

TEMBREAK MCCB ACCESSORIES

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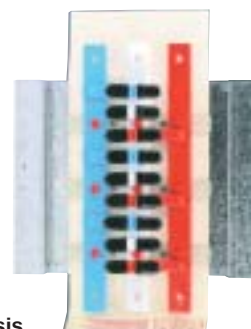
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TemWay busbar chassis assemblies

- Standard AS 3439.
- Suits TemBreak MCCBs 125-250 A.
- Top and bottom feed.
- Busbars fully insulated.

More
extensive range now
stocked



XA chassis

XA to suit XS125 MCCBs

No. Poles	Dim. C ²⁾ Height (mm)	Pan ³⁾ Height (mm)	Cat. No. ¹⁾ 400A	630A	800A
6	92	90	XA4006U	XA6306U	XA8006U
12	182	180	XA40012U	XA63012U	XA80012U
18	272	270	XA40018U	XA63018U	XA80018U
24	362	360	XA40024U	XA63024U	XA80024U
30	452	450	XA40030U	XA63030U	XA80030U
36	542	540	XA40038U	XA63038U	XA80038U
42	632	630	XA40042U	XA63042U	XA80042U
48	722	720	XA40048U	XA63048U	XA80048U
60	902	900	XA40060U	XA63060U	XA80060U
72	1082	1080	XA40072U	XA63072U	XA80072U

XB to suit XS250 MCCBs

6	107	105	-	XB6306U	XB8006U
12	212	210	-	XB63012U	XB80012U
18	317	315	-	XB63018U	XB80018U
24	422	420	-	XB63024U	XB80024U
30	527	525	-	XB63030U	XB80030U
36	632	630	-	XB63038U	XB80038U
42	737	735	-	XB63042U	XB80042U

XBS 800A Hybrid to suit XS125/XH125 & XS250 MCCBs

No. Poles	Dim. C ²⁾ Height (mm)	Pan ³⁾ Height (mm)	Tee off qty XS250	Tee off Qty XS/XH125	Cat. No. ⁴⁾
12	197	195	6	6	XBS800-B6-A6U
18	287	285	6	12	XBS800-B6-A12U
24	377	375	6	18	XBS800-B6-A18U
30	467	465	6	24	XBS800-B6-A24U
36	557	555	6	30	XBS800-B6-A30U
18	302	300	12	6	XBS800-B12-A6U
24	392	390	12	12	XBS800-B12-A12U
30	482	480	12	18	XBS800-B12-A18U
36	572	570	12	24	XBS800-B12-A24U
42	662	660	12	30	XBS800-B12-A30U

Notes: ¹⁾ XA 400 A also available in 4 pole configuration to special order

²⁾ Dimension C is length of escutcheon cut-out

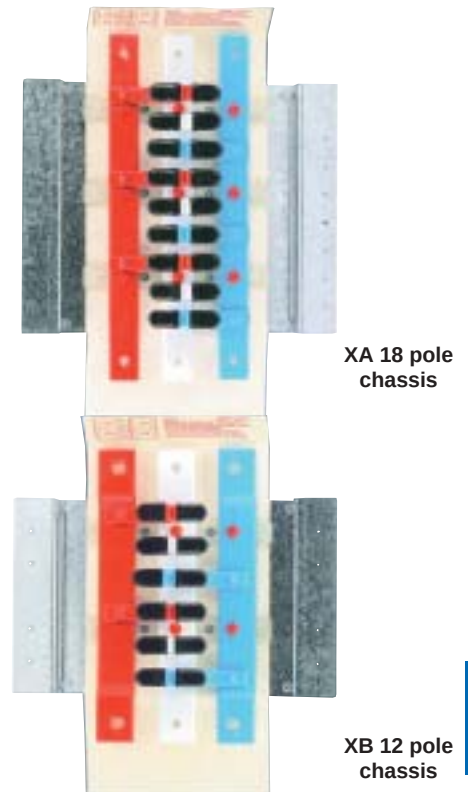
³⁾ Busbars extend 50 mm beyond length of pan top and bottom

⁴⁾ XBS chassis to suit XH250 MCCBs also available to special order. XA, XB, XBS chassis are available in single sided configuration refer NHP.

TemWay chassis assemblies

TemWay chassis assemblies are designed to suit TemBreak circuit breakers. The busbars are fully dipped and type tested. Chassis are suitable for all MCCBs between 125A frame and 250A frame. Refer table below for details.

Pole	Height ¹⁾ (mm)	Cut out width	Width dimen.	Cat. No.
6	90	104	339	XA400/6U
12	180	104	339	XA400/12U
18	270	104	339	XA400/18U
24	360	104	339	XA400/24U
30	450	104	339	XA400/30U
36	540	104	339	XA400/36U
42	630	104	339	XA400/42U
48	720	104	339	XA400/48U
60	900	104	339	XA400/60U
72	1080	104	339	XA400/72U
6	105	104	349	XB630/6U
12	210	104	349	XB630/12U
18	315	104	349	XB630/18U
24	420	104	349	XB630/24U
30	525	104	349	XB630/30U
12	245 ²⁾	104	349	XC1000/12U
18	335 ²⁾	104	349	XC1000/18U
24	425 ²⁾	104	349	XC1000/24U
30	515 ²⁾	104	349	XC1000/30U
36	605 ²⁾	104	349	XC1000/36U
42	695	104	349	XC1000/42U
48	785	104	349	XC1000/48U



Standard
fitted
busbar

Optional busbars

XA - chassis	630 amp bars	400A
XA - chassis	3 phase and neutral	-
XB - chassis	800 amp bars	630A
XC - chassis	800 amp bars	1000A

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Chassis technical details Various size main busbars are available to provide a range of kA ratings.

Chassis Style	Amps	kA	Suit MCCB
XA	400	31.5 for 1 sec	XS125CJ, CS, NJ, NS ³⁾
	630	31.5 for 1 sec	XS125CJ, CS, NJ, NS ³⁾
	800	35 for 1 sec	XS125CJ, CS, NJ, NS ³⁾
XB	630	31.5 for 1 sec	XS250NJ
	800	31.5 for 1 sec	XS250NJ
	800	35 for 0.5 sec	XS250NJ
XC	1000	50 for 1 sec	XS/XH125, XH160PJ, XS/XH250NJ

- Ordering:**
- 1) XA Chassis accept 125A breakers, while XB types accept 250A. If required, combinations of the two chassis can be made to order, that accept a mix of 125A and 250A MCCBs on the one chassis. A combination chassis is called an "XBS".
 - 2) An XC Chassis is rated at 50kA. These are made to order only, as the breakers to be mounted need to be specified. The MCCBs can be all 125A, or all 250A. While a version with a mix of 125A and 250A Tee-Offs is called an "XCS".
 - 3) XA, XB and XC Chassis can also be fitted with non-standard sized main busbars. See table above.

Notes:

- ¹⁾ Height dimensions approximate only. For cut out details and exact dimensions refer to NHP drawing No. XSC007. Terminals extend 50mm beyond dimensions shown. Overall depth including MCCB: 123mm.
- ²⁾ Dimensions shown for XS125 only. Refer to drawing No. XSC010 for full details for XH250 and XS400 MCCB's.
- ³⁾ XS-125CS and XS-125NS are single pole breakers and are 30mm wide.

Special models available on fast track delivery, eg:

- XC - 1000 with one 400A feeder circuit. (400A MCCB Tee-offs)
- 4 pole XA chassis
- Hybrid XA + XB chassis
- XC chassis

Cross reference table

	Section
MCCB selection	5
Detailed dimensions	8

MHC modular high current chassis

The MHC chassis is a compact, economical and space saving design for main and distribution switchboards.

