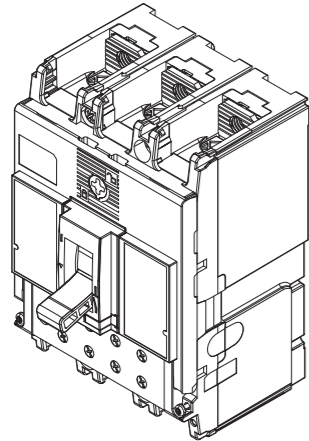


INSTALLATION INSTRUCTIONS MOULDED CASE CIRCUIT BREAKERS TEMBREAK PRO P160 3P BASIC ELECTRONIC



NHP Electrical Engineering Products Pty Ltd
A.B.N. 84 004 304 812
AUS 1300 NHP NHP | nhp.com.au
NZ 0800 NHP NHP | nhp-nz.com

TOOLS REQUIRED (NOT included)

- T1 Screwdriver Flathead (5mm)
- T2 Screwdriver Phillips (#2)
- T3 13mm Socket wrench
- T4 13mm Ring Spanner

HARDWARE (included)

- A M8x16 Slotted Philips screw (6 qty)
- B M8 spring washer (6 qty)
- C M8 flat washer (6 qty)
- D M4x62 mounting screws (2 qty)
- E Interpole Barriers (2 qty)
- Instruction Manual (This Document) (1 qty)

HARDWARE (NOT included)

- F Lugs or Copper Bars
- G *M8x25 hex bolt (6 qty)
- H *M8 flat washer (6 qty)
- I *M8 Belleville washer (6 qty)
- J *M8 nut (6 qty)

*For extension bar connection only

OPTIONAL (NOT included)

- K Extension Bars
- L Terminal Covers
- M Terminal Cover Lock
- N Handle Lock
- Internal Accessories

MOUNTING ANGLES

MOUNTING

TORQUE 1.3-1.7 Nm

DIMENSIONS

84, 102, 24, 22, 60, 90, 6.5, 95.5, 72: Panel cutout

CLEARANCE

BR₁, BR₂ = Adjacent Isolators / MCCBs

MCCB Cat No.	Y min (mm)	Z min (mm)
P160F	0	25
P160N	0	25
P160H	0	25

CLEARANCE

INSULATION PLATE, TOP PLATE (EARTHED METAL), BR₁, BR₂ = Adjacent MCCBs, INSULATION

*distance from conductor insulation to downstream MCCB

MCCB Cat No.	W* min (mm)	X ₁ min (mm)	X ₂ min (mm)
P160F	50	10	10
P160N	75	45	25
P160H	75	45	25

