

CAWANGAN KEJURUTERAAN ELEKTRIK JKR MALAYSIA

Sheet 🗌 of 🗌

# **Record of RCCB Test**

(For general purpose non-delayed type RCCB to IEC 1008)

A. PARTICULARS OF THE INSTALLATION [Please tick ( $$ ) the relevant boxes]																			
	Project Name																		
Drawing No	o./Install	ation Address																	
Block No./F	Block No./Floor																		
DB Designation							Single phase Phase:					e: 🗌	R Y B 3 phase						
B. TEST IN	STRUME	NT USED																	
Instrument		Brand M			lodel No.			Serial No.					Calibration Date						
RCCB Tester																			
C. PARTIC	ULARS	OF THE RCCB (Ple	ease [ $\sqrt{1}$ the relevant	nt box	()														
Rated Current (In)										Brand				Model No.					
40A	DP	40A 4P 63 A DP					63 A 4P												
		DIFASE X WHERE NO		E A SE E		ΓΟ ΡΔ	GE 2	EOR TI		OCEL	) I I R F \								
<b>D. TEST RESULTS</b> (PLEASE X WHERE NOT APPLICABLE. PLEASE Circuit No.						1	2	3	4	5	6	7	8	9	10	11	12		
Circuit Reference						-		-	-	-	-	-	-	-					
Mark S for S																			
Number of Points																			
RCCB Rated Tripping Current (mA)																			
TEST					Note	х	х	х	х	х	х	х	х	х	х	х	Х		
	RCCB Test Button																		
	(Mark <b>T</b> for Trip & <b>NT</b> for No Trip)				(i)														
	1/2 I Trip				(ii)														
	(Mark T	for Trip & <b>NT</b> for No	Trip)		(II)														
RCCB	<b>I</b> Trip a	t 0 <sup>0</sup>	(ms)		(iii)														
Trip	I Trip at	at 180° (ms)			(iii)														
Time	5I Trip a	at O <sup>o</sup>	(ms) (if applicat	ole)	(iv)														
at	51 Trip a	at 180º	(ms) (if applicat	ole)	(iv)														
RCCB Test Button																			
(after completion of the above tests)																			
(Mark <b>T</b> for Trip and <b>NT</b> for No Trip)																			
RCCB Trip Current Test (RAMP Test) (mA)					(vi)														
E. COMM	ENTS B	/ JKR (IF ANY) AN	D DEPARTURES FR	OM S	PECIF	ICAT	ION 8	REG	ULATI	ONS									
F. PENGAKUAN ORANG KOMPETEN								G. PENGESAHAN JABATAN											
( BAGI PIHAK KONTRAKTOR ELEKTRIK )																			
Diuji oleh:								Disaksi oleh:											
(Nama Pendawai)								(Nama)											
Tandatangan:								Tandatangan:											
No. Kekompetenan:								Jawatan:											
Tarikh Ujian:								Tarikh:											
Nama & C		 raktor:					1												

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(For general purpose non-delayed type RCCB to IEC 1008)

Note:

#### (i) <u>RCCB Test Button</u>

The RCCB should be operated first by the test button to check that the RCCB is not faulty before tests on the installation are made.

The test button does not test the circuit, protective conductors or any earthing conductors or earth. The test button is to ensure that the electrical and mechanical elements of the RCCB are functioning.

# (ii) <u>½ I Test</u>:

A test at ½ (50%) of the rated tripping current of the RCCB for a period of two (2) seconds. This acts as a 'no trip' test and the RCCB must not trip. This is intended to verify that the RCCB is not subject to tripping when spurious 'nuisance' current appear in the circuit being protected.

#### (iii) I Test:

# A Test at 100% of rated tripping current of the RCCB.

This act as a **'trip'** test and the RCCB must break the circuit within **300ms**. The choice of polarity, 0° and 180° enables the trip time to be measured accurately, as some RCCBs performs differently if the current occurs at the beginning of a positive (0°) or a negative (180°)cycle.

# (iv) 5I Trip Test

This test mainly for RCCBs rated at not more than **30mA** (ie. 30mA & 10mA). The RCCB must break the circuit within **40ms**. The choice of polarity,  $0^{\circ}$  and  $180^{\circ}$  enables the trip to be measured accurately, as some RCCBs performs differently if the current occurs at the beginning of a positive ( $0^{\circ}$ ) or a negative ( $180^{\circ}$ ) cycle.

#### (v) <u>RCCB Test Button</u>

Having completed the test, the effectiveness of the test button on the RCCB should **again** be checked to ensure that everything is satisfactory.

#### vi) RCCB Ramp Test

This test is to measure the trip current of an RCCB. Current level is slowly increase from half the rated tripping current ( $0.5 \times I\Delta n$ ) of the RCCB. When the RCCB trips, the actual trip current (in milliamps) displayed. Very useful diagnosing nuisance tripping of RCCB. RCCBs complying with IEC 1008 may operate within the range of 0.5 to 1.0 x rated tripping current of the RCCB. If the RCCB trips less than 0.5 x rated tripping current, replace the RCCB.

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