



Micro Processor Based Fire Pump Controllers





AN INTRODUCTION TO NAFFCO

NAFFCO was founded in Dubai, UAE to become the world's leading producer and supplier of life safety solutions. By recognizing the importance and convenience of having easy access to multiple safety services, we became specialized by offering complete solutions under one roof for all types of high quality firefighting equipment, fire protection systems, fire alarms, addressable emergency systems, security systems, custom-made vehicles such as fire trucks, ambulances, mobile hospitals and airport rescue firefighting vehicles (ARFF).

With the most talented and dedicated employees from around the world, NAFFCO has over 450 passionate engineers and over 3 million square feet of manufacturing facilities. We are currently exporting to over 100 countries worldwide.

Our products have been consistently certified by UL, FM, BSI, LPCB and Global Mark according to the latest International Quality Standard for their strict adherence to ISO 9001 quality management system and certified for ISO 14001 environmental management systems and BS OHSAS 18001 for occupational safety by UL DQS.

Our success is driven by our passion to protect; our vision is to become the world's number one provider of innovative solutions in protecting life, environment and property.





MANUFACTURING

NAFFCO manufacturing department has the latest technology, state-of-the-art machines (CNC machines, hydraulic shearing and bending machines, all types of welding machines - MIG, TIG, ARC etc.), and a complete machine shop that enable us to meet the needs of any production requirement.

NAFFCO has the ability to introduce the latest technological systems & equipment in the field. Our engineers and technicians are well qualified & experienced in producing quality products.

The department is equipped with full-fledged testing facilities to test the equipment as per NFPA, EN, ICAO, KKK and Civil Defense standards & requirements, and to meet the customers specifications.

Considering the above facilities and excellence in engineering capabilities, NAFFCO can meet any challenges to produce bulk quantities of fire safety materials.



UL / FM CERTIFIED ELECTRIC MOTOR MICROPROCESSOR BASED CONTROLLER

Model NFY -DOM1 Direct On Line



NAFFCO Electric Motor Controllers for fire pumps are listed by Underwriters Laboratories (UL file number EX15064), in accordance with UL218 (Standard for Fire Pump Controller), UL508a (Standard for Industrial Control Panel), NFPA20 (National Fire Protection Association Pamphlet 20- Standard for Centrifugal Fire Pumps), NFPA70 (National Electric Code) and NEMA.

Also approved by FM approvals (Factory Mutual), in accordance with FM standard 1321 / 1323 (Standard for Fire Pump Controller).

Only high quality UL listed or UL recognized components are used in these panels to guarantee the best possible reliability. Also high quality UL listed enclosures are used.

This controller is completely wired, assembled, programmed and tested at the factory before shipment, and ready for immediate installation.

RATING

Motor Power (HP)	Rated Voltage (V)	Frequency (Hz)	Rated Current (A)	Short Circuit Rating (KA)
15	380 - 415	50 / 60	27	100
20			34	
25			44	
30			51	
40			66	
50			83	
60			103	
75			128	
100			165	
125			208	
150			240	
200			320	
250			403	
300			482	
350			560	
400			636	

UL / FM CERTIFIED ELECTRIC MOTOR MICROPROCESSOR BASED CONTROLLER

Model NFY-SDM1 Star Delta



NAFFCO Electric Motor Controllers for fire pumps are listed by Underwriters Laboratories (UL file number EX15064), in accordance with UL218 (Standard for Fire Pump Controller), UL508a (Standard for Industrial Control Panel), NFPA20 (National Fire Protection Association Pamphlet 20- Standard for Centrifugal Fire Pumps), NFPA70 (National Electric Code) and NEMA.

Also approved by FM approvals (Factory Mutual), in accordance with FM standard 1321 / 1323 (Standard for Fire Pump Controller).

Only high quality UL listed or UL recognized components are used in these panels to guarantee the best possible reliability. Also high quality UL listed enclosures are used.

This controller is completely wired, assembled, programmed and tested at the factory before shipment, and ready for immediate installation.

