T5-PROTECH
SERIES T550A

Withdrawable
OC & EF Protection Relay

The T550A incorporates a custom design in withdrawable type for a easy and fast way to disconnect it from the relay base for maintenance or exchange purpose.

The perfect integration in reliability & durability

TAIK ELECTRIC
Protection Solutions

T5-PROTECH Series, Protection Relay

Simplicity | Dependability | Safety | Precision

Pricing Competitiveness | Robustness | Easy Setup

Deploying T550A is just a safe & reliable guarantee which ensures the essentials of the protection functions for proper operation in medium and low voltage networks.

Diversities

- Multiple curve compliance standards (IEC, ANSI, IAC, 1.3, DTL)
- High brightness 20 x 4 characters LCD display
- Auto self-diagnostics for monitoring internal errors
- Robust enclosure in combination of a rigid plastic and a zinc-plated steel
- Measurements to be indicated via selecting either percentage or ampere
- 40 fault records with date/time stamping
- 100 logging events with data/time stamping
- Running hour accumulation while the relay startup
- 11 status LED indicators/8 push buttons
- 3 outputs (NO relay contacts) available for configuring as latching or pulse mode
- Easy setup for fast startup on T550A
- Fast and easy disconnection from the base unit for maintenance and retrofit
- Unique design in interlocking mechanism for open-circuit protection

Protection Functions

- 50 — Instantaneous phase overcurrent
- 51 — Time-delay phase overcurrent
- 50N — Instantaneous earth fault (calculated)
- 50G — Instantaneous sensitive earth fault (measured)
- 51N — Time-delay earth fault (calculated)
- 51G — Time-delay sensitive earth fault (measured)
- 86 — Lockout

Standards Compliance

Electromagnetic compatibility (EMC)	Directive 2014/30/EU
Product safety requirement	IEC 60255-27
Electrostatic discharge	IEC 61000-4-2 (IEC 60255-26)
Electromagnetic field immunity	IEC 61000-4-3 (IEC 60255-26)
Electrical fast transient/burst immunity	IEC 61000-4-4 (IEC 60255-26)
Surge immunity	IEC 61000-4-5 (IEC 60255-26)
Immunity to conducted disturbances	IEC 61000-4-6 (IEC 60255-26)
Power frequency magnetic field immunity	IEC 61000-4-8 (IEC 60255-26)
Short interruptions and voltage	IEC 61000-4-11(IEC 60255-26)
Radiated emission	CISPR 11/22 (IEC 60255-26)
Conducted emission	CISPR 22 (IEC 60255-26)
Vibration	IEC 60255-21-1
Shock and bump	IEC 60255-21-2
Cyclic temperature with humidity	IEC 60068-2-30 (IEC 60255-1)
Certificate	CE

Applications

- MV/LV power networks
- Backup in MV power systems
- Industrial MV power distribution networks
- Buildings in MV power systems
- Public distribution networks and substations

Technical Data

ANSI Protection functions	50 Instantaneous phase overcurrent, 51 Time-delay phase overcurrent 50N/50G Instantaneous earth fault, 51N/51G Time-delay earth fault, 86 Lockout
Curve compliance standards	ANSI, IAC, IEC, 1.3, DTL
Operating curve types (IEC 60255-3)	IEC – Normally inverse, Very inverse, Extremely inverse, Long time inverse ANSI – Normally inverse, Very inverse, Extremely inverse, Moderately inverse IAC – Normally inverse, Very inverse, Extremely inverse, Short time inverse

50/51 (CO) Setting range of pick-up current

51	10 ~ 250% (1% step)
50 (High-Set)	20 ~ 2500% (1% step)
50 (High-Set) with selected definite time	30 ~ 200ms

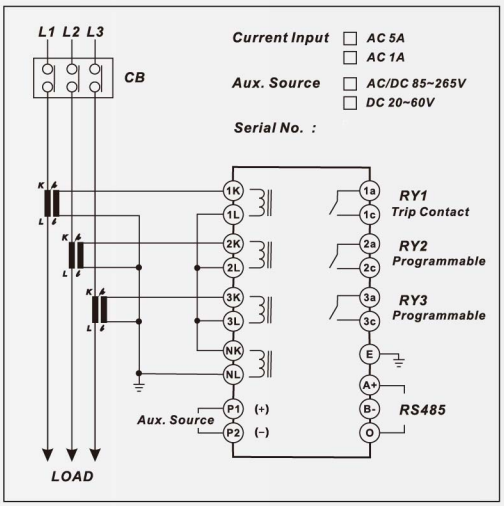
50G/N, 51G/N (LCO) Setting range of pick-up current

