

# INCREASE RELIABILITY OF YOUR PUMPING SYSTEM IN A SIMPLE AND EASY WAY



## DIGITAL PUMP CONTROLLER

GROUNDWATER INTAKE,  
WATER TRANSFER,  
DE-WATERING AND  
WATER SUPPLY APPLICATIONS

# DIGITAL PUMP CONTROLLER

## DPC

The Grundfos Digital Pump Controller offers a comprehensive range of features for control, protect and monitor both pump and motor ensuring long and reliable operation. DPC is designed to protect and control all types of pumps with various applications such as borehole pumping (Groundwater intake), water transfer, pressure boosting, irrigation and drainage / wastewater transport. Digital pump controller is designed to operate one or two pumps

The controller is fitted with a highly intuitive LCD display which shows both operating parameters as well as fault parameters of the pump and the system. The configuration/ calibration of the controller is extremely simple and can be done by one touch using push buttons on the controller. The selection of application can be done using DIP switches located inside the controller. The controllers for single phase pumps are available with and without built-in start and/ or run capacitors



## FEATURES AND BENEFITS:

### SIMPLICITY & USER FRIENDLINESS:

- Easy to install, configure and operate
- Highly intuitive Digital or Graphical LCD display
- One touch calibration using push buttons
- Display of clear fault information (not just LEDs)

### RELIABILITY:

- Upto 10 Built-in motor protection functions (electronic)
- Built-in sensor-less dry run protection

### EASE OF OPERATION:

- Support level based or pressure-based operation
- Support float / pressure switch connection depending upon the application
- Parallel & cyclic operation, Fault based changeover in dual pump variants
- Current & Voltage measurement and display
- Audible and visual alarm



# APPLICATIONS

DPC is suitable to use in below mentioned applications



*Groundwater Intake/ Borehole pumping*



*Water Transfer / Tank filling*



*Pressure boosting/ Irrigation*



*Drainage/ Wastewater transport*

## TYPE KEY

	CP	1	16A	DOL	3X415	DPC 1-3	PRO
Control Panel							
Number of pumps supported 1 = Single Pump controller 2 = Dual Pump controller							
Max. current / power rating of the controller 16A Supports pumps upto 16A 2.20KW Supports pumps upto 2.2KW							
Starting method DOL = Direct on line							
Supply voltage 1x240 = 1x220-240V, 50Hz 3x415 = 3x380-415V, 50Hz							
DPC 1-1 = Single pump controller for single phase pumps DPC 2-1 = Dual pump controller for single phase pumps DPC 1-3 = Single pump controller for three phase pumps DPC 2-3 = Dual pump controller for three phase pumps							
None = Standard version PRO = Advanced version CSIR = Capacitor Start Induction Run CSCR = Capacitor Start Capacitor Run							

# DIGITAL PUMP CONTROLLERS RANGE

## For three phase pumps

### SINGLE PUMP

#### DPC 1-3



#### Key Features

- Electronic motor protection
- Digital LCD display
- Supplied with level probes

#### Technical Specifications

Rated input voltage	3x 380-415V 50Hz
Rated output current	1.5- 16A (upto 7.5kW)
Start method	DOL
Degree of protection	IP 54
Ambient temperature	Max. 50 deg. C

#### DPC 1-3 PRO



Built-in  
Modbus RTU

#### Key Features

- Enhanced electronic motor protection
- Graphical LCD display with screen lock option
- Event log for last 5 alarms
- Potential-free alarm contacts
- Modbus RTU communication for SCADA

#### Technical Specifications

Rated input voltage	3x 380-415V 50Hz
Rated output current-1	1.5- 16A (upto 7.5kW)
Rated output current -2	1.5- 32A (upto 15kW)
Start method	DOL
Degree of protection	IP 55
Ambient temperature	Max. 50 deg. C

### DUAL PUMP

#### DPC 2-3



Built-in  
Modbus RTU

#### Key Features

- Enhanced electronic motor protection
- Graphical LCD display with screen lock option
- Event log for last 5 alarms
- Parallel & cyclic operation, Fault based changeover
- Potential-free alarm contacts
- Modbus RTU communication for SCADA

