IKI-30

Transformer Monitor

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Transformer Monitor IKI-30

Intelligent transformer monitoring

Applicable for transformers with nominal power Pn:

160..2500kVA (@5-15kV); 250..7500kVA(@20-25kV); 400..12000kVA(@30-36kV)

Application a) Overcurrent- and short circuit/earth fault protection by combination of IKI-30 and circuit breaker/ load breaker

Application b) Overcurrent protection by combination of IKI-30 with load breaker and high voltage fuses; (tripping by IKI-30 disabled in range of short circuit current; disconnection by high voltage fuses)

Selectable tripping options:

- time delayed tripping by independent overcurrent time chracteristic (ANSI 51)
- IDMT inverse definite minimum time; overcurrent depending time chracteristic (ANSI 51)
- instantaneous overcurrent characterisitic (ANSI 50)
- external, fast tripping without delay
- optionally: time delayed earth stage characteristic (ANSI 50N, 51N)

Release of tripping coil optionally:

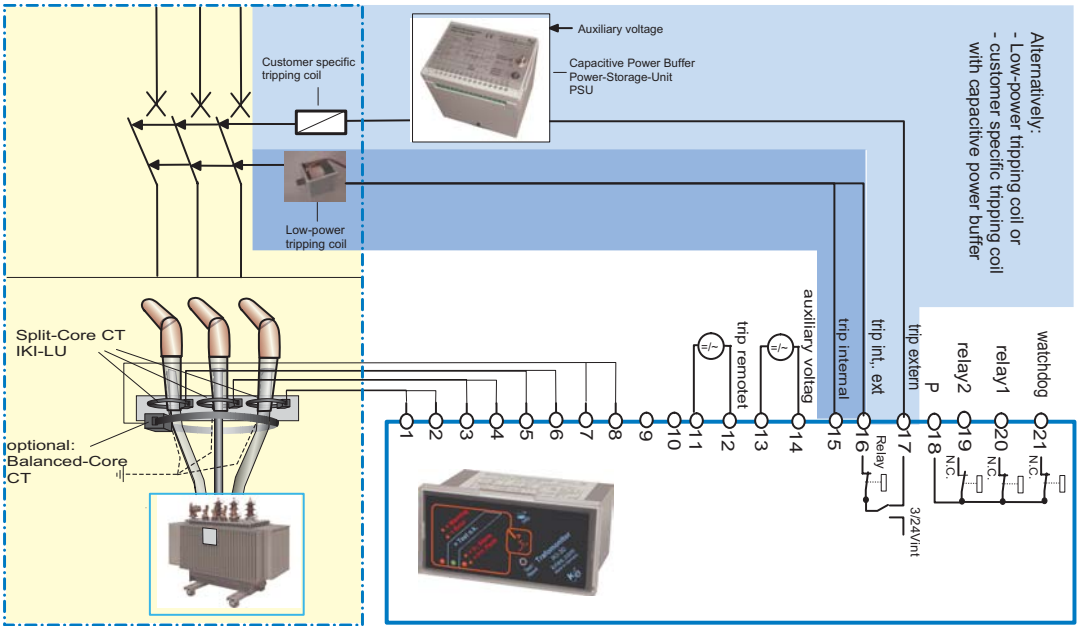
- low power tripping coil (no external power supply needed)
- standard tripping coil (with separate power storage unit PSU)

Self test

On-site test of function by test button; dry contact for remote transmission of watchdog alarm

Maintenance-free, power supply by current transformer

power supply buffered by lithium battery
(live cycle > 15 years, if current transformers are not connected)



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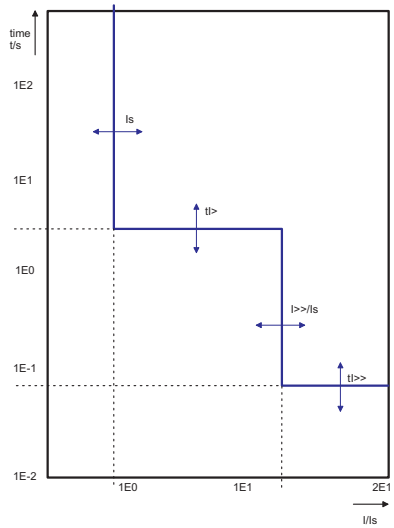
Technical data

