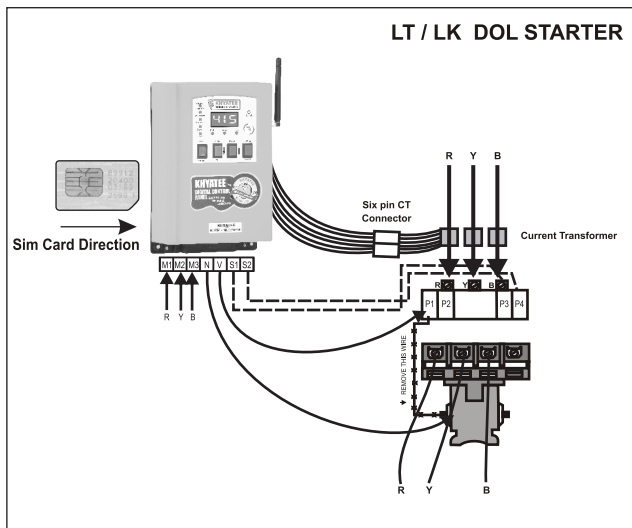


1. Installation

Install properly in dry place and protect from direct dust, water and sun light etc.

- 1) Mount the unit in your starter panel using two screws of 7.5x20 mm size.
- 2) Insert the SIM card in SIM card holder and push slowly so it will get locked and to remove also push slowly and pull with two fingers to take it out.
- 3) Connect/ Place antenna such that you get maximum signal strength.
- 4) Ensure that SIM card is with proper Validity, Balance, and Network Signals at site and please put SMS pack in the card, so that the transaction will be economical.

2. Electrical Connections



A. Current transformer (CT) Wiring

- 1 Switch OFF motor or power to starter
- 2 Pass main Phase cable/s from input only one time through R, Y & B CT & connect to respective starter terminals in correct sequence then push and connect CT connector with connector coming from unit.

B. Common wiring connection for all with DOL / STAR DELTA STARTER

- 1 There are seven wires are coming from mobile starter unit
- 2 Connect M1, M2, M3 wires to R, Y, B of input terminal of your electrical DOL / Semi or fully automatic star delta starter.
3. Connect white wires S1, S2 to P3 & P4 (across ON push button).

C. Select one of the following for further connections

If Only DOL Starter then

- a. Remove link between P1 and Coil
- b. Connect one black wire (V) to P1
- c. Connect another black wire (N) to Coil

D. If Only Semi / Fully Automatic Star Delta Starter then

- a. Remove link between P1 and B phase
- b. Connect one black wire (N) to P1

Note: If SPP LED becomes ON then interchange R and Y phase from input to correct the Phase sequence

3. Pump Current Setting

Pump current setting is compulsory for accurate protection of your Pump set.

Automatic: First time unit will do pump current setting automatically when pump set is connected & Switched ON, at completion display will show ACP.

From unit: Press ON switch up to 5-sec display shows SET, release the switch, after that display will flash SPC and actual pump current 7 times and store the pump current automatically.

From phone call: Make a phone call to unit and press 1111, unit will switch on the pump after that display will flash 7 times SPC and actual pump and store the pump current automatically.

Note: While flashing SPC 7 times you can press OFF switch if you decide not to save displayed pump current.

4. Add and delete Registered User No.

Make phone call to unit from mobile phone whose no you want to add... Once call is lifted by unit press ****. Unit will add and save mobile no. & Phone call will be disconnected. To delete make phone call and press #### to delete the number. (Maximum 4 users can be added)

5. Change Existing Password

The unit is protected against unauthorized operation by 4 digit password. '5678' is the factory set default password. Please change password for your safety & make a note of it.

To change password make a phone call to the unit press 4-digit password and then press 5555 to change and create new password.

6. Operation

Auto mode (Recommended mode)

You can select this mode by calling the unit and pressing 4444. In auto mode, motor will start automatically on phase return or power return.. You can start or stop motor from mobile phone also.

Manual mode

You can select this mode by calling the unit and pressing 6666. Power ON timer will not be available to auto start the motor you have to start manually. You can start & stop motor from mobile phone also.

