



JOCKEY PUMP CONTROLLER

UL LISTED JOCKEY PUMP CONTROLLER

MODEL NFY-JSD1 REDUCED VOLTAGE/ STAR - DELTA (OPEN TRANSITION)

MODEL NFY-JDO1 DIRECT ON LINE

NAFFCO Jockey Pump Controllers for fire pumps are listed by Underwriters Laboratories (UL file number E309408), in accordance with UL508a (Standard for Industrial Control Panel), NFPA70 (National Electric Code) and NEMA.

Power ratings vary from 1.5 to 40 horsepower, 380 to 415 volts, 50 or 60 Hz. 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.

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

STANDARD FEATURES

- Main disconnected switch with rotary handle, sized for disconnecting motor horsepower and voltage.
- Motor Starter rated to motor's horsepower, with thermal and short circuit protection.
- Rated motor contactors.
- Circuit breaker for protection of control circuit.
- Selector switch for Hand—Off—Automatic operation.
- Star—Delta starting timer. (in Model NFY-JSD1)
- Power ON/Healthy indicator/free contact.
- Pump Run indicator/free contact.
- Pump Trip indicator/free contact.
- Adjustable pressure switch.
- UL listed enclosure.

SEQUENCE OF OPERATION

This controller is working under three modes automatic off and manual mode.

OFF (RESET) MODE

In this mode, the controller is considered to be off and can't start the Jockey pump.

AUTOMATIC START

In this mode, controller will start the Jockey pump automatically and directly at low pressure detection by the pressure switch, and will stop the pump automatically and directly when the pressure goes up again.

MANUAL START

In this mode, controller will start the Jockey pump directly, and will not stop until selector switch is switched off or in Auto mode.





RATING

POWER (HP)	RATED VOLTAGE (VAC)	FREQUENCY (Hz)	RATED CONTENT (A)	SHORT CIRCUIT CURRENT (kA)	ENCLOSED SIZE (mm)
1.5	380 - 415	50 or 60	3.3	5	500(H) x 400(W) x 250(D)
2	380 - 415	50 or 60	4.3	5	500(H) x 400(W) x 250(D)
3	380 - 415	50 or 60	6.1	5	500(H) x 400(W) x 250(D)
5	380 - 415	50 or 60	9.7	5	500(H) x 400(W) x 250(D)
7.5	380 - 415	50 or 60	14	5	500(H) x 400(W) x 250(D)
10	380 - 415	50 or 60	18	5	500(H) x 400(W) x 250(D)
15	380 - 415	50 or 60	27	5	500(H) x 400(W) x 250(D)
20	380 - 415	50 or 60	34	5	500(H) x 400(W) x 250(D)
25	380 - 415	50 or 60	44	5	600(H) x 500(W) x 250(D)
30	380 - 415	50 or 60	51	5	600(H) x 500(W) x 250(D)
40	380 - 415	50 or 60	66	5	600(H) x 500(W) x 250(D)

Table (7)

Jockey Pump Controller

Direct On Line

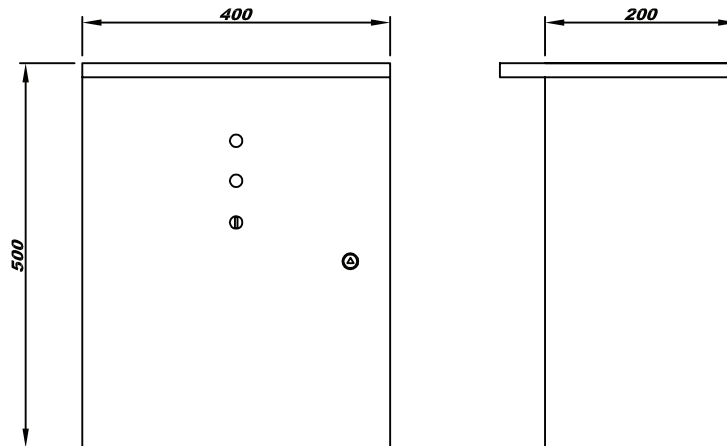
Enclosure

Model: NFY-JDO1

Version: 1.0

Enclosure for 1.5 To 20 HP Controllers

Enclosure Model:
NFY-50-40-25-J



TECHNICAL DATA :

