



EasiBreak

Switch to the cost effective circuit breaker solution

Specification

Series	EasiBreak MCCB Series				
Frame	125		250	400	
Type	EB125-NF		EB250-NF	EB400-NF	
Number of poles	1	3, 4	3, 4	3, 4	
Electrical characteristics					
Rated current (A) In at 50°C	16, 20, 25, 32, 40, 50, 63, 80, 100, 125	16, 20, 25, 32, 40, 50, 63, 80, 100, 125	125, 160, 200, 225, 250	250, 300, 350, 400	
Rated operational voltage (V) Ue	AC 50/60 Hz	240	690	690	690
	DC	—	250	250	250
Rated insulation voltage (V) Ui	690		690	690	690
Rated impulse withstand voltage (kV) Uimp	6		6	6	6
Breaking capacity (kA rms) as per IEC 60947-2 Icu (Ics = 50 % Icu)	AC220/240 V	25	50	50	50
	AC380 V	—	30	35	35
	AC400 V	—	30	35	35
	AC415 V	—	25	25	35
	AC440 V	—	25	25	30
	AC500V	—	12	22	22
	AC690V	—	5	8	16
	DC250V	—	15	40	40
Utilisation category	A		A	A	A
Suitability for isolation	NO		NO	NO	NO
CE Marking	YES		YES	YES	YES
Endurance (cycles)	Mechanical	10,000	10,000	10,000	5,000
	Electrical(440V)	5,000	5,000	5,000	1,000
Protection					
Protection against overcurrent (A)	Thermal(LTD)	Fixed	Fixed	Fixed	Fixed
	Magnetic(INST)	Fixed	Fixed	Fixed	Fixed
Connection and Mountings					
Front connection (FC)	Terminal screw	YES	YES	YES	YES
	Attached flat bar	—	—	YES(BAR)	YES(BAR)
	Solderless terminal	YES	YES	YES	YES
Rear connection (RC)	—		YES	YES	YES
Internal accessories					
Auxiliary	AX	—	YES	YES	YES
Alarm switch	AL	—	YES	YES	YES
Shunt trip	SHT	YES	YES	YES	YES
Under voltage release	UVT	—	YES	YES	YES
External accessories					
Rotary handle (variable depth)	OHH	—	YES T1HP12B	YES T1HP25X	YES T1HP40
Handle Holder	HH	YES	YES	YES	YES
Handle Lock	HL	YES	YES	YES	YES
Terminal cover (Front conn. type) *Resistance to flame / Gray color	TCF	YES	YES	YES	YES
Terminal cover (Rear conn. type) *Resistance to flame / Gray color	TCR	—	YES	YES	YES
Interpole barriers	TBA	—	YES	YES	YES
Door flange	D.F	—	YES	YES	YES
Dimension and weight					
Dimensions (mm) W x H x D	1pole or 3pole	30 x 155 x 68	90 x 155 x 68	105 x 165 x 86	140 x 260 x 103
	4pole	—	120 x 155 x 68	140 x 165 x 86	185 x 260 x 103
Handle Frame Dimensions (mm) H x W	50 x 22		50 x 22	50 x 22	90 x 62
Weight (kg)	1pole or 3pole	0.45	1.1	1.85	4.7
	4pole	—	1.4	2.4	6.1

