AVIAN FLIGHT DIVERTER HIGH CONTRAST REFLECTIVE AVFD-HCR

WILDLIFE AND ASSET PROTECTION PRODUCTS

HIGH CONTRAST, DRONE INSTALLABLE, MULTI-DYNAMIC AVIAN FLIGHT DIVERTER

APPLICATIONS

- Overhead Power Networks
- Transmission Conductor
- Distribution Conductor
- Ground Conductor

RELEVANT STANDARDS AND TEST REPORTS

- IEC 61284 - Radio Interference Voltage (RIV)
- IEEE 1656 - Clamping Functionality in High Winds
- IEC 61897 - Slip Test

KEY FEATURES

- Installable by drone, hot-stick, or hand
- RFI free up to 173kV
- Rated for wind loads up to 110 mph (170 km/h) and resistant to snow and ice
- High-strength spring secures location on the conductor
- Excellent visibility performance with a Michelson contrast of ≈0.991

TE Connectivity (TE) Avian Flight Diverters High Contrast Reflective AVFD-HCR are designed to increase visibility of overhead lines, helping birds detect and avoid potential collisions. By making lines more noticeable, large birds such as geese and swans have additional time to change direction, reducing the risk of injury and infrastructure damage.

Our AVFD-HCR features high-visibility, contrasting reflective elements that enhance daytime visibility. Multiple independent tabs with intermittent high-contrast colors further improve detection, supporting effective bird-strike mitigation.

Compatible with a wide range of conductor types, with RFI testing conducted up to 173 kV, and suitable for use on ground wires regardless of system voltage classification. The diverters fit conductors up to 50 mm in diameter and are secured using high torsional strength springs that provide clamping forces greater than 100 N (22.48 lbf), ensuring stability in diverse weather conditions.

Installation can be performed using a hot stick, by drone, or by an aerial remotely operated vehicle, enabling efficient deployment on energized or hard-to-access lines. The diverters are also removable, simplifying inspection and maintenance.

TECHNICAL SPECIFICATIONS

Product Description	Conductor Application Range mm (in)	Dimensions mm (in)	Weight kg (oz)	Standard Pack Size
AVFD-HCR (B10)	2 - 50 (0.08 - 1.9)	250 × 230 (10 × 9)	0.39 (13.8)	10

PRODUCT PERFORMANCE

Properties	Test Method	Requirements
Radio Interference Voltage (RIV) Test	IEC 61284: 1997	162.2 µV at 173 kV Ø-Ø (Phase-Phase) 98.9 µV at 116 kV Ø-Ø (Phase-Phase) 81.3 µV at 43 kV Ø-Ø (Phase-Phase)
Slip Test	IEC 61897: 2020	145 N (32 lbf) on Ø21.6 mm (0.85 inch) OD ASCR conductor
Michelson Contrast	-	Approx. 0.991
Clamp Force	-	Ø15 mm - 80 N / 18 lbf Ø25 mm - 120 N / 27 lbf Ø30 mm - 150 N / 34 lbf
Cold Weather Clamp Force Retention	IEEE 1656: 2010	-35°C (-31°F)
Snow and Ice Loading	-	No adverse functional effect on unit; approx. 0.18 oz or 5 g additional load per unit

TEST REPORT

Document Reference	Document
PPR-3828	Product Test Report

INSTALLATION INSTRUCTION

Document Reference	Document
PII-4522	AVFD-HCR Installation Instructions

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