7. Protection Parameter Settings

Unit protects the pump from many electrical parameters as per SMS Chart.

From Unit

- 1) Keep switch in manual mode and switch OFF the pump.
- 2) Press SETTING switch up to 5-sec, display shows SET release the switch.
- 3) Display shows SPC and previously stored pump current.
- 4) Use ON and OFF switch to scroll the parameter in the following menu list
- 5) Press SETTING switch to select the parameter to change settings
- 6) Now display shows last set value for the selected parameter
- 7) Use ON and OFF switch to select (decrease or increase) new value
- 8) Press SETTING switch to save the setting display shows ACP
- 9) Setting for selected parameter is complete
- 10) Similarly you can set other parameter in menu

8. Optional Models in M4 Series

1. Model M4 GSM (2-99 Amp.)

This Unit works for 2 Phase / 3 Phase upto 80 Hp, It can be connected to any type of starter. Eg. DOL, Star Delta, Oil Filled, 3 Button Oil Filled, 2 Phase Changer etc.

2. Model M4 GSM Battery (2-99 Amp.)

This Unit has all above features with additional battery backup during power failure so unit will send SMS when power fails, accepts SMS based changes, informs by SMS when battery is becoming low etc.

3. Model M4 GSM DOL (2-22 Amp.)

This Model has inbuilt electronic DOL Starter suitable for 0.5 to 7.5 Hp Motors.

4. Model M4 GSM DOL With Battery (2-22 Amp.)

This Model has inbuilt electronic DOL Starter suitable for 0.5 to 7.5 Hp Motors with additional battery backup during power failure.

5. Model M4 GSM WLC (With Water Level Controller) (2-99 Amp.)

This Model has inbuilt 2 tank fully automatic water level controller along with all features of M4 GSM.

9. TECHNICAL SPECIFICATIONS M4 GSM 2-99 Amps.

Sr.No.	Specifications	Parameter
1.	Protection Design	µC based current sensing
2.	Supply voltage	250VAC-470VAC±5% 50Hz
3.	Output relay contact	1-CO 5A / 250VAC
4.	GSM network	By SIM
5.	Interactive voice response (IVR)	Yes
6.	IVR Language	As per customer's choice
7.	Registered users	4-nos
8.	Pump Current setting Scale	2A - 99A, From CT
9.	Display Digital Volt Meter Digital Ammeter for RYB Phase	
10.	Protection setting Input phase failure Input reverse phase Output phase failure Voltage / Current unbalance Overload setting range Overload default value Dryrun setting range Dryrun default value High Voltage (480 V default) Low Voltage (250 V default) Extreme high current	20%-50% Above 40% of set current OFF-60%-95% 75% of set current 450 V - 500 V 180 V - 350 V 180% of set current
11.	Timers Power on timer setting range Power ON timer default value Star Delta timer setting range Star Delta timer default value Motor ON Timer (One Time) Dryrun Auto Start timer Repeat Run timer MTC Timer with Compensation Cyclic Timer	3sec-300sec 60sec±3sec 3sec-30sec 10sec±2sec OFF-5 - 720 min. OFF-5 - 720 min. OFF-5 - 999 min. Clock based T1, T2, T3, T4 24 hours

MANUFACTURED BY



USER MANUAL FOR M4 GSM SERIES

सिमा संख्या: - 4-digit password for mobile starter 2. *(Star):- Starting code 3. # (Hash):- Ending code 4. Add 12 digit Mobile number only (do not add zero at start)

10. MOBILE PHONE KEY FUNCTIONS

SR NO	MOBILE DIAL PAD KEYS	ACTION
1	1111	Pump current Setting
2	2222	Callback ON / OFF
3	3333	Password ON / OFF
4	4444	Auto Mode ON
5	5555	Change Existing Password
6	6666	Manual Mode ON
7	7	Pump ON
8	8	Verbal Voltage and Current information
9	9	Pump OFF
10	0	Present Status
11	*	Fault Reset
12	****	Make Call and Press **** to ADD Phone Number as Authorized User
13	####	Make Call and Press #### to DELETE Authorized User Phone Number

