

CERTIFICATE

Issued to:
Applicant:
BTB Electric Vina Co., Ltd
No.85 Quoc Bao, Van Dien Town, Thanh Tri Dist
10000 Hanoi, Vietnam

Product : Moulded-Case Circuit-Breaker
Trade name(s) : BTB Electric
Type(s)/model(s) : MF 400E, MF 400L, MF 400S, MF 630E, MF 630L, MF 630S, MTm 400E, MTm 400L, MTm 400S, MTm 630E, MTm 630L, MTm 630S, MT 400E, MT 400L, MT 400S, MT 630E, MT 630L and MT 630S

The product and any acceptable variation thereto as 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 EN 60947-2:2017, EN 60947-2:2017/A1:2020, IEC 60947-2:2016 and IEC 60947-2:2016/AMD1:2019
- an inspection of the factory location according to CENELEC Operational Document CIG 021
- a DEKRA certification agreement with the number 2165673
- the licensee is registered with the number 2926

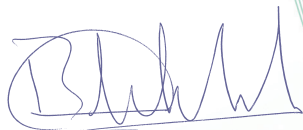
DEKRA hereby grants the right to use the KEMA-KEUR certification mark.

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

This certificate is issued on 12 December 2023 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 33-133552

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



Miranda Zhou
Certification Manager

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SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: Moulded-Case Circuit-Breaker
Trade name(s)	: BTB Electric
Type(s)/model(s)	: MF 400E, MF 400L, MF 400S, MF 630E, MF 630L, MF 630S, MTm 400E, MTm 400L, MTm 400S, MTm 630E, MTm 630L, MTm 630S, MT 400E, MT 400L, MT 400S, MT 630E, MT 630L and MT 630S
Number of poles	: 3P and 4P (N pole without overcurrent protection)
Rated operational voltage (Ue)	: 380 Vac / 400 Vac / 415 Vac
Rated insulation voltage (Ui)	: 1000 V
Rated impulse withstand voltage (Uimp)	: 8 kV
Rated frequency	: 50 / 60 Hz
Conventional thermal current (Ith)	: Equal to In
Current rating for four-pole circuit-breakers	: Equal to In
Individual pole short-circuit (Itr)	: 12 In
Suitable for isolation	: Suitable
Selectivity category	: A
Safety distance (screen-circuit breaker)	: Front / Back: 0 mm, Left / Right: 100 mm, Up / Down: 100 mm
Reference temperature	: 40 °C or 55 °C
Ambient temperature	: - 5 °C to 40 °C for reference temperature 40 °C - 5 °C to 40 °C and 55 °C for reference temperature 55 °C
Method of mounting	: Fixed
EMC environment	: A and B
Tightening torque for terminals	: M10 / 10 Nm
Line/load terminal	: Marked
Connection	: Copper conductor with cable lug for 250 A - 400 A, copper conductor with cable lug or copper busbar with (30 x 5) mm ² x 2 for 500 A copper conductor with cable lug or copper busbar with (40 x 5) mm ² x 2 for 550 A and 630 A

Product data – type MF 400E

Rated current (In)	: 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics)	: 60 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 85 kA / 60 kA
Inverse time delay release	: Fixed
Time setting of the inverse time delay release	: Fixed, tripping time at 2 In: 1 min 30 s - 15 min
Instantaneous release	: li: 10 In

Product data – type MF 400L

Rated current (In)	: 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics)	: 50 kA / 36 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 50 kA / 36 kA
Inverse time delay release	: Fixed

Time setting of the inverse time delay release : Fixed, tripping time at 2 In: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MF 400S

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 75 kA
Rated ultimate short-circuit breaking capacity (Icu) : 100 kA / 75 kA
Inverse time delay release : Fixed
Time setting of the inverse time delay release : Fixed, tripping time at 2 In: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MF 630E

Rated current (In) : 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics) : 60 kA
Rated ultimate short-circuit breaking capacity (Icu) : 85 kA / 60 kA
Inverse time delay release : Fixed
Time setting of the inverse time delay release : Fixed, tripping time at 2 In: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MF 630L

