# **CERTIFICATE**

Issued to:
Applicant:
Zhejiang Chint Electrics Co., Ltd.
No. 1, Chint Road, Chint Industrial Zone, North Baixiang, Yueqing,
325603 Zhejiang, China

Licensee:

Zhejiang Chint Electrics Co., Ltd. No. 1, Chint Road, Chint Industrial Zone, North Baixiang, Yueqing, 325603 Zhejiang, China

Product : Air Circuit-Breaker

Trade name(s) : CHINT

Type(s)/model(s) : NXA20H, NXA20N and NXA20S

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 and EN 60947-5-1/2017
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2032236

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 21 December 2018 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 33-106567

DEKRA Certification B.V.

B.T.M. Holtus Managing Director H.R.M. Barends
Certification Manager

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#### SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product : Air Circuit-Breaker

Trade name(s) : CHINT

Type(s)/model(s) : NXA20H, NXA20N and NXA20S Number of poles : 3P or 4P (N pole with protection)

Protected poles : 3 or 4

Rated operational voltage (Ue) : 380 / 400 / 415 Vac, 440 / 525 / 690 Vac

Rated insulation voltage (Ui) : 1000 V for main circuit 415 V for control circuit

415 V for auxiliary circuit
12 kV for main circuit

Rated impulse withstand voltage

(Uimp)

6 kV for control circuit 6 kV for auxiliary circuit

Rated frequency : 50 / 60 Hz

Rated current (In) : 2000 A, 1600 A, 1250 A, 1000 A, 800 A, 630 A

Conventional thermal current (Ith) : Equal to In

Current rating for four-pole circuit- : 50% In, 100% In adjustable

breakers

Individual pole short-circuit (IIT) : 12 In at 380 / 400 / 415 / 440 / 525 Vac

Suitable for isolation : Suitable

Selectivity category : B

Safety distance (screen-circuit : Left / Right: 0 mm

breaker)

Up / Down: 0 mm
Front / Back: 0 mm
Independent

Reference temperature : Inde

Method of mounting : Fixed or Withdrawable

EMC environment : A

Tightening torque for terminals : 50 Nm for M12 Line/load terminal : Immaterial

Connection : Prepared copper conductor with cable lug or copper busbar

minimum cross-sectional area of conductor (mm²): Prepared copper conductor with cable lug, 185 mm² x 2 maximum cross-sectional area of conductor (mm²):

Copper busbar, (100 x 5) mm<sup>2</sup> x 3

Electronic trip unit type(s) : NKD6 series:

NKD6-M, NKD6-A, NKD6-P and NKD6-H

NST1-D series:

NST1-DM, NST1-DA, NST1-DP and NST1-DH

Inverse time delay release : Ir (inverse time delay tripping setting):

For trip units: NKD6-P, NKD6-H, NST1-DM,

NST1-DA, NST1-DP and NST1-DH

(0,4 - 1) x In, in steps of 1 A

For trip units: NKD6-M and NKD6-A (0,4 / 0,5 / 0,6 / 0,7 / 0,8 / 0,9 / 1) x In : tr (inverse time delay tripping setting):

Time setting of the inverse time

delay release

tr (inverse time delay tripping setting): 1 s / 2 s / 4 s / 8 s / 12 s / 16 s / 20 s / 24 s,

with tolerance of ± 15% (at 6 lr)

2 Ir tripping time declared by the manufacturer:

when tr = 1 s: 7,65 s - 10,35 swhen tr = 24 s: 183,6 s - 248,4 s



Short time delay release : Isd (short time delay tripping setting):

For trip units: NKD6-P, NKD6-H

(2 - 10) x Ir, in steps of 1 A

For trip units: NST1-DM, NST1-DA, NST1-DP and NST1-DH

(2-10) x Ir, in steps of 1 A for Ii < 10 kA, in steps of 0,01 kA for Ii ≥ 10 kA

For trip units: NKD6-M and NKD6-A

(2/3/4/5/6/8/10) x Ir

Time setting of the short time delay

release

: tsd (short time delay tripping setting): I<sup>2</sup>t off: 0,1 s / 0,2 s / 0,3 s / 0,4 s 0,1 s, with tolerance of 60 ms - 140 ms 0,2 s, with tolerance of 160 ms - 240 ms 0,3 s, with tolerance of 255 ms - 345 ms 0.4 s, with tolerance of 340 ms - 460 ms

non-tripping duration stated by the manufacturer:

0.1 s: 50 ms 0,2 s: 140 ms 0,3 s: 250 ms 0,4 s: 330 ms

: li (instantaneous tripping setting): Instantaneous release

> For trip units: NKD6-P, NKD6-H (2 - 15) x In, in steps of 1 A

For trip units: NST1-DM, NST1-DA, NST1-DP and NST1-DH

(2 - 15) x In, in steps of 1 A for Ii < 10 kA,

in steps of 0.01 kA for li ≥ 10 kA For trip units: NKD6-M and NKD6-A (2/4/6/8/10/12/15) x ln

Making current release (MCR)

Ground fault release

Ig (ground fault release tripping setting): Max 1200 A

For trip units: NKD6-P. NKD6-H. NST1-DM.

