



SOLAR

PUMPING

SOLUTIONS

be
think
innovate

GRUNDFOS 



SOLAR PUMPING SOLUTIONS MADE EASY

Grundfos offers submersible and surface mounted solar pumping solutions for a range of applications including stock watering, irrigation and agricultural water supply.

Solar pumping solutions from Grundfos present a cost effective, flexible and reliable water supply solution using renewable energy.



Grundfos solar pumping solutions offer many benefits over traditional mains power and generator powered pumping systems.

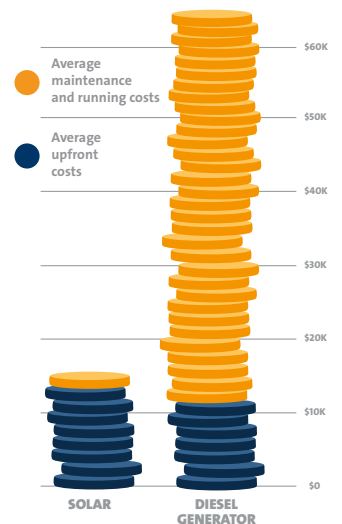
LOW COST, OFF-GRID WATER SUPPLY

Grundfos solar pumping packages are the perfect off-grid water supply solution.

Their long service life, very low maintenance and near zero running costs make them superior to generator and wind powered systems.

Solar is up to four times cheaper than a diesel generator powered system over the first 10 years of operation and can pay for itself in less than 3 years*

COSTS OVER 10 YEARS



EASY TO SELECT AND INSTALL

The Grundfos range of packaged solar solutions bring together pumps, controllers and solar arrays that have been designed to work together seamlessly, making it easier to make the right choice.

Solar Solution Packages include everything you need to easily install the system and get pumping, fast.

If our pre-determined Solar Solution Packages are not for you, then we can bring together your own bespoke solar pumping package, from our range of pumps, motors, PV panels, controllers and accessories to suit your requirements.

VIRTUALLY NO MAINTENANCE

Grundfos solar pumps and controllers feature a comprehensive range of protective features, minimising downtime and reducing ongoing maintenance cost to near zero.

*Costs provided are an estimation only and not a guarantee. Payback period is an indication only and not a guarantee. Costs and payback will vary depending on a range of site specific conditions and equipment specifications. For more detailed cost comparison and payback information go to www.grundfos.com/au

PUMPS

SQ FLEX



SOLAR POWERED SUBMERSIBLE PUMP

WATER SOURCE



Bore Dam River

APPLICATION



Irrigation Stock Watering Transfer

Ultra Long Life

SQ Flex comes standard with base mount zinc anodes, which protect the pump casing from aggressive saline water, further extending life expectancy

Smart Control

The smart internal motor control (Max. Power Point Tracking) adjusts pump speed accordingly to Solar DC power input

High Quality Materials

High grade stainless steel construction to ensure a long, trouble-free life

Permanently Protected

If your bore runs dry, the motor is protected and will stop running, restarting automatically. Also features electrical and overheating motor protection.

All-in-one Solution

SQ Flex comes with a built-in DC to AC frequency inverter, eliminating the need for extra equipment

Wide Voltage Range

Able to work under widely fluctuating AC/DC voltages.



RECOMMENDED ACCESSORIES

CU200 or CIU903 - Controller



IO101 - Isolator/Manual Switch



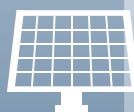
Level Switch/Float Kit



Pressure Kit/Pressure Switch



POWER INPUT OPTIONS



Solar DC



Mains AC



Generator AC



Battery Back-up DC

PROTECTION & CONTROL

	SQ Flex
Max. Power Point Tracking	✓
Dry Run Protection	✓
Over & Under Voltage Protection	✓
Over Temperature Protection	✓

TECHNICAL DATA

Power Supply Voltage	30-300 VDC 90-240 VAC 50 Hz
Liquid Temperature	0° to +40°C
Maximum Suspended Sand Content	50 g/m ³

CR FLEX

SOLAR POWERED SURFACE MOUNT PUMP



WATER SOURCE



Dam

River

APPLICATION



Irrigation

Stock Watering

Transfer

Smart Control

The smart internal motor control (Max. Power Point Tracking) adjusts pump speed accordingly to Solar DC power input

Low Power Consumption

A highly efficient motor means less power is required from solar panels to operate the pump

High Quality Materials

Wetted components are of high grade stainless steel construction to ensure a long, trouble-free life

Permanently Protected

Features electrical and overheating motor protection for added peace of mind

Wide Voltage Range

Able to work under widely fluctuating AC/DC voltages.