#### Technical Specifications

Rated input voltage	3x 380-415V 50Hz
Rated output current	1.5- 16A (upto 7.5kW)
Start method	DOL
Degree of protection	IP 54
Ambient temperature	Max. 50 deg. C

## DIGITAL PUMP CONTROLLERS RANGE

(without built-in capacitors)

For single phase pumps

### SINGLE PUMP

#### DPC 1-1



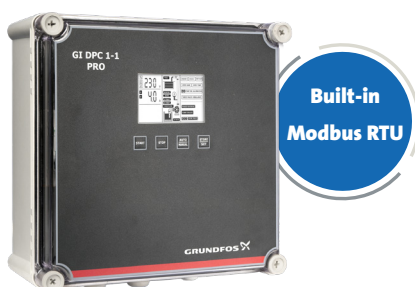
#### Key Features

- Electronic motor protection
- Digital LCD display
- Supplied with level probe
- Provision for RUN capacitors

#### Technical Specifications

Rated input voltage	1x 220-240V 50Hz
Rated output current	Upto 15A (2.2kW)
Start method	DOL
Degree of protection	IP 54
Ambient temperature	Max. 50 deg. C

#### DPC 1-1 PRO



#### Key Features

- Enhanced electronic motor protection
- Graphical LCD display with screen lock option
- Event log for last 5 alarms
- Provision for RUN capacitors
- Modbus RTU communication for SCADA

#### Technical Specifications

Rated input voltage	1x 220-240V 50Hz
Rated output current	Upto 15A (2.2kW)
Start method	DOL
Degree of protection	IP 55
Ambient temperature	Max. 50 deg. C

### DUAL PUMP

#### DPC 2-1



#### Key Features

- Enhanced electronic motor protection
- Digital LCD display
- Supplied with level probe
- Provision for RUN capacitors

#### Technical Specifications

Rated input voltage	1x 220-240V 50Hz
Rated output current	upto 15A (2.2kW)
Start method	DOL
Degree of protection	IP 54
Ambient temperature	Max. 50 deg. C

# DIGITAL PUMP CONTROLLERS RANGE

(with built-in capacitors)

**For single phase pumps**

## SINGLE PUMP

### DPC 1-1 CSIR



#### Key Features

- Electronic motor protection
- Digital LCD display
- START capacitor included

#### Technical Specifications

Rated input voltage	1x 220-240V 50Hz
Rated output power	0.37-0.75kW
Start method	DOL
Degree of protection	IP 55
Ambient temperature	Max. 50 deg. C

### DPC 1-1 CSCR



#### Key Features

- Enhanced electronic motor protection
- Graphical LCD display with screen lock option
- Event log for last 5 alarms
- START and RUN capacitors included
- Modbus RTU communication for SCADA

#### Technical Specifications

Rated input voltage	1x 220-240V 50Hz
Rated output power	1.1-2.2kW
Start method	DOL
Degree of protection	IP 55
Ambient temperature	Max. 50 deg. C

## COMPLETE PRODUCT RANGE

S.No	Description	Max. Power/ Current Rating	No. of pumps	Product Number
<b>Supply voltage 3x415V 50Hz</b>				
1	CP 1x16A DOL 3x415 DPC 1-3	16A	1	98719408
2	CP 1x16A DOL 3x415 DPC 1-3 PRO	16A	1	99807601
3	CP 1x32A DOL 3x415 DPC 1-3 PRO	32A	1	99807923
4	CP 2x16A DOL 3x415 DPC 2-3	2X16A	2	99140817
<b>Supply voltage 1x230V 50Hz</b>				
5	CP 1x15A DOL 1x240 DPC 1-1	15A	1	98719424
6	CP 1x15A DOL 1x240 DPC 1-1 PRO	15A	1	99807102
7	CP 2x15A DOL 1x240 DPC 2-1	2X15A	2	99575830
8	CP 1x0.37kW DOL 1x240 DPC 1-1 CSIR	0.37KW	1	99557141
9	CP 1x0.55kW DOL 1x240 DPC 1-1 CSIR	0.55KW	1	99557433
10	CP 1x0.75kW DOL 1x240 DPC 1-1 CSIR	0.75KW	1	99557434
11	CP 1x1.10kW DOL 1x240 DPC 1-1 CSCR	1.1KW	1	99557435
12	CP 1x1.50kW DOL 1x240 DPC 1-1 CSCR	1.5KW	1	99557436
13	CP 1x2.20kW DOL 1x240 DPC 1-1 CSCR	2.2KW	1	99557437

