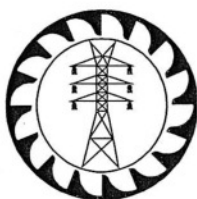


018-1: 2019

CEB
SPECIFICATION

**LOW VOLTAGE
SINGLE PHASE & THREE PHASE
AERIAL BUNDLED CONDUCTORS**



**CEYLON ELECTRICITY BOARD
SRI LANKA**



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SPECIFICATION FOR LOW VOLTAGE SINGLE PHASE & THREE PHASE AERIAL BUNDLED CONDUCTORS

1.0 SCOPE

This specification covers the general requirements of the design, manufacture and testing of following configurations of Low Voltage Single Phase & Three Phase Aerial Bundled Conductors.

- (a) $1 \times 50 \text{ mm}^2 + 1 \times 54.6 \text{ mm}^2$
- (b) $3 \times 70 \text{ mm}^2 + 1 \times 54.6 \text{ mm}^2$
- (c) $3 \times 70 \text{ mm}^2 + 1 \times 54.6 \text{ mm}^2 + 1 \times 16 \text{ mm}^2$
- (d) $3 \times 95 \text{ mm}^2 + 1 \times 70 \text{ mm}^2$
- (e) $3 \times 95 \text{ mm}^2 + 1 \times 70 \text{ mm}^2 + 1 \times 16 \text{ mm}^2$

The procurement entity shall prescribe the required category/ies in price schedule indicating the configuration and any other extra options.

2.0 SYSTEM PARAMETERS

(a)	Nominal voltage (U)	400/230 V
(b)	System highest voltage (Um)	440 V
(c)	System frequency	50 Hz
(d)	Method of earthing	Effectively earthed
(e)	System fault level	25 kA

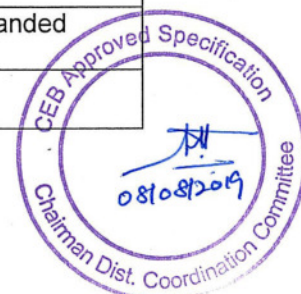
3.0 SERVICE CONDITIONS

(a)	Annual average ambient temperature	30 °C
(b)	Maximum ambient temperature	40 °C
(c)	Maximum relative humidity	90%
(d)	Environmental conditions	Humid tropical climate with heavily polluted atmosphere
(e)	Operational altitude	From M.S.L. to 1900 m above M.S.L.
(f)	Isokeraunic (Thunder days) level	100 days
(g)	Solar Radiation	4.5 kWh/m ² /day

4.0 APPLICABLE STANDARDS

The Aerial Bundled Conductors supplied shall be in accordance with the latest editions of the standards specified below and amendments thereof.

(a)	NFC 33-209:1996	Aerial Bundled Conductors
(b)	NFC 32-020:1981	Insulated Cables And Flexible Cords - Test Methods for Insulations and Sheaths of Electric Cables and Cords - (elastomeric And Thermoplastic Compounds)
(c)	IEC 60502-1: 2004	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV (Um = 36 kV) – Part 1: Cables for rated voltages of 1 kV (Um = 1.2 kV) and 3 kV (Um = 3.6 kV)
(d)	IEC 61089: 1991	Round Wire Concentric Lay Overhead Electrical Stranded Conductors
(e)	IEC 60228:2004	Conductors of Insulated Cables



The supplier may offer Aerial Bundled Conductors manufactured to any other international standard not less stringent than the National French Standard NFC 33-209. Offers of items manufactured to any other standard, shall be accompanied by an English translation.

However in the event of discrepancy, details given in this CEB specification supersede above standards.

