

Our Ref.:

Date :

Messrs:

Dear Sir,

Tender No. 26/2017
36 KV Air Switch Disconnecter

You are kindly requested to quote for the supply and delivery of air switch disconnectors in the attached schedule.

The delivery should be D.D.P. to our stores in Shufat East Jerusalem.

- All Air Switches should be manufactured and tested according to the latest I.E.C specifications, IEC 60265-1.
- 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.

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.



شركة كهرباء محافظة القدس المساهمة المحدودة
JERUSALEM DISTRICT ELECTRICITY CO. LTD.

17 شارع صلاح الدين - القدس ص.ب 19118 — تلفون -6269333 فاكس 6282441
17 Salah – El-Din Street – Jerusalem – P.O.Box 19118 – Tel 6269333 – Fax. 6282441

- 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.

Hisham Omari
Managing Director



Website: www.jdeco.net
E-Mail: info@jdeco.net



A. Introduction

- Air Break Switch Disconnectors are a vital part of any overhead line network, providing important points of isolation. Our 33Kv overhead line networks are designed so that when a fault occurs or maintenance work needs to be carried out it is relatively simple, by means of a systematic series of switching operations, to isolate a certain section of overhead line. When this switching process is carried out it is absolutely imperative that the Air Break Switch Disconnector is reliable and effective.
- Air switch Disconnectors \ Isolator with all accessories and fittings should be manufactured in order to be easily installed on a lattice pole tower 12-14 meter high, the orientation of the air switches should be as following:

1. **Top Orientation:** The Air Switch will be installed on the top of the lattice pole with horizontal orientation, as Fig.1

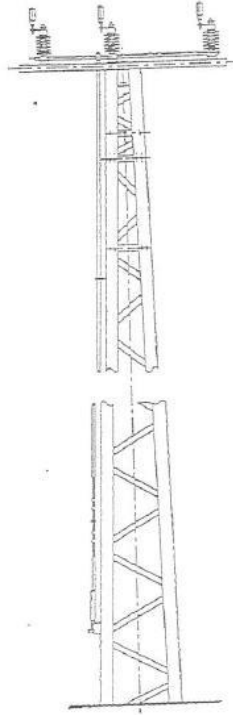


Fig .1

2. **Side Orientation:** The Air Switch will be installed on the side of the lattice pole with horizontal orientation, as Fig.2

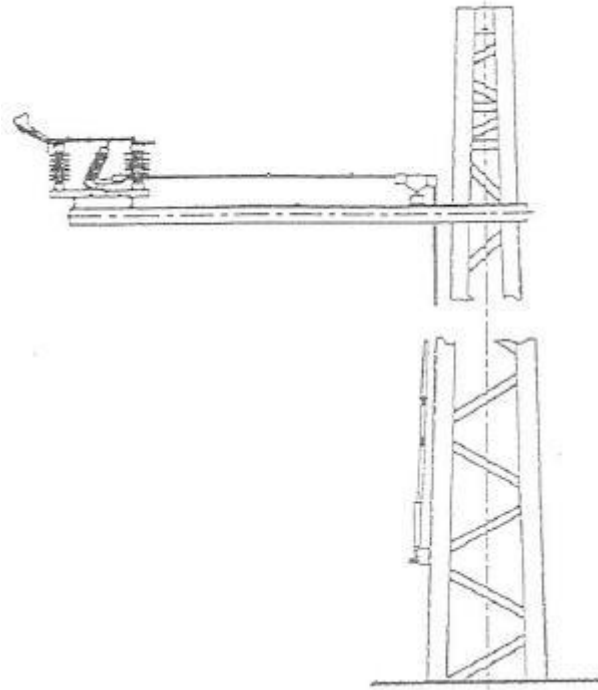


Fig .2

B. General Conditions

- The insulators of the switch must be from silicone rubber or appropriate polymer and absolutely **not from porcelain**.
- The three phases of the switch should be manufactured and delivered as separated parts, each phase as a unit, in order to assemble the switch at the site.
- The handle of the switch should have padlock facility in order to lock the switch on both situations (ON and OFF).
- The switch should be equipped with arc chamber, so that the switch could be opened and closed on load, breaking capacity > 400 amp.
- Hand operating mechanism consists of an operating mechanism supporting piece three linkage tubes (1" diameter) with all accessories for the hand and three linkage tubes to be fixed on the body of the lattice tower.
- On load switch must be with high speed closing & opening arrangements.
- The contacted (male & female) system is coated with silver to prevent burning of the contact and deoxidization.

