Elum Energy
ePowerControl SD
Solar Diesel integration controller

Product description

The Elum ePowerControl SD is a solar diesel integration controller allowing for a safe, simple, and easy integration of solar plants with a unique diesel genset.

The controller has an extended equipment compatibility range, integrated datalogging features and comes with an easy to use and flexible commissioning interface.

The solution reduces commissioning time and costs and enables more compatibility options during project engineering phases.

Product Benefits

Plug & play deployment & configuration
User-friendly deployment interface to reduce deployment time & costs of commissioning teams.

Extended compatibility for easy design
Compatible with a wide range of power equipment, meters, and third-party sensors.

Proven reliability for safe operation
High-end hardware integration with reliable software development.

Features

Single genset minimum loading
ePowerControl SD controller automatically adjusts solar inverters power according to the genset load in order to use as much solar power as possible.

Grid Feed-In management
ePowerControl SD controller curtails the exact amount of solar power to maximize solar penetration while avoiding any penalty from the grid operator.

Autonomous configuration interface
ePowerControl SD embedded user configuration interface accessible through any local web browser (LAN) allows for autonomous plant connectivity and equipment setup.

Extended equipment compatibility
ePowerControl SD supports main protocols: Modbus, SNMP. Specific protocols can be integrated upon request (see equipment compatibility list for more information).

Reliable datalogging
Collection and local secure storage of all data + alarms from equipment connected on site for over 100 days. Data can be collected from meters, solar inverters, ESS, genset controllers, EV charger, weather stations (irradiance/temperature...), and I/Os.

Local parameter edition
ePowerControl SD embedded interface allows setpoint edition of writeable registers accessible from the equipment on a unique interface.

Data export & visualization
Data export over USB through local interface.
Data export to ePowerMonitor platform or compatible third-party platforms (FTP push).

Embedded network connectivity
ePowerControl SD includes a cellular modem compatible with main networks on EDGE/3G/LTE.

Technical Specifications

General information	SD
Dimensions	Base module - 101*27*128 / with casing - 300*300*150
Weight	Base module - 224 g
Max. number of devices total PV inverters Genset Meters	**32** 16 1 4
Standards (base module)	EC 60068-2-27, IEC 61000-4-2/3/4/6/8, UL 60950-1

Ambient conditions	
Temperature	-10 °C to 60 °C
Humidity	5% to 95% (non condensing)

Power supply	
Input parameters	12 to 24 VDC, 480 mA @ 12 VDC, 225 mA @24 VDC, without casing 100 - 240 VAC, 50 Hz / 60 Hz, with Elum casing
Power consumption (max)	20W
UPS	Optional - 19,2 / 81,6 / 288 Wh (up to 24h autonomy)

Communication & security	
Compatible protocols	Modbus TCP/RTU, SNMP, Solivia, Kaco,[1]
Available ports	2 x serial (RS485/RS422/RS232), 2 x LAN (RJ45 - 100Mbps), 2x USB 2.0-A
Embedded modem	LTE/HSPA+/GSM/GPRS/EDGE/EV-DO
Remote access	ePowerMonitor / 3rd party platforms (FTP Push)

Other interfaces	
Extensions (I/Os, RS485)	Optional - max. 2 modules - (8 I/Os per module / 2*RS485 per module)
Power measurement	From compatible meter models only[2]

Data acquisition	
Collected data	Active / reactive power, current, voltage, ...[3]
Equipment alarms	Mail & web notifications, configurable thresholds on all read variables
Data acquisition granularity	5 minutes for data, real-time for alarms[4]
Data storage / export	8Go (optional 32Go) - >100 days of data stored / USB CSV export

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[1] See compatibility list for more information about compatible equipment, specific protocols can be integrated upon request.
[2] See meter compatibility list for more information.
[3] The list is not exhaustive as available registers/alarms depends on each hardware.
[4] Varies based on equipment communication protocols and physical connectivity.