CERTIFICATE

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

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

Product	:	Air Circuit Breaker
Trade name(s)	:	CHINT
Type(s)/model(s)	:	NA1-2000, NA1-2000H, NA1-2000N, NA1-2000X, NA1-2000XH and NA1-2000XN

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 60947-2:2006, EN 60947-2:2006/A1:2009, EN 60947-2:2006/A2:2013, EN 60947-5-1:2004 and EN 60947-5-1:2004/A1:2009
- 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 29 November 2017 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 33-101165

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

Kreny Lin
Certification Manager

ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL

PRODUCTS
RvA C 001

KEMA KEUR

SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product	:	Air Circuit Breaker
Trade name(s)	:	CHINT
Type(s)/model(s)	:	NA1-2000, NA1-2000H, NA1-2000N, NA1-2000X, NA1-2000XH and NA1-2000XN
Number of poles	:	3P and 4P (N pole does not have overcurrent protection, but has ground fault protection)
Protected pole	:	3 or 4
Rated operational voltage (Ue)	:	400 Vac / 415 Vac / 690 Vac
Rated insulation voltage (Ui)	:	1000 V for main circuit 400 V for control circuits and auxiliary circuits
Rated impulse withstand voltage (Uimp)	:	12 kV for main circuit 6 kV for control circuits and auxiliary circuits
Rated current (In)	:	630 A, 800 A, 1000 A, 1250 A, 1600 A, 2000 A
Rated operational current (Ie)	:	(0,4 - 1,0) x In
Conventional thermal current (Ith)	:	Equal to In
Current rating for four-pole circuit-breakers	:	Equal to In
Rated frequency	:	50 / 60 Hz
Suitable for isolation	:	Suitable
Utilization category	:	B
Safety distance (screen-circuit breaker)	:	All sides: 0 mm
Method of mounting	:	Fixed or Withdrawable
EMC environment	:	A
Reference temperature	:	Independent
Shunt release	:	AC: 127 V, 220 - 230 V, 380 - 400 V, 50 / 60 Hz DC: 110 V, 220 V
Under-voltage release	:	AC: 127 V, 220 - 230 V, 380 - 400 V, 50 / 60 Hz DC: 110 V, 220 V
Closing coil	:	AC: 127 V, 220 - 230 V, 380 - 400 V, 50 / 60 Hz DC: 110 V, 220 V
Stored energy motor	:	AC: 127 V, 220 - 230 V, 380 - 400 V, 50 / 60 Hz DC: 110 V, 220 V
Auxiliary circuits	:	Utilization category: AC-15: 1,3 A at 230 Vac, 0,75 at 400 Vac, 50 / 60 Hz DC-13: 0,55 A at 110 Vdc, 0,27 A at 220 Vdc number and kind of contact elements: 4 NO and 4 NC or 6 NO and 6 NC rated conditional short-circuit current: 1 kA conventional free air thermal current (Ith): 6 A kind of protective device: fuse, RL6-25/6, gG, 6 A, 500 V, 7,5 kA
Line/load terminal	:	Immaterial
Connection	:	Prepared copper conductor with cable lug for 630 A to 800 A Copper busbar for 1000 A to 2000 A
Rated tightening torque for terminals	:	50 Nm

Product data – type NA1-2000

Type of elecronic release	:	NST1-C
Rated ultimate short-circuit breaking capacity (Icu)	:	80 kA at 400 Vac, 50 kA at 415 / 690 Vac
Rated service short-circuit breaking capacity (Ics)	:	65 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated short-time withstand current (Icw)	:	50 kA / 1 s at 400 Vac, 40 kA / 1 s at 415 / 690 Vac 42 kA / 3 s at 415 Vac

