

CERTIFICATE OF CONFORMITY



1. HAZARDOUS (CLASSIFIED) LOCATION COMPONENT PER US REQUIREMENTS

2. Certificate No: **FM16US0153U**

3. Component:
(Type Reference and Name) **Series 8510. Explosion-Protected Control Device.
Series 8523. Explosion-Protected Motor Protector.**

4. Name of Listing Company: **R. STAHL Schaltgeräte GmbH**

5. Address of Listing Company: **Am Bahnhof 30, D-74638 Waldenburg (Württ.),
Germany**

6. The examination and test results are recorded in confidential report number:

3051590 dated 4th July 2016

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

FM 3600:2022, ANSI/UL 508:2008, ANSI/UL 60079-0:2019, ANSI/UL 60079-1:2015, ANSI/UL 60947-1:2013,
ANSI/UL 60947-4-1:2014

8. The sign 'U' placed after the certificate number indicates that this certificate must not be mistaken for a certificate for equipment or a protective system. This certificate may only be used as the basis for the certification of equipment or a protective system. This certificate is issued to the manufacturer also intended to be the holder of the equipment certificate which includes this component.

9. This certificate relates to the design, examination and testing of the component 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.

10. Component Ratings:

Series 8510:

Class I, Zone 1, AEx db eb IIC T5 Gb Ta = -20 °C to +55 °C

Class I, Division 2, Groups A, B, C, D, T5 Ta = -20 °C to +55 °C

Series 8523:

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

21 August 2025

Date

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

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FM Approvals LLC, One Technology Way, Norwood, MA 02062 USA

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F 330 (Jul 24)



SCHEDULE

US Certificate of Conformity No: FM16US0153U

Class I, Zone 1, AEx db eb IIC T5 Gb Ta = -20 °C to +55 °C

Class I, Division 2, Groups A, B, C, D, T5 Ta = -20 °C to +55 °C

11. The marking of the component shall include:

for both Series 8510 and 8523:

CI I, Zn 1, AEx/Ex db eb IIC T5 Gb

CI I, Div 2, Gps ABCD

Ambient temperature rating

Certificate numbers

Manufacturer's name and address

Type number

Date Code

Electrical ratings

12. **Description of Component:**

The control devices in the 8510 and 8523 series are general purpose electrical units mounted in a sealed flameproof enclosure. The internal device may be a controller, a switch, a relay, a contactor, or an overload relay. The connection to the internal device is via a set of bushings that connect to the increased safety terminals on the outside of the flameproof enclosure.

13. **Schedule of Limitations:**

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

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
4 July 2016	Original Issue.

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F 330 (Jul 24)



SCHEDULE

US Certificate of Conformity No: FM16US0153U

Date	Description
27 January 2017	Supplement 01: 3061060 dated 27 th January 2017. Description of the Change: Addition of Electronic Overload Protector.
4 August 2017	<u>Supplement 02:</u> 3061449 dated 4 th August 2017. Description of the Change: Additional ratings for 8510/...-03; evaluation of short circuit protection of 8523.
16 August 2019	<u>Supplement 03:</u> PR454216 dated 16 th August 2019. Description of the Change: Additional constructions Series 8510; Update to latest editions of 60079-0 and 60079-7.
21 August 2025	<u>Supplement 4:</u> Report Reference: RR247134 dated 21 August 2025. Description of the Change(s): Minor corrections to model code that were missed during initial Approval.

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F 330 (Jul 24)



SCHEDULE

US Certificate of Conformity No: FM16US0153U

FM Approvals

ANNEX

8510

Description of Component:

8510/111-02-209-g0-0. Control Relay.

g = Coil voltage 01, 02, 03, 04, 05, 06, 07, 21, 22, 23, or 24.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Control Relay shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Control Relay shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079-7.
3. For Class I, Division 2 applications, the Control Relay shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Control Relay shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Circuit shall be protected by a Class J fuse rated not more than 8 A.

8510

Description of Component:

8510/1b-03-def-g0-0. Motor Contactor.

b = Enclosure size 22, 32 or 41.

d = Contactor size 1, 3, 4, 5, 6, 7, 8, A or B.

e = Number of main contacts 1, 2, 3, 4, 5, or 0.

f = Auxiliary contacts 1, 2, 3, 4, 5, 6, 7, 8, or 9.

g = Coil voltage 01, 02, 03, 04, 05, 06, 07, 08, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 33, 34, 35, 51, 52, 53, 54, 55, 71, 72, or 73.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Motor Contactor shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Motor Contactor shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079-7.
3. For Class I, Division 2 applications, the Motor Contactor shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Motor Contactor shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Main circuit shall be protected by a Class J fuse rated not more than 225% of the rated full load current.