5.0 BASIC FEATURES

The configurations of the Low Voltage Aerial Bundled Conductors covered in this specification are as follows:

- (a) $1 \times 50 \text{ mm}^2 + 1 \times 54.6 \text{ mm}^2$
- (b) $3 \times 70 \text{ mm}^2 + 1 \times 54.6 \text{ mm}^2$
- (c) $3 \times 70 \text{ mm}^2 + 1 \times 54.6 \text{ mm}^2 + 1 \times 16 \text{ mm}^2$
- (d) $3 \times 95 \text{ mm}^2 + 1 \times 70 \text{ mm}^2$
- (e) $3 \times 95 \text{ mm}^2 + 1 \times 70 \text{ mm}^2 + 1 \times 16 \text{ mm}^2$

All cores shall be twisted together with right-handed lay (Z-lay) direction.



5.1. Phase Conductor

The phase conductor shall be of multi-strand round compacted hard drawn High Grade Aluminium 99.7% conforming to IEC 61089 with XLPE insulation. The conductor wires shall not have any joints except for those made on the base wire or rod before final drawing. The cross sectional area of the conductor shall be 70 mm^2 or 95 mm^2 depending on the requirement specified in the Price Schedule.

The phase conductor for bundles shall conform to the following:

		For 50 mm^2 phase conductor	For 70 mm^2 phase conductor	For 95 mm^2 phase conductor
(a)	Number of strands	7	12 or 19	19
(b)	Max. linear resistance at 20°C	$0.641 \Omega/\text{km}$	$0.443 \Omega/\text{km}$	$0.320 \Omega/\text{km}$
(c)	Minimum breaking strength	600 daN	840 daN	1140 daN
(d)	Diameter of compacted bare conductor	Max. 8.4mm Min. 7.9mm	Max. 10.2mm Min. 9.7mm	Max. 12mm Min. 11mm
(e)	Mean thickness of insulating sheath (Minimum thickness at 1 point)	1.6mm (1.34mm)	1.8mm (1.52mm)	1.8mm (1.52mm)
(f)	Insulated cable outside diameter	Max. 12.0mm Min. 11.1mm	Max. 14.2mm Min. 13.3mm	Max. 15.7mm Min. 14.6mm

5.2. Neutral Messenger

The strain bearing neutral conductor shall consist of multi-strand round Aluminium Alloy conforming to IEC 61089 with XLPE insulation. The conductor wires shall not have any joints except for those made on the base wire or rod before final drawing.

The Aluminium Alloy neutral messenger conductor shall conform to the following:

		Messenger for $50 \text{ mm}^2 / 70 \text{ mm}^2$ phase conductor	Messenger for 95 mm^2 phase conductor
(a)	Cross sectional area	54.6 mm^2	70 mm^2
(b)	Number of strands	07	07

(c)	Max. linear resistance at 20°C	0.63 Ω /km	0.5 Ω /km
(d)	Minimum breaking strength	1660daN	2050daN
(e)	Nominal diameter of strands	3.15mm	3.50mm
(f)	Co-efficient of linear expansion	$23 \times 10^{-6} \text{ K}^{-1}$	$23 \times 10^{-6} \text{ K}^{-1}$
(g)	Modulus of elasticity	62,000 MPa	62,000 MPa
(h)	Diameter of bare conductor	Max. 9.6mm Min. 9.2mm	Max. 10.2mm Min. 10.0mm
(i)	Mean thickness of insulating sheath (Minimum thickness at 1 point)	1.6mm (1.34mm)	1.5mm (1.25mm)
(j)	Insulated cable outside diameter	Max. 13.0mm Min. 12.3mm	Max. 13.6mm Min. 12.9mm

5.3. Street Lighting Conductor

The Street Lighting Conductor shall be of multi-strand round compacted hard drawn High Grade Aluminium 99.7% conforming to IEC 61089 with XLPE insulation. The Conductor wires shall not have any joints except for those made on the base wire or rod before final drawing.

