

Type Approval Certificate Extension

This is to certify that Certificate No. 03/10059(E1) 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, 545-0021 Japan
PLACE OF PRODUCTION	Terasaki Electric (M) SDN.BHD Malaysia Factory Lot 3, Jalan 16/13D, 40000 Shah Alam, Selangor Darul Ehsan, Malaysia
DESCRIPTION	Moulded Case Circuit Breakers
TYPE	E125-NJ, E225-NF, E225-NFH, E225-NFL, E250-NF, E250-NJ, S50-GF, S50-GFH, S50-GFL, S100-GF, S100-GFH, S100-GFL, S125-GF, S125-GJ, S100-NF, S100-NFH, S100-NFL, S125-NF, S125-NJ, S100-NM, S160-GJ, S250-GJ, S160-NJ, S250-NJ, S225-GF, S225-GFH, S225-GFL, S250-GF, S225-NF, S225-NFH, S225-NFL, S250-NF, S225-NM
APPLICATION	Protection and switching of distribution circuits for marine, offshore and industrial applications
DESIGN CODE	IEC 60947-1 (2007), IEC 60947-2 (2006)

Certificate No.	03/10059(E2)
Issue Date	23 July 2008
Expiry Date	22 July 2013
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H. Murase
Yokohama Design Support Office
Lloyd's Register

Lloyd's Register, registered office:
71 Fenchurch Street, London EC3M 4BS

RATINGS

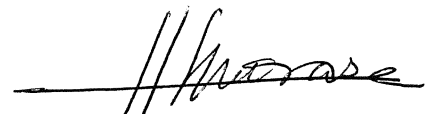
Type	Poles (Note 1)	Current rating at 45°C (A)	Rated voltage (V)	Breaking current (r.m.s.) (kA) Icu/Ics	Making current (Peak asymmetrical) (kA)	Power factor or Time constant (ms) Icu/Ics	Over current release	Standard				
E125-NJ	2*, 3	12.5-125	500 Vac	8/6	14.7	0.38/0.49	Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A				
			450	15/12	32.6	0.20/0.16						
			415	25/19	52.5	0.25/0.30						
			240	35/27	79.6	0.16/0.15						
250 Vdc	25/19	25	17.7/12.6									
E225-NF	2*, 3	125-225	500 Vac	10/7.5	17.3	0.46/0.36			Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A		
E225-NFH	2*, 3	125-225	450	15/12	32.6	0.20/0.16						
E225-NFL	2*, 3	125-225	415	25/19	52.5	0.25/0.30						
E250-NF	2*, 3	250	240	35/27	79.6	0.16/0.15						
E250-NJ	2*, 3	100-250	250 Vdc	25/19	25	17.7/12.6						
S50-GF	3	15-50	690 Vac	6/6	9.29	0.65/0.65					Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A
S50-GFH	3	15-50	500	25/22	52.5	0.25/0.25						
S50-GFL	3	15-50	450	50/25	112	0.17/0.20						
S100-GF	2, 3	15-100	415	65/33	143	0.20/0.25						
S100-GFH	2, 3	15-100	240	85/85	201	0.13/0.13						
S100-GFL	2, 3	15-100	250 Vdc	40/40	40	17.7/17.7						
S125-GF	2, 3	125	690 Vac	6/6	9.29	0.65/0.65	Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A				
S125-GJ	2*, 3	12.5-125	500	22/22	46.2	0.25/0.25						
S100-NF	2, 3	15-100	450	25/25	54.4	0.20/0.20						
S100-NFH	2, 3	15-100	415	30/30	63	0.25/0.25						
S100-NFL	2, 3	15-100	240	50/50	115	0.15/0.15						
S125-NF	2, 3	125	250 Vdc	25/19	25	17.7/12.6						
S125-NJ	2*, 3	12.5-125	450 Vac	25/25	54.4	0.20/0.20			Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A		
S100-NM	3	16-100	240	50/50	115	0.15/0.15						
			690 Vac	7.5/7.5	13.1	0.45/0.45						
			500	25/25	52.5	0.25/0.25						
			450	50/25	112	0.17/0.20						
S160-GJ	2*, 3	100-160	415	65/36	143	0.20/0.25					Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A
			240	85/85	201	0.13/0.13						
			250 Vdc	40/40	40	17.7/17.7						
			240	85/85	201	0.13/0.13						
S250-GJ	2*, 3	100-250	415	65/36	143	0.20/0.25						
			240	85/85	201	0.13/0.13						
			250 Vdc	40/40	40	17.7/17.7						
			240	85/85	201	0.13/0.13						

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Type	Poles (Note 1)	Current rating at 45°C (A)	Rated voltage (V)	Breaking current (r.m.s.) (kA) Icu/Ics	Making current (Peak asymmetrical) (kA)	Power factor or Time constant (ms) Icu/Ics	Over current release	Standard
S160-NJ S250-NJ	2*, 3 2*, 3	100-160 100-250	690 Vac 500 450 415 240 250 Vdc	7.5/7.5 25/25 25/25 36/36 65/65 40/40	13.1 52.5 54.4 75.6 148 40	0.45/0.45 0.25/0.25 0.20/0.20 0.25/0.25 0.16/0.16 17.7/17.7		
S225-GF S225-GFH S225-GFL S250-GF	2*, 3 2*, 3 2*, 3 2*, 3	125-225 125-225 125-225 250	690 Vac 500 450 415 240 250 Vdc	7.5/7.5 25/25 50/25 65/35 85/85 40/40	13.1 52.5 112 143 201 40	0.45/0.45 0.25/0.25 0.17/0.20 0.20/0.25 0.13/0.13 17.7/17.7	Thermal overload release and Magnetic short circuit release	IEC60947-2 Utilisation category: A
S225-NF S225-NFH S225-NFL S250-NF	2*, 3 2*, 3 2*, 3 2*, 3	125-225 125-225 125-225 250	690 Vac 500 450 415 240 250 Vdc	7.5/7.5 25/25 25/25 35/35 65/65 40/40	13.1 52.5 54.4 73.5 148 40	0.45/0.45 0.25/0.25 0.20/0.20 0.25/0.25 0.16/0.16 17.7/17.7		
S225-NM	3	125-225	450 Vac 240	25/25 65/65	54.4 148	0.20/0.20 0.16/0.16		

Note 1) 2* shows 3poles type with centre pole omitted.

"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. 03/10059(E2) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

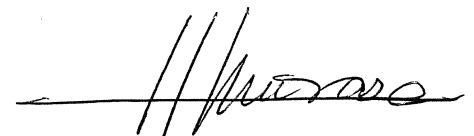
All other details remain as the previous Certificate No. 03/10059(E1) to which this extension should be attached.

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