

USER MANUAL FOR THREE PHASE DIGITAL STARTER (KDM 222 DOL)

1. Wiring Connections

Please connect "C" series 3 pole MCB of 32Amps before input connection of panel. First connect output terminals then input terminals and start supply to panel



CONNECTION DIAGRAM

INPUT			OUTPUT		
R	Y	B	R	Y	B

2. Installation

Electrical connections

- Switch off the Main supply.
- Connect R, Y and B phase from main supply to input terminal.
- Connect motor wires to output terminal as per your model diagram.

4. Pump Current Setting

A. Automatic Pump Current Setting: Software will do pump current setting automatically when pump is connected and started first time as per details given below in Point 'B' (If no pump current set before)

B. Manual Pump Current Setting:

- 1) Keep switch in manual then stop the pump
- 2) Start the pump, and press setting switch within 60 seconds till display shows SEt now release setting switch.
- 3) Display flashes S-PC and actual pump current. Press setting switch again to save pump current or software automatically saves it after 3 minutes and display shows ACCP.

NOTE: 1. If you feel pump current shown during S-PC is wrong then press OFF switch to stop setting before ACCP is shown on display and repeat the steps again from one number.
2. If pump current is above or below the settable current range of panel then display flashes Error.

3. Functions

- a. Start the pump: Press ON switch.
- b. Stop the pump: Press OFF switch.
- c. To reset fault: Press OFF switch.
- d. Display shows voltage and current in scrolling mode when pump is ON and only voltage when pump is OFF,
- e. **byPS** in scrolling indicates dryrun is in bypass mode .
- f. **oFFt** scrolling indicates the OFF timer is ON with balance time.

4. Display Functions:

Unit has Ultra bright Seven-segment digital display that shows following strings.

S.No	Seven-segment string	Meaning
1	on	ON
2	oFF	OFF
3	S-PC	Set Pump Current
4	SEt	Setting
5	bLnk	Blank (pump current not set)
6	orLd	Overload
7	drun	Dryrun
9	HI-U	High Voltage
10	Lo-U	Low Voltage
11	Pont	Power On Timer
13	oFFt	Motor OFF Timer
15	oLtt	Overload Trip Time
16	drtt	Dryrun Trip Time
17	ESCP	Escap from Setting Menu
19	byPs	Dryrun Protection Bypass
20	rEst	Reset Fault / Restore
21	FALt	Fault
22	EHC	Extreme High Current
23	Eror	Error
24	ACCP	Accept
25	trIP	Trip Current Value
27	LtE	Lower Tank Empty
28	UtF	Upper Tank Full
29	drAt	Dryrun Auto Start Timer
30	Cont CoFt	Cyclic Timer (On Time and OFF Time)

USER MANUAL FOR THREE PHASE DIGITAL STARTER (KDM 222 DOL)**5. Protection Settings and Chart**

If required you can change setting for various parameters using following method very easily.

Following table shows protections and setting parameter

NO	Parameter	Display	Settable Range	Default Value
1	Input/Output - PF, RP, VUB	SPP	NotApplicable	NotApplicable
2	Overload	orld	20% - 60%	Above 40% of set current
3	Dryrun	drun	60% - 95% - BYPASS	Below 75% of set current
4	Current unbalance	Cub	20% - 70%	Above 50% of set current
5	High voltage	HI-U	450 VAC – 520 VAC	Above 470VAC
6	Low voltage	Lo-U	200 – 280 VAC	Below 250VAC
7	Power-on timer	Pont	03sec-300sec - OFF	60-sec
8	Overload trip timer	oLtt	03sec-60sec	15sec
9	Dryrun trip timer	drtt	03sec-60sec	15sec
10	OFF Timer	oFFt	OFF - 5 - 720 min.	OFF

Optional Models:

NO	Add ON Feature	Details	Model
1	Dryrun Auto Start Timer	OFF - 5 - 720 min.	KDM 222 DRA
2	Cyclic Timer	OFF - 5 - 720 min.	KDM 222 CYC
3	GSM Mobile Stater	GSM, SMS, Voice Android Application	M4 GSM DOL Starter

6. Setting Parameters

Controller comes with default factory set parameters. If at all necessary, user may change the default setting under proper technical guidance only.

1. Keep switch in manual mode & switch OFF the motor.
2.
 - Press setting switch till Display shows SET, release the switch
 - Display shows S-PC (set pump current) in Amps.
 - Use ON (↓) and OFF (↑) switch to scroll in the menu list
 - Press SETTING switch to select the parameter to change settings
 - Now display shows last set value for the selected parameter
 - Use ON and OFF switch to select (decrease or increase) new value
 - Press ACCEPT switch to save the settings, display shows ACCP.
 - Setting for selected parameter is complete.
 - Similarly you can set other parameters in menu as per chart.

Note: Once you change settings after ACCP display shows trip value in AMP. for easy analysis.

7. OPERATION**A. Auto mode (Recommended mode)**

In Auto mode pump will start automatically after power failure as per set power ON timer default time is 60 sec.

B. Manual mode

In Manual mode you will have to start manually from unit. Always keep switch in manual mode and switch OFF the motor.

C. Display for Voltage, Current, OFF Timer etc.

Display scrolls and shows line voltage and phase wise current with respective LEDs becoming ON. RYB average current (3 LED Becoming ON) and shows byPS (when dryrun is bypassed) and Offt (when OFF timer is ON with balanced time remaining)

8. Escape From Settings

To escape from setting mode select ESCP and press setting switch.

9. Fault Reset

You can reset fault by pressing OFF switch.

10. Restore Settings to Factory Default

- 1) Switch OFF the power from input supply.
- 2) Keep setting switch pressed and switch on the power to panel.
- 3) Display shows rEST, now all settable parameters will become as per factory default.