

Innovating Power of Control





ABOUT US

The brainchild of two Electronic Engineering graduates Mr. Arinjay Dodal and Mr. Nishikant Jain, Sydler Electronics Pvt. Ltd. (formerly known as Dodal Electro Instruments) was founded in the year 1988 with the sole purpose of bringing novel resources and technologies in the rapidly expanding fields of Electronics and Instrumentation.

With the sole purpose of creating user-friendly solutions, all the products are manufactured by adapting the state of art technology and are branded under the name - **DOELIN**°

Sydler is one of the leading manufacturers with complete range of motor starters and has a Pan India presence through a well-knit dealer network.

The team of trained service technicians addresses the needs of the Domestic, Agriculture and Industrial sectors and provides them their precise solutions with good quality products to the market at the right value. Sydler provides an excellent service to the dealer network and is also involved in arranging training programs to update the vast network of service providers.

The marketing and the sales team ensures that they cover the entire country and leave no stone unturned to promote the sales of the products. The team goes the extra mile to assist the dealers in various promotional activities. It is our fervent belief that our dealers are an integral part of our family and their well being is very close to our heart.

Conclusively, **DOELIN** systems feature an innovative modular design that has a low initial cost, zero downtime and exceptional reliability, making them extremely easy to use and service.



Vision

Our Vision is to be a World-class organization in the Electronic segment. We will be a one-stop solution and a preferred destination for Customers. We will be innovative in our field, bringing ease to all human beings. We are part of Green evolution hence the Environment, Health & Safety of everybody in the Supply chain is our first aim.



Mission

To achieve customer satisfaction through excellence in designing, supply chain management and integrated business processes. We are a results-oriented organization that builds value for our customers through our employees by creating an atmosphere of optimism, teamwork, creativity, resourcefulness and dealing with all people in an open and ethical manner. Bring continuously new exciting innovations and Value for Money products to the market. Continue to improve design & processes to achieve the highest product quality.



Values

Sydler has core values which are our fundamental beliefs upon which our business and behavior are based. They are guiding principals that our business use to manage its internal affairs and external relationship with customers and stakeholders.



Core Values



INTEGRITY - Know and Do what is right. Learn more.



 $\ensuremath{\mathsf{RESPECT}}$ - Treating others the way you want to be treated.



RESPONSIBILITY - Embrace opportunities to contribute towards society.



SPORTMANSHIP - Bring your best to all competition.

SINGLE PHASE CONTROL PANELS _

- Microcontroller based state of the art fully featured design
- Sturdy powder-coated metal cabinet
- Digital display with user friendly keys
- True RMS Voltage and Current measurements
- LED indication of each fault
- Auto pump protection setting
- Operating voltage range 150Vac-290Vac at 50Hz
- Current range 0.5A-21A

Features

Prevention Against	Adjustable
Overload	Overload Current and trip time
Dry Run	Dry Run Current and trip time
High / Low Voltage	High Voltage and Low Voltage
Capacitor Cut-Off	Pump ON Timer



Single Phase Submersible Semi Starter

Model Name /HP	SPD-SA-01	SPD-SA-1.5	SPD-SA-02
Running Capacitor	36 mfd	50 mfd	72 mfd
Starting Capacitor	100 / 120 mfd	120 / 150 mfd	150 / 200 mfd

Single Phase Submersible Fully Automatic Starter

Model Name /HP	SPD-FA-1	SPD-FA-1.5	SPD-FA-02	SPD-FA-03	SPD-FA-05
Running Capacitor	36 mfd	50 mfd	72 mfd	50 / 50 mfd	72 / 72 mfd
Starting Capacitor	100 / 120 mfd	120 / 150 mfd	150 / 200 mfd	200 / 250 mfd	200 / 250 mfd



All Single Phase Semi Features +			
Dry run auto start timer	Cyclic Timer	RTC Timer	
*Inbuilt Water Level Controller (Optional) (WLC) (SPD-FA-HP-W)			

Single Phase Mobile Starter - Submersible / Open Well / Monoblock

Model Name /HP	SPD-MS-1	SPD-MS-1.5	SPD-MS-2	SPD-OW- MPG-01	SPD-OW- MPG-1.5	SPD-OW- MPG-2	SPD-MB- MPG
Running Capacitor	36 mfd	50 mfd	72 mfd	36 mfd	50 mfd	72 mfd	
Starting Capacitor	100/120 mfd	120/150 mfd	150/200 mfd				



