

elgris TELECOM controller

The heart of the TELECOM hybrid system is the elgris controller. It controls the charge level of the batteries, measures the power of the load and can automatically start and stop the generator. The controller is developed and produced in Germany under the ISO 9001 quality norm.

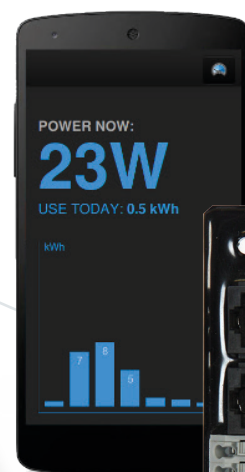
Based on the in-house developed HYBRID control algorithm, the integrated elgris controller determines the operating point of the generator(s) and adjusts the power accordingly.

There is no minimum load needed on the generator for the elgris HYBRID system. The order in which the power sources are used can be prioritised and sequenced.

elgris offers a reliable hybrid power solutions based on efficient solar power and a high quality storage system which need no cooling and thus reduce power consumption.

By using the MODBUS protocols and a wide range of interfaces, a wide range of third party monitoring and customized solutions are being supported.

By using outstanding products and German know-how we offer you the most reliable and independent power supply available on the telecom market today.



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Technical specifications

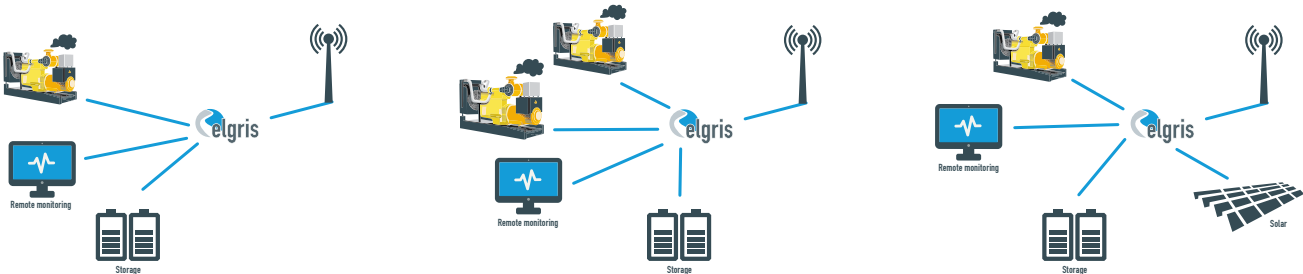


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Flexible layout enables economy of scale from the first site on

The elgis TELECOM solution is installed between a new or existing generator and the site load. Since it's an integrated solution, there is no need for extensive wiring. The elgis TELECOM controller automatically determines the voltage levels and corresponding frequency of the generator and adopts the output to this.

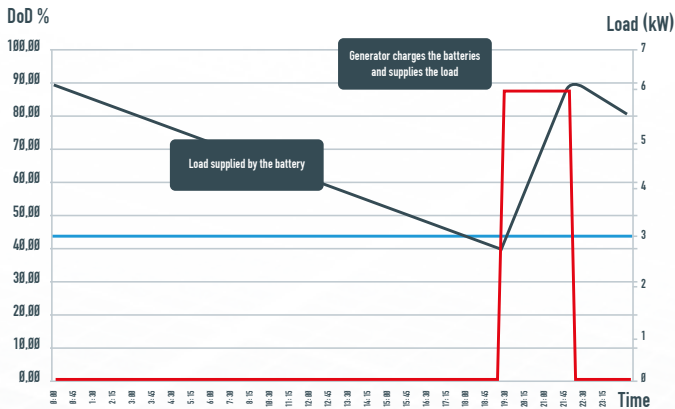
During normal operation, the site is powered by the batteries. When the batteries reach their minimal level, the generator is automatically started and recharges the batteries.



Due to the design of the elgis TELECOM solution there is no direct connection between the input and the output, thus even the quality of the output power of the elgis TELECOM solution is at a very high standard.

At the same time, the site is also powered by the generator enabling the generator to run at maximum efficiency level. The combination of recharging the batteries and at the same time powering the site load reduce the runtime of the generator and increas the efficiency.

REFERENCE SYSTEM	
Location	Middle East
Site load	2,5 kW
Installed	2012
Savings on fuel costs	87%
Topology	Diesel – PV - Storage



Products



INPUT	
Terminals	L1, L2, L3, N, PE
Rated Voltage	380/400/415VAC
Voltage Range	208~478VAC
Frequency Range	40 Hz-70Hz
Power Factor	≥0.99
THDi	≤3%
Generator input	Supported

OUTPUT DC	
Terminals	Vpos, Vneg, PE
Nominal voltage	48 Vdc
Grounding	Positiv / negativ

Output AC (Optional)	
Terminals	L, N, PE
Rated voltage	230V – 50 Hz / 60 Hz
Rated power	3000 VA
Waveform	Pure sine wave

Efficiency	
Input to output in AC mode	max 95 %

PROTECTION	
Overload	≤110% for 10 min, ≤125% for 1 min, ≤150% for 15 sek, ≥150% shut down immediately
Self-diagnostics	Upon Power On and Software Control
EPO	Shut down immediately
Battery	Advanced Battery Management

REGULATIONS / STANDARDS	
Safety	EN 62040-1
EMC	EN 62040-2 Class C3
Certifications	CE

MECHANICAL	
Dimensions (HxWxD mm)	1200 x 600 (1200 including external storage) x 780
Weight in kg	175 kg (standard version)
Protection	IP 20 / IP 55 on request
Operating -/Storage temp.	-20 / + 60 degree
Humidity / Altitude	0 – 95 % non condensing / < 1500 meter
Audible noise	< 55 dB @ 1 meter

COMMUNICATION	
Status LED & LCD	Line Mode, Eco Mode, Bypass Mode, Busvoltage Low, Overload & Fault
LCD display	In-/output Voltage, in-/output Frequency, Load [%], Busvoltage
Alarm (optical & acoustical)	Line Failure, Busvoltage low, Overload, System fault