The Street Lighting Conductors of Aerial Bundled Conductors with 70 mm²/95 mm² Phase Conductors shall conform to the following:

(a)	Cross sectional area	16 mm ²
(b)	Number of strands	07
(c)	Max. linear resistance at 20°C	1.91 Ω /km
(d)	Minimum breaking strength	190 daN
(e)	Diameter of compacted bare conductor	Max. 5.1mm Min. 4.6mm
(f)	Mean thickness of insulating sheath (Minimum thickness at 1 point)	1.2mm (0.98mm)
(g)	Insulated cable outside diameter	Max. 7.8mm Min. 7.0mm



5.4. Insulating Sheath

5.4.1. Insulating Sheath Material

The Insulating Material shall be of black weather resistant cross linked thermosetting polyethylene (XLPE) conforming to NFC 32-020.

The mechanical strength and other mechanical properties such as tensile strength, minimum elongation at break and physical/chemical properties shall conform to the relevant Clauses in NFC 32-020. The minimum tensile strength shall not be less than 14.5 MPa and the minimum elongation at break shall be 200%.

Adherence of the insulating sheath to the strain bearing neutral conductor shall be adequate enough to prevent the slipping of the insulating sheath when a pulling force of 18 daN (for 54.6 mm² neutral conductor) or 20 daN (for 70 mm² neutral conductor) is applied.

The mean thickness and minimum thickness shall be as specified above in Clauses 5.1, 5.2 and 5.3 for phase, neutral, and street lighting conductor respectively.

5.4.2. Extrusion of Insulating Sheath on Bare Conductor

The insulating sheath shall be fully pressure extruded on the bare conductors of the phases/ street lighting/neutral messenger.

5.5. Properties of Completed Cable

The properties of individual cables and the bundle (such as lay pitch, Electrical and Mechanical properties) shall conform to relevant Clauses in NFC 33-209.

6.0 REQUIREMENTS FOR SELECTION

6.1. Quality Assurance

The manufacturer shall possess ISO 9001:2015 or latest Quality Assurance Certification for the manufacture of XLPE Insulated low voltage (400/230 V) Aerial Bundle Conductors for the plant where manufacturing is being done. The Bidder shall furnish a copy of the ISO certificate certified as true copy of the original by the manufacturer, along with the offer.

6.2. Manufacturing Experience

The manufacturer shall have minimum of ten (10) years experience in manufacturing XLPE Insulated low voltage (400/230V) Aerial Bundled Conductors. In addition, minimum of five (5) years experience shall be in manufacturing for orders from outside the country of the manufacturer. The product offered has to be in same voltage range of offered item and shall have been used in service utilities over past 5 years.

However, the manufacturers who have supplied Low Voltage ABC to CEB satisfactorily over the last five years, whose cumulative quantities either equal or exceeding the quantity in current bid, will be considered to have complied this clause.

Manufacturer shall furnish a list of purchasers with year and quantity of the product offered with the offer to prove his manufacturing experience.

6.3. Type Tests

Type Test Certificates conforming to the above referred standards or any other international standard which is not less stringent, issued by:

Either

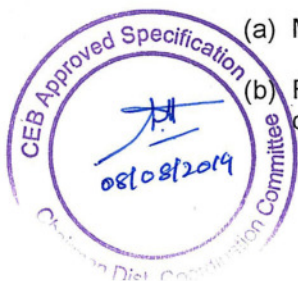
- (a) an accredited independent testing laboratory acceptable to the CEB or
- (b) an accredited or independent testing laboratory acceptable to the CEB where the type test have been witnessed by CEB or a reputed independent body acceptable to CEB

shall be furnished with the offer. Type Test Certificates shall clearly indicate the relevant standard, items concerned, showing the manufacturers identity, type No. /catalogue No. and basic technical parameters. In case if the submitted type tests are according to any other international standard which is not less stringent than the specified, then the copy of the used standard in English shall be submitted with offer.

Proof of accreditation and accredited scope by a national/ international authority shall be forwarded with the offer. Test certificates shall be complete including all the pages as issued by the testing authority. Type test certificates shall be in English language. Parts of test certificates shall not be acceptable.