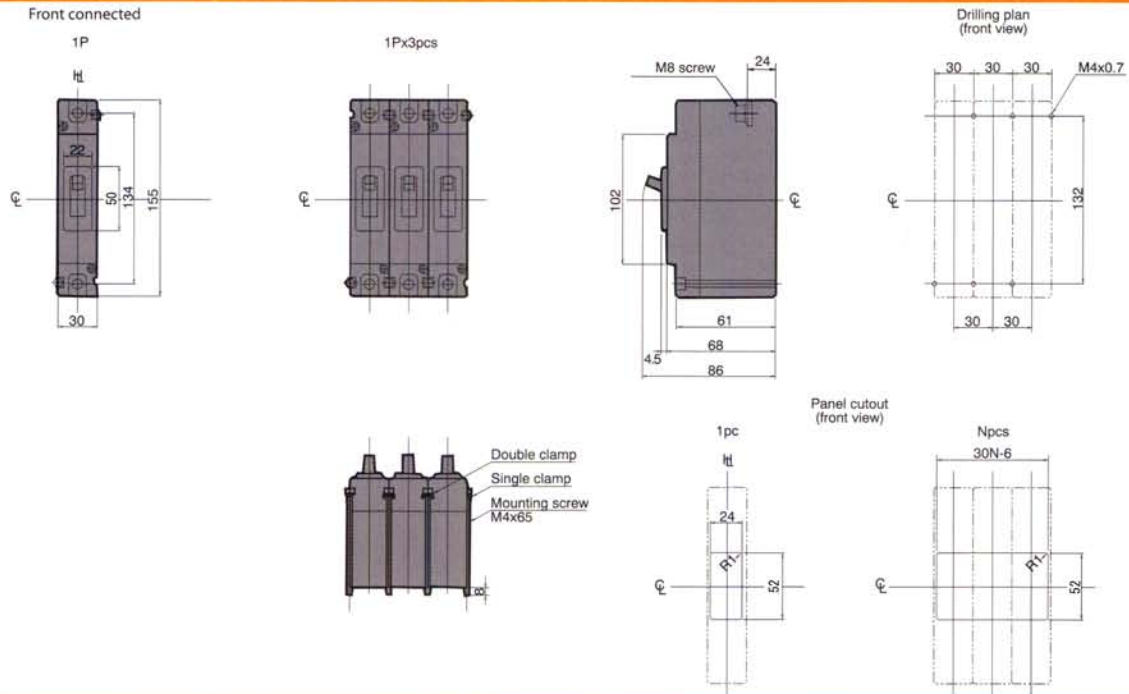
Specification

Series		EasiBreak Non-automatic Trip Series		
Frame		125	250	400
Type		EB125-NN	EB250-NN	EB400-NN
Number of poles		3, 4	3, 4	3, 4
Electrical characteristics				
Rated current (A) In		125	250	400
Rated operational voltage (V) Ue	AC 50/60 Hz	690	690	690
	DC	250	250	250
Rated insulation voltage (V) Ui		690	690	690
Rated impulse withstand voltage (kV) Uimp		6	6	6
Suitability for isolation		NO	NO	NO
CE Marking		—	—	—
Endurance (cycles)	Mechanical	10,000	10,000	5,000
	Electrical(440V)	5,000	5,000	1,000
Connection and Mountings				
Front connection (FC)	Terminal screw	YES	YES	YES
	Attached flat bar	—	YES(BAR)	YES(BAR)
	Solderless terminal	YES	YES	YES
Rear connection (RC)		YES	YES	YES
Internal accessories				
Auxiliary	AX	YES	YES	YES
Alarm switch	AL	YES	YES	YES
Shunt trip	SHT	YES	YES	YES
Under voltage release	UVT	YES	YES	YES
External accessories				
Rotary handle (variable depth)	OHH	YES T1HP12B	YES T1HP25X	YES T1HP40
Handle Holder	HH	YES	YES	YES
Handle Lock	HL	YES	YES	YES
Terminal cover (Front conn. type) *Resistance to flame / Gray color	TCF	YES	YES	YES
Terminal cover (Rear conn. type) *Resistance to flame / Gray color	TCR	YES	YES	YES
Interpole barriers	TBA	YES	YES	YES
Door flange	D.F	YES	YES	YES
Dimension and weight				
Dimensions (mm) W x H x D	3pole	90 x 155 x 68	105 x 165 x 86	140 x 260 x 103
	4pole	120 x 155 x 68	140 x 165 x 86	185 x 260 x 103
Handle Frame Dimensions (mm) H x W		50 x 22	50 x 22	90 x 62
Weight (kg)	3pole	1.1	1.85	4.7
	4pole	1.4	2.4	6.1

DIMENSIONS

ASL: Arrangement Standard Line
HL: Handle Frame Centre Line

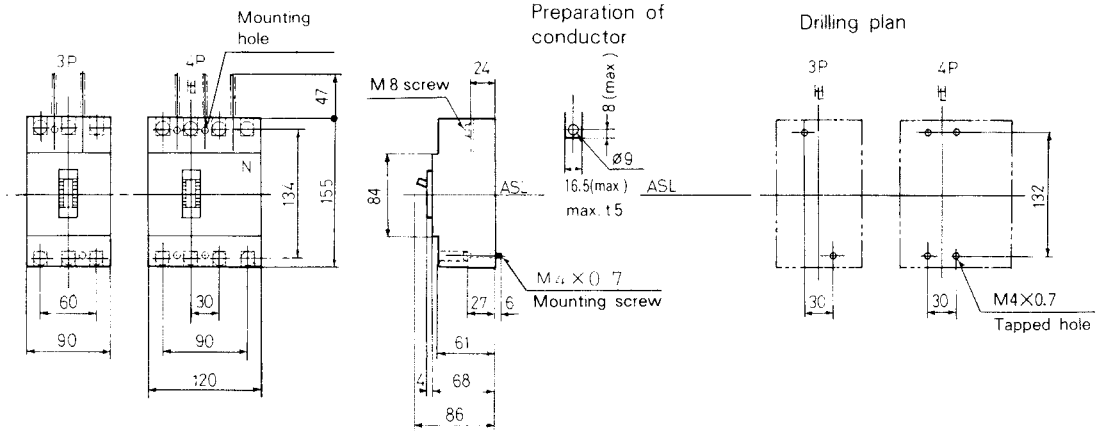
EB125-NF



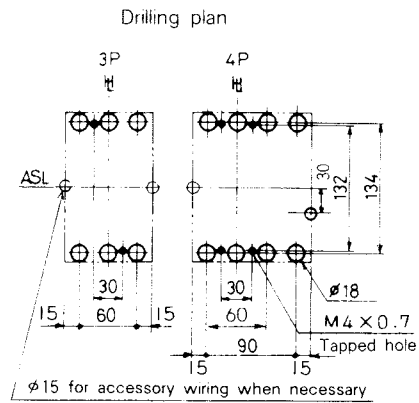
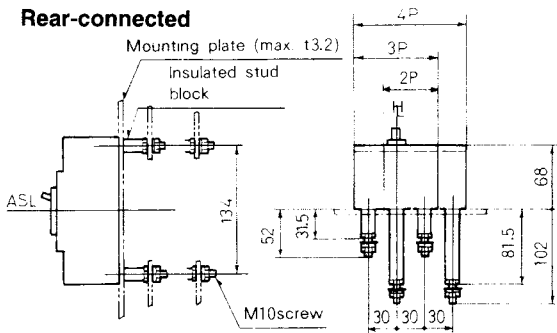
Outline dimensions (mm)

EB125-NF, EB125-NN

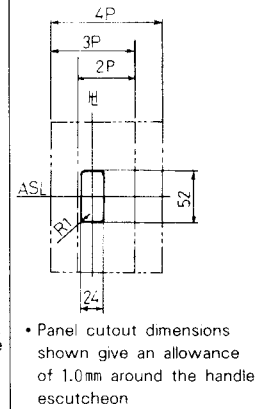
Front-connected



Rear-connected



Panel cutout



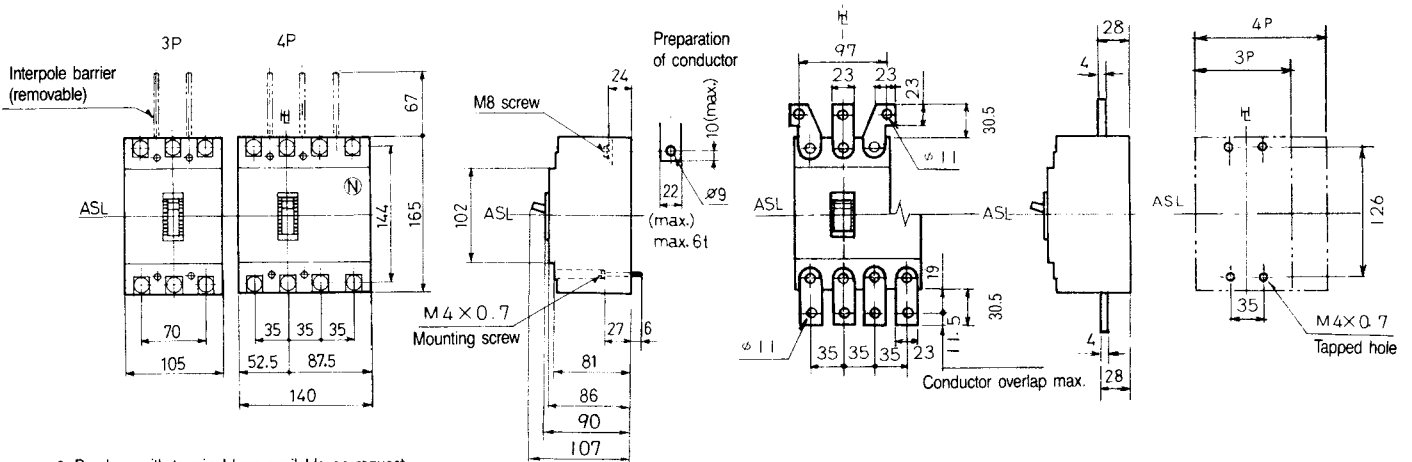
Outline dimensions (mm)

