

TemBreak *Plus*

For High Demand Applications

Ics=Icu=50kA & 85kA, Selectivity with 3:1 MCCB ratio



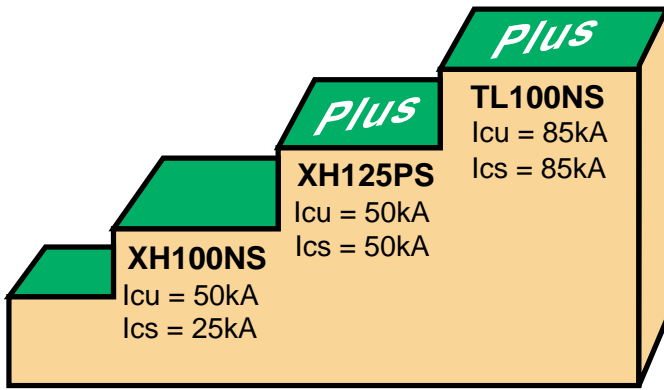
Powerful interrupting Capacities

Limitation of System Damage

Unique Contact Structure

Selectivity Enhanced Switchgear

Powerful interrupting Capacities



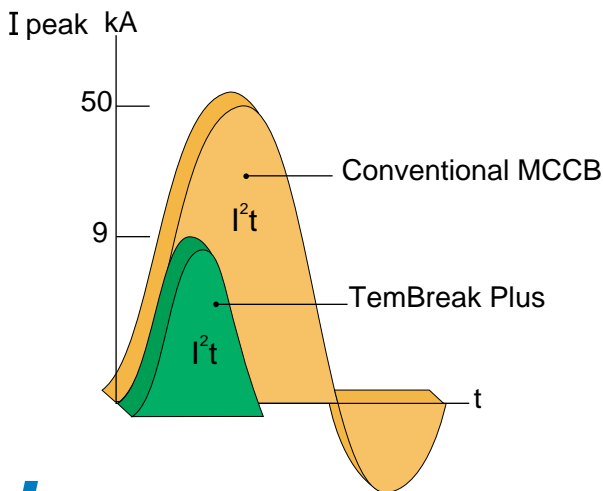
The majority of distribution systems are designed to an ultimate short circuit rating (I_{cu}). An I_{cu} rated MCCB provides the optimum protection in terms of safe and economical selection.

Certain applications may require protection which is designed to the more onerous service short circuit rating (I_{cs}).

Terasaki's TemBreak *Plus* range can provide a wide choice of MCCBs with superior I_{cs} ratings up to 85kA at 440V AC.

I _{cu} =0-co	2 Full Short Circuits
I _{cs} =0-co-co	3 Full Short Circuits

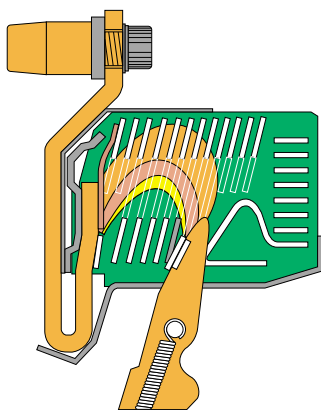
Limitation of System Damage



During a fault condition, a circuit breaker with excellent current limiting ability such as TemBreak *Plus*, can substantially reduce damage to the electrical system and thus minimise downtime.

This current limiting feature reduces the peak let through current (I_{peak}) and energy let through (I²t) during fault conditions.

Unique Contact Structure

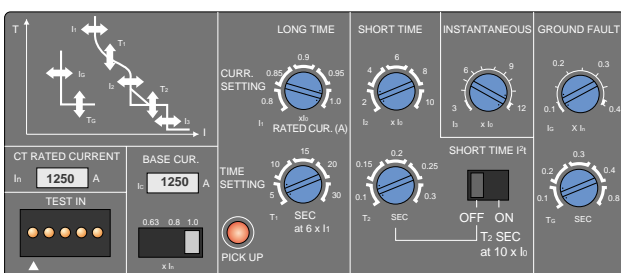


Terasaki's TemBreak *Plus* MCCBs achieve this exceptional current limiting performance by utilising a unique contact structure which we call the Fast Break Mechanism (FBM).

The U-Shaped contact of this mechanism assists in the electromagnetic repulsion of the contact tips for fast arc extinction.

The 50kA PowerBreaker Series uses one FBM per pole whilst the LimitorBreaker Series uses two FBM per pole to achieve its rating of 85kA.

Selectivity Enhanced Switchgear



The need for a continuous and reliable power supply places increased emphasis on selectivity requirements in today's electrical distribution system.

The Selectivity Series utilises microprocessor based protection, giving enhanced selectivity. This ensures a 3:1 ratio between the upstream and downstream MCCBs. For further details please refer to the selectivity table on page four of this leaflet.