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F 330 (Jul 24)



Page 4 of 9

SCHEDULE

US Certificate of Conformity No: FM16US0153U

FM Approvals

7. Auxiliary circuit shall be protected by a Class J fuse rated not more than 10 A.

8510

Description of Component:

8510/132-04-d36-g0-i. Motor Contactor with Overload Protection.

d = Contactor size 1, 3, 4,

g = Coil voltage 01, 02, 03, 04, 05, 06, 07, 08, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 33, 34, 35, 51, 52, 53, 54, or 55.

i = Current 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Motor Contactor shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Motor Contactor shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079-7.
3. For Class I, Division 2 applications, the Motor Contactor shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Motor Contactor shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Main circuit shall be protected by a Class J fuse rated not more than 225% of the rated full load current.
7. Auxiliary circuit shall be protected by a Class J fuse rated not more than 10 A.

8510

Description of Component:

8510/1a-05-d35-i. Overload Protector.

a = Housing size 22 or 41

d = Type 2 or 3.

i = Current 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Overload Protector shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Overload Protector shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079-7.
3. For Class I, Division 2 applications, the Overload Protector shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Overload Protector shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.

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F 330 (Jul 24)



Page 5 of 9

SCHEDULE

US Certificate of Conformity No: FM16US0153U

FM Approvals

6. Main circuit shall be protected by a Class J fuse rated not more than 225% of the rated full load current.
7. Auxiliary circuit shall be protected by a Class J fuse rated not more than 10 A.

8510

Description of Component:

8510/132-08-d3f-g0-0. Reversing Contactor.

d = Contactor size 1, 3, or 4.

f = Auxiliary contacts 1, 2, 4, or 5.

g = Coil voltage 01, 02, 03, 04, 05, 06, 07, 08, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 33, 34, 35, 51, 52, 53, 54, 55, 71, 72, or 73.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Reversing Contactor shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Reversing Contactor shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079 7.
3. For Class I, Division 2 applications, the Reversing Contactor shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Reversing Contactor shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Main circuit shall be protected by a Class J fuse rated not more than 225% of the rated full load current.
7. Auxiliary circuit shall be protected by a Class J fuse rated not more than 10 A.

8510

Description of Component:

8510/112-07-d049-gh-0. Time Relay

d = Relay type 1, 2, 3, or 4.

g = Coil voltage 01, 02, 03, 04, 05, 06, or 07.

h = Delay 1 or 2

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Time Relay shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Time Relay shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079 7.
3. For Class I, Division 2 applications, the Time Relay shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Time Relay shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.

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F 330 (Jul 24)



SCHEDULE

US Certificate of Conformity No: FM16US0153U

FM Approvals

5. The flameproof joints cannot be repaired.
6. Circuit shall be protected by a Class J fuse rated not more than 5 A.

8510

Description of Component:

8510/132-05-335-30h. Electronic Overload Protector.

h = Options 0 or 1

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Electronic Overload Protector shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Electronic Overload Protector shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079-7.
3. For Class I, Division 2 applications, the Electronic Overload Protector shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Electronic Overload Protector shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Main circuit shall be protected by a Class J fuse rated not more than 225% of the rated full load current.
7. Auxiliary circuit shall be protected by a Class J fuse rated not more than 6 A.

8510

Description of Component:

8510/122-05-335-gh. Electronic Overload Protector.

g = Trip current range 25, 26, 27, 28, or 29

h = Option 0 or 1.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Electronic Overload Protector shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Electronic Overload Protector shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements of ANSI/UL 60079-7.
3. For Class I, Division 2 applications, the Electronic Overload Protector shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Electronic Overload Protector shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Main circuit shall be protected by a Class J fuse rated not more than 225% of the rated full load current.

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F 330 (Jul 24)



Page 7 of 9

SCHEDULE

US Certificate of Conformity No: FM16US0153U

7. Auxiliary circuit shall be protected by a Class J fuse rated not more than 6 A.

8523

Description of Component:

8523/8b-c-def. Manual Motor Starter with Short-circuit, Overload, and Phase Failure Protection

b = Enclosure size 1 or 2.

c = Adjustment range 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, or 14.

d = Release 0, 1, or 2

e = Additional contacts 0, 2, 4, or 6.

f = Release voltage 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Motor Protector shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Motor Protector shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements ANSI/UL 60079 7.
3. For Class I, Division 2 applications, the Motor Protector shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Motor Protector shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.
6. Auxiliary circuit shall be protected by a Class J fuse rated not more than 10 A.

8523

Description of Component:

8523/Ab-c-0e0. Manual Motor Starter with Short-circuit Protection

b = Enclosure size 1 or 2.

c = Adjustment range 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, or 14.

e = Additional contacts 0, 2, 4, or 6.

