



# Alternative Power Source Hybrid Solution



The SolarEdge Hybrid Solution supports parallel operation of a PV production system with an alternative power source such as a diesel generator.

The microgrid power flow is managed by the Site Power Controller (SPC) to ensure reliable operation and smooth load dispatch. It maximizes the site's PV production while simultaneously protecting the generator from potential overload.

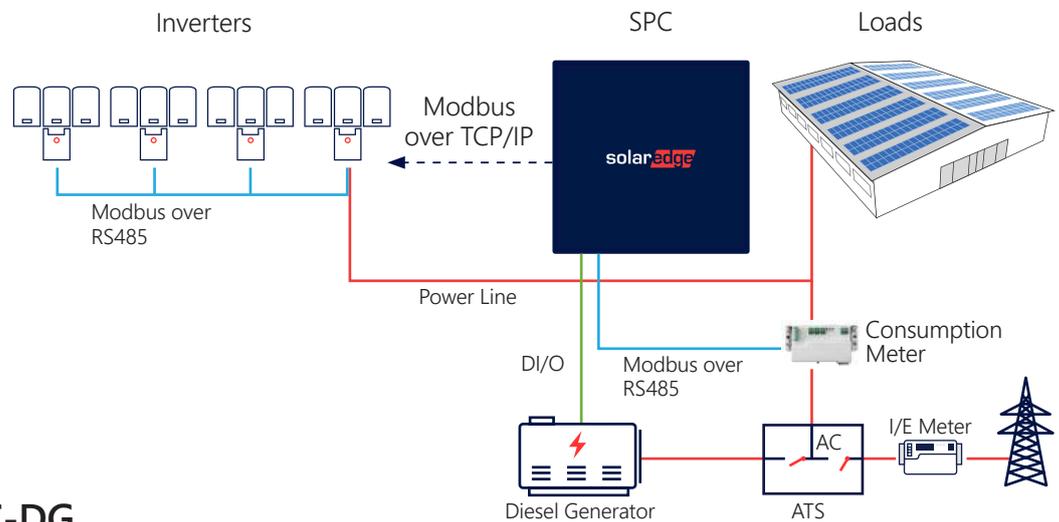
Fully optimized with the SolarEdge ecosystem, the SPC minimizes costs and complexity associated with third-party integrations and enables fast time to market.

- / Easy self-installation
- / Quick setup with ready-to-use features
- / Adaptable to varying site requirements
- / Optimized for single generator applications
- / Full system offering, warranty, and service from SolarEdge

## Functional Range

- / Automatic PV power balancing
- / Alternative Power Source mode extends voltage and frequency operating range when grid is unavailable
- / Data logging of control commands, access, status & settings changes
- / Alerts for quick fault detection
- / Feedback of plant status to the utility grid control network
- / Backup management
- / HMI web interface
- / Protocols: Modbus RTU, Modbus TCP, IEC 60870, DNP3, Direct Marketing
- / I/O: RS485, Digital, Analog, ETH, SFP, Cellular

# A Single Generator with a Site Power Controller



## SE2000-PFSV-MSDC-DG

Product Specifications		Unit
<b>Mechanical Specifications</b>		
Dimensions (H x W x D)	170 x 165 x 61 / 6.7 x 6.5 x 2.4	mm/in
Wiring on Screw Connectors	I/O cables, max. 14 AWG	
Assembly	DIN rail, wall support	
Weight	< 200	g
<b>Networking and Protocols</b>		
LAN	100Mbps Ethernet port, RJ45 connectors	
Wi-Fi	802.11 b/g/n Wi-Fi interface	
Cellular	3G cellular module 4G/LTE cellular module (EU/US bands) On-board micro-SIM card socket	
Communication Protocols	Modbus RTU, Modbus TCP, IEC 60870, DNP3, Direct Marketing	
<b>Inputs and Outputs (I/O) Interfaces</b>		
USB	2 x USB 2.0 host, type A connectors	
Serial	1 x RS232 port, ultra-mini serial connector	
RS485	2 x RS485 ports, half duplex 2 wire, RJ11 connector	
Digital I/O	8 x DIO, 5V tolerant, 100 – mil header	
Analog I/O	4 x AIO channels + 0-10V SE input 4 x AIO channels + 4-20mA SE input	
<b>Environmental Limits</b>		
Operation Temperature	-10 to 75 / 14 to 167	° C / °F
Storage Temperature	-40 to 85 ° / -40 to 185	° C / °F
Relative Humidity	5 to 95	%
Altitude	Up to 2000/ 6561.68	m/ft
<b>Electrical Specifications</b>		
Supply Voltage	12, 24, 48 nominal, allowed from 9-60	VDC
Consumption	120 mA @ 12	VDC
<b>Warranty</b>		
Standard Warranty	2 years (extendable to 5 years)	