

**Calibration certificate 15071864**

Certificate  
Pages: 1  
Date of release: 30/07/2015  
Validity: .....  
Consignee: .....  
Request: .....  
Date of request: .....  
Subject: HT ITALIA  
Manufacturer: MACROTEST  
Type: G3  
Model: 15071864  
Serial no.: See instruction manual  
Accuracy class: See instruction manual  
Instrument specifications: See instruction manual

The test results reported in the calibration certificate of the instrument under reference were obtained using samples and measuring instruments whose traceability dates back to the standard instrument provided with calibration certificate as below indicated:

Standard instrument	Calibration certificate
WV 9100	SIT 4753 04/02/2015

Tests were carried out at the room temperature of 23°C ±5°C with relative humidity of 60% ± 10%. Tests were carried out according to 00/006 and IOP\_15400calibration\_V1.00.  
In view of the whole chain of traceability the symmetrical uncertainties more and less, referred to the numerical values reported in the certificate, are the following:

- For AC voltage: ..... 0.020%
- For DC voltage: ..... 0.009%
- For AC current: ..... 0.16%
- For DC current: ..... 0.16%
- For resistance: ..... 0.010%
- For calibration conditions:
- Frequency: ..... 0.5%
- For room humidity: ..... 2.5%
- For room temperature: ..... 1K

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Faenza 30/07/2015

Ref	Function	Nominal Value	Lower limit	Reading	Upper limit	Uncertainty
1	Outlook, BAT indication, keys and RS232.			OK ✓		
2	LOW Ω	0.00Ω	0.00Ω	0.01	0.02Ω	0.02Ω
		50.0Ω	48.8Ω	50.0	51.2Ω	1.2Ω
	Current@Ubat=9V >200 mA on 5Ω					
				OK ✓		
3	MΩ @500V	0.5MΩ	0.47MΩ	0.50	0.53MΩ	0.03MΩ
		100MΩ	97.8MΩ	100.3	102.2MΩ	2.2MΩ
4	MΩ @1000V	1.0MΩ	0.96MΩ	1.00	1.04MΩ	0.04MΩ
		1500MΩ	1423MΩ	1497	1577MΩ	77MΩ
	Test Current >1mA @ Vnom/(1kΩ x Vnom)					
				OK ✓		
	Test voltage 50, 100, 250, 500, 1000 V -0 + +10%					
				OK ✓		
5	RCD current	30mA	30.0mA	30.7	31.5mA	1.5mA
		Time	15ms	13ms	17ms	2ms
6	Ra @30mA	5Ω	2Ω	5	8Ω	3Ω
7	LOOP P-P, P-N	0.30Ω	0.26Ω	0.30	0.34Ω	0.04Ω
		22.0Ω	20.6Ω	22.0	23.4Ω	1.4Ω
8	LOOP P-P-E	1.00Ω	0.92Ω	1.00	1.08Ω	0.08Ω
		100Ω	94.7Ω	100.2	105.3Ω	5.3Ω
9	Ra	1.00Ω	0.85Ω	0.99	1.15Ω	0.15Ω
		100.0Ω	94.0Ω	100.0	106.0Ω	6.0Ω
10	Phase sequence indication					
				OK ✓		
11	LEAKAGE	10mA	8mA	10	12mA	2mA
		950mA	939mA	948	961mA	11mA
12	AUXILIARY	10.0mV	9.8mV	9.9	10.2mV	0.2mV
		950.0mV	940.3mV	949.6	959.7mV	9.7mV
13	EARTH	0.50Ω	0.45Ω	0.53	0.55Ω	0.05Ω
		50.0Ω	47.2Ω	50.0	52.8Ω	2.8Ω
		5.00kΩ	4.72kΩ	5.00	5.28kΩ	0.28kΩ
14	POWER	115.0kW	113.3kW	115.1	116.7kW	1.7kW
	Voltage	230.0V	228.7V	230.0	231.3V	1.3V
	Current @FS1000A	500A	493A	500	507A	7A
	Power Factor	1.00	0.99i	1.00	0.99c	0.01

The Responsible  
Petri Pier Vittorio  
The verifier  
Quaranta Claudio