Hybrid Inverter GOLLUM OFF-Grid

Off-Grid and On-Grid Operation | 1-phase Inverter | Best Part Load Performance | Pre-Configured Charging Modes | Accessible User Interface

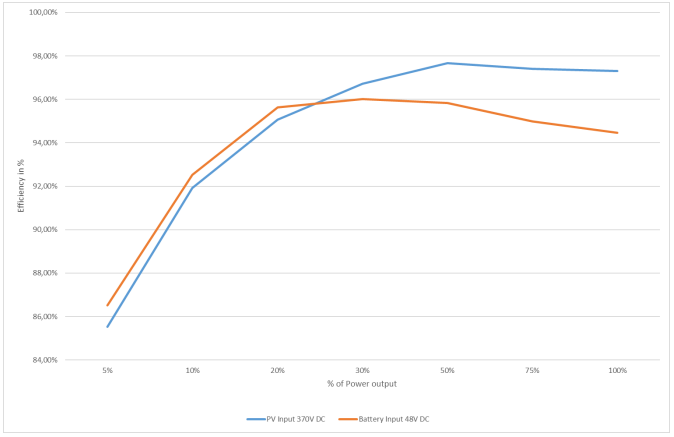
...the control center of your electrical power supply solution!

Picture as an example real product can vary

HIGHLIGHTS

- **High Power** - Full 5 kW inverter output is available
- **Autarky** - The 1-phase design and the instant UPS
- function(<5ms) are the base for backup and off-grid operation
- **Flexible** - 2 integrated MPP tracker allow integration in various
- photovoltaic installations
- **Best Performance** - Efficiencies of >97% and high part load performance
- for best electrical yield
- **Electrical Quality** - True sinus output with single phase compensation
- performs better than the power grid
- **Intelligent Safety -** Integrated battery management system and protective
- relays monitor the system and safely disconnect if necessary
- **Easy Install** - Adapter plate and low weight design
- **GEN-SET** - Easy connection for GEN-Set
- **LiFePO4 Battery** with long life time
- **Flexible size** starting from 2.5 kWh up to 20 kWh
- **IP 20 Housing**

Efficiency curve of GOLLUM 5.0



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GOLLUM Hybrid 5 k – Technical Data

SUN-5K-SG01LP1

PART NO.: MU010211AB

PV Input (DC)

Max. power per input	5'000 W
Number of inputs / MPP Tracker	2
Nom. / max. DC voltage	400 V DC / 500 V DC
Start-up voltage	150 V DC
MPP voltage range	150 V DC – 500 V DC
Max. input current per MPP Tracker	11 A
Max. short-circuit current Isc	15 A per input channel
Overload behaviour	Shift of working point

Efficiency

PV (DC) to Grid (AC) [max.]	>97.6%
PV (DC) to Grid (AC) [EU]	>96.5%
PV (DC) to Battery (DC) [max.]	>97,6%
Battery (DC) to Grid (AC) [max.]	>96%
Night-time consumption	<0.1 W

General Data

Dimension (WxHxD)	580 x 330 x 217 mm
Weight	20.5 kg
Display	Colour touch LCD
DC disconnecting switch	Integrated
RC Protective Device	Integrated
Protective relais	Integrated (VDE AR-N 4105)
Battery Management System	Integrated
Noise emission	<35 dB(A)
Operating temperature range	-25 to +60 >45°C Derating
Installation altitude*	0 – 1000 m
Over temperature behaviour	Power reduction
Degree of protection (IEC 60529)	IP65
Case material	Corrosion-resistant
PWM frequency	20 kHz
On-grid operation	Grid-commutated
Energy source for battery charging	PV, Grid, Gen-Set
Pollution degree	PD2
Cooling	Fan

Battery Mode AC-Connection

Nom. charging power	5'000 W
Nom. discharging power	5'000 W
Voltage shape in off-grid mode	True sinus
Number of current phases	1
Max. compensation DC injection	1 A
Overload behavior	2 sec. 10'000 W
Switch-off in case of overload	After 5 seconds
Idle state consumption	30 W

Battery Mode Input (DC)

Nom. DC voltage	48 V DC
Max. charge / discharge current	125 A
Min. battery capacity	4 kWh
Battery voltage min. - max.	40 V DC - 60 V DC
Galvanic isolation	No
Charging Strategy for Li-Ion Battery	Self-adaption to BMS

Grid Feed-In (AC)

Nom. power AC	5'000 W
Max. power AC	5'000 VA
Number of phases	1
Typ. power per phase to grid	5'000 W
Nom. AC voltage	210 – 264 V AC
AC voltage range	184 – 264 V AC
Grid frequency range	47.5 Hz – 51.5 Hz
Power factor	0.9c – 0.9i
Topology	Transformerless
Feed-in	Sym.
Max. AC current per phase	25 A RMS
Max. AC off-grid current per phase	50 A RMS
AC voltage in off-grid mode	230 V RMS
AC frequency in off-grid mode	50.0 Hz
Load compensation	<100 ms

Installation humidity	20 – 90% RH (non-condensing)
Protection class (IEC 62109-1&2)	I
DC Overvoltage category (IEC 60664-1)	II
AC Overvoltage category (IEC 60664-1)	III
Certificates	VDE 0126, VDE AR-N 4105, AS4777, NRS2017, G98, G99, EN50438
Warranty	5 years

Connections

DC connection for battery	Terminal
DC connection for PV	MC 4
AC connection for grid and off-grid operation	Terminal
AC connection max. wire cross section	4 mm²
Communication ports	1 x RJ45 (RS485), 1 x CAN

Supported Devices

Energy storage	DOMUS LV 2.5, DYNESS, PYLON
Meter and Disconnector	CT 50A

Power Conversion

PV (DC) to Grid (AC)	PV (DC) to Battery (DC)	Grid (AC) to Battery (DC)	Battery (DC) to Grid (AC)
Yes	Yes	Yes (if allowed)	Yes

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DOMUS 4850 – Technical Data

Model	Expandable System							
Battery Type	LiFePO4							
Battery Module	1 Module	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules	7 Modules	8 Modules
Nominal Battery Energy [kWh]	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
Max. Output Power [kW]	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
Net weight of System [kg]	32	64	96	128	160	192	224	256
Dimension of Cabinet [WxHxD,mm]	tbd							
Working Voltage [V]	43.2 ~57.6							
Operating Temperature Range [°C]	Charge: 0~55°C Discharge:-15°C ~55°C							
Calender Life [Cycles][1]	6000							
Nominal voltage [V]	51.2							
Enclosure Protection Range	IP20							
Communication	CAN / RS 485							
Certification & Safety Standard	TUV/CE/IEC62619/UN38.3/AS62040							
Scalability [kWh]	Up to 20							
Combatible Inverters	Energy Depot GOLLUM							
Warranty	5 years / 10 years capacity performance							
Color	black							
Alarm Connection	1) Battery operation 2) out of battery 3) System fault							
Pros	Can be used in both off-grid and hybrid setups, compact size, modular expension							
Monitoring&Protection	Each module has BMS							
[1]Test conditions: 0.2C discharge @+25°C								

Battery module LiFePO4

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