The MHC enables designers to use high performance Terasaki moulded case circuit breakers in lieu of more traditional CFS unit stacks.

The MHC has been completely designed, developed and manufactured in Australia by NHP to suit local conditions.

All circuit breakers are REVERSE FED as standard enabling MCCBs to vent unimpeded.

MHC offers compact size, safety, versatility and economy.

Versatility:

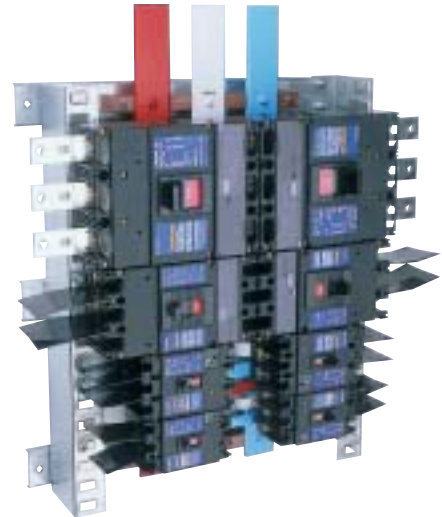
MHC offers a choice of front or rear connection.

Test:

MHC has been short circuit tested and will withstand a short circuit of up to 50/65kA for 1 second. Contact NHP for configuration details.

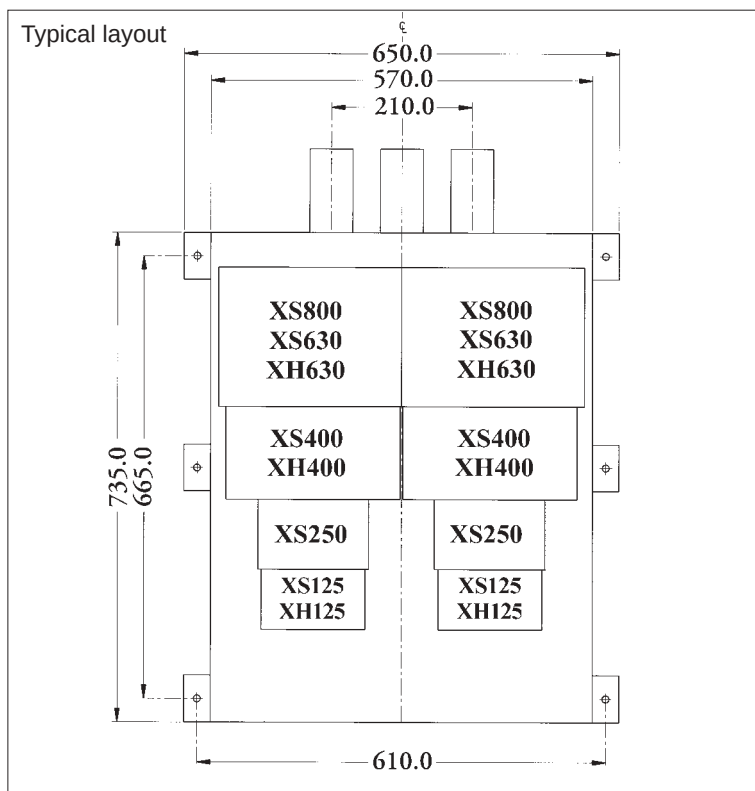
Current carrying capacity:

The MHC chassis has been successfully tested at Queensland University of Technology. The MHC main busbar has a full load rating of 1400-1600 amperes, or 2000A if rear connected.



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MHC chassis assemblies



Refer to NHP for
single sided & 65kA
MHC chassis types

Dimension:

The dimensions shown are in millimetres. To calculate the size of chassis required, match the breakers to be used against the number of unit modules shown above then select next nearest larger assembly from accompanying price list, eg. above space required is 15.5 unit modules, next nearest standard size is MHC 18 unit modules. Layout forms are available to assist with determining dimensions.

Note: Dimensions shown apply to standard type only. For information on special designs, such as form 2 and 3 segregated breakers behind individual doors, centre feed, or dual feed type please enquire at your nearest NHP office or agent.

Cross reference table

Cross reference table	Section
MCCB selection	5
Detailed dimensions	8

Standard MHC chassis assemblies

Refer to table 1. to determine space required in module units and "tee-offs" required.

Refer Section 8 for dimensions.

Table 1. Tee-offs only ¹⁾

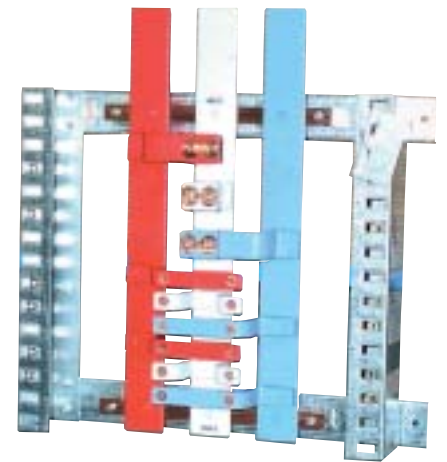
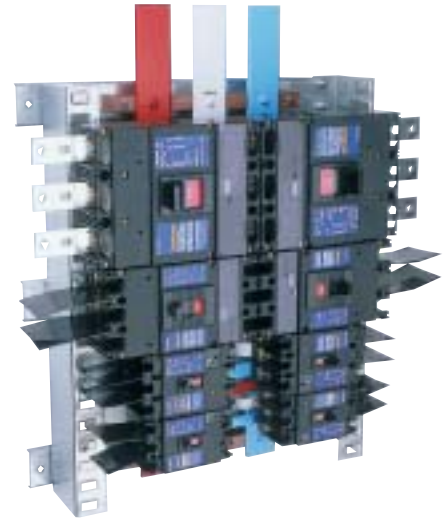
Breaker frame size	Space required in mod. units ²⁾ ⁸⁾	No. of breakers per tee-off	Maximum ³⁾ current rating
125A	2.5u	2	250A
250A	3u	2	500A
400A	4u	2	800A
630-800A	6u	2	1250A
1250A	6u	1	1250A

Table 2. MHC pan assembly and busbar

Size in modular units	Height (mm) ⁴⁾ units	Width (mm) ⁵⁾ units	Depth (mm) ⁶⁾ units	Cat. No.
12u ⁷⁾	650	570	238	MHC...../12
18u	860	570	238	MHC...../18
24u	1070	570	238	MHC...../24
30u	1280	570	238	MHC...../30
36u	1490	570	238	MHC...../36
42u	1700	570	238	MHC...../42

Notes: ¹⁾ Centre feed - RC 2000A Ratings: 1400A Main bars: 65kA/1 sec or at 2000A if rear connected. .
²⁾ Only circuit breakers with the same number of modular units can only be mounted opposite each other.
³⁾ Rated @ 40°C.
⁴⁾ Height includes 125mm busbar overhand at the top of chassis.
⁵⁾ Chassis width 570mm (less mounting feet), overall width 650mm.
⁶⁾ Depth 238mm with breakers fitted - 135mm less breakers.
⁷⁾ Not suitable for centre feeding.
⁸⁾ 1 module = 35mm.
 250A = 3 modules.
 125A frames are 90mm and are 2.5 modules approx..
 Full length fibreglass screen. (incl. fitting - all sizes).
 Please specify when ordering.
 Spacer kits are not supplied for spare "spaces" and must be ordered.
 Circuit breakers are reverse fed - as standard.
 Horizontal mounting please specify when ordering.
 Special spacers are required.
 Special modified terminal cover for MCCB's available.
 Layout drawing on an approved form must accompany order.

Options: Dual feed, split tariff segregation barrier 35mm or 70mm.