The following type test certificates conforming to NFC 33-209 shall be furnished with the offer.

- (a) Mechanical strength of the conductors.
- (b) Resistance of insulating sheaths to weathering. This test shall be carried out for all conductors other than the strain bearing neutral conductor.



- (c) Insulation resistance.
- (d) Adherence of the insulating sheath on the conductor of the strain bearing neutral core.
- (e) Dielectric strength.
- (f) Impulse (voltage) withstand.
- (g) Behavior of the strain bearing neutral core under thermal / mechanical stress.
- (h) Perforation susceptibility of insulating sheaths.



7.0 INFORMATION TO BE FURNISHED WITH THE OFFER

The following shall be furnished with the offer.

- (a) Technical details in English clearly identifying the offered items, but not limited to:
 - (i) Comprehensive catalogues describing the Aerial Bundled Conductor (ABC) and indicating the type/number.
 - (ii) The standard to which the ABC has been manufactured and the English version of the standard.
 - (iii) Dimensional drawings of the conductors.
 - (iv) Drum details with dimensions.
 - (v) Calculations, graphs and tables.
 - (vi) Literature describing the operational features.
- (a) Type Test Certificates in accordance with the clause 6.3.
- (b) Duly filled and signed 'Annex - B: Schedule of Technical Requirements and Guaranteed Technical Particulars'.
- (c) Documents to prove manufacturer's experience in accordance with Clause 6.2.
- (d) Technical literature (in English) as per clause 10.2.
- (e) ISO 9001:2015 or latest Quality Assurance Certificate in accordance with clause 6.1.

Not furnishing above documents and details may result in offer being rejected.

8.0 PERFORMANCE GUARANTEES AND WARRANTY

Manufacturer should provide CEB a warranty ensuring that cables supplied meet the specification and any defected cable shall be replaced without extra cost during the first year after the final delivery to CEB stores.

9.0 SAMPLES

Two specimens of length 5 meters of Aerial Bundled Conductors offered shall be furnished with the offer to facilitate analysis and evaluation.

10.0 PACKING AND LABELING/MARKING

10.1. Packing

The Aerial Bundled Conductors shall be supplied in drums which shall be of good quality timber or steel. Drums shall be securely battened around the perimeter and shall be lined with approved impervious material to prevent contact between the contents and both the drum itself and any chemicals with which the drum has been treated. Drums shall be suitable for rolling on the flanges without causing damage to the conductor and the direction of rolling shall be clearly shown.

All timber drums and battens shall be protected from deterioration by termite or fungus attack by an approved impregnation treatment at the works before dispatch. Such substance shall not be harmful to the conductor.

All drums shall have suitable spindle holes and the holes shall be stoutly reinforced with steel plates.

The ends of cables shall be sealed with terminal caps to prevent the ingress of moisture during transportation and storage. The length of cable per drum shall be **500 meters**. The cable length per drum shall not vary more than $\pm 5\%$.

10.2. Technical Literature and Drawings

The selected Bidder shall supply the relevant drawings, technical literature, Sag -Tension Chart, Routine Test Certificates etc. along with the Aerial Bundled Conductors, in order to facilitate installation and operation.

10.3. Identification and Labeling

10.3.1. Cables

The markings are to be either indented or embossed, as follows:

All cables in a bundle shall carry the mark "CEB" and the year of manufacture at intervals of 1m in addition to any other markings.

The phase identification marking shall either be Numerals or Ribs. When Ribs are provided to identify cores, they shall be made to enable workmen to identify the cores easily.

(a) Phase and Neutral Cores

One, two, and three Ribs to distinguish the three phase cores from each other and the neutral shall be plain without any Ribs.

(b) Street Lighting Core

The markings shall be as described above, but it shall be plain without any Ribs in the case of single street lighting core.

