

Agriculture & Rural Electrical Products



AGRI CUSTOMER CARE



Scan the QR code
for any service, complaint,
installation, or other support

SMARTSHOP



We are online!
Scan the QR code to buy



**A BRAND,
TRUSTED BY
GENERATIONS**

Electrical Standard Products

Lauritz Knudsen Electrical & Automation

A/600, Shi-Mahape Road, TTC Industrial Area, MIDC Thane,
Mumbai, 400 710, Maharashtra

Customer Interaction Center (CIC)

Phone no: 022 6932 7800, E-mail: CIC@LK-EA.com

Website: smartshop.lk-ea.com



L&T Switchgear IS NOW
Business

MR-Gi

Digital Single Phase Controller

Features

MR-Gi (Manual Version)

- › Gives complete protection from over voltage, under voltage, and dry run.
- › Settable
 - » Overload range
 - » Under voltage range
 - » Dry run threshold
- › Hassle-free auto current setting ensures convenience.
- › Through OFF Timer it switches OFF pump after a certain pre-set time interval.
- › With Capacitor Cut OFF feature it cuts OFF start capacitor in cases where the ON push button is pressed for a long time, enhancing capacitor life.

MR-GiA (Auto Version with in-built WLC)

- › A RTC (Real Time Clock) timer ensures automatic pump ON/OFF as per time setting.
- › Also, a cyclic timer ensures pump ON/OFF periodically.
- › Through time compensation feature it provides flexibility to operate the pump by making up for lost time due to power supply failure in timer mode.
- › Automatic ON/OFF to fill/empty one tank/two tank system with in-built WLC.
- › WLC can be bypassed if required.
- › Provides an upper tank full/lower tank empty indication for WLC operation.
- › All features of manual version

MR-GiB (Auto version W/O WLC)

- › All features of MR-GiA, except WLC, are available

Range & Types



MR-Gi
(Manual version)



MR-GiA
(Auto version
with inbuilt WLC)

- › 0.5HP to 3HP

DY125U MCCB

For Your Pump Application

Features

- › Conforms to IS/IEC 60947-2, IEC 60947-2 & EN 60947-2.
- › Range: 25A to 100A, 3P, 415V AC.
- › Breaking capacity Icu - 10kA (Ics = 100% Icu).
- › High Electrical & Mechanical life.
- › Thermal Magnetic Release.
- › No Load-Line Bias.
- › ON-TRIP-OFF indication.
- › Suitable for Isolation.
- › Rated insulation voltage (Ui) - 800VAC.
- › Rated impulse withstand voltage (Uimp) - 8kV.
- › CE Marking.



DY125U MCCB



i-PROTECTOR

Digital Protection for Your Pump

Features

- › Micro controller based protection design.
- › Digital Ammeter & Voltmeter.
- › Auto / Manual / Bypass Mode available.
- › Suitable for all starters.
- › Adjustable ON delay, Dry run threshold, Dry run reset delay and Star-Delta timer.
- › *i*-Protector gives the following protections:
 - › Voltage & Current Single Phasing
 - › Under & Over Voltage
 - › Voltage & Current unbalanced fault from supply side
 - › Phase reversal fault
 - › Dry run fault
- › *i*-ADSM, *i*-VDSM available in 360V, 415V.

Note: *i*-VDSM gives voltage based protection (Except Dry run for which current based protection is given) & *i*-ADSM gives current based protection