**Following SMS should be sent to SIM number of mobile starter
11. ON/OFF/AUTO/RESET ETC**

SR NO	ACTION	SMS	REMARK
1	Pump On	*5678ON#	
2	Pump Off	*5678OFF#	
3	Real Time Status	*5678RTS#	
4	Auto Mode On	*5678AM#	
5	Manual mode On	*5678MM#	
6	Fault Reset	*5678RST#	
7	Add User No	*5678A+91xxxxxxxxx#	xxxxxxxx is 10 Digit Mobile No.
8	Existing User list	*5678L#	
9	Delete Existing user no	*5678D+91xxxxxxxxx#	

12. PASSWORD / SMS / CALL BACK / MISS CALL ETC

SR NO	ACTION	SMS	REMARK
1	Password Protection On	*5678PPA#	
2	Password Protection Off	*5678PPD#	
3	Miscall On	*5678MCA#	
4	Miscall Off	*5678MCD#	
5	SMS On	*5678SMSA#	
6	SMS Off	*5678SMSD#	
7	Call back for all condition	*5678CBA#	On all fault conditions, power return & motor on-off
8	Call back for fault only	*5678CBF#	
9	Call back only for power return	*5678CBP#	
10	Call back off	*5678CBD#	
11	Change Password	*5678NPxxx#	xxxx 4 digit password

13. PROTECTION SETTINGS

SR NO	ACTION	SMS	REMARK / RANGE
1	Parameter Setting Details	*5678PSD#	
2	3 Phase Overload Trip Current	*56783PHOL20.0#	2 Amp – 99 Amp
3	3 Phase Dry run Trip Current	*56783PHDR10.0#	2 Amp – 99 Amp
4	3 Phse Over load and dry run trip current	*56783PHOL10.0DR09.0#	2 Amp – 99 Amp
5	Current Unbalance %	*5678CUB50#	20 % - 70 %
6	Set High voltage	*5678HV480#	450 V – 500 V
7	Set Low voltage	*5678LV250#	180 V – 350V
8	Set Overload percentage	*5678OL40#	10 % - 50 %
9	Set Dry run percentage	*5678DRY75#	60 % - 95 %
10	Protection On	*5678PON#	
11	Protection Off	*5678POFF#	All protection bypass except SPP
12	Bypass high voltage	*5678HV0#	
13	Bypass low voltage	*5678LV0#	
14	Bypass dryrun	*5678DRY0#	

