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This Licence is valid until the review date or earlier if preceded by the withdrawal of the Approval Standard or otherwise withdrawn by the Certification Body. Current validity status can be confirmed by contacting: Intertek (ASTA office) Centre Court Meridian Business Park Leicester LE19 1WD United Kingdom Tel: +44 (0)116 263 0330 asta@intertek.com

Details of Approved variants, components and sites are given on Endorsements to this Licence (6 pages)

ASTA Licence

This Licence authorises use of the

ASTA Diamond Mark

Licence No. 862

Organisation: Hager Electro SAS

132 Boulevard d'Europe, B.P. 3, 67215 Obernai Cedex, France

Product:	
Designation:	
Colour(s):	
Ue = 240/415 Volts a.c. 50 Hz	
Icn = 10000 Amperes,	
Poles: 1 to 4 Poles	
Unenclosed	

Circuit breaker NDNxxxA, NCNxxxA & NBNxxxA Grey In: 0.5 to 63 Amperes Ics = 7500 Amperes, Uimp = 4kV Types: B, C and D Screw type terminals

Approval Standard:

EN 60898-1: 2003 +A1: 2004, A11: 2005, A12: 2008, A13: 2012 IEC 60947-2: 2016

Issue number: Review date: Factory Reference:

5 30th April 2024 HAGEFR.01

R W Hayward

Name Signature

21st April 2020

This Licence is not accredited under ISO/IEC 17065:

Date



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Types of ASTA Certificates

Certificates are issued when samples of a particular product design have been tested satisfactorily against the requirements of a National, European, International or ASTA Standard. Several forms of Certificate are available, including:

Certificate of Complete Compliance

Verifies compliance with all the requirements of a Standard

Certificate of Type/Verification Tests

Verifies complete series of type/verification tests prescribed in a Standard has been made successfully

Certificate of Selected Type/Verification Tests

Verifies specified type/verification tests have been made successfully

Supplementary Certificate

Extends the scope of an existing Certificate to cover changes in rating or in design

ASTA Test Report

An ASTA Test Report is issued when tests otherwise satisfactory cannot be included in a Certificate for one or more reasons, e.g. verification of non-standard ratings.

ASTA Licences and ASTA Diamond Mark

The use of the ASTA Diamond Mark on products is authorised by an ASTA Licence. Products covered by an ASTA Licence can be referred to as ASTA Approved. Requirements for ASTA Licences include testing for full compliance with relevant standards and satisfactory, on-going assessment of production. Validity and use of ASTA Licences are subject to compliance with Intertek Certification Regulations. For more information see <u>http://client-webex.intertek.com/europeinspection/default.aspx</u>

Short-Circuit Testing Liaison (STL)

Intertek (ASTA) is a member of the Short-Circuit Testing Liaison. For further details please refer to <u>http://stl-liaison.org</u>

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Authenticity of any ASTA document can be confirmed by contacting the Intertek office detailed on the front of this document.



ASTA Licence No. 862, Endorsement 1 of 6 Product: Miniature Circuit Breaker (MCB) Designation: NDNxxxA, NCNxxxA and NBNxxxA

Approved sites for manufacture/production:

Components & Assembly – Hager Electro SAS 132 Boulevard d'Europe B.P. 3 67215 Obernai Cedex France

Conditions for maintenance of Licence:

- 1) Compliance with Certification Regulations.
- 2) Inspection of manufacturing facilities each year with satisfactory outcome.
- 3) Surveillance testing of production samples at required intervals with satisfactory outcome.
- 4) Satisfactory actions in the event of any compliance and/or safety issues becoming known after product has been supplied.
- 5) Prompt payment of invoices.

Licence Renewal:

Licence fee will be invoiced annually during the month of June.

The Licence document will be reissued following any changes advised or variants tested. A fee may be charged for reissue.

Surveillance samples:

Samples are required to be tested in accordance with Intertek surveillance testing programmes.

Samples should preferably be selected during scheduled Factory inspection visits. The fee for testing will be invoiced at the time of testing. A summary of testing will be provided.

Use of the ASTA Mark:

The ASTA Mark may be used on the product and in marketing material relating to the product, as permitted by the Certification Regulations.

The Licence number should be marked on the product (mandatory on BS 1363 plugs, where feasible on other products) in a form agreed by Intertek, such as "Approved by ASTA Licence no. 862".

Marketing of product with alternative designation(s) or brand name(s):

This Licence relates only to products specifically described herein. Any alternative designations and/or brand names should be advised to Intertek. The Licence will then be reissued accordingly. Alternative brand names (if applicable) are shown on an Annex to this Licence.