S.NO.	DESCRIPTION	DATA	
1.	SIZE	500(HEIGHT)X400(WIDTH)X200(DEPTH)	
2.	MATERIAL	1.5 mm THICK. GI	
3.	PAINT FINISH	RAL 301 POWDER COATED	
4.	DOOR LOCK	TRIANGULAR LOCK WITH KEY	
5.	HINGES	2 BUSH PIN HINGES 60 MM	
6.	DOOR OPENING	FRONT	RIGHT HAND SIDE TO LEFT HAND SIDE
		BACK	Non
7.	DOOR OPENING ANGLE	120°	
8.	ALL DIMENSIONS ARE IN MM		
9.	PROTECTION RATING	NEMA 2	
10.	BASE PLATE	FRONT	

FIRE PROTECTION BY



NAFFCO
WORLD LEADERS IN FIRE PROTECTION SYSTEMS

NATIONAL FIRE FIGHTING MANUFACTURING CO. LTD.
P.O. BOX 17014, DUBAI - U.A.E. TEL: 04 - 8816553 FAX: 04 - 8816229
WEBSITE: www.naffco.com E-MAIL: naffire@emirates.net.ae



Client :

Title / Name :

Jockey Fire Pump Controller

Designed By : **Eng. Yousef Abu Hadhoud**

Approved By : **Eng. Emad Kassab**

Drawing No :

Date :

02/08/2008

Panel Model No : NFY-JDO1

Version: 1.0

Panel Serial No :

Page Description :

Enclosure

Sheet

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Reference No :- NAFF-H01-EXP-12571 (0)

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Jockey Pump Controller

Direct On Line

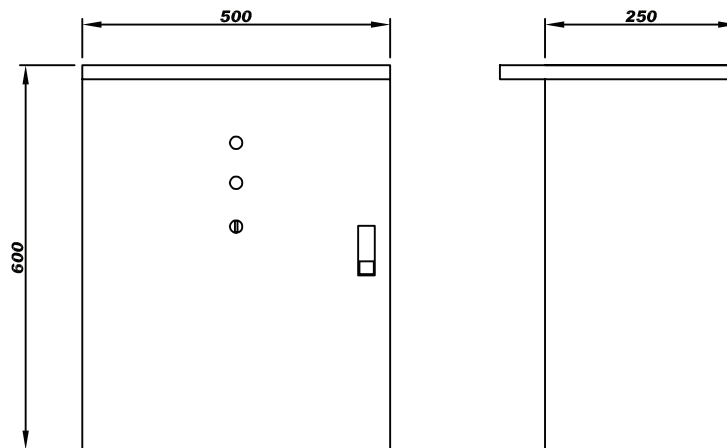
Enclosure

Model: NFY-JDO1

Version: 1.0

Enclosure for 25 To 40 HP Controllers

Enclosure Model:
NFU-60-50-25



TECHNICAL DATA :

S.NO.	DESCRIPTION	DATA	
1.	SIZE	600(HEIGHT)X500(WIDTH)X250(DEPTH)	
2.	MATERIAL	1.5 mm THICK. GI	
3.	PAINT FINISH	RAL 7032 POWDER COATED	
4.	DOOR LOCK	PRESS LOCK	
5.	HINGES	3 BUSH PIN HINGES 60 MM	
6.	DOOR OPENING	FRONT	RIGHT HAND SIDE TO LEFT HAND SIDE
		BACK	Non
7.	DOOR OPENING ANGLE	120°	
8.	ALL DIMENSIONS ARE IN MM		
9.	PROTECTION RATING	NEMA 2	
10.	BASE PLATE	FRONT	

