



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)

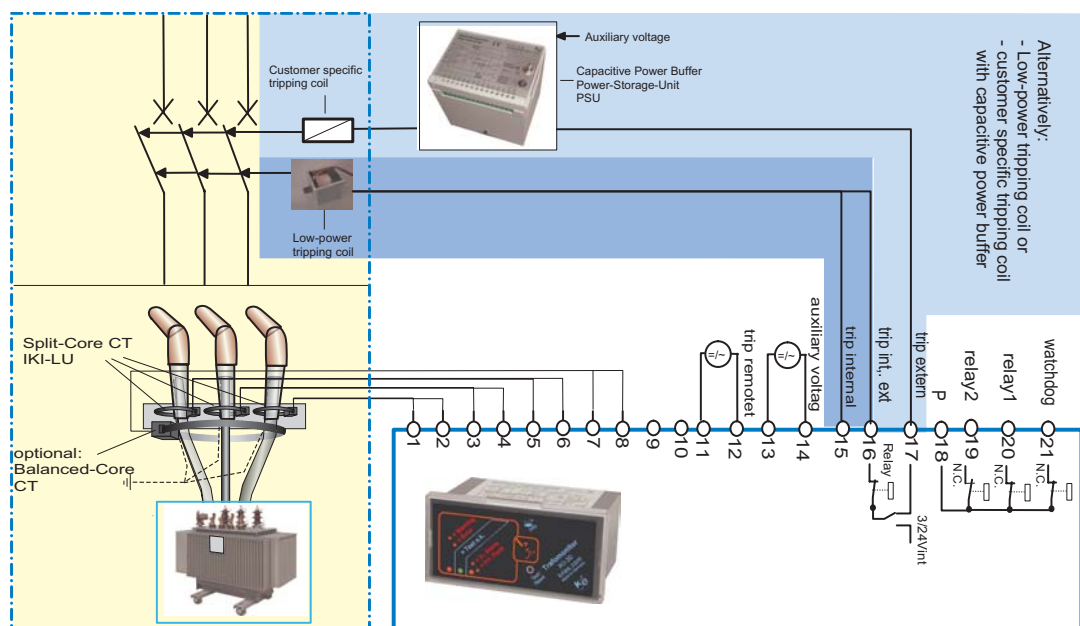
Self test

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 pick-up value $I_>/I_s$ $t_{I>}$ 8 values selectable (1,1..3) 16 values selectable (1..300s)
 - IDMT 1 (IEC very invers) start point $I_>/I_s$ 8 values selectable (1,1..3)
 IDMT 2 (IEC extremely invers) start point $I_>/I_s$ 8 values selectable (1,1..3)
 characteristic shift: v 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: 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
 - 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