Compliance Testing:

Reason for test	ASTA reference/certificate
Complete compliance	16305
Complete compliance	20527
Complete compliance - IEC 60947-2	22127



ASTA Licence No. 862, Endorsement 2 of 6 Product: Miniature Circuit Breaker (MCB) Designation: NDNxxxA, NCNxxxA and NBNxxxA

Rated Current	1 pole	1 pol		2 poles	3 poles	3 pole		4 poles
(Amperes) 0.5	NDN100A	N on right NDN500A	N on left NDN700A	NDN200A	NDN300A	N on right NDN600A	N on left NDN800A	NDN400A
1	NDN101A	NDN501A	NDN701A	NDN201A	NDN301A	NDN601A	NDN801A	NDN401A
2	NDN102A	NDN502A	NDN702A	NDN202A	NDN302A	NDN602A	NDN802A	NDN402A
3	NDN103A	NDN503A	NDN703A	NDN203A	NDN303A	NDN603A	NDN803A	NDN403A
4	NDN104A	NDN504A	NDN704A	NDN204A	NDN304A	NDN604A	NDN804A	NDN404A
6	NDN106A	NDN506A	NDN706A	NDN206A	NDN306A	NDN606A	NDN806A	NDN406A
10	NDN110A	NDN510A	NDN710A	NDN210A	NDN310A	NDN610A	NDN810A	NDN410A
13	NDN113A	NDN513A	NDN713A	NDN213A	NDN313A	NDN613A	NDN813A	NDN413A
16	NDN116A	NDN516A	NDN716A	NDN216A	NDN316A	NDN616A	NDN816A	NDN416A
20	NDN120A	NDN520A	NDN720A	NDN220A	NDN320A	NDN620A	NDN820A	NDN420A
25	NDN125A	NDN525A	NDN725A	NDN225A	NDN325A	NDN625A	NDN825A	NDN425A
32	NDN132A	NDN532A	NDN732A	NDN232A	NDN332A	NDN632A	NDN832A	NDN432A
40	NDN140A	NDN540A	NDN740A	NDN240A	NDN340A	NDN640A	NDN840A	NDN440A
50	NDN150A	NDN550A	NDN750A	NDN250A	NDN350A	NDN650A	NDN850A	NDN450A
63	NDN163A	NDN563A	NDN763A	NDN263A	NDN363A	NDN663A	NDN863A	NDN463A

DESIGNATIONS OF DEVICES, TYPE D



ASTA Licence No. 862, Endorsement 3 of 6 Product: Miniature Circuit Breaker (MCB) Designation: NDNxxxA, NCNxxxA and NBNxxxA

Rated		1 pole	e + N			3 pole	s + N	
Current (Amperes)	1 pole	N on right	N on left	2 poles	3 poles	N on right	N on left	4 poles
0.5	NCN100A	NCN500A	NCN700A	NCN200A	NCN300A	NCN600A	NCN800A	NCN400A
1	NCN101A	NCN501A	NCN701A	NCN201A	NCN301A	NCN601A	NCN801A	NCN401A
2	NCN102A	NCN502A	NCN702A	NCN202A	NCN302A	NCN602A	NCN802A	NCN402A
3	NCN103A	NCN503A	NCN703A	NCN203A	NCN303A	NCN603A	NCN803A	NCN403A
4	NCN104A	NCN504A	NCN704A	NCN204A	NCN304A	NCN604A	NCN804A	NCN404A
6	NCN106A	NCN506A	NCN706A	NCN206A	NCN306A	NCN606A	NCN806A	NCN406A
10	NCN110A	NCN510A	NCN710A	NCN210A	NCN310A	NCN610A	NCN810A	NCN410A
13	NCN113A	NCN513A	NCN713A	NCN213A	NCN313A	NCN613A	NCN813A	NCN413A
16	NCN116A	NCN516A	NCN716A	NCN216A	NCN316A	NCN616A	NCN816A	NCN416A
20	NCN120A	NCN520A	NCN720A	NCN220A	NCN320A	NCN620A	NCN820A	NCN420A
25	NCN125A	NCN525A	NCN725A	NCN225A	NCN325A	NCN625A	NCN825A	NCN425A
32	NCN132A	NCN532A	NCN732A	NCN232A	NCN332A	NCN632A	NCN832A	NCN432A
40	NCN140A	NCN540A	NCN740A	NCN240A	NCN340A	NCN640A	NCN840A	NCN440A
50	NCN150A	NCN550A	NCN750A	NCN250A	NCN350A	NCN650A	NCN850A	NCN450A
63	NCN163A	NCN563A	NCN763A	NCN263A	NCN363A	NCN663A	NCN863A	NCN463A