i-VDSM

Spares for MR-Gi



Start Switch



Stop Switch



Terminal Block



MR-GiA WLC Spare



Start & Run Capacitors



M-POWER Pro

For Remote Operations with Protection of Your Pump

Features

- › Ease and convenience in operating pump from anywhere and anytime, through SMS, IVRS, and SMARTCOMM Agri Connect App.
- › Offers protection from phase loss, phase unbalance, phase reversal, over voltage, under voltage and dry run fault with individual protection enable/disable feature.
- › Parameter settings change as per requirement.
- › Easily set & check parameter settings such as pump status (ON/OFF), metering, etc. through the SMARTCOMM Agri Connect App.
- › No additional device is required, M-POWER Pro can be used with a 3 Phase DOL and SD Starters.
- › Prevents dry run fault and protects the pump.
- › Available in Hindi, Gujarati, Marathi, Tamil, Telugu, Kannada, Malayalam, Bengali, Odiya, Punjabi and English.
- › 3 Configurable Timers through Front Panel:
 - » Power ON Delay Timer (30-300 sec)
 - » Star-Delta Timer (2-30 sec)
 - » DRP Reset Timer (30-300 min)
- › Additional timer:
 - » Pump ON timer
 - » Daily ON-OFF timer with 4 time slots per day
- › Five users (1 master and up to 4 users) can control and monitor the starter/controller through their mobile phone with M-POWER Pro.



M-POWER Pro



Technology at your finger tips.
Explore the **SMARTCOMM** App.

Water Level Controller

Features

- › Suitable for one tank as well as two tank applications.
- › Suitable for draining or filling of water or any other liquid.
- › 3 / 6 stainless steel sensor probes of 10 cm length.
- › Supports up to 1000m length cable for longer distance probe sensing.
- › Auto / Manual feature available with 240V and 415V.
- › Power ON and relay ON status LED indication.
- › CE & RoHS Certified.



Water Level Controller



SzLC WLC

Simplifying Water Control Challenges

Features

- › Two level detection of water in a tank.
- › One/Two tank monitoring for draining or filling or raining and filling the water.
- › High load switching capacity of output up to 30A. (For SzLC & SzLC1) .
- › Separate LED indication for water level, power, and relay status.
- › Settable power on delay and OFF timer.
- › Multiple operating modes like AUTO/ ON/ OFF (For SzLC) and AUTO/ MANUAL/ BYPASS (For SzLC1 & SzLC3).
- › Protections against dry run and over filling, means trip against tank emptying and over filling through probe sensing only.

Range & Types

- › SzLC - Monoblock & Self Priming Pump.
- › SzLC1 - Single Phase Submersible Pump.
- › SzLC3 - Three Phase Submersible Pump.



M-POWER+ / M-POWER++

For Remote Operations of Your Pump

Features

- › GSM based module for operation of starters and controllers from anywhere using mobile phone.
- › M-Power++ can be used with a 4G VoLTE SIM.
- › Multiple users (1 master and 2 users) can control the starter/controller through their mobile phone with M-Power+/M-Power++.
- › Four different 'time of day' can be set in a day for pump operation.
- › Controls the daily operations of a pump for pre-defined periods.
- › Suitable for Single Phase and Three Phase installation.
- › Configurable timers:
 - › Pump ON timer
 - › Retentive timer (with timer compensation)
 - › Daily ON-OFF timer with 4 time slots per day



M-POWER+



M-POWER++

Spares for M-POWER range



Wire Type Antenna



Controller-side Wire Harness & Module-side Wire Harness

SMART Pump Controller

DOL & FASD

Features

- › Available in DOL and FASD.
- › Built-in theft protection - gives an emergency alert to master's mobile when someone tries to steal your pump, cable or controller. This feature is active for 48 hours even without power.
- › Complete operation (remote ON/OFF and pump status through missed call and IVRS, parameter setting, monitoring and troubleshooting) through SMS or Mobile App.
- › Available in Hindi, Gujarati, Marathi, Tamil, Telugu, Kannada, Malayalam, Bengali, Odiya, Punjabi and English.
- › Voltage and Current based protection along with dry run protection.
- › Microcontroller based technology.
- › Works in all seasons and conditions.
- › Multiple timers can be set in a day.
- › In-built hour based and Real Time Clock based timers with time compensation feature.
- › Short circuit protection with in-built MCB/MCCB.
- › Individual protection Enable/Disable feature.
- › With Line Voltage, Phase Current, Power Factor, Power, Energy metering and total run time information for your pump.

