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Examination Standard for Electric Submersible Motors for Use In Class I, Division 1, Hazardous (Classified) Locations

Class Number 3650

January 2022

Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standard is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

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1 INTRODUCTION

1.1 Purpose

1.1.1 This standard states testing and certification requirements for electric submersible motors for Class I, Division 1 hazardous (classified) locations.

1.1.2 Testing and certification criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

1.2 Scope

1.2.1 This standard contains the basic requirements for the construction and testing of electric submersible motors.

1.2.2 This standard is intended to be used in conjunction with FM Approvals Examination Standard 3600- Electrical Equipment for Use in Hazardous (Classified) Locations - General Requirements; and FM Approvals Examination Standard 3615 - Explosionproof Electrical Equipment General Requirements.

1.3 Basis for Requirements

See FM Approvals Examination Standard 3600.

1.4 Basis for Certification

See FM Approvals Examination Standard 3600.

1.5 Basis for Continued Certification

See FM Approvals Examination Standard 3600.

1.6 Effective Date

The effective date of this certification standard mandates that all products tested for certification after the effective date shall satisfy the requirements of this standard.

The effective date of this standard is eighteen (18) months after the publication date of the standard for compliance with all requirements.

1.7 System of Units

See FM Approvals Examination Standard 3600.

1.8 Terms and Definitions

For purposes of this standard, the following terms apply, as well as joint construction definitions given in FM Approvals Examination Standard 3615:

Dielectric Withstand Voltage – The ability of the motor to withstand certain voltages applied between current-carrying parts and dead-metal parts for a specified period of time without flashover or puncture.

Leakage Current – A current, including a capacitive coupled current, that may be conveyed between exposed conductive surfaces and ground.