PERCH

Pole Equipment ReCloser Housing

camlin energy

INTRODUCTION

In storm conditions, overhead networks bear the brunt of the weather's impact. Conductors from the overhead lines can clash momentarily or be knocked together by debris or tree branches. This causes the supply fuses to rupture despite the short circuit only existing for a brief time.

Network Operators must then send staff to replace fuses in these circumstances, with operational costs, and delays to customers – especially if it is unsafe to climb poles to replace fuses.

The storms also affect the high voltage overhead conductors, and it is often unclear whether a customer has lost power because of a high voltage problem, a low voltage problem or both (nested faults). This can lead to further delays in power restoration.

PERCH provides remote and automatic restoration of OHL bare networks during normal and/or storm conditions. Based on proven Weezap auto-reclosing technology, it also provides communication to the network management system. The equipment is configured to restore power safely to the circuit 15 seconds after a supply interruption has occurred.

By deploying PERCH, network operation can be automatically restored a short time after the conductors have clashed and the supply is back to its normal condition. This saves associated CI/CMLs penalties and the operational costs of sending staff to replace fuses.

PERCH is mounted to the "first pole out" on an overhead distribution system. With no HV connections or transformers on this pole, installations are easier to plan and perform, and the unit can be mounted above the climb guard to prevent unauthorised access.

BENEFITS

Reduced interruptions

Nested faults can be quickly identified, minimising interruptions and disruption to supply for customers

Reduced costs

The system is automatically restored after a short time, saving associated CI/CMLs penalties as well the operational costs of sending an engineer to replace fuses

Enhanced safety

Power is restored to the circuit using Kelvatek's "tippling" techniques - this allows the identification of a remaining fault before full re-energisation, increasing safety of those nearby

Focused response

With a clearer picture of response requirements, Network Operators can focus on storm damage priorities

TECHNICAL SUMMARY

Mechanical	
Enclosure Material	Powder Coated Stainless-Steel
Dimensions (H x W x D)	923 x 579 x 415 mm (All dimensions include mounting bracket)
Weight	55 kgs
Security	3-point butterfly, with handle and securing padlock position
Mounting	Hanger Eye and Bolt Holes
Environmental	
Ingress Protection	IP55
Operating Temperature	-20 to +50 °C
Operational	
Cable Size	Designed to accommodate 70 mm2 double insulated cable and compatible lugs
Earthing	10 mm exterior stud for 70 mm2 cable connection. Separate isolated Neutral busbar, with the possibility of linking for CNE systems, or leaving unlinked to earth for SNE systems.
Current Rating	200 A
PSCC	27 kA (assumes 315 A upstream fuse)

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