



**JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN ELEKTRIK
UNIT PENSIJILAN BAHAN & STANDARD**

TECHNICAL INFORMATION**MOULDED CASE CIRCUIT BREAKER (MCCB)**

A. COMPANY INFORMATION					
COMPANY NAME :					
ADDRESS :				TELEPHONE NO :	
				FAX NO :	
				COMPANY EMAIL :	
ISO CERTIFIED COMPANY				REGISTRATION NO:	SCOPE:
1. ISO 9001	☐	YES	☐	NO	
2. ISO 14001	☐	YES	☐	NO	
3. ISO 50001	☐	YES	☐	NO	
4. ISO	☐	YES	☐	NO	
B. PRODUCT INFORMATION					
BRAND NAME :					
MODEL : 1. 2. 3. 4. 5. 6.					
STANDARD NO.: (MS IEC/IEC/etc.)					
CERTIFICATE OF APPROVAL : (SURUHANJAYA TENAGA, if any)				DATE OF ISSUE:	
				VALID UNTIL:	
PRODUCT CERTIFICATION : LICENSE (SIRIM/OTHER)				DATE OF ISSUE:	
				VALID UNTIL:	
TEST REPORT NO.:				TESTING LABORATORY:	
				DATE OF ISSUE:	
COUNTRY OF MANUFACTURE:					
NAME OF MANUFACTURER:					
FACTORY ADDRESS :					

C. PRODUCT SPECIFICATION / STANDARD (Please ✓ where applicable)

No.	Description	Yes	No	Test Report No. & Page No. / Catalogue Page	Remarks (For JKR Use)
1.	Classification & Construction				
1.1.	Front-Mounting type.	☐	☐	.....	☐
1.2.	Flush-Mounting type.	☐	☐	.....	☐
1.3.	Plug-in mounting type.	☐	☐	.....	☐
1.4.	Suitable for isolation.	☐	☐	.....	☐
1.5.	No. of pole: ☐ 2 poles ☐ 3 poles ☐ 4 poles	☐	☐	.....	☐
1.6.	For 4 poles, the neutral (N) pole must be protected.	☐	☐	.....	☐
1.7.	Utilization category A.	☐	☐	.....	☐
1.8.	Utilization category B.	☐	☐	.....	☐
1.9.	Resistance to abnormal heat and fire (glow wire test), temperature : .....	☐	☐	.....	☐
1.10.	Fully tropicalised and suitable to be used up to an ambient temperature of 40°C (reference temperature). Ambient compensating curves/temperature current data to be attached.	☐	☐	.....	☐
1.11.	Enclosed in glass-reinforced polyester moulded case and suitable for use on 240/415 V, 50 Hz. a.c. supply system. If No specify material : .....	☐	☐	.....	☐
1.12.	Arc extinguisher incorporated to extinguish the arc between poles.	☐	☐	.....	☐
1.13.	The contacts shall be of non-welding type If No specify type : .....	☐	☐	.....	☐
1.14.	Marking and Labelling : Durables and legibly marked.	☐	☐	.....	☐
1.15.	Conform to MS IEC 60947-1 & MS IEC 60947-2 or equivalent Standard.	☐	☐	.....	☐
1.16.	ASTA / KEMA certification If No specify : .....	☐	☐	.....	☐
2.	Tripping Characteristics				
2.1.	Mechanically and electrically trip-free. (able to break-in all poles simultaneously)	☐	☐	.....	☐
2.2.	2.2.1. Thermal-magnetic type with bimetallic elements for overload protection and magnetic elements for short circuit protection.	☐	☐	.....	☐
	a. Fixed thermal and magnetic trips.	☐	☐	.....	☐
	b. Fixed thermal and adjustable magnetic trips.	☐	☐	.....	☐
	c. Adjustable thermal and fixed magnetic trips.	☐	☐	.....	☐
	d. Adjustable thermal and magnetic trips.	☐	☐	.....	☐
	2.2.2. Solid state trip unit with adjustable overload protection and adjustable short circuit protection with or without adjustable time-delay.	☐	☐	.....	☐
2.3.	Earth Leakage Relay mounting facilities present.	☐	☐	.....	☐

- 2.4. Current limiting types of mccb shall be equipped with current limiting device of either permanent self-resetting power fuse type or magnetic repulsion moving contact type.

☐ ☐ ☐

Current limiting device :

3 Short Circuit Breaking Capacity

- 3.1. The minimum rupturing capacity (Icw) of the MCCB shall be 50 kA rms (symmetrical) for 1 s at 415 V. (Utilization category B)

☐ ☐ ☐

- 3.2. The rated service short-circuit breaking capacity (Ics) shall be 100% of the rated ultimate short-circuit breaking capacity (Icu) at 415 V.