51G/N	1 ~ 200% (1% step)
50G/N (High-Set)	5 ~ 1250% (1% step)
50G/N (High-Set) with selected definite time	30 ~ 200ms

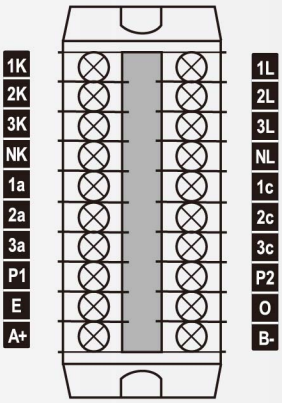
Input current	5A or 1 A (option), continuously 20A
Sampling rate	True RMS, 64 samples per cycle
Time multiplier setting	0.03 ~ 2.00 in step of 0.01 (IEC, 1.3, HK) / 0.3 ~ 20.00 in step of 0.1 (IAC, ANSI)
Definite Time Lag (DTL) setting	0.03 ~ 64.00 in step of 0.01 sec
Pick-up current level	100 ~ 115% of setting current
Reset time	<100ms
Reset ratio	>98%
Operation accuracy	±3% of the set current
Operation time accuracy	the set time delay,±20ms
Relay contacts	3 N.O. contacts, AC 250V 5A, DC 24V 5A (Configurable for latching or pulse mode)
Auxiliary power supply	AC/DC 85 ~ 265V 50/60Hz, DC 20-60V (option)
Power consumption	≦ 6VA
Backlit LCD display	High brightness LCD 20 x 4 characters
LED indicators	Indication designated individually for trip, program, check, record, I>, I>>, Io>, Io>>, RY1, RY2, RY3
Communication interface	MODBUS RTU, RS 485
Operating temperature	0 ~ 60 ℃
Storage temperature	-10 ~ 70 ℃
Max. relative humidity	95%
IP enclosure	IP 52 (front plate), IP 30 (rear)
Flammability of enclosures	UL 94 V-0
Tripping event records	40 tripping event records with date/time stamping
Logging event records	100 logging event records with date/time stamping

Connections

3 Phase 3 Wire

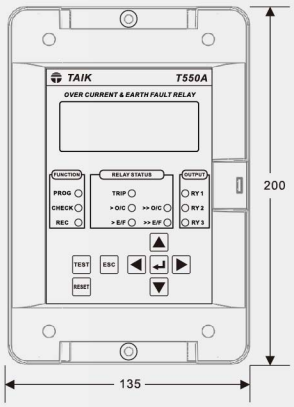


Wiring screw terminals

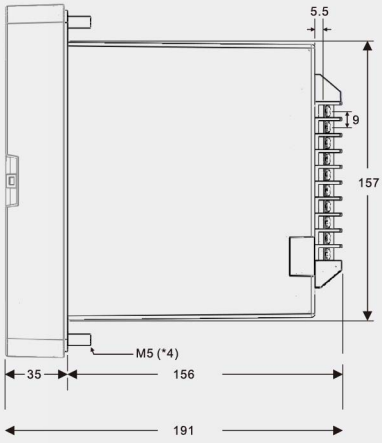


Dimensions (Unit: mm)

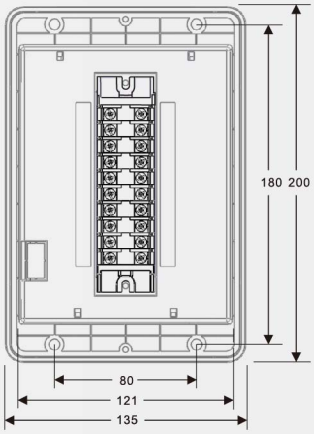
Front view



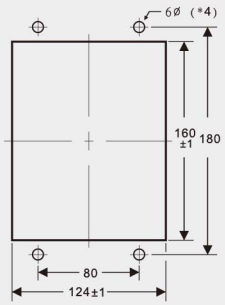
Side view



Rear view



Panel Cut-Out



Product Code T5-PROTECH Series, Protection Relay Code No. T550A

TAIK ELECTRIC CO., LTD.

4TH FL., NO. 5, ALLEY 11, LANE 327, CHUNGSHAN RD., SEC. 2, CHUNGHE DISTRICT,
NEW TAIPEI CITY, TAIWAN, R.O.C.

TEL 886-(02)-2242-6825
FAX 886-(02)-2242-6827
E-mail taikco@ms15.hinet.net
www.taik.com.tw

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