

What We Offer



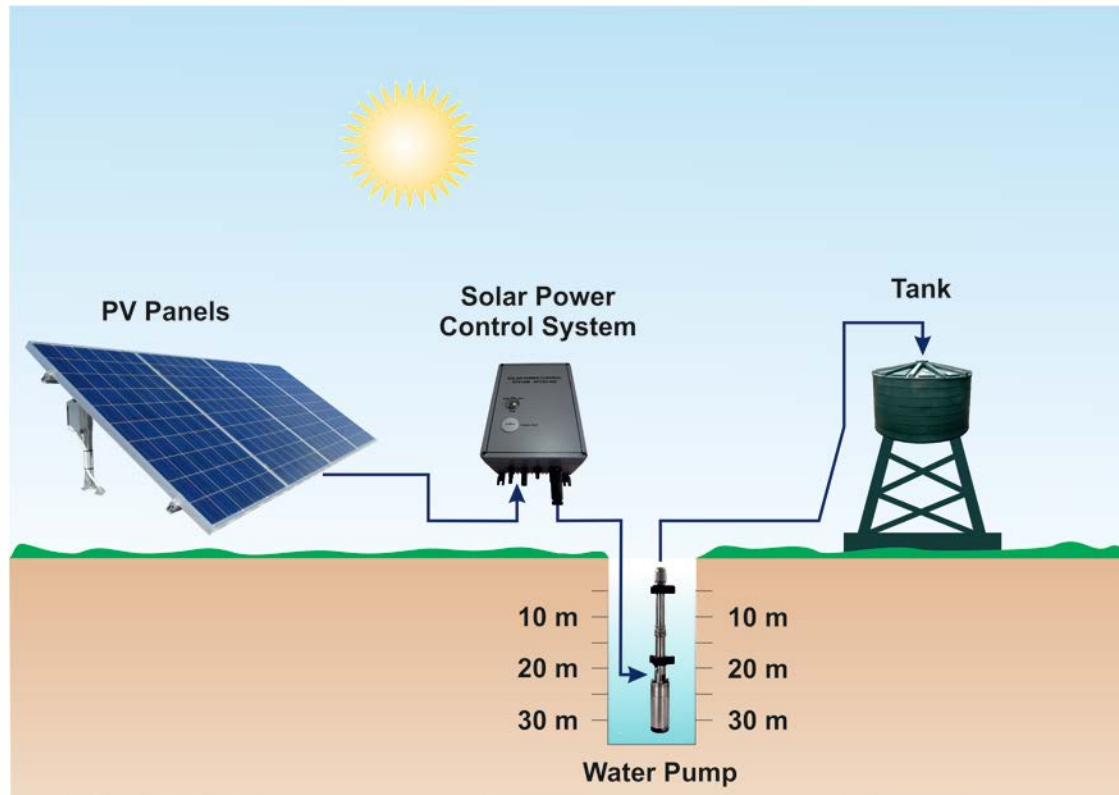
- **Water pumping systems, driven by solar energy**
- **System proportional power supply**
- **Water purification systems**

SPCS Advantages & Investment Return

- SPCS system provides clean solar energy for pumping systems with minimum maintenance cost after the installation
- SPCS system can replace the existing Diesel Generator without replacing the pump in case of AC pump motor
- The investment return is less than three years, if compared with pump, powered by Diesel Generator. The system life is more than 15 years
- SPCS can supply pump systems up to 55 kW (74 HP)
- Special software simulates the average daily/weekly/monthly water flow

