# CERTIFICATE

Issued to: Applicant: Mitsubishi Electric Corporation Fukuyama Works 1-8 Midori-Machi Fukuyama-City Hiroshima-Pref 720 8647, Japan

Licensee: Mitsubishi Electric Corporation Fukuyama Works 1-8 Midori-Machi Fukuyama-City Hiroshima-Pref 720 8647, Japan

Product	:	Moulded-Case Circuit-Breaker
Trade name(s)	:	MITSUBISHI ELECTRIC
Type(s)/model(s)	:	NF800-CEW and NF800-HEW

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 60947-2:2017
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2116095

DEKRA hereby grants the right to use the KEMA-KEUR certification mark.

The KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR certification agreement and under the conditions of the KEMA-KEUR certification agreement.

This certificate is issued on 16 May 2018 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 33-103723

DEKRA Certification B.V.

drs. G.J. Zoetbrood Managing Director

© Integral publication of this certificate is allowed

ACCREDITED BY THE DUTCH ACCREDITATION COUNCIL



Kreny Lin Certification Manager





DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09085396



# SPECIFICATION OF THE CERTIFIED PRODUCT

<b>Product data</b> Product Trade name(s)	: Moulded-Case Circuit-Breaker : MITSUBISHI ELECTRIC
Type(s)/model(s) Rated insulation voltage (Ui) Rated impulse withstand voltage (Uimp)	: NF800-CEW and NF800-HEW : 690 V : 8 kV
Reference temperature (°C) Rated current (In) Conventional thermal current (Ith) Rated frequency Suitable for isolation Selectivity category Safety distance (screen-circuit	<ul> <li>Independent</li> <li>800 A (400 - 800 A adjustable)</li> <li>Equal to In</li> <li>50 / 60 Hz</li> <li>Suitable</li> <li>B</li> <li>Left / Right: 100 mm</li> </ul>
breaker) Instantaneous release	Up / Down: 100 mm Front / Back: 170 mm : li (instantaneous tripping setting):
	Electronic type, adjustable, (4 / 6 / 8 / 10 / 12) x 800 A
Short time delay release	<ul> <li>Isd (short time delay tripping setting): Electronic type, adjustable,</li> <li>(2 / 2,5 / 3 / 3,5 / 4 / 5 / 6 / 7 / 8 / 10) x In for In = 400 - 700 A</li> <li>(2 / 2,5 / 3 / 3,5 / 4 / 5 / 6 / 7 / 8 / 10) x Ir for In = 800 A</li> </ul>
Time setting of the short time delay release	: tsd (short time delay tripping setting): 0,06  s - 0,3  s (0,06 / 0,1 / 0,2 / 0,3  s) $0,06 \text{ s}$ , with tolerance of $\pm 0,02 \text{ s}$ $0,1 \text{ s}$ , with tolerance of $\pm 0,03 \text{ s}$ $0,2 \text{ s}$ , with tolerance of $\pm 0,04 \text{ s}$ $0,3 \text{ s}$ , with tolerance of $\pm 0,06 \text{ s}$
Inverse time delay release	<ul> <li>Ir (inverse time delay tripping setting): Electronic type, adjustable,</li> <li>In for In = 400 / 450 / 500 / 600 / 700 A</li> <li>(0,5 / 0,6 / 0,7 / 0,8 / 0,9 / 1) x In for In = 800 A</li> </ul>
Time setting of the inverse time delay release	: tr (inverse time delay tripping setting): 12 s - 150 s (12 / 60 / 100 / 150 s), with tolerance of $\pm 20\%$ (at 2 lr) 2lr tripping time declared by the manufacturer: when tr = 12 s: 12 s $\pm 20\%$ when tr = 60 s: 60 s $\pm 20\%$ when tr = 100 s: 100 s $\pm 20\%$ when tr = 150 s: 150 s $\pm 20\%$
Method of mounting Degree of protection	: Fixed : IP20 (only from front side)
EMC environment Rated tightening torque for terminals	: A : 50 Nm for M10
(Nm) Circuit-breaker for use in IT systems Line/load terminal Connection	<ul> <li>Yes, 12 In at 415 Vac</li> <li>Immaterial</li> <li>Prepared copper conductor with cable lug</li> </ul>
<b>Product data – type NF800-CEW</b> Number of poles Protected pole Rated operational voltage (Ue) Rated ultimate short-circuit breaking capacity (Icu)	<ul> <li>3P</li> <li>3</li> <li>415 / 400 Vac, 380 Vac, 230 / 200 Vac</li> <li>36 kA at 415 / 400 Vac, 40 kA at 380 Vac</li> <li>50 kA at 230 / 200 Vac</li> </ul>

page 1 of 2

## ANNEX TO KEMA-KEUR CERTIFICATE 33-103723



page 2 of 2

Rated service short-circuit breaking	: 50% Icu
capacity (Ics) Rated short-time withstand current (Icw)	: 9,6 kA / 0,25 s
(ICW)	

## Product data - type NF800-HEW

Number of poles	: 3P, 4P (N pole without protection)
Protected pole	: 3
Rated operational voltage (Ue)	: 415 / 400 / 380 Vac, 230 / 200 Vac
Current rating for four-pole circuit-	: Equal to In
breakers	
Rated ultimate short-circuit breaking	: 70 kA at 415 / 400 / 380 Vac
capacity (Icu)	100 kA at 230 / 200 Vac
Rated service short-circuit breaking	: 100% lcu
capacity (Ics)	
Rated short-time withstand current	: 9,6 kA / 0,25 s
(Icw)	

## TESTS

## **Test requirements**

EN 60947-2:2017

#### **Test result**

The test results are laid down in DEKRA test file 331314700.

## Additional information

The referred test reports are 3313147.50 and also based on CQC CB test certificate CN42483 issued on 2018-01-25 with CQC CB test report 00901-CB2017CQC-074711 issued on 2017-12-11.

The product also complies with IEC 60947-2:2016.

#### Conclusion

The examination proved that all requirements were met.

**Factory location** Mitsubishi Electric Corporation Fukuyama Works 1-8 Midori-Machi Fukuyama-City Hiroshima-Pref 720 8647, Japan