Range & Types

- › Relay range - DOL upto 20A - 42A ; FASD upto 45A - 90A
- › DOL - upto 6HP to 10HP
- › FASD - upto 15HP to 75HP



MU-GS SMART Controller



Technology at your finger tips.
Explore the **SMARTCOMM** App.

Submersible Flat Cable

Suitable for Submersible Pump-Sets

Features

Submersible Cables (Flat Cables) as per IS694

- › 1100V Grade cable.
- › With uniform double insulation, no shock hazard, hence safe to use.
- › Lesser cable resistance, and hence a negligible voltage drop in cable ensures appropriate voltage at motor terminals.



Submersible Cable

Condenser & Capacitors

Features

Power Factor Correction Capacitors (kVAR)

- › Self-healing property ensures longer life of capacitor.
- › Leak proof and high viscous resin construction, hence no leakage or spillage.
- › Superior quality Metalized Polypropylene (MPP) film, ingress free construction and low losses ensures capacitance value and longer life of capacitor.
- › Metal construction allows natural cooling in ambient.
- › Improved power factor and low losses ensures optimized cable usage, lesser overheating of motor and hence lesser damage and maintenance.
- › Available in box & cylindrical type from 1kVAR to 30kVAR.
- › Easy to connect & suitable to work on high voltage.
- › Suitable for agricultural pump-sets and small motors.

MFD Capacitors for Single Phase Application

- › The self-healing property of metalized film ensures the longer life of capacitor.
- › Oil-free dry resin construction, hence, no leakage or spillage and no damage to panel.
- › Superior quality Metalized Polypropylene (MPP) film, ingress free construction and low losses.
- › Suitable to work on high voltage.
- › High insulation resistance ensures minimum leakage loss.
- › Low losses and rated capacitance value ensures trouble free operation and performance of your motor Range:
 - ›› Start capacitor - 80 to 250 μ F
 - ›› Run capacitor - 10 to 72 μ F



Power Factor
Correction Capacitor

Start and
Run Capacitor

Spares for SMART Pump Controller



DOL CT
Spare



FASD CT
Spare



i-Smart



Battery
Pack

SASDz5

Automate your SASD starter
With Auto Switch

Features

- › Protection from phase loss, phase reversal, phase unbalance, over voltage.
- › Power ON Delay timer ranging from 30 sec to 5 min and Star-Delta from 3 to 30 sec.
- › Auto, Manual & Bypass Mode available.
- › Protection in Manual and Auto Mode.

Types



Variant compatible for
2 Button (ON/OFF)
SASD STARTER



Variant compatible for
3 Button (Star-Delta-OFF)
SASD STARTER

Spares for MR-G



MR-G
Plug ON



MR-G
Plug OFF



MR11W Aux.
Contact Block



MU - 2P
Contactor



MU-2P Top
Add-On



MU - 2P
Relay



MU - 2P
Coil

Sz5 & SDz5

Single Phase Protection with Auto Restart

Features

- › Sz5 & SDz5 gives protection from single phase, phase unbalance, and phase reversal faults.
- › Automatic restart with a 30 sec to 5 min time delay.
- › The SDz5 comes with a Star-Delta Timer.
- › Auto, Manual and Bypass Modes are available.



Sz5



SDz5



MR-G

Single Phase Submersible Pump Controller

Features

- › Starts, stops & protects your single phase submersible pump.
- › Rugged MU-2P contactor with a Wide Band voltage (160V to 220V) suitable for low voltage.
- › Fitted with MU-2P Relay for reliable overload protection.
- › Available with heavy duty START & RUN condensers.
- › Controller is provided with a unique combination of dual Volt-Ammeter.

