Certificate No: LR22158740TA
Issue Date: 13/01/2022
Expiry Date: 12/01/2027

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Mitsubishi Electric Corporation, Fukuyama Works**
Address	1-8 Midorimachi, Fukuyama-city, Hiroshima, 720-8647, Japan
Place of Production	Mitsubishi Electric Dalian Industrial Products Co., Ltd. Dongbei 3-5, Dalian Economic & Technical Development Zone, Dalian, 116600, China
Place of Production	Mitsubishi Electric Corporation, Fukuyama Works 1-8 Midorimachi, Fukuyama-city, Hiroshima, 720-8647, Japan
Type	Circuit Breakers (Env Tested)
Description	NF125-SXV, NF125-LXV, NF125-HXV, NF160-SXV, NF160-LXV, NF160-HXV, NF250-SXV, NF250-LXV, NF250-HXV, NF125-SGV, NF125-LGV, NF125-HGV, NF250-SGV, NF-250-LGV, NF250-HGV, NF125-RGV, NF250-RGV, NF125-SEV, NF125-HEV, NF250-SEV, NF250-HEV
Trade Name	Molded case circuit breakers (2 and/or 3 poles)
Application	Marine and offshore applications for use in environmental categories ENV2 as defined in LR Type Approval System Test Specification No. 1-2002 where the Test Specification is satisfactory for the intended operation.

Sachie Fujii

Senior Surveyor to Lloyd's Register Group Ltd
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Specified Standard IEC60947-2 : Edition 5.1

Ratings See Appendix for details

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 Group Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 12/10002(E2)

The Design Appraisal Document LR22158740TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Appendix

RATINGS

(1) Mitsubishi Electric Corporation Fukuyama Works
(2) Mitsubishi Electric Dalian Industrial Products Co. Ltd

RATINGS 1 : For product produced at both (1) & (2) in the above listed

Type	Current rating at 45°C In (A)	Rated voltage (V)	Breaking current (RMS) (kA) Icu/Ics	Making current (peak asym-metrical) (kA)	Power factor or Time constant	Over-current release	Standard
NF125-SXV	15, 16, 20, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125	AC690 AC500 AC450 AC240	8/8 23/23 36/36 75/75	15.5 50.1 76.8 167	0.5 0.25 0.25 0.2	Thermal and Magnetic	IEC60947-2 Utilization category: A Pollution degree: 3 Suitable for isolation
NF125-LXV	15, 16, 20, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125	AC690 AC500 AC450 AC240 DC300	8/8 36/36 50/50 90/90 20/20	15.5 83.3 115 201 20.0	0.5 0.25 0.25 0.2 10ms		
NF125-HXV	15, 16, 20, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125	AC690 AC500 AC450 AC240 DC300	10/8 50/38 65/65 100/100 40/40	19.9 114 148 219 40.0	0.5 0.25 0.2 0.2 15ms		
NF160-SXV	15, 16, 20, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125, 150, 160	AC690 AC500 AC450 AC240 DC300	8/8 30/30 36/36 85/85 20/20	15.5 63.0 76.8 189 20.0	0.5 0.25 0.25 0.2 10ms		
NF160-LXV	125, 150, 160	AC690 AC500 AC450 AC240 DC300	8/8 36/36 50/50 90/90 20/20	15.5 83.3 115 201 20.0	0.5 0.25 0.25 0.2 10ms		

RATINGS 1 (Cont.) : For product produced at both (1) & (2) in the above listed

Type	Current rating at 45°C In (A)	Rated voltage (V)	Breaking current (RMS) (kA) Icu/Ics	Making current (peak asym-metrical) (kA)	Power factor or Time constant	Over-current release	Standard
NF160-HXV	125, 150, 160	AC690 AC500 AC450 AC240 DC300	10/8 50/38 65/65 100/100 40/40	19.9 114 148 219 40.0	0.5 0.25 0.2 0.2 15ms	Thermal and Magnetic	IEC60947-2 Utilization category: A Pollution degree: 3 Suitable for isolation
NF250-SXV	100, 125, 150, 175, 200, 225, 250	AC690 AC500 AC450 AC240 DC300	8/8 30/30 36/36 85/85 20/20	15.5 63.0 76.8 189 20.0	0.5 0.25 0.25 0.2 10ms		
NF250-LXV	100, 125, 150, 175, 200, 225, 250	AC690 AC500 AC450 AC240 DC300	8/8 36/36 50/50 90/90 20/20	15.5 83.3 115 201 20.0	0.5 0.25 0.25 0.2 10ms		
NF250-HXV	100, 125, 150, 175, 200, 225, 250	AC690 AC500 AC450 AC240 DC300	10/8 50/38 65/65 100/100 40/40	19.9 114 148 219 40.0	0.5 0.25 0.2 0.2 15ms		
NF125-SGV	20, 25, 32, 40, 50, 63, 80, 100, 125 (Variable)	AC690 AC500 AC450 AC240 DC300	8/8 30/30 36/36 85/85 20/20	15.5 63.0 76.8 189 20.0	0.5 0.25 0.25 0.2 10ms		