All Single Phase Submersibles Fully Automatic Starter Features +				
Dry Run Auto Start Timer	Cyclic Timer	RTC Timer		
Motor ON/OFF through IVRS, Missed call and SMS				
Auto-Manual setting through SMS and IVRS				
Unique fault feedback call facility				
All Protections ON/OFF through SMS				
Mobile starter can operate from specific number (4 Mobile Number)				



Single Phase Openwell Starter

Model Name /HP	SPD-OW-01	SPD-OW-1.5	SPD-OW-2
Running Capacitor	36 mfd	50 mfd	72 mfd

All Single Phase Submersibles Fully Automatic Starter Features+			
Dry Run Auto Start Timer	Cyclic Timer		
*Inbuilt Water Level Controller (Optional) (SPD-OW-01-W)			



Single Phase Monoblock Starter

Model Name: SPD-MB-O2 • Capacity: 1.5 HP and 2 HP • Input Voltage: 230 Vac • Current Capacity: 21 Amp

All Single Phase Openwell Starter Features +			
Dry Run Auto Start Timer	Cyclic Timer		
*Inbuilt Water Level Controller (Optional) (SPD-OW-02-W)			



Single Phase Mini Starter

Model Name: SPD-Mini-D

• Capacity: Up to 1 HP

• Protection: Overload, Dry Run, HI/LV

• Digital display with user friendly keys

• True RMS Voltage and Current measurement

· LED indication of each fault

· Auto pump protection setting

• Input Voltage: 230 Vac • Current Capacity: 7 / 11 Amp

• *Inbuilt Water Level Controller

(Optional)



Single Phase MCB Openwell Starter

• Suitable for Openwell Pump

MCB Overload Thermal Protection

• Available for 0.5 HP to 2 HP

• Operating Voltage :150V to 270V

Model Name /HP	SPD-OW- MCB-0.5	SPD-OW- MCB-1	PD-OW- MCB-1.5	SPD-OW- MCB-2
Running Capacitor	25 mfd	36 mfd	50 mfd	72 mfd
Starting Capacitor	6 Amp	10 Amp	16 Amp	25 Amp

THREE PHASE CONTROL PANELS _____

- Microcontroller based state of the art fully featured True RMS Voltage and Current measurement design
- Sturdy powder-coated metal cabinet
- Digital display with user friendly keys
- LED indication of each fault
- Auto pump protection setting
- Operating Voltage Range 250Vac 480Vac at 50Hz

Prevention Against		Adjustable	
Overload	Phase Reversal	Overload Current and Trip Time	Current Unbalance
Dry Run	Voltage Unbalance 80V	Dry Run Current and Trip Time	Dry Run Auto Start Timer
High / Low Voltage	Current Unbalance	High Voltage and Low Voltage	Cyclic Timer – ON/OFF Timer
Input SPP / Output SPP	Extreme High Current	Pump ON Timer	RTC Timer



Three Phase Relay DOL Starter

Model Name: TPD-R-DOL

• Capacity: Up to 7.5 HP

• Current Capacity: 0.5Amp-18Amp

• Suitable for : Submersible, Monoblock & Openwell Water Pump

• *Inbuilt Water Level Controller (Optional) (TPD-R-DOL-W)



Three Phase Contactor DOL Starter

Model Name: TPD-CONT-DOL

• Capacity: Up to 7.5 HP • Current: 0.5 to 25 Amp

• Suitable for : Submersible, Monoblock & Openwell Water Pump

All Three Phase Relay DOL Stater Features +

• 3 Pole MCB for main ON/OFF and short circuit protection

• High Quality Branded Contactor

• *Inbuilt Water Level Controller (Optional) (TPD-CONT-DOL-W)



Three Phase Contactor DOL Mobile Starter

Model Name: TPD-CONT-MPG

• Capacity: Up to 7.5 HP • Current: 0.5 to 25 Amp

• Suitable for : Submersible, Monoblock & Openwell Water Pump

• 3 Pole MCB for main ON/OFF and short circuit protection

• High Quality Branded Contactor

All Three Phase Contactor DOL Stater Features +

- Motor ON/OFF through IVRS, Missed call and SMS
- IVRS in three languages Hindi, Marathi and English.
- Real time voltage and current information through IVRS
- All settings change through SMS
- Auto-Manual setting through SMS and IVRS

- · Unique fault feedback call facility
- All protection ON/OFF through SMS
- Mobile starter can operate from specific number (4 Mobile Number)
- Battery backup for mains failure (OPTIONAL) (TPD-CONT-MPG-B)



