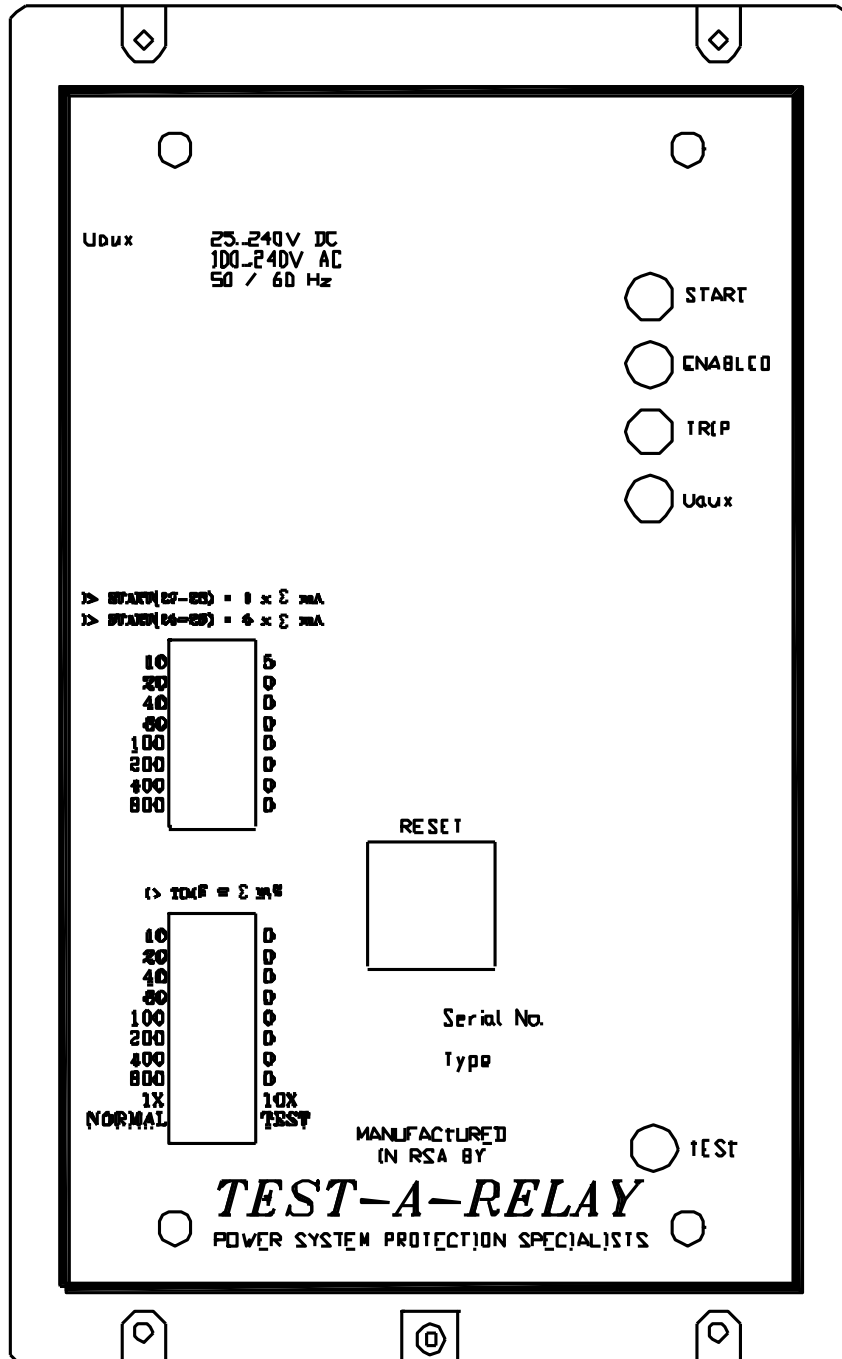


DEFINITE TIME LAG BREAKER FAIL RELAY TYPE BF 100

Fully designed and manufactured in the Republic of South Africa.



- Sensitive Wide Setting Range
- Wide Time Range
- Draw-out case design
- Harmonic Sensitivity Reduced With A Filter

Description

The relay is a single phase current operated relay with a time delayed tripping output, when the ENABLE input is HIGH. The enable input is operated from the trip signal to the breaker and the time setting, which allows for breaker trip time, prevents racing conditions. The overcurrent element has a fast, <20mS, reset time.

Two output relays are available, one with two self resetting changeover contacts and the other with a single latched changeover contact.

