

Certificate of Compliance

Certificate:

1945066

Master Contract: 240743

Project:

1945066

Date Issued: August 24, 2007

Issued to:

 ${\bf Killark\ Electric\ Manufacturing\ Co.}$

3940 Martin Luther King Dr. St. Louis, MO 63113

USA

UDA

Attention: Mr. Tom Michalski

The products listed below are eligible to bear the CSA Mark shown



Issued by:

Jocelyn Jens

Technical Assistant

Day

Authorized by: Terry Nagy

Operations Manager

PRODUCTS

CLASS 3218 01 - INDUSTRIAL CONTROL EQUIPMENT - Custom Built For Hazardous Locations

Ex de IIC, T5 or T6; IP 66.

<u>PART 1</u>: Plug and Socket Series VSI125; Rated at main contacts 660V and 125 Amps maximum, at auxiliary contacts 380V and 6 Amps maximum. T6 at ambient temperatures -50 °C to 40 °C or T5 to 55 °C. Rated up to 125 Hp

<u>PART 2</u>: Plug and Socket Series VSI63 Rated at main contacts 660V and 63 Amps maximum, at auxiliary contacts 380V and 6 Amps maximum. T6 at ambient temperatures -50 °C to 40 °C or T5 to 55 °C. Rated up to 60 Hp.

<u>PART 3</u>: Plug and Socket Series VSI16; Rated at main contacts 660Vac and 16 Amps maximum, 220Vdc and 16 Amps maximum; at auxiliary contacts AC 6 Amps maximum, DC 1 Amp maximum. T6 at ambient temperatures -50 °C to 40 °C or T5 up to 55 °C. Rated up to 10 Hp for 1 phase, or 7.5 for 3 phase.

<u>PART 4</u>: Plug and Socket Series VSI32; Rated at main contacts 660Vac and 32 Amps max. Auxiliary contacts are 380V, 6 Amp maximum. Rated up to 30 Hp.





Certificate:

1945066

Master Contract: 240743

Notes:

1. The above equipment may also bear the optional marking shown below in the Marking section.

2. Models will include addition suffixes denoting dimensions and details to its construction.

APPLICABLE REQUIREMENTS

Technical Information Letter TIL E-24

Clarification of Marking Requirements for Electrical Equipment Certified to the requirements of IEC 79 Series Standards, C22.2 Series Standards, or both.

CSA Standard CAN/CSA E79-0

Electrical apparatus for explosive gas atmospheres. General requirements.

E79-7

Electrical apparatus for explosive gas atmospheres. Increased

safety.

E1241

- Electrical apparatus for use in the presence of combustible dust.

MARKINGS

Each apparatus will bear a nameplate permanently secured to the outside of the enclosure, visible after installation, containing the following information:

- 1. Submittor's name, trademark, or the CSA file number (adjacent the CSA Mark).
- 2. Catalogue or Model designation, a Serial number and/or date code, traceable to the month and year (at least) of manufacture
- 3. Complete electrical rating (amps, hertz, and volts).
- 4. Complete hazardous location designation, including Temperature Code and CSA Enclosure designation. These markings may include:

Ex de IIC, T5 or T6, IP66;

Class II, Groups EFG, Class III;

CSA Enclosure Type 3, 4, 4x;

or optionally the following,

Class I, Div 2, Groups ABCD; CSA Encl Type 3, 4 or 4X

Class I, Zone 1, Groups IIC; CSA Encl Type 3, 4 or 4X

Class I, Zone 1, Ex de IIC, T5 or T6, IP66.

additional marking appropriate to the contents of the 8146/5 will be applied.

5. The CSA Mark.

Notes:

- 1. In order to mark the plugs and sockets the data is either moulded in or a label of corrosion resistant material is being attached,
- 2. The hinged cover and the plug have colour identification according to the operation voltage stipulated in IEC 309.
- 3. In addition the switch socket must have the following label: "Can only be switched on with plug inserted".

<u>Required Method of Marking</u>: The marking shall be permanent, such as embossed, moulded, edged or stamping to the material of the enclosure/component, or accepted pressure sensitive adhesive type label or metal nameplate.





