	GLOBAL STANDARD	Page 1 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


**MV AERIAL BUNDLED CABLES  
ADDENDUM Ed.01**

Countries I&N	
Argentina	<b>C. Espinoza</b>
Brazil	<b>R. Sales</b>
Chile	<b>D. Gonzalez</b>
Colombia	<b>J. C. Gomez</b>

	Elaborated by	Verified by	Approved by
Global I&N – O&M/NCS	<b>J.P. Goossens</b>	<b>J.P. Goossens</b>	<b>M.Mazzotti</b>


*This document is intellectual property of ENEL Group distribution companies; reproduction or distribution of its contents in any way or by any means whatsoever is subject to the prior approval of the above mentioned companies which will safeguard their rights under the civil and penal codes. This document is for Internal Use.*

Revision	Data	List of modifications
00	23/10/2017	First emission
01	15/01/2018	Amendment outer sheath compound
02	11/2018	Country codes included in the Common list Local section D amendment (Copper wires screen designation)
Addendum rev.00	04/04/2019	First emission Enel Sao Paulo
Addendum ed.01	01/2020	Common list update. Local section update. Alignment with Policy 214 cross-sections. Harmonization of types. Inclusion of Edesur

	GLOBAL STANDARD	Page 2 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020

## INDEX

<b>1</b>	<b>SCOPE.....</b>	<b>3</b>
	<b>LOCAL SECTION A - ENEL CODENSA .....</b>	<b>4</b>
	<b>LOCAL SECTION C - ENEL DISTRIBUCIÓN CHILE.....</b>	<b>7</b>
	<b>LOCAL SECTION D - ENEL DISTRIBUIÇÃO CEARÁ, RIO, GOIÁS AND SÃO PAULO.....</b>	<b>10</b>
	<b>LOCAL SECTION G - EDESUR .....</b>	<b>13</b>


	GLOBAL STANDARD	Page 3 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020

## 1 SCOPE

This addendum Ed.01 of the Global Standard GSCC008 rev. 2 specifies the requirements applicable to Enel Group Distribution Companies, listed below

<i>Edesur</i>	<i>Argentina</i>
<i>Enel Codensa</i>	<i>Colombia</i>
<i>Enel distribución Chile</i>	<i>Chile</i>
<i>Enel Distribuição Ceará</i>	<i>Brazil</i>
<i>Enel Distribuição Goiás</i>	<i>Brazil</i>
<i>Enel Distribuição Rio</i>	<i>Brazil</i>
<i>Enel Distribuição Sao Paulo</i>	<i>Brazil</i>

They are specified in this document with reference to the same paragraph number of GSCC008 rev. 2.

	GLOBAL STANDARD	Page 4 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


#### LOCAL SECTION A – Enel Codensa

N°	TITLE	DESCRIPTION
3.3	Local Standards	RETIE- Reglamento técnico de instalaciones eléctricas.
3.4	Replaced Local Standards	This Global standard replace local standard ET-130
5.3	Insulation	TR-XLPE shall be used. It shall comply standard ASTM D6097
5.8	Outer Sheath	<p>The outer sheath shall be grey, with a colored strip in order to identify the phases complying the following indications:</p> <p>Phase A: Grey outer sheath with a violet strip</p> <p>Phase B: Grey outer sheath with a brown strip</p> <p>Phase C: Grey outer sheath with a red strip</p>
5.12.2	Marking	<p>Markings shall be indelible spaced from each other 1 meter maximum.</p> <p>The following information shall be marked in relief:</p> <p>Manufacturer name or trademark</p> <p>Enel</p> <p>Year of manufacture</p> <p>Rated Voltage <math>U_0/U(U_{max})</math></p> <p>Insulation material</p> <p>Cable cross-section [<math>mm^2</math>]</p> <p>Metric marking</p> <p>Phase identification using violet, brown and red strips.</p>
8	CONDITIONS OF SUPPLY	<p><b>Packaging and Labelling</b></p> <p>Cables shall be delivered on spools made of wood or metal, such spool will not be returned. Characteristics are indicated in Figure A, dimensions are depicted in Table A. The total length of the supplied cable shall not be less than that requested in the purchase order and shall not be longer by any more than 5%.</p> <p>The maximum gross weight of the packaged spool must not exceed 3500 kg.</p>