The relay is mounted in a drawout case with shorting contacts on the CT input circuits. Both 1 amp and 5 amp inputs are available in the same relay, but on different terminals. The 1 amp input is rated at 5 amps continuously.

The trip indication is by means of an LED. The trip indication and the second relay output is latching in that if the auxiliary supply is removed, the indication will not be lost and the LED will light up again once the auxiliary supply is restored. The relay contact will remain picked up until the reset button is depressed, WITH AUXILIARY POWER ON. The reset push button also resets the trip LED.

The relay has a universal power supply input for 25 – 240v DC and 100 – 240v AC.

The ENABLE input is an optocoupler isolated function input, which operates to allow the timing element. The input for this function is also universal with the same operating range as the Auxiliary Power supply, however, at low voltages the burden is increased to prevent maloperation for transients.

Application

The BF100 can be used for the current monitored plus time functions of a breaker fail scheme

The BF100 is connected as shown in Fig 1 above.

TEST-A-RELAY cc

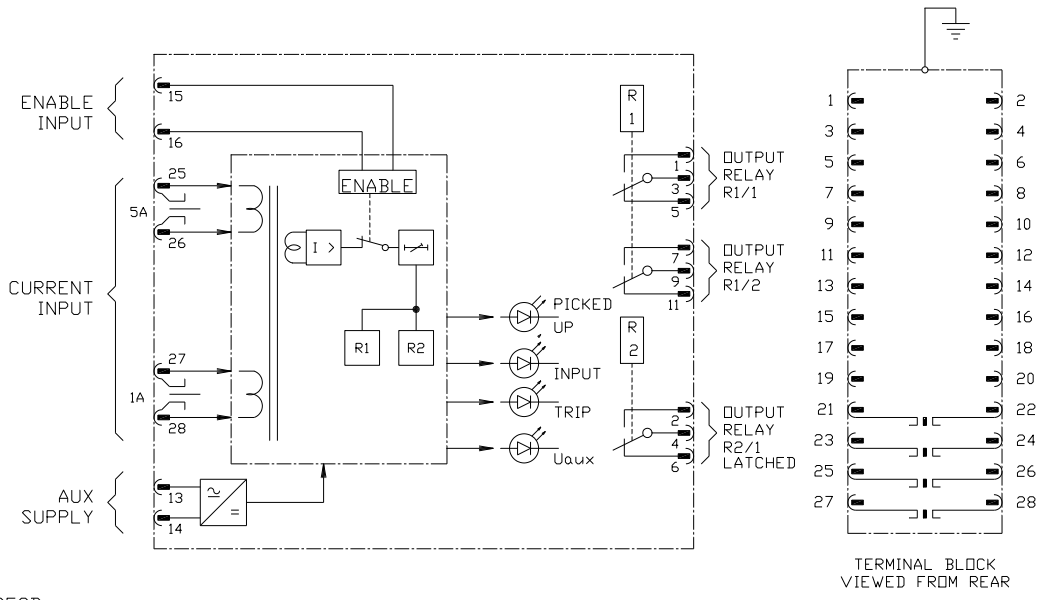
**10 Pieters Street
Highveld Park
Centurion**