PowerBreaker Series Ics = 50 kA



Type	XH125PS	XH150PS	XH250PS	XH400PS	XH400PE	XH600PS	XH600PE	XH800PS	XH800PE
No. of poles	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4
Ampere Frame	125	150	250	400	400	600	600	800	800
Rated current In (Amp)	15 40 75 20 50 100 30 60 125	125 150	150 225 175 250 200	200 300 225 350 250 400	Adjustable 125 200 200 300 150 225 225 350 175 250 400	300 600 400	Adjustable 300 500 350 600 400	700 800	Adjustable 400 600 450 700 500 800
Rated AC breaking capacity	690V 8/4	15/7.5	18/9	18/9	20/10	45/23	20/10	45/23	20/10
IEC 60947-2	500V 25/13	25/13	42/21	42/21	42/21	65/33	42/21	65/33	42/21
Icu/Ics kA	440V 42/21	42/21	65/50	65/50	65/50	85/43	65/50	85/43	65/50
	415V 50/50	50/50	65/50	65/50	65/50	85/50	65/50	85/50	65/50
	400V 50/50	50/50	65/50	65/50	65/50	100/50	65/50	100/50	65/50
Thermal magnetic	•	•	•	•	•	•	•	•	•
Microprocessor						•		•	•
Dimensions	4P 120x155x86	140x165x103	185x260x103	185x260x103	185x260x103	280x273x103	280x273x103	280x273x103	280x273x103
W-H-D mm	3P 90x155x86	105x165x103	140x260x103	140x260x103	140x260x103	210x273x103	210x273x103	210x273x103	210x273x103
Reference MCCB for accessories	XH100NS	XH225NS	XS400NS	XS400NS	XH400NE	XS600NS	XH600NE	XS800NS	XH800NE

LimiterBreaker Series Ics = 65~85 kA

Type	TL-100NS	TL-250NS	TL-400NE	TL-600NE	TL-800NE	TL-1000NE	TL-1200NE
No. of poles	3,4	3,4	3,4	3,4	3,4	3,4	3,4
Ampere Frame	100	250	400	600	800	1000	1200
Rated current In (Amp)	15 40 75 20 50 100 30 60	125 200 150 225 175 250	Adjustable 200 300 225 350 250 400	Adjustable 300 500 350 600 400	Adjustable 400 600 450 700 500 800	Adjustable 500 800 600 900 700 1000	Adjustable 600 1000 700 1200 800
Rated AC breaking capacity	690V - -	25/25	25/25	45/34	45/34	45/34	45/34
IEC 60947-2	500V - -	70/70	70/70	75/57	75/57	75/57	75/57
Icu/Ics kA	440V 85/85	85/85	85/85	125/70	125/70	125/65	125/65
	415V 85/85	85/85	85/85	125/70	125/70	125/65	125/65
	400V 85/85	100/100	100/100	125/70	125/70	125/65	125/65
Thermal magnetic	•	•	•	•	•	•	•
Microprocessor			•	•	•	•	•
Dimensions	4P 120x235x86	185x360x103	185x360x103	280x370x140	280x370x140	280x370x140	280x370x140
W-H-D mm	3P 90x235x86	140x360x103	140x360x103	210x370x140	210x370x140	210x370x140	210x370x140
Reference MCCB for accessories	XH100NS	XS400NS	XH400NE	XS1600NE	XS1600NE	XS1600NE	XS1600NE



Selectivity Series 3:1 Selectivity



Type	XS400NE	XH400NE	XS600NE	XH600NE	XS800NE	XH800NE	XS1000NE	XS1200NE	XS1600NE
No. of poles	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4
Ampere Frame	400	400	600	600	800	800	1000	1200	1600
Rated current In (Amp)	Adjustable 125 200 200 300 150 225 225 350 175 250 400	Adjustable 125 200 200 300 150 225 225 350 175 250 400	Adjustable 300 500 350 600 400	Adjustable 300 500 350 600 400	Adjustable 400 600 450 700 500 800	Adjustable 400 600 450 700 500 800	Adjustable 500 800 600 900 700 1000	Adjustable 600 1000 700 1200 800	Adjustable 800 1200 900 1400 1000 1600
Rated AC breaking capacity	690V 18/9	20/10	20/10	20/10	20/10	20/10	25/19	25/19	45/34
IEC 60947-2	500V 30/15	42/21	35/18	42/21	35/18	42/21	45/34	45/34	65/49
Icu/Ics kA	440V 42/21	65/33	50/25	65/33	50/25	65/33	65/49	65/49	85/64
	415V 50/25	65/33	50/25	65/33	50/25	65/33	65/49	65/49	85/64
	400V 50/25	65/33	50/25	65/33	50/25	65/33	85/64	85/64	100/75
Microprocessor	•	•	•	•	•	•	•	•	•
Dimensions	4P 185x260x103	185x260x103	280x273x103	280x273x103	280x273x103	280x273x103	280x370x120	280x370x120	280x370x140
W-H-D mm	3P 140x260x103	140x260x103	210x273x103	210x273x103	210x273x103	210x273x103	210x370x120	210x370x120	210x370x140

Note: Please refer to TemBreak catalogue I10E for further information on TemBreak Plus accessories.

