

NP5505



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
- 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 NP5505

Rated voltage	: 100 ~ 240 V AC
Operating voltage	: 80 ~ 265 V AC

CURRENT INPUTS

Rated current, I_n , I_{n1}	: 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 ~ 150 V DC : 50 ~ 270 V AC

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	: 5×10^6 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 $20 \times I_n$ (Recommended up to $2 \times I_n$ for IDMT delay) * (Variable Steps)
$I >$ Delay type	: IDMT or definite time
$tI >$	: 0 to 100 s * (Variable Steps)
$I >$ IDMT curve	: NI, VI, EI, LTI, NI 1.3/10
$kI >$	: 0.01 to 1.00 (Step 0.01)
$I >$	: 0.5 to $40 \times I_n$ * (Variable Steps)
$tI >$	: 0 to 100 s * (Variable Steps)
$I > >$	: 0.5 to $40 \times I_n$ * (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_{0n} (Recommended up to 0.5 x I_{0n} for IDMT delay)
$I_{0>}$ Delay type	: IDMT or definite time
$t_{0>}$	: 0 to 100 s * (Variable Steps)
$I_{0>}$ IDMT curve	: NI, VI, EI, LTI, NI 1.3/10
k_{t0}	: 0.01 to 1.00 (Step 0.01)
$I_{0>}$	: 0.1 to 10 x I_{0n} * (Variable Steps)
$t_{0>}$	: 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

$I_{\theta>}$	: 0.1 to 3 x I_n * (Variable Steps)
T_{θ}	: 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

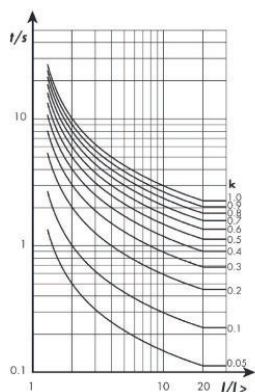
ACCURACY

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

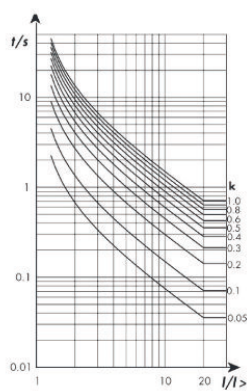
MECHANICAL

Mounting	: Panel mounting
Dimension(mm)	: 142(w) x 165(h) x 198(d)
Enclosure protection	: Ip54 at the panel
Approximate weight	: 2.2kg

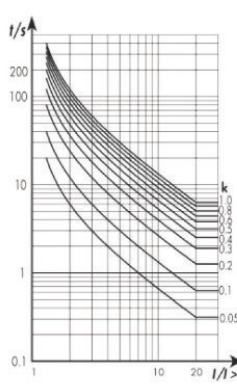
Normal Inverse



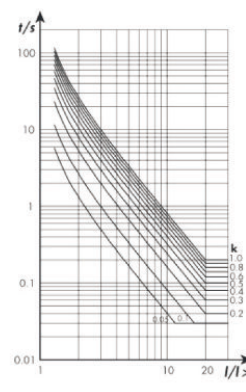
Very Inverse



Long Time Inverse



Extremely Inverse



Ordering Information

MODEL	DESCRIPTION
NP 5505	For 50/60 Hz auxiliary voltage 80~265VAC