Schedule of Limitations:

1. For Class I, Zone 1 applications, the Motor Protector shall be installed in an Increased Safety "eb" enclosure.
2. For Class I, Zone 1 applications, the Motor Protector shall be installed in the enclosure such that the creepage and clearance complies with the Increased Safety spacing requirements of ANSI/UL 60079 7.
3. For Class I, Division 2 applications, the Motor Protector shall be installed in an enclosure that complies with the requirements for the specific application.
4. For Class I, Division 2 applications, the Motor Protector shall be installed in the enclosure such that the creepage and clearance comply with the requirements of specific application.
5. The flameproof joints cannot be repaired.

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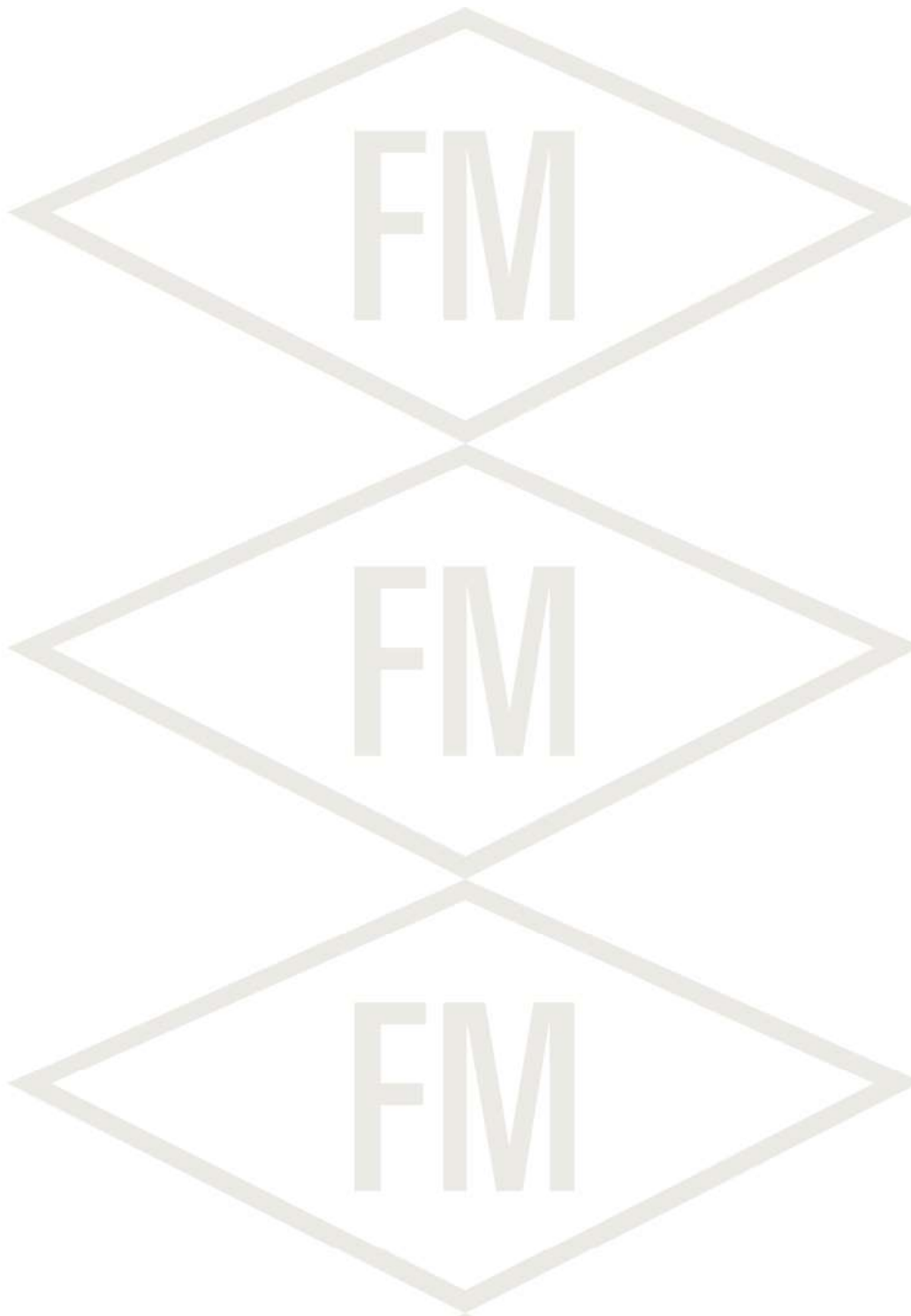


SCHEDULE

US Certificate of Conformity No: FM16US0153U

FM Approvals

6. Auxiliary circuit shall be protected by a Class J fuse rated not more than 10 A.



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