Inverse time delay release	:	Ir (inverse time delay tripping setting): (0,4 - 1,0) x In, in step of 1 A
Time setting of the inverse time delay release	:	tr (inverse time delay tripping setting): 15 s, 30 s, 60 s, 120 s, 240 s, 480 s with tolerance of ± 10% (at 1,5 Ir) Trip time at 2 Ir: Set at 15 s: 8,4 s, with tolerance of ± 10%, Set at 480 s: 270 s , with tolerance of ± 10%
Short time delay release	:	Isd (short time delay tripping setting): (1,3125 - 15) x Ir, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Time setting	:	tsd (short time delay tripping setting): 0,1 s, 0,2 s, with tolerance of ± 32 ms, 0,3 s, 0,4 s, with tolerance of ± 25% Non-tripping duration: Set at 0,1 s: 0,06 s, Set at 0,4 s: 0,25 s
Instantaneous release	:	Ii (instantaneous tripping setting): 1,3125 In - 50 kA, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Ground fault release	:	Ig: (0,2 - 0,8) x In, in step of 1 A (with minimum current setting 160 A, if In = 630 A) Characteristic specified by manufacturer: When the fault current is 0,9 Ig, ACB shall not trip within 2 tg, When the fault current is 1,1 Ig, ACB shall trip within the limits of tg
Time setting of ground fault release	:	tg: 0,1 s, 0,2 s, with tolerance of ± 32 ms 0,3 s, 0,4 s, with tolerance of ± 25%
Making current release	:	16 kA

Product data – type NA1-2000H

Type of elecronic release	:	NST1-C
Rated ultimate short-circuit breaking capacity (Icu)	:	65 kA at 400 Vac, 50 kA at 415 / 690 Vac
Rated service short-circuit breaking capacity (Ics)	:	65 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated short-time withstand current (Icw)	:	50 kA / 1 s at 400 Vac, 40 kA / 1 s at 415 / 690 Vac 42 kA / 3 s at 415 Vac
Inverse time delay release	:	Ir (inverse time delay tripping setting): (0,4 - 1,0) x In, in step of 1 A
Time setting of the inverse time delay release	:	tr (inverse time delay tripping setting): 15 s, 30 s, 60 s, 120 s, 240 s, 480 s with tolerance of ± 10% (at 1,5 Ir) Trip time at 2 Ir: Set at 15 s: 8,4 s, with tolerance of ± 10%, Set at 480 s: 270 s , with tolerance of ± 10%
Short time delay release	:	Isd (short time delay tripping setting): (1,3125 - 15) x Ir, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Time setting	:	tsd (short time delay tripping setting): 0,1 s, 0,2 s, with tolerance of ± 32 ms, 0,3 s, 0,4 s, with tolerance of ± 25% Non-tripping duration: Set at 0,1 s: 0,06 s, Set at 0,4 s: 0,25 s

Instantaneous release	:	Ii (instantaneous tripping setting): 1,3125 In - 50 kA, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Ground fault release	:	Ig: (0,2 - 0,8) x In, in step of 1 A (with minimum current setting 160 A, if In = 630 A) Characteristic specified by manufacturer: When the fault current is 0,9 Ig, ACB shall not trip within 2 tg, When the fault current is 1,1 Ig, ACB shall trip within the limits of tg
Time setting of ground fault release	:	tg: 0,1 s, 0,2 s, with tolerance of ± 32 ms 0,3 s, 0,4 s, with tolerance of ± 25%
Making current release	:	16 kA

