

Our Ref.:

Date:

Tender 24 /2017
MV Overhead Lines Conductors

You are kindly requested to quote for the supply and delivery of:

- AAAC – All Aluminum Alloy Conductors.
- The purchaser does not bind himself to accept the lowest or any tender nor to assign any reason for the rejection of any tender, nor to purchase the whole of the equipment and materials specified.
- Although IEC recommendations for workmanship, equipment and materials, have been selected in this specification as a basis of reference, standards and specification of other countries and recommendations of other international standard organization will be accepted provided they are substantially equivalent to the designated standards and provided furthermore that the tender submits for approval detailed specification which he proposes to use.
- The delivery should be D.D.P. to our stores in Shufat-Jerusalem.

Essential Bidding Requirements:

- **A bank certified check or a bank guarantee of 5% of the total tender valid for 90 days, to be submitted as a bid bond, otherwise, quotation will be neglected.**
- Quotation should be enclosed in a sealed envelope or package and handed over to the “Tender Committee” by the representative of the bidder or their agent **not later than 15.1.2018 at 11:00 AM.**
- TENDER DOCUMENTS FEES: **1000 US\$.** A proof of payment should be sent by email to: rnashashibi@jdeco.net.
- The main offer envelope or package should include three separate envelopes as follow :
 - a. **The financial offer in a separate sealed envelope.**
 - b. **The technical offer & catalogues placed in a separate sealed envelope.**
 - c. **Your bid bond in a separate envelope.**
- Technical offer will be studied separately from the financial offer. The financial offers for bidders whose technical offers do not meet JDECO’s technical requirements will not be opened.

- In case offers are submitted by an agent on behalf of a certain supplier, a copy of the agreement between the agent and the supplier must also be submitted. Such copy has to be authenticated and certified by the chamber of commerce at the supplier's country of origin.
- Offers have to be attached with a letter confirming the authorized persons signing on behalf of the bidder.

Any bid package not according to the above will not be considered.

Payment method:

30 days after delivery of goods through cash against documents.

Yours faithfully.

HishamOmari
Managing Director

1.0 SCOPE

This specification covers the Manufacture, testing and supply of (AAAC) which will be used in Overhead Power distribution System.

2.0 SYSTEM PARAMETERS

1	Nominal Voltage	33KV
2	System Highest Voltage	36Kv
3	System Frequency	50 Hz.
4	Number of Phases	3
5	Method of earthing	Solidly earthed
6	System fault level	25/40 kA rms

3.0 SITE CONDITIONS

Item	Description	Unit	Value
1	Altitude of site above sea level	m	- 276 to 900
2	Ambient Temps: Maximum	C°	50
	Minimum	C°	- 5
3	Wind Speed	m/s	15
4	Isokeraunic Level		10
5	Pollution Type		Dust
6	Relative Humidity Maximum	%	100
	Minimum	%	< 10
7	Rainfall Average Annual	mm	600
8	Hail		Yes
9	Fog		Yes
10	Sand Storms		Occasional

4.0 APPLICABLE STANDARDS

The items shall conform in general to the following Standards and the latest amendments thereof.

1	IEC 104 (1987)	Aluminum - Magnesium - Silicon Alloy Wire
2	IEC 1089 (1991)	Round wire concentric lay overhead electrical stranded conductors
3	EN 50182 : 2001	EUROPEAN NORM

The items conforming to any other National Standards which are equal to or higher but not less rigid than the Standards and Specification stipulated may be offered.

When such alternative Standards are used reference to such Standards shall be quoted and English Language copies of such Standards.

5.0 Basic Features

- The conductor shall be made of Aluminum Alloy Wires having the properties specified in this Standard. The conductor shall contain grease for additional protection against corrosion.
- The Aluminum - Magnesium - Silicon Alloy shall have the conductivity of 52.5% IACS (International Annealed Copper Standards)
- The chemical composition shall be as follows:

Element	Composition, %
Cu, Max	0.10
Fe, Max	0.50
Si	0.5 - 0.9
Mn, Max	0.03
Mg	0.6 - 0.9
Zn, Max	0.10
Cr, Max	0.03
B, Max	0.06
Other elements, each max.	0.03
Other elements, total, max	0.10
Al	The remainder

- The alloy wire shall conform to IEC 104 in general. It shall be of uniform quality, circular cross section, clean, smooth and free from harmful defects, splinter irregularities and brittle places.
- Joints in wires shall comply with Clause 7.3. Joints may be made in the base rod or wire before final drawing.

6.0 Packing

- The finished conductor shall be wound on the drum and the exposed end of the conductor in each drum shall be crimp-sealed. The drum and battens shall be made of well-seasoned wood that is treated to prevent deterioration by termites or fungus attack. The chemical used for treating the wood shall not be harmful to the conductor. Drums shall be lined with an impervious material to prevent direct contact of the conductor with the drum.
- External flange diameter shall be such that the distance between the outer edge of the flange and the packed conductor shall be not less than 75 mm. 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 drums shall have spindle hole of adequate diameter and be straightly reinforced with steel plates and by bolts and shall be designed for mounting on a horizontal axle for laying out the conductor. The hub and the flanges of the drum shall be securely fastened together with reinforcing by bolts and nuts
- The conductor length should not exceed **2500** meter per drum.

7.0 Labeling

Each Drum shall be labeled with clear stencil, which shall withstand extreme weather conditions with the following. :

- a) JDECO Contract No.
- b) Net Weight
- c) Gross Weight
- d) Total length of the Conductor
- e) Conductor material/and stranding
- f) Manufacture's name
- g) Manufacture's Batch Number
- h) Manufacture's Drum Number
- i) Stranding date
- j) Approximate Measurements
- k) Direction of rolling

8.0 Bill Of Quantity

Item	Conductor Code	Nominal Cross Section Area mm ²	Quantity (Ton)	Approximate Equivalent Quantity (Km)
1	AAAC code 182-AL3 Old code 185	181.6	75	150

9.0 Prices

Item	Conductor Code	Nominal Cross Section Area mm ²	Unit Price \$ / Ton	Total Price \$ / Ton
1	AAAC code 182-AL3 Old code 185	181.6		
Total Price in USD				

- Delivery will be within ----- weeks.
- The prices above should include the delivery to our warehouse in Shufat.
- The drums shall not be returned.
- The initial price should be based on LME0 = 2000\$/Ton for Aluminum.
- The final prices shall be calculated according to the following equation:

$$P1 = P0 + K (LME1 - LME0)$$

K: weight of Al per one Km of cable.

P0: Initial price

P1: Final price