Certificate: 1945066 Master Contract: 240743

PRODUCTS

CLASS 6238 03 - RECEPTACLES - Attachment Plug Type and Plugs - With Switch - For Hazardous Locations

Class I, Zone 1 and Zone 2 Ex de IIC, T6; Class I, Division 2, Groups A, B, C and D; Class II, Division 1 & 2, Groups E, F and G; Class III;

Series VSI20P plug and Series VSI20R wall receptacle (install per installation instruction KIL00912476. Install auxiliary contacts per control instruction KIL00912480): Ex de IIC, T6 Ta = -30°C to +55°C Enclosure Type 3, 4, 4X, IP66.

Series VSI30P plug and Series VSI30R wall receptacle (install per installation instruction KIL00912478. Install auxiliary contacts per control instruction KIL00912480): Ex de IIC, T6 Ta = -30°C to +55°C Enclosure Type 3, 4, 4X, IP66.

Series VSI20FR flange receptacle install per control instruction KIL00912477: Ex de IIC, T6 Ta = -30°C to +55°C.

Series VSI30FR flange receptacle install per control instruction KIL00912479: Ex de IIC, T6 Ta = -30°C to +55°C.

The Flange receptacles contain only the switching and plug connection element of the Series VSI20R and VSI30R receptacle and is designed for installation into the wall of an enclosure in compliance with the mounting, spacing, casualty and segregation requirements of the ultimate application and is subject to approval by the local jurisdiction.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No 0M1991 - General Requirements - Canadian Electrical Code, Part II

CSA Standard C22.2 No. 0.4-2004 - Bonding of Electrical Equipment

CSA Standard C22.2 No. 25-M1966 - Enclosures for Use in Class II Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-M1986 – Explosion-Proof Enclosures for Use in Class I Hazardous Locations

CSA Standard C22.2 No. 94-1991 - Special Purpose Enclosures

CSA Standard C22.2 No 159M1987 - Attachment Plugs, Receptacles and Similar Wiring Devices for Use in Hazardous Locations Class I, Groups A, B, C and D, Class II, Group G and Coal Dust and in Gaseous Mines

CSA Standard C22.2 No. 182.1-02 - Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type CSA Standard C22.2 No. 213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

CAN/CSA E60079-0:02 - Electrical apparatus for explosive gas atmospheres - Part 0: General requirements

CAN/CSA E60079-1:02 - Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures "d"

CAN/CSA E60079-7:03 - Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety "e"

CAN/CSA-C22.2 No. 60529:05 - Degrees of protection provided by enclosures (IP Code)

CAN/CSA-E61241-1-1:02 - Electrical apparatus for use in the presence of combustible dust – Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation – Specification for apparatus





Certificate:

1945066

Master Contract: 240743

PRODUCTS

CLASS 6238 03 - RECEPTACLES - Attachment Plug Type and Plugs - With Switch - For Hazardous Locations

Class I, Zone 1 and Zone 2 Ex de IIC, T6; Class I, Division 2, Groups A, B, C and D; Class II, Division 1 & 2, Groups E, F and G; Class III;

Series VSI20P plug and Series VSI20R wall receptacle (install per installation drawing 85 706 05 30. Install auxiliary contacts per control drawing 85 706 07 30 0): Ex de IIC, T6 Ta = 30°C to +55°C Enclosure Type 3, 4, 4X, IP66.

Series VSI30P plug and Series VSI30R wall receptacle (install per installation drawing 85 716 04 30 0. Install auxiliary contacts per control drawing 85 706 07 30 0): Ex de IIC, 76 Ta = -30°C to +55°C Enclosure Type 3, 4, 4X. IP66.

Series VSI20FR flange receptacle install per control drawing \$5 706 06 30 0: Ex de IIC, T6 Ta = -30°C to +55°C.

Series VSI30FR flange receptacle install per control drawing 85 716 05 30 0: Ex de IIC, T6 Ta = -30°C to +55°C.

The Flange receptacles contain only the switching and plug connection element of the Series VSI20R and VSI30R receptacle and is designed for installation into the wall of an enclosure in compliance with the mounting, spacing, casualty and segregation requirements of the ultimate application and is subject to approval by the local jurisdiction.

