



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 | | |