TemBreak Plus Selectivity Table for 415v and 400v

Downstream	Upstream Icu @		XS400NE		XH400NE		XS600NE		XH600NE		XS800NE		XH800NE		XS1000NE		XS1200NE		XS1600NE	
	415	400	50	50	65	65	50	50	65	65	50	50	65	65	65	85	65	85	85	100
XE100NS	10	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XE100HB	14	18	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XS100NB	25	30	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XH100NS	50	50	35	35	35	35	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XH125PS	50	50	35	35	35	35	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XH150PS	50	50	25	25	25	25	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XE225NC	15	18	T	15	T	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XS225NS	25	35	15	15	15	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XH225NS	50	50	25	25	25	25	T	T	T	T	T	T	T	T	T	T	T	T	T	T
XH250PS	65	65	**	**	**	**	10	10	10	10	25	25	25	25	50	50	50	50	50	50
XE400NS	25	25	**	**	**	**	10	10	10	10	T	T	T	T	T	T	T	T	T	T
XS400CS	35	35	**	**	**	**	10	10	10	10	25	25	25	25	T	T	T	T	T	T
XS400NS	50	50	**	**	**	**	10	10	10	10	25	25	25	25	T	T	T	T	T	T
XH400PS	65	65	**	**	**	**	10	10	10	10	25	25	25	25	50	50	50	50	50	50
XS400NE	50	50	**	**	**	**	10	10	10	10	25	25	25	25	T	T	T	T	T	T
XH400NE	65	65	**	**	**	**	10	10	10	10	25	25	25	25	50	50	50	50	50	50
XH400PE	65	65	**	**	**	**	10	10	10	10	25	25	25	25	50	50	50	50	50	50
XE600NS	25	25	**	**	**	**	**	**	**	**	**	**	**	**	15	15	20	20	20	20
XS600CS	35	45	**	**	**	**	**	**	**	**	**	**	**	**	15	15	30	30	30	30
XS600NS	50	65	**	**	**	**	**	**	**	**	**	**	**	**	15	15	30	30	30	30
XH600PS	85	100	**	**	**	**	**	**	**	**	**	**	**	**	15	15	30	30	30	30
XS600NE	50	50	**	**	**	**	**	**	**	**	**	**	**	**	15	15	30	30	30	30
XH600NE	65	65	**	**	**	**	**	**	**	**	**	**	**	**	15	15	30	30	30	30
XH600PE	65	65	**	**	**	**	**	**	**	**	**	**	**	**	15	15	30	30	30	30

Notes:

1. The letter 'T' denotes Total Selectivity up to the breaking capacity of lower rated Icu MCCB.
2. The symbol '**' denotes that selectivity is only obtained up to the level of the upstream instantaneous trip
3. All pick-up current and time delay settings are to be set at maximum for upstream MCCBs

Notes:

4. The above table is in accordance with IEC-947-2 Appendix A
5. Figures are shown with 415v information in blue and 400v information in white
6. Selectivity figures for the XH-PE series are the same as the XS-NE. Please contact Terasaki for further details.

TERASAKI OVERSEAS NETWORK

TERASAKI (EUROPE) LTD.

80 Beardmore Way, Clydebank Industrial Estate,
Clydebank, Glasgow, G81 4HT. SCOTLAND (U.K.)
Telephone: 44-141-941-1940 / Fax: 44-141-952-9246
Web Site: www.terasaki.com

TERASAKI ITALIA s.r.l.

Via Campania 4/6, 20090 Segrate, Milano, ITALY
Telephone: 39-02-2137574 / Fax: 39-02-26922931
Web Site: www.terasaki.it

TERASAKI ESPAÑA, S.A.U.

Roma, s/n, 08400 Granollers, Barcelona, SPAIN
Telephone: 34-93-879-60-50 / Fax: 34-93-870-39-05
Web Site: www.terasaki.es

TERASAKI ELECTRIC CO., LTD.

Head Office: 7-2-10 Hannancho, Abenoku, Osaka, JAPAN
Circuit Breaker Division: 7-2-10 Kamihigashi, Hiranoku, Osaka, JAPAN
Telephone: 81-6-6791-9323 / Fax: 81-6-6791-9274
Web Site: www.terasaki.co.jp

TERASAKI CIRCUIT BREAKERS (S) PTE. LTD.

227 UBI Avenue 4, Singapore 408815, SINGAPORE
Telephone: 65-744-9752 / Fax: 65-748-7592

TERASAKI ELECTRIC (M) SDN. BHD.

Lot 3, Jalan 16/13D, 40000 Shah Alam, Selangor Darul Ehsan, MALAYSIA
Telephone: 60-3-549-3820 / Fax: 60-3-549-3960

TERASAKI DO BRASIL LTDA.

Rua Cordovil, 259-Parada De Lucas, 21250-450 Rio De Janeiro-R.J., BRAZIL
Telephone: 55-21-481-1259 / Fax: 55-21-481-0935

TERASAKI ELECTRIC (CHINA) LIMITED

72 Pacific Industrial Park, Xingtang Zengcheng, Guangzhou 511340, CHINA
Telephone: 86-20-8270-8556, 86-20-8270-7606 / Fax: 86-20-8270-8586