EB250-NF, EB250-NN

Front-connected

With Terminal Bars (optional)

Drilling plan

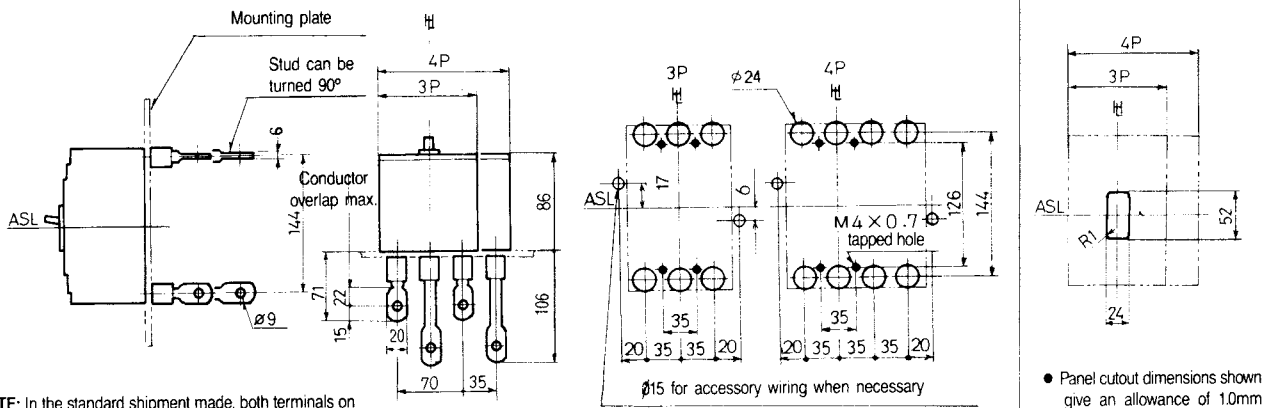


● Breakers with terminal bars available on request

Rear-connected

Drilling plan

Panel cutout



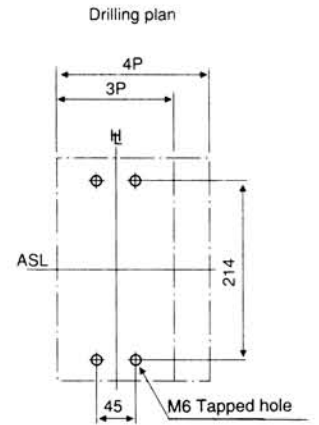
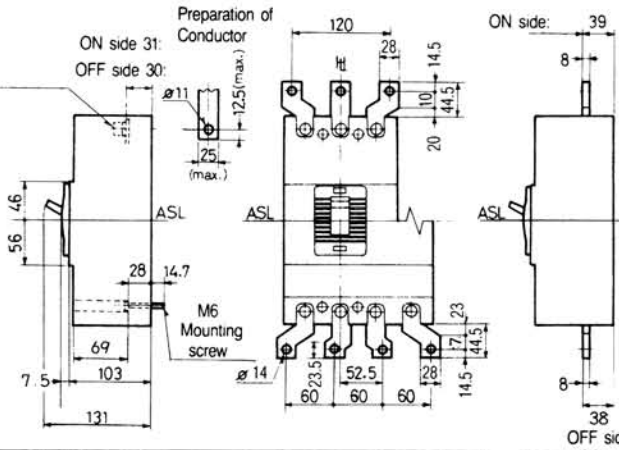
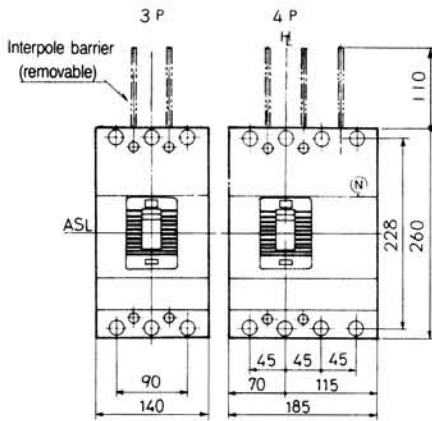
NOTE: In the standard shipment made, both terminals on the line side and the load side are in a horizontal direction.

● Panel cutout dimensions shown give an allowance of 1.0mm around the handle escutcheon

Outline dimensions (mm)

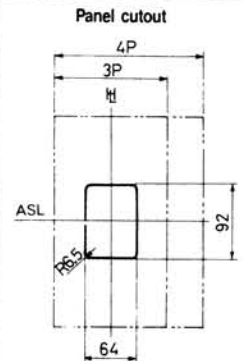
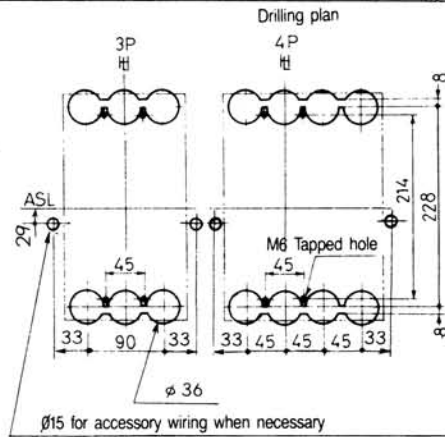
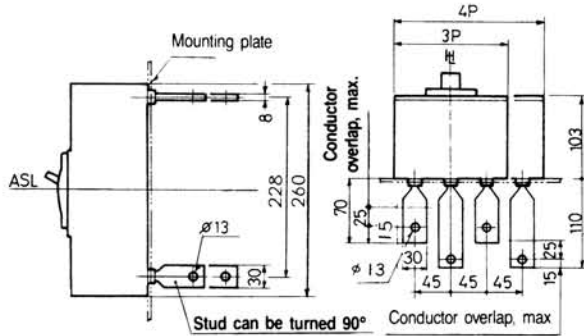
EB400-NF, EB400-NN

Front-connected



● Breakers with terminal bars available on request.