RATING

Motor Power (HP)	Rated Voltage (V)	Frequency (Hz)	Rated Current (A)	Short Circuit Rating (KA)
15	380 - 415	50 / 60	27	100
20			34	
25			44	
30			51	
40			66	
50			83	
60			103	
75			128	
100			165	
125			208	
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UL / FM CERTIFIED ELECTRIC MOTOR MICROPROCESSOR BASED CONTROLLER

MODEL NFY-SSM1 SOFT STARTER



NAFFCO Electric Motor Controllers for fire pumps are UL / FM Certified (Standards - UL218, UL508a & FM 1321 / 1323). And it meets the requirements of NFPA 20 (National Fire Protection Association Pamphlet 20 - Standard for Centrifugal Fire Pumps), NFPA 70 (National Electric Code) and NEMA.



RATING

Motor Power (HP)	Rated Voltage (V)	Frequency (Hz)	Rated Current (A)	Short Circuit Rating (KA)
15	380 - 415	50 / 60	27	100
20			34	
25			44	
30			51	
40			66	
50			83	
60			103	
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ADVANTAGES OF SOFT STARTER FIRE PUMP CONTROLLER

Low starting current during startup of motor (Around 150% of rated current), with soft gradual ramp (no current peak).
Smooth soft starting and soft stopping.
Significant reduction in mechanical stresses of the coupling and transmission devices (gearboxes, pulleys, gears, conveyors, etc.) during start (no torque peak).
Increases motor and equipment lifetime due to the elimination of mechanical shock.
Avoids the "Water Hammer" in pumps, and pressure surges, and so having longer life for pipe lines.
Using power electronic semiconductors (Thyristors) to control the motor voltage at starting up and at stopping, and a built in single contractor for continuous steady operation.
Connected to motor through 3 terminals, so it requires less cabling (3 cables), and easier setup and installation.
Fire pump controller is rated 50 degree ambient, and soft starter unit is rated 55 degree ambient (UL Listed).
Limitation of voltage drop during start up, so less rated power source is needed.
Thermal monitoring of both motor and soft starter.

UL / FM CERTIFIED AUTO TRANSFER SWITCH WITH ELECTRIC FIRE PUMP CONTROLLER

Auto Transfer Switch Model NFY-ATS



NAFFCO Electric Fire Pump Controllers with Auto Transfer switches are UL / FM certified (Standards - UL218, UL508a & FM 1321 / 1323). And it meets the requirements of NFPA 20 (National Fire Protection Association Pamphlet 20 - Standard for Centrifugal Fire Pumps), NFPA 70 (National Electric Code) and NEMA.

ELECTRIC FIRE PUMP CONTROLLER MODELS

- NFY -DOM1 - DIRECT ON LINE
- NFY-SDM1 - STAR DELTA
- NFY-SSM1 - SOFT STARTER

RATING				
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20			34	
25			44	
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UL / FM CERTIFIED VARIABLE FREQUENCY DRIVE FIRE PUMP CONTROLLER

MODEL NFY-VFD



NAFFCO Variable Frequency Drive Controllers are listed by Underwriters Laboratories (UL file number EX15064), in accordance with UL218 (Standard for Fire Pump Controller), UL508 (Standard for Industrial Control Equipment), NFPA20 (National Fire Protection Association Pamphlet 20- Standard for Centrifugal Fire Pumps), NFPA70 (National Electric Code)

and NEMA. Also approved by FM approvals (Factory Mutual), in accordance with FM standard 1321 / 1323 (Standard for Fire Pump Controller). This controller is completely wired, assembled, programmed and tested at the factory before shipment, and ready for immediate installation.

RATING

Motor Power (HP)	Rated Voltage (V)	Frequency (Hz)	Rated Current (A)	Short Circuit Rating (KA)
15	380 - 415	50 / 60	27	100
20			34	
25			44	
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- Fixed stable controlled pressure from no flow till full flow, therefore reduce or eliminating the need for PRVs, and drain risers.
- Eliminate the need for NFPA 25 quarterly testing for PRVs, and so more reliable system.
- Significant Power Saving since motor is not running at full speed.
- Soft Start and soft stop, so less mechanical stress over couplings, shafts,Ö etc.
- Significant low starting current (125% of rated current).
- Eliminate water hammer phenomena.
- Reduce the size of power supply (Gen-set or Transformer).