

RG-84

features



technical data

Current Input (In)	: $\pm 5A$ or $\pm 1A$
Frequency	: Software selectable 50 or 60 Hz
Burden	: $< 0.3 VA$ @ In
Output Relay Rating	: SPDT 5A, 250V AC/DC
Display	: 7-Segment LED (3 + 1 digit)
Indication (LEDs)	: x10, pre-alarm, fault, fault start event, lo / hi trip
Operating Temp.	: $0^{\circ}C \sim +55^{\circ}C$
Humidity	: 56 days at 93%RH, $40^{\circ}C$ non-condensing
IP Rating	: IP54 (front panel)
Weight	: 275 g

parameter setting

Phase OverCurrent

$I_p >$: lo-set	2% to 200% (step of 1%)
TM $I_p >$: lo-set time Multiplier	0.05 ~ 1.00 (step of 0.01, 5 IDMT + 1 DTL)
$t_p >$: lo-set trip delay time	0.03s ~ 20.0s 0.03s ~ 0.10s (step of 0.01s) 0.10s ~ 1.00s (step of 0.02s) 1.0s ~ 20.0s (step of 0.1s)
$I_p >>$: hi-set	OFF or 20% ~ 2000% 20% ~ 1000% (step of 10%) 1000% ~ 2000% (step of 100%)
$t_p >>$: hi-set trip delay time	0.03s ~ 0.5s (same range as $t_p >$)

Earth Fault

$I_e >$: lo-set	2% to 100% (step of 1%)
TM $I_e >$: lo-set time Multiplier	0.05 ~ 1.00 (step of 0.01, 5 IDMT + 1 DTL)
$t_e >$: lo-set trip delay time	0.03s ~ 20.0s 0.03s ~ 0.10s (step of 0.01s) 0.10s ~ 1.00s (step of 0.02s) 1.0s ~ 20.0s (step of 0.1s)
$I_e >>$: hi-set	OFF or 20% ~ 1000% (step of 10%)
$t_e >>$: hi-set trip delay time	0.03s ~ 0.5s

True RMS Measurement with SPARC¹ and DCOI² Algorithm

Auto / Manual Scroll for Real Time Display of Phase Current and Earth Fault in %

6 Selectable IDMT Graphs + 1 DTL

Fault / lo-set & hi-set Trip LED Indication

Fault Start Event Recording & LED Indication + Output³

Pre-Alarm LED Indication + Output³

Trip Event Memory
(non-volatile 7 previous records for 3 phases + earth)

Fault Start Event Memory
(non-volatile 4 previous records with phase info)

Programmable Relay Output Contacts for K2, K3*

Last Trip Elapsed Time (up to 99days)

Software Lock to Prevent Unauthorized Setting

Complies with IEC-60255-26 Standards

ANSI Code: 50P, 50G, 51P, 51G

External Plug-in Module for :-

A-01s (RS-485 MODBUS RTU) isolated type

A-02s (RS-485 MODBUS RTU+k3)*isolated type

aux power

RG-84-220a	: 65 ~ 275 Vac (45~65Hz), 90 ~ 300 Vdc
RG-84-024d	: 16 ~ 36 Vdc
Consumption	: < 3VA