**LOCAL SECTION A – Enel Codensa**

N°	TITLE	DESCRIPTION
8	CONDITIONS OF SUPPLY	<p>The ends of the cables on each spool must be protected with caps or hoods that prevent the entry of moisture. These ends internally secured to the spools, must be mechanically protected against possible damages resulting from handling and transportation of each spool, leaving both ends accessible through the use of an internal helix or reel on each spool.</p> <p>When distance between manufacturing facilities and Enel Colombia storage center is less than 200 km and is necessary only one mean of transportation,</p> <p>It is mandatory to use internal helix for cables cross-section greater of equal to 120 mm<sup>2</sup>. However, moisture protection on both visible ends of the cables, mechanical protection, and careful handling shall be applied.</p> <p>Some Purchase orders could request 2,000 m of maximum length per spool and/or pre-joined cables.</p> <p>The supplier shall process RETIE certification in order to deliverer the order.</p> <p>Spools made of wood shall be treated according to the international requirements for the control of plant disease, avoiding the compounds "Pentachlorophenol" and "Creosote". The treatment must include, at least: highly toxic to xylophagous organisms, high penetration and holding power, chemical stability, non-corrosive substances to metals that could affect the physical characteristics of wood.</p> <div data-bbox="427 1361 1471 1944" style="text-align: center;"> </div> <p style="text-align: center;">Figure A</p>

	GLOBAL STANDARD	Page 6 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


### LOCAL SECTION A – Enel Codensa

N°	TITLE	DESCRIPTION															
8	CONDITIONS OF SUPPLY	<p><u>Dimensions:</u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">A<sup>(1)</sup></th> <th style="text-align: center;">B</th> <th style="text-align: center;">C<sup>(1)</sup></th> <th style="text-align: center;">D<sup>(2)</sup></th> <th style="text-align: center;">E</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> </tr> <tr> <td style="text-align: center;">2000</td> <td style="text-align: center;">(3)</td> <td style="text-align: center;">1120</td> <td style="text-align: center;">80</td> <td style="text-align: center;">(4)</td> </tr> </tbody> </table> <p style="text-align: center;">Table A</p> <p>Notes:  (1) Maximum value.  (2) Minimum value.  (3) Two times the minimum bending radius indicated by the supplier.  (4) 300 or 180 mm according to spool type (large or small, respectively)</p> <p>Drums maximum weight shall be not greater that 3,5TON.</p> <p>The spools must contain:</p> <ul style="list-style-type: none"> <li>• An external protection built with wooden flanges fixed on the wooden spools or some equivalent for metal spools, being secured with tapes or straps.</li> <li>• Indication with an arrow of the rolling direction.</li> <li>• A stainless steel plate for identification purposes. Such plate shall be applied in both flanges and shall have the following information (in Spanish): <ol style="list-style-type: none"> <li>1) Manufacturer name</li> <li>2) Country of origin</li> <li>3) Enel</li> <li>4) Purchase order N°</li> <li>5) Rated Voltage Uo/U (Umax)</li> <li>6) Insulation material</li> <li>7) Cable cross-section [mm<sup>2</sup>]</li> <li>8) Spool number of the corresponding delivered batch</li> <li>9) Net and gross weight [kg]</li> <li>10) Configuration type (unipolar, triplex, quadruplex).</li> <li>11) Cable length [m]</li> </ol> </li> </ul>	A <sup>(1)</sup>	B	C <sup>(1)</sup>	D <sup>(2)</sup>	E	mm	mm	mm	mm	mm	2000	(3)	1120	80	(4)
A <sup>(1)</sup>	B	C <sup>(1)</sup>	D <sup>(2)</sup>	E													
mm	mm	mm	mm	mm													
2000	(3)	1120	80	(4)													
9	Technical check-list	Besides all technical information provided according the common part, ISO certifications, Certification of conformity with this Global Standard and RETIE certification shall be indicated.															

