

# CERTIFICATE

KEMA No.:

2124878.01

Issued to: Applicant:

**Hager Electro SAS** 132 Boulevard d'Europe 67210, OBERNAI CEDEX, France

Manufacturer/Licensee: **Hager Electro SAS** 132 Boulevard d'Europe 67210, OBERNAI CEDEX, France

Product(s)

switch disconnectors

Trade name(s)

HAGER

Type(s)/model(s) : SB....

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

KEMA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 60947-3:1999;
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 900186

KEMA 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

This certificate is issued on: 27 April 2009 and expires upon withdrawal of one of the above mentioned standards.

KEMA Quality B.V.

drs. G.J. Zoetbrood Managing Director

H.R.M. Barends Certification Manager

© Integral publication of this certificate is allowed

ACCREDITED BY THE DUTCH COUNCIL FOR ACCREDITATION





ANNEX TO KEMA-KEUR CERTIFICATE 2124878,01

page 1 of 4

#### SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product : switch disconnectors

trade name(s) : HAGER

type(s) : SB.16., SB.25., SB.32, SB.32Q, SB.40., SB.63..

SB.63Q, SB.79., SB.80., SB.99.

rated insulation voltage : 500 Vac rated impulse withstand voltage : 6 kV

conventional free air thermal : 16/32 A, 32/80 A, 63/100 A; see also product data per

current (Ith) type.

rating/utilization category (Ue le) : See product data per type

rated conditional short-circuit : 10 kA or 6 kA See product data per type

current

operational performance : category A

without current : 8500 operating cycles with current : 1500 operating cycles

Additional information

Type designation: SBxyyz

x = number of poles: 1 = 1 pole, 2 = 2 pole, 3 = 3 pole, 4 = 4 pole yy = rated current: 16 = 16 A, 25 = 25 A, 32 = 32 A, 32 = 32 A, 40 = 40 A,

63 = 63 A, 79 = 80 A, 80 = 80 A, 99 = 100 A.

z = A,B,C...Y,Z: country code

Product data - type SB.16.

conventional free air thermal current : 16 A

(Ith)

Utilization category : AC-21A Rated current (le) : 16 A

Rated voltage (Ue) : 250 Vac (1 pole) or 400 Vac

Rated conditional short-circuit : 10 kA when protected with fuse-links limiting the cut-off

current to maximum 2.81 kA and the Joule integral to a maximum of 3.02 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320032, 32 A gG

Product data - type SB.25.

conventional free air thermal current : 25 A

(Ith)

Utilization category : AC-21A Rated current (le) : 25 A

Rated voltage (Ue) : 250 Vac (1 pole) or 400 Vac

Rated conditional short-circuit : 10 kA when protected with fuse-links limiting the cut-off

current to maximum 2.81 kA and the Joule integral to a maximum of 3.02 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320032, 32 A gG



#### ANNEX TO KEMA-KEUR CERTIFICATE 2124878.01

page 2 of 4

Product data - type SB.32.

conventional free air thermal current : 32 A

(Ith)

Utilization category AC-21A Rated current (le) 32 A

Rated voltage (Ue) 250 Vac (1 pole) or 400 Vac

Rated conditional short-circuit 10 kA when protected with fuse-links limiting the cut-off

current current to maximum 2.81 kA and the Joule integral to a

maximum of 3.02 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320032, 32 A gG

Product data - type SB.32Q

conventional free air thermal current : 32 A

(Ith)

Utilization category : AC-22A Rated current (le) : 32 A Rated voltage (Ue) 400 Vac

Rated conditional short-circuit 10 kA when protected with fuse-links limiting the cut-off current

current to maximum 4.39 kA and the Joule integral to a

maximum of 11.2 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320063, 63 A gG.

Remark : Only 2, 3 and 4 pole type.

Product data - type SB.40.

conventional free air thermal current : 40 A

(Ith)

Utilization category : AC-22A Rated current (le) 40 A

Rated voltage (Ue) 250 Vac (1 pole) or 400 Vac

Rated conditional short-circuit : 10 kA when protected with fuse-links limiting the cut-off

current current to maximum 4.39 kA and the Joule integral to a

maximum of 11.2 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320063, 63 A gG.

Product data - type SB.63.

conventional free air thermal current : 63 A

(Ith)

Utilization category : AC-22A Rated current (le) : 63 A

Rated voltage (Ue) 250 Vac (1 pole) or 400 Vac

Rated conditional short-circuit

current

: 10 kA when protected with fuse-links limiting the cut-off current to maximum 4.39 kA and the Joule integral to a maximum of 11.2 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320063, 63 A gG.

Product data - type SB.63Q

conventional free air thermal current : 63 A

(Ith)

Utilization category AC-22A Rated current (le) 63 A Rated voltage (Ue) 400 Vac

Rated conditional short-circuit

current

6 kA when protected with fuse-links limiting the cut-off current to maximum 4.39 kA and the Joule integral to a

maximum of 11.2 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320063, 63 A gG.

Remark : Only 3 pole type.

KEMA Quality B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands T +31 26 3 56 20 00 F +31 26 3 52 58 00 customer@kema.com www.kema.com Registered Arnhem 09085396



## ANNEX TO KEMA-KEUR CERTIFICATE 2124878.01

page 3 of 4

Product data - type SB.79.

conventional free air thermal current : 80 A

(Ith)

current

Utilization category: AC-22ARated current (le): 80 ARated voltage (Ue): 250 Vac

Rated conditional short-circuit : 6 kA when protected with fuse-links limiting the cut-off

current to maximum 5.40 kA and the Joule integral to a

maximum of 25.1 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320080, 80 A gG

Remark : 1 pole type only

Product data - type SB.80.

conventional free air thermal current : 80 A

(lth)

Utilization category : AC-22A Rated current (le) : 80 A

Product data for 1 pole:

Rated voltage (Ue) : 250 Vac

Rated conditional short-circuit : 10 kA when protected with fuse-links limiting the cut-off

current

current to maximum 5,11 kA and the Joule integral to a maximum of 24.5 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320080, 80 A gG.

Product data for multipole:

Rated Voltage (Ue) : 400 Vac

Rated conditional short-circuit

current

: 6 kA when protected with fuse-links limiting the cut-off

current to maximum 5.71 kA and the Joule integral to a maximum of 24.4 kA<sup>2</sup>s. Fuse links during tests: Socomec,

22 x 85 Type 60320080, 80 A gG.

Product data - type SB.99.

conventional free air thermal current : 100 A

(Ith)

Utilization category: AC-22ARated current (le): 100 A

Rated voltage (Ue) : 250 Vac (1 pole) or 400 Vac

Rated conditional short-circuit : 6 kA when protected with fuse-links limiting the cut-off

current current to maximum 5.57 kA and the Joule integral to a maximum of 56.0 kA<sup>2</sup>s. Fuse links during the test:

Socomec 22x85 type 60320100, 100 A gG.



# ANNEX TO KEMA-KEUR CERTIFICATE 2124878.01

page 4 of 4

#### **TESTS**

# Test requirements

EN 60947-3:1999 + A1:2001 + A2:2005

## Test result

The test results are laid down in KEMA test file 2124878.01.

### Remarks

This certificate replaces certificate no. 2113101.01.

#### Conclusion

The examination proved that all test requirements were met.

Tested by

: F.S. Strikwerda

Checked by

H.L. Schendstok

**Factory locations** 

Hager Polo Produkcja Sp. zo.o., UI. Fabryczna 10, , 43-100 TYCHY, Poland