Product data – type NA1-2000N

Type of elecronic release	:	NST1-C
Rated ultimate short-circuit breaking capacity (Icu)	:	50 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated service short-circuit breaking capacity (Ics)	:	50 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated short-time withstand current (Icw)	:	50 kA / 1 s at 400 Vac, 40 kA / 1 s at 415 / 690 Vac 42 kA / 3 s at 415 Vac
Inverse time delay release	:	Ir (inverse time delay tripping setting): (0,4 - 1,0) x In, in step of 1 A
Time setting of the inverse time delay release	:	tr (inverse time delay tripping setting): 15 s, 30 s, 60 s, 120 s, 240 s, 480 s with tolerance of ± 10% (at 1,5 Ir) Trip time at 2 Ir: Set at 15 s: 8,4 s, with tolerance of ± 10%, Set at 480 s: 270 s , with tolerance of ± 10%
Short time delay release	:	Isd (short time delay tripping setting): (1,3125 - 15) x Ir, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Time setting	:	tsd (short time delay tripping setting): 0,1 s, 0,2 s, with tolerance of ± 32 ms, 0,3 s, 0,4 s, with tolerance of ± 25% Non-tripping duration: Set at 0,1 s: 0,06 s, Set at 0,4 s: 0,25 s
Instantaneous release	:	Ii (instantaneous tripping setting): 1,3125 In - 50 kA, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Ground fault release	:	Ig: (0,2 - 0,8) x In, in step of 1 A (with minimum current setting 160 A, if In = 630 A) Characteristic specified by manufacturer: When the fault current is 0,9 Ig, ACB shall not trip within 2 tg, When the fault current is 1,1 Ig, ACB shall trip within the limits of tg
Time setting of ground fault release	:	tg: 0,1 s, 0,2 s, with tolerance of ± 32 ms 0,3 s, 0,4 s, with tolerance of ± 25%
Making current release	:	16 kA

Product data – type NA1-2000X

Type of elecronic release	:	NST1-D

Rated ultimate short-circuit breaking capacity (Icu)	:	80 kA at 400 Vac, 50 kA at 415 / 690 Vac
Rated service short-circuit breaking capacity (Ics)	:	65 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated short-time withstand current (Icw)	:	50 kA / 1 s at 400 Vac, 40 kA / 1 s at 415 / 690 Vac 42 kA / 3 s at 415 Vac
Inverse time delay release	:	Ir (inverse time delay tripping setting): (0,4 - 1,0) x In, in step of 1 A
Time setting of the inverse time delay release	:	tr (inverse time delay tripping setting): 15 s, 30 s, 60 s, 120 s, 240 s, 480 s with tolerance of ± 10% (at 1,5 Ir) Trip time at 2 Ir: Set at 15 s: 8,4 s, with tolerance of ± 10%, Set at 480 s: 270 s , with tolerance of ± 10%
Short time delay release	:	Isd (short time delay tripping setting): (1,5 - 15) x Ir, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Time setting	:	tsd (short time delay tripping setting): 0,1 s, 0,2 s, with tolerance of ± 40 ms, 0,3 s, 0,4 s, with tolerance of ± 15% Non-tripping duration: Set at 0,1 s: 0,05 s, Set at 0,4 s: 0,33 s
Instantaneous release	:	Ii (instantaneous tripping setting): 1,5 In - 50 kA, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Ground fault release	:	Ig: (0,2 - 0,8) x In, in step of 1 A (with maximum current setting 1200 A, if In = 1600 A and 2000 A)
Time setting of ground fault release	:	tg: 0,1 s, 0,2 s, with tolerance of ± 40 ms 0,3 s, 0,4 s, with tolerance of ± 15%
Making current release	:	16 kA

Product data – type NA1-2000XH

Type of elecronic release	:	NST1-D
Rated ultimate short-circuit breaking capacity (Icu)	:	65 kA at 400 Vac, 50 kA at 415 / 690 Vac
Rated service short-circuit breaking capacity (Ics)	:	65 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated short-time withstand current (Icw)	:	50 kA / 1 s at 400 Vac, 40 kA / 1 s at 415 / 690 Vac 42 kA / 3 s at 415 Vac
Inverse time delay release	:	Ir (inverse time delay tripping setting): (0,4 - 1,0) x In, in step of 1 A
Time setting of the inverse time delay release	:	tr (inverse time delay tripping setting): 15 s, 30 s, 60 s, 120 s, 240 s, 480 s with tolerance of ± 10% (at 1,5 Ir) Trip time at 2 Ir: Set at 15 s: 8,4 s, with tolerance of ± 10%, Set at 480 s: 270 s , with tolerance of ± 10%
Short time delay release	:	Isd (short time delay tripping setting): (1,5 - 15) x Ir, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA

Time setting	:	tsd (short time delay tripping setting): 0,1 s, 0,2 s, with tolerance of ± 40 ms, 0,3 s, 0,4 s, with tolerance of ± 15% Non-tripping duration: Set at 0,1 s: 0,05 s, Set at 0,4 s: 0,33 s
Instantaneous release	:	Ii (instantaneous tripping setting): 1,5 In - 50 kA, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Ground fault release	:	Ig: (0,2 - 0,8) x In, in step of 1 A (with maximum current setting 1200 A, if In = 1600 A and 2000 A)
Time setting of ground fault release	:	tg: 0,1 s, 0,2 s, with tolerance of ± 40 ms 0,3 s, 0,4 s, with tolerance of ± 15%
Making current release	:	16 kA

Product data – type NA1-2000XN

Type of elecronic release	:	NST1-D
Rated ultimate short-circuit breaking capacity (Icu)	:	50 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated service short-circuit breaking capacity (Ics)	:	50 kA at 400 Vac, 40 kA at 415 / 690 Vac
Rated short-time withstand current (Icw)	:	50 kA / 1 s at 400 Vac, 40 kA / 1 s at 415 / 690 Vac 42 kA / 3 s at 415 Vac
Inverse time delay release	:	Ir (inverse time delay tripping setting): (0,4 - 1,0) x In, in step of 1 A
Time setting of the inverse time delay release	:	tr (inverse time delay tripping setting): 15 s, 30 s, 60 s, 120 s, 240 s, 480 s with tolerance of ± 10% (at 1,5 Ir) Trip time at 2 Ir: Set at 15 s: 8,4 s, with tolerance of ± 10%, Set at 480 s: 270 s , with tolerance of ± 10%
Short time delay release	:	Isd (short time delay tripping setting): (1,5 - 15) x Ir, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Time setting	:	tsd (short time delay tripping setting): 0,1 s, 0,2 s, with tolerance of ± 40 ms, 0,3 s, 0,4 s, with tolerance of ± 15% Non-tripping duration: Set at 0,1 s: 0,05 s, Set at 0,4 s: 0,33 s
Instantaneous release	:	Ii (instantaneous tripping setting): 1,5 In - 50 kA, in step of 1 A, if Ii < 10 kA, in step of 0,01 kA, if Ii ≥10 kA
Ground fault release	:	Ig: (0,2 - 0,8) x In, in step of 1 A (with maximum current setting 1200 A, if In = 1600 A and 2000 A)
Time setting of ground fault release	:	tg: 0,1 s, 0,2 s, with tolerance of ± 40 ms 0,3 s, 0,4 s, with tolerance of ± 15%
Making current release	:	16 kA

TESTS

Test requirements
EN 60947-2:2006
EN 60947-2:2006/A1:2009

EN 60947-2:2006/A2:2013
EN 60947-5-1:2004
EN 60947-5-1:2004/A1:2009

Test result
The test results are laid down in DEKRA test file 331181300.

Additional information
Nomenclature breakdown:

NA1-2000XH/4
a b c d e

a = Model name: NA1
b = Frame size: 2000
c = Electronic release: X means NST1-D , blank means NST1-C
d = short-circuit capacity, 'N', 'H' or 'blank'
e = pole numbers: '3' means 3P ACBs, '4' means 4P ACBs

The referred test reports are 3311813.50, 3311324.50, 3308633, 3303046, W0707121.50, S0501025 and ITS CB test report no. 201044-1.

This certificate replaces certificate no. 33-100107 issued on 2017-04-20.

The product also complies with IEC 60947-2:2016, IEC 60947-5-1:2003 and A1:2009.

Conclusion
The examination proved that all requirements were met.

Factory location
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Economic and Technical Development Zone,
Wenzhou, Zhejiang, China