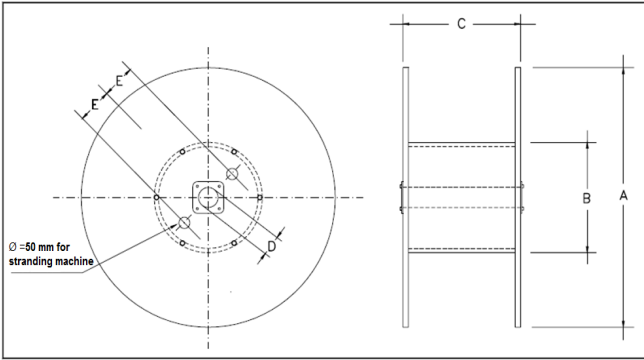
	GLOBAL STANDARD	Page 7 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020

### LOCAL SECTION C – Enel distribución Chile


N°	TITLE	DESCRIPTION
3.3	Local Standards	<ul style="list-style-type: none"> <li>Reglamentos NSEC N°5 y NSEC4 /2003</li> </ul>
5.12.1	Cable designation	CA2: Stranded compacted aluminum conductor (Class 2) XR: Cross-linked polyethylene insulation PAL: Aluminum foil screen PE: Polyethylene Outer sheath
5.12.2	Marking	The distance between the end of a mark and the beginning of the next one will be less than or equal to 550 mm The following information shall be marked: Property Name Manufacturer name or trademark N° of phases Year of manufacture Cable designation Rated Voltage U <sub>o</sub> /U(U <sub>max</sub> ) Insulation material Cable cross-section [mm <sup>2</sup> ] Metric marking Identification of the phase, repeated at least 100 mm in the interval between two successive of entries (FASE 1) <b>Marking Example:</b> <b>Enel distribución Chile NNN CA2-XR-PAL-PE 150mm<sup>2</sup> 8,7/15 kV 2017-07 FASE 1 . FASE 1</b> Manufactured by NNN with stranded compact Class 2 aluminum conductor, three phase, XLPE insulation, aluminum foil earth screen and polyethylene outer sheath 150mm <sup>2</sup> , U <sub>o</sub> / U 8,7/15 kV, manufactured in 2017, month 07

	GLOBAL STANDARD	Page 8 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020

**LOCAL SECTION C – Enel distribución Chile**


N°	TITLE	DESCRIPTION
8	CONDITIONS OF SUPPLY	<p>Packaging and Labelling</p> <p>Cables shall be delivered on spools made of wood or metal, such spool will not be returned. Characteristics are indicated in Figure A, dimensions are depicted in Table A.</p> <p>The total length of the supplied cable shall not be less than that requested in the purchase order and shall not be longer by any more than 5%.</p> <p>The maximum gross weight of the packaged spool must not exceed 3500 kg.</p> <p>The ends of the cables on each spool must be protected with caps or hoods that prevent the entry of moisture. These ends internally secured to the spools, must be mechanically protected against possible damages resulting from handling and transportation of each spool, leaving both ends accessible through the use of an internal helix or reel on each spool.</p> <p>When distance between manufacturing facilities and Enel Distribución Chile storage center is less than 200 km and is necessary only one mean of transportation, It is mandatory to use internal helix for cables cross-section greater of equal to 120 mm<sup>2</sup>. However, moisture protection on both visible ends of the cables, mechanical protection, and careful handling shall be applied.</p> <p>Some Purchase orders could request 2,000 m of maximum length per spool and/or pre-joined cables.</p> <p>Spools made of wood shall be treated according to the international requirements for the control of plant disease, avoiding the compounds “Pentachlorophenol” and “Creosote”. The treatment must include, at least: highly toxic to xylophagous organisms, high penetration and holding power, chemical stability, non-corrosive substances to metals that could affect the physical characteristics of wood.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Figure A</p>



