

Type Approval Certificate Extension

This is to certify that Certificate No. 98/10006(E3) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Terasaki Electric Co., Ltd. 7-2-10 Hannan-cho, Abeno-ku, Osaka-shi, Osaka-fu, 545-0021 Japan
PLACE OF PRODUCTION	Kami Factory 6-13-47, Kami-higashi, Hirano-ku, Osaka-shi, Osaka-fu, 547-0002, Japan Yabakei Factory 1073-1 Tobaru Yabakei-cho, Nakatsu-shi, Oita-ken, 871-0404, Japan Terasaki Electric (M) Sdn. Bhd. Lot 3, Jalan 16/13D, 40000 Shah Alam, Selangor Darul Ehsan, Malaysia
DESCRIPTION	Moulded case circuit breakers
TYPE	XS30NB, XE50NB, XS50CB, XM30NB, XM50CB, TL-600NE, TL-800NE, XH800PS, E50-CM, E250-SF, S250-SF L125-PF, L125-PJ, L400-PE, L800-PE
APPLICATION	Protection and switching of distribution circuits for use in offshore and industrial applications
DESIGN CODE STANDARD	JIS C 8370-1996, IEC60947-1, IEC60947-2

Certificate No.	98/10006(E4)
Issue Date	1 November 2010
Expiry Date	8 April 2013
Sheet	1 of 4


S. Fujii
Yokohama Design Support Office
Lloyd's Register

Lloyd's Register, registered office:
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RATINGS

Alternating Current

Type	Current rating at 45°C (A)	Rated voltage (V)	Breaking current (r.m.s. symmetrical) (kA) Icu/Ics	Making current (Peak asymmetrical) (kA) Icu/Ics	Power Factor Icu/Ics	Over current release	Standard
XS30NB	3-30	500	2.5/ -	3.8/-	0.67 / -	See Note 1)	JIS C 8370-1996
XE50NB	3-50	250	5.0/ -	8.7/-	0.42 / -		
XS50CB	10-50	125	7.5/ -	13.7/-	0.37 / -		
		500	7.5 / -	14.4/-	0.33 / -		
XM30NB	0.7-32	250	10 / -	19.3/-	0.32 / -	See Note 2)	
		125	42 / -	95.6/-	0.12 / -		
XM50CB	0.7-45	500	2.5 / -	3.8/-	0.67 / -	See Note 3)	
TL-600NE	300-600	250	5.0 / -	8.7/-	0.42 / -		
TL-800NE	400- 800	460	125 / -	295/-	0.13 / -	See Note 4)	
XH800PS	700, 800						
E50-CM	0.7-45	500	2.5/ -	3.8/-	0.67/ -	See Note 2)	
		250	5.0/ -	8.7/-	0.42/ -		
E250-SF	125- 250	450	15/12	32.6/27.3	0.20/0.16	See Note 4)	
		240	35/27	83.6/62.2	0.12/0.15		
S250-SF	125- 250	450	30/15	70.8/32.6	0.13/0.20	See Note 4)	IEC60947-2 (2006)
		240	85/43	211/103	0.09/0.12		

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98/10006(E4)

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Expiry Date

8 April 2013

Sheet

2 of 4



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Type	Current rating at 45°C (A)	Rated voltage (V)	Breaking current (r.m.s. symmetrical) (kA) Icu/Ics	Making current (Peak asymmetrical) (kA) Icu/Ics	Power Factor Icu/Ics	Over current release	Standard
L125-PF	15-125	690	65/33	151/69.5	0.14/0.23	See Note 4)	IEC60947-1 (2007)
L125-PJ	12.5-125						IEC60947-2 (2009)
L400-PE	100-400	690	65/50	151/115	0.14/0.15	See Note 3)	IEC60947-1 (2007)
L800-PE	252-800	690	65/50	151/117	0.14/0.14		IEC60947-2 (2009)

Direct Current

Type	Current rating at 45°C (A)	Rated voltage (V)	Breaking current (kA) Icu/Ics	Time constant (ms) Icu/Ics	Over current release	Standard
XS30NB	3-30	125	5/-	8.25/-	See Note 1)	JIS C 8370-1996
XE50NB	3-50					
XS50CB	10-50	250	7.5/-	6.85/-		
S250-SF	125-250	250	25/13	16.1/11.1	See Note 4)	IEC60947-1 (2007) IEC60947-2 (2006)

- Note ; 1) Overload : thermal (for 15A rating or above)
Overload : oil dash pot (for 10A rating or below)
Short circuit : instantaneous magnetic
- 2) Overload : thermal (for 32A rating or above)
Overload : oil dash pot (for 0.7 - 25A ratings)
Short circuit : instantaneous magnetic

Certificate No. 98/10006(E4)

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Expiry Date 8 April 2013

Sheet 3 of 4



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- 3) Electronic type
 - Overload : long time delay trip with adjustable current
 - Short circuit : short time delay and instantaneous trip with adjustable current
- 4) Overload : thermal
 - Short circuit : instantaneous magnetic

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 98/10006(E4) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 98/10006(E3) to which this extension should be attached.

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Sheet	4 of 4


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