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Jockey Pump Controller

Direct On Line

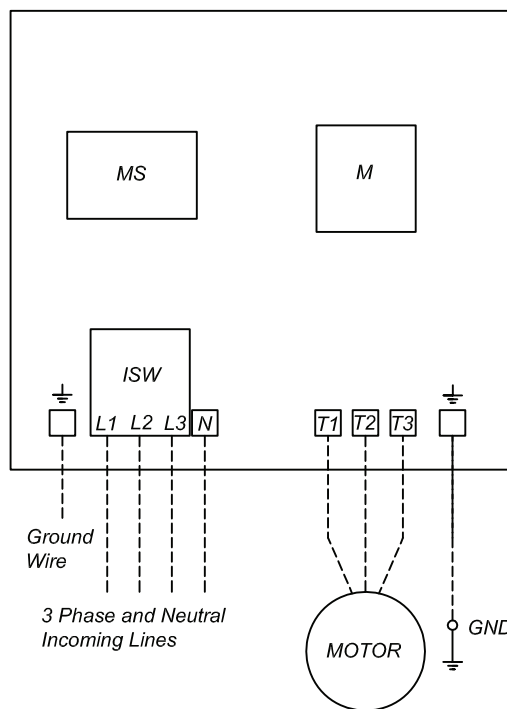
Panel Layout

Model: NFY-JDO1

Version: 1.0

Power Circuit Layout

Controller
Internal Layout



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Client :

Designed By : **Eng. Yousef Abu Hadhoud**

Panel Model No : NFY-JDO1

Approved By : **Eng. Emad Kassab**

Version: 1.0

Title / Name :

Panel Serial No :

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Date : 02/08/2008

Page Description :

Motor Power Circuit 2 of 4
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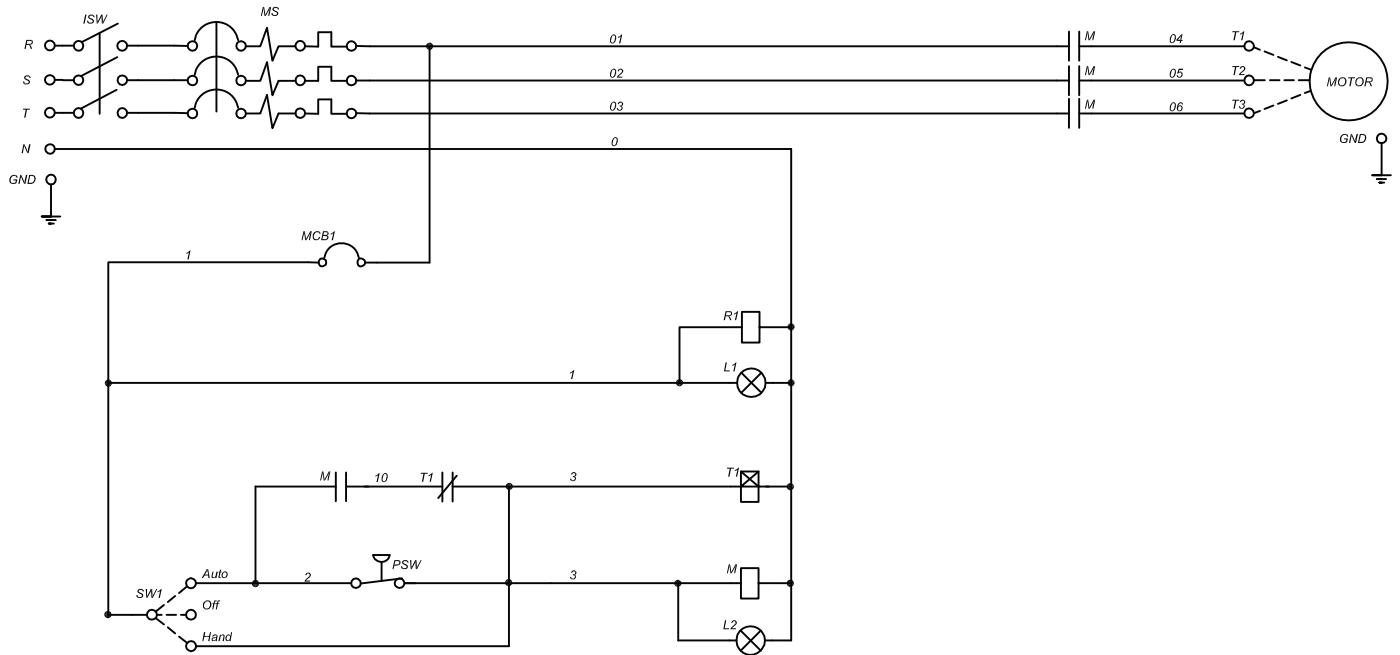
Jockey Pump Controller

