



# X1-Hybrid G4

	X1-Hybrid-3.0	X1-Hybrid-3.7	X1-Hybrid-5.0	X1-Hybrid-6.0	X1-Hybrid-7.5
<b>INPUT (DC)</b>					
Max.PV array power [Wp]	4500	5500	7500	9000	10000
Max.DC voltage [V]			600		
Nominal DC operating voltage [V]			360		
Max. input current (input A/input B) [A]			14/14		
Max. short circuit current (input A/input B) [A]			16/16		
MPPT voltage range[V]			70-550		
Start operating voltage[V]			90		
No. of MPP trackers/Strings per MPP tracker			2/1		
<b>INPUT AC</b>					
Max. apparent AC power[VA]	6300	7360	9200	9200	9200
Max. AC current[A]	27.4	32	40	40	40
Nominal grid voltage(AC voltage range)[V]			220/230/240(180-270)		
Nominal grid Frequency/range[Hz]			50/60		
<b>OUTPUT AC</b>					
Nominal AC power [VA]	3000	3680	5000	6000	7500
Max. apparent AC power [VA]	3300	3680	5500(4600for DE 4999for AU)	6600	7500
Nominal grid voltage(AC voltage range) [V]			220/230/240(180-270)		
Nominal grid frequency/range [Hz]			50/60		
Max. AC current [A]	14.4	16	23.9(20 for DE/21.7 for AU)	28.6	32.6
Displacement power factor			0.8 leading...0.8 lagging		
THDi, rated power [%]			<2		
<b>OUTPUT DC (BATTERY)</b>					
Battery type			Li-ion / lead-acid		
Battery voltage range [V]			80-480		
Max.continuous charge/discharge current [A]			30		
Communication interfaces			CAN/RS485		
Reverse connect protection			Yes		
<b>OFF-GRID OUTPUT (WITH BATTERY)</b>					
MAX. continuous apparent power [VA]	3000	3680	5000	6000	7500
Rated voltage[V],Frequency [Hz]			230, 50/60		
MAX.continuous current [A]	13	16	21.7	26.1	32.6
Peak apparent power (rated)[%], Duration[s]			120% overload , 600		100%
Switching time [ms]			internal switch <10, external switch <100		
THDv, linear Load [%]			<2		
<b>EFFICIENCY</b>					
MPPT efficiency [%]			99.9		
Euro efficiency [%]			97.0		
Max. efficiency [%]			97.6		
Battery charge/discharge efficiency [%]			97.0/97.0		
<b>POWER CONSUMPTION</b>					
Standby consumption (Night) [W]			<3		
<b>STANDARD</b>					
Safety			IEC62109-1 / IEC62109-2		
EMC			EN 61000-6-1:2007/EN 61000-6-2:2005/EN 61000-6-3/EN 61000-6-4/EN61000-3-2/EN61000-3-3/EN61000-3-11/EN61000-3-12		
Certification			VDE 0126-1-1 A1:2012 / VDE4105:2018 /G99 /G98 / AS4777 / EN50549/ CEI 0-21 /RD661/RD1699/UNE206007-1/VDE0216/VFR2019		
<b>ENVIRONMENT LIMIT</b>					
Degree of protection(according to IEC60529)			IP65		
Operating temperature range [°C]			-35..... +60°C (derating at +45°C)		
Max. operation altitude [m]			<3000		
Humidity [%]			0~100 (no condensing)		
Storage temperature [°C]			-40..... +70°C		
Typical noise emission [dB]			<30		
<b>DIMENSION AND WEIGHT</b>					
Dimensions(WxHxD) [mm]			482*417*181		
Weight[kg]			22		23
Cooling concept			Natural cooling		Forced airflow
Topology			Non-isolated		
Communication interfaces			CT/Meter/External control RS485/Indoor LCD/Pocket Series(optional)/DRM/USB Upgrade		
LCD display			Yes		
Standard warranty [years]			10		