RECOMMENDED ACCESSORIES

IO 101 - Isolator/Manual Switch



PT100 Temperature Sensor



Level Switch/Float Kit



Pressure Switch/Pressure Tank



POWER INPUT OPTIONS



Solar DC



Mains AC



Generator AC



Battery Back-up DC

PROTECTION & CONTROL

	CR Flex
Max. Power Point Tracking	✓
Over Temperature Protection	✓
Over & Under Voltage Protection	✓

TECHNICAL DATA

Power Supply Voltage	30-300 VDC 90-240 VAC 50 Hz
Liquid Temperature	0° to +120°C
Maximum Suspended Sand Content	20 g/m ³

SOLAR INVERTER & CONTROLLER

RSI - RENEWABLE SOLAR INVERTER

OFF-GRID SOLAR INVERTER FOR CONVERTING DC POWER FROM LARGER SOLAR PANEL ARRAYS TO AC POWER SUPPLY



Simple to Use

Built-in set-up wizard makes solar system set-up quick and easy via LED screen

Smart Control

The smart internal controller (Max Power Point Tracking) adjusts the attached pump speed according to Solar DC power input

Multiple Input Options

Pre-configured inputs available for Start/Stop control, Level Switches and Flow Switches for ultimate solar pumping control

Built Tough for Harsh Conditions

Suitable for outdoor installation and able to handle temperatures up to 60°C

Permanently Protected

Features a range of electrical and overheating protection to cope with extreme operating conditions

Flexible Power Options

Compatible with both DC and AC power sources, making it an ideal pump controller for mains power connected pumping and generator back-up. The RSI can be used with a wide variety of Grundfos AC powered pumps, such as the SP, TP, NKG, NKG and SPG ranges.



POWER INPUT OPTIONS



Solar DC



Mains AC



Generator AC

PROTECTION & CONTROL

	RSI
Max. Power Point Tracking	✓
Over & Under Voltage Protection	✓
Over Temperature Protection	✓

TECHNICAL DATA

Power Supply Voltage	280 - 800 VDC 380 - 415 VAC 50 Hz
Ambient Temperature	-10° - +60°C
Enclosure Class	Suitable for Outdoor Installation (IP66)

CU200

CONTROL AND MONITORING UNIT DESIGNED FOR SQ FLEX

Flexible Control

Built-in set-up wizard makes solar system set-up easy and quick

Simple Monitoring

Features intuitive, easy to read system control panel providing pump status and LED alarm indication.

TECHNICAL DATA

Power Supply Voltage	30-300 VDC, 90-240 VAC, 50 Hz
Enclosure Class	Undercover installation recommended (IP55)

2
YEAR
WARRANTY



IO101

ISOLATOR / MANUAL SWITCHING UNIT FOR SQ FLEX AND CR FLEX

Simple Operation

Manual start, stop and reset controller

Solar & Back-Up Generator Switch

Allows for switching between solar panels and mains or a connected back-up generator for night pumping

TECHNICAL DATA

Power Supply Voltage	30-225 VDC, 90-240 VAC, 50 Hz
Enclosure Class	Undercover installation recommended (IP55)

2
YEAR
WARRANTY



CIU903

CONTROL AND COMMUNICATION UNIT DESIGNED FOR SQ FLEX

Simple Operation

Start/stop, level control and maximum speed setting

Feedback on the Go

Set-up and system monitoring with Grundfos Remote Management (GRM) or Grundfos GO provides detailed motor and power consumption information

TECHNICAL DATA

Power Supply Voltage	24-240 VDC, 24-240 VAC, 0-60 Hz
Enclosure Class	Undercover installation recommended (IP55)

2
YEAR
WARRANTY



GRUNDFOS REMOTE MANAGEMENT

LIVE MONITOR AND MANAGE REMOTE SOLAR PUMP INSTALLATIONS

Communication Options

Operates via either GPRS or SMS from Grundfos pumps or controllers

Live Feedback

Monitor and adjust pump operations in real-time. Check operating data and receive a notification when services are due.



