

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM18CA0132X
3. **Component:** Series 7146/5. Explosion-Protected Disconnect.
(Type Reference and Name) Series 8146/5. Explosion-Protected Disconnect.
4. **Name of Listing Company:** R STAHL Schaltgeräte GmbH
5. **Address of Listing Company:** am Bahnhof 30
74638 Waldenburg
GERMANY
6. The examination and test results are recorded in confidential report number:

PR451150 dated 17th January 2019
7. FM Approvals LLC, certifies that the component described has been found to comply with the following Approval standards and other documents:

CSA C22.2 No. 60079-0:2019; CSA C22.2 No. 60079-1:2016; CSA C22.2 No. 60079-7:2016;
CSA C22.2 No. 60079-31:2015; CSA C22.2 No. 14:2010; CSA C22.2 No. 213:2017
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the component as examined, tested and Approved.

Certificate issued by:


J.E. Marquedant
VP, Manager - Electrical Systems

9 October 2020
Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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10. Equipment Ratings:

Series 7146/5:

Class I, Division 2, Groups A, B, C, D, T6...T4 Ta = -20 °C...-50 °C** to +40 °C...+55 °C

Type 3, 4, 4X, IP66

** Disconnects with Bussmann or Littelfuse fuses are limited to -40 °C. Disconnects with Bussmann or Littelfuse fingersafe fuseholders are limited to -20 °C. Disconnects with hub entries or Mersen fuses are limited to -30 °C. See equipment details for specific ratings

Series 8146/5:

Ex db eb IIC T6...T4 Gb Ta = -30 °C...-50 °C** to +40 °C...+55 °C

Class II-III, Division 1, Groups E, F, G, T6...T5 Ta = -30 °C...-50 °C** to +40 °C...+55 °C

Type 3, 4, 4X, IP66

** Disconnects with hub entries are limited to -30 °C.

See equipment details for specific ratings

11. The marking of the equipment shall include:

for both Series 7146/5 and 8146/5:

Hazardous location ratings per Section 12

Ambient temperature rating

Manufacturer's name and address

Type number

Date Code

Electrical ratings

12. Description of Equipment:

The explosion-protected disconnect is designed and intended for "Load & Motor" applications as well as "Disconnect" applications. In addition to the explosion-protected switches, for Class I, Division 2 applications, a non-indicating, current-limiting, Class J, fuse can also be included within the enclosure. Field wiring terminals can also be included.

8146/5-V11-ab-c-def0-0. Disconnect.

I / 1 / Ex db eb IIC / T6...T5 Ta = -30 °C...-50 °C** to +40 °C...+55 °C

DIP / II-III / 1 / EFG / T6...T5 Ta = -30 °C...-50 °C** to +40 °C...+55 °C

Type 3, 4, 4X, IP66

a = Pole arrangement D, E, or H.

b = Switch rating: 01, 02, 03, 04, 06, 07, or 08.

c = Auxiliary Contacts: 00, 01, 10, 11, 20, 21, 22, 02, 12, 30, 31, 32, 33, 03, 13, 12, 40, 41, 42, 43, 44, 04, 14, 24, 34, 50, or 60.

d = Handle Option: 0, 1, or 2.

e = Terminal Connections: 0 or 5.

f = Entries: 0, 1, 2, 3, 4, or 6.

** Disconnects with hub entries (option f = 1) are limited to -30 °C.

Electrical Ratings:

- The 8146/5-V11-x02, with a maximum current of 16 A, provides a temperature class of T6 in a maximum +40 °C ambient.

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- The 8146/5-V11-x02, with a maximum current of 12 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 8146/5-V11-x03, with a maximum current of 25 A, provides a temperature class of T6 in a maximum +40 °C ambient.
- The 8146/5-V11-x03, with a maximum current of 25 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 8146/5-V11-x04, with a maximum current of 32 A, provides a temperature class of T5 in a maximum +40 °C ambient.
- The 8146/5-V11-x04, with a maximum current of 32 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 8146/5-V11-x06, with a maximum current of 63 A, provides a temperature class of T5 in a maximum +40 °C or +55 °C ambient.
- The 8146/5-V11-x07, with a maximum current of 80 A, provides a temperature class of T5 in a maximum +40 °C or +55 °C ambient.
- The 8146/5-V11-x08, with a maximum current of 125 A, provides a temperature class of T5 in a maximum +40 °C or +55 °C ambient.

8146/5-V11-ab-c-def0-0. Disconnect.

I / 1 / Ex db eb IIC / T4 Ta = -30 °C...-50 °C** to +40 °C...+55 °C

Type 3, 4, 4X, IP66

a = Pole arrangement D, E, of H.

b = Switch rating: 09 or 32.

c = Auxiliary Contacts: 00, 01, 10, 11, 20, 21, 22, 02, 12, 30, 31, 32, 33, 03, 13, 12, 40, 41, 42, 43, 44, 04, 14, 24, 34, 50, or 60.

d = Handle Option: 0, 1, or 2.

e = Terminal Connections: 0 or 5.

f = Entries: 0, 1, 2, 3, 4, or 6.