Range & Types

- › Reliable protection for single phase submersible pumps up to 5HP for domestic & agricultural purpose.
- › Types:
 - » With only Ammeters
 - » With Voltmeter & Ammeters (V/A meters)
- › Up to 20 - 32A Relay range.

Applications

Residential submersible pumps, Commercial hotels, Malls, Hospitals, Construction of buildings, Domestic gardening, etc.



MR-G2

MR-G3

Px3000

Solar Drive Controller

Features

- › With True MPPT (Maximum Power Point Tracking) Technology, Solar Drive Controller ensures the maximum water delivery at various solar energy levels for maximum duration in a day.
- › Auto & Adaptable MPPT.
- › Operated on solar as well as on grid.
- › Auto starts/stops as per Solar irradiance.
- › Robust design to handle high input DC voltage upto 850V.
- › Rugged design, Best in class performance even at 50 degree ambient.
- › Built-in RS485.
- › Plug & Play Drive.

Range & Types

- › 5HP, 7.5HP and 10HP (3 Phase 415V class Induction Motor).
- › Supply Voltage
 - » Grid - 380V - 480V, 3 phase
 - » Solar - Vmp : 250 - 750 VDC
Voc: 300 - 850 VDC



Px3000
Solar Drive Controller

MD Starter+

Start Smart, Stay Protected

Features

- › Digital Metering.
- › Built-in *i*-PROTECTOR which gives protections from following faults:
 - » Voltage & Current Single Phasing
 - » Under & Over Voltage
 - » Voltage & Current unbalance fault from supply side,
 - » Phase Reversal
 - » Dry-run fault protection (With adjustable current setting and adjustable reset time)
- › Auto/Manual/Bypass mode available.
- › suitable for all starters - upto 40A.

Note: *i*-VDSM gives voltage based protection (Except Dry run for which current based protection is given) & *i*-ADSM gives current based protection

Range & Types

- › MD Starter+ DOL - upto 20HP and relay range upto 28A - 42A.
- › MD Starter+ FASD - upto 30HP and relay range upto 28A - 42A.

Applications

Agricultural pump application, Agriculture and allied processes, Textile looms, Horticulture, Canal irrigation, High-rise building applications, etc.



MD Starter+

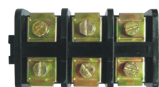
Spares for MU-G



Terminal Block
60A-3 Way



Terminal Block
30A-5 Way



Terminal Block
100A-3 Way



Rocker Switch



Indicating Lamp
Red & Green



Volt-Ammeter



Spare
ON-OFF plug



SPPR Type SDz5



SPPR Type Sz5
(7 Wire & 6 Wire)

MU-G

Three Phase Submersible Pump Controller

Features

- › With Voltmeter, Ammeter and Selector switch.
- › With hinged door for ease of operation.
- › Auto, Manual and Bypass mode.
- › With built-in Auto SPPR for Single Phasing, Phase Unbalance and Phase Reversal.
- › With adjustable ON delay timer (30 sec to 5 min) & Star-Delta timer (3 to 30 sec).
- › Available with Wide Band coil.
- › With Power ON & Motor ON indications.
- › Also available with built-in WLC version (MU-GW).

Range & Types

- › Relay Range-DOL upto 28A-42A and FASD upto 66A-110A.
- › DOL starters - Available upto 10HP.
- › FASD Starters - Available upto 75HP.

Applications

Submersible pump application, Residential pump application, Fire fighting pump application, etc.



MU-G Three Phase Submersible Pump Controller

MCB

With K- Curve Exclusively for Agricultural Pumps

Features

- › Easy to switch ON/OFF during maintenance.
- › Longer life than rewirable fuses.
- › Short-circuit tripping band suitable for submersible pumps.
- › Simple to resume supply by switching on MCB.
- › Provides both overload and short circuit protection.
- › Presence of positive isolation indicator features for safety of end user.
- › Trip-free mechanism to ensure maximum safety.
- › True contact indication facility for individual pole.
- › Touch proof terminals.
- › All three/two phases are combined in one unit making the installation process easy.

