

IKI-30

Transformer Monitor &
Protection Relay acc. IEC 60255



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 characteristic (ANSI 51)
- IDMT inverse definite minimum time; overcurrent depending time characteristic (ANSI 51)
- instantaneous overcurrent characteristic (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)

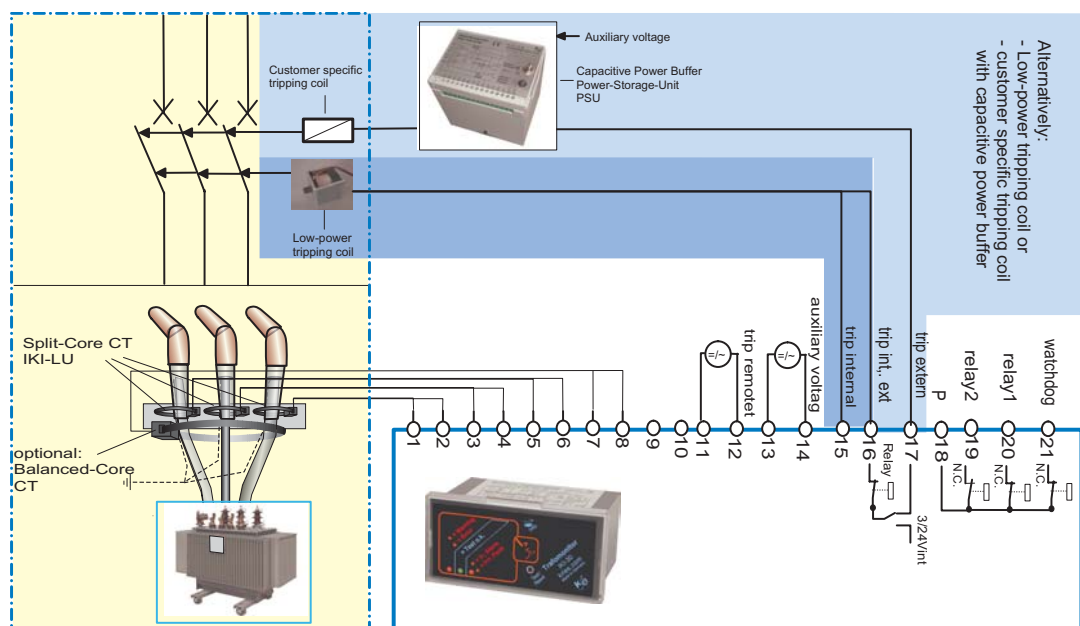
Self test

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)





Technical data

User adjustable parameters by DIP-switches behind front cover

Pick-up current I_s :	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 short circuit delay time	ratio $I_{>>}/I_s$ $t_{I>>}$	8 values selectable (2..20) 8 values selectable (0..2s); disabling of tripping possible
Overcurrent level $I_>$: - Independent overcurrent delay time - IDMT 1 (IEC very invers) IDMT 2 (IEC extremely invers) characteristic shift:	pick-up value $I_>/I_s$ $t_{I>}$ start point $I_>/I_s$ start point $I_>/I_s$ v	8 values selectable (1,1..3) 16 values selectable (1..300s) 8 values selectable (1,1..3) 8 values selectable (1,1..3) 8 values selectable (0,05..10 s)
Optionally earth stage $I_{e>}$: earth fault-pick-up value earth fault delay time	ratio $I_{e>}/I_s$ $t_{I_{e>}}$	8 values selectable (0,1..2) 8 values selectable (0..5 s)
Frequency: Inherent delay: Reset:	50/60 Hz selectable approximately 43 ms 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: optionally to input 4:	split core current transformer type IKI-30 LU optional with test winding type IKI-30LU-PW balanced current split core transformer type depending on diameter
According to: Operating/storage temperatur: Housing:	IEC 60255-5 -25°C .. +55°C / -30 ... +70 °C front panel mounting dimension: recommended cut:	(acc. to DIN 43700); IP 40 96 x 48 x 80 mm (w x h x d) 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 - Low-Power Trip Coil IKI-30-TC 2500275 - Expansion-Modul IKI-30_M 2500289	wxhxd = 180x110x137 mm 3 V, 0.02Ws Event recorder; tripping-capacity supervision; Inrush-suppression; see additional data sheet

