EATON | Holec

Xiria-TLF

Xiria Medium Voltage switchgear with Time Limit Fuse Protection

- **Compact design**
- **Fully enclosed housing for protection against the environment**
- **Short-circuit and earth fault protection**
- **Easy accessible fuses on the front**
- **Easy selection of current setting level**
- **Fully certified**

An alternative protection for short circuit and earth fault

The Medium voltage Xiria switchgear system is a safe and reliable Ring Main Unit with switches and circuit-breakers for application in Medium voltage distribution networks. The Xiria circuit-breaker can be provided with a Time Fuse Link (TLF) protection unit as an alternative for the standard electronic relay type WIC1. This unit also operates under all conditions of fault which may occur under service conditions. The characteristics of this TLF unit comply with the ENA Technical Specification 12-6 Issue 1:1973 for the use with Current Transformer Releases on circuit-breakers, published by the Energy Network Association.

TLF protection

TLF protection is an alternative to the electronic WIC1 relay. TLF is an evolution from the famous Cleveland protection principle. In this new design the single phase short circuit currents and earth faults are detected by the low voltage fuses in the circuit, resulting in a trip command to the circuit-breaker through a patented electronic circuit. Checking and resetting of the protection after tripping is completed by simply checking and changing the low voltage fuses on the front of the unit.

Electronic WIC1 protection relay

Standard Xiria circuit-breakers are equipped with the electronic protection relay type WIC1. This relay is fully powered by the current transformers in the Xiria circuit-breaker and can be set with definite time and inverse time characteristics for short circuit, overload and earth fault currents. Parameter settings can be done in different user-friendly ways, computer controlled or with DIP/HEX switches on the front. The relay is also provided with a digital memory for the storage of the most recent tripping values. This relay has proven to be a reliable and widely accepted method of protection in world-wide distribution networks.

Xiria – Proven Technology from Eaton Holec

Technical data

ENA technical specification 12-6 issue 1:1973.
Time fuse links (for use with current transformer releases on circuit-breakers).
Table 2 and 3 – selection of time-fuse link ratings for 6.6 and 11 kV systems.

kV	kVA	CT Ratio	TLF Fuse rating (A)*	Type
6.6	200	50/5	5.0	XF5
6.6	300	50/5	10	XF10
6.6	315	50/5	10	XF10
6.6	500	100/5	7.5	XF7.5
6.6	750	100/5	12.5	XF12.5
6.6	800	100/5	12.5	XF12.5
6.6	1000	100/5	15	XF15

kV	kVA	CT Ratio	TLF Fuse rating (A)*	Type
11	200	50/5	3.0	XF3
11	300	50/5	5.0	XF5
11	315	50/5	5.0	XF5
11	500	50/5	10	XF10
11	750	100/5	7.5	XF7.5
11	800	100/5	7.5	XF7.5
11	1000	100/5	10	XF10

* Fuses make GE Power Controls.

Xiria		
General		
Rated voltage	kV	12
Impulse withstand voltage	kV	75/95
Power frequency withstand voltage	kV	28/38
Rated frequency	Hz	50/60
Internal arc resistance (AF)	kA-s	20-1
Degree of protection		IP31D
Busbar system		
Rated normal current	A	630
Rated short-time withstand current	kA-s	20-3
Rated peak withstand current	kA	50
Circuit-breaker		
Rated normal current	A	200 or 500
Rated breaking current	kA	20
Rated short-circuit making current	kA	50
Rated short-time withstand current	kA-s	20-3
Load break switch		
Rated normal current	A	630
Rated short-circuit making current	kA	50
Rated short-time withstand current	kA-s	20-3

Xiria complies with the following standards	
ENATS 41-36	Distribution switchgear
IEC 62271-1	Common specifications
IEC 62271-200	Metal-enclosed switchgear and controlgear
IEC 62271-304	Severe climatic conditions
IEC 62271-100	Circuit-breakers (M1/E2)
IEC 62271-103	Switches (M1/E3)
IEC 62271-102	Disconnector/Earthing switch (M0)
IEC 62271-102	Earthing via vacuum bottle (E2)
IEC 60529	Degree of protection
IEC 60044-1	Current transformers
EN 50181	Cable cones

KEMA
REGISTERED QUALITY

Due to continuous research and development policy Eaton Holec reserves the right to make changes in design and specifications of the products without prior written notice.

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