Rear-connected



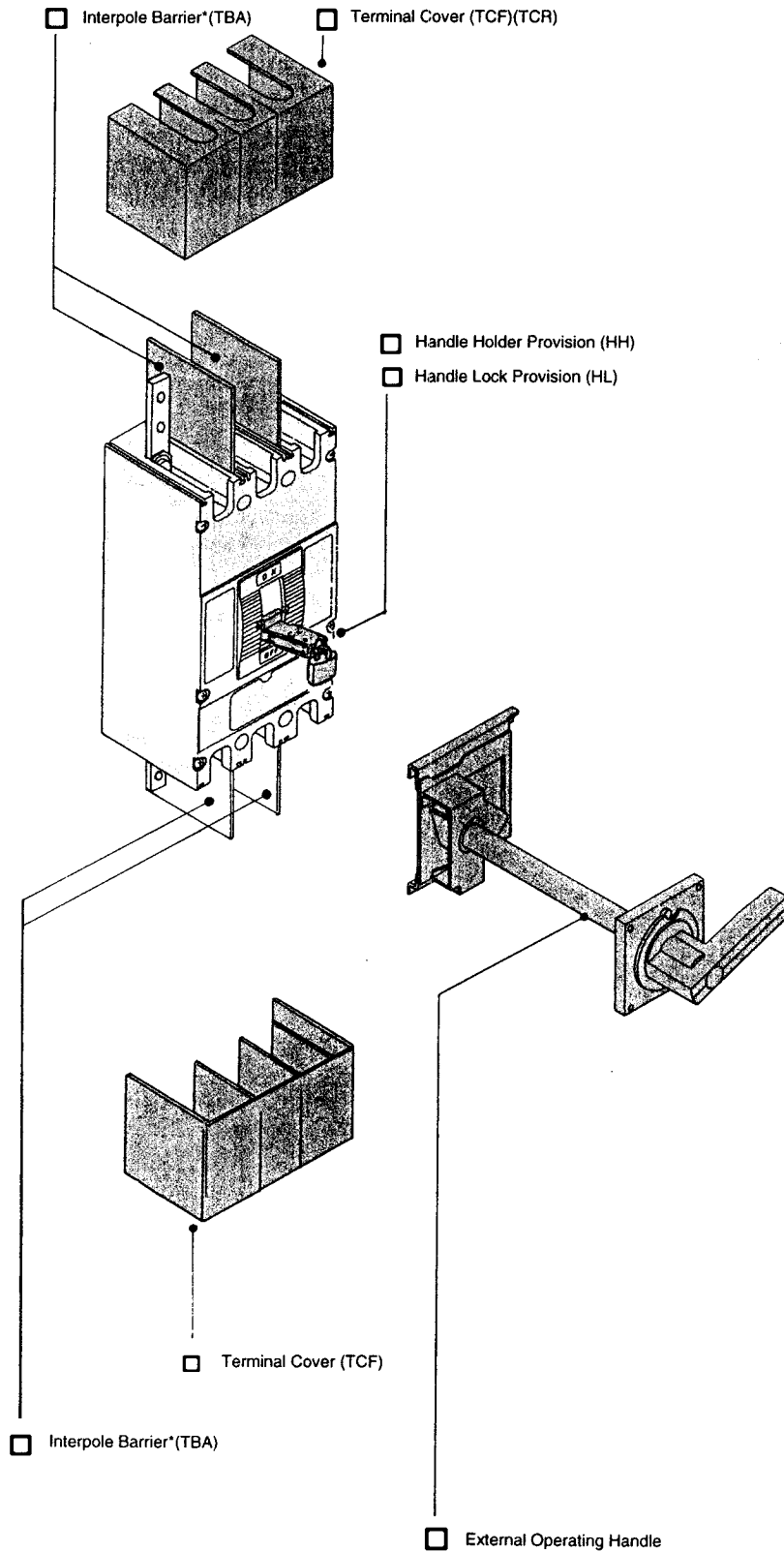
NOTE: In the standard shipment made, both terminals on the line side and the load side are in a horizontal direction.

● Panel cutout dimensions shown give an allowance of 1.0mm around the handle escutcheon.

Optional Accessories

Externally Mounted Accessories

Versatile Accessories



Optional Accessories

Externally Mounted Accessories

Versatile Accessories

- External Operating Handle**
This enables the operation of the breaker when it is installed in a switchboard or enclosure. Available in three types as follows:

Panel Mount (variable depth) Type

The external operating handle and breaker are mechanically connected by a shaft.

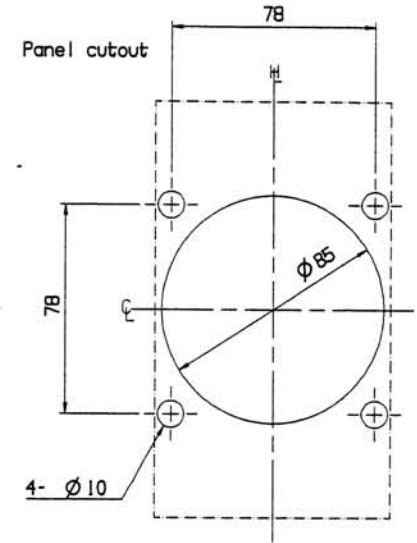
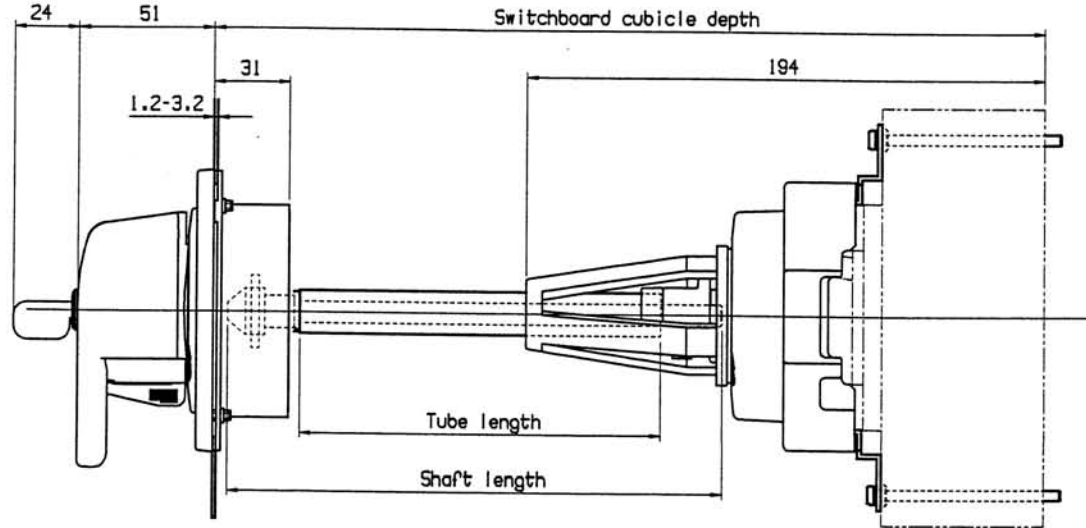
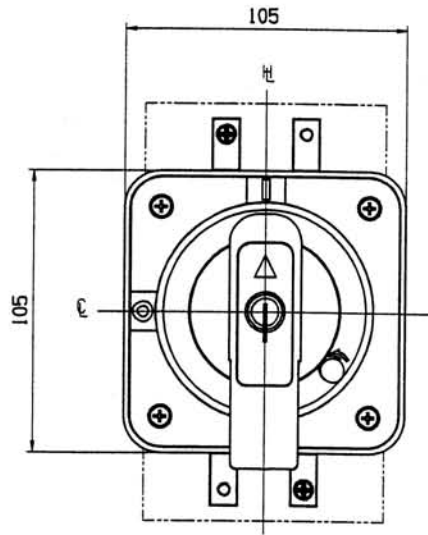
- Handle holder provision** _____ **HH**
(refer to Figure 3)*

