

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) : ME 400E, ME 400S, ME 630E, ME 630S, iME 400E, iME 400S, iME 630E and iME 630S

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

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

- 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

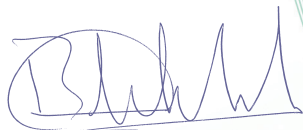
DEKRA hereby grants the right to use the KEMA-KEUR certification mark.

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 13 March 2025 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 33-154930

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)	: ME 400E, ME 400S, ME 630E, ME 630S, iME 400E, iME 400S, iME 630E and iME 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
Rated short-time withstand current (Icw)	: 8 kA - 1 s
Individual pole short-circuit (Itr)	: 12 In
Suitable for isolation	: Suitable
Selectivity category	: B
Safety distance (screen-circuit breaker)	: Front / Back: 0 mm, Left / Right: 100 mm, Up / Down: 100 mm
Reference temperature	: Independent
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 and 400 A, copper conductor with cable lug or copper busbar with (40 x 5) mm ² x 2 for 630 A

Product data – type iME 400E

Rated current (In)	: 250 A, 300 A, 315 A, 320 A, 400 A
Rated service short-circuit breaking capacity (Ics)	: 60 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 60 kA / 85 kA
Inverse time delay release	: Ir: (0,4-1,0) x In, in step of 1 A
Time setting of the inverse time delay release	: tr: 12 - 150 s at 2 Ir + OFF, in step of 1s, with tolerance of ± 10% tripping time at 2 Ir: 12 ± 10% (tr = 12 s) 150 s ± 10% (tr = 150 s)
Short time delay release	: Isd: (2 - 12) x Ir, in step of 1 A
Time setting of the short time delay release	: tsd: 0,06 - 1,0 s + OFF, in step of 0,01s, with tolerance of ± 10% (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: li: (4 - 14) x Ir + OFF, in step of 1 A
Ground fault release	: Ig: (0,2 - 1,0) x In + OFF, in step of 1 A (only for 4P) tg: 0,4 - 1 s, in step of 0,1 s, with tolerance of ± 10%

Product data – type iME 400S

Rated current (In)	: 250 A, 300 A, 315 A, 320 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: (0,4-1,0) x In, in step of 1 A
Time setting of the inverse time delay release	: tr: 12 - 150 s at 2 Ir + OFF, in step of 1s, with tolerance of ± 10% tripping time at 2 Ir: 12 ± 10% (tr = 12 s) 150 s ± 10% (tr = 150 s)
Short time delay release	: Isd: (2 - 12) x Ir
Time setting of the short time delay release	: tsd: 0,06 - 1,0 s + OFF, in step of 0,01s, with tolerance of ± 10% (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: li: (4 - 14) x Ir + OFF, in step of 1 A
Ground fault release	: Ig: (0,2 - 1,0) x In + OFF, in step of 1 A (only for 4P) tg: 0,4 - 1 s, in step of 0,1 s, with tolerance of ± 10%

Product data – type iME 630E

Rated current (In)	: 250 A, 300 A, 315 A, 320 A, 400 A, 500 A, 600 A, 630 A
Rated service short-circuit breaking capacity (Ics)	: 60 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 60 kA / 85 kA
Inverse time delay release	: Ir: (0,4-1,0) x In, in step of 1 A
Time setting of the inverse time delay release	: tr: 12 - 150 s at 2 Ir + OFF, in step of 1s, with tolerance of ± 10% tripping time at 2 Ir: 12 ± 10% (tr = 12 s) 150 s ± 10% (tr = 150 s)
Short time delay release	: Isd: (2 - 12) x Ir, in step of 1 A
Time setting of the short time delay release	: tsd: 0,06 - 1,0 s + OFF, in step of 0,01s, with tolerance of ± 10% (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: li: (4 - 14) x Ir + OFF, in step of 1 A
Ground fault release	: Ig: (0,2 - 1,0) x In + OFF, in step of 1 A (only for 4P) tg: 0,4 - 1 s, in step of 0,1 s, with tolerance of ± 10%

Product data – type iME 630S

Rated current (In)	: 250 A, 300 A, 315 A, 320 A, 400 A, 500 A, 600 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: (0,4-1,0) x In, in step of 1 A
Time setting of the inverse time delay release	: tr: 12 - 150 s at 2 Ir + OFF, in step of 1s, with tolerance of ± 10% tripping time at 2 Ir: 12 ± 10% (tr = 12 s) 150 s ± 10% (tr = 150 s)