Three Phase Star Delta Fully Automatic Starter

Model Name: TPD-SD

- Available In : 25 Amp / 40 Amp / 50 Amp / 95 Amp / 200 Amp
- 3 Pole MCB for main ON / OFF and short circuit protection
- High quality branded contactor
- Microcontroller based state of the art fully featured design
- Sturdy powder-coated metal cabinet
- Digital display with user friendly keys
- True RMS Voltage and Current Measurement
- · LED Indication of each fault

- Auto pump protection setting
- Inbuilt Water Level Controller (Optional)
- Operating Voltage Range 250Vac 480Vac at 50Hz
- Current range as per requirement

Prevention Against		Adjustable	
Overload	Phase Reversal	Overload Current and Trip Time	Current Unbalance
Dry Run	Voltage Unbalance 80V	Dry Run Current and Trip Time	Dry Run Auto Start Timer
High / Low voltage	Current Unbalance	High Voltage and Low Voltage	Cyclic Timer – ON/OFF Timer
Input SPP / Output SPP	Extreme High Current	Pump ON Timer	RTC Timer



Three Phase Star Delta Fully Automatic Mobile Starter

Model Name: TPD-SD-MPG

- 3 Pole MCB for main ON/OFF and short circuit protection
- High quality branded contactor

All Three Phase Star Delta Starter Features +

- Motor ON/OFF through IVRS, Missed call and SMS
- IVRS in three languages Hindi, Marathi and English
- Real time voltage and current information through IVRS
- All settings change through SMS
- · Auto-Manual setting through SMS and IVRS
- Unique fault feedback call facility
- ALL protection ON/OFF through SMS
- Mobile starter can operate from specific number (4 Mobile Number)
- Battery backup for mains failure (OPTIONAL)



Automatic Three Phase Starter Duel Panel (Upto 25 Amp)

Model Name: TPD-DUAL-25

- Specification / Protection / Adjustable As per TPD-SD
- Control Power Output for Two Pumps (Three Phase)

	Input Supply		Output Supply Pump 1			Outp	out Supply Pu	mp 2
R	Y	В	R	Y	В	R	Y	В





Three Phase Mobile Auto Eco

Model Name: TPD-MPG-ECO

• Capacity: Upto 90 Amp

• Voltage Range: 300V to 480V

Specification:

- Microcontroller based state of the art fully featured design
- True RMS Voltage and Current measurement
- LED indication of each fault
- Auto pump protection setting
- Motor ON/OFF through IVRS, Missed call and SMS
- IVRS in three languages Hindi, Marathi and English
- Real time voltage and current information through IVRS
- All settings change through SMS
- Auto-Manual setting through SMS and IVRS
- Unique fault feedback call facility
- ALL protection ON/OFF through SMS
- Mobile starter can operate from specific number (4 Mobile Number)

Battery backup for mains failure (OPTIONAL) (TPD-MPG-ECO-B)

Features:

Prevention Against		Adjustable				
Overload		Overload Current and Trip Time	Current Unbalance			
Dry Run		Dry Run Current and Trip Time				
High / Low Voltage		High Voltage and Low Voltage				
Input SPP / Output SPP	Extreme High Current	Pump ON Timer				



Three Phase Mobile Auto with Display

Model Name: TPD-MPG-DISPLAY

Capacity : Upto 90 Amp

All Three Phase Mobile Auto Eco Specification & Features +

• Digital Display with user friendly keys

Adjustable:

- Dry Run Auto Start Timer
- RTC Timer
- Cyclic Timer

Battery backup for mains failure (OPTIONAL) (TPD-MPG-DISPLAY-B)

AUTO SWITCHES _



Auto Switch Star Delta Model Name - DAS-SD



Auto Switch DOL Model Name - DAS -DOL

Three Phase Auto Switch DOL & STAR DELTA

- Operating Voltage Range 200Vac-470Vac at 50Hz
- Trip Time Delay- 5 sec to 10 sec

Prevention Against:

- Phase Failure from input side (Input SPP)
- Phase Failure from output side (Output SPP)

Three Phase Auto Switch DOL &

• Phase Failure from input side (Input SPP)

• Phase Failure from output side (Output SPP)

• Operating Voltage Range 200Vac-470Vac at 50Hz

- Phase Reversal
- Phase Unbalance (Normally 80V)
- High Voltage / Low Voltage

STAR DELTA Dryun

Prevention Against:

Phase Reversal

• Trip Time Delay- 5 sec to 10 sec

• Phase Unbalance (Normally 80V)

