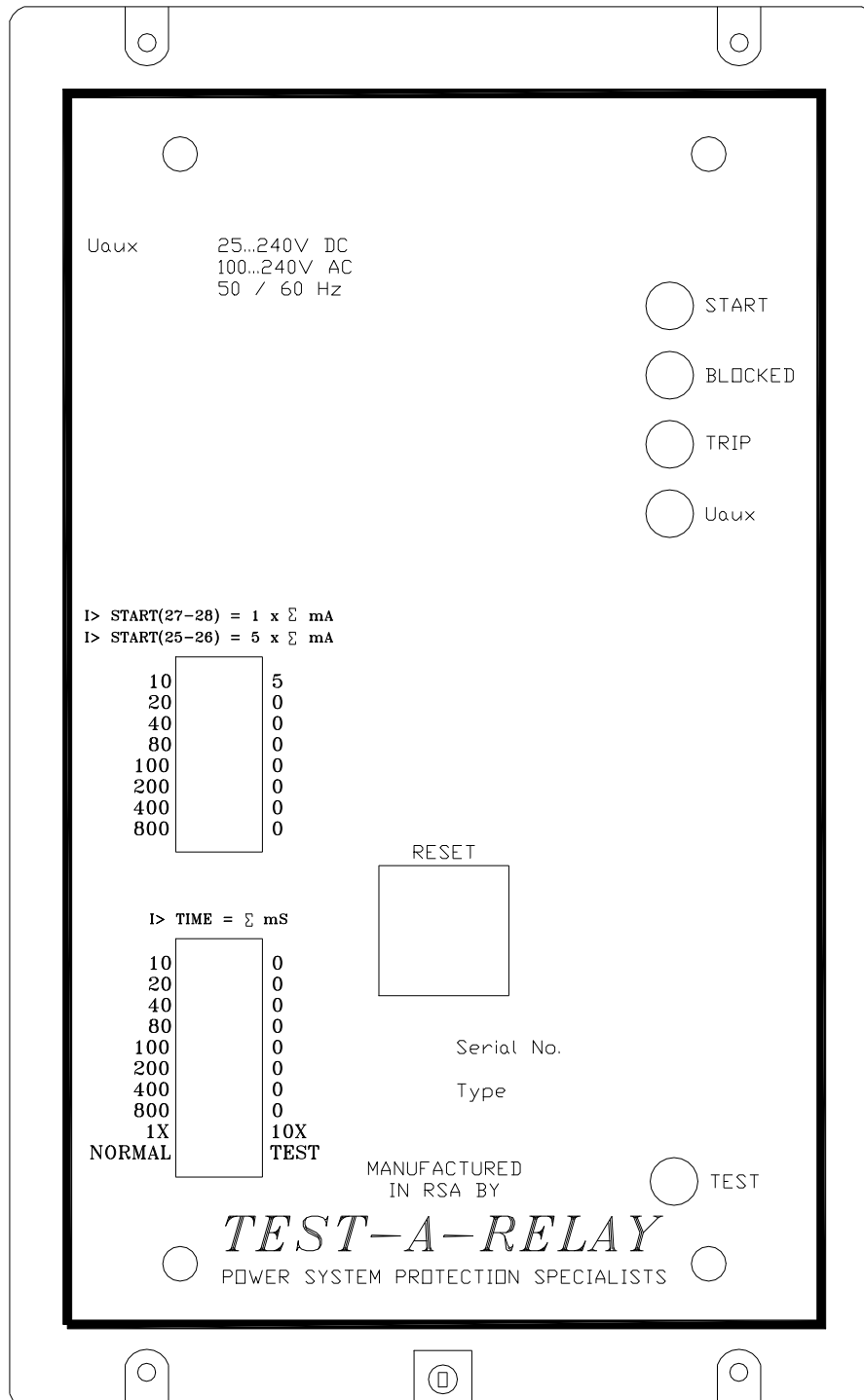


DEFINITE TIME LAG CURRENT MONITOR TYPE CM 100

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 . 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. DC polarity is not important and the + and - can be connected to either of terminals 13 or 14.

There is also an optocoupler isolated blocking function input, which operates to block the timing element. The input for this function is also universal with the same operating range as the Auxiliary Power supply. Polarity is not important.

For sensitive earth fault use, the CM100 can be blocked with an input controlled by a key switch to allow temporary disabling of the relay to aid finding a fault on the overhead line.

The “Test Facility” allows an output trip to be obtained from the relay without secondary current injection. To use this function, the last switch on the front cover must be changed from NORMAL to TEST. When the TEST push button behind the facia is pressed, the start LED will light and a trip output will occur after the set time.