	GLOBAL STANDARD	Page 9 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


### LOCAL SECTION C – Enel distribución Chile

N°	TITLE	DESCRIPTION															
8	CONDITIONS OF SUPPLY	<p><u>Dimensions:</u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">A<sup>(1)</sup></th> <th style="text-align: center;">B</th> <th style="text-align: center;">C<sup>(1)</sup></th> <th style="text-align: center;">D<sup>(2)</sup></th> <th style="text-align: center;">E</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> <td style="text-align: center;">mm</td> </tr> <tr> <td style="text-align: center;">2000</td> <td style="text-align: center;">(3)</td> <td style="text-align: center;">1120</td> <td style="text-align: center;">80</td> <td style="text-align: center;">(4)</td> </tr> </tbody> </table> <p style="text-align: center;">Table A</p> <p>Notes:  (1) Maximum value.  (2) Minimum value.  (3) Two times the minimum bending radius indicated by the supplier.  (4) 300 or 180 mm according to spool type (large or small, respectively)</p> <p>The spools must contain:</p> <ul style="list-style-type: none"> <li>• An external protection built with wooden flanges fixed on the wooden spools or some equivalent for metal spools, being secured with tapes or straps.</li> <li>• Indication with an arrow of the rolling direction.</li> <li>• A stainless steel plate for identification purposes. Such plate shall be applied in both flanges and shall have the following information (in Spanish):</li> </ul> <ol style="list-style-type: none"> <li>1) Manufacturer name</li> <li>2) Country of origin</li> <li>3) Enel Distribucion Chile</li> <li>4) Purchase order N°</li> <li>5) Rated Voltage U<sub>0</sub>/U (U<sub>max</sub>)</li> <li>6) Insulation material</li> <li>7) Cable cross-section [mm<sup>2</sup>]</li> <li>8) Spool number of the corresponding delivered batch</li> <li>9) Net and gross weight [kg]</li> <li>10) Configuration type (unipolar, triplex, quadruplex).</li> <li>11) Cable length [m]</li> <li>12) Year and month of manufacture</li> <li>13) Weight of the coil [kg]</li> <li>14) Cable type</li> <li>15) Coil dimensions [mm]</li> </ol>	A <sup>(1)</sup>	B	C <sup>(1)</sup>	D <sup>(2)</sup>	E	mm	mm	mm	mm	mm	2000	(3)	1120	80	(4)
A <sup>(1)</sup>	B	C <sup>(1)</sup>	D <sup>(2)</sup>	E													
mm	mm	mm	mm	mm													
2000	(3)	1120	80	(4)													

	GLOBAL STANDARD	Page 10 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


#### LOCAL SECTION D – Enel Distribuição Ceará, Rio, Goiás and São Paulo

N°	TITLE	DESCRIPTION
3.3	Local Standards	NBR 11137 Carretel de madeira para acondicionamento de fios e cabos elétricos — Dimensões e estruturas.
5.12.1	Cable designation	Type of conductor - A: Aluminum R: Round Stranded E4: XLPE cross-linked polyethylene insulation H5: aluminum tape screen H1: copper wires screen E: polyethylene outer sheath XY: Three cores bundled around an alumoweld bare messenger
5.12.2	Marking	<p>The outer sheath should be printed by printer with an inscription high aligned characters or contiguous.</p> <p>The distance between the end of a mark and the beginning of the next one will be less than or equal to 550 mm and shall contain, in the order listed. the following inscriptions:</p> <ul style="list-style-type: none"> <li>• The property stands</li> <li>• The acronym of ENEL (cable designation)</li> <li>• Voltage between <math>U_0</math> and <math>U</math> (kV)</li> <li>• Cross-section.</li> <li>• The name or trademark of the manufacturer</li> <li>• The identification letter of the manufacturing</li> <li>• The year and month of manufacture</li> <li>• The metric indicated only in phase 1; also supports sealed ink. Alternatively to the aforementioned method, it could be stamped at a distance less than 1 meter.</li> <li>• Identification of the phase, repeated at least 100 mm in the interval between two successive of entries.</li> </ul> <p>Printing example core phase 1:  ENEL DISTRIBUIÇÃO BRAZIL ARE4H5EXY 8,7/15kV 150 XXXXXX 2007 12 0000 FASE 1 ... FASE 1 ..)</p>