• Available in – 1Min / 3 Min / 5 Min

• High Voltage / Low Voltage

Overload Protection

• Dry Run Protection • Current Unbalance

• Available in – 1Min / 3 Min / 5 Min

Three Phase Auto Switch DOL Dryun



Model Name: DAS -DOL-DR

Auto Switch DOL 0-15 Min

Model Name - DAS - DOL-T

Three Phase Auto Switch Star Delta Dryun



Model Name: DAS -SD-DR

Three Phase Auto Switch DOL 0-15 Min (Upto 7.5 Hp)



- On Time Delay 0 to 15 Min
- Trip Time Delay- 5 sec to 10 sec

Prevention Against:

- Phase Failure from input side (Input SPP)
- Phase Failure from output side (Output SPP)
- Phase Reversal
- Phase Unbalance (Normally 80V)
- High Voltage / Low Voltage



TIMERS _





Cyclic Timer

Model Name: SPD-CTD & TPD-CTD • Timing Capacity: 1 Second to 24 Hours

• Frequency: 50 Hz

• Phase : Single Phase & Three Phase

• Digital Cyclic Timer for Cyclic On/Off Water Pump

• Time can be set in Hour, Minute or in Seconds

• 30 Amp relay Output

• Available in Single Phase -230V 50Hz AC & Three Phase - 415V AC

RTC Timer

Model Name: RTC

• Microcontroller based state of the art

• Fully featured design

· Real time clock based working

• Battery backup (Optional)

• Digital display with user friendly keys

• User settable ON & OFF

• 4 Timers in a Day

• 5 A Potential free relay output

Easy to install

• Single Phase & Three Phase Available

Applicable for : Garden light, stair light, Parking light, street light

Automatic Water Level Controller (Liquid Level Controller)

Model Name: Single Phase LLC (SPD-LLC) & Three Phase LLC (TPD-LLC)

• Microcontroller based state of the art fully featured design

• User friendly keys

• True RMS Voltage and Current Measurement

• LED indication of each fault

• Power ON, Pump ON

• Upper Tank Full (UTF)

Lower Tank empty (LTE)

Bypass

Auto pump protection setting

• Emergency On Switch

• Operating Voltage Range Single Phase150V- 270V and Three Phase at 300 v to 470V at 50Hz

• Built-in ON delay Timer

• Suitable for all types of level sensors and Flot

Easy to Install



AGRI AUTOMATION PANELS

Smart Irrigation Controller

Model Name: DOELIN-ICD004 to ICD032

 DOELIN designs the controller considering the Indian farmers requirements. This controller is a unique, compact, simple, and modular having highly reliable and advance technology that makes the systems more accurate



Features:

- Time base Irrigation Controller
- It is capable of controlling 4 to 32 Irrigation valves, water filters, pH level and 1- 4 fertilizer Injectors.
- It's software includes all the programming features suitable for Indian weather conditions
- System operates Auto and Manual mode through SMS,
 Phone call or Panel keys
- Inbuilt pH monitor and control
- Inbuilt automatic control for filter back flushing
- Irrigation cycle by week, by interval and by sequence programmable through keyboard or mobile phone using Android Application provided with system

Technical Specifications:

- User Interface: LCD & Android application
- Solenoid Interface: DC and AC
- Irrigation Control Parameters: Time or Quantity
- Irrigation Cycle: By Week, By Interval, By Sequence.
- pH sensor interface: 4-20mA
- Pressure sensor interface: 4-20mA

- Inbuilt phase protection input provided like single phase, reverse phase, phase unbalance etc.
- Inbuilt 4 20mA input provided for pH sensor and pressure sensor
- Inbuilt fertilizer tank level monitor input provided.
- Complete motor protection system provided with system
- All SMS feedback in Marathi, Hindi and English language which is selectable
- Inbuilt rain sensor logic
- Water pressure protection provided through pressure sensor or pressure switch
- Alarming: Overflow, Underflow, Low pH, High pH, Low Pressure, Fertilizer Low Level, Pump Overload, Pump Dry Run, SPP etc
- Suitable for Single phase and Three phase pump
- Compatible with most existing Irrigation Solenoids Valves

EC-pH CONTROLLER

Model: DOELIN EC-pH-C

EC-pH monitor and controller are designed for constant monitoring of EC-pH values & controlling them for irrigation water. EC-pH becomes a major factor of modern nutrition systems. Soil-less cultures and even open field cultivation nowadays require a good control of the electro conductivity and the acidity of the irrigation water. Also, provides alerts to the user if these parameters exceed a certain set range.