RATINGS 1 (Cont.) : For product produced at both (1) & (2) in the above listed

Type	Current rating at 45°C In (A)	Rated voltage (V)	Breaking current (RMS) (kA) Icu/Ics	Making current (peak asym-metrical) (kA)	Power factor or Time constant	Over-current release	Standard
NF125-LGV	20, 25, 32, 40, 50, 63, 80, 100, 125 (Variable)	AC690 AC500 AC450 AC240 DC300	8/8 36/36 50/50 90/90 20/20	15.5 83.3 115 201 20.0	0.5 0.25 0.25 0.2 10ms	Thermal and Magnetic	IEC60947-2 Utilization category: A Pollution degree: 3 Suitable for isolation
NF125-HGV	20, 25, 32, 40, 50, 63, 80, 100, 125 (Variable)	AC690 AC500 AC450 AC240 DC300	10/8 50/38 65/65 100/100 40/40	19.9 114 148 219 40.0	0.5 0.25 0.2 0.2 15ms		
NF250-SGV	160, 200, 250 (Variable)	AC690 AC500 AC450 AC240 DC300	8/8 30/30 36/36 85/85 20/20	15.5 63.0 76.8 189 20.0	0.5 0.25 0.25 0.2 10ms		
NF250-LGV	160, 200, 250 (Variable)	AC690 AC500 AC450 AC240 DC300	8/8 36/36 50/50 90/90 20/20	15.5 83.3 115 201 20.0	0.5 0.25 0.25 0.2 10ms		
NF250-HGV	160, 200, 250 (Variable)	AC690 AC500 AC450 AC240 DC300	10/8 50/38 65/65 100/100 40/40	19.9 114 148 219 40.0	0.5 0.25 0.2 0.2 15ms		

RATINGS 2 : For product produced at both (1) in the above listed

Type	Current rating at 45°C In (A)	Rated voltage (V)	Breaking current (RMS) (kA) Icu/Ics	Making current (peak asym-metrical) (kA)	Power factor or Time constant	Over-current release	Standard
NF125-RGV	20, 25, 32, 40, 50, 63, 80, 100, 125 (Variable)	AC450 AC240	125/125 150/150	278 349	0.2 0.2	Thermal and Magnetic	IEC60947-2 Utilization category: A Pollution degree: 3 Suitable for isolation
NF250-RGV	160, 200, 250 (Variable)	AC450 AC240	125/125 150/150	278 349	0.2 0.2		
NF125-SEV	32, 63, 125 (Variable)	AC690 AC500 AC450 AC240	8/8 30/30 36/36 85/85	15.5 63.0 76.8 189	0.5 0.25 0.25 0.2	Electronic	
NF125-HEV	32, 63, 125 (Variable)	AC690 AC500 AC450 AC240	10/8 50/38 65/65 100/100	19.9 114 148 219	0.5 0.25 0.2 0.2		
NF250-SEV	160, 250 (Variable)	AC690 AC500 AC450 AC240	8/8 30/30 36/36 85/85	15.5 63.0 76.8 189	0.5 0.25 0.25 0.2		

RATINGS 2 (Cont.) : For product produced at both (1) in the above listed

Type	Current rating at 45°C In (A)	Rated voltage (V)	Breaking current (RMS) (kA) Icu/Ics	Making current (peak asym-metrical) (kA)	Power factor or Time constant	Over-current release	Standard
NF250-HEV	160, 250 (Variable)	AC690 AC500 AC450 AC240	10/8 50/38 65/65 100/100	19.9 114 148 219	0.5 0.25 0.2 0.2	Electronic	IEC60947-2 Utilization category: A Pollution degree: 3 Suitable for isolation

-End of Appendix-