Rated current (In) : 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics) : 50 kA / 36 kA
Rated ultimate short-circuit breaking capacity (Icu) : 50 kA / 36 kA
Inverse time delay release : Fixed
Time setting of the inverse time delay release : Fixed, tripping time at 2 In: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MF 630S

Rated current (In) : 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics) : 75 kA
Rated ultimate short-circuit breaking capacity (Icu) : 100 kA / 75 kA
Inverse time delay release : Fixed
Time setting of the inverse time delay release : Fixed, tripping time at 2 In: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MT 400E

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 60 kA

Rated ultimate short-circuit breaking capacity (Icu) : 85 kA / 60 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MT 400L

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 50 kA / 36 kA
Rated ultimate short-circuit breaking capacity (Icu) : 50 kA / 36 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MT 400S

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 75 kA
Rated ultimate short-circuit breaking capacity (Icu) : 100 kA / 75 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MT 630E

Rated current (In) : 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics) : 60 kA
Rated ultimate short-circuit breaking capacity (Icu) : 85 kA / 60 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MT 630L

Rated current (In) : 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics) : 50 kA / 36 kA
Rated ultimate short-circuit breaking capacity (Icu) : 50 kA / 36 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MT 630S

Rated current (In) : 500 A, 550 A, 630 A

Rated service short-circuit breaking capacity (Ics) : 75 kA
Rated ultimate short-circuit breaking capacity (Icu) : 100 kA / 75 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: 10 In

Product data – type MTm 400E

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 60 kA
Rated ultimate short-circuit breaking capacity (Icu) : 85 kA / 60 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: (5, 8, 10) x In

Product data – type MTm 400L

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 50 kA / 36 kA
Rated ultimate short-circuit breaking capacity (Icu) : 50 kA / 36 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: (5, 8, 10) x In

Product data – type MTm 400S

Rated current (In) : 250 A, 280 A, 300 A, 315 A, 350 A, 400 A
Rated service short-circuit breaking capacity (Ics) : 75 kA
Rated ultimate short-circuit breaking capacity (Icu) : 100 kA / 75 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: (5, 8, 10) x In

Product data – type MTm 630E

Rated current (In) : 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics) : 60 kA
Rated ultimate short-circuit breaking capacity (Icu) : 85 kA / 60 kA
Inverse time delay release : Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release : Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release : li: (5, 8, 10) x In

Product data – type MTm 630L

Rated current (In)	: 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics)	: 50 kA / 36 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 50 kA / 36 kA
Inverse time delay release	: Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release	: Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release	: Ii: (5, 8, 10) x In

Product data – type MTm 630S

Rated current (In)	: 500 A, 550 A, 630 A
Rated service short-circuit breaking capacity (Ics)	: 75 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 100 kA / 75 kA
Inverse time delay release	: Ir: (0,8, 0,9, 1,0) x In
Time setting of the inverse time delay release	: Fixed, tripping time at 2 Ir: 1 min 30 s - 15 min
Instantaneous release	: Ii: (5, 8, 10) x In

TESTS**Test requirements**

EN 60947-2:2017
EN 60947-2:2017/A1:2020
IEC 60947-2:2016
IEC 60947-2:2016/AMD1:2019

Test result

The test results are laid down in DEKRA test file 332970700.

Additional information

Nomenclature breakdown:

MTm 630 S

a b c d

a = Model name: M

b = Type of release: 'Tm' means thermo-magnetic adjustable, 'T' means thermo adjustable, magnetic fixed and 'F' means thermo-magnetic fixed

b = Frame size: 630 or 400

c = short-circuit capacity: 'S', 'E' or 'L'

The referred test report is 3329707.50.

The certificate is based on KEMA-KEUR certificate No. 33-126857

Conclusion

The examination proved that all requirements were met.

Factory location

The factory location is registered with the number 2926.