NST1-DA, NST1-DP and NST1-DH (0,2 - 1) x In, in steps of 1 A

For trip units: NKD6-M and NKD6-A (0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.8 / 1) x In

Time setting of the ground fault

release

: tg (ground fault release tripping setting): I<sup>2</sup>t off: 0,1 s / 0,2 s / 0,3 s / 0,4 s

0,1 s, with tolerance of 60 ms - 140 ms 0,2 s, with tolerance of 160 ms - 240 ms 0,3 s, with tolerance of 255 ms - 345 ms 0,4 s, with tolerance of 340 ms - 460 ms

Shunt release : 220 / 230 / 240 Vac, 380 / 400 / 415 Vac;

110 Vdc, 220 Vdc

Under-voltage release 220 / 230 / 240 Vac, 380 / 400 / 415 Vac 220 / 230 / 240 Vac, 380 / 400 / 415 Vac; Closing coil

110 Vdc, 220 Vdc

Stored energy motor : 220 / 230 / 240 Vac, 380 / 400 / 415 Vac;

110 Vdc, 220 Vdc

: 6NO6NC, 4NO4NC Auxiliary circuits

AC-15: 1,3 A at 240 Vac, 0,75 A at 415 Vac; 50 / 60 Hz

DC-13: 0,55 A at 110 Vdc, 0,27 A at 220 Vdc

Ui: 415 V, Uimp: 6 kV, Ith: 6 A

rated conditional short-circuit current: 1 kA

SCPD: NT00-6, 6 A

Product data – type NXA20H

Rated service short-circuit breaking

capacity (Ics)

: 65 kA at 380 / 400 / 415 Vac 55 kA at 440 / 525 / 690 Vac



Rated ultimate short-circuit breaking

capacity (Icu)

Rated short-time withstand current

(lcw)

: 80 kA at 380 / 400 / 415 Vac

55 kA at 440 / 525 / 690 Vac

: 65 kA / 1 s at 380 / 400 / 415 Vac 42 kA / 3 s at 380 / 400 / 415 Vac

55 kA / 1 s at 440 / 525 / 690 Vac

Product data - type NXA20N

Rated service short-circuit breaking

capacity (Ics)

Rated ultimate short-circuit breaking

capacity (Icu)

Rated short-time withstand current

(lcw)

: 50 kA at 380 / 400 / 415 Vac 50 kA at 440 / 525 / 690 Vac

: 80 kA at 380 / 400 / 415 Vac

50 kA at 440 / 525 / 690 Vac

: 50 kA / 1 s at 380 / 400 / 415 Vac

37 kA / 3 s at 380 / 400 / 415 Vac

50 kA / 1 s at 440 / 525 / 690 Vac

Product data – type NXA20S

Rated service short-circuit breaking

capacity (Ics)

Rated ultimate short-circuit breaking

capacity (Icu)

Rated short-time withstand current

(lcw)

: 65 kA at 380 / 400 / 415 Vac

55 kA at 440 / 525 / 690 Vac

: 65 kA at 380 / 400 / 415 Vac 55 kA at 440 / 525 / 690 Vac

: 65 kA / 1 s at 380 / 400 / 415 Vac

42 kA / 3 s at 380 / 400 / 415 Vac

55 kA / 1 s at 440 / 525 / 690 Vac

#### **TESTS**

## Test requirements

EN 60947-2:2017 EN 60947-5-1:2017

#### Test result

The test results are laid down in DEKRA test file 331397000.

### Additional information

Nomenclature breakdown NXA20N / x, NXA20S / x, NXA20H / x x- represents number of poles, 4 for 4P, blank for 3P

The referred test reports are 3313970.50, 3312363.51 and CQC CB test reports no. 00901-CB2015CQC-067842 issued on 2015-12-18 with CQC CB test certificate no. CN36363 issued on 2016-01-26, no. 00901-CB2016CQC-069809 issued on 2016-03-24 and no. 00901-CB2016CQC-069809-M1 issued on 2017-06-22 with CQC CB test certificate no. CN36877-M1 issued on 2017-07-14.

The product also complies with IEC 60947-2:2016, IEC 60947-5-1:2016.

#### Conclusion

The examination proved that all requirements were met.



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Factory location
Zhejiang Chint Electrics Co., Ltd.
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