Used when the handle is to be retained in the 'ON' or 'OFF' position. Also informs other operators that the breaker must not be turned 'ON' or 'OFF'

- Handle lock provision** _____ **HL**
To enable padlocking of the handle in the 'ON' or 'OFF' position. (Padlock not supplied).

- Terminal cover, front connection** _____ **TCF**
rear connection/plug-in type _____ **TCR**

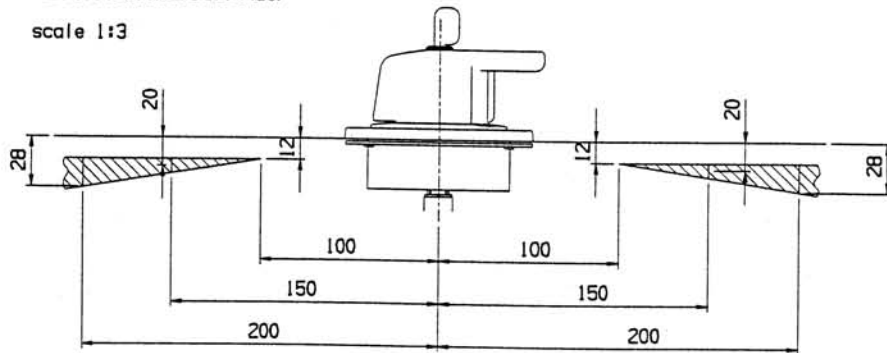
- Interpole barrier** _____ **TBA**
The interpole barriers are supplied as standard (line side only) (refer to Section 5, page 155).



Door hinge distance
Other hinge distance must be
inside the crosshatching area

クロスハッチングエリア内にヒンジを付けてください

scale 1:3

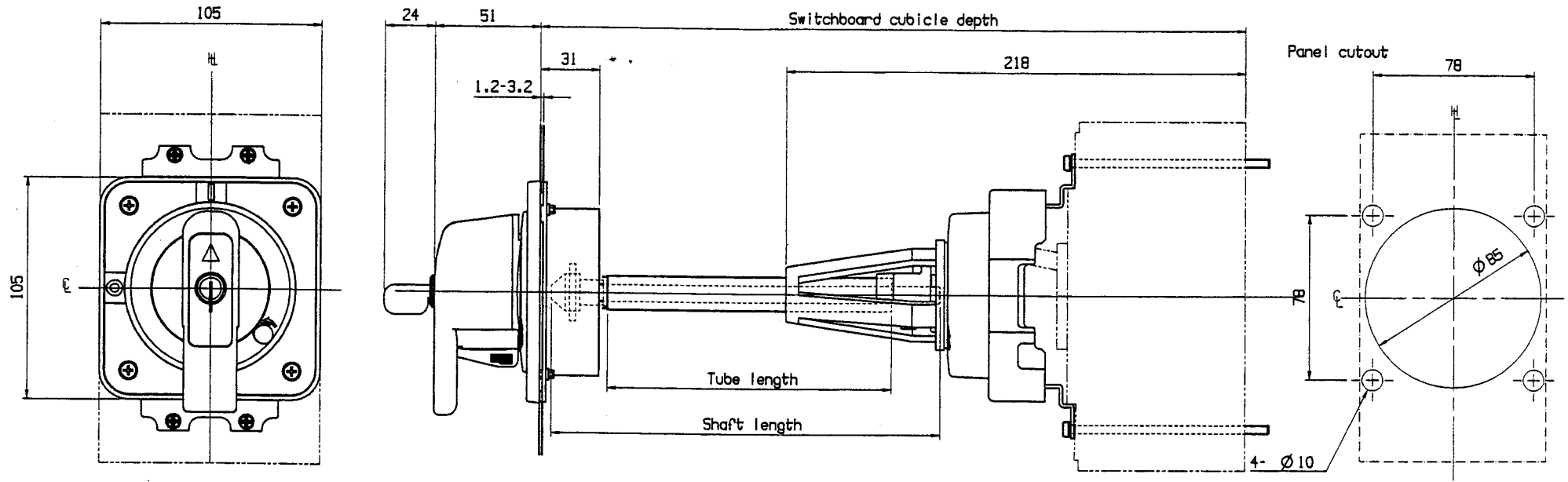


TIHP12B			
CUBICLE DEPTH ± 2	SHAFT LENGTH ± 1	TUBE LENGTH ± 1	ASS. SHAFT
233 min.	107	56	E2A03682AA1
300	174	123	E2A03682BA1
400	274	223	E2A03682CA1
500	374	323	E2A03682DA1
547 max.	421	370	

For other cubicle depth:

Shaft length = Cubicle depth - 126
Tube depth = Cubicle depth - 177

NAME	EB125-NF
	TIHP12B
DRG. NO	2H8020-1

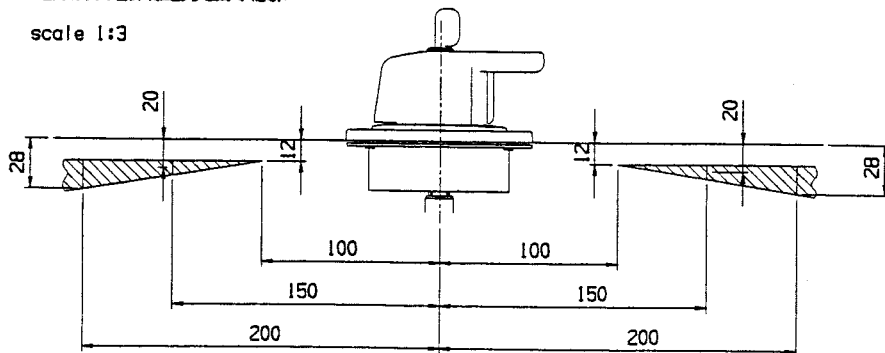


Door hinge distance

Other hinge distance must be
inside the crosshatching area

クロスハッチングエリア内ヒンジを動かしてください

scale 1:3

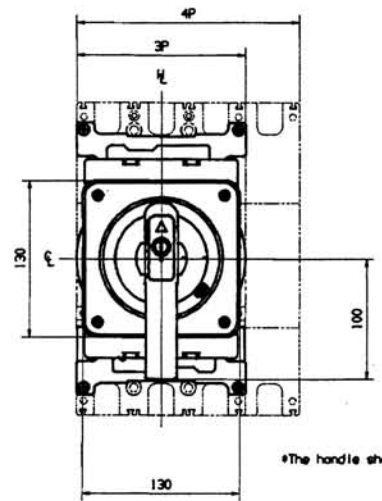


T1HP25X			
CUBICLE DEPTH ± 2	SHAFT LENGTH ± 1	TUBE LENGTH ± 1	ASS. SHAFT
257 min.	107	56	E2A03682AA1
300	150	99	E2A03682BA1
400	250	199	E2A03682CA1
500	350	299	E2A03682DA1
571 max.	421	370	E2A03682DA1

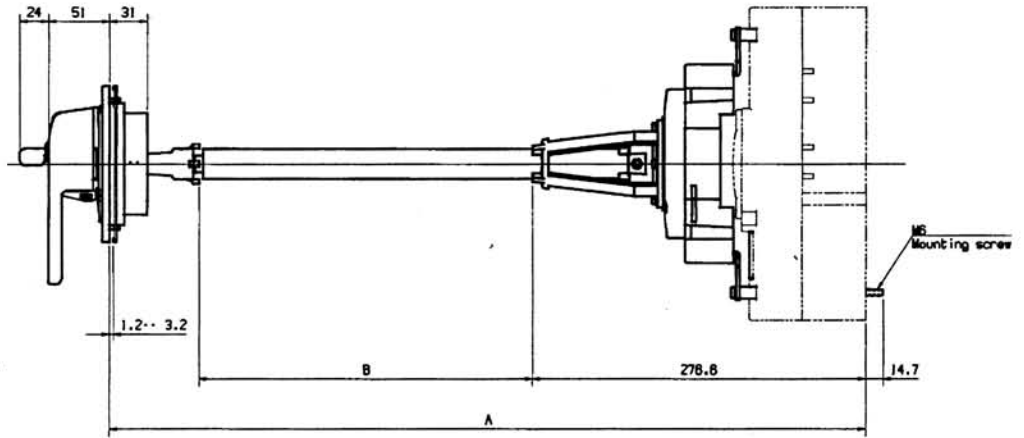
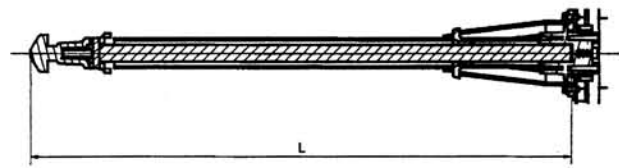
For other cubicle depth:

Shaft length = Cubicle depth - 150
Tube depth = Cubicle depth - 201

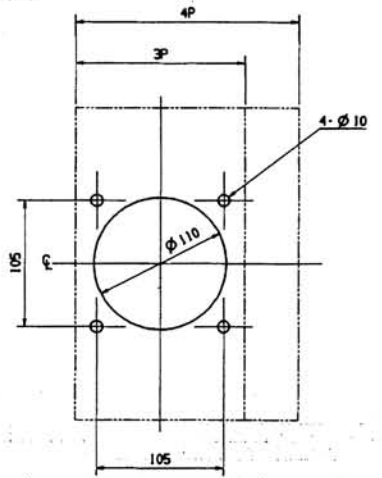
NAME EB250-NF
T1HP25X
DRG. NO 2H7915-1



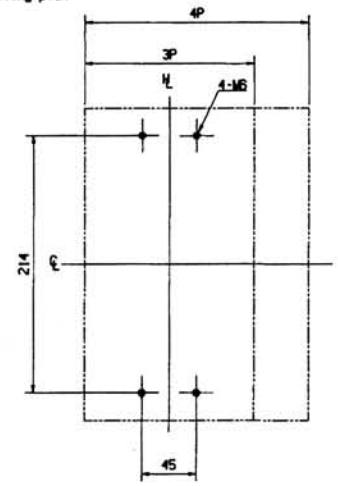
*The handle shows "ON" position



Panel cutout

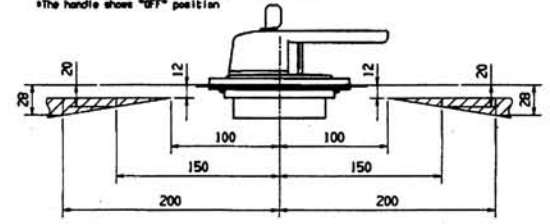


Drilling plan



APPLICABLE SHAFT	A	B	L	SHAFT SUPPORT
T2P5401	326.6	52	147.5	UNNECESSARY
T2P5402	426.6	80	247.5	NECESSARY
T2P5403	526.6	180	347.5	
T2P5404	626.6	280	447.5	

Positional relationship between the hinge and handle as viewed from the OFF side the breaker.
The hinge must be positioned in the hatched area.
*The handle shows "OFF" position



Handle Frame Centre Line

pro/sr-1420/260637/001.prt

DWG. NO.	260637-1	
TERASAKI ELECTRIC CO., LTD	DATE	26.12.'06
DR. H. Tamai	SCALE	1 : 3
CD.		
APP.		