PACKAGES

COMPLETE SOLAR PACKAGES

SOLAR SOLUTIONS PACKAGES INCLUDE:
SQ FLEX PUMP, PV PANELS, POST MOUNT
ARRAY FRAME, CONTROLLERS, PRESSURE KIT,
CABLING AND OTHER ACCESSORIES

25
YEAR
WARRANTY

10
YEAR
WARRANTY

2
YEAR
WARRANTY

25 Years Solar PV Panels, 10 Years Solar Array Frame,
2 Years all other components



SQ Flex



**2 - 6 Solar PV Panel
and Post Mount Array Frame**



Pressure Tank



CU200



IO101

SQ Flex

Choose from a range of SQ Flex Submersible pumps with base zinc anodes included as standard

Solar Panels and Post Mount

From 2 – 6 PV Panel sets to suit your Solar Zone and SQ Flex Pump. Post Mount Array Frame to suit the number of PV Panels supplied.

Controller

CU200 controller for ultimate pump control and options for additional monitoring. Refer to Control and Monitoring page.

Isolator/Manual Switch

IO101 Isolator/Manual Switch for connection directly to the PV panel array. Connect back-up generator or mains power for night time pumping.

Pressure Tank and Accessories

An 18 litre pressure tank is included along with reverse acting pressure switch and pressure gauge

Cabling and Earthing

All plug-and-play cabling and earth wiring required to connect the system is provided

ADD Sensors and Switches

Easily add float switches, pressure switches or flow switches to suit your needs

2-8 POST MOUNTED PV PANELS

WITH IO101 & CU200
(FOR USE WITH SQ FLEX)

25
YEAR
WARRANTY

10
YEAR
WARRANTY

2
YEAR
WARRANTY

25 Years Solar PV Panels, 10 Years Solar Array Frame,
2 Years all other components

PV Panels

SW270W PV Panels with a 25 Year Warranty

Post Mount Kit

Heavy duty Grundfos PV-ezRack Post Mount kit, specifically designed to suit the supplied PV Panels. Includes IO101/CU200 mounting brackets

Isolator and Controller

Includes IO101 Isolator/Manual Switch and CU200 Controller for totally flexible control and feedback on the go. Refer to Control and Monitoring page.

Cabling and Earthing

All plug-and-play cabling and earth wiring required to connect the system is provided

Separate kit available without CU200 Controller for use with CR Flex



9-20 TERRACE MOUNTED PV PANELS

PV Panels

SW270W PV Panels with a 25 Year Warranty

Terrace Mount Kit

Heavy duty Grundfos PV-ezRack SolarTerrace11-A kit, specifically designed to suit the supplied PV Panels

DC Isolator, Cabling and Earthing

Isolator switch plus all plug-and-play cabling and earth wiring required to connect the system is provided

