A1 HV Series

Model	A1-HV-3.0	A1-HV-3.68	A1-HV-5.0	A1-HV-6.0
PV Input Data				
Recommended Max. PV Power [Wp]	4500	5500	7500	9000
Max. PV Input Voltage [V]	600			
MPPT Voltage Range [V]	120 ~ 550			
Start-up Voltage [V]	150			
No. of MPP Trackers	2			
No. of Input Strings per Tracker	1			
Max. Input Current per MPPT [A]	13.5 / 13.5			
Max. Short-circuit Current per MPPT [A]	17 / 17			
DC Switch	Integrated			
Battery Data				
Battery Type	$LiFePO_4$			
Recommended Battery Voltage [V]	300			
Battery Voltage Range [V]	85 ~ 450			
Max. Charging / Discharging Power [W]	4500 / 3000	5500 / 3680	6000 / 5000	6000 / 6000
Max. Charging / Discharging Current [A]	25			
Communication Interface	CAN, RS485			
AC Input Data / AC Output Data				
Rated AC Power [W]	3000	3680	4600	6000
Max. Output Power [VA]	3000	3680	5000	6000
Max. AC Current [A]	13	16	21.7	26.1
Rated AC Voltage / Range [V]	220 / 230; 180 ~ 270			
Grid Frequency / Range [Hz]	50 / 60; ±5			
Adjustable Power Factor [cosφ]	0.8 leading ~ 0.8 lagging			
Output THDi (@Rated Output)	< 2%			
EPS Output Data (With Battery)				
EPS Rated Power [VA]	3000	3680	5000	6000
EPS Rated Voltage [V]	220 / 230			
EPS Rated Frequancy [Hz]	50 / 60			
Max. Output Current [A]	13	16	21.7	26.1
Output THDi (@Rated Output)	< 3%			
Automatic Switch Time [s]	< 0.5			
Peak Apparent Power, Duration [VA,s]	3600, 600	4416, 600	6000, 600	7200, 600
Efficiency				
Max. Efficiency	97.42%	97.45%	97.50%	97.50%
Euro Efficiency	97.15%	97.17%	97.20%	97.20%
Max. Battery Discharge Efficiency (BAT to AC)	97.15%	97.17%	97.20%	97.20%
General Data				
Size (Width * Height * Depth) [mm]	561 * (855 + N * 325) * 237 (N[1] = 1 ~ 4)			
Weight [kg]	33 + N * 38.7 (N = 1 ~ 4)			
User Interface	LED + OLED			
Communication	RS485 and USB or Wifi or 4G (optional)			
Ambient Temperature Range[2] [°C]	-10 ~ +50			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	≤ 2000			
Standby Self Consumption [W]	< 15			
Topology	Transformerless			
Cooling	Natural			
Enclosure	IP65			
Noise [dB]	< 35			
Warranty [years]	5 / 7 / 10			
Certifications & Standards				
Grid Regulation	AS 4777, EN 50549-1, EN 50549-PL, EN 50549-GR, IEC 61727, CEI 0-21, IEC 62116, C10/C11, VDE0126, ORDINANCE 140			
Safety Regulation	IEC 62109-1, IEC 62109-2, IEC62619, IEC 62040, IEC 62477			
EMC	EN/IEC 61000-6-1, EN/IEC 61000-6-3			
Protection				
	• DC Insulation Monitoring	• AC Overvoltage Protection	• Anti-island Protection	
	• Residual Current Monitoring	• AC Overcurrent Protection	• Over-heat Protection	
	• Input Reverse Polarity Protection	• AC Short-circuit Protection	• DC / AC Surge Protection	

[1] Number of battery modules.
[2] Operating temperature range: charging (0 ~ +40°C), discharging (-10 ~ +50°C)