Application

The CM100 can be used for a number of functions, the main two being for Sensitive Earth Fault protection and for a Blocking Buszone protection. Other functions are backup DTL earth fault protection and DTL overcurrent protection. A modified version, BF100, is available for DTL undercurrent protection in combination with the isolated input as an enable function.

TEST-A-RELAY cc

**10 Pieters Street
Highveld Park
Centurion**

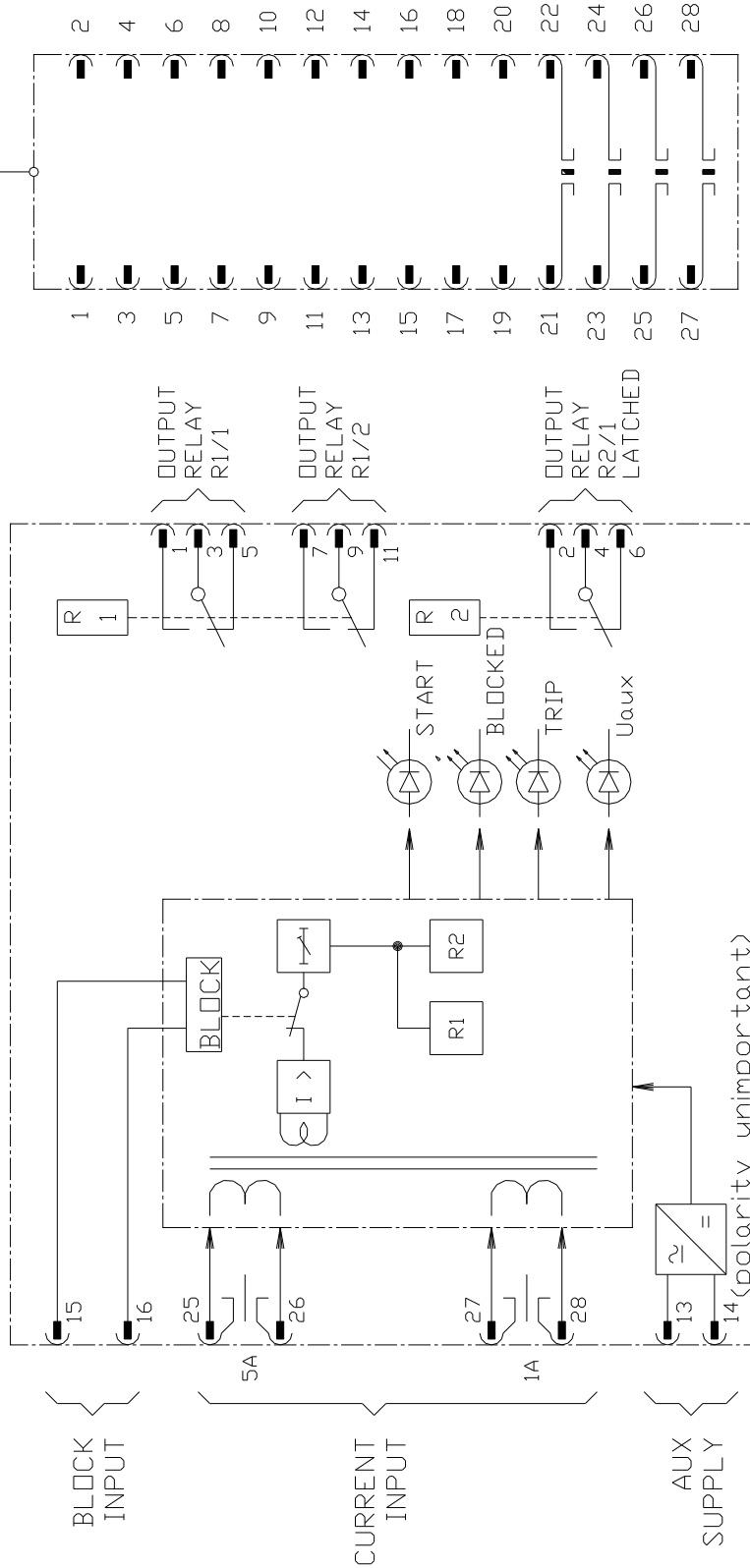
**Phone : (012) 665 0545/6/7/8
Fax : (012) 665 0549
P.O.Box 914-542, Wingate Park, 0153**