Features:

- It's software includes all the programming features suitable EC-pH controller
- System operates Auto and Manual mode
- Two control relay output
- Seven segment display shows EC-pH reading
- EC-pH control action settable
- Automatic control the water pH

Doelin Green House Controller

Model: DOELIN-GH-C

Monitoring and control of greenhouse environment play an important role in greenhouse production. This system is used to measure the various parameters like Temperature, Humidity and Light to display them on an LCD. Temperature, Humidity and light are sensed by respective sensors. Appropriate environmental conditions are necessary for optimum plant growth, improved crop yields, and efficient use of water and other resources. The existing systems employ PC or SMS-based systems for keeping the user continuously informed of the conditions inside the greenhouse. This makes the DOELIN system to be an economical, portable and a low maintenance solution for greenhouse applications



All IC004 Features +:

• Complete greenhouse operation cycle sequence programmable through keyboard or mobile phone using Android application provided with system.

Technical Specifications:

- Sensor interface 4 20mA output type, RTD type
- 10Amp control relay output
- Alarming: Overflow, Underflow, Low Pressure, Pump Overload, Pump Dry Run, SPP Sensor High/Low conditions etc
- Suitable for Single phase and Three phase pump
- Compatible with most existing irrigation valves and solenoids

Doelin Hydroponic Controller

Model: Doelin-Hydro-C

Hydroponics is a method of growing plants without using soil. The system is automated using controllers and sensors to keep human intervention at a minimum. Doelin hydroponic controller is used to measure the various parameters like Temperature, Humidity, Water quality, etc. and create appropriate environmental conditions for optimum plant growth, the existing systems employ PC or SMS-based systems for keeping the user continuously informed of the conditions inside the hydroponic chamber. This makes the proposed system to be an economical, portable and a low maintenance solution for hydroponic chamber applications



Technical Specifications:

- Sensor interface 4 20mA output type, RTD type (Optional)
- 10Amp control relay output
- Alarming: Overflow, Underflow, Pump Overload, Pump Dry Run, SPP Sensor High/Low conditions etc.
- Available in Single phase and Three phase pump

SOLAR PUMP CONTROLLERS

Solar Pump Controller

Model: DOELIN-SPC-HP

• Input Voltage: DC from Solar Panel

• Output Voltage: 110V-220V- 380V - 415V AC Settable as per Motor Voltage

DC Voltage produced from solar panel is directly delivered to solar pump inverter. It converts it into ac current to drive water pump.

It automatically regulates output frequency according to sun radiance intensity. It maximizes MPPT (Maximum Power Point Tracking) function. It ensures fast response, and reliable operation, achieves efficiency of 99%. It offers full protection controls.

Designed with variable frequency drive, which greatly improves the efficiency to optimize motor torque. Digital control for Automatic and Manual modes Adopts IGBT, intelligent IPM module, with high reliability

LCD display & operation panel, in real time presents operating data for AC pumps. Mobile App Operator Panel (Optional - Remote Monitoring System). The Pumps are soft started. No batteries used.



Prevention Against	Main Features
Over-Voltage	Dusk to Dawn Operation
Under Voltage	MPPT Controller for High Efficiency
Over Current	Low Cost
Under Current	No Maintenance Cost
Short Circuit	Auto / Manual Control
Overheating	Battery Less or with Battery Operation
Dry Run	With RMS Available (Optional)

Solar Pump	1-Phase or 3-Phase							
Solai Fullip	1HP 2HP		ЗНР	5HP – 7.5 HP				
Input VDC	70VDC - 200VDC	70VDC - 200VDC	200VDC - 450VDC	370VDC - 800VDC				
Output VAC		30 - 415VAC						
Output Frequency	50 - 250Hz							
Туре	Induction(AC - Motor) Permanent magnet synchronous motor [PMSM] Brushless DC motor (BLDC)							
MPPT Efficiency	>= 98%							
Protections	Short Circuit Protection, Thermal Protection, Single Phasing Protection Dry Run Protection PV LOW							
Remote monitoring	GSM Data/SMS based (Optional) For Remote Pump ON/OFF and Status Update							

(Available in Single Phase & Three Phase Controller)

WATER TREATMENT CONTROLLERS ____



RO REGULAR

Model: RO -11/RO-13/RO-33 REGULAR

- 2 x 16-line LCD display for programming and process status.
- Digital inputs provided for interfacing with Auto Multiport Valves for backwash.
- Backwash alert time setting for manual pre-treatment with service relay.
- Mounting: Panel Type
- Dimension: 225W x 255H x 120D
- Cutout Size: 196W x 226H

Specifications:

- Uses state of the art microcontroller.
- 3 key interfaces for control and on-site programming.
- LED Indication for device status.
- Display for all the measured process and electrical parameters.
- Conductivity/TDS display with pre-alarm and trip settings.
- Scrolling display of motor current.