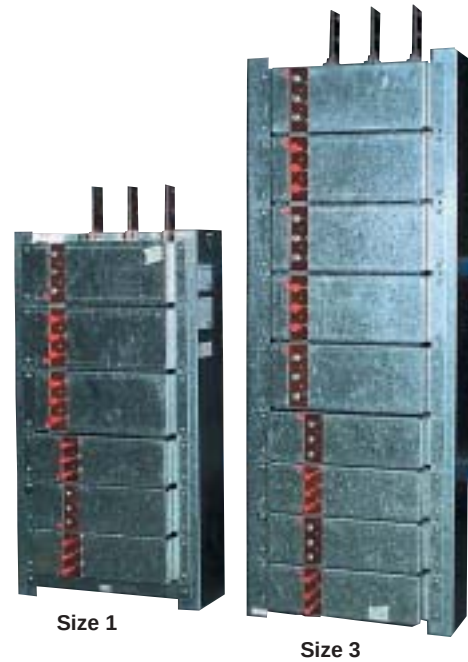
UHC chassis – 415/1000V rated

The Hi-Tem UHC chassis is designed to suit TemBreak MCCB's up to 1100V. The UHC chassis has two short circuit withstand ratings being 50kA or 63kA. The thermal rating varies according to the type of connection and the ambient temperature (see table below for details). The chassis can be mounted vertically or horizontally.

The design lends itself to Form 2 switchboard construction. MCCBs are mounted in a single stack formation with all MCCB toggles aligned. Connection tags are provided as standard which allows connection to the top, bottom or rear of the chassis.

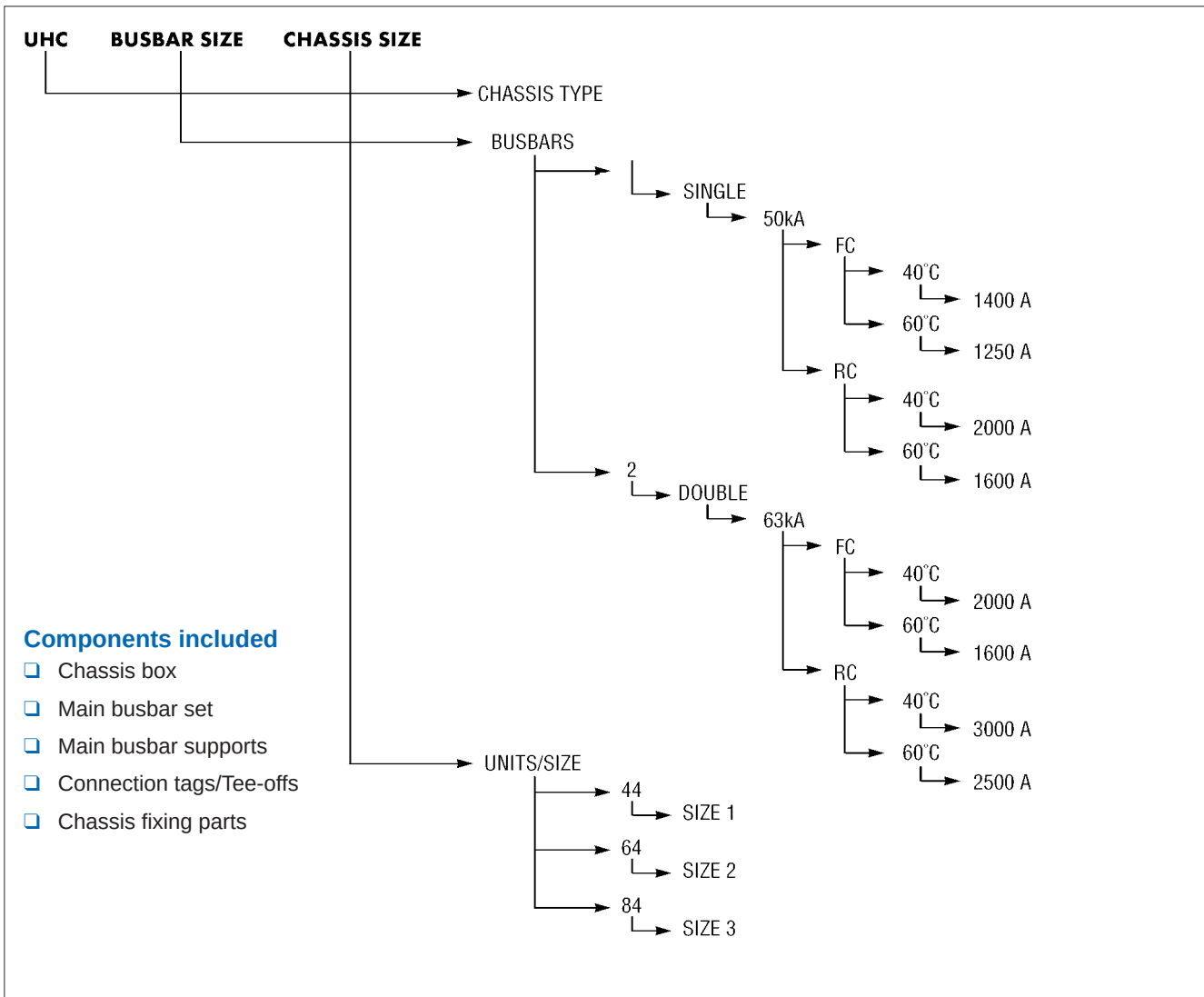
Features include:

- ❑ 400/415V or 1000V AC utilisation ratings
- ❑ A choice of 50kA or 63kA rated busbars
- ❑ Single tier construction – all MCCB toggles aligned
- ❑ Rear, top or bottom mains connection options
- ❑ Modular construction
- ❑ Fast delivery from stock components
- ❑ Suits 125A – 1250A MCCB's
- ❑ Strömberg Load Break Main Isolator option
- ❑ Best suited to Form 2 switchboard construction



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Step by Step Selection Chart

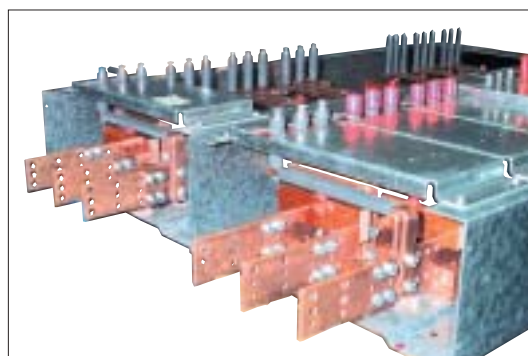


UHC chassis – 415/1000V rated

Ordering & understanding “unit” sizes

When selecting UHC (and MHC) chassis, a major part of selecting a chassis, is on the basis of what size and how many breakers are to be mounted – or even the number of positions to be left as spares for future use. As each breaker occupies a certain amount of chassis space, a system of allocating each MCCB frame size, a certain number of “units” has been devised to allow easy chassis selection.

For example: A chassis is required that can mount 5 x 800A, XS800SE MCCBs. The table below shows that Five (5) 800A MCCBs will occupy 60 units of space (5 x 12U = 60U). The table shows a size 1 chassis as being able to accept 44 units total. Therefore, to fit 5 x 800A MCCBs, a size 2 chassis will have to be selected which allows 64 units of MCCBs. The remaining unused units on the size 2 chassis will be supplied with covers. Other criteria includes kA rating, type of connection required, voltage rating.



UHC chassis showing Tee-Offs and main connect tags.

