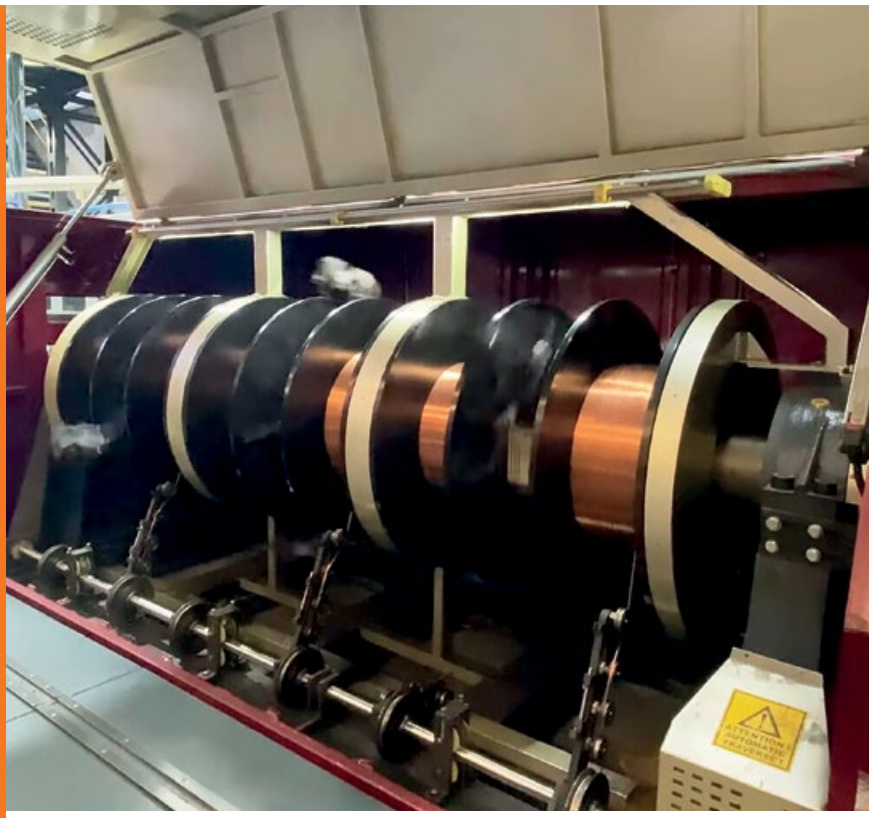
"Today, the company is exporting aluminum and copper cables to various Latin American countries."

The permanent technological and productive changes that we carry out as a business policy, allow us to update and compete both locally and internationally.

In this way we maintain a high quality standard in our products, all of which are certified by the Argentine Institute of Standardization and Certification (IRAM).

In ERPLA Industries we believe that the most important thing is to meet the needs of our customers. Focusing on the continuous improvement of the product and our company.

Thanks to its development team and its exhaustive research on various materials, ERPLA achieves continuous improvement and constant updating of its products, thereby anticipating the needs of the market.



GESTION DE LA CALIDAD
RI-9000-0000499

GESTION AMBIENTAL
RI-14000-0029

ERPLA Industries has a Quality and Environmental Management System certified in accordance with IRAM-ISO 9001:2015.

INDUSTRIAS erpla

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