Main Mechanism	Specifications
Type	Rural Pattern Manual Reciprocating
Auxiliary Switches	-----
Interlocks	Required(very important)
Additional Items	Padlocking Facility

Mounting	Horizontal –Side Mounting
Support Steel Work	Suitable for mounting on Steel Tower Pole
Connectors	Connector Pad Bimetallic AL/CU cable shoe suitable for connecting between the line & the switch
Insulating Link	Required
Phase Centers	(900) mm
Mounting Height	See the attached Fig.1 & 2

C. Site Conditions

The site conditions shall be assumed to be as follows:

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

Electrical Design Data:

Item	Description	Unit	Nominal Voltage Level
1-	Nominal system voltage phase to phase	KV	33
2-	Highest system voltage phase	KV	36
3-	System frequency	Hz	50
4-	System earth	---	Solid
5-	Impulse withstand voltage (1.2/50 u sec wave)	KV peak	200
6-	Power frequency withstand voltage 1 minute	KV	85
7-	Assumed highest switching surge		3.5

Items No. 1&2	Specifications
Quantity	75 for item 1 & 75 for item 2
Switch Type	On-Load switch Disconnectors
Number of Poles	3
Rating KV Amps KA	36 KV working voltage 33 KV 630 Amps 16 KA / 3 seconds

<i>Insulators</i>	<i>Specifications</i>
<i>Type</i>	<i>Anti – Fog insulators (silicone)</i>
<i>Mini Creepage (mm)</i>	<i>1080 mm</i>
<i>Impulse Rating (KV)</i>	<i>195</i>

<i>Interrupters</i>	<i>Specifications</i>
<i>Type</i>	
<i>Breaking capacity (Amps)</i>	<i>400 Amps</i>

D. Fundamentals for the Design:

In complying with the requirements of the specifications, both with respect to arrangement and details, design is to confirm to the best current engineering practice.

The materials are to be of the manufacturer's standard design provided that these design in general accordance with the specifications.

The essence of design should be simplicity and reliability in order to give long continuous service with high economy and low maintenance cost. The design, dimensions and materials of all parts are to be such that they will not suffer damage as a result of stresses under the most severe service conditions.

Fully detailed specifications of the materials are to be submitted describing particularly the materials to be used. The materials used in the manufacture of the items supplied are to be of the highest quality and selected particularly to meet the duties required of them.

Workmanship and general finish are to be of the highest class throughout.

E. Galvanizing

Galvanizing shall be applied by the hot dipped process. The preparation for galvanizing and the galvanizing process shall not affect the mechanical properties of the materials being coated.

Drilling, punching, cutting, bending, removal of burrs and all machining shall be completed before galvanizing.

The zing coating shall be smooth, clean, uniform thickness and free from defects. The preparation for galvanizing and the galvanizing itself shall not adversely affect the mechanical properties of the coated materials.

All galvanized steel, which has been cut, drilled or worked on site shall be painted with an approved zing rich paint.

The average thickness of the zing coating shall be equivalent to not less than 0.6 kg/m² of zing for all surfaces, except steel wires, bolts and nuts. Galvanizing will be tested in accordance with appropriate British or an equivalent standard in order to determine that it complies with this requirement.

The thickness of the zing coating for steel wires shall be in accordance with a national standard and shall be approved by the Engineer. All galvanized wires on which tools have been used or cut shall be treated with approved bit mastic paint.

All bolts and screwed rods for the connection of galvanized steel parts shall be galvanized including the threaded portion (s) to a minimum average coating weight of 305 g/m². The threads of all bolts and screwed rods shall be cleared of spelter by spinning or brushing. A die shall not be used for clearing the threads unless specially approved by the Engineer. All nuts shall be galvanized with the exception of the threads, which shall be oiled.

White rust formation subsequent to galvanizing must be inhibited using an approved inhibitor applied according to the manufacturer's instructions.

F. Materials and quantities:

Items	Qty	Description	Unit Price	Total Price
1-	100	36 KV polymeric on load air switch disconnecter as Fig.1 set of accessories including:- 1× operating handle. 1× joint 12 meters rods (in 4 section) 2× narrow guide 2× wide guide 1× square (special) operating rod (1.85m) 1× operating lever (special)		
2-	100	36 KV polymeric on load air switch disconnecter as Fig.2 set of accessories including:- 1× operating handle 1× joint 12 meters rods (in 4 sections) 2× narrow guide 2× wide guide 1× square (special) operating rod (1.85m) 1× side operating system 1× operating lever (special)		
Total Price				

Delivery will be not later than _____ Weeks.