	GLOBAL STANDARD	Page 11 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


**LOCAL SECTION D – Enel Distribuição Ceará, Rio, Goiás and São Paulo**

N°	TITLE	DESCRIPTION
8	CONDITIONS OF SUPPLY	<p>Packaging and Labelling</p> <p>Cables shall be delivered on spools made of wood or metal, such spool will not be returned . Characteristics shall be in compliance with the standard NBR 11137, . The cable length and spool type shall be as indicated below:</p> <ul style="list-style-type: none"> <li>-3x50+50Y: 600 m in type 250/110 coil</li> <li>-3x95+50Y: 600 m in type 250/110 coil</li> <li>-3x150+50Y 600 m in type 260/120 coil</li> </ul> <p>The total length of the supplied cable shall not be less than that requested in the purchase order and shall not be longer by any more than 5%.</p> <p>The maximum gross weight of the packaged spool must not exceed 3500 kg.</p> <p>The ends of the cables on each spool must be protected with caps or hoods that prevent the entry of moisture. These ends internally secured to the spools, must be mechanically protected against possible damages resulting from handling and transportation of each spool, leaving both ends accessible through the use of an internal helix or reel on each spool.</p> <p>When distance between manufacturing facilities and distribution company storage center is less than 200 km and is necessary only one mean of transportation, It is mandatory to use internal helix for cables cross-section greater of equal to 120 mm<sup>2</sup>.However, moisture protection on both visible ends of the cables, mechanical protection, and careful handling shall be applied.</p> <p>Spools made of wood shall be treated according to the international requirements for the control of plant disease, avoiding the compounds “Pentachlorophenol” and “Creosote”. The treatment must include, at least: highly toxic to xylophagous organisms, high penetration and holding power, chemical stability, non-corrosive substances to metals that could affect the physical characteristics of wood.</p>

	GLOBAL STANDARD	Page 12 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020


**LOCAL SECTION D – Enel Distribuição Ceará, Rio Goiás and São Paulo**

N°	TITLE	DESCRIPTION
8	CONDITIONS OF SUPPLY	<p>The spools must contain:</p> <ul style="list-style-type: none"> <li>• An external protection built with wooden flanges fixed on the wooden spools or some equivalent for metal spools, being secured with tapes or straps.</li> <li>• Indication with an arrow of the rolling direction.</li> <li>• A stainless steel plate for identification purposes. Such plate shall be applied in both flanges and shall have the following information (in Portuguese): <ol style="list-style-type: none"> <li>1) Manufacturer name</li> <li>2) Country of origin</li> <li>3) ENEL RIO/ENEL CEARÁ/ENEL GOIÁS/ ENEL SÃO PAULO (according to purchase)</li> <li>4) Purchase order N°</li> <li>5) Rated Voltage U<sub>o</sub>/U (U<sub>max</sub>)</li> <li>6) Insulation material</li> <li>7) Cable cross-section [mm<sup>2</sup>]</li> <li>8) Spool number of the corresponding delivered batch</li> <li>9) Net and gross weight [kg]</li> <li>10) Configuration type (unipolar, triplex, quadruplex).</li> <li>11) Cable length [m]</li> </ol> </li> <li>• Type of spool</li> <li>•</li> </ul>