Withstand rating for 1 sec	Unit size	Dimensions (mm)		
		Height	Width	Depth ³⁾
50	44	930	500	330
	64	1330	500	330
	84	1730	500	330
63	44	930	500	330
	64	1330	500	330
	84	1730	500	330

Tee-offs

Frame	Frame amps	Unit space required	Height (mm)
TL100EM	100	6U	120
XS/XH125	125	6U	120
XS250	250	6U	120
XH250 and XH160PJ	250	6U	120
XV/XS/XH400 and XH250PJ	400	8U	240
XV/XS/XH630/800	630/800	12U	240
XV/XS1250	1250	15U	300

Busbar ratings

Nominal thermal ratings amps

Model	Open ventilated 40 °C		Enclosed non-ventilated 60 °C		Withstand 1 sec
	Front connect	Rear connect	Front connect	Rear connect	
UHC1 ²⁾	1400	2000	1250	1600	50kA
UHC2 ²⁾	2000	3000	1600	2500	63kA

Options

End covers.

Incoming isolator fitted 1250A or 1600A.

Terminal flags (sets) UHC1 ¹⁾.

Terminal flags (sets) UHC2 ¹⁾.

Tech data

Dimensions

Section

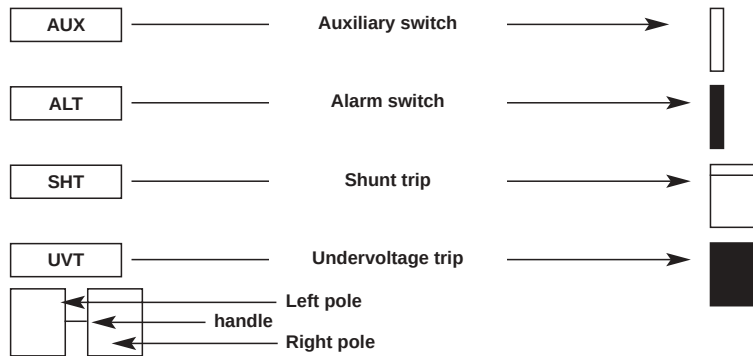
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Notes: ¹⁾ Specify front or rear connection.

²⁾ Basic chassis assembly less tee-offs.

³⁾ The ‘Depth’ dimension includes the MCCB. This dimension is the same irrespective of the MCCB.

TemBreak standard combinations of internally mounted accessories



6

UVT rating

- A. Inst type**
 AC 100 - 120V
 AC 200 - 240V
 AC 380 - 450V
 DC 24V
 DC 48V
 DC 60V
 DC 100 - 115V
 DC 200 - 230V

- B. Time delay type**
 AC 100 - 120V
 AC 200 - 240V
 AC 380 - 450V

SHT rating

- AC 100 - 115V
 AC 200 - 480V
 AC 24V
 AC 48V
 DC 12V
 DC 24V
 DC 30V
 DC 48V
 DC 60V
 DC 100 - 115V
 DC 125V
 DC 200 - 230V

	XM30PB XS30NB	XS125CJ XS125NJ XH125NJ XS125NN XH125PJ TL100NJ TL30F	TL100F TL100EM	XH160PJ XS250NJ XH250NJ XE225NC XE250NN	XH250PJ XH400PJ XH400PE XS400CJ/NJ XV400NE XS630CJ/NJ/PJ XH/XS630SE XV630NE XS800NJ/PJ XV800NE XH/XS800SE XS1250SE XV1250NE XS1600SE TL250NJ TL400NJ TL630NE TL800NE TL1250NE XS400NN XS630NN XS800NN XS1250NN XS1600NN	XS2000NE XS2500NE XS2000NN XS2500NN
AUX						
ALT						
SHT						
UVT						
AUX ALM						
AUX SHT						
AUX UVT						
ALT SHT						
ALT UVT						
AUX ALT SHT						
AUX ALT UVT						

Note: Available on indent only.

Accessories to suit XM30PB

Description

Cat. No.

Internal accessories

Shunt trip	110 V AC SHT (100 - 115 V)	2H1931BAA
	240 V AC SHT (200 - 480 V)	2H1931BBA
	24 V DC SHT	2H1931BCA
	48 V DC SHT	2H1931BDA
	110 V DC SHT (100 - 115 V)	2H1931BEA
	24 V AC SHT	2H1932BAA
	48 V AC SHT	2H1932BBA
	12 V DC SHT	2H1932BDA
	125 V DC SHT	2H1932BGA
	200 V DC SHT (200 - 230 V)	2H1932BHA
Auxiliary switches	AUX SW right/left hand 1C	UXXB0001C
	AUX SW right/left hand 2C	UXXB0003C
Alarm switches	Alarm SW right/left hand	UXLB0006C
Alarm & auxiliary switches	Alarm/AUX SW right/left hand 1C	UXLB0008C



Shunt trip



Alarm/auxiliary switch

External accessories

Solderless terminals	3P solderless terminals (6)	TXBD0009A
Rear connect studs	3P rear connect studs (6)	UXRC0005A
Handle operators	Variable depth handle, door interlocking	XFHA1B
	IP 55 direct mount rotary handle ¹⁾	TFJ21PB
Handle locks	Handle lock	UXKH0009A
	Lock plate	UXKE0030A
	Key interlock (L&F type) incl TFJ mechanism	-
TemPlug	3P Templug	UPX330PB

Note: ¹⁾ Flush plate included.

Accessories to suit 125AF, TL30F, TL100NJ

Description

Cat. No.

Internal accessories

Shunt trip (1 pole)	100-440 V AC / 48-250 V DC 1 P SHT	UXVC0001C
Shunt trips (2, 3, 4 pole)	110 V AC SHT (100-115 V)	2H1935BAC
	240 V AC SHT (200-480 V)	2H1935BBC
	24 V DC SHT	2H1935BCC
	48 V DC SHT	2H1935BDC
	110 V DC SHT (100-115 V)	2H1935BEC
	24 V AC SHT	2H1936BAC
	48 V AC SHT	2H1936BBC
	12 V DC SHT	2H1936BDC
	200 V DC SHT (200-230)	2H1936BHC
Undervoltage trips	AC coil ¹⁾	2H1947BAC
	24 V DC coil ²⁾	2H1947BBC
	100-230 V DC coil ²⁾	2H1947BCC
	48 V DC coil ²⁾	2H1948BAC
	60 V DC coil ²⁾	2H1948BBC
	110 V AC instantaneous controller	UXUB0013B
	240 V AC instantaneous controller	UXUB0014B
	440 V AC instantaneous controller	UXUB0015B
	110 V AC time delay controller	UXUB0016B
	240 V AC time delay controller	UXUB0017B
Auxiliary switches	440 V AC time delay controller	UXUB0018B
	200-230 V DC controller	UXUB0037B
	AUX SW right hand 1 C / 3 P	UXXB0019D
	AUX SW right hand 2 C / 3 P	UXXB0020D
	AUX SW right hand 1 C / 4 P	2H2383DAA
Alarm switches	AUX SW right hand 2C / 4P	2H2384DAA
	AUX SW left hand 1C	UXXB0026E
	AUX SW left hand 2C	UXXB0027E
	ALT SW right hand / 3P	UXLB0001E
Alarm & auxiliary switches	ALT SW right hand / 4P	2H2385DAA
	ALT SW left hand	UXLB0027E
	ALT/AUX SW right hand 1C / 3P	UXLB0003E
	ALT/AUX SW right hand 1C / 4P	2H2387DAA
Extra low or high magnetic trip	ALT/AUX SW left hand 1C	UXLB0028E
	Special selectivity, generator or marine applications	-

Note: Refer page 6 - 11 for footnotes.



