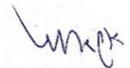


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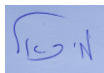
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**SPECIFICATION FOR BIRD PROTECTION CAP
FOR CERAMIC AND COMPOSITE INSULATOR
FOR 22/33 KV OVERHEAD STRAIGHT AND SIDE TIE
LINES**

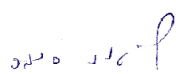
Prepared by: E. Rozov, Yossi Atias

Checked by: M. Dahan



Approved by: L. Sima



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1. Drawing no. NCD 726
2. Drawing no. ETD 2574
3. Drawing no. ETD 2917
4. Drawing no. ETD 2565
5. Drawing K2631a
6. Drawing KH30_3

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1. **GENERAL**

1.1 **SCOPE**

This specification covers bird protection cap for ceramic and composite post insulators for 22/33kV overhead lines.

I.E.C Cat. no.	description
4235917	Cover bird protection on ceramic medium voltage post insulator
4235925	Cover bird protection on composite medium voltage post insulator
5390661	Cover bird protection on composite or ceramic medium voltage post insulator side\variable corner tie

2. **DOCUMENTS FOR THE PROPOSAL**

The Bidder will submit together with his offer the following documents from the manufacturer:

- 2.1 Valid ISO 9001: Last edition certificate, given by an authorized inspection agency.
- 2.2 Drawing (with specific dimensions) and P/N of the proposed item.
- 2.3 Installation instruction for the proposed item.
(IEC reserves the right to compare and prefer the best, on the base of: means and convenience of installation).
- 2.4 Test reports for the material of the proposed item.
The tests will include: UV resistance, dielectric strength, flammability, Comparative Tracking Index, Heat Deflection Temperature (HDT).
- 2.5 The period of experience in manufacturing bird protection cap for medium voltage post insulators (including reference list and the sold quantities).
- 2.6 Completed and filled in summary of data.
- 2.7 One sample of the proposed item.

The above mentioned documents will be in English or Hebrew.

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3 SPECIFICATION

- 3.1 The cap will be made from a durable flexible polymer, High UV stability and weather resistance, Flame retardant with UL94 VO rating.
- 3.2 Equipment was developed orienting meeting or exceeding IEEE 1656-2010 criteria or equivalent updated international standards.
- 3.3 The design of the cap will permit its application to 22/33 kV overhead lines.
- 3.4 The cap must fit to the insulator dimension as described in the attached drawing, (see Drawing ETD2574, ETD 2917, ETD2565, k2631a ; for straight tie see NCD726, for angled tie see KH30-3) and must stay secured in position at the top in all extremes of weather.
- 3.5 A cup must be suitable for an Insulator with a wire that is in variable geometric plane angled between 180°-135° both vertically and horizontally and is secured by a side tie.
- 3.6 The cup enables fitted coverage for the cup with an option of extension for covering the wire which it holds, so in extended mode the wire is covered 70 cm on each side of the insulator.
- 3.7 The cap shall withstand the ambient conditions as described in par 6.
- 3.8 In order to protect the bird, leakage current on the insulation must be low enough.
- 3.9 The bird protection caps will be suitable for installation in live line - Installation and removal glove-friendly designs.

4. MARKING

The cap shall be marked with the following:

- Special mark of the manufacturer.
- Date of manufacture (month and year-option only).
- P/N

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5. **PACKING**

The insulation cup including components shall be packed as a separate set prepared for installation.

All sets shall be packed in a wooden box properly to prevent the item from possible damage during shipment, transportation and storage.

Each shipping box will have packing list and, in addition, will be marked with the following information:

- Contractor's name and address
- Descriptive name of the bird protection cap.
- Order number
- Quantity packed in the box.
- Gross weight of the box.
- Package volume of the box.
- Complete destination marking.
- I.E.C. catalogue number.

The dimensions of the packing shall not exceed these criteria:

Length (mm)	Width (mm)	Height (mm)
1200	1000	1500

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6. **AMBIENT CONDITIONS**

- Severe atmospheric and industrial air pollution, coal, dust, sea salt.
- High atmospheric humidity as experienced in coastal or desert areas.
- Annual variation in air temperature: -10°C to +50°C
- Annual mean air temperature: +25°C
- Maximum relative humidity: 95%
- Average relative humidity: 70%
- Average ambient temperature measured over a period of 24 hours
does not exceed: +35°C
- Maximum difference of ambient temperature from day to night: +25°C
- Long summer periods with OTCs of sunshine (1120 W/sq.m)
according to IEC Publication 60721-3-4:2019/COR1:2023.
- Altitude: up to 1500m.
- Rapid temperature changes and humidity changes.
- Long summer periods without rain.
- Maximum wind velocity: 44 m/sec

7. **DELIVERY APPROVAL CONDITIONS**

7.1 **Acceptance test**

7.1.1 The I.E.C. reserves the right to verify the compliance of the delivered items with this specification.

7.1.2 Delivery, which will not pass acceptance test will be rejected.

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8. SUMMARY OF DATA FOR BIRD PROTECTION CAP FOR CERAMIC AND COMPOSITE SIDE TIE INSULATOR FOR 22/33 KV

Bidder's name: _____
 Bidder's phone no.: _____
 Bidder's fax: _____
 Bidder's E-mail: _____
 Manufacturer's name: _____
 Manufacturer's address: _____
 Manufacturer's E-mail: _____
 Manufacturer's signature: _____

(Insert all data in this column)

1. I.E.C Cat. No.	
2. Manufacturer part number (P/N)?	
3. Technical data 3.1 What is the material of the cap? 3.2 Dielectric strength? 3.3 The cap is suitable for side tied or straight wire fixation? (side tie\straight) 3.4 What is the wind withstand capability? (Meters/second)	
4. <u>Tests</u> Are test reports (UV and dielectric strength attached, flammability)? (yes/no)	
5. Are drawing of the proposed item attached? (yes/no)	
6. <u>Packing and shipping data</u> 6.1. Quantity packed in box (pcs) 6.2. Weight of box (kg) 6.3. Package volume of box (m ³)	
7. Are markings in accordance with this specification? (yes/no)	
8. ISO 9001: last edition certificate attached? (yes/no)	
9. Experience in manufacturing the proposed item. (years)	
10. Reference list attached? (yes/no)	