OPERATING INSTRUCTIONS

Operation	Force (Nm)
OFF → ON	40
ON → OFF	30
TRIP → OFF	60

DIRECTION OF POWER SUPPLY

INTERNAL ACCESSORIES ASSEMBLY PROCEDURE*

STEP 1 TRIP MCCB

STEP 2 OPEN COVER

STEP 3 IDENTIFY TRIP BAR & MECHANISM

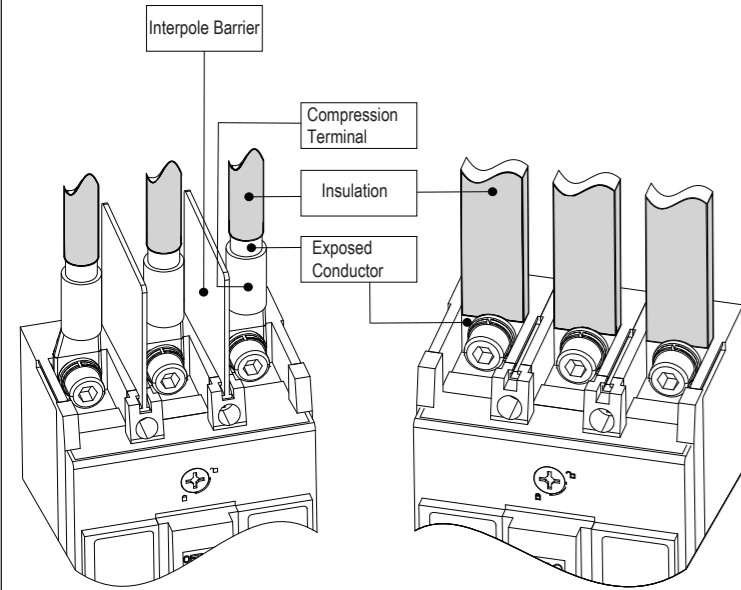
STEP 4.1 UVT/SHUNT INSTALLATION

STEP 4.2 ALARM INSTALLATION

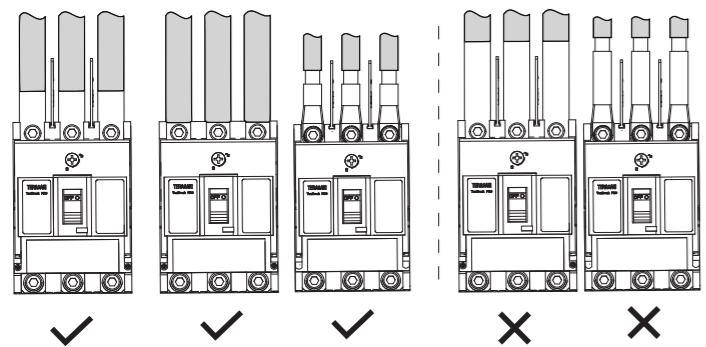
STEP 5 CLOSE MCCB COVER

*For additional internal accessory installations, scan QR code and refer to user manual for more details

TOPSIDE INSULATION RECOMMENDATIONS – 415 / 440V AC

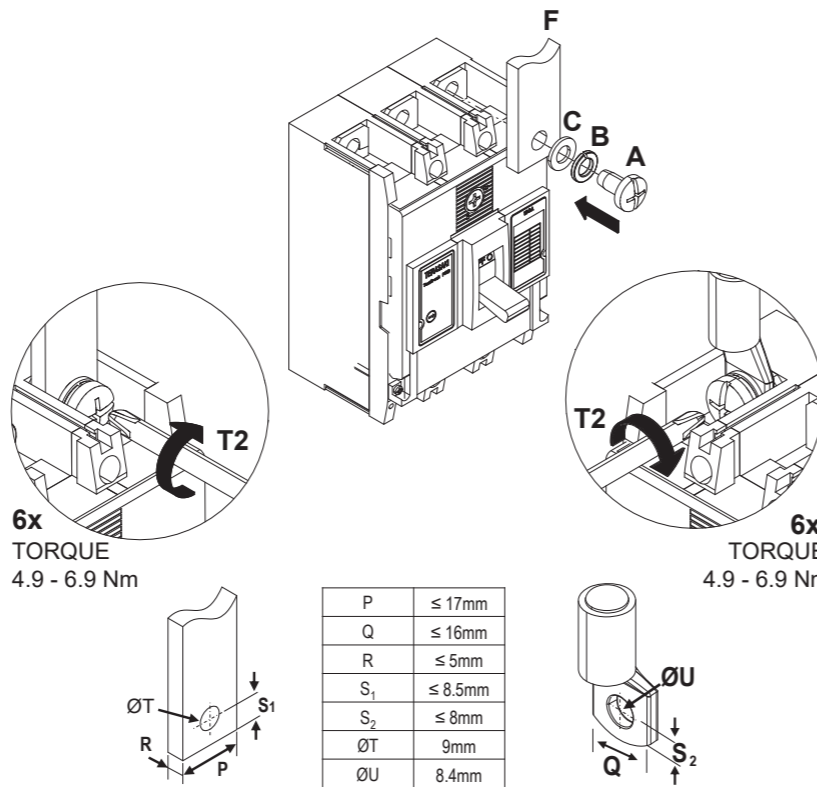


NOTE: Insulate the exposed conductor to achieve IP2X or protect from finger access.

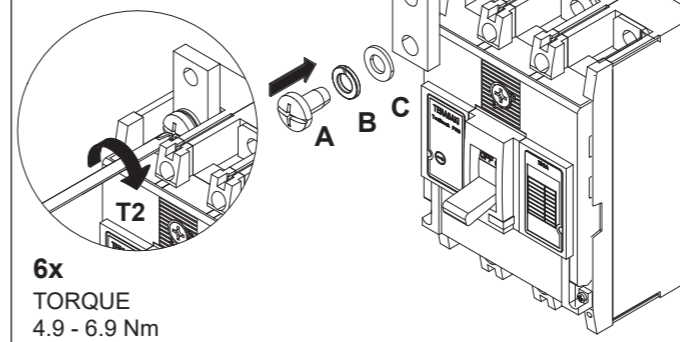


CONDUCTOR CONNECTION PROCEDURE -- FRONT CONNECTION -- EXTENSION BAR CONNECTION PROCEDURE

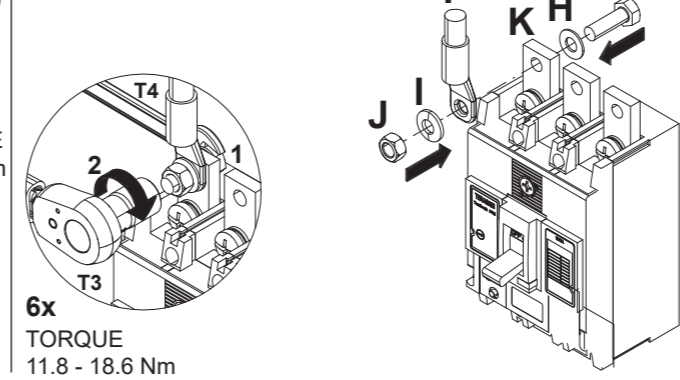
A	M8x16 Phillips screw	H	M8 Flat washer
B	M8 Spring washer	I	M8 Belleville Washer
C	M8 Flat washer	J	M8 Nut
F	Lug or copper bar		Extension Bar
G	M8x25 hex bolt		