	GLOBAL STANDARD	Page 13 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020

### LOCAL SECTION G – EDESUR

N°	TITLE	DESCRIPTION																								
3.3	Local Standards	<ul style="list-style-type: none"> <li>IRAM 63004 “Cables preensamblados para distribución aérea de energía eléctrica para tensiones nominales (U) de 13.2 kV y de 33 kV”.</li> <li>IRAM 9590-1 “Carretes de madera para cables. Parte 1: Medidas y requisitos generales”.</li> <li>IRAM 9590-2: “Carretes de madera para cables. Parte 2: Preservación de la madera de pinos resinosos nacionales”.</li> </ul>																								
5.3	Insulation	<p>For Edesur the following values shall be considered:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">Rated Voltage U<sub>0</sub>/U (U<sub>max</sub>) [kV]</th> <th colspan="2">Insulation thickness</th> </tr> <tr> <th>Nominal (t<sub>n</sub>) [mm]</th> <th>Minimum (t<sub>min</sub>) [mm]</th> </tr> </thead> <tbody> <tr> <td>8,7/15 (17.5)</td> <td>3,9</td> <td>3,4</td> </tr> <tr> <td>18/30 (36)</td> <td>8,0</td> <td>7,1</td> </tr> </tbody> </table>	Rated Voltage U <sub>0</sub> /U (U <sub>max</sub> ) [kV]	Insulation thickness		Nominal (t <sub>n</sub> ) [mm]	Minimum (t <sub>min</sub> ) [mm]	8,7/15 (17.5)	3,9	3,4	18/30 (36)	8,0	7,1													
Rated Voltage U <sub>0</sub> /U (U <sub>max</sub> ) [kV]	Insulation thickness																									
	Nominal (t <sub>n</sub> ) [mm]	Minimum (t <sub>min</sub> ) [mm]																								
8,7/15 (17.5)	3,9	3,4																								
18/30 (36)	8,0	7,1																								
5.8	Outer Sheath	<p>The outer sheath shall be black</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>U<sub>0</sub>/U (U<sub>m</sub>) [kV]</th> <th>Cross-section [mm<sup>2</sup>]</th> <th>Sheath nominal thickness [mm]</th> <th>Sheath minimum thickness [mm]</th> </tr> </thead> <tbody> <tr> <td rowspan="3">8,7/15 (17.5)</td> <td>3x50+50</td> <td>2,5</td> <td>1,8</td> </tr> <tr> <td>3x95+50</td> <td>2,8</td> <td>2</td> </tr> <tr> <td>3x150+50</td> <td>3</td> <td>2,2</td> </tr> <tr> <td rowspan="3">18/30 (36)</td> <td>3x50+50</td> <td>3,1</td> <td>2,3</td> </tr> <tr> <td>3x95+50</td> <td>3,4</td> <td>2,5</td> </tr> <tr> <td>3x150+50</td> <td>3,6</td> <td>2,7</td> </tr> </tbody> </table>	U <sub>0</sub> /U (U <sub>m</sub> ) [kV]	Cross-section [mm <sup>2</sup> ]	Sheath nominal thickness [mm]	Sheath minimum thickness [mm]	8,7/15 (17.5)	3x50+50	2,5	1,8	3x95+50	2,8	2	3x150+50	3	2,2	18/30 (36)	3x50+50	3,1	2,3	3x95+50	3,4	2,5	3x150+50	3,6	2,7
U <sub>0</sub> /U (U <sub>m</sub> ) [kV]	Cross-section [mm <sup>2</sup> ]	Sheath nominal thickness [mm]	Sheath minimum thickness [mm]																							
8,7/15 (17.5)	3x50+50	2,5	1,8																							
	3x95+50	2,8	2																							
	3x150+50	3	2,2																							
18/30 (36)	3x50+50	3,1	2,3																							
	3x95+50	3,4	2,5																							
	3x150+50	3,6	2,7																							

	GLOBAL STANDARD	Page 14 of 17
	<b>MV AERIAL BUNDLED CABLES ADDENDUM Ed.01</b>	GSCC008 Rev. 02 Addendum Ed.01 01/2020

### LOCAL SECTION G – EDESUR

N°	TITLE	DESCRIPTION
5.9	Messenger	<p>For Edesur the minimum breaking load of galvanized Steel ST1A messenger shall be at least 6155 daN.</p> <p>In addition, the messenger shall be insulated with the same material of the outer sheath of the cable (polyethylene) compliant with the characteristics indicated herein.</p> <p>The minimum thickness of the outer sheath measured and accepted at any point of the cable shall not be less than 85% of the nominal value minus 0,1 mm. In addition, the average of all these measures should not be less than the nominal thickness, same as 1,6 mm.</p>
5.12.1	Cable designation	<p>(#Phases)x(cross-section) / (earth screen cross-section) + Messenger cross-section) (Rated Voltage)</p> <p>Examples:</p> <p>3x150/25 mm<sup>2</sup> + 50 mm<sup>2</sup>.8,7/15 (17,5) kV</p> <p>3x150/25 mm<sup>2</sup> + 50 mm<sup>2</sup>. 18/30 (36) kV</p>
5.12.2	Marking	<p>Marking shall be made according to IRAM 63004 adding the following information:</p> <ul style="list-style-type: none"> <li>• EDESUR S.A</li> <li>• The year and month of manufacture</li> <li>• Purchase order</li> <li>• The metric every meter of the cable.</li> </ul>
8	Conditions of supply	<p>The total length of the cable delivered shall not be less than the length ordered in the Purchase Order.</p> <p>A tolerance of ± 5 % will be admitted on the manufacturing lengths.</p> <p>In addition, it will be accepted that up to 5 % of the manufacturing lengths have a length less than that established, provided that their length is not less than 70 % of the normal manufacturing length.</p> <p>Each length of cable will be shipped on a separate reel, according to IRAM 9590-1 and 9590-2. The cable will be rolled up on the reel and packed in such a way that it does not suffer any damage during transport.</p> <p>Cable ends shall be covered with a hood made of heat-shrinkable material that offers a perfect protective seal.</p>