Under voltage trip



UVT controller



XS125CS/20A
with shunt trip fitted



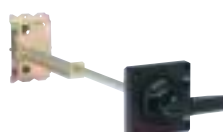
Alarm switch



Solderless terminal



Accessory lead
terminal



XFH Handle operator



Alarm & auxiliary
switch

Accessories to suit 125AF, TL30F, TL100NJ

Description		Cat. No.
External accessories		
Attached busbar	3P attached busbars (6 in kit)	TRED0001
Solderless terminals	3P solderless terminals (6 in kit) ⁸⁾	TXED0005A
	4P solderless terminals (8 in kit) ⁸⁾	TXED0006A
Rear connect studs	3P rear connect studs (6 in kit)	UXRC0011A
	4P rear connect studs (8 in kit)	UXRC0012A
Motor operators	110 V AC motor	UXMB0041C
	240 V AC motor	UXMB0057B
	110 V DC motor	UXMB0061C
Mechanical interlocks	3P rear mech l/lock	UXKB0017B
	4P rear mech l/lock	UXKB0018B
Handle operators	Variable depth handle, door interlocking	XFHA22
	IP 65 rated variable depth handle, door interlocking	TLKA22
	IP 55 direct mount rotary handle ³⁾	TFJ22XU
Handle locks	Handle lock	UXKB0013A
	Key interlock (L&F type) incl TFJ mechanism	-
	Padlock attachment ⁴⁾	XKA2
	Resin for XKA2	LOCTITE 480 RESIN
Terminal covers - front connect	3P FC terminal cover	2H1407DAA
	4P FC terminal cover	2H1408DAA
	IP 20 protection cover ⁵⁾	2A1785DAA
	Seal plate ⁶⁾	2H1406DAA
Terminal covers - rear connect	3P RC terminal cover	UXPD0031A
	4P RC terminal cover	UXPD0032A
Plug-in breaker parts 3 pole ⁹⁾	Terminal and bolt	UXYD0007A
	Insulation plate	UXYE0005A
	AUX conn. block (MCCB side)	UXYC0013A
	3P tulip blocks (6 in kit)	TXED0010A
	3P mounting base	XDM2-3
Plug-in breaker parts 4 pole ⁹⁾	Terminal and bolt	UXYD0007A
	Insulation plate	UXYE0005A
	AUX Conn. block (MCCB side)	UXYC0013A
	4P tulip blocks (8 in kit)	TXED0011A
	4P mounting base	XDM2-4
TemPlug	3P TemPlug	UPX3125
Interpole barrier	The part number is for 1 interpole barrier only ⁷⁾	UXQH0002A
OCR sealing kit	OCR sealing kit	XS1250CRSK
Pole fillers	For use with metal escutcheon covers	XAB2
Earth leakage block	Add-on earth leakage block with pre-trip alarm contacts	ELB125A
Adapter kit for TO400 chassis	Order one kit per breaker	TO400XS125

- Notes:**
- ¹⁾ An AC UVT controller is required for 100-440 V AC.
 - ²⁾ A DC UVT controller is needed for 200-230 V DC operation. None required for 24-110 V DC.
 - ³⁾ Flush plate included.
 - ⁴⁾ Captive type. Resin fixing.
 - ⁵⁾ 6 pieces required for 3P / 8 pieces required for 4P.
 - ⁶⁾ Specify qty required (up to 2 pieces).
 - ⁷⁾ A total 4 individual barriers for 3P, and 6 barriers required for 4P.
 - ⁸⁾ Factory fit only.
 - ⁹⁾ Not suitable for TL100NJ types.



Attached busbar



Screw Tunnel Terminals (Solderless terminals)



Rear connect studs



Plug in tulip blocks



Plug in base



UXMB motor operator



Rear interlock

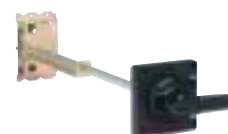
Accessories to suit 225AF (XE225NC)

Description		Cat. No.
Internal accessories		
Shunt trips (2, 3, 4 pole)	110 V AC SHT (100 - 115 V)	2H0153CAB
	240 V AC SHT (200 - 480 V)	2H0153CBB
	24 V DC SHT	2H0153CCB
	48 V DC SHT	2H0153CDB
	110 V DC SHT (100 - 115 V)	2H0153CEB
Auxiliary switches	AUX SW right hand 1C	2H0156CAB
	AUX SW right hand 2C	2H0156CBB
	AUX SW left hand 1C	2H1613BAA
	AUX SW left hand 2C	2H1613CBA
Alarm switches	ALT SW right hand	2H0157CAB
Alarm & auxiliary switches	ALT/AUX SW right hand 1C	2H0157CBB
External accessories		
Attached busbar	3P attached busbars (6)	7B3BA1B
Solderless terminals	3P solderless terminals (6)	2A1818CAA
Rear connect studs	3P rear connect studs (6)	2H1081CAA
Mechanical interlocks	3P rear mech. I/lock	2H0158CAA
Handle operators	Variable depth handle, door interlocking	TFH23CB
	IP 55 direct mount rotary handle ¹⁾	TFJ23CU
Handle locks	Lock plate	UXKE0030A
	Handle lock	KGH7123A
	Key interlock (L&F Type) incl TFJ mechanism	-
Terminal Cover		
- front connect	3P FC terminal cover	2H1080CAA
- rear connect	3P RC terminal cover	2H1079CAA
Interpole barrier	Interpole barrier ²⁾	TQQ3CA

Notes: ¹⁾ Flush plate included.
²⁾ 4 barriers required per breaker.



TFJ handle



TFH Handle operator



Terminal cover

Accessories to suit 160AF / 250AF

Description		Cat. No.
Internal accessories		
Shunt trips	110 V AC (100 - 115 V)	2H1937BAA
	240 V AC (200 - 480 V)	2H1937BBA
	24 V DC	2H1937BCA
	48 V DC	2H1937BDA
	110 V DC (100 - 115 V)	2H1937BEA
	24 V AC	2H1938BAA
	48 V AC	2H1938BBA
	12 V DC	2H1938BDA
	200 V DC (200-230 V)	2H1938BHA
Under voltage trips	AC coil ¹⁾	2H1949BAB
	24 V DC coil ²⁾	2H1949BBB
	100-230 V DC coil ³⁾	2H1949BCB
	48 V DC coil ²⁾	2H1950BAB
	60 V DC coil ²⁾	2H1950BBB
	110 V AC instantaneous controller	UXUB0013B
	240 V AC instantaneous controller	UXUB0014B
	440 V AC instantaneous controller	UXUB0015B
	110 V AC time delay controller	UXUB0016B
	240 V AC time delay controller	UXUB0017B
Auxiliary switches	AUX SW right hand 1C	2H1951BAA
	AUX SW right hand 2C	2H1952BAA
	AUX SW left hand 2C	UXXB0028B
Alarm switches	ALT SW right hand	2H1953BAA
Alarm & Auxiliary switches	ALT / AUX SW right hand 1C ⁵⁾	2H1954BAA
Extra low or high magnetic trip	Special selectivity, generator or marine applications	-



Under voltage trip



UVT controller



Alarm switch

6

Description		Cat. No.
External accessories		
Attached busbars	3P attached busbars (6)	TXJD0050B
Screw tunnel lug	4P attached busbars (8)	TXJD0051B
	3P solderless term (6) / XS ⁹⁾	2H2008DAB
	4P solderless term (8) / XS ⁹⁾	2H2008DBB
	3P solderless term (6) / XH ⁹⁾	2H2734DAA
	4P solderless term (8) / XH ⁹⁾	2H2734DBA
Crimp lugs	Compression term (80mm ²)	80-3BA
	Compression term (100mm ²)	100-3BA

Note: Refer page 6 - 14 for footnotes.