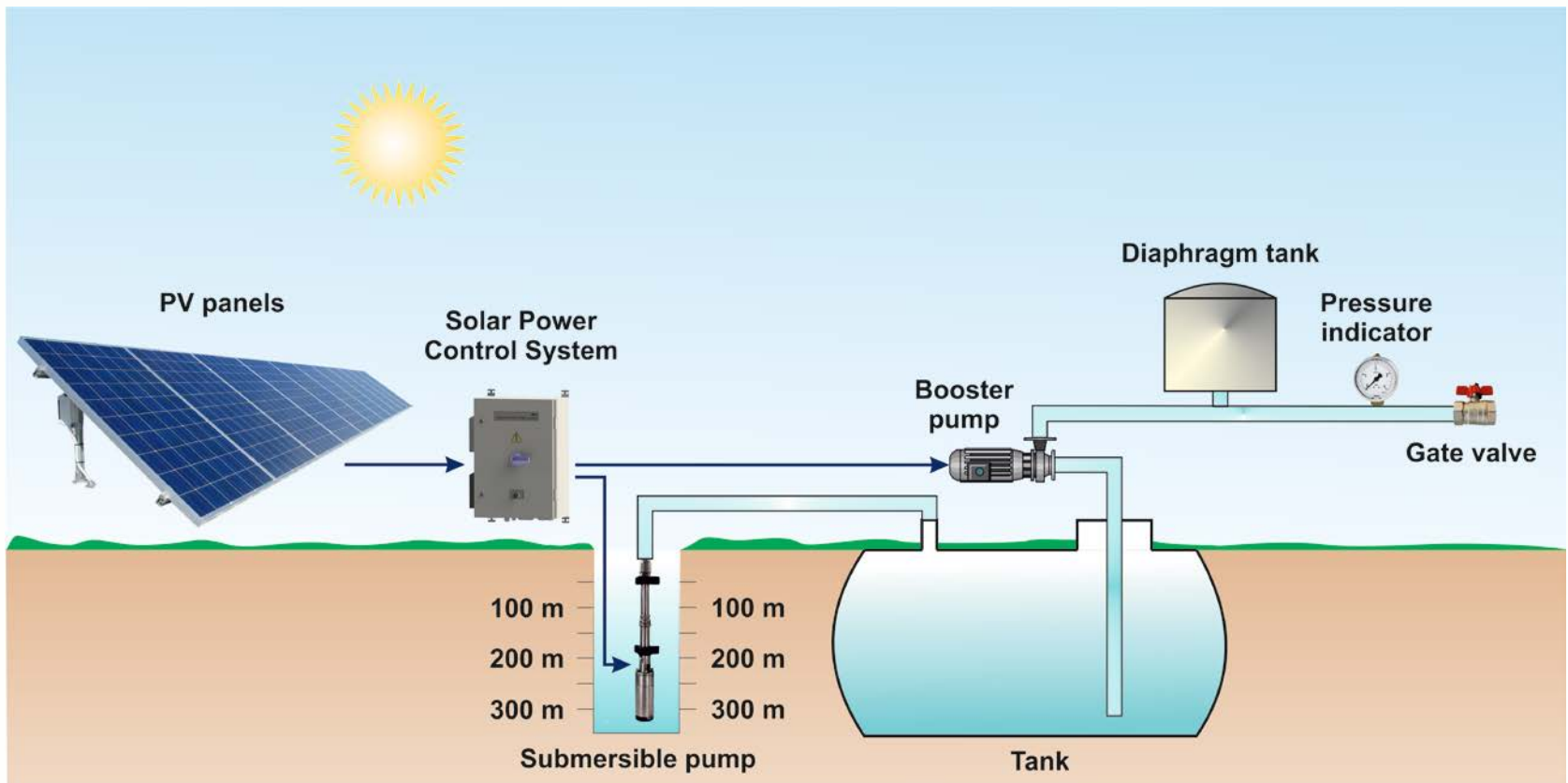
SPCS Application for Water Pumping

SPCS replaces conventional diesel generators, powering water pumps, thus offering substantial decrease of operation and maintenance expenses. The major application is in agriculture, as in many countries the water for agriculture comes from deep wells



SPCS Application for Water Pumping

Special application for water supply for farms with constant water pressure



SPCS 055

- The ultimate choice for landowners and farmers everywhere to have reliable and easy to operate solar irrigation system. The green and cost effective solution for water supply, allowing owners to have water exactly where they actually need it
- Low investment product. It requires 4 PV modules only due to the built in DC/DC step up converter
- Rated motor power 0,55 kW/ 0,75 HP
- Rated motor voltage 3x230 VAC
- Output frequency (variable frequency driver) 0 to 50Hz
- Protection class IP 54