Flow Sensor-2 (For product water)

• Slow and Fast flush with individual settings for time.

- Slow and Fast flush with individual settings for time.
- Auto / Manual mode selectable.
- Plant Runtime Display.
- Password protected process and electrical parameter settings.
- Password can be changed.
- Pump protection in Manual as well as Auto mode.
- Data on GSM optional.

Control Input	Control Output
Raw Water Tank Empty (RWL)	Raw Water Pump
Low Pressure Switch (LPS)	High Pressure Pump
High Pressure Switch (HPS)	Dosing Pump
Treated Water Tank Full (TWL)	Flushing Solenoid Valve
Auto MPV Interface	Auto MPV Power
Flow Sensor-1 (For reject water)	

Electrical Protection
Under & Over Voltage (UV & OV)
Dry Run & Over Current (UL & OL)
Single Phasing & Reverse Phasing
Voltage & Current Unbalance

Panel Configuration	RO-11 REGULAR	RO-13 REGULAR	RO-33 REGULAR	STAR-DELTA
Raw Water Pump	Up to 2 hp - 1P	Up to 3 hp - 1P	Up to 5 hp - 3P	Up to 15 hp - 3 Phase
High Pressure Pump	Up to 3 hp - 1P	Up to 7.5 hp - 3P	Up to 7.5 hp - 3P	Up to 30 hp - 3 Phase
Solenoid Valve	NC-230 Vac	NC-230 Vac	NC-230 Vac	NC-230 Vac





RO Premium

Model: RO-11 / RO-13 / RO-33 PREMIUM

- All RO Regular Specification +
- 4X16 LCD display interface provide
- Operation with Automatic Multiport Valves
- One 4-20mA transmitter input, with settable span
- 2 Flow measurement with low flow alarm and very low flow trip
- Remote setting of all parameter
- Data on Mobile App
- · All the measured parameter sent as a single package on SMS.
- Data also available on non-smart phones in text format
- Cutout: 196W x 226H



RO Eco

Model: RO-11-Eco

- All RO Premium Regular Specification +
- Designed to control small RO Plant up to 250 lph
- 4-digit 7 segment bright LED display
- Suitable for pump up to 2hp each
- Mounting: Panel Type
- Cutout Size: 196W x 226H



Chiller Controller

Model: SPD-RO-CC

- Uses state of the art microcontroller
- 4-digit 7 Segment bright LED display
- 3 key pads for setting parameters
- LED indications for Fault

• Output 1: Fan

• Output 2 : Pump

• Output 3: Compressor

- Scrolling display of all parameters
- Supply Voltage: 230Vac, @ 50Hz
- Over and Under Voltage protections

Control Output (1Ph 230 VAC):

• Over and Under load (dry run) protection

Sensing Inputs:

- Input 1: Outlet Temperature
- Input 2 : Antifreeze Temperature

• Operating Mode : Cooling & Heating

• Also facility to operate on time base

• Inbuilt On Delay Timer

• Mounting : Panel Type

• Cutout Size: 196W x 226H

- Input 3 : High Pressure Switch
- Input 4: Low Pressure Switch
- Input 5 : Flow Switch

WATER ATM MACHINES



Water ATM: (Coin Type) Model Name: WTR-COIN-ATM



Water ATM: (RFID Card Type) Model Name: WTR-CARD-ATM



- Water ATM : (Coin & Card Type) Model Name : WTR — COMBO-ATM



Recharge Unit)
Model Name:
WTR-RFID-RC

- Power Supply: 230Vac 12Vdc -Battery/Solar (Optional)
- Display: 2X16 LCD
- 3 keys for programming
- Flow Sensor: Pulse type
- Solenoid Valve: Normally Closed (NC)
- Auto Calibration for Flow Sensor
- Level Sensing: Treated Water Level Floaty

• Activated through both RFID & Coin Acceptor

· Activated through Coin Acceptor

(6 different types of coins)

• Data on GSM with Mobile App (Optional)

Activated through RFID Card (Smart Card)

- Water Inlet Connection: 3/4" (External)- Optional
- Water Outlet Connection: 3/4" (External)- Optional

