

# CERTIFICATE OF CONFORMITY



## 1. FIRE PROTECTION EQUIPMENT

2. Certificate No: FM24FPUS0016
3. Equipment:  
(Type Reference and Name) Model GPx(FM) Series Low Voltage Electric Motor  
Driven Fire Pump Controllers
4. Name of Listing Company: TornaTech Inc
5. Address of Listing Company: 4100 Desserte Sud, (A-440 Ouest) Laval, Quebec  
H7T 0H3, Canada
6. The examination and test results are recorded in confidential report number:

3032642 dated 1<sup>st</sup> July 2010

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

FM 1321, 1323: 2018

8. 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 product as examined, tested and Approved.
9. Approval Guide Listing Category:  
Fire Pump Controllers, Full Service Electric Motors

Certificate issued by:

J.E. Marquedant  
VP, Manager - Electrical Systems

1 November 2024

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

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

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**10. Description of Equipment:**

Approved locations:

Design	Manufacturing
Tornatech Inc 4100 Desserte Sud, (A-440 Quest) Laval, QC H7T 0H3 Canada	Tornatech Inc 4100 Desserte Sud, (A-440 Quest) Laval, QC H7T 0H3 Canada  Tornatech FZE PO Box 18435 Plot No S10131, Jebel Ali South Dubai AE  Tornatech Europe SA Rue des Sablières numéro 45 Unité 68 Mont-Saint-Guibert 1435, Belgium

See Annex for product description

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

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

**12. Schedule Drawings**

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

**13. Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
xxxxx	Original Issue.
1 July 2010 to 24 April 2018	<u>Supplement 1-10:</u> Report Reference: 3032642 dated 7/1/2010 to 3062006 dated 4/24/18 Description of the Change(s): Samples of the GPx Series electric motor driven fire pump controllers with alternate components were submitted for examination and testing.

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Date	Description
20 February 2024	<u>Supplement 11:</u> Report Reference: PR466571 dated 20 February 2024. Description of the Change(s): Approval of their Model GPS(FM) Series low voltage electric motor driven fire pump controllers with an alternate soft starter.
15 May 2024	<u>Supplement 12:</u> Report Reference: RR241399 dated 15 May 2024. Description of the Change(s): Expand the product offering to have a 208V 400 HP, 220/240V 500 HP and 600V 560kw product offering. Short circuit testing was performed in project PR466571 and a thermal evaluation was performed using prior data from PDR3032642, reference data in this revision request.
1 November 2024	<u>Supplement 13:</u> Report Reference: RR243289 dated 1 November 2024. Description of the Change(s): Update format and TornaTech FZE address per PR469137. Make correction to project number and date referenced in supplement history table entry 1-10.

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## ANNEX

### Model GPx

#### Description of Equipment:

##### Model GPx-a/(b or c)/d/e Electric Motor Fire Pump Controller - Low Voltage

Standard Enclosure: NEMA/UL Type 2. Optional Enclosures: NEMA/UL Types 3, 3R, 4, 4X, 12

Standard Ambient Temperature Operating Range: 39°F (4°C) to 104°F (40°C)

Optional Ambient Temperature Operating Range: 39°F (4°C) to 131°F (55°C) (See Remarks)

<b>x = Model</b>	<b>a = Voltage, Vac</b>	<b>b = Horsepower or Kilowatt</b>	<b>c = Minimum to Maximum Full Load Current</b>
A - Across the Line	208	3 to 200 HP (208 V)	*For motors rated in kW For voltages other than 380 – 415V
R - Autotransformer	220	3 to 400HP (220 - 240 V)	
S - Soft Starter	230	3 to 500 HP (380 - 415 V)	
P - Part Winding	240	3 to 500 HP (440 - 480 V)	
V - Primary Resistor	380	4kW to 560kW (380 – 415V)	
Y - Wye Delta Open Transition	400 415	3 to 500 HP (600 V)	
W - Wye Delta Closed Transition	440 460		
	480		
	600		
<b>d = Number of Phases</b>		<b>e = Frequency</b>	
1 - Single Phase System		50 - 50 Hz	
3 - Three Phase System		60 - 60 Hz	

#### Remarks:

a. Model GPx Series controllers larger than 190 FLA require the inclusion of a fan(s) inside the enclosure to maintain the optional 131°F (55°C) maximum ambient temperature rating. This modification is only Approved when installed by the manufacturer.