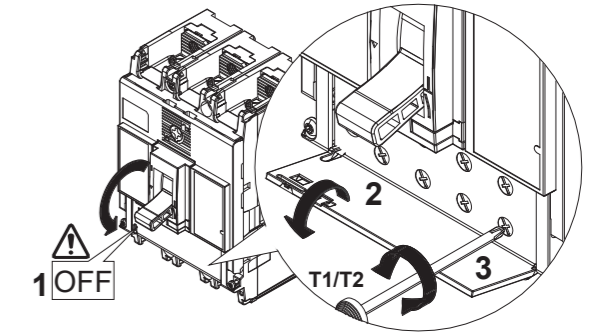
STEP 1



STEP 2



TRIP UNIT ADJUSTMENT PROCEDURE



Protection Settings

L	I_{r1} I_{r2}	Threshold Long Time Protection (Rated Current)
	t_r	Long Time Delay (Time Delay)
S	I_{sd}	Threshold Short Time Protection
	t_{sd}	Short Time Delay
	I^2t ON / OFF	I^2t curve on Short delay protection activated or not
I	I_i	Instantaneous Protection Threshold
GF	I^2t ON/OFF	I^2t curve on Earth Protection Activated (ON) or not activated. (OFF)

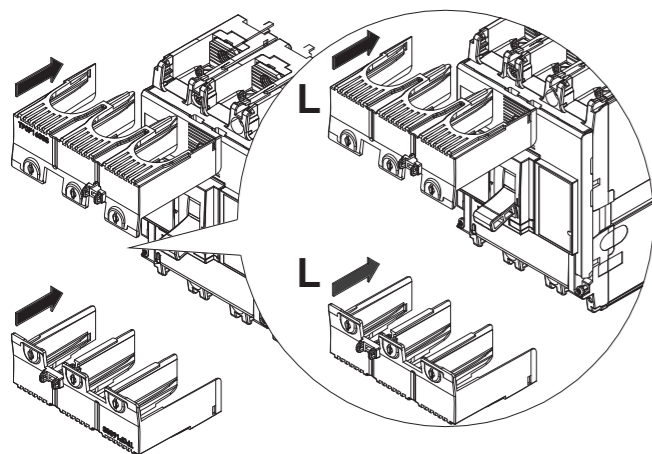
NOTE: The I_r (Rated Current) threshold is firstly set using the I_{r1} MAX adjustment dial. If necessary , fine adjustments of 1% increments of I_{r1} are possible using the I_{r2} dial from 0.92 to 1.

NOTE: The t_r time delay defines the trip time of the long-time delay protection for a current of $6 \times I_r$

NOTE: The Ground Fault Protection can be turned ON and OFF using the GF dial for a current of $0.4 \times I_{r1}$.