## CONFIGURATION OVERVIEW

DPC SERIES SINGLE PHASE (1X220-240V 50Hz)					
FEATURE DESCRIPTION	1 Pump				2 Pump
	DPC 1-1	DPC 1-1 PRO	DPC CSIR	DPC CSCR	DPC 2-1
<b>General Specifications</b>					
Rated Output Power/ Current	Max. 15A or 2.2kw	Max. 15A or 2.2kw	0.37 -0.75kw	1.1-2.2kw	Max.15A or 2.2kw
Auto Operation	•	•	•	•	•
Push Button Calibration	•	•	•	•	•
Auto start after power recovery	•	•	•	•	•
Start Capacitor included	N/A	N/A	•	•	
Run Capacitor included	Provision only	Provision only	N/A	•	
<b>Pump/Motor Protection Features</b>					
Under Voltage Protection	•	•	•	•	•
Over Voltage Protection	•	•	•	•	•
Over Load Protection	•	•	•	•	•
Dry Protection (sensor less)	•	•	•	•	•
Motor Stalled Protection	•	•	•	•	•
Anti-jamming of pump feature		•			•
High Temperature (Thermistor) Protection		•			
<b>Monitoring, Trouble-Shooting and Security Features</b>					
Pump Run / Fault Status on LCD screen	•	•	•	•	•
Pump Run hours info		•		•	•
Pump last 5 faults record info		•		•	•
LCD Screen lock option in Auto Mode		•		•	•
<b>Communication</b>					
Potential-free contacts for external buzzer					•
RS485/ Modbus RTU				•	•
<b>Installation</b>					
Ambient Temperature upto 50 deg.C	•	•	•	•	•
Wall Mounting type	•	•	•	•	•
Ingress of protection (IP Rating)	IP 54	IP 55	IP 55	IP 55	IP 54
Dimension (H X W X D) in mm	225x225x100	280 x280 x130	190 x280 x130	380 x280 x130	420x320x138



## CONFIGURATION OVERVIEW

<b>DPC SERIES THREE PHASE (3X380-415V 50Hz)</b>			
<b>FEATURE DESCRIPTION</b>	<b>1 Pump</b>		<b>2 Pump</b>
	<b>DPC 1-3</b>	<b>DPC 1-3 PRO</b>	<b>DPC 2-3</b>
<b>General specifications</b>			
Rated Output Power/ Current	Max. 16A	Max. 32A	Max. 16A
Auto Operation	•	•	•
Push Button Calibration	•	•	•
Auto start after power recovery	•	•	•
<b>Pump/Motor protection</b>			
Under Voltage Protection	•	•	•
Over Voltage Protection	•	•	•
Over Load Protection	•	•	•
Dry Protection (sensor less)	•	•	•
Phase-loss Protection	•	•	•
Motor Stalled Protection	•	•	•
Phase-sequence Protection		•	•
Anti-jamming of pump feature		•	•
High Temperature (Thermistor) Protection		•	•
<b>Monitoring, trouble-shooting and security Features</b>			
Pump Run/ Fault status on LCD screen	•	•	•
Pump Run hours info		•	•
Pump last 5 faults record info		•	•
LCD Screen lock option in Auto Mode		•	•
<b>Communication</b>			
Potential-free contacts for external buzzer		•	•
RS485/ Modbus RTU		•	•
<b>Installation</b>			
Ambient Temperature upto 50 deg.C	•	•	•
Wall Mounting type	•	•	•
Ingress of protection (IP rating)	IP 54	IP 55	IP 55
Dimension (H X W X D) in mm	225x225x100	280 x280 x130	190 x280 x130

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