**Phone : (012) 665 0545/6/7/8
Fax : (012) 665 0549
P.O.Box 914-542, Wingate Park, 0153**

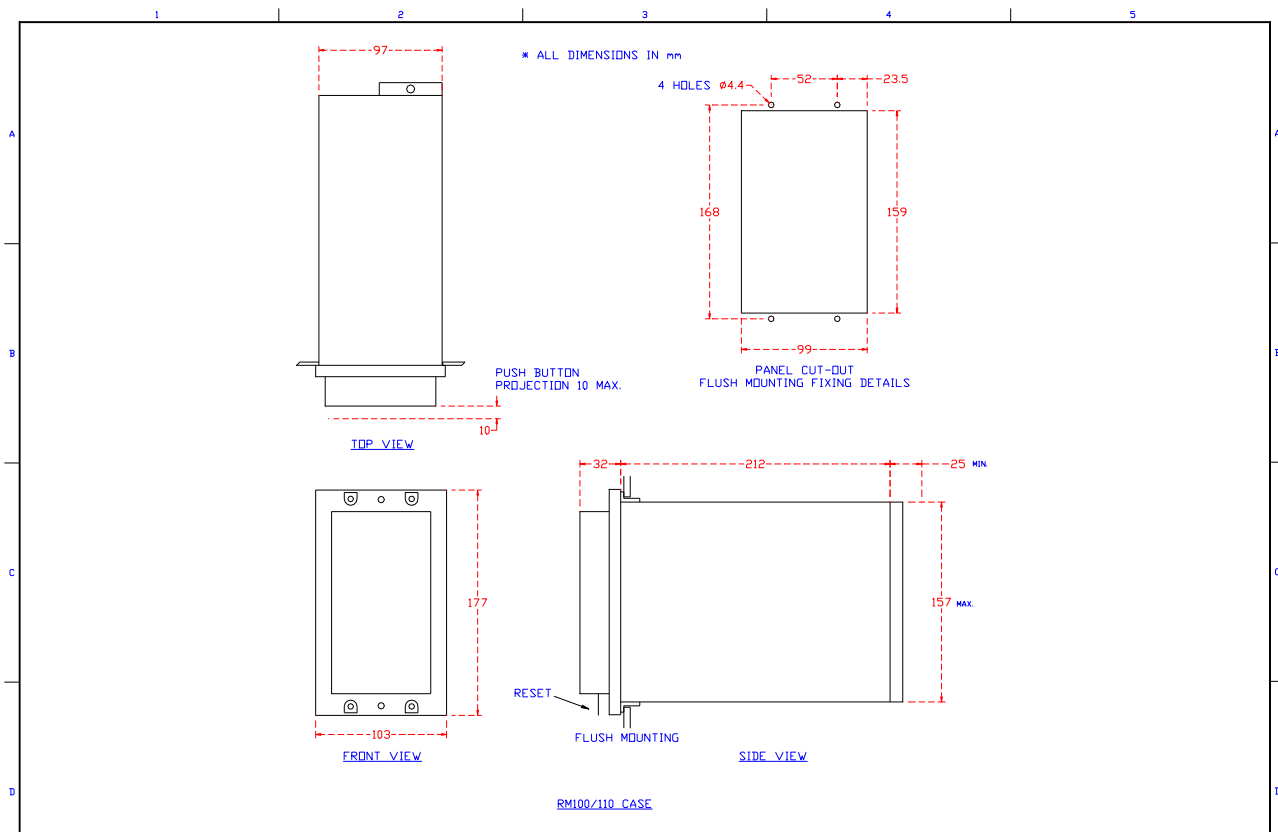
Technical Specifications : BF 100

Measuring Element	No of Inputs Type of Input Burden	1 amp or 5 amp From ring core or residually connected CTs Less than 0.01 VA
Auxiliary Power Supply	Operating Range (dc) Operating Range (ac) Burden (VA)	Universal 25 – 240 V DC 100 – 240 V AC < 3 VA with relay energised
Output Relays	Quantity Contact forms Making current Continuous current Breaking capacity Max breaking current Max breaking voltage	2 2 x C/O + 1 x LATCHED C/O 10A 5A 5A 2A 1250VA/35 – 250W 5A AC / 0,4A (110 V DC) (0.3A) 300 V DC / 250 V AC
Enable Input	Quantity Voltage	1 25 – 240V DC or 100 – 240V AC
Indicators	Quantity Type Function	4 x LEDs Light emitting diodes Green : Power on Red : Trip (LED latched) Orange : Block Input High Orange : Overcurrent High
Pushbuttons	Quantity Function	2 Reset Trip LED & Relay No 2 Test Operation (with SW select)
Measurement Setting Range	Current	5 – 860 mA (5mA steps) 25 – 430 mA (25 mA steps)
Time Setting Range	Seconds	0.00 – 1.630 (step 0.01 s) 0.00 – 16.30 (step 0.1 s)
Accuracy	Basic accuracy	+/- 5% of reading
Insulation resistance	2.0 kV for 1 minute	IEC 255-4
Temperature Range	-10 to + 55 deg C	IEC 68-2-2
Enclosure	Type Degree of Protection	‘Withdrawable’ IP50 to IEC 529

CM 100 - BLOCK CONNECTION DIAGRAM



2000058B



BF100 RELAY		Design Checked by M. NEALE	TEST-A-RELAY	DRAWING No	TAR GEN 2000-001	sheet	1
DIMENSIONS & CUT-OUT DETAILS		Drawn by L.D. DUNCAN	TEST-A-RELAY	CAD REF.	2000059B	cont	-
Rev	Iss	Appd	Year	Week			
0			99	29			