Control Input & Output

Treated Water Tank Level

Flow Sensor: 12 Vdc

Solenoid Valve: 12 Vdc

Multi-Coin Acceptor: 12 Vdc

External Pump Output: 230Vac / 5A

Product Range:

- Coin Type Water ATM
- Card Type Water ATM
- Combo Type Water ATM (Coin + Card)
- Hot & Cold Water ATM (Card or Combo Optional)
- Card Recharge Unit
- Multi Tap Water Vending Machine (Customized)





STP & ETP Control Panels

- STP control for MBBR, SBR and MBR applications up to 400 KLD
- ETP control as per customized process
- Based on state of the art Microcontroller
- Compact Enclosures
- Integrated Control Logic and Switchgear combined in one enclosure
- The entire Sewage / Effluent Treatment Operation is Automatically controlled
- Selectable settings for Process and Electrical parameters
- Working Stand by Pumps / Blowers selectable
- Working to Stand-By rotation sequential
- Pump Operation Timer and Level based
- Blower Duty-Cycle settable
- Automatic AMPV regeneration on the pressure sensing
- TDS, Flow Measurements through sensors
- Instrument Inputs for 4-20mA process (Definable Parameters) eg. pH, TDS
- Dynamic process representation of controlled devices on LCD
- Remote setting of parameters and remote status monitoring through GSM & Mobile App



Micro STP Panels

- · Based on state of the art Microcontroller
- Compact panels for 2 to 20KLD
- Single and Three Phase Versions



UF Control Panels

- Based on state of the art Microcontroller
- Freely programmable 8 valves, 3 Pump system
- Suitable for different UF membrane Backwash / Rinse requirements
- Integrated control logic and switchgear in one enclosure
- The entire UF operation automatically controlled
- Process and Electrical settings selectable
- Backwash / Rinse / Service duty-cycle settable
- TDS & Flow Measurements through sensors
- Instrument inputs for 4-20 mA process (definable parameters) eg. pH, TDS
- Compact Enclosures
- Dynamic process representation of controlled devices on LCD
- Remote setting of parameters and Remote status monitoring through GSM

EDR Control Panel

- Micro-controller based with fully programmed automatic EDR control sequence
- Process and Electrical parameter settings through front panel touch screen TFT interface
- Process & Electrical parameters, alerts displayed on the front panel TFT display
- Process alert acknowledgment through front panel TFT display
- Process & Electrical parameters, alerts displayed on the front panel TFT display
- Settable process and sub-process watch dog timers
- Ruggedized power supply, specially designed for EDR application with adaptability to different stacks
- Fully manually operable





Star Delta

Up to 30 hp 3 Phase

Power

Standard

Up to 7.5 hp-3Phase

RO Master 333 Control Panel

Doelin RO Master control panel is compact and highly reliable, industrial grade, microprocessor based plug and play system. It has a complete RO process logic programmed and embedded with all process and electrical protections built in.

Features:

- Uses state of the art microcontroller
- 128X64 Graphic Display with soft key operation as an user interface
- Password protected setting
- Slow, Fast and Auto Flushing Times settable
- Auto/Manual modes of operations, with motor protection active in both the modes.
- Raw Water Pump, High Pressure Pump and CIP Pump controls
- Built in motor protections such as Overload / Emergency Overload / Dry Run / Current Unbalance / High Voltage / Low Voltage / Single Phasing / Reverse Phasing etc
- Three flow measurements for Inlet, Reject and Product with Flow Rate Display
- Flow Totalizer and Plant run hour meters
- Raw Water, Product Water Tank Level control inputs
- High Pressure Pump inlet (LPS) and outlet (HPS) pressure control inputs
- Two TDS indicators with High and Very High (Trip) Alarm settings
- Temperature Indicator compatible to PT100 (RTD) sensor
- Eight nos. of 4-20mA process inputs with settable alarm facility for High and Low limits
- Power Control for two Dosing Pumps.
- Service output for initiation of Pre-treatment Regeneration and Pump Time monitor
- Auto Multi-Port Valve control inputs
- Plug and Play GSM connectivity with SMS and CALL functions for alerts, set points and status
- RO process monitoring on Smart Phone or WEB based applications
- $\bullet \ \ \mathsf{Exact} \ \mathsf{panel} \ \mathsf{location} \ \mathsf{provided} \ \mathsf{using} \ \mathsf{GPS} \ \mathsf{LAT/LONG}$

SERVO CONTROLLED VOLTAGE STABILIZER _____

Range: Air Cooled: Up to 50 KVA

Oil Cooled: 15 KVA to 3500 KVA

We are manufacturer and supplier of all kinds of servo stabilizers. Our range includes oil cooled servo stabilizers. Our products include air-cooled stabilizer, oil cooled servo stabilizers, single phase servo stabilizers and three phase servo stabilizers. To maintain the consistency in the performance of the machines, these are also continually upgraded.