Short time delay release	: $I_{sd}: (2 - 12) \times I_r$
Time setting of the short time delay release	: $t_{sd}: 0,06 - 1,0 \text{ s} + \text{OFF}$, in step of 0,01s, with tolerance of $\pm 10\%$ (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: $I_i: (4 - 14) \times I_r + \text{OFF}$, in step of 1 A
Ground fault release	: $I_g: (0,2 - 1,0) \times I_n + \text{OFF}$, in step of 1 A (only for 4P) $t_g: 0,4 - 1 \text{ s}$, in step of 0,1 s, with tolerance of $\pm 10\%$

Product data – type ME 400E

Rated current (I_n)	: 250 A, 300 A, 315 A, 320 A, 400 A
Rated service short-circuit breaking capacity (I_{cs})	: 60 kA
Rated ultimate short-circuit breaking capacity (I_{cu})	: 60 kA / 85 kA
Inverse time delay release	: I_r : 160, 190, 225, 250, 275, 300, 325, 350, 375, 400 A for 400 A I_r : 128, 152, 180, 200, 220, 240, 260, 280, 300, 320 A for 320 A I_r : 126, 150, 177, 196, 216, 236, 255, 275, 295, 315 A for 315 A I_r : 120, 142, 168, 188, 206, 225, 243, 262, 281, 300 A for 300 A I_r : 100, 112, 125, 140, 150, 160, 180, 200, 225, 250 A for 250 A
Time setting of the inverse time delay release	: t_r : 12, 60, 100, 150 s at $2 I_r + \text{OFF}$, with tolerance of $\pm 10\%$ tripping time at $2 I_r$: $12 \pm 10\%$ ($t_r = 12 \text{ s}$) $150 \text{ s} \pm 10\%$ ($t_r = 150 \text{ s}$)
Short time delay release	: $I_{sd}: (2, 2,5, 3, 4, 5, 6, 7, 8, 10, 12) \times I_r$
Time setting of the short time delay release	: $t_{sd}: 0,06, 0,1, 0,2, 0,3, 0,4, 0,5, 1,0 \text{ s} + \text{OFF}$, with tolerance of $\pm 10\%$ (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: $I_i: (4, 6, 7, 8, 9, 10, 11, 12, 14) \times I_r + \text{OFF}$
Ground fault release	: $I_g: (0,2, 0,3, 0,4, 0,5, 0,6, 0,7, 0,8, 0,9, 1,0) \times I_n + \text{OFF}$ (only for 4P) t_g : fixed at 0,4 s, with tolerance of $\pm 10\%$

Product data – type ME 400S

Rated current (I_n)	: 250 A, 300 A, 315 A, 320 A, 400 A
Rated service short-circuit breaking capacity (I_{cs})	: 75 kA
Rated ultimate short-circuit breaking capacity (I_{cu})	: 75 kA / 100 kA
Inverse time delay release	: I_r : 160, 190, 225, 250, 275, 300, 325, 350, 375, 400 A for 400 A I_r : 128, 152, 180, 200, 220, 240, 260, 280, 300, 320 A for 320 A I_r : 126, 150, 177, 196, 216, 236, 255, 275, 295, 315 A for 315 A I_r : 120, 142, 168, 188, 206, 225, 243, 262, 281, 300 A for 300 A I_r : 100, 112, 125, 140, 150, 160, 180, 200, 225, 250 A for 250 A
Time setting of the inverse time delay release	: t_r : 12, 60, 100, 150 s at $2 I_r + \text{OFF}$, with tolerance of $\pm 10\%$ tripping time at $2 I_r$: $12 \pm 10\%$ ($t_r = 12 \text{ s}$) $150 \text{ s} \pm 10\%$ ($t_r = 150 \text{ s}$)
Short time delay release	: $I_{sd}: (2, 2,5, 3, 4, 5, 6, 7, 8, 10, 12) \times I_r$

Time setting of the short time delay release	: tsd: 0,06, 0,1, 0,2, 0,3, 0,4, 0,5, 1,0 s + OFF, with tolerance of $\pm 10\%$ (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: li: (4, 6, 7, 8, 9, 10, 11, 12, 14) x Ir + OFF
Ground fault release	: lg: (0,2, 0,3, 0,4, 0,5, 0,6, 0,7, 0,8, 0,9, 1,0) x In + OFF (only for 4P) tg: fixed at 0,4 s, with tolerance of $\pm 10\%$