APPLICABLE REQUIREMENTS

CSA Standard C22,2 No 0M1991 - General Requirements - Canadian Electrical Code, Part II

CSA Standard C22.2 No. 0.4-2004 - Bonding of Electrical Equipment

CSA Standard C22.2 No. 25-M1966 - Enclosures for Use in Class II Groups E, F and G Hazardous Locations

CSA Standard C22.2 No. 30-M1986 Explosion-Proof Enclosures for Use in Class I Hazardous Locations

CSA Standard C22.2 No. 94-1991 Special Purpose Enclosures

CSA Standard C22.2 No 159M1987 - Attachment Plugs, Receptacles and Similar Wiring Devices for Use in Hazardous Locations Class I, Groups A, B, C and D, Class II, Group G and Coal Dust and in Gaseous Mines

CSA Standard C22.2 No. 182/1-02 - Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type CSA Standard C22.2 No. 21/3-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 **Hazardous Locations**

CAN/CSA E60079-0:02 - Electrical apparatus for explosive gas atmospheres - Part 0: General requirements CAN/CSA E60079-1/02 - Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures "d" CAN/CSA E60079 1:03 - Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety "e"

CAN/CSA-C22.2 No. 60529:05 - Degrees of protection provided by enclosures (IP Code)

CAN/CSA-E612/41-1-1:02 - Electrical apparatus for use in the presence of combustible dust – Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation – Specification for apparatus





Certificate:

1945066

Master Contract: 240743

MARKINGS

1. Submittor's name, trademark, or the CSA file number (adjacent the CSA Mark).

- 2. Catalogue or Model designation, a Serial number and/or date code, traceable to the month and year (at least) of manufacture
- 3. The CSA Mark.

4. Complete electrical rating (amps, hertz, and volts).

5. Complete hazardous location designation, including Temperature Code and CSA Enclosure designation. These markings may include:

Ex de IIC, T6, IP66; Class II, Groups EFG, Class III; CSA Enclosure Type 3, 4, 4x;

or optionally the following,

Class I, Zone 1, Groups IIC; CSA Encl Type 3, 4 or 4X

Class I, Zone 1, Ex de IIC, T6, IP66.

- 6. Ambient temperature range Ta = -30°C to +55°C
- 7. Reference to the following installation instructions for the applicable model

8570/21 – Install auxiliary contacts per 85 706 07 30 0

8570/.5 – Install per 85 706 06 30 0

8571/21 – Install auxiliary contacts per 85 706 07 30 0

8571/.5 – Install per 85 716 05 30 0

8. Cautions, warnings and additional markings as may be required by the applicable Standards.

All plugs and receptacles "CLEAN ONLY WITH A DAMP CLOTH" and "KEEP COVERS TIGHT WHEN PLUG IS NOT INSERTED" or equivalent

All receptacles - "DE-ENERGIZE BEFORE OPENING" or equivalent

Inside the wiring compartment of all receptacles

"Ta < 45°C Use 75°C Conductors" and "Ta > 45°C Use 90°C Conductors"

Required Method of Marking: The marking shall be permanent, such as embossed, moulded, edged or stamping to the material of the enclosure/component, or accepted pressure sensitive adhesive type label or metal nameplate.



Supplement to Certificate of Compliance

Certificate:

1945066

Master Contract: 240743

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

| Project | Date | Description |
|---------|--------------|--|
| | | |
| 1945066 | Aug 24, 2007 | Multiple Listing for R.Stahl Schaltgerate / Killark, Models 8575, 8578, 8579, 8581, 8570, 8571 / VSI16, VSI32, VSI63, VSI125, VSI20, VSI30 (Alt. File No. 240743 Form B) |

| Multiple Listing Project No | Listee Models | Submittor Models | Submittors Report No. |
|-----------------------------|------------------|---------------------|-----------------------|
| 1945066 | VSI16 | 8575 | LR 99480-25 |
| | VSI32 | 8578 | |
| | VSI63 | 8579 | |
| | VSI125 | 8581 | |
| 1945066 | VSI20 | 8570 | 1729614 |
| | VSI30 | 8571 | |
| | | | |