

NP5508

FEATURES

- Multifunction numerical relay
- Three-stages setting for phase overcurrent
- Two stages setting for earth fault
- IDMT and definite time
- Thermal overload protection
- Two groups of protection settings
- Trip circuit supervision
- Circuit breaker failure protection
- RS232 and RS485 MODBUS-RTU communication
- Fault, alarm and tripping records with timestamp
- Multifunction programmable outputs
- Multifunction digital inputs
- Complies with IEC 60255 standard
- ANSI code: 49RMS, 50P, 50G, 51P, 51G, CLP, 50BF, 74TC



Technical Data

AUXILIARY SUPPLY

Model NP5508

Rated voltage : 30~120VDC
Operating voltage : 30~150VDC

CURRENT INPUTS

Rated current, I_n , I_m : 1 or 5A by connection
Frequency : 50 or 60Hz nominal
Burden : < 0.025 VA (1A)
: < 0.3 VA (5A)
Thermal withstand : 4 x I_n continuous
: 40 x I_n for 2s
: 100 x I_n for 1s

DIGITAL INPUTS

Input type : Optically isolated
Rated voltage : 20~150VDC
: 50~270VAC

OUTPUT CONTACTS

Trip Contact Relay R1, R2, R3, R4, IRF Relay

Rated voltage : 250VAC/DC
Continuous carry : 5A
Expected electrical life : 100,000 operations at rated load
Expected mechanical life : 5x10⁶ operations
at R3, R4:
5A at 250Vac
3A at 30Vac

RECORDS

Fault Record : Up to 50 records
Event Record : Up to 512 records
Alarm Record : Up to 32 records

SETTING RANGES

GENERAL

Line CT primary : 1 to 10,000 A
Earth CT primary : 1 to 10,000 A
Frequency : 50 or 60Hz

PHASE OVERCURRENT

$I >$: 0.1 to 20 x I_n (Recommended up to 2 x I_n for IDMT delay) * (Variable Steps)
 $tI >$: IDMT or definite time
 $tI >$: 0 to 100 s * (Variable Steps)
 $I >$ IDMT curve : NI, VI, EI, LTI, NI 1.3/10
 ktI : 0.01 to 1.00 (Step 0.01)
 $I >$: 0.5 to 40 x I_n * (Variable Steps)
 $tI >$: 0 to 100 s * (Variable Steps)
 $I > >$: 0.5 to 40 x I_n * (Variable Steps)
 $I > >$ Sample : Yes or No
 $tI > >$: 0 to 100 s * (Variable Steps)

ENVIRONMENTAL CONDITIONS

Temperature : -10°C to 55°C
Humidity : 5% to 95% non-condensing

EARTH FAULT

$I_0 >$: 0.02 to 2 x I_{on} (Recommended up to 0.5 x I_{on} for IDMT delay)
 $I_0 >$ Delay type : IDMT or definite time
 $tI_0 >$: 0 to 100 s * (Variable Steps)
 $I_0 >$ IDMT curve : NI, VI, EI, LTI, NI 1.3/10
 ktI_0 : 0.01 to 1.00 (Step 0.01)
 $I_0 > >$: 0.1 to 10 x I_{on} * (Variable Steps)
 $tI_0 > >$: 0 to 100 s * (Variable Steps)

MEASUREMENT RANGES

Phase Current Secondary:

5 A input : 0 to 200 A
1 A input : 0 to 40 A

Earth Current Secondary:

5 A input : 0 to 50 A
1 A input : 0 to 10 A

COMMUNICATION

RS232(front) : MODBUS-RTU
RS485(back) : MODBUS-RTU

THERMAL OVERLOAD

$I_0 >$: 0.1 to 3 x I_n * (Variable Steps)
 T_0 : 1 to 200 minutes (Step 1)
K : 1 to 1.5 (Step 0.01)
 θ Trip : 50 to 200% (Step 1%)
 θ Alarm : 50 to 200% (Step 1%)

*Variable Steps: 0.1-1.00: Step 0.01; 1.00-20: Step 0.1; >20: Step 1

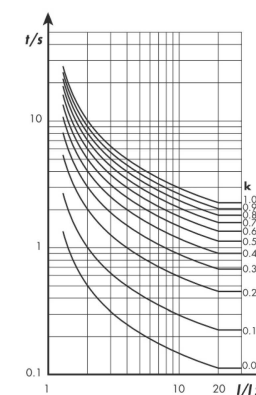
ACCURACY

Current accuracy : $\pm 3\%$ of the set value
or 20mA secondary
Timing accuracy : $\pm 5\%$ or ± 30 ms

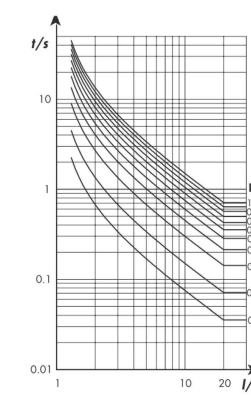
MECHANICAL

Mounting : Panel mounting
Dimension(mm) : 142(w) x 165(h) x 198(d)
Enclosure protection : IP54 at the panel
Approximate weight : 2.2kg

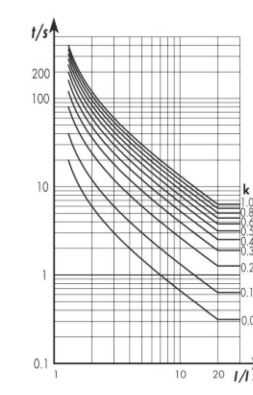
Normal Inverse



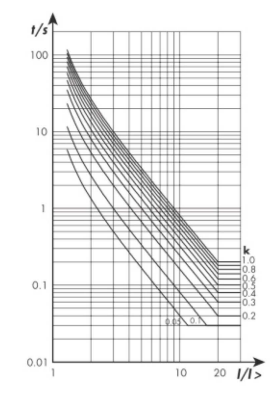
Very Inverse



Long Time Inverse



Extremely Inverse



Ordering Information

MODEL	DESCRIPTION
NP5508	For 50/60 Hz auxiliary voltage 30~150V DC