☐ ☐ ☐

- 3.3. Ics shall be 50% of Icu. (for all outgoing feeder)

☐ ☐ ☐

4. Protection

- 4.1. Facilities for the following devices:

4.1.1. Shunt trip.

☐ ☐ ☐

4.1.2. Under voltage.

☐ ☐ ☐

4.1.3. Earth fault.

☐ ☐ ☐

4.1.4. Over current.

☐ ☐ ☐

4.1.5. Zero current transformer (Z cts).

☐ ☐ ☐

- 4.2. Provided with panel mounting external operating handle with padlocking facilities and door interlocking facilities. (Note: Compulsary accessories)

☐ ☐ ☐

5. Operating Mechanism

- 5.1. **Permanent** position 'ON' and 'OFF' or '0' and 'I' indicator present and clearly marked to show status of the breaker.

☐ ☐ ☐

- 5.2. When tripping occurs, the handle shall be in the 'trip' position midway between the 'OFF' and 'ON' or '0' and 'I' position so as to provide positive indication of automatic interruption.

☐ ☐ ☐

- 5.3. The operating mechanism shall be non-tamperable.

☐ ☐ ☐

- 5.4. The MCCB shall have trip-free feature to prevent the breaker from being closed against fault conditions.

☐ ☐ ☐

- 5.5. Multipole MCCB shall have common-trip operating mechanism for simultaneous operation of all poles.

☐ ☐ ☐

- 5.6. Type of handle :

5.6.1. Quick-make and quick-break type.

☐ ☐ ☐

5.6.2. Toggle operated type.

☐ ☐ ☐

5.6.3. Motorised mechanism type.

☐ ☐ ☐

- 5.6.4. Rotary operating mechanism type. ☐ ☐ ☐
- a. External operating handle. ☐ ☐ ☐
- b. External extension handle. ☐ ☐ ☐

6. Method of Installation

6.1. Effect on performance of MCCB due to mounting position/direction :

- 6.1.1. Mounting angle = 45°, Rated current = 6.1.4. Mounting angle = 180°, Rated current =
6.1.2. Mounting angle = 90°, Rated current = 6.1.5. Mounting angle = 225°, Rated current =
6.1.3. Mounting angle = 135°, Rated current = 6.1.6. Mounting angle = 270°, Rated current =

6.2. Safety clearance and minimum distance recommendations for installation in switchboards. Give the details.

D. MANUAL/DOCUMENTS (PLEASE SPECIFY) AND ATTACH RELEVANT DOCUMENT.

1. Technical specification ☐ ☐ ☐
2. Method of installation ☐ ☐ ☐
3. Method of maintenance ☐ ☐ ☐

E. LIST OF COMPONENTS

No.	Name Of Part	Manufacturer	Type of Material	Approval Lab	Mill Cert. No. (please attach)
1	Base and Cover				
2	Insulation Barrier				
3	Moving/Fixed Contact				
4	ON / OFF handle				
5	Tripping Bars				
6	Arc Chambers				
7	Bi-Metal				
8	Operating Coil				
9	Rivet				
10	Terminals				
11	Terminals Screws				
12	etc. Please List				

[illegible]

Note : ^a i) Rated current >3500A not need to be registered.
ii) Rated current >100A (2 poles) not need to be registered.
^b Rated Ics > 65kA not need to be registered.

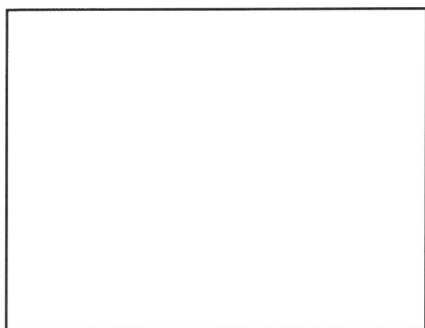
F. OTHERS (please specify)

1. _____
2. _____
3. _____

G. PENGESAHAN

Adalah saya dengan ini mengesahkan segala keterangan yang diberikan/dikemukakan bagi produk di atas adalah benar. Jika saya didapati membuat pengakuan **PALSU**, maka tindakan seterusnya boleh diambil oleh pihak JKR ke atas diri dan syarikat diwakili oleh saya.

Cop Syarikat :



Tandatangan : _____
Nama : _____
Jawatan : _____
Tarikh : _____

H. ULASAN (Untuk Kegunaan Pejabat)

.....
.....
.....
.....