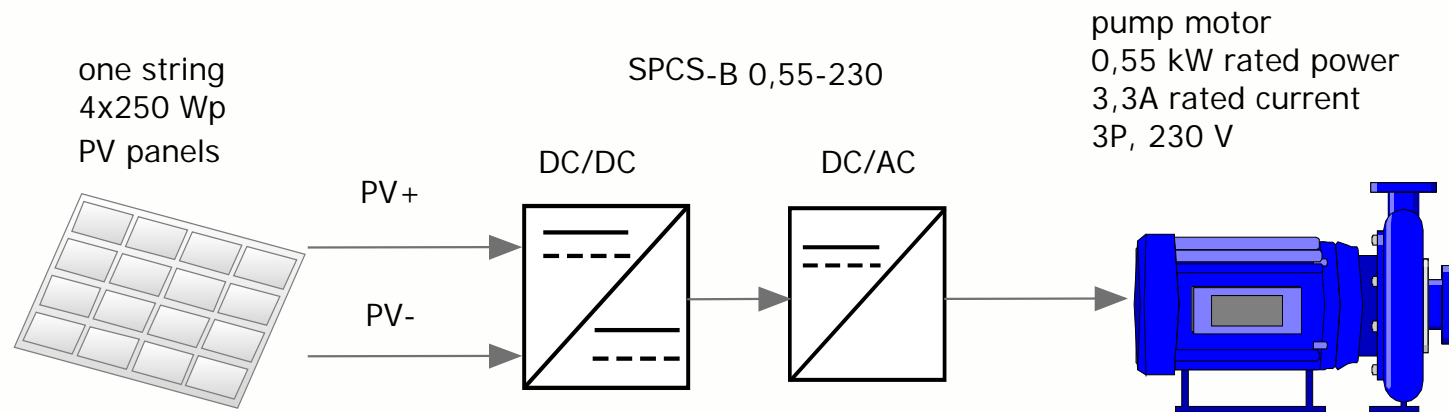


SPCS 055 specification

Model	SPCS-B 0,55-230
	Output
Rated motor power	0,55 kW/0,75 HP
Motor voltage	3x230 VAC
Output frequency (variable frequency driver)	0-50 Hz
Rated motor current	3,3 A
	Input
Max input voltage	180 VDC
MPPT range	95 – 130 VDC
Number of string inputs	1
Recommended min PV input power at STC	1,0 kWp (4 PV x 250 Wp)
	System Data
Protection class	IP 54
Operation temperature	-10 / + 50 deg C

Line diagram

Line diagram of SPCS-B 0,55-230



SPCS 1,5 - 230

- Rated motor power 1,5 kW/ 2 HP
- Rated motor voltage 3x230 VAC
- Max input DC voltage 850 V
- MPPT range 550 – 650 VDC
- Output frequency (variable frequency driver) 0 to 50 Hz
- Protection class IP 65

SPCS 4 - 400

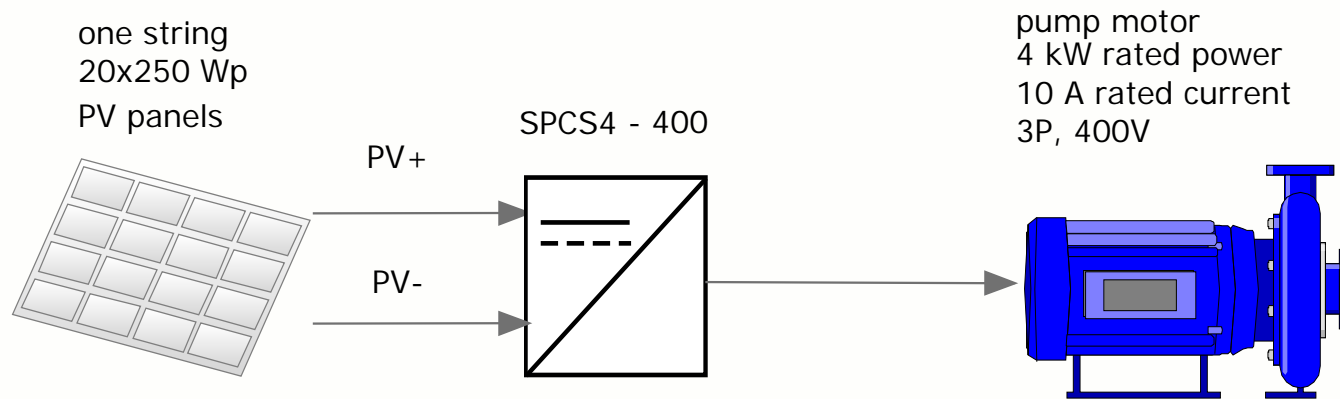
- Rated motor power 4 kW / 5,5 HP
- Rated motor voltage 3x400 VAC
- Max input DC voltage 850 V
- MPPT range 550 – 650 VDC
- Output frequency (variable frequency driver) 0 to 50 Hz
- Protection class IP 65

SPCS 1,5 - 230 and SPCS 4 – 400 specification

Model	SPCS 1,5-230	SPCS 4-400
Output		
Output power (Rated motor power)	1,5 kW	4 kW
Output voltage (Rated motor voltage)	3x230 VAC	3x380/400/415 VAC
Output frequency (variable frequency driver)	0-50 Hz	
Output current (Rated motor current)	11 A	
Input		
Max input voltage	850 VDC	
MPPT range	550 – 650 VDC	
Number of string inputs	1	
Recommended min PV input power	2,6 kWp	5,2 kWp
System		
Protection class	IP 65	
Operation temperature	-10 / + 60 deg C	