### Model GPx+GP

#### Description of Equipment:

##### Model GPx+GPa-b/(c or d)/e/f Electric Motor Fire Pump Controller with Automatic Transfer Switch - Low Voltage

Standard Enclosure: NEMA/UL Type 2. Optional Enclosures: NEMA/UL Types 3, 3R, 4, 4X, 12

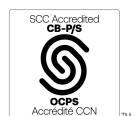
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Standard Ambient Temperature Operating Range: 39°F (4°C) to 104°F (40°C)

Optional Ambient Temperature Operating Range: 39°F (4°C) to 131°F (55°C) (See Remarks)

<b>x =</b> <b>Pump Controller Model</b>	<b>a =</b> <b>Transfer Switch Model</b>	<b>b =</b> <b>Voltage, Vac</b>	<b>c =</b> <b>Horsepower or Kilowatt</b>
A - Across the Line R - Autotransformer S - Soft Starter P - Part Winding V - Primary Resistor Y - Wye Delta Open Transition W - Wye Delta Closed Transition	G - generator set emergency supply U - second utility emergency supply	208 220 230 240 380 400 415 440 460 480 600	3 to 200 HP (208 V) 3 to 400 HP (220 - 240 V) 3 to 500 HP (380 - 415 V) 3 to 500 HP (440 - 480 V) 4kW to 560kW (380 - 415V) 3 to 500 HP (600 V)
<i>d = Minimum to Maximum Full Load Current</i>	<i>e = Number of Phases</i>	<i>f = Frequency</i>	
* For motors rated in kW For voltages other than 380 – 415V	1 - Single Phase System 3 - Three Phase System	50 - 50 Hz 60 - 60 Hz	

### Remarks:

a. Model GPx Series controllers larger than 190 FLA require the inclusion of a fan(s) inside the enclosure to maintain the optional 131°F (55°C) maximum ambient temperature rating. This modification is only Approved when installed by the manufacturer.

## Model GPxe

### Description of Equipment:

#### Model GPxe-a/(b or c)/d/e Electric Motor Fire Pump Controller - Low Voltage

Standard Enclosure: NEMA/UL Type 2. Optional Enclosures: NEMA/UL Types 3, 3R, 4, 4X, 12

Standard Ambient Temperature Operating Range: 39°F (4°C) to 104°F (40°C)

Optional Ambient Temperature Operating Range: 39°F (4°C) to 131°F (55°C) (See Remarks)

<b>x =</b> <b>Model</b>	<b>a =</b> <b>Voltage, Vac</b>	<b>b =</b> <b>Horsepower or Kilowatt</b>	<b>c =</b> <b>Minimum to Maximum Full Load Current</b>
A - Across the Line Y - Wye Delta Open			

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Transition	200 208 220 230 240 380/415 440 480	3 to 200 HP (208 V) 3 to 400HP (220 - 240 V) 3 to 500 HP (380 - 415 V) 3 to 500 HP (440 - 480 V) 3 to 500 HP (600 V) 4kW to 560kW (380 – 415V)	*For motors rated in kW For voltages other than 380 – 415V
<i>d = Number of Phases</i>		<i>e = Frequency</i>	
1 - Single Phase System 3 - Three Phase System		50 - 50 Hz 60 - 60 Hz	

### Remarks:

a. Model GPxe Series controllers larger than 190 FLA require the inclusion of a fan(s) inside the enclosure to maintain the optional 131°F (55°C) maximum ambient temperature rating. This modification is only Approved when installed by the manufacturer.

## Model GPxFM

### Description of Equipment:

**Model GPxFM-a/(b or c)/d/e Electric Motor Fire Pump Controller - Low Voltage, FM Approved Only**

Standard Enclosure: NEMA/UL Type 2. Optional Enclosures: NEMA/UL Types 3, 3R, 4, 4X, 12

Standard Ambient Temperature Operating Range: 39°F (4°C) to 104°F (40°C)

Optional Ambient Temperature Operating Range: 39°F (4°C) to 131°F (55°C) (See Remarks)

<i>x = Model</i>	<i>a = Voltage, Vac</i>	<i>b = Horsepower or Kilowatt</i>	<i>c = Minimum to Maximum Full Load Current</i>
A - Across the Line R - Autotransformer S - Soft Starter P - Part Winding V - Primary Resistor Y - Wye Delta Open Transition W - Wye Delta Closed Transition	208 220 230 240 380 400 415 440 460 480 600	3 to 200 HP (208 V) 3 to 400HP (220 - 240 V) 3 to 500 HP (380 - 415 V) 3 to 500 HP (440 - 480 V) 3 to 500 HP (600 V) 4kW to 560kW (380 – 415V)	*For motors rated in kW For voltages other than 380 – 415V

