

المواصفات الفنية الخاصة بالمناقصة العامة

رقم المناقصة : (٢٠١٣/٤)

الخاصة بشراء وتوريد

المجموعة الاولى : كابل وخص نحاس.

المجموعة الثاني : كبينة توزيع رئيسية AC1600A

المؤسسة العامة للاتصالات السلكية واللاسلكية

الإدارة العامة للمشتريات والمخازن

إدارة المشتريات - قسم العقود والمناقصات



PTC Specification
Low Voltage single core Cable Specifications (flexible
cables

1. SCOPE :-

- a) This specification covers the design, manufacture, testing supply & delivery of LV (0.6/1kV) single core Cable for used in out door service for switching and distribution installation, the size and quantities as given in attached requirements schedule.
- b) This specification defines the requirements.

2. STANDARDS :-

- a) The cables shall comply for all respects to requirements contained in the latest BS. Standard or other standard internationally approved (ANSI, DINetc).


3. SERVICE CONDITIONS:-

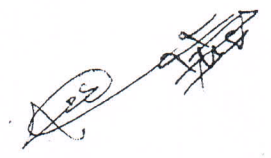
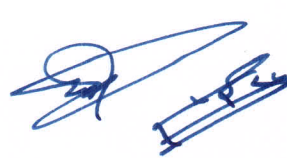
Conductor shall be suitable to ensure satisfactory operation for the following site conditions:

- a) Altitude: 2500 m above sea level
- b) Ambient temperature: -5 °C up to 50°C.
- c) Relative humidity: 5-100 %
- d) Average thermal resistivity of soil: 1.5°C.m/W

4. DETAILED REQUIREMENTS :-

Construction:

- a) Conductor of soft annealed copper fine wires (), high conductivity, circular shape, PVC Insulation heat resistive adheres tightly to conductors, yet strips easily, leaves conductor clean.





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5. Jacket marking informations:-

The cables outer marking should be consist of the following:

- a) Name of manufacture.
- b) Type design, size of conductor, rated voltage and standard.
- c) Continuous length marking every meter.
- d) Year of manufacture.

6. Availability of the samples:-

- a) The bidder must to provide samples of the quantity required, it should be enough length that contain all above jacket marking, and this samples must be provide at envelopes opening.

The samples must be stamped by manufacture company.

7. TESTS:-

- a) All required tests shall be done in accordance with the latest issue of standards IEC, BS, tests shall be performed at the manufacture's plant at bidder expense.
- b) In addition to the above tests on component wires, the complete conductor shall be tested for its conformity to this specification.
- c) Failure of any of the test specimens to comply with the requirements of this specification shall constitute ground for rejection of the lot as represented by the specimen.
- d) Certified test reports in (2) copies shall be furnished for each lot of conductor before shipment.



8. INFORMATION TO BE FURNISHED:-

- a) The bidder shall furnish sufficient information to fulfil this specification, including in attached schedule.
- b) Shipping details, including drawings, showing dimensions and construction details of the shipping reels and complete catalogue information



PTC Specification

9. SHIPPING AND MARKING:-

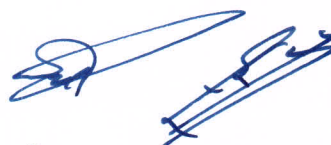
- a) The standard length of each piece of cable to be shipped in each reel shall be as following: 1000-2500 m according the conductor sizes required in schedule.
- b) PTC name must be furnished on the outer sheath of Cable. (option) 
- c) Each reel shall be durable marked in outside and tagged on inside with the following information, in addition to other shipping information as may be required.
 - a) Manufacture's name.
 - b) PTC name. (Option) 
 - c) Type of conductor.
 - d) Size of conductor.
 - e) Length of conductor.
 - f) Gross and net weight.

Drums shall be non returnable and shall be made of timber; pressure impregnated against fungal and insect attack, or made of steel suitably protected against corrosion.