Line diagram

Line diagram of SPCS 4-400



SPCS 5,5 / 19

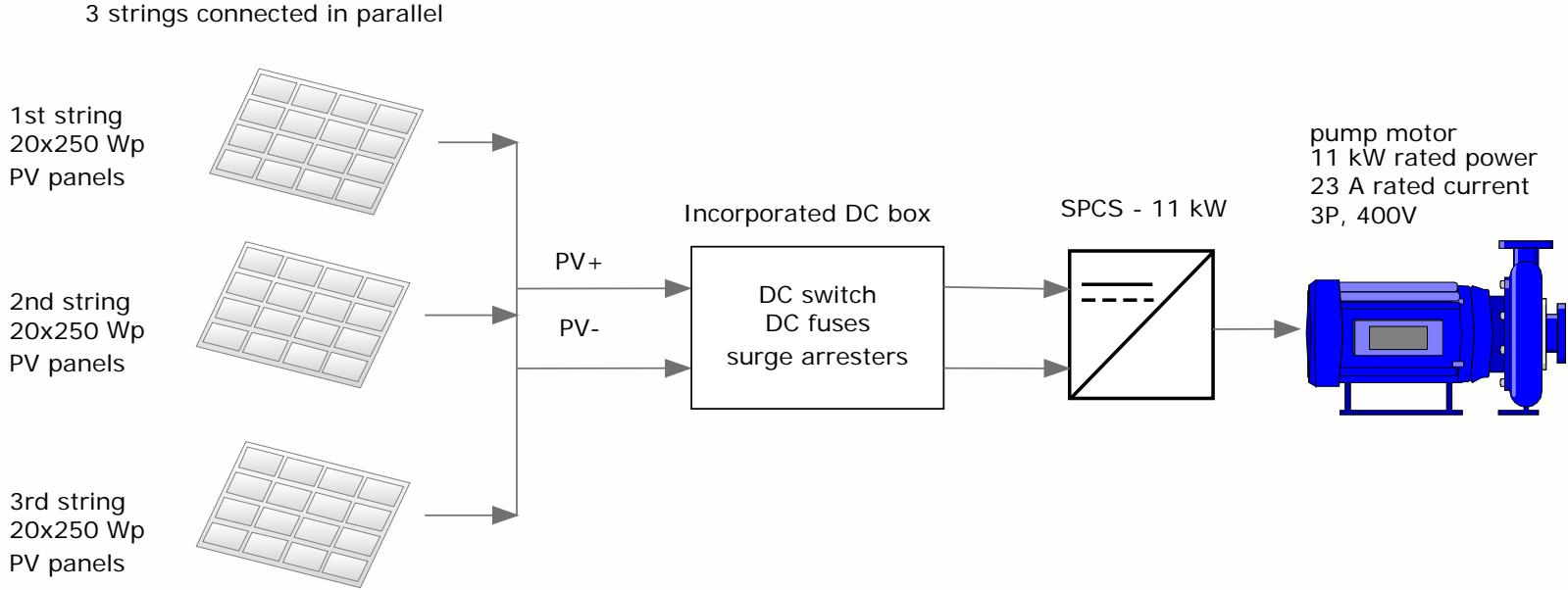
- Rated motor power from 5,5 kW (7,5 HP) to 19 kW (26 HP)
- Rated motor voltage 3x400 VAC
- Max input DC voltage 850 V
- Incorporated DC switch, DC fuses and surge arrester
- MPPT range 550 – 650 VDC
- Output frequency (variable frequency driver) 0 to 50 Hz
- Protection class IP 54

SPCS 5,5 / 19 specification

Type		SPCS 5,5	SPCS 7,5	SPCS 11	SPCS 15	SPCS 19
Main Application		Drive power – matched three-phase pump motors				
Output power (Rated motor power) *	kW	5,5	7.5	11.0	15.0	19.0
Output voltage (Rated motor voltage)	V _{AC}	3x400				
Output frequency (Variable Frequency Driver)	Hz	0 – 50				
Max output current (Rated motor current)	A	14	17	26	34	42
Max. input DC current per DC input	A _{DC}	15				
Max input DC voltage	Vdc	850				
MPPT range	Vdc	550-650				
Available number of PV string inputs	nbr.	2	3	4	5	6
Recommended PV panels power	Wp	230 – 250				
Minimum total PV panels power	Wp	9200	10000	15000	20000	25000
Minimum number of strings	nbr	2	2	3	4	5
Recommended PV panels per string **	pcs	20				
Protection class		IP 54, for outdoor installation				