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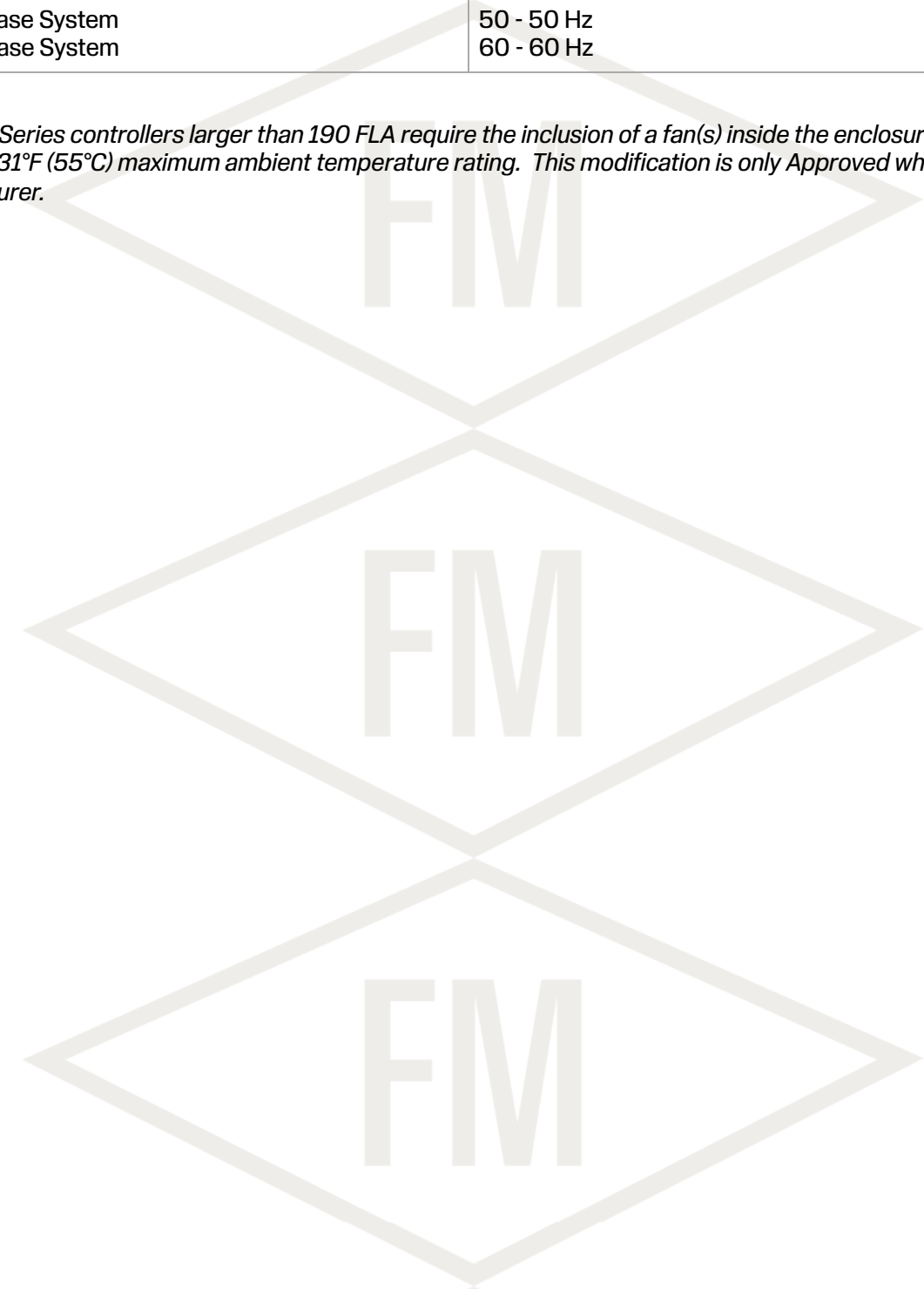
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<i>d = Number of Phases</i>	<i>e = Frequency</i>
1 - Single Phase System	50 - 50 Hz
3 - Three Phase System	60 - 60 Hz

**Remarks:**

*a. Model GPx Series controllers larger than 190 FLA require the inclusion of a fan(s) inside the enclosure to maintain the optional 131°F (55°C) maximum ambient temperature rating. This modification is only Approved when installed by the manufacturer.*



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