fundamental frequency

50 or 60Hz Selectable

K1 output contact options

Latching (Lc) or non-latching (nLc) trip

K2 output contact options

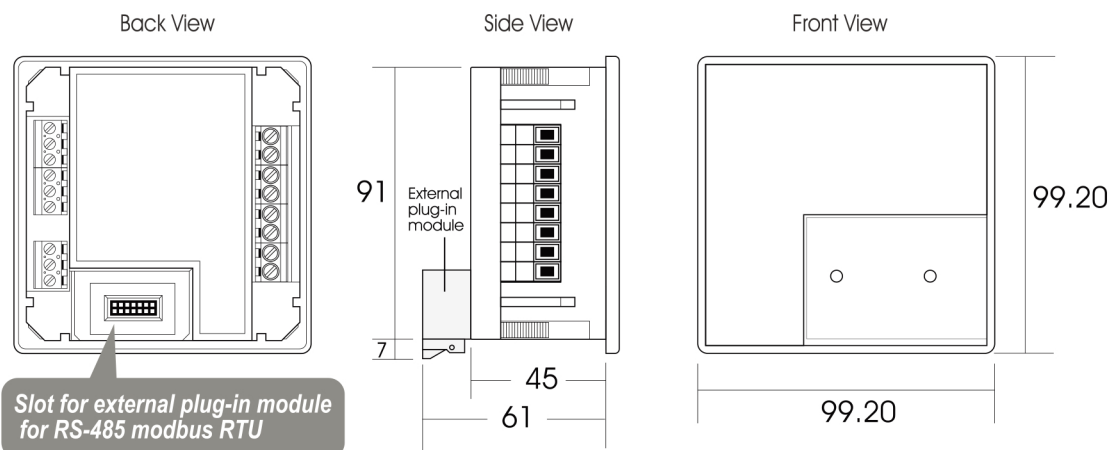
CbF (circuit breaker Failure - nLc only)
ALr (pre-fault 90% $I_p >$, 50% $I_e >$)
trP (tripping output - Lc or nLc)
PhT (Over Current Trip) Lc or nLc
EFt (Earth Fault Trip) Lc or nLc
AFS (all fault start signal - Lc or nLc)
dUF (device failure - Lc only)

¹SPARC - sampling progressive algorithm for RMS Computation:
Computation of multiple rms values/cycle (Superior response in short circuit situation)

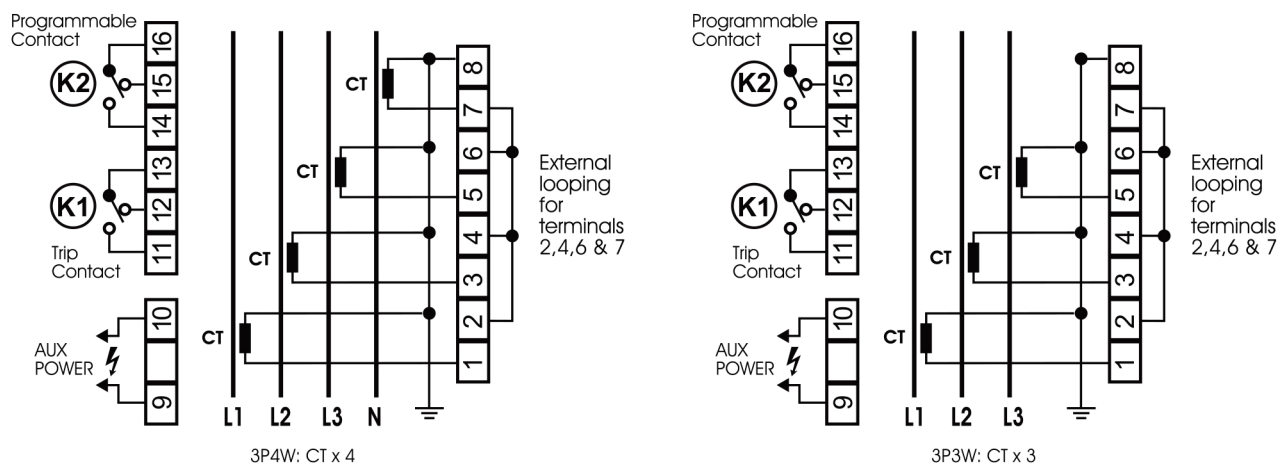
²DCOI - dc offset independent algorithm:
Cancels out dc signal caused by EMI and aging circuitry (Better Immunity against EMI)

³Output on K2 dependent on the programmed options

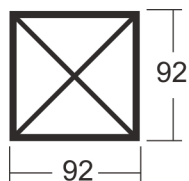
casing dimension



wiring diagram



panel cut-out



Panel Cut-out : 92 x 92

Note: All measurement in mm.

Dealer