Direct on line connection (D.O.L)

Wiring Schematic

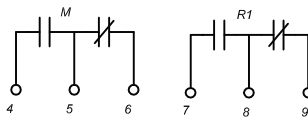
Model: NFY-JD01

Version: 2.0



- ISW: Isolator switch**
- MS: Motor Starter**
- M: Main motor contactor**
- MCB1: 1 pole miniature circuit breaker**
- SW1: Auto. - Off - Hand selector switch**
- PSW: Pressure switch (N.C at low pressure)**
- L1: Power on indicator**
- L2: Motor run indicator**
- R1: Auxiliary Trip Relay**
- T1: Holding Timer**

Relays free contacts Terminal Blocks



Note:
For Free Contacts and Control remote wiring,
use 14 - 12 AWG (2.5 - 4 mm) wires

Jumpers:
J1: Disconnect to activate deluge valve
J2: Disconnect to activate automatic stop

Jockey Pump Controller

Direct on line connection (D.O.L)

Field Wiring

Model: NFY-JD01

Version: 1.0

Copper Wire Sizes for Controller Model NFY-JD01

Motor Power [HP]	Line Terminal Wire Size Per Phase				Output Motor Wire Size Per Phase				Ground Wire			
	Min		Max		Min		Max		Min		Max	
	AWG or MCM	mm Sq.	AWG or MCM	mm Sq.	AWG or MCM	mm Sq.	AWG or MCM	mm Sq.	AWG or MCM	mm Sq.	AWG or MCM	mm Sq.
1.5	16	1.3	8	8.4	16	1.3	8	8.4	8	8.4	6	13.3
2	16	1.3	8	8.4	16	1.3	8	8.4	8	8.4	6	13.3
3	14	2.1	8	8.4	14	2.1	8	8.4	8	8.4	6	13.3
5	14	2.1	8	8.4	14	2.1	8	8.4	8	8.4	6	13.3
7.5	14	2.1	8	8.4	14	2.1	8	8.4	8	8.4	6	13.3
10	12	3.3	8	8.4	12	3.3	8	8.4	8	8.4	6	13.3
15	10	5.3	6	13.3	10	5.3	6	13.3	8	8.4	6	13.3
20	8	8.4	6	13.3	8	8.4	6	13.3	8	8.4	6	13.3
25	8	8.4	6	13.3	8	8.4	6	13.3	8	8.4	6	13.3
30	6	13.3	6	13.3	6	13.3	6	13.3	6	13.3	1/0	53.5
40	4	21.2	1	42.4	4	21.2	1	42.4	4	21.2	1/0	53.5

Tightening Torque

AWG OR CIRCULAR MILL SIZE	TIGHTENING TORQUE USING EXTERNAL DRIVE WRENCH	
	LP.In	N.m
14	75	8.5
12	75	8.5
10	75	8.5
8	75	8.5
6	110	12.4
4	110	12.4
2	150	16.9
1	150	16.9
1/0	180	20.3
2/0	180	20.3
3/0	250	28.2
4/0	250	28.2
250	325	36.7
350	325	36.7
500	375	42.4
600	375	42.4
700	375	42.4
750	375	42.4
800	500	56.5
1000	500	56.5

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Field Wiring

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