GS Type Code	Distribution Company and Country	Country Code	Rated Voltage Uo/U(Umax) [kV]	Cross-section [mm <sup>2</sup> ]	Type of cable	Conductor material	Conductor screen nominal thickness [mm]	Conductor screen minimum thickness [mm]	Insulation material	Nominal insulation thickness [mm]	Minimum insulation thickness [mm]	Insulation Screen Nominal thickness [mm]	Insulation Screen Minimum thickness [mm]	Longitudinal watertightness (Yes/Not)	Earth Screen type	Metallic screen minimum thickness [mm]	Outer sheath material	Sheath Nominal thickness [mm]	Sheath minimum thickness [mm]	Sheath color	Messenger cross-section [mm <sup>2</sup> ]	Messenger conductor material	Messenger sheath material	Messenger sheath Nominal thickness [mm]	Messenger sheath minimum thickness [mm]	Messenger sheath color
GSCC008/002	RJ/CE/GO-Brasil	T330076	8,7/15(17,5)	50	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/002	SP-Brasil	323109	8,7/15(17,5)	50	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/002	CD-Colombia	330006	8,7/15(17,5)	50	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/003	RJ/CE/GO-Brasil	T330082	8,7/15(17,5)	95	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/003	SP-Brasil	323111	8,7/15(17,5)	95	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/003	CD-Colombia	330005	8,7/15(17,5)	95	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/004	RJ/CE/GO-Brasil	T330083	8,7/15(17,5)	150	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/004	SP-Brasil	323108	8,7/15(17,5)	150	I	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/011	ED-CHILE	330007	18/30(36)	150	I	ALUMINUM	0,5	0,3	XLPE	7,25	6,43	0,5	0,3	NO	ALUMINUM FOIL	0,3	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/012	CD-Colombia	330671	20/34(37,95)	95	II	ALUMINUM	0,5	0,3	XLPE	6,6	5,84	0,5	0,3	NO	COPPER WIRES	-	POLYETHYLENE	1,9	1,32	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/013	CD-Colombia	330668	20/34(37,95)	150	II	ALUMINUM	0,5	0,3	XLPE	6,6	5,84	0,5	0,3	NO	COPPER WIRES	-	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/023	RJ/CE/GO-Brasil	T330077	8,7/15(17,5)	150	II	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	COPPER WIRES	-	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/023	SP-Brasil	323104	8,7/15(17,5)	150	II	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	COPPER WIRES	-	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/023	CD-Colombia	330691	8,7/15(17,5)	150	II	ALUMINUM	0,5	0,3	XLPE	4,5	4,0	0,5	0,3	NO	COPPER WIRES	-	POLYETHYLENE	2	1,4	GREY	50	Alumoweld	BARE	Not applicable	Not applicable	Not applicable
GSCC008/25	EDESUR	0101-0496	8,7/15(17,5)	50	II	ALUMINUM	0,5	0,3	XLPE	3,9	3,4	0,5	0,3	YES	COPPER WIRES	-	POLYETHYLENE	2,5	1,8	BLACK	50	Galvanized steel	PE	1,6	1,1	BLACK
GSCC008/26	EDESUR	0101-0497	8,7/15(17,5)	95	II	ALUMINUM	0,5	0,3	XLPE	3,9	3,4	0,5	0,3	YES	COPPER WIRES	-	POLYETHYLENE	2,8	2,0	BLACK	50	Galvanized steel	PE	1,6	1,1	BLACK
GSCC008/27	EDESUR	0101-0498	8,7/15(17,5)	150	II	ALUMINUM	0,5	0,3	XLPE	3,9	3,4	0,5	0,3	YES	COPPER WIRES	-	POLYETHYLENE	3	2,2	BLACK	50	Galvanized steel	PE	1,6	1,1	BLACK