Parameter	Single Phase / Three Phase
Capacity	1 KVA to 3500 KVA
Operating Frequency	47 – 53Hz
Control type	Digital Micro controller based solid state
Input Voltage Range	Three phase Range I :350 – 470V, II :300 – 470V
input voitage Kange	Single phase Range 170V – 270V
Output Voltage	Three phase -415 V \pm 2 $\%$ / Single Phase $-$ 210 V \pm 1 $\%$
Reset	Manual / Auto reset with time delay & programmable
	A. Electronic Over & Under Voltage tip with time delay for input 7 output
	B. Electronic Overload and Short Circuit protection. MCB or MCCB at the input
Protection	C. Surge Arrester / RF Suppressor (OPTIONAL)
	D. Phase reversal protection and cut off
	E. Single phase prevention and cut off
Type of Cooling	Air Cooled & Oil cooled
Working Temperature	0 to 45° C
Output Waveform	True Reproduction of Input
Wave Form Distortion	Nil
Efficiency	98%
Correction Rate	35V / Sec for Single Phase & 60 V/Sec per second for Three Phase
Effect of Load	NEI .
Power Factor	Nil
Environment	Indoor & Out Door



Single Phase Servo Stabilizer							
Input Voltage Range	170V to 270V						
Air Cooled / KVA	1 KVA 2 KVA 3 KVA 5 KVA 7.5 KVA 10 KVA 15 KVA						

Three Phase Servo Stabilizer Air Cooled						
Input Voltage Range	300V to 470V / 350V to 470V					
A: Co o lo ol / I/) /A	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	
Air Cooled / KVA	35 KVA	40 KVA	45 KVA	50 KVA		

Three Phase Servo Stabilizer Oil Cooled							
Input Voltage Range	300V to 470V / 350V to 470V						
Oil Cooled / I/	60 KVA 70 KVA 100 KVA 15			150 KVA 200 KVA			
Oil Cooled / K	250 KVA 30		300 K	(VA		Upto 3500	KVA

UPS SYSTEM _____

Range: 1 KVA to 500 KVA

Doelin Online UPS on offer are well received by our valuable customers. We have acquired specialization in this field and produce only the best Online UPS Systems for our clients. These uninterpretable power supply systems are ideally used as a backup for computers and illumination loads. Owing to the quality of our products, these find widespread application in various other places fields.



- Long functional life
- Reliable performance
- Efficienc



	UPS Technical specifications:
Input Voltage (V)	300VAC to 465VAC
Frequency (Hz)	50 Hz +/-6%
Input Power Factor	>0.99 at full load
THDI	<5% at full load
Output	Nominal Output Voltage: 400 V, 4 Wire
Waveform : Sine	Efficiency at full load (AC-AC) : > 80%
Load Power Factor	0.8 Lag to Unity
Output Frequency	Mains synchronized (Phase Lock Loop) in normal operation 50 Hz + 0.05% free running
Overload Capacity	Utility operation 120% for 5 minutes, 150% for 30 seconds
Overload Battery	Utility operation 150% for 60 seconds
Output Voltage	Tolerance +1% static, +5% at 100% load step
Communication and Management	Control Panel Multifunction LCD, Status, and Control Console
Protections	Output Overload, Output Short Circuit, Output Abnormal, Low Battery, Battery Short Circuit / Reverse Polarity, Battery High (Trickle), EMI/RFI/Spikes/Surges and Transients, Automatic Trip and restart for AC input High / Low Conditions., Output Fold back for marginal overloads.
Indication	Inverter On Mains, Inverter on Battery, Boost Charging, Trickle Charging, Output Overload, / Short Circuit, Output Abnormal, Battery Low, Battery Reverse Polarity / Short Circuit
Operating Temperature	0 – 45Deg. C
Relative Humidity	0 – 95% Non-Condensing

Power Systems Under Development

- Active Harmonic Filters
- Static Frequency Converters
- Customized Battery Chargers

Channel Partner:

- APFC Panels
- Electroplating Rectifiers
- EV Chargers



Head Office:

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Factory:

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