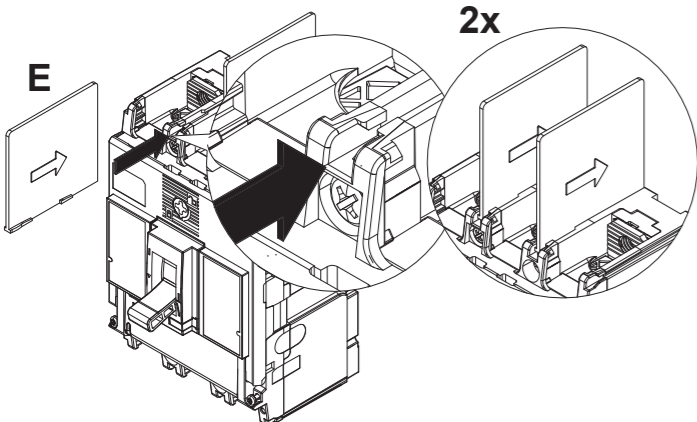
FOR MORE INFORMATION, PLEASE SCAN THE QR CODE

TERMINAL COVER

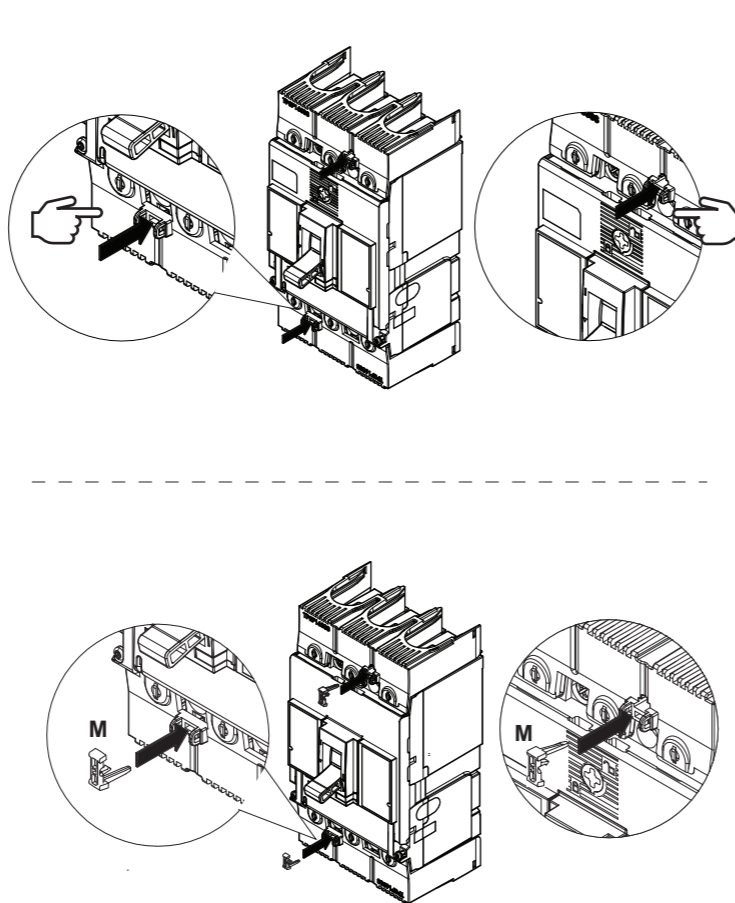


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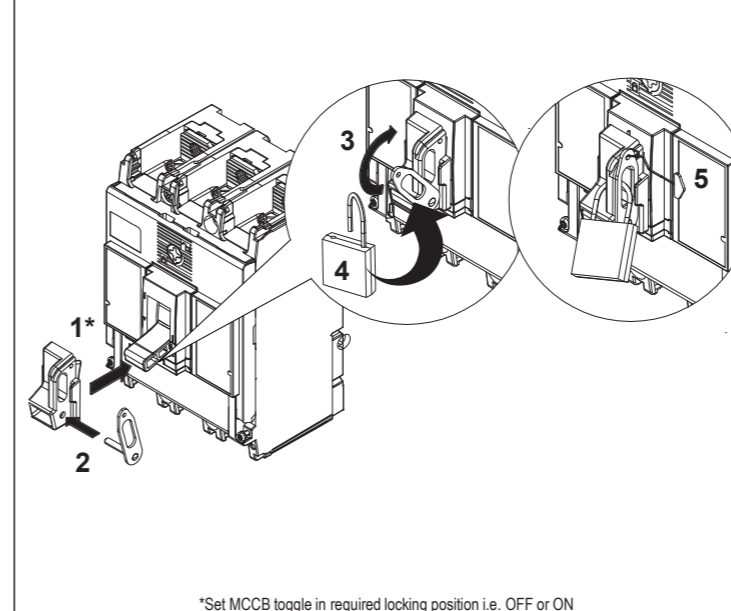
INTERPOLE BARRIER



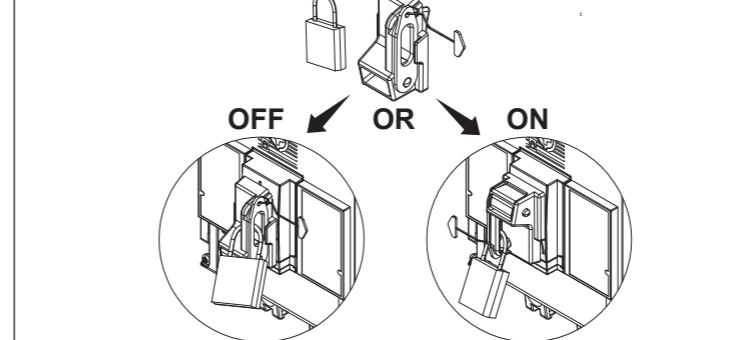
TERMINAL COVER LOCK



TOGGLE LOCK / PADLOCK ASSEMBLY PROCEDURE



TOGGLE LOCK OPTION



TIME CURRENT CHARACTERISTIC CURVE

