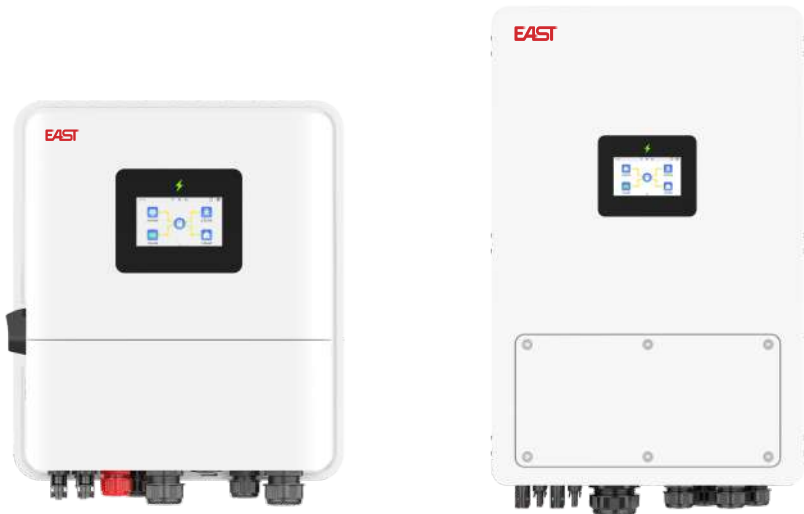


# Hybrid Inverter