14. WATER LEVEL SETTINGS (Model M4 WLC)

SR NO	ACTION	SMS
1	WLC On	*5678WLCON#
2	WLC Bypass/OFF	*5678WLCOFF#

15. TWO PHASE SETTINGS

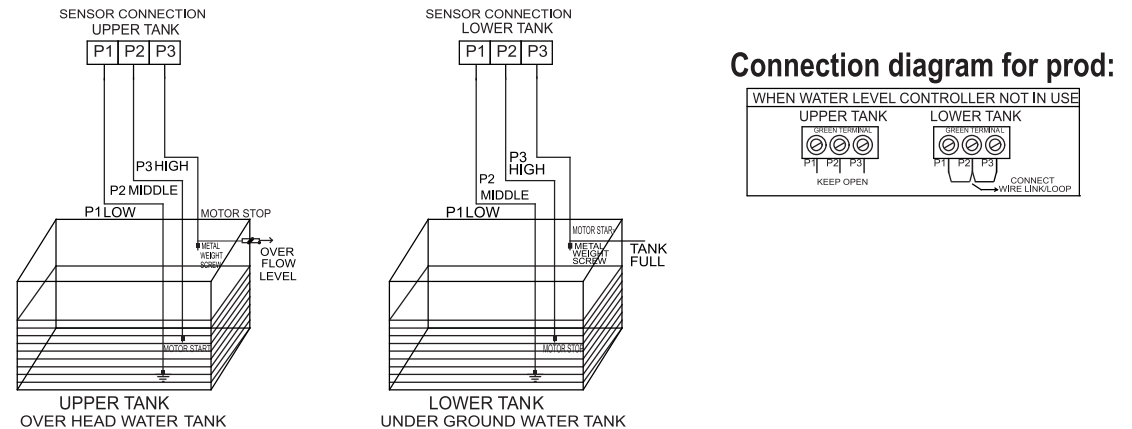
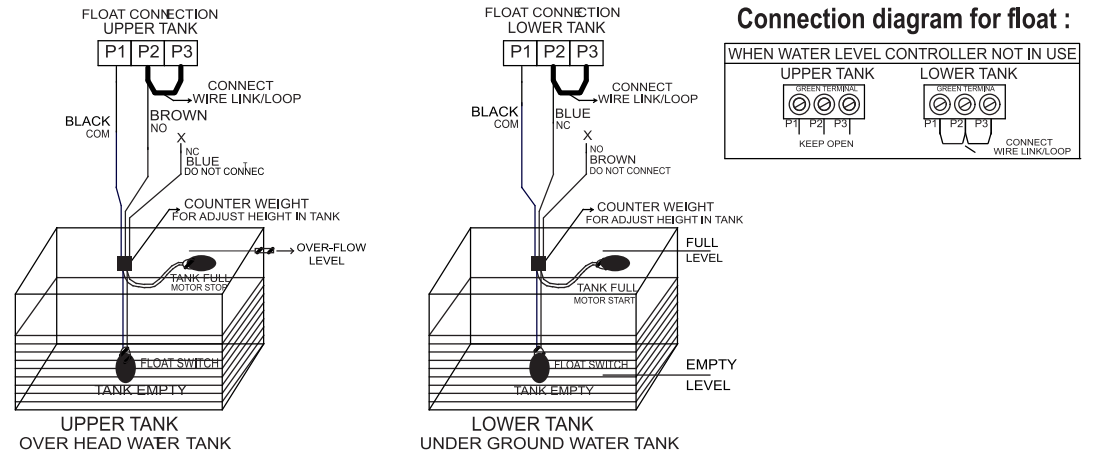
SR NO	ACTION	SMS	RANGE
1	2 Phase Overload trip Current	*56782PHOL20.0#	2 - 99 Amp
2	2 Phase Dry run trip Current	*56782PHDR10.0#	2 - 99 Amp
3	2 Phase Overload and dry run trip current	*56782PHOL10.0DR09.0#	2 - 99 Amp
4	2 Phase On	*56782PA#	
5	2 Phase Off	*56782PD#	

16. TIMER SETTINGS

SR NO	ACTION	SMS	REMARK / RANGE
1	Power On Timer	*5678POT60#	3 – 300 Seconds
2	Star – Delta Timer	*5678SDT10#	3 – 60 Seconds
3	Dry run Auto-start timer ON	*5678DAT120#	5 – 720 Minutes
4	Dry run Auto-start timer OFF	*5678DAT000#	
5	Motor On timer(One time)	*5678ON10#	5 – 720 Minutes
6	Repeat run timer ON (every time)	*5678RRT120#	5 – 999 Minutes
7	Repeat run timer OFF	*5678RRT0#	
8	Cyclic Timer ON	*5678CYCONHH:MMOFFHH:MM# Ex:5678CYCON12:05OFF09:15#	Maximum 24 hours
9	Cyclic Timer OFF	*5678CYCOFF#	
10	MTC Timer ON (T1,T2,T3,T4)	*5678T1ONHH:MMOFFHH:MM# EX: *5678T1ON09:05OFF12:25#	Clock based timer
11	MTC Timer Off (T1,T2,T3,T4)	*5678T1ONHH:MMOFFHH:MM# EX: *5678T1ON00:00OFF00:00#	
12	MTC timer Compensation ON	*5678TCA#	
13	MTC timer Compensation OFF	*5678TCD#	
14	All MTC Timer ON	*5678MTCON#	
15	All MTC Timer OFF	*5678MTCOFF#	
16	Timer Setting Status	*5678TIMERSTATUS#	
17	Set RTC clock	*5678SCT13:10#	

17. Water Level Controller

M4 GSM WLC has inbuilt fully automatic two tank universal water level controller in which you can use float switch or metal sensors which can be connected as per diagram shown below



MANUFACTURED BY