Solderless terminal



Accessory lead terminal



XFH Handle operator



Alarm & auxiliary switch

Accessories to suit 160AF/250AF

Description		Cat. No.
External accessories		
Rear connection studs	3P rear connect studs (6)	2H2266DAA
	4P rear connect studs (8)	2H2266DBA
Motor operators	110 V AC motor ³⁾	UXMB0046D
	220 V AC motor ³⁾	UXMB0047D
	240 V AC motor ³⁾	UXMB0058B
	110 V DC motor ³⁾	UXMB0062C
Mechanical interlocks	3P rear mech int. / XS	UXKB0019B
	4P rear mech nt. / XS	UXKB0020B
	3P rear mech int./ XH	UXKB0021B
	4P rear mech int./ XH	UXKB0022B
Handle operators	Variable depth handle, door interlocking	XFHA23S ³⁾
	IP 65 rated variable depth handle, door interlocking	TLKA23 ³⁾
	IP 55 direct mount rotary handle mechanism ⁴⁾	TFJ23SU
Handle lock	Handle lock	UXKB0014A
	Key interlock (L&F Type) incl TFJ mechanism	-
	Padlock attachment ⁵⁾	XKA2
	Resin for XKA2	LOCTITE 480 RESIN
Terminal covers	3P FC terminal cover / XS	2H2135DAB
	4P FC terminal cover / XS	2H1410DAB
	3P FC terminal cover / XH	2H2136DAA
	4P FC terminal cover / XH	2H1412DAA
	IP 20 protective cover ⁶⁾	2A1786DAA
	3P RC terminal cover / XS	UXPD0027B
	4P RC terminal cover / XS	UXPD0028B
	3P RC terminal cover / XH	UXPD0033B
	4P RC terminal cover / XH	UXPD0034B
	Seal plate ⁷⁾	2H1406DAA
Plug-in breaker parts 3 pole	AUX conn. block (MCCB side)	UXYC0010A
	AUX conn. block (panel side)	UXYB0004A
	3P tulip block / XS	TXJD0054A
	3P tulip block / XH	TXJD0058A
	3P mounting base	XDM3-3
Plug-in breaker parts 4 pole	AUX conn. block (MCCB side)	UXYC0010A
	AUX conn. block (panel side)	UXYB0004A
	4P tulip block / XS	TXJD0055A
	4P tulip block / XH	TXJD0059A
	4P mounting base	XDM3-4
TemPlug	3P TemPlug / XH only	UPX3250
Interpole barriers	Interpole barrier / XS ⁸⁾	UXQH0002A
	Interpole barrier / XH ⁸⁾	UXQH0003A
Pole fillers	For use with metal escutcheon covers	XAB3
Earth leakage block	Add-on earth leakage block with pre-trip alarm (XH250)	ELB250AH
	Add-on earth leakage block with pre-trip alarm (XS250)	ELB250A
OCR sealing kit	OCR sealing kit	XS250OCSRK

- Notes:**
- ¹⁾ An AC UVT controller is required for 100-440 V AC.
 - ²⁾ A DC UVT controller is needed for 200-230 V DC operation. None required for 24-110 V DC.
 - ³⁾ Add UXFD0016A when required for XH250NJ.
 - ⁴⁾ Flush plate included.
 - ⁵⁾ Captive type. Resin fixing.
 - ⁶⁾ 6 pieces required for 3P / 8 pieces required for 4P.
 - ⁷⁾ Specify quantity required (up to 2 pieces).
 - ⁸⁾ 4 pieces required for 3P (6 pieces required for 4P).
 - ⁹⁾ Factory fit only.



Interpole barriers



Accessory lead terminal



OCR sealing kit



UXMB motor operator



Rear interlock

Accessories to suit 400AF, TL250NJ

Description		Cat. No.
Internal accessories		
Shunt trips	110 V AC/DC (100 - 115 V)	2H1305BAA
	240 V AC (200 - 480 V)	2H1306BAA
	12 V DC	2H1307BAA
	24 V DC	2H1308BAA
	48 V DC	2H1309BAA
	200 V DC (200 - 230 V)	2H1310BAA
	24 V AC	2H1311BAA
	48 V AC	2H1312BAA
Under voltage trips	AC coil ¹⁾	2H1492BAA
	100-230 V DC coil ²⁾	2H1493BAA
	24 V DC coil ²⁾	2H1494BAA
	48 V DC coil ²⁾	2H1495BAA
	60 V DC coil ²⁾	2H1496BAA
	110 V AC instantaneous controller	UXUB0013B
	240 V AC instantaneous controller	UXUB0014B
	440 V AC instantaneous controller	UXUB0015B
	110 V AC time delay controller	UXUB0016B
	240 V AC time delay controller	UXUB0017B
Auxiliary switches	AUX SW right hand 1C	UXXB0004D
	AUX SW right hand 2C	UXXB0005D
	AUX SW right hand 3C	UXXB0006D
Alarm switch	ALT SW right hand	UXLB0009D
	ALT/AUX SW right hand 1C	UXLB0013D
Alarm & auxiliary switch	ALT/AUX SW right hand 2C	UXLB0014D
Pre-trip alarm	For electronic OCR MCCBs only	Pre-trip alarm
Fault indication & contacts	Side of breaker mounted module. Electronic MCCBs only	and "FI" then voltage
Extra low or high magnetic trip	Special selectivity, generator or marine applications	-



Under voltage trip



UVT controller

6



Aux. switch



Alarm / auxiliary switch

Description		Cat. No.
External accessories		
Attached busbars	3P attached busbars (6 in kit)	2H1384DAA
	4P attached busbars (8 in kit)	2H1385DAA
Screw tunnel terminals	3P solderless term (6 in kit)	2H2012DAB
	4P solderless term (8 in kit)	2H2012DBB
Crimp lugs	Compression term (80 mm ²)	804BA
	Compression term (100 mm ²)	1004BA
	Compression term (150 mm ²)	1504BA
Rear connect studs	3P RC studs (6 in kit)	UXRC0006C
	4P RC studs (8 in kit)	UXRC0007C
Motor operators (XMC4)	110 V AC motor ¹⁾	UXMC0001B
	110 V DC motor ¹⁾	UXMC0003B
	24 V DC motor ¹⁾	UXMC0004B
	240 V AC motor ¹⁾	UXMC0005B
	Motor base support	UXMD0001B

Note: Refer page 6 - 16 for footnotes.

Accessories to suit 400AF, TL250NJ

Description

Cat. No.

External accessories

Mechanical interlocks	3P mech I/lock ³⁾	UXKC0001B
	3/4P mech I/lock ⁴⁾	UXKC0002B
	4P mech I/lock ⁵⁾	UXKC0003B
Cable mechanical interlocks	Interlock cable (wire)	UXKC0020A
	Cable interlock mechanism ⁶⁾	UXKC0021B
Handle operators	Variable depth handle. Door interlocking	XFHA34
	IP 65 rated variable depth handle. Door interlocking	TLKA34
	IP 55 direct mount rotary handle mechanism ⁷⁾	TFJ34XU
Handle lock	Handlelock	UXKB0006A
	Key interlock (L&F type) incl TFJ mechanism	-
Terminal covers	3P front connecting terminal cover - busbar connect type	2H1413DAA
	4P front connecting terminal cover - busbar connect type	2H1414DAA
	3P front connecting terminal cover - cable connect type	2H1415DAA
	4P front connecting terminal cover - cable connect type	2H1416DAA
	IP 20 protective cover - busbar connect type ⁸⁾	2A1787DBA
	IP 20 protective cover - cable connect type ⁸⁾	2A1788DAA
	3P rear connecting terminal cover	UXPD0011B
	4P rear connecting terminal cover	UXPD0012A
Accessory lead terminal	Accessory lead terminal	UXYD0001A
	Terminal and bolt ⁹⁾	UXYD0002A
Plug-in breaker parts 3 pole	AUX conn block (MCCB) side	UXYC0005A
	AUX conn block (panel) side	UXYB0004A
	Mounting bolts	TXKD0032A
	3P tulip block (8)	TXKD0033A
	3P mounting base	XDM4-3
Plug-in breaker parts 4 pole	AUX conn block (MCCB) side	UXYC0005A
	AUX conn block (panel) side	UXYB0004A
	Mounting bolts	TXKD0032A
	4P tulip block (8)	TXKD0034A
	4P mounting base	XDM4-4
TemPlugs	3P TemPlug 400A	UPX3440
Interpole barrier	Interpole barrier ¹⁰⁾	UXQH0004A
OCR sealing kit	Tamperproof cover for the OCR adjustment dials	XS400OCRSK