10. Protection of conductors:-

- a) The drum barrel shall be covered with the layer of waterproof sheet plastic or shall be painted with aluminium flake paint secured immediately under the circumstance battens so that not contact with the conductor.

The attached schedules should be filled by the Manufacture.





الرقم : _____
التاريخ : _____

Flexible Cable Specifications

No.	Description	PTC Specifications	Tender Specifications
1.	Quantity requested (KM)	See the Schedule of Quantities	
2.	Nominal cross section area	See the Schedule of Quantities	
3.	Manufacturing company		
4.	Country of origin		
5.	Date of manufacture	2012-2013	
6.	Continuous length marking every meter		
7.	Rated voltage (V)	0.6/1 kv	
8.	Rate current (A)		
9.	Standard of design		
10.	Conductor materials	Soft annealed copper fine wire	
11.	Type	CU/(PVC/PVC) (XLPE/PVC)	
12.	Conductor shape	Circular	
13.	Actual cross section area mm ²		
14.	Insulation thickness mm		
15.	Insulation material		
16.	Max. operating temperature	90°C for XLPE and 70°C for PVC	
17.	Short circuit temperature	250°C for XLPE and 160°C for PVC	
18.	Color of insulations		
19.	(wire number X wire diameter) of conductor (No. X mm)		
20.	Conductor weight (kg/m)		
21.	Completed cable overall diameter (mm)		
22.	Cable weight (kg/km)		
23.	Max. DC resistance of conductor at 20°C (Ω/km)		
24.	Current carrying capacity in ground at 30°C (A)		
25.	Current carrying capacity in air at 30°C (A)		
26.	Density at 20°C		
27.	Color of outer sheath		
28.	Thickness of outer sheath mm		
29.	Availability of samples with Jacket marking information		

Ac distribution cabinet specification(1600A)

- 1- The system shall be (380/400 V AC+N,,50Hz,3phase+G).
- 2- Environment (2500asl, 40°C, 10-90 %humidity).
- 3- The distribution indoor cabinet should be anticorrosion /steel/ waterproof and dust proof from an famous and international company , floor mounting.
- 4- The dimensions of cabinet not less than(200*200* 50)cm
- 5- Copper busbars \geq 2000A
- 6- Incoming circuit breaker shall have copper busbar and main circuit breaker to receive incoming 3phase cables .
- 7- The cabinet include :
 - a. Main MCCB 1600 A, 3phase,50 KA,3poles.
 - b. 3 MCCB 800A ,3 phase,35KA,3poles.
 - c. 2 MCCB 1200 A ,3phase .50KA,3 poles.
 - d. Neutral busbar and Ground busbar 2000A .
 - e. Volte's, ampere measurement view for each phase in outside of cabinet doors (no need to open the doors to get the reading.
 - f. Phases indication lamps outside cabinet (red ,yellow , blue).
- 8- The MCCB's must be from a famous and international company and suitable with the copper busbars.
- 9- The drawing and layout ,shape of cabinet must be given.
- 10- The data sheet of MCCB's must be given include manufacture country of origin.

Handwritten signature and stamp in blue ink, consisting of a stylized signature and a rectangular stamp with illegible text.



الرقم : _____
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المعايير الأساسية للكابلات

- ٥- أن تكون الكابلات CU/PVC/PVC OR CU/XLPE/PV ونسبة النحاس لا تقل عن ٩٠٪.
- ٦- يجب تحديد معيار التصنيع.
- ٧- توفير عينات مكتملة ومطابقة للعرض الفني ومحدد عليها بيانات الشركة المصنعة - بلد المنشأ - سنة الصنع ؛ وتسلم أثناء فتح المظاريف.
- ٨- مقاومة الناقل وسماكة العازل يجب أن تكون وفقا للجدول الآتي:-

Nom conductor area mm ²	Main conductor Type	Nom insulation thickness mm	Nom sheath thickness mm	Ω/km90°c
630	CU	2.8	2.2	0.0620