Technical Specifications : CM 100

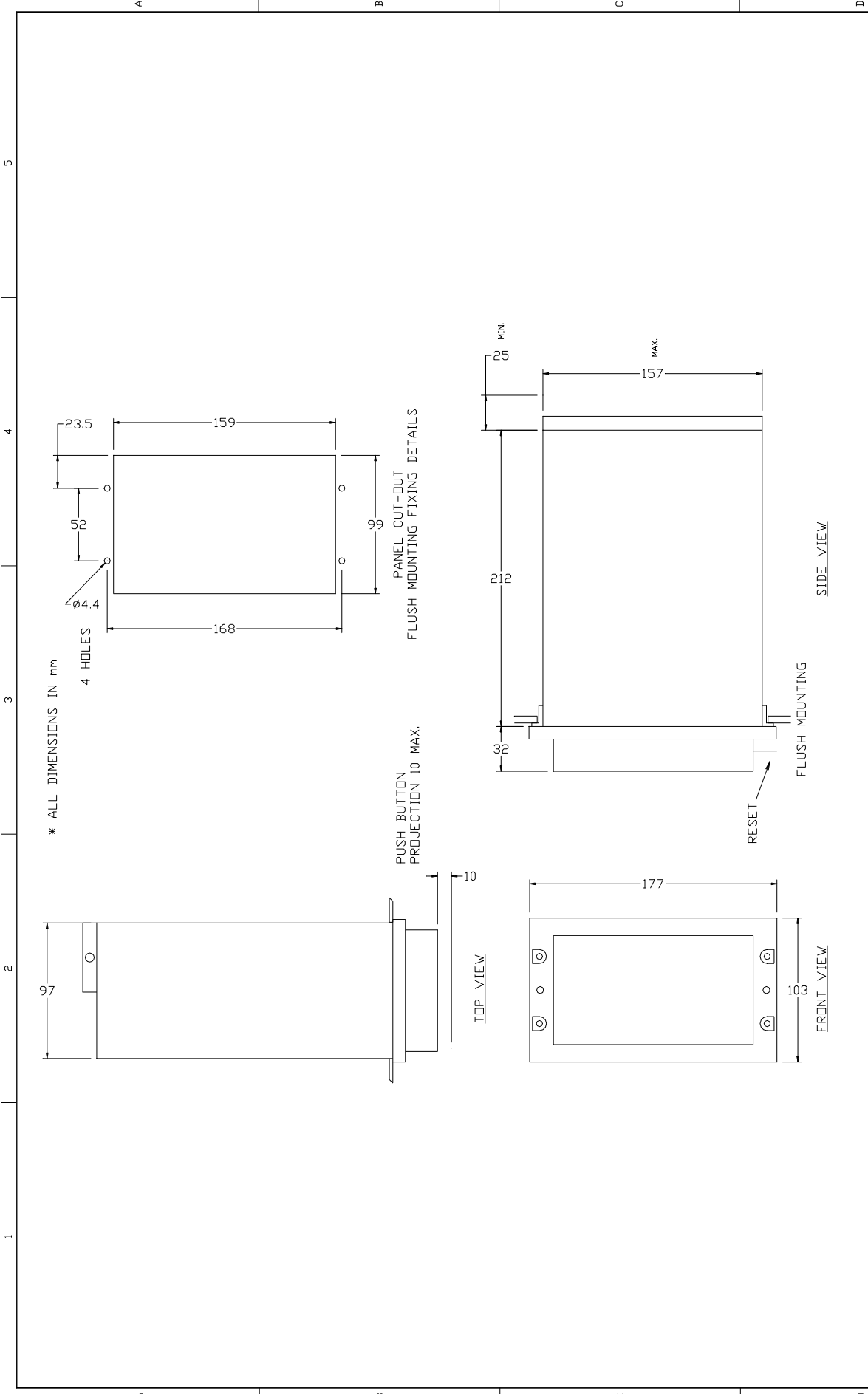
Measuring Element	No of Inputs Type of Input Burden	1 amp or 5 amp From ring core or residually connected CTs Less than 0.01 VA
Auxiliary Power Supply	Input Operating Range (dc) Operating Range (ac) Burden (VA)	Universal 25 – 240 V DC 100 – 240 V AC < 3 VA with relay energised
Output Relays	Quantity 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
Indicators	Quantity Type Function (LED on)	4 x LEDs Light emitting diodes Green : Uaux (healthy) Red : Trip (LED latched) Orange : Blocked (Input High) Orange : START (current 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

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CM 100 - BLOCK CONNECTION DIAGRAM



TERMINAL BLOCK
VIEWED FROM REAR



RM100/110_CASE

Design Checked by M NEALE	TEST-A-RELAY	DRAWING No	TAR GEN 2000-001	sheet	1
Drawing Checked by	TEST-A-RELAY	CAD REF.	2000059	cont	-
Drawn by LD DUNCAN					
CM100 RELAY DIMENSIONS & CUT-OUT DETAILS					
0	99 29				
Rev. No	Appd Year Week				