Optional Accessories

Externally Mounted Accessories

Handle Holder (HH) & Handle Lock (HL)

Handle holder (HH)

Position the handle holder (Refer to Figure 20) onto the breaker handle. This retains the handle in the position required (ON or OFF) and also informs other would-be operators to leave the breaker in the position indicated.

Handle lock (HL)

The Handle lock (Refer to Figures 21, 22 and 23) enables the breaker to be padlocked (not supplied) in either the 'ON' or 'OFF' positions.

Handle holder and handle lock types

Frame (A)	Breaker	Handle holder	Figure No.	Handle lock	Figure No.
125	EB125-NF	TKB2S	20	TKC2S	23
250	EB250-NF	TKB3	20	XKC3	22 (ℓ = 39)
400	EB400-NF	XKC4	22 (ℓ = 58)	XKC4	22 (ℓ = 58)

NOTE: * It is necessary to make a hole on the toggle handle of the breaker. Specify handle lock (HL) at the time of ordering the breaker

Figure 22

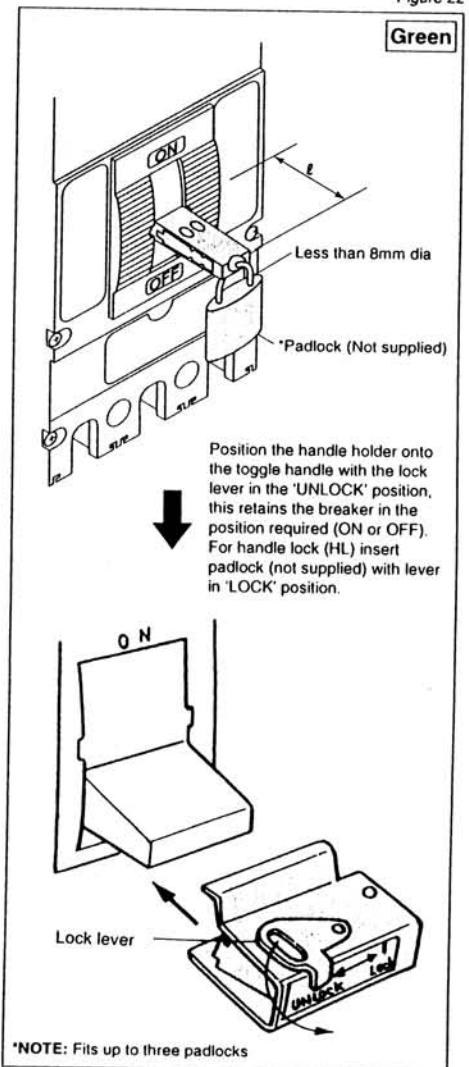
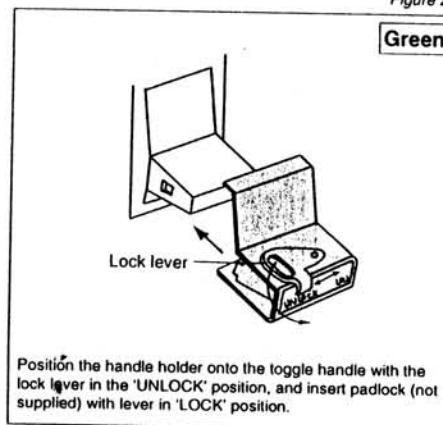


Figure 23



Optional Accessories

Externally Mounted Accessories

Terminal Cover

Terminal Cover (TCF) (TCS) (TCR)

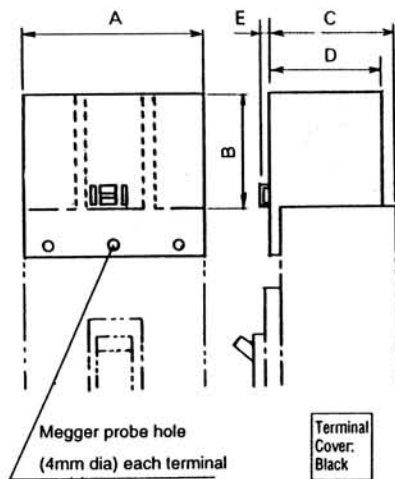
The terminal cover protects breaker terminals and other live parts from exposure. Terminal covers available for front or rear connection and plug-in types.

For front connection, Standard size terminal cover (TCF) and Small size terminal cover (TCS) are available. And both are transparent covers.

For rear connection and plug-in types, (TCR) terminal cover is available and the colour is black.

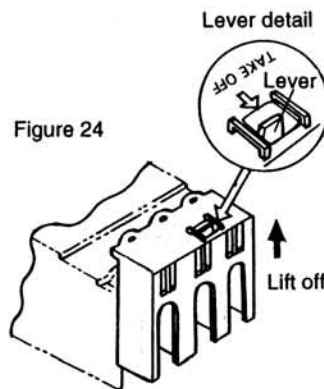
For use of the small size terminal cover (TCS), the cable end must be insulated with insulating tube or tape as the cable end is accessible due to the short length of the terminal cover.

Front-connection application (TCF)



Snap-on Cover

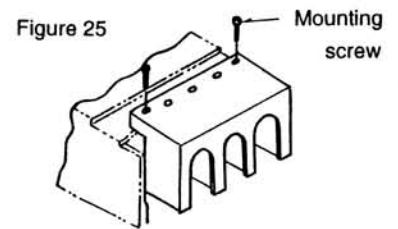
XPR Type. To install: 'snap-on' cover to breaker. To remove: press lever in direction of 'TAKE OFF' position (Refer to Figure 24).



Screw-on Cover (Refer to Figure 25)

Screw directly onto insert nuts in breaker cover. However, insert nuts are not provided as standard on breaker cover. Please specify if terminal cover (TCF) is to be used when ordering the breaker.