GS Type Code	Distribution Company and Country	Country Code	Rated Voltage U <sub>0</sub> /U(U <sub>max</sub> ) [kV]	Cross-section [mm <sup>2</sup> ]	Type of cable	Conductor material	Conductor screen nominal thickness [mm]	Conductor screen minimum thickness [mm]	Insulation material	Nominal insulation thickness [mm]	Minimum insulation thickness [mm]	Insulation Screen Nominal thickness [mm]	Insulation Screen Minimum thickness [mm]	Longitudinal watertightness (Yes/Not)	Earth Screen type	Metallic screen minimum thickness [mm]	Outer sheath material	Sheath Nominal thickness [mm]	Sheath minimum thickness [mm]	Sheath color	Messenger cross-section [mm <sup>2</sup> ]	Messenger conductor material	Messenger sheath material	Messenger sheath Nominal thickness [mm]	Messenger sheath minimum thickness [mm]	Messenger sheath color
GSCC008/28	EDESUR	0101-0499	18/30(36)	50	II	ALUMINIO	0,5	0,3	XLPE	8,0	7,1	0,5	0,3	YES	COPPER WIRES	-	POLYETHYLENE	3,1	2,3	BLACK	50	Galvanized steel	PE	1,6	1,1	BLACK
GSCC008/29	EDESUR	0101-0500	18/30(36)	95	II	ALUMINIO	0,5	0,3	XLPE	8,0	7,1	0,5	0,3	YES	COPPER WIRES	-	POLYETHYLENE	3,4	2,5	BLACK	50	Galvanized steel	PE	1,6	1,1	BLACK
GSCC008/30	EDESUR	0101-0501	18/30(36)	150	II	ALUMINIO	0,5	0,3	XLPE	8,0	7,1	0,5	0,3	YES	COPPER WIRES	-	POLYETHYLENE	3,6	2,7	BLACK	50	Galvanized steel	PE	1,6	1,1	BLACK



GS Type Code	Distribution Company and Country	Country Code	TAM Description
GSCC008/002	RJ/CE/GO-Brasil	T330076	MV AERIAL CABLES 8,7/15(17,5) 3x50 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/002	SP-Brasil	323109	MV AERIAL CABLES 8,7/15(17,5) 3x50 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/002	CD-Colombia	330006	MV AERIAL CABLES 8,7/15(17,5) 3x50 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/003	RJ/CE/GO-Brasil	T330082	MV AERIAL CABLES 8,7/15(17,5) 3x95 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/003	SP-Brasil	323111	MV AERIAL CABLES 8,7/15(17,5) 3x95 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/003	CD-Colombia	330005	MV AERIAL CABLES 8,7/15(17,5) 3x95 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/004	RJ/CE/GO-Brasil	T330083	MV AERIAL CABLES 8,7/15(17,5) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/004	SP-Brasil	323108	MV AERIAL CABLES 8,7/15(17,5) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/011	ED-CHILE	330007	MV AERIAL CABLES 18/30(36) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH ALUMINUM FOIL SCREEN BARE MESSENGER
GSCC008/012	CD-Colombia	330671	MV AERIAL CABLES 20/34(37,95) 3x95 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN BARE MESSENGER
GSCC008/013	CD-Colombia	330668	MV AERIAL CABLES 20/34(37,95) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN BARE MESSENGER
GSCC008/023	RJ/CE/GO-Brasil	T330077	MV AERIAL CABLES 8,7/15(17,5) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN BARE MESSENGER
GSCC008/023	SP-Brasil	323104	MV AERIAL CABLES 8,7/15(17,5) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN BARE MESSENGER
GSCC008/023	CD-Colombia	330691	MV AERIAL CABLES 8,7/15(17,5) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN BARE MESSENGER
GSCC008/25	EDESUR	0101-0496	MV AERIAL CABLES 8,7/15(17,5) 3x50 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN PE MESSENGER
GSCC008/26	EDESUR	0101-0497	MV AERIAL CABLES 8,7/15(17,5) 3x95 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN PE MESSENGER
GSCC008/27	EDESUR	0101-0498	MV AERIAL CABLES 8,7/15(17,5) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN PE MESSENGER
GSCC008/28	EDESUR	0101-0499	MV AERIAL CABLES 18/30(36) 3x50 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN PE MESSENGER
GSCC008/29	EDESUR	0101-0500	MV AERIAL CABLES 18/30(36) 3x95 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN PE MESSENGER
GSCC008/30	EDESUR	0101-0501	MV AERIAL CABLES 18/30(36) 3x150 50Y+mm2 AI CONDUCTOR XLPE INSULATION PE SHEATH COPPER WIRES SCREEN PE MESSENGER