FALCON ESS

SIGNATURE GREY SERIES

CLEAN ENERGY
A BRIGHTER TOMORROW

DATASHEET

H1(G2)/AC1(G2)

SINGLE-PHASE HYBRID/AC INVERTER

Harness the power of the sun day and night with the ground-breaking range of hybrid inverter from Falcon ESS. Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Falcon ESS.



2.5kW »» 6kW

HIGH EFFICIENCY

Includes high-voltage batteries for maximum round-trip efficiency.

EASY INSTALLATION

Flexible configuration, plug and play set-up, built-in fuse protection.

IP65 RATED

Engineered to last with maximum flexibility. Suitable for outdoor installation.



Advanced System Monitoring
with **FalconCloud 2.0**

REMOTE MONITORING

Monitor your system remotely via smartphone App or Web portal. An intelligent assistant helps you understand and manage your system.

www.falcon-ess.com

POWERING A CLEANER TOMORROW

TECHNICAL SPECIFICATIONS

MODEL	H1-2.5-E-G2 AC1-2.5-E-G2	H1-3.0-E-G2 AC1-3.0-E-G2	H1-3.7-E-G2 AC1-3.7-E-G2	H1-4.0-E-G2 AC1-4.0-E-G2	H1-4.6-E-G2 AC1-4.6-E-G2	H1-5.0-E-G2 AC1-5.0-E-G2	H1-6.0-E-G2 AC1-6.0-E-G2
INPUT PV (ONLY FOR HYBRID)							
Max. Array Power [Wp]	5000	6000	7400	8000	9200	10000	12000
Max. DC Input Power (PV1+PV2) [W]	5000	6000	7400	8000	9200	10000	12000
Max. MPPT Input Power (Per MPPT) [W]				6000			
Max. Input Voltage [V]				600			
Start-up Input Voltage [V]				75			
Rated Input Voltage [V]				360			
MPPT Operating Voltage Range [V]				80 ~ 550			
Max. Input Current [A]				16/16			
Max. Short-circuit Current [A]				20/20			
No. of MPP Trackers				2			
Strings per MPP Tracker				1			
BATTERY CONNECTION							
Battery Type				Lithium Battery (LFP)			
Battery Voltage [V]				80 ~ 480			
Max. Charge/Discharge Current [A]				40			
Communication Interface				CAN(communicate with inverter, upgrade BMS)			
AC INPUT AND OUTPUT (GRID)							
Max. AC Input Power [VA]	3000	6000	7680	8000	9200	10000	12000
Max. AC Input Current (per phase) [A]	13.6	27.3	34.9	36.4	41.8	45.5	54.5
Rated Output Power [W]	2500	3000	3680	4000	4600	5000	6000
Max. Output Apparent Power [VA]	2750	3300	4048/3680*1	4400	5060	5500	6600
Rated Output Current (per phase) [A]	11.4	13.6	16.7/16.0*1	18.2	20.9	22.7	27.3
Max. Output Current [A]	12.5	15.0	18.4	20.0	23.0	25.0	30.0
Rated Grid Voltage [V]				220/230/240			
Rated Grid Frequency [Hz]				50/60			
Power Factor				1 (Adjustable from 0.8 leading to 0.8 lagging)			
THDi [%]				<3 @rated power			
EPS OUTPUT (WITH BATTERY)							
Max. Output Apparent Power [VA]	2500	3000	3680	4000	4600	5000	6000
Peak Output Apparent Power (60s) [VA]	3000	3600	4400	4800	5500	6000	7200
Max. Current (per phase) [A]	11.4	13.6	16.7	18.2	20.9	22.7	27.3
Rated Output Voltage [V]				220/230/240			
Rated Output Frequency [Hz]				50/60			
Power Factor				1 (Adjustable from 0.8 leading to 0.8 lagging)			
THDv (Linear Load) [%]				<2 @rated power			
Parallel operation [PCS]				10			
Switch time [ms]				<10			
EFFICIENCY							
European Efficiency [%]	95.26	95.26	95.70	95.90	96.23	96.30	96.33
Max. Efficiency [%]	97.01	97.01	97.08	97.08	97.04	97.08	97.08
Max. Battery Charge Efficiency (PV to BAT) (@full load) [%]				98.50			
Max. Battery Discharge Efficiency (BAT to AC) (@full load) [%]				97.00			
PROTECTION							
Insulation Monitoring				YES			
Residual Current Monitoring				YES			
DC Reverse Polarity Protection				YES			
Anti-islanding Protection				YES			
AC Short-circuit Protection				YES			
AC Overcurrent/Overvoltage Protection				YES			
DC Switch				YES			
Battery Wake-up Function				YES			
SPD				DC: Type II /AC: Type III			
AFCI				Optional			
GENERAL DATA							
Dimensions (W*H*D) [mm]				434*418*185			
Weight [kg]				22			
Installation				Wall-Mounted			
Topology				Non-isolated			
Cooling Method				Natural			
Noise Emission [dB]				35			
Max. Operating Altitude [m]				2000			
Operating Temperature Range [°C]				-25 ~ 60			
Humidity (No Condensation) [%]				0 ~ 100			
Ingress protection				IP65			
Standby consumption[W]				<15			
Monitoring Module				WiFi, LAN(Optional) , 4G(Optional)			
Communication				RS485, DRM, Ripple Control, USB, CAN, SG Ready			
Display				LCD, App, Website			
STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)							
Safety				EN 62109-1, EN 62109-2			
Grid Regulation				G98, G99, EN50549, AS / NZS 4777.2			

* More technical characteristics are available on demand and customized.
1. 3680 for G98.