

FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

System Designation:	Models 940301, 940601 and 941201 Pre-Engineered Automatic Indirect HFC-227ea Clean Agent Extinguisher Units
Design, Installation, Operation, Maintenance, Software, and Owner's Manual:	Design, Installation, Operation, and Maintenance Manual for Pre-Engineered HFC-227ea Automatic Extinguisher Unit, 800021, Rev. 000, October 27 th , 2017

Approval Guide Listing Category: Fixed Extinguishing Systems, Clean Agent Extinguishers, Automatic or Manual-Automatic

Firetrace International LLC 8435 N. 90th Street, Suite 2 Scottsdale, AZ 85258 USA

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standard(s):

Approval Standards

Class Number

Date

5600

April 2013

FM Approvals Listing Class: 5612

Re-Examination: 3053686 Subsequent Revisions: N/A Re-Examination Completed: 26 November 2017

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

James E. Marquedant VP, Manager - Electrical Systems FM Approvals

1151 Boston-Providence Turnpike,

Norwood MA, 02062 USA

26 November 2017

Date



Member of the FM Global Group



FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

System Designation:	Model IHP Pre-Engineered Automatic Indirect Carbon Dioxide Extinguisher Units
System Type:	Pre-Engineered Total Flooding System for the Protection of Class B Hazards
Design, Installation, Operation, and Maintenance Manual:	Design, Installation, Operation, and Maintenance Manual for Pre-Engineered Automatic Indirect Carbon Dioxide Extinguisher Units, 800024, Rev. 004, July 2016

Approval Guide Listing Category: Fixed Extinguishing Systems, Carbon Dioxide Systems, Carbon Dioxide Systems

Firetrace International LLC 8435 N. 90th Street, Suite 2, Scottsdale AZ 85258 USA

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standard(s):

Approval Standards

Class Number Date 5420 April 2007

FM Approvals Listing Class: 5420

Re-Examination Project: 3039427 Subsequent Revisions: 3058016 Approval Granted: July 24, 2013

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



Member of the FM Global Group

James E. Marquedant
Manager - Electrical Systems
FM Approvals
1151 Boston-Providence Turnpike,
Norwood MA, 02062 USA

28 September 2016

Date



FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

System Designation:	Models 940202, 940502, 941002, and 942002
Design, Installation, Operation, Maintenance, Software, and Owner's Manual:	Design, Installation, Operation, and Maintenance Manual for Pre-Engineered ILP Automatic Suppression Unit for use with ABC Dry Chemical Powder, 800011 Revision 000, dated October 27th, 2017

Approval Guide Listing Category: Fixed Extinguishing Systems, Dry Chemical Systems, Dry Chemical Systems

Firetrace International LLC 8435 N. 90th Street, Suite 2 Scottsdale, AZ 85258 USA

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standard(s):

Approval Standards

Class Number Date

5320 December 2013

FM Approvals Listing Class: 5320

Re-Examination: 3053678 Subsequent Revisions: N/A Re-Examination Completed: 20 November 2017

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

James E. Marquedant VP, Manager - Electrical Systems FM Approvals Norwood MA, 02062 USA

20 November 2017

Date

Member of the FM Global Group

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1151 Boston-Providence Turnpike,



FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

System Designation:	Models 940205, 940505, and 941005 Clean Agent Self-Contained Automatic Extinguisher Units
Design, Installation, Operation, Maintenance, Software, and Owner's Manual:	Design, Installation, Operation, and Maintenance Manual for Pre-Engineered 3M [™] Novec [™] 1230 Automatic Extinguisher Unit, 800020, Rev. 000, October 27 th , 2017

Approval Guide Listing Category: Fixed Extinguishing Systems, Clean Agent Extinguishers, Automatic or Manual-Automatic

Firetrace International LLC 8435 N. 90th Street, Suite 2 Scottsdale, AZ 85258 USA

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standard(s):

Approval Standards

Class Number

Date

5600

April 2013

FM Approvals Listing Class: 5612

Re-Examination: 3053686 Subsequent Revisions: N/A Re-Examination Completed: 26 November 2017

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

James E. Marquedant
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1151 Boston-Providence Turnpike,
Norwood MA, 02062 USA

26 November 2017

Member of the FM Global Group

FM Approvals*

Date



FIRE PROTECTION EQUIPMENT

I his certificate is issued for the following equipment:		
System Designation:	35 Bar Engineered Clean Agent Fire Suppression System Designed for use with 3M™ Novec™ 1230 Fire Protection Fluid	
Flow Calculation Software:	VdS SCHADENVERHUTUNG FK-5-1-12 -Calculationprogram Version 7.5, Licensed to Firetrace USA, LCC, utilizing: • Pipe Catalogue: FT Pipe - Schedule 40 - 1.0.0.rkl • Component Catalogue: FT Components 1.0.0.arm • Nozzle Catalogue: FT Nozzles - 1.0.2.noz	
Design, Installation, Operation, Maintenance, Software, and Owner's Manuals:	Firetrace 35 bar Engineered Clean Agent Fire Suppression System Designed for use with 3M™ Novec™ 1230 Fire Protection Fluid Design, Installation, Operation, and Maintenance Manual, 000007-000, dated 06/30/2016	

Approval Guide Listing Category: Fixed Extinguishing Systems, Clean Agent Fire Extinguishing Systems

Firetrace USA, LLC 8435 N 90th Street, Suite 2 Scottsdale AZ 85258 USA

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standard(s):

Approval Standards

Class Number Date 5600 April 2013

FM Approvals Listing Class: 5612

Original Approval Project Identification: 3044465

Subsequent Revisions: N/A

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



Member of the FM Global Group

J. C. Marquedant
Manager - Electrical Systems
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1151 Boston-Providence Turnpike,
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11 July 2016

Date

Approval Granted: 11 July 2016