Attached busbar



Rear connect studs



Plug in type



Plug in base

- Notes:**
- ¹⁾ An AC UVT controller is required for 100-440 V AC.
 - ²⁾ A DC UVT controller is needed for 200-230 V DC operation. None required for 24-110 V DC.
 - ³⁾ For 3P circuit breakers without motors.
 - ⁴⁾ For 4P circuit breakers without motors or 3P circuit breakers with motors.
 - ⁵⁾ For 4P circuit breakers with motors.
 - ⁶⁾ Order one interlock mechanism for each circuit breaker.
 - ⁷⁾ Flush plate included.
 - ⁸⁾ 6 pieces required for 3P / 8 pieces required for 4P.
 - ⁹⁾ Specify quantity required (up to 6 pieces).
 - ¹⁰⁾ Order individually.
 - ¹¹⁾ Order a motor base support for each motor UXMD0001B.

Accessories to suit 630-800AF

Description

Cat. No.

Internal accessories

Shunt trips	110 V AC/DC	2H1515BAA
	240 V AC	2H1516BAA
	12 V DC	2H1517BAA
	24 V DC	2H1518BAA
	48 V DC	2H1519BAA
	200 V DC	2H1520BAA
	24 V AC	2H1521BAA
	48 V AC	2H1522BAA
Under voltage trips	AC coil ¹⁾	2H1503BAA
	100-230 V DC coil ²⁾	2H1504BAA
	24 V DC coil ²⁾	2H1505BAA
	48 V DC coil ²⁾	2H1506BAA
	60 V DC coil ²⁾	2H1507BAA
	110 V AC instantaneous controller	UXUB0013B
	240 V AC instantaneous controller	UXUB0014B
	440 V AC instantaneous controller	UXUB0015B
	110 V AC time delay controller	UXUB0016B
	240 V AC time delay controller	UXUB0017B
Auxiliary switches	240 V AC time delay controller	UXUB0018B
	200-230 V DC controller	UXUB0038B
	AUX SW right hand 1C	UXXB0007D
	AUX SW right hand 2C	UXXB0008D
Alarm switch	AUX SW right hand 3C	UXXB0009D
	ALT SW right hand	UXLB0010D
	ALT/AUX SW right hand 1C	UXLB0015D
Alarm & auxiliary switches	ALT/AUX SW right hand 2C	UXLB0016D
	Pre-trip alarm	For electronic OCR MCCBs only
Fault indication & contacts	Side of breaker mounted module. Electronic MCCBs only	Add "LSIP" and "FI" then voltage
	Earth fault	Earth fault, electronic breakers only.
option with external 4th CT's	630 A 4th CT	Add "LSIG"
	800 A 4th CT	UXOY0001A
Extra low or high magnetic trip	Special selectivity, generator or marine applications	UXOY0002A
		-

Notes next page



Under voltage trip



UVT controller



Aux. switch



Alarm / auxiliary switch

Accessories to suit 630-800AF

External accessories

		Cat. No.
Screw tunnel terminals	3P solderless terminals for 630AF (6 in kit)	TXLD0005A
	4P solderless terminals for 630AF (8 in kit)	TXLD0006A
Rear connect studs	3P rear connect studs, 630/800AF (6 in kit)	UXRC0008B
	4P rear connect studs, 630/800AF (8 in kit)	UXRC0009B
Motor operators (XMC6)	110 V AC motor ¹⁾	UXMC0006B
	110 V DC motor ²⁾	UXMC0008B
	24 V DC motor ³⁾	UXMC0009B
	240 V AC motor ³⁾	UXMC0010B
	Motor base support	UXMD0002B
Mechanical interlocks	3P mech I/lock rear mounting	UXKC0004A
	4P mech I/lock rear mounting	UXKC0005A
	Interlock cable (wire)	UXKC0020A
	Cable interlock mechanism ⁴⁾	UXKC0022A
Handle operators	Variable depth handle. Door interlocking	XFHA46
	IP 65 rated variable depth handle. Door interlocking	TLKA46
	IP 55 direct mount rotary handle mechanism ⁵⁾	TFJ36XU
Handle extension	Handle extension	2A2272BAB
Handle lock	Handle lock	UXKB0002A
	Key interlock (L&F type) incl TFJ mechanism	-
Terminal covers	3P front connecting terminal cover	2H1417DAA
	4P front connecting terminal cover	2H1418DAA
	IP 20 protective cover ⁶⁾	2A1787DBA
	3P rear connecting terminal cover	UXPD0013C
	4P rear connecting terminal cover	UXPD0014B
Accessory lead terminal	Accessory terminal block	UXYD0001A
	Terminal and bolt	UXYD0002A
Plug-in breaker parts 3 pole	Aux conn block (MCCB) side	UXYC0005A
	Aux conn block (panel) side	UXYB0004A
	Mounting bolts	TXLD0016A
	Tulip block (6) 630	TXLD0012A
	Tulip block (6) 800	2A3308DAA
	Mounting base	XDM6-3
Plug-in breaker parts 4 pole	Aux conn block (MCCB) side	UXYC0005A
	Aux conn block (panel) side	UXYB0004A
	Mounting bolts	TXLD0016A
	Tulip block (8) 630	TXLD0013A
	Tulip block (8) 800	2A3308DBA
	Mounting bolts	XDM6-4
TemPlug	TemPlug 800 A rated	UPX3800
Interpole barrier	Interpole barrier	UXQH0004A
OCR sealing kit	Tamperproof cover for the OCR adjustment dials	XS6300CRSK

- Notes:**
- ¹⁾ An AC UVT controller is required for 100-440 V AC.
 - ²⁾ A DC UVT controller is needed for 200-230 V DC operation. None required for 24-110 V DC.
 - ³⁾ Order one interlock mechanism for each circuit breaker.
 - ⁴⁾ Flush plate included.
 - ⁵⁾ 6 pieces required for 3P / 8 pieces required for 4P.
 - ⁶⁾ Specify quantity required (up to 6 pieces).
 - ⁷⁾ Each motor must use one motor base support: UXMD0002B.