25
YEAR
WARRANTY

10
YEAR
WARRANTY

2
YEAR
WARRANTY

25 Years Solar PV Panels, 10 Years Solar Array Frame,
2 Years all other components



SOLAR SELECTION MADE EASY

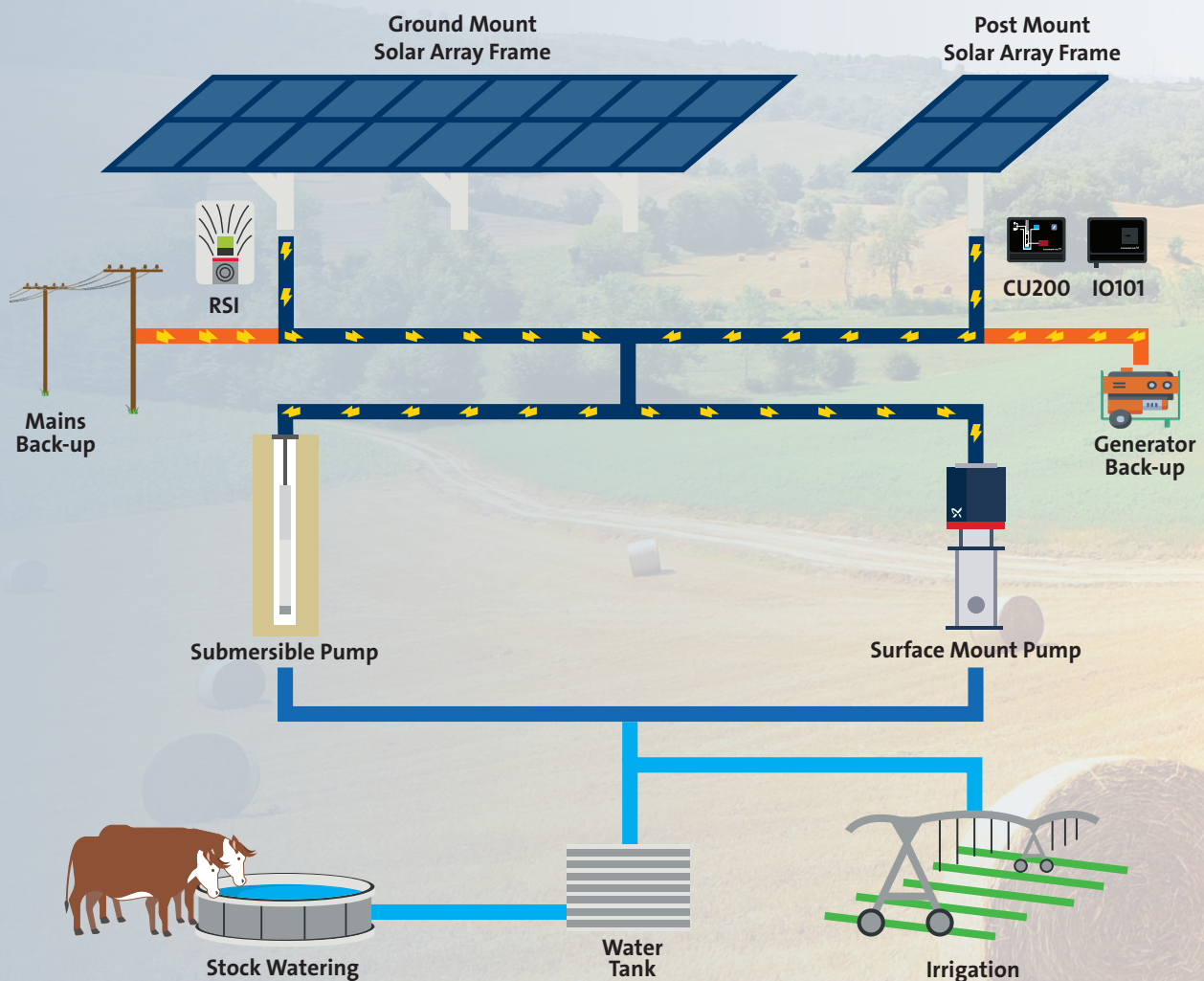
To ensure you take full advantage of the low life-cycle costs a Grundfos solar pumping system can offer, correct sizing, selection and installation is critical.

With some basic information about your location, water source, application and other site specific measurements and specifications, a Grundfos Authorised Dealer will be able to make a recommendation best suited to your needs.

Complete as much of the Solar Pumping Solutions Enquiry Form before visiting or calling your local Grundfos Authorised Dealer. Don't worry if you don't know all the facts, just fill in what you can and your local Dealer will do the rest.

TYPICAL SOLAR INSTALLATIONS

Grundfos has a wide range of solar powered water supply solutions, combining pumps, solar panels, controllers, monitoring and other components to suit any situation or water supply need.



SOLAR PUMPING SOLUTIONS ENQUIRY

CONTACT DETAILS

[CLICK HERE TO SUBMIT YOUR ENQUIRY ONLINE](#)

Name

Address

Location

Nearest town

Phone

Email

JOB DETAILS

Water source

Circle: Bore / Dam / River / Tank / Other (please specify):

Application

Circle: Stock Watering / Irrigation / Water Transfer / Domestic Supply / Other (please specify):

Volume of water required

 litres/day

Month of peak demand

Bore Pump drawing from a Borehole (Use Bore Drilling Report to complete this section)

Maximum flow available:

 l/sec

Inside diameter of bore:

 mm

Depth of bore:

 m

Pumping water level:

 m

Recommended pump setting :

 m

Riser pipe size:

 mm

INLET

Surface Pump drawing from a Dam, River or Tank

Vertical height from Water Source to Pump Inlet:

 m

Horizontal distance from Water Source to Pump Inlet:

 m

Pipe type and diameter from Water Source to Pump:

Circle: Poly / PVC / Metal

 mm

OUTLET

Vertical height from Pump to highest outlet:

 m

Horizontal distance from Pump to furthest outlet:

 m

Pipe type and diameter from Pump to outlet:

Circle: Poly / PVC / Metal

 mm

AC generator backup option required?

Circle: Yes / No

Comments or other questions:

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