** Disconnects with hub entries (option f = 1) are limited to -30 °C.

Electrical Ratings:

- The 8146/5-V11-x32, with a maximum current of 100 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 8146/5-V11-x09, with a maximum current of 150 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.

7146/5-V11-ab-c-def0-0. Disconnect.

IPA / I / 2 / ABCD / T6...T4 Ta = -20 °C...-50 °C** to +40 °C...+55 °C

Type 3, 4, 4X, IP66

a = Pole arrangement D, E, or H.

b = Switch rating 01, 02, 03, 04, 06, 07, 08, 09, or 32.

c = Auxiliary Contacts: 00, 01, 10, 11, 20, 21, 22, 02, 12, 30, 31, 32, 33, 03, 13, 12, 40, 41, 42, 43, 44, 04, 14, 24, 34, 50, or 60.

d = Handle Option: 0, 1, or 2.

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e = Terminal Connections: 0 or 5.

f = Entries: 0, 1, 2, 3, 4, or 6.

** Disconnects with hub entries (option f = 1) are limited to -30 °C.

Electrical Ratings:

- The 7146/5-V11-x01, with a maximum current of 15 A, provides a temperature class of T6 in a maximum +40 °C ambient.
- The 7146/5-V11-x01, with a maximum current of 12 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 7146/5-V11-x02, with a maximum current of 16 A, provides a temperature class of T6 in a maximum +40 °C ambient.
- The 7146/5-V11-x02, with a maximum current of 12 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 7146/5-V11-x03, with a maximum current of 25 A, provides a temperature class of T6 in a maximum +40 °C ambient.
- The 7146/5-V11-x03, with a maximum current of 25 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 7146/5-V11-x04, with a maximum current of 32 A, provides a temperature class of T5 in a maximum +40 °C ambient.
- The 7146/5-V11-x04, with a maximum current of 32 A, provides a temperature class of T5 in a maximum +55 °C ambient.
- The 7146/5-V11-x06, with a maximum current of 60 A, provides a temperature class of T5 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x07, with a maximum current of 80 A, provides a temperature class of T5 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x32, with a maximum current of 100 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x08, with a maximum current of 125 A, provides a temperature class of T5 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x09, with a maximum current of 150 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.

7146/5-V11-ab-c-def0-0. Fused disconnect.

IPA / I / 2 / ABCD / T4 Ta = -20 °C...-40 °C** to +40 °C...+55 °C

Type 3, 4, 4X, IP66

a = Pole arrangement D, E, or H.

b = Switch rating 01, 02, 03, 04, 06, 07, 08, or 32.

c = Auxiliary Contacts: AA, AB, AC, AD, AE, BA, BB, BC, BD, BE, CA, CB, CC, CD, CE, DA, DB, DC, DD, DE, EA, EB, EC, ED, EE, FA, FB, FC, FD, FE, GA, GB, GC, GD, GE, HA, HB, HC, HD, or HE.

d = Handle Option: 0, 1, or 2.

e = Terminal Connections: 0 or 5.

f = Entries: 0, 1, 2, 3, 4, or 6.

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** Disconnects with Bussmann or Littelfuse fuses are limited to -40 °C. Disconnects with Bussmann or Littelfuse fingersafe fuseholders are limited to -20 °C. Disconnects with hub entries (option f = 1) or Mersen fuses are limited to -30 °C.

Electrical Ratings:

- The 7146/5-V11-x01, with a maximum current of 15 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x02, with a maximum current of 16 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x03, with a maximum current of 25 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x04, with a maximum current of 32 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x06, with a maximum current of 60 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x07, with a maximum current of 80 A, provides a temperature class of T4 in a maximum +40 °C or +55 °C ambient.
- The 7146/5-V11-x32, with a maximum current of 100 A, provides a temperature class of T4 in a maximum +55 °C ambient.
- The 7146/5-V11-x08, with a maximum current of 125 A, provides a temperature class of T4 in a maximum +40 °C ambient.

13. Specific Conditions of Use:

1. The flameproof joints of the explosion-protected switches cannot be repaired.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
17 th January 2019	Original Issue.

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Canadian Certificate of Conformity No: FM18CA0132X

15 th May 2019	<u>Supplement 01:</u> Report Reference: RR218636 dated 15 th May 2019 Description of Changes: Update 8006 ratings to 32A. Correct existing anomalies in Model Structure Listing
22 nd May 2020	<u>Supplement 02:</u> Report Reference: PR457293 dated 22 nd May 2020. Rationalization of Model Structure
9 th October 2020	<u>Supplement 03:</u> Report Reference: RR224887 dated 9 th October 2020. Rationalization of Model Structure to align with SAP System

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