Cable mechanical interlock



XFH handle operator



TLK handle operator



TFJ handle operator



Handle padlock (UXKB)



Terminal cover

Accessories to suit 1250-1600AF, TL630NE, TL800NE, TL1250NE

Description		Cat. No.
Internal accessories		
Shunt trips	110 V AC/DC (110-115 V)	2H1197BAA
	240 V AC (200-480 V)	2H1198BAA
	12 V DC	2H1199BAA
	24 V DC	2H1200BAA
	48 V DC	2H1201BAA
	200 V DC (200-230 V)	2H1202BAA
	24 V AC	2H1203BAA
	48 V AC	2H1204BAA
Under voltage trips	AC coil ¹⁾	2H1208BAA
	100-230 V DC coil ²⁾	2H1209BAA
	24 V DC coil ²⁾	2H1210BAA
	48 V DC ²⁾	2H1211BAA
	60 V DC ²⁾	2H1212BAA
	110 V AC instantaneous controller	UXUB0013B
	240 V AC instantaneous controller	UXUB0014B
	440 V AC instantaneous controller	UXUB0015B
	110 V AC time delay controller	UXUB0016B
	240 V AC time delay controller	UXUB0017B
Auxiliary switches	440 V AC time delay controller	UXUB0018B
	200-230 V DC controller	UXUB0038B
	AUX SW right hand 1C / 3P	UXXB0010D
	AUX SW right hand 2C / 3P	UXXB0011D
	AUX SW right hand 3C / 3P	UXXB0012D
	AUX SW right hand 1C / 4P	UXXB0023D
	AUX SW right hand 2C / 4P	UXXB0024D
Alarm switches	AUX SW right hand 3C / 4P	UXXB0025D
	ALT SW right hand / 3P	UXLB0011D
Alarm & auxiliary switches	ALT SW right hand / 4P	UXLB0024D
	ALT/AUX right hand 1C / 3P	UXLB0017D
	ALT/AUX right hand 2C / 3P	UXLB0018D
	ALT/AUX right hand 1C / 4P	UXLB0025D
	ALT/AUX right hand 2C / 4P	UXLB0026D
Fault indication & contacts	An option for all 1250-1600 A types	Add "FI" then voltage
Pre-Trip alarm	An option for all 1250-1600 A types	Add "LSIP"
Earth fault indication	An option for all 1250-1600 A types	Add "LSIG"
	1000 A 4th CT	UXOY0003A
	1250 A 4th CT	UXOY0004A
Extra high instantaneous magnetic trip	1600 A 4th CT	UXOY0005A
	An option for all 1000-1600 A types	-

Note: Refer to page 6 - 20 for footnotes.



Under voltage trip



UVT controller



Aux. switch



Alarm / auxiliary switch

Accessories to suit 1250-1600AF, TL630NE, TL800NE, TL1250NE

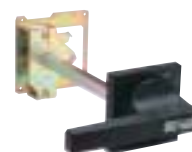
Description		Cat. No.
External accessories		
Rear connect studs	3P rear connect studs (6 in kit) 1250 A	2H1959DAB
	4P rear connect studs (8 in kit) 1250 A	2H1959DBB
	3P rear connect studs (6 in kit) 1600 A	2H1960DAA
	4P rear connect studs (8 in kit) 1600 A	2H1960DBA
Motor operators (XMD9)	110 V AC motor	2H1191CAB
	110 V DC motor	2H1193CAB
	24 V DC motor	2H1194CAB
	240 V AC motor	2H1195CAB
Mechanical interlocks	3P mech I/lock / 1250 A rear connect	UXKC0006D
	4P mech I/lock / 1250 A rear connect	UXKC0007D
	3P mech I/lock / 1600 A rear connect	UXKC0026C
	4P mech I/lock / 1600 A rear connect	UXKC0027C
	Interlock cable (wire)	UXKC0020A
	Interlock mech 1250 A Cable type ³⁾	UXKC0023B
	Interlock mech 1600 A Cable type ³⁾	UXKC0024B
Handle operators	Variable depth handle. door interlocking	XFHA49
	IP 65 rated variable depth handle. Door interlocking	TLKA49
	IP 55 direct mount rotary handle mechanism ⁴⁾	TFJ38XU
Handle extension	Handle extension	2A2272BAB
Handle lock	Handle lock	UXKB0003A
	Key interlock (L&F Type) incl TFJ mechanism	-
Terminal covers	3P FC terminal cover / 1250	2H1419DAA
	4P FC terminal cover / 1250	2H1420DAA
	IP 20 protective cover ⁵⁾	2A1787DBA
Accessory	Accessory terminal block	UXYD0001A
lead terminal	Terminal and bolt ⁶⁾	UXYD0002A
Interpole barrier	Interpole barrier ⁷⁾	UXQH0004A
OCR sealing kit	Tamperproof cover for the OCR adjustment dials	XS1250OCRSK



Cable mechanical interlock



XFH handle operator



TLK handle operator

- Notes:**
- ¹⁾ An AC UVT controller is required for 100-440 V AC.
 - ²⁾ A DC UVT controller is needed for 200-230 V DC operation. None required for 24-110 V DC.
 - ³⁾ Order one interlock mechanism for each breaker.
 - ⁴⁾ Flush plate included.
 - ⁵⁾ 6 pieces required for 3P / 8 pieces required for 4P.
 - ⁶⁾ Specify quantity required (up to 6 pieces).
 - ⁷⁾ Individual barrier (not a set)

Internal accessories

Frame size: 2000/2500

Description

Cat. No.

Voltage release

Shunt trips ¹⁾	24V AC	2H1532BAA
	48V AC	2H1533BAA
	110V AC/DC	2H1526BAA
	240V AC	2H1527BAA
	415V AC	2H1541BAA
	12V DC	 2H1528BAA
	24V DC	2H1529BAA
	48V DC	2H1530BAA
	200V DC	 2H1531BAA



Shunt trip

Undervoltage trips

UVT coils	AC	2H1509BAA
AC type ²⁾		
UVT coils	24V DC	2H1511BAA
DC type ³⁾	48V DC	2H1512BAA
	110/220V DC	2H1510BAA



Under voltage trip

UVT controllers

AC inst type ²⁾	110V AC	UXUB0013B
	240V AC	UXUB0014B
	415V AC	UXUB0015B
AC time delay type	110V AC	UXUB0016B
	240V AC	UXUB0017B
	415V AC	UXUB0018B
DC inst type	200V DC	UXUB0038B



UVT controller

Signalling devices

Auxiliary switches	1C	UXXB0013C
	2C	UXXB0014C
	3C	UXXB0015C
	4C	UXXB0016C
	5C	UXXB0017C
	6C	UXXB0018C
Alarm switches	Alt sw	UXLB0012C
Alarm/auxiliary switches (combination unit)	1C	UXLB0019C
	2C	UXLB0020C
	3C	UXLB0021C
	4C	UXLB0022C
	5C	UXLB0023C



Auxiliary switch



Alarm/auxiliary switches

Notes: ¹⁾ Other voltages available on application - refer to NHP.

²⁾ A UVT controller (inst or time delay) is required with AC UVT coil.

³⁾ A UVT controller (inst) is required with 200V DC UVT coil.

 Available on indent only.

External accessories

Frame size: 2000/2500

Description Connections ²⁾		MCCB	Cat. No.
Attached	3P FC mounting bolts	XS2000NE	TXRD0005A
busbars (Front connect)	3P attached busbars	XS2000NE	TXRD0003A ³⁾

Draw out carriage

Draw out ¹⁾ (circuit breaker and carriage)	Draw out	XS2000NE	 Refer NHP
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Remote operation ²⁾

Motors	110V AC motor	 UXMB0006B
	240V AC motor	UXMB0008B
	110V DC motor	 UXMB0009B

Mechanical interlocks ²⁾

Rear	3P rear mechanical interlock (std) Cable mechanism (one on each MCCB)	UXKC0012A
cable type	Interlocking wire	UXKC0025B
		UXKC0020A

XFE handle

Panel mount type	Handle mechanism	XFE10
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Handle extension ⁴⁾

	UXHB0001B
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Handle lock

	UXKB0001A
--	-----------

Accessory lead terminal

Accessory terminal block	UXYD0001A
Terminals and bolts (qty 6)	UXYD0002A

OCR sealing kit

	XS20000CRSK
--	-------------



Front connect
busbars

6

Notes: ¹⁾ MCCB and carriage together, factory assembled.

²⁾ Factory fitted.

³⁾ Based on crediting standard terminals.

⁴⁾ 1 piece supplied as standard.

 Available in indent only.