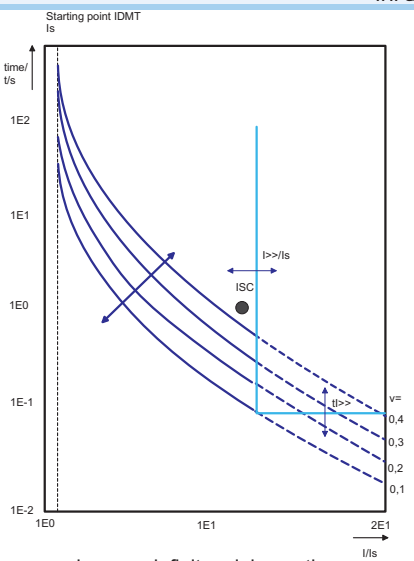
User adjustable parameters by DIP-switches behind front cover

Pick-up current Is:	3 ranges	for each range 16 values adjustable; range 1: 5..20 A; range 2: 25..100A; range 3: 110..260 A
Short circuit level I>>:		
short circuit-threshold	ratio I>>/Is	8 values selectable (2..20)
short circuit delay time	tI>>	8 values selectable (0..2s); disabling of tripping possible
Overcurrent level I>:		
- Independent overcurrent	pick-up value I>/ Is	8 values selectable (1,1..3)
delay time	tI>	16 values selectable (1..300s)
- IDMT 1 (IEC very invers)	start point I>/ Is	8 values selectable (1,1..3)
IDMT 2 (IEC extremely invers)	start point I>/ Is	8 values selectable (1,1..3)
characteristic shift:	v	8 values selectable (0,05..10 s)
Optionally earth stage Ie>:		
earth fault-pick-up value	ratio Ie>/Is	8 values selectable (0,1..2)
earth fault delay time	tIe>	8 values selectable (0..5 s)
Frequency:	50/60 Hz selectable	
Inherent delay:	approximately 43 ms	
Reset:	after 2h or automatic after current recovery or manual by key	
Power supply:	by current transformers; if primary current > 1 A; complete supply if primary current > 5A; buffered by lithium battery	
Current transformers:	connected to input 1, 2, 3:	split core current transformer type IKI- 30 LU
		optional with test winding type IKI-30LU-PW
	optionally to input 4:	balanced current split core transformer
		type depending on diameter
According to:	IEC 60255-5	
Operating/storage temperatur:	-25°C .. +55°C / -30 ... +70 °C	
Housing:	front panel mounting	(acc. to DIN 43700); IP 40
	dimension:	96 x 48 x 80 mm (w x h x d)
	recommended cut:	92 x 45 mm (w x h)

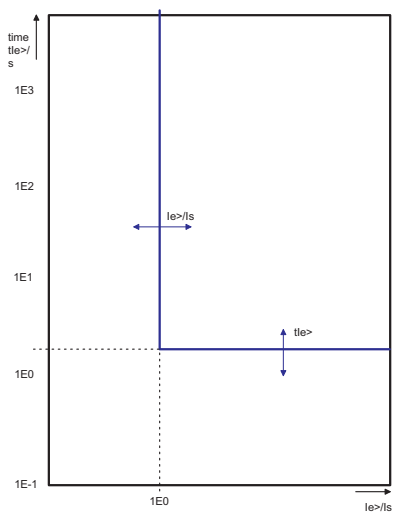
Part.-numbers:			
	- Transformer Monitor IKI-30_1:	2500286	
	- Transformer Monitor with earth stage IKI-30E-1	2500287	
	- Wall mountable housing	2500994	wxhxd = 180x110x137 mm
	- Low-Power Trip Coil IKI-30-TC	2500275	3 V, 0.02Ws
	- Expansion-Modul IKI-30_M	2500289	Event recorder; tripping-capacity supervision; Inrush-supression; see additional data sheet



time delayed and instantaneous overcurrent characteristic



inverse definite minimum time and instantaneous overcurrent characteristic



optional: time delayed earth stage characteristic

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