



DYNE 5.0/6.0/8.0L-1P-A

The DYNE 5.0/6.0/8.0L-1P-A series is designed for residential hybrid systems. The inverter can work with Dyness low-voltage lithium-ion battery DL5.0X/DL5.0C/ Powerbox Pro to maximize self-consumption and provide backup power if the grid fails and there is not enough PV power to cover load demand.

- ◆ Generator connectivity with multiple input methods and automatic generator On/Off control
- ◆ Automatic UPS switching(<4ms)
- ◆ Supports peak shaving control in both "self-use" and "generator" mode
- ◆ Up to 135A(5.0/6.0K) and 190A(8.0K) max charge/discharge current
- ◆ 6 customizable charge/discharge time settings
- ◆ 10 second 200% surge power backup overload capability
- ◆ Supports 1ph and 3ph flexible connection with max 36kW(5.0/6.0K) and 48kW(8.0K) in parallel

Datasheet

Model	5.0L-1P-A	6.0L-1P-A	8.0L-1P-A
Input Dc (PV side)			
Recommended max. PV power	8 kW	9.6 kW	12.8 kW
Max. input voltage		600 V	
Rated voltage		300 V	
Start-up voltage		90 V	
MPPT voltage range		90 - 520 V	
Max. input current		16 A / 16 A	32A/20A
Max. short circuit current		24 A / 24 A	36A/30A
MPPT number/Max. input strings number		2/2	2/3
Battery			
Battery type		Li-ion	
Battery voltage range		40 - 60 V	
Max. charge / discharge power	5 kW	6 kW	8 kW
Max. charge / discharge current	112 A	135 A	190 A
Communication		CAN/RS485	
Output AC (Grid side)			
Rated output power	5 kW	6 kW	8 kW
Max. apparent output power	5.5 kVA	6.6 kVA	8.8 kVA
Operation phase		1/N/PE	
Rated grid voltage		220 V/230 V	
Rated grid frequency		50 Hz / 60 Hz	
Rated grid output current	22.7 A / 21.7 A	27.3 A / 26.1 A	36.4 A / 34.8 A
Max. output current	25 A	30 A	40 A
Power factor		>0.99(0.8leading-0.8lagging)	
THDi		< 2%	
Input AC (Grid side)			
Input voltage range		187-253 V	
Max. input current	34.1 A	40 A	50 A
Frequency range		45-55 Hz/55-65 HZ	
Output AC (Back-up)			
Rated output power	5 kW	6kW	8 kW
Max. apparent output power		2 times of rated power, 10s	
Back-up switch time		<4ms	
Rated output voltage		1/N/PE, 220 V/230 V	
Rated frequency		50 Hz/60 Hz	
Max. output current	22.7 A	27.3 A	36.4 A
THDv (@linear load)		<2%	
Efficiency			
Max. efficiency		>97.5%	
EU efficiency		>96.2%	
Protection			
DC reverse-polarity protection		Yes	
Ground fault monitoring		Yes	
Integrated AFCI (DC arc-fault circuit protection)		Yes(1)	
Protection class/Over voltage category		I / II	
General Data			
Dimensions (W*H*D)		440*598*205mm	437*675*215 mm
Weight		24kg	27kg
Topology		High frequency isolation (for battery)	
Operating ambient temperature range		- 40-60 °C	
Ingress protection		IP66	
Cooling concept		Natural convection	Intelligent redundant fan-cooling
Max. operation altitude		4000M	
Grid connection standard	NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA		
Safety/EMC standard	NRS 097-2-11EC/EN 62109-1/-2,1EC/EN 61000-6-1/-2/-3/-4		
Features			
DC connection	MC4 plug (PV port)/ Terminal Block (BAT port)		
AC connection	Terminal Block		
Display	LED + APP		
Communication	RS485, CAN, Optional: Wi-Fi, LAN		