

X1-HYBRID G4

D: Should be used without matebox
M: Should be used with matebox

SINGLE-PHASE
3.0~7.5kW

Features

High-efficient

- 200% PV oversized and up to 110% AC overload output
- Higher efficiency on charging and discharging, up to 97.0%
- Built-in shadow tracking function

Economic

- 16A DC input current, support high power solar panel
- Up to 150% PV input
- Store the surplus energy from PV to battery
- Low start output voltage makes inverter longer working time
- Less energy loss on battery to inverter

Intelligent

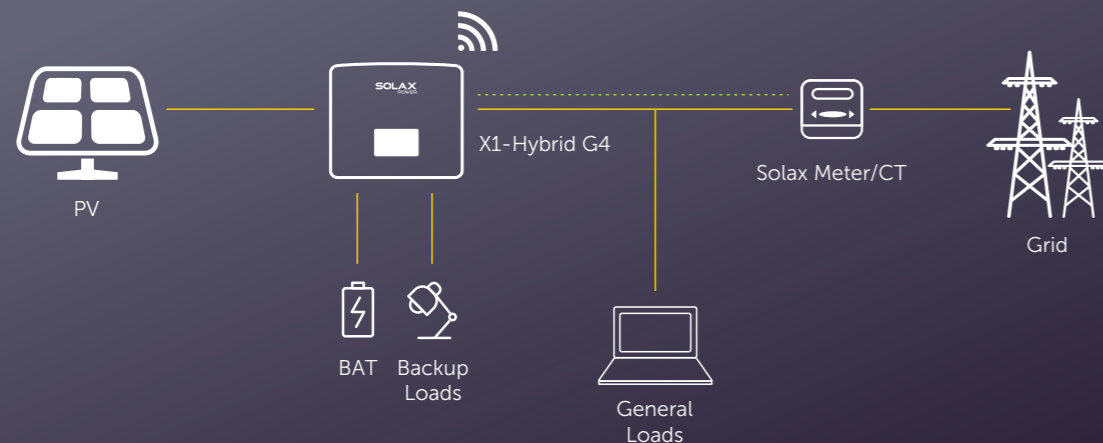
- Up to 120% EPS output for 1h
- Switchover time <10ms
- Quick configuration with U-disk
- Lithium-ion & Lead-acid battery compatible
- CT compatible, loads respond within 0.3s
- Intelligent loads management (e.g., Heat pump)
- On & Off-grid parallel function, up to 15kW
- 5 work modes, 2 charging periods available
- VPP ready, ancillary service in power market

Safe

- IP65 protection level
- Integrated SPD



SOLUTION DESIGN



X1-HYBRID G4

SINGLE-PHASE

X1-HYBRID-3.0-D
X1-HYBRID-3.0-M

X1-HYBRID-3.7-D
X1-HYBRID-3.7-M

X1-HYBRID-4.6-D
X1-HYBRID-4.6-M

X1-HYBRID-5.0-D
X1-HYBRID-5.0-M

X1-HYBRID-6.0-D
X1-HYBRID-6.0-M

X1-HYBRID-7.5-D
X1-HYBRID-7.5-M

DC INPUT

Max. PV array power [Wp]	6000	7400	9200	10000	12000	15000
Max. PV input power ^① (PV1+PV2) [Wp]	4500	5500	6900	7500	9000	10000
Max. PV input voltage [V]	600	600	600	600	600	600
Start output voltage [V]	90	90	90	90	90	90
Nominal input voltage [V]	360	360	360	360	360	360
MPPT voltage range [V]	70~550	70~550	70~550	70~550	70~550	70~550
No. of MPPT trackers / Strings per MPP tracker	2 (1/1)	2 (1/1)	2 (1/1)	2 (1/1)	2 (1/1)	2 (1/1)
Max. input current (input PV1 / input PV 2) [A]	16/16	16/16	16/16	16/16	16/16	16/16
Max. short circuit current (input PV1 / input PV 2) [A]	20/20	20/20	20/20	20/20	20/20	20/20

AC INPUT & OUTPUT

Nominal AC output power [W]	3000	3680	4600	5000 (Germany 4600, AU 4999)	6000	7500
Max. AC output apparent power [VA]	3300	3680	4999 (Germany 4600)	5500 (4600 for VDE4105, 4999 for AS4777)	6600	7500
Max. AC output current [A]	14.4	16	21.7 (Germany 20)	23.9 (Germany 20, AU 21.7)	28.6	32.6
Max. AC input apparent power [VA]	6300	7360	9200	9200	9200	9200
Max. AC input current [A]	27.4	32	40	40	40	40
Nominal AC voltage [V]	230 / 240					
Nominal grid frequency [Hz]	50 / 60					
Displacement power factor	0.8 leading ~0.8 lagging					
THDi (rated power) [%]	<2					

BATTERY DATA

Battery type	Lithium-ion battery / Lead-acid Battery
Battery voltage range [V]	80 ~ 480
Max. continuous charge / discharge current [A]	30

EPS (OFF-GRID OR BACK-UP) OUTPUT (WITH BATTERY)

Nominal output power [W]	3000	3680	4600	5000	6000	7500
Peak apparent power [VA]	3600, 1h	4416, 1h	5520, 1h	6000, 1h	7200, 10min	7500
Max. continuous current [A]	13	16	21.7	21.7	26.1	32.6
Nominal voltage [V]; Frequency [Hz]	230; 50 / 60					
Switch time [ms]	<10					
Parallel operation	YES					

SYSTEM DATA

Max. efficiency [%]	97.6
Euro. efficiency [%]	97.0
Battery charge / discharge efficiency [%] ^②	97.0 / 97.0
Degree of protection	IP65
Operating temperature range [°C]	-35 ~ +60 (Derating above +45)
Max. operation altitude [m]	<3000
Relative humidity [%]	0 ~ 100
Typical noise emission [dB]	<30
Storage temperature [°C]	-40 ~ +65
Dimensions (WxHxD) [mm]	482x417x181
Net weight [kg]	24
Cooling concept	Nature cooling
Communication interfaces	CT/Meter (optional), External control RS485, Pocket WiFi (Optional: Pocket Lan/4G), DRM, USB Upgrade, NTC (optional)
Smart cooling	Smart cooling

POWER CONSUMPTION

Internal consumption (night) [W]	<17W for standby, <2.7W for idle
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STANDARD

Safety	EN/IEC62109-1/-2
EMC	EN61000-6-1/2/3/4; EN61000-3-2/3/11/12
Certification	VDE4105, G99, G98, AS4777, EN50549, CEI 0-21, IEC61727, RD1699, NRS 097-2-1, PEA/MEA, VFR2019, C10/11

①: Indicates that all model single PV1 & PV2 input power upper limit is 5000 W. (Max. PV input power^① (PV1+PV2) restriction takes precedence).

②: PV to BAT Max. efficiency 97.0%, BAT to AC Max. efficiency 97.0%.

V2.4. Information may be subject to modify without notice. 650.00009.00