DESIGNATIONS OF DEVICES, TYPE C



ASTA Licence No. 862, Endorsement 4 of 6 Product: Miniature Circuit Breaker (MCB) Designation: NDNxxxA, NCNxxxA and NBNxxxA

Rated		1 pol	e + N			3 pole	es + N	
Current (Amperes)	1 pole	N on left	N on right	2 poles	3 poles	N on left	N on right	4 poles
6	NBN106A	NBN506A	NBN706A	NBN206A	NBN306A	NBN506A	NBN806A	NBN406A
10	NBN110A	NBN510A	NBN710A	NBN210A	NBN310A	NBN510A	NBN810A	NBN410A
13	NBN113A	NBN513A	NBN713A	NBN213A	NBN313A	NBN513A	NBN813A	NBN413A
16	NBN116A	NBN516A	NBN716A	NBN216A	NBN316A	NBN516A	NBN816A	NBN416A
20	NBN120A	NBN520A	NBN720A	NBN220A	NBN320A	NBN520A	NBN820A	NBN420A
25	NBN125A	NBN525A	NBN725A	NBN225A	NBN325A	NBN525A	NBN825A	NBN425A
32	NBN132A	NBN532A	NBN732A	NBN232A	NBN332A	NBN532A	NBN832A	NBN432A
40	NBN140A	NBN540A	NBN740A	NBN240A	NBN340A	NBN540A	NBN840A	NBN440A
50	NBN150A	NBN550A	NBN750A	NBN250A	NBN350A	NBN550A	NBN850A	NBN450A
63	NBN163A	NBN563A	NBN763A	NBN263A	NBN363A	NBN563A	NBN863A	NBN463A

DESIGNATIONS OF DEVICES, TYPE B



Product Classifications and Ratings					
Number of poles	1, 2, 3 and 4 pole				
Selectivity (untilization) category	A				
Interruption medium	Air				
Design	Modular				
Method of controlling the operation mechanism	independent manual control				
Suitable for isolation	Suitable				
Provision for maintenance	Non-maintainable				
Method of installation	Fixed				
Safety distance	35mm, all sides				
Degree of protection (IP Code)	IP2X				
Type of release	Thermal magnetic				
Integral fuses	N/a				
Electromagnetic compatibility Environment B					
For use on phase-earthed systems No					
For use in IT systems	Yes				
Line/load terminal marking	Not marked				

Rated and limiting values, main circuit			
Rated operational voltage 2, 3, 4 pole or 3 pole + neutral	U _e	V	138/240V, 240/415V
Rated operational voltage 1 pole or 1 pole + neutral	Ue	V	240V
Rated insulation voltage	Ui	V	440V
Rated impulse withstand voltage	U_{imp}		6kV
Rated current	l _n	А	6A to 63A (B curve) 0.5A to 63A (C & D curves)
Kind of current			AC
Conventional free air thermal current	I _{th}	А	Equal to In
Conventional enclosed thermal current	I _{the}	А	N/a



ASTA Licence No. 862, Endorsement 6 of 6 Product: Miniature Circuit Breaker (MCB) Designation: NDNxxxA, NCNxxxA and NBNxxxA

Rated and limiting values, main circuit			
Rated operational voltage 2, 3, 4 pole or 3 pole + neutral	Ue	V	138/240V, 240/415V
Rated operational voltage 1 pole or 1 pole + neutral	Ue	V	240V
Rated insulation voltage	Ui	V	440V
Rated impulse withstand voltage	U_{imp}		6kV
Rated current	I _n	А	6A to 63A (B curve) 0.5A to 63A (C & D curves)
Kind of current			AC
Conventional free air thermal current	l _{th}	А	Equal to In
Conventional enclosed thermal current	I _{the}	А	N/a
Current rating for four pole circuit breakers		А	Equal to In
Rated frequency		Hz	50/60
Reference temperature			50°C
Eight hour duty			N/a
Uninterrupted duty	lu	А	Yes - equal to In
Rated short time withstand current	I _{cw}	А	N/a
Instantaneous release (Derived from IEC 60898-1)			B Curve: 4 x I _n C Curve: 7.5 x I _n D Curve: 12 x I _n
Individual pole short-circuit breaking capacity	l _{IT}	А	907

	NBN NCN NDN					
	I _{cu} / I _{cs} (kA) I _{cm} (kA _{pk})					
415V (2P, 3P, 3P+N, 4P)	15/7.5	30				
240V (1P, 1P+N)	15/7.5	30				
240V (2P, 3P, 3P+N, 4P)	30/15	63				
138V (1P, 1P+N)	30/15	63				