(Terminal barrier and combination types)



Dimensions table (mm)

Frame (A)	Breaker	Terminal cover		A		B	C	D	E	Snap-on cover	Screw-on cover	Figure No.	
		Size	Type	3P	4P								
125	EB125-NF	Standard	TPR2S-C	90	120	40	63	58.5	2.5	○	—	24	
		Small	TPT2S	90	—	2.5		62.5					
250	EB225-NF	Standard	XPR3SL-C ^{1,2}	—	105	—	81	80	2.5	○	—	24	
			XPR3S-C ¹	—	—	139							40
400	EB400-NF	Standard	TPR-4BA-C ³	—	180	240	110	99	96	3.5	—	M3	25
			TPR-4BS-C ⁴	—	145	190							

① : Use for cable below 100 mm². For use of 150mm², contact to TERASAKI.

② : Not applicable for 3 poles with optional attached bars.

③ : Applicable to MCCBs with attached bars.

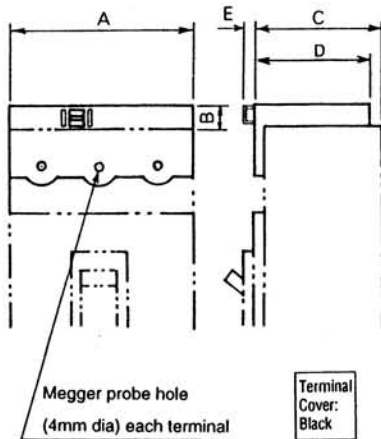
④ : Applicable to MCCBs without attached bars.

Optional Accessories

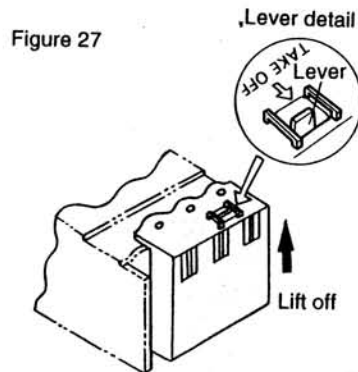
Externally Mounted Accessories

Terminal Cover

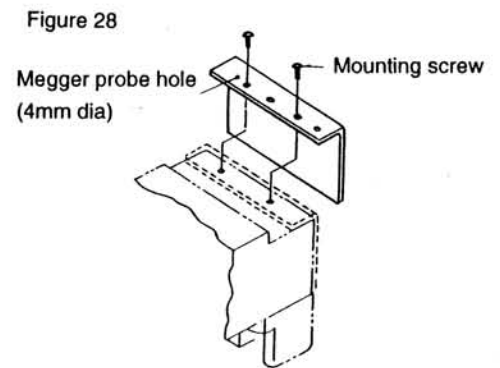
Rear-connection and Plug-in Application (TCR)



Snap-on cover
(Refer to Figure 27)
To install, 'snap-on' cover to breaker
To remove, press lever to 'TAKE OFF' position
and lift off.



Screw-on cover (Refer to Figure 28)
Screw directly onto insert nuts in breaker
cover. However, insert nuts are not provided
as standard on breaker cover. Please specify
if terminal cover (TCR) is to be used when
ordering the breaker.



Dimensions table (mm)

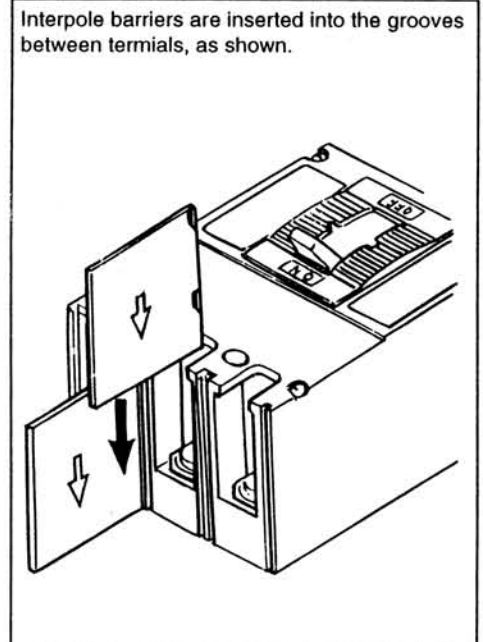
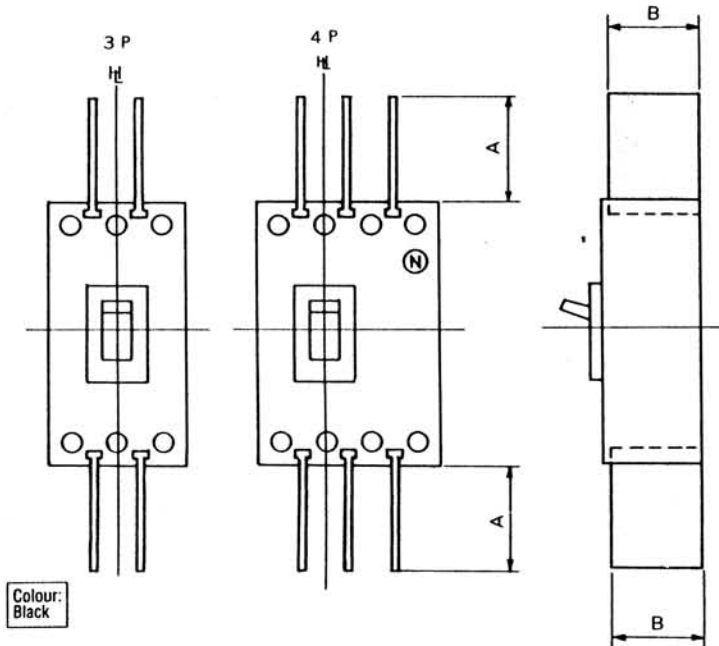
Frame (A)	Breaker	Type		A	B	C	D	E	Snap-on cover	Screw-on cover	Figure No.
125	EB125-NF	TPS2S	3P	90	2	63	62.5	2.5	○	—	27
			4P	120							
250	EB250-NF	XPS3S	3P	104	3	81.5	80.5	3	—	M2.6	28
			4P	139							
400	EB400-NF	XPS4	3P	140	3	99	98	3.5	—	M3	28
			4P	185							

Optional Accessories

Externally Mounted Accessories

Interpole Barrier (TBA)

Interpole barriers completely isolate terminals to prevent accidental short-circuiting between two or more terminals.



Dimensions table (mm)

Frame (A)	Breaker	Type	A	B
125	EB125-NF	TQQ-3CA	47	53
250	EB250-NF	XQQ2	67	77
400	EB400-NF	TQQ-5BA	110	95

NOTE: * Line side interpole barriers are supplied as standard as follows: 1 for 2-pole, 2 for 3-pole and 3 for 4-pole breakers.