

ELECTRICAL SAFETY SHOCK PROTECTION DISCHARGE ROD

IMPACT

by Honeywell

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ELECTRICAL SAFETY SHOCK PROTECTION TELESCOPIC DISCHARGE ROD

A Telescopic Discharge Rod is a residual static charge grounding device used primarily in the electrical applications to safely discharge residual electrical energy from high-voltage equipment, such as transformers, capacitors, or power lines, before maintenance or inspection work.

COMPONENTS :

Discharge rod + single-phase ground wire + grounding clamp.

USES AND APPLICATIONS :

- 1. Discharging Stored Energy:**
 - High-voltage equipment can store electrical energy even after being disconnected from the power supply. The telescopic discharge rod safely discharges this residual energy, preventing accidental electrical shocks.
- 2. Ensuring Safety During Maintenance:**
 - Before maintenance work begins, the rod is used to discharge any remaining voltage in the equipment, ensuring that the work environment is safe for technicians and electricians.

HOW IT WORKS :

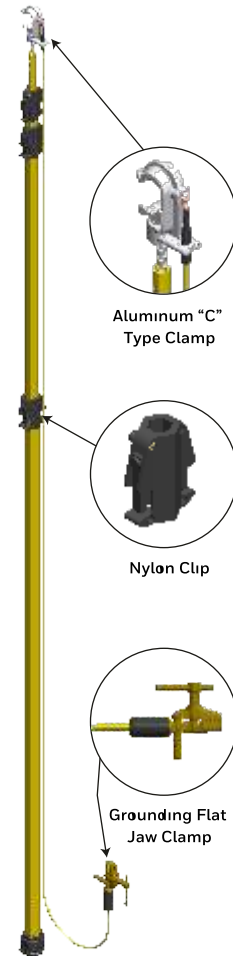
- 1. Telescopic Design:**
 - The rod design is extendable, allowing it to reach equipment that is located high off the ground. This extendable or telescopic feature enables safe operation from a distance, reducing the risk to the operator.
- 2. Insulated Material:**
 - The rod is made from insulating materials (like fiberglass) to ensure that the operator is not exposed to any potential electrical hazards.
- 3. Discharge Process:**
 - The Discharge Rod is connected to a grounding point. The operator then connects the rod to the high-voltage equipment. The rod safely discharges any residual voltage by allowing the current to flow harmlessly to the ground.

TYPICAL SCENARIOS FOR USE :

- 1. High-voltage substations**
 - When de-energizing transformers or switchgear for maintenance.
- 2. Capacitor banks**
 - Before maintenance, the rod discharges the capacitors to avoid accidental shocks.
- 3. Transmission lines:**
 - Before working on lines, the rod ensures they are fully de-energized.

SAFETY PRECAUTIONS :

- 1. Proper Training**
 - Operators should be trained in the correct use of the discharge rod to avoid improper handling, which can lead to accidents.
- 2. Inspection**
 - The rod should be inspected regularly for damage or wear that could compromise its insulating properties.
- 3. Grounding**
 - Always ensure that the rod is properly grounded before use to effectively discharge any residual voltage.
- 4. PPE Usage**
 - Proper PPE such as Insulating gloves/Footwear, Arc Flash Clothing, Arc Flash Faceshield and non contact voltage detector should be used while doing discharging process with discharge rod.



FEATURES AND BENEFITS :

- Textured hexagonal design for the better grip.
- Foam filled FRP stick for superior electrical insulation.
- TPE Coated Copper Cable with voltage range upto 1100V.
- High Grade aluminium clamp for efficient discharge of voltage.
- Cross dimensional yarn used for the better mechanical strength.
- Vinylester resin FRP tube, which provides better mechanical & electrical insulation properties.
- Heavy duty jaw type grounding clamp rated for 600V.
- Tested in General accordance with of IEC 60060-1/2010(CPRI) – 110KV & ASTM F711.

ALUMINIUM "C" TYPE CLAMP :

Size L x H (mm)	Material	Thread Type	Continuous Current (amps) 60 hz	Weight ea. (kg)
35.00 x 114.50	Aluminum	Threaded	400 RMS amps, 60 Hz	(0.280 kg)



GROUNDING CABLE :

Color	Strand Dia. in (mm)	Short Circuit Withstand amps, RMS, 60 Hz		Continuous Current (amps) 60hz
		15 Cycles	30 Cycles	
Yellow	0.64 (16.00 Sq. mm)	43000	30000	400



GROUNDING FLAT JAW CLAMP :

Duty Cycle A 35%	Duty Cycle A 60%	Material
600	500	Brass



TESTED AT FOLLOWING STANDARDS :

- IEC 60060-1/2010 (CPRI)**
 - Artificial Pollution Test.
 - Dry Power Frequency withstand voltage test up to 110 KV for 1 minute.
 - Assured disruptive discharge voltage tests.
 - Switching Impulse Test: Switching Impulse test at a Voltage of 110 KV.
- ASTM F711**
 - Crush Test
 - Flexure Test
 - Load Test
 - Wicking Test

EASY MAINTENANCE :

Easy dissembled for easy cleaning and maintenance



PACKAGING :

One Telescopic Discharge Rod is packed inside a bag with each bag packed inside a carton box.




DISCHARGE ROD ORDERING DETAILS :

PART CODE	DESCRIPTION	Rod Length	Cable length
IN20817-1015_TS	Telescopic Discharge Rod 10 ft - 15 ft cable	10 feet	15 feet
IN20817-1025_TS	Telescopic Discharge Rod 10 ft - 25 ft cable	10 feet	25 feet
IN20817-2025_TS	Telescopic Discharge Rod 20 ft - 25 ft cable	20 feet	25 feet

TYPICAL DISCHARGE TIME :

For most applications, the discharge time is typically a few seconds, ranging from 5 to 60 seconds, and it depends on various factors. Some high-capacitance equipment may require longer discharge times. To verify that discharging is complete Non-Contact Voltage detectors should be used.

 **WARNING : DISCHARGE STICKS ARE NOT GROUNDING TOOLS AS DESCRIBED BY OSHA 1910.269 AND CARRY NO FAULT DUTY RATING.**