Range & Types

- › Range available from 10A to 125A - 3 Pole and 10A to 32A - 2 Pole & 1 Pole.
- › Rated Voltage - 240V/415V AC.
- › Breaking Capacity
 - › 10kA as per IEC 60947-2 upto 63A
 - › 15kA as per IEC 60947-2 upto 100A-125A



2-Pole MCB

3-Pole MCB

MK1 / MK2 Starters

DOL & Star-Delta Starter with Wide Band Coil

Features

- › Most effective and reliable Thermal Overload Protection.
- › Suitable in conditions like variable temperature, humidity and voltage fluctuations.
- › Can be connected to Voltage/Current Auto SPPR, Dry run and Remote application devices.
- › Built-in ON/OFF indications.
- › Available with Wide Band Coil.

Range & Types

- › Relay range - MK1-upto 13A-22A;
MK2-upto 20A-32A.
- › DOL Starters-upto 7.5HP.
- › Star-Delta Starters (Fully/Semi-Automatic) upto 15HP.

Applications

Pumps, Aerators, Textile looms and machinery, Agriculture and allied processes, Horticulture, Canal irrigation, etc.



MK1



MK2

Spares for ML Starters



ML1.5 Contactor



ML2W Contactor



Standard Operating
Coil ML1.5



Standard Operating
Coil ML2 / ML3



ML1 Relay



ML2 / ML3 Relay



Spare Kit



Timer ST100

ML Starters

Reliable & Durable for Generations

Features

- › Rugged and strong starter.
- › Most effective and reliable Thermal Overload Protection.
- › Bigger terminals for ease of terminations.
- › Suitable in conditions like variable temperature, humidity, and voltage fluctuations.
- › Can be connected to Voltage/Current Auto SPPR and Remote application devices.

Range & Types

- › Relay range-up to 20A-32A.
- › DOL Starters-up to 20HP.
- › Star-Delta Starters (Fully/Semi-Automatic) up to 35HP.

Applications

Agricultural pump applications, Mining applications, Tea garden, Jute industry, Leather industry, Stone crushers, Rice and Dal Mills, Granite polishing, etc.



ML starters

Spares for MK1 / MK2 Starters



MK1 Spares



MK2 Spares



MK1
Combination Coil



MK1/ MK2 Standard
Operating Coil



MK1 Contactor



MK2 Contactor



MK1 Relay



MK2 Relay



Timer ST100



Farmer's Choice

MU / MB Starters

Heavy Duty with
Wideband Moulded Coil

Features

- › Heavy duty Contactor and Relay.
- › Wide band moulded coil with 180V to 415V range for 3 Phase applications.
- › Most effective and Reliable Thermal Overload Protection.
- › Suitable in conditions like variable temperature, humidity and voltage fluctuations.
- › Can be connected to Voltage/Current Auto SPPR, Dry run and Remote application devices.
- › MB starters come with in-built single phasing protection.
- › Bigger terminals for ease of termination.
- › Rugged MU-2P contactor for Single Phase application with a Wide Band voltage (160V to 220V) suitable for low voltage.

Range & Types

- › Relay range upto 28-42A.
- › DOL Starters-upto 17.5HP.
- › Star-Delta Starters
(Fully/Semi-Automatic)-upto 35HP.

Applications

Agricultural pump application, Agriculture and allied processes, Textile looms, Wood & Stone cutting, Horticulture, Canal irrigation, etc.



MU/MB Starters

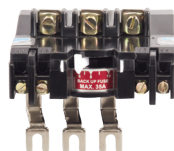
Spares for MU / MB Starters



MU Contactor



Relay
Extension Knob



MU1 Relay



MU2 Relay



MU Spare Kit



MU Contact Bridge



MU Spare Housing



MU Coil



Timer ST100