CERTIFICATE

Issued to:
Applicant:
Marquardt GmbH
Schloss-Strasse 16
78604 Rietheim-Weilheim, Germany

Manufacturer/Licensee:
Marquardt GmbH
Schloss-Strasse 16
78604 Rietheim-Weilheim, Germany

Products	:	rocker switches
Trade name	:	MARQUARDT
Types/models	:	1830., 1831., 1832., 1833., 1834., 1835., 1838., 1839.

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 61058-1:2002 + A2:2008
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 983346

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

The ENEC KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the ENEC KEMA-KEUR certification agreement and under the conditions of the ENEC KEMA-KEUR certification agreement.

This certificate is issued on: 19 November 2015 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 2188637.01

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

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DUTCH ACCREDITATION
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PRODUCTS
RvA C 001

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SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

product	:	rocker switches
trade name	:	MARQUARDT
types	:	1830., 1831., 1832., 1833., 1834., 1835., 1838., 1839.
type reference	:	common type (C.T.)
type of switch	:	incorporated
contact opening	:	full disconnection
class	:	for class II appliances
degree of pollution	:	3
category to heat and fire	:	850°C
insulating material	:	tracking resistant (250 V)
rated impulse withstandvoltage	:	2500 V
material group	:	IIIa
terminals	:	tab terminals (4,8 x 0,8 and 6,8 x 0,8 mm) solder terminals PCB terminals
description	:	body and actuating member of thermoplastic material
markings	:	trade name, type reference, temperature limit and electrical ratings on the body

Additional information

Additional tests according to Clause 30 of the EN 60335-1:2012 are performed with positive results

Resistance to heat and fire: Insulation material around connections within an area of 3,0 mm.
- Glow-wire test 750°C; no flame.
- Glow-wire test 850°C; flame, if any, extinguished within 30 seconds after removal of the glow-wire.

- Glow-wire Ignition Temperature ≥ 775 °C; tested on raw material plates with the thickness of 0,75 mm, 1,5 mm and 3,0 mm.

The switch types 1831, 1833 and 1838 can be provided with an alternative IP67 cap.
The appropriate IP protection should be realized in the appliance.
The switches with IP67 protection degree are not suitable for exposure to water jets (IPx6).

Product data - type 1830.

type of switch	:	rocker switch
rated voltage	:	250 V~
pattern no.	:	1
circuit to be controlled	:	resistive and motor, resistive and capacitive
rated current	:	4(2) A, 6(4) A, 10(4) A, 10(8) A, 16(4) A, 20(4) A and 5/120A
frequency of operation	:	- 10.000 operating cycles for 4(2) A, 10(4) A ,20(4) A, 5/120A and 16(4) A - 50.000 operating cycles for 6(4) A and 10(8) A
temperature limit	:	T85/55, T125/55
degree of protection	:	IP40
design	:	illuminated

Product data - type 1831.

type of switch	:	rocker switch
rated voltage	:	250 V~
pattern no.	:	1
circuit to be controlled	:	resistive and motor, resistive and capacitive
rated current	:	4(2) A, 6(4) A, 10(4) A, 10(8) A, 16(4) A, 20(4) A and 5/120A
frequency of operation	:	- 10.000 operating cycles for 4(2) A, 10(4) A ,20(4) A, 5/120A and 16(4) A - 50.000 operating cycles for 6(4) A and 10(8) A
temperature limit	:	T105/55, T125/55
degree of protection	:	IP40 or IP67 (with alternative cap)

Product data - type 1832.

type of switch	:	rocker switch
rated voltage	:	250 V~
pattern nos.	:	1 and 2
circuit to be controlled	:	resistive and motor, resistive and capacitive
rated current	:	4(2) A, 6(4) A, 10(4) A, 10(8) A, 16(4) A, 20(4) A and 5/120A
frequency of operation	:	- 10.000 operating cycles for 4(2) A, 10(4) A ,20(4) A 5/120A and 16(4) A - 50.000 operating cycles for 6(4) A and 10(8) A
temperature limit	:	T105/55, T125/55
degree of protection	:	IP40

Product data - type 1833.

type of switch	:	rocker or push-button switch, which makes momentary and continuous contact
rated voltage	:	250 V~
pattern no.	:	6
rated current	:	4(2) A, 6(4) A, 10(4) A and 16(4) A
frequency of operation	:	- 10.000 operating cycles for 4(2) A, 10(4) A and 16(4) A - 50.000 operating cycles for 6(4) A
temperature limit	:	T105/55, T125/55
degree of protection	:	IP40 or IP67 (with alternative cap)

Product data - type 1834.

type of switch	:	rocker or push-button switch, which makes momentary and/or continuous contact
rated voltage	:	250 V~
pattern nos.	:	6 and 6/2
rated current	:	4(2) A, 6(4) A, 10(4) A and 16(4) A
frequency of operation	:	- 10.000 operating cycles for 4(2) A, 10(4) A and 16(4) A - 50.000 operating cycles for 6(4) A
temperature limit	:	T105/55, T125/55
degree of protection	:	IP40

Product data - type 1835.

type of switch	:	rocker switch
rated voltage	:	250 V~ 5 Vdc
pattern nos.	:	1 and 2
circuit to be controlled	:	resistive and motor, resistive and capacitive
rated current	:	250 V~: 4(2) A, 6(4) A, 10(4) A, 10(8) A, 16(4) A, 20(4) A and 5/120A 5 Vdc: 20 mA
frequency of operation	:	- 10.000 operating cycles for 4(2) A, 10(4) A ,20(4) A, 5/120A and 16(4) A - 50.000 operating cycles for 20 mA, 6(4) A and 10(8) A
temperature limit	:	T85/55, T125/55
degree of protection	:	IP40
design	:	illuminated

Product data - type 1838.

type of switch	:	rocker or push-button switch, which makes momentary and/or continuous contact
rated voltage	:	250 V~ 12 Vdc
pattern nos.	:	4 and 6
rated current	:	250 V~: 6(4) A, 10(4) A, 16(4) A 12 Vdc: 20 mA
frequency of operation	:	10.000 operating cycles
temperature limit	:	T105/55, T125/55
degree of protection	:	IP40 or IP67 (with alternative cap)

Product data - type 1839.

type of switch	:	push-button switch, which makes momentary or continuous contact
rated voltage	:	250 V~
pattern no.	:	4/2
rated current	:	6(4) A and 16(4) A
frequency of operation	:	10.000 operating cycles
temperature limit	:	T105/55, T125/55
degree of protection	:	IP40

TESTS

Test requirements
EN 61058-1:2002 + A2:2008

Test result
The test results are laid down in DEKRA test file 2188637.01.

Remarks
This certificate replaces our certificate 2167280.01 dated November 12, 2013 and is also based on the results of that certificate.

Conclusion
The examination proved that all test requirements were met.

Tested by : E. Stoel

Checked by : B.A. Nan

Factory locations
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