Line diagram

Line diagram of SPCS 11 kW



Proportional power supply system

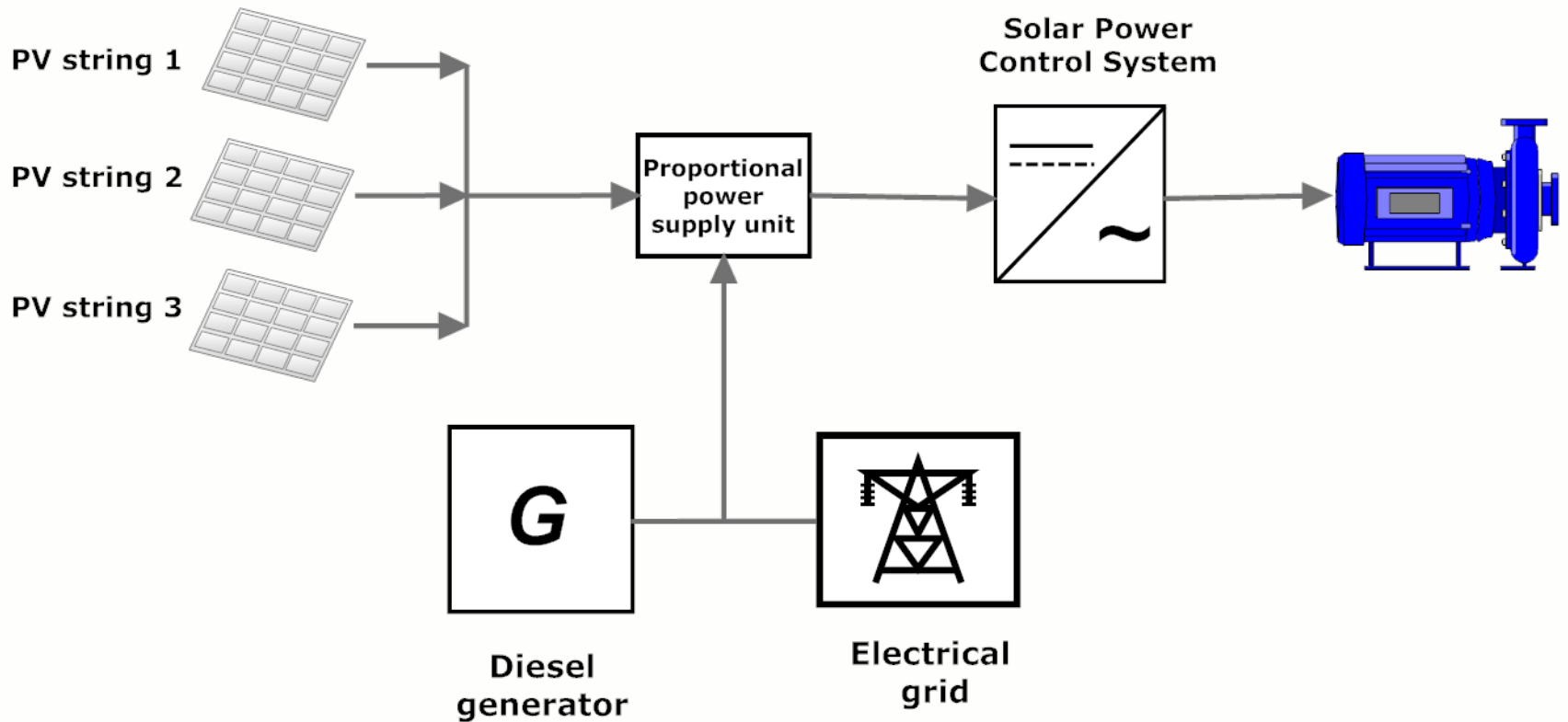
Proportional mode power supply is a new feature, which allows the system to work connected to the PV array and also to other source of AC power (Diesel Generator or electrical grid). The standard operation of the Solar Power Control System is based on solar electricity generation and is sensible towards weather conditions and value of solar radiation. If the AC source is available, the proportional power supply offers substantial advantages:

- Uninterruptable system operation
- Better utilization of the solar energy
- Automatic switch over from the AC source to PV and vice versa if the solar radiation is rather low or the AC source is not working

If the solar radiation and the AC source are available, the system operates stable with its nominal parameters exploring primarily the solar generated electricity, as the AC source injects the missing energy for system nominal operation condition

Proportional power supply system

Proportional power supply of Solar Power Control System for water pumps



Proportional power supply system