Product data – type ME 630E

Rated current (In)	: 250 A, 300 A, 315 A, 320 A, 400 A, 500 A, 600 A, 630 A
Rated service short-circuit breaking capacity (Ics)	: 60 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 60 kA / 85 kA
Inverse time delay release	: Ir: 252, 300, 350, 400, 435, 475, 515, 550, 595, 630 A for 630 A Ir: 240, 285, 333, 380, 414, 452, 490, 523, 566, 600 A for 600 A Ir: 200, 238, 278, 317, 345, 377, 408, 436, 472, 500 A for 500 A Ir: 160, 190, 225, 250, 275, 300, 325, 350, 375, 400 A for 400 A Ir: 128, 152, 180, 200, 220, 240, 260, 280, 300, 320 A for 320 A Ir: 126, 150, 177, 196, 216, 236, 255, 275, 295, 315 A for 315 A Ir: 120, 142, 168, 188, 206, 225, 243, 262, 281, 300 A for 300 A Ir: 100, 112, 125, 140, 150, 160, 180, 200, 225, 250 A for 250 A
Time setting of the inverse time delay release	: tr: 12, 60, 100, 150 s at 2 Ir + OFF, with tolerance of $\pm 10\%$ tripping time at 2 Ir: 12 $\pm 10\%$ (tr = 12 s) 150 s $\pm 10\%$ (tr = 150 s)
Short time delay release	: Isd: (2, 2,5, 3, 4, 5, 6, 7, 8, 10, 12) x Ir
Time setting of the short time delay release	: tsd: 0,06, 0,1, 0,2, 0,3, 0,4, 0,5, 1,0 s + OFF, with tolerance of $\pm 10\%$ (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: li: (4, 6, 7, 8, 9, 10, 11, 12, 14) x Ir + OFF
Ground fault release	: lg: (0,2, 0,3, 0,4, 0,5, 0,6, 0,7, 0,8, 0,9, 1,0) x In + OFF (only for 4P) tg: fixed at 0,4 s, with tolerance of $\pm 10\%$

Product data – type ME 630S

Rated current (In)	: 250 A, 300 A, 315 A, 320 A, 400 A, 500 A, 600 A, 630 A
Rated service short-circuit breaking capacity (Ics)	: 75 kA
Rated ultimate short-circuit breaking capacity (Icu)	: 75 kA / 100 kA
Inverse time delay release	: Ir: 252, 300, 350, 400, 435, 475, 515, 550, 595, 630 A for 630 A Ir: 240, 285, 333, 380, 414, 452, 490, 523, 566, 600 A for 600 A Ir: 200, 238, 278, 317, 345, 377, 408, 436, 472, 500 A for 500 A Ir: 160, 190, 225, 250, 275, 300, 325, 350, 375, 400 A for 400 A Ir: 128, 152, 180, 200, 220, 240, 260, 280, 300, 320 A for 320 A Ir: 126, 150, 177, 196, 216, 236, 255, 275, 295, 315 A for 315 A Ir: 120, 142, 168, 188, 206, 225, 243, 262, 281, 300 A for 300 A Ir: 100, 112, 125, 140, 150, 160, 180, 200, 225, 250 A for 250 A

Time setting of the inverse time delay release	: tr: 12, 60, 100, 150 s at 2 I _r + OFF, with tolerance of $\pm 10\%$ tripping time at 2 I _r : 12 $\pm 10\%$ (tr = 12 s) 150 s $\pm 10\%$ (tr = 150 s)
Short time delay release	: I _{sd} : (2, 2,5, 3, 4, 5, 6, 7, 8, 10, 12) x I _r
Time setting of the short time delay release	: I _{sd} : 0,06, 0,1, 0,2, 0,3, 0,4, 0,5, 1,0 s + OFF, with tolerance of $\pm 10\%$ (min. 40 ms) non-tripping duration: Set at 0,06 s: 0,02 s, Set at 1,0 s: 0,9 s
Instantaneous release	: I _i : (4, 6, 7, 8, 9, 10, 11, 12, 14) x I _r + OFF
Ground fault release	: I _g : (0,2, 0,3, 0,4, 0,5, 0,6, 0,7, 0,8, 0,9, 1,0) x I _n + OFF (only for 4P) tg: fixed at 0,4 s, with tolerance of $\pm 10\%$

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 documented in DEKRA test file 333385200.

Additional information

Nomenclature breakdown:

iME 630E

a b c d

a = Model name: 'iME' or 'M', 'iM' means MCCB with LCD, 'M' means MCCB with button

b = Type of release: 'E' means electronic type

c = Frame size: 630 or 400

d = short-circuit capacity: 'E' or 'S'

The referred test report is 3333852.50.

The certificate is based on KEMA-KEUR certificate No. 33-147830 REV.1.

Conclusion

The examination has confirmed that all requirements were met.

Factory location

The factory location is registered with the number 2926.