10.3.2. Drum

Each drum shall be labeled (with clear stencil) with the following;

- (a) "PROPERTY OF CEYLON ELECTRICITY BOARD"
- (b) Bid No. Serial No.....
- (c) Manufacturer's identification.
- (d) Cable Type, Voltage Rating, Conductor Size and Number of Cores.
- (e) Number and year of standard adopted.
- (f) Net Weight & Gross Weight in kg.
- (g) Length of cable in meter.
- (h) Direction of rolling.
- (i) Year of Manufacture.

11.0 INSPECTION AND TESTING

11.1. Routine Tests

While manufacturing each batch of the ABC, the following Routine Tests in accordance with NFC 33-209 shall be carried out on all cable drums and test reports shall be furnished for the observation of the Engineer appointed by the purchaser at the time of inspection.



- (a) External diameter
- (b) Continuity of conductors
- (c) Dielectric strength.

11.2. Inspection

The Successful bidder shall make necessary arrangements for inspection by an Engineer appointed by the CEB and also to carry out in his presence necessary Acceptance tests on equipment and material. The CEB may waive off the inspection with the condition of witnessing the acceptance tests by an independent testing authority acceptable to the CEB. In such a situation a notice of waive off will be issued in advance to the supplier.

11.3. Acceptance Tests

The following Acceptance/Sample tests in accordance with NFC 33-209 shall be carried out and witnessed by the Engineer appointed by the CEB.

- (a) Properties of the Conductor
 - (i) Constitution
 - (ii) Dimensions
 - (iii) Stranding pitch
 - (iv) Linear resistance
- (b) Properties of the insulating sheath
 - (i) Dimensions
 - (ii) Mechanical properties
 - (iii) Hot set
 - (iv) Hot shrinkage
- (c) Properties of the completed cable
 - (i) Constitution
 - (ii) Marking
 - (iv) Lay-up pitch
 - (v) Adhesion of neutral core sheath

12.0 ANNEX

Annex –A: Price Variation

Annex –B: Schedule of Technical Requirements and Guaranteed Technical Particulars

Annex – C: Non-Compliance Schedule



Annex- A

PRICE VARIATION

The Bidders shall forward their offers on the basis of the Price Variation stipulated below.

1.0 BASIS OF THE OFFER

- (a) Suppliers of Aerial Bundled Conductors (ABC) are required to make their offers on the basis of a Base Price plus a Fixed Price Margin.
- (b) The Base Price shall be the Cash Seller's Midday Official Average Price of Aluminium High Grade 99.7% at London Metal Exchange (LME) in US Dollars on the 14th day before the closing of Bids (exclusive of the bid closing date) or the previous working day if that day is a non working day at the LME.
- (c) The Fixed Price Margin shall be quoted in the currency of choice of the Bidder.

Accordingly FOB Price of foreign Bidders offering cables from outside the country and the ex-factory price of Local Bidders shall be computed **for the evaluation as;**

$$(A_0 \times US_0 (MT1+MT2) + FP \times CC_0) \times TL$$

Where;

- A₀** - Base Price which is the Cash seller's midday official average price of Aluminium High Grade 99.7%, in US Dollars per Metric ton at the LME on the fixed date [Clause(1 b)]
- FP** - Fixed Price Margin per kilometer of Aerial Bundled Conductors in the currency allowed under Clause 1(c) above.
- MT1** - Quantity of High Grade Aluminium 99.7% in Metric Ton for the manufacture of all phase conductors and street lighting conductor (if applicable) for one kilometer of Aerial Bundled conductors considered for bid price.
- MT2** - Quantity of High Grade Aluminium 99.7% in Metric Ton for the manufacture of Aluminium Alloy neutral conductor for one kilometer of Aerial Bundled conductors considered for bid price.
- TL** - Total Length in kilometers of Aerial Bundled Conductors offered.
- CC₀** - Currency Conversion rate from the currency of choice of the Bidder to LKR prevailing on the 14th day before Bid opening.
- US₀** - Currency Conversion rate from the US Dollars to LKR prevailing on the 14th day before Bid opening.

2.0 AWARD PRICE

- (a) The FOB Award Price of foreign Bidders offering ABC shall be computed as;

$$(A_1 \times TL (MT1 + MT2)) \text{ in US Dollars} + (FP \times TL) \text{ in the currency of choice quoted.}$$

- (b) The Ex-factory Award Price of Local Bidders offering ABC shall be computed as;

$$(A_1 \times TL \times US_1 (MT1+MT2)) + (FP \times TL \times CC_1) \text{ in LKR}$$



Where;

- A₁** - Base Price which is the Cash seller's midday official average price of Aluminium High Grade 99.7%, in US Dollars per Metric ton at the LME at the 3rd working day immediately after the day of award.
- FP** - Fixed Price Margin per kilometer of Aerial Bundled Conductors in the currency of choice.
- TL** - Total Length in kilometers of Aerial Bundled Conductors awarded.
- CC₁** - Currency Conversion rate from the currency of choice of the Bidder to LKR prevailing on the 3rd working day immediately after the day of award.
- US₁** - Currency Conversion rate from the US Dollars to LKR prevailing on the 3rd working day immediately after the day of award.

Intimation of the award will be faxed/ e-mailed to the successful Bidder and or to his agent in Sri Lanka on the same day of the award.

3.0 CONVERSION OF CURRENCY

- (a) For the purpose of the evaluation the Price A₀ in US Dollars and the Fixed Price Margin (FP) in the currency of choice of the Bidder will be converted to LKR at the official Selling Exchange Rate of the Central Bank of Sri Lanka on the 14th day before Bid opening.
- (b) The payment for the foreign Bidders for supply of ABC will be made at the contract price in the currency quoted for the Fixed Price Margin (FP). The metal base prices in US Dollars will be converted to the currency of the FP at the official Selling Exchange rate at the Central Bank of Sri Lanka prevailing at the 3rd working day immediately after the day of award.
- (c) The payment for local suppliers for the supply of ABC will be made in LKR. The Prices of Aluminium in US Dollars will be converted to LKR at the official Selling Exchange rate at the Central Bank of Sri Lanka prevailing on the 3rd working day immediately after the day of award.

4.0 VARIATION FIGURES

The Bidders shall furnish;

- (i) Fixed Price Margin (FP) for manufacture of one kilometer of Aerial Bundled Conductors in the currency allowed in Clause 1(c).
- (ii) Weight in metric tons of High Grade 99.7% Aluminium (MT1) required for the manufacture of all phase conductors and street lighting conductor (if applicable) for one kilometer of Aerial Bundled conductors.
- (iii) Weight in metric tons of High Grade 99.7% Aluminium (MT2) required for the manufacture of Aluminium Alloy neutral conductor for one kilometer of Aerial Bundled conductors

in the price schedule.

.....
Signature and seal of the Manufacturer

.....
Date

I/We certify that the above data are true and correct

.....
Signature and seal of the Bidder

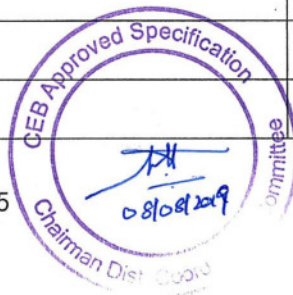
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Annex- B

SCHEDULE OF TECHNICAL REQUIREMENTS AND GUARANTEED TECHNICAL PARTICULARS
(CEB Requirements shall be filled by the procurement entity and information of the offer shall be filled by the manufacturer)

		CEB Requirement	Offered
1.	Name of the Manufacturer		
2.	Country of Origin		
3.	Rated Voltage category , U_0/U (U_m)	230V/400V (440V)	
4.	Applicable Standards	NFC 33-209 or equivalent	
5.	Conductor Particulars		
	A) Phase Conductor		
	(a) Nominal cross sectional area. mm^2	As per the price schedule	
	(b) Diameter mm	As per clause 5.1	
	(c) Number of strands. Nos.	As per clause 5.1	
	(d) Material	Aluminium	
	(e) Shape	Round	
	(f) Type		
	I. Solid / Stranded	Stranded	
	II. Compact / Non compact	Compact	
	(g) Max. linear resistance at 20°C Ω/km	As per clause 5.1	
	(h) Diameter of the compacted bare conductor mm	As per clause 5.1	
	(i) Minimum breaking strength of the conductor daN	As per clause 5.1	
	(j) Thickness of insulating sheath mm	As per clause 5.1	
	(k) Insulated cable outside diameter mm	As per clause 5.1	
	(l) Current carrying capacity in air at 30°C A	As per NFC 33-209	
	B) Neutral Messenger		
	(a) Nominal cross sectional area. mm^2	As per the price schedule	
	(b) Diameter mm	As per clause 5.2	
	(c) Number of strands. Nos.	As per clause 5.2	
	(d) Material	Aluminium Alloy	
	(e) Shape	Round	
	(f) Type		
	I. Solid / Stranded	Stranded	



	II. Compact / Non compact		
	(g) Max. linear resistance at 20°C	Ω/km	As per clause 5.2
	(h) Diameter of the bare conductor	mm	As per clause 5.2
	(i) Minimum breaking strength of the conductor	daN	As per clause 5.2
	(j) Thickness of insulating sheath	mm	As per clause 5.2
	(k) Insulated cable outside diameter	mm	As per clause 5.2
	C) Street Lighting Conductor		
	(a) Provided with the offer?	Yes/No	As per the price schedule.
	(b) Nominal cross sectional area.	mm ²	16 mm ²
	(c) Diameter	mm	As per clause 5.3
	(d) Number of strands.	Nos.	As per clause 5.3
	(e) Material		Aluminium
	(f) Shape		Round
	(g) Type		
	I. Solid / Stranded		Stranded
	II. Compact / Non compact		Compact
	(h) Max. linear resistance at 20°C	Ω/km	As per clause 5.3
	(i) Diameter of the compacted bare conductor	mm	As per clause 5.3
	(j) Minimum breaking strength of the conductor	daN	As per clause 5.3
	(k) Thickness of insulating sheath	mm	As per clause 5.3
	(l) Insulated cable outside diameter	mm	As per clause 5.3
	(m) Current carrying capacity in air at 30°C	A	As per NFC 33-209
6.	Approximate weight of complete cable	kg/ km	
7.	Minimum bending radius of Complete Conductor	mm	18 x Phase conductor diameter
8.	Whether the cable ends are sealed before shipping		As per clause 10.1
9.	Whether markings provided on oversheath conform to Clause		As per clause 10.3
10.	Drum Particulars		
	(a) Material of the drum		Timber/Steel
	(b) Dimensions	mm xmm	
	(c) Weight	kg	
	(d) Standard cable length	m	500m
	(e) Weight of standard length with drum	kg	



	(f) Whether impregnation treatment done?	Yes/No	Yes	
11.	Whether a certified copy of ISO 9001:2015 or latest furnished with the offer?		As per clause 6.1	
12.	Whether the entire Type Test Certificates in accordance with clause 6.3 furnished with the offer?	Yes/No	Yes	
13.	Whether all information provided as per clause 7.0?	Yes/No	Yes	

.....
Signature and seal of the Manufacturer

.....
Date

I/We certify that the above data are true and correct

.....
Signature and seal of the Bidder

.....
Date



Annex – C**NON-COMPLIANCE SCHEDULE**

On this schedule the bidder shall provide a list of non-compliances with this specification, documenting the effects that such non-compliance is likely to have on the equipment life and operating characteristics. Each non-compliance shall be referred to the relevant specification clause.

Clause No.	Non-Compliance

.....
Signature and seal of the Manufacturer

.....
Date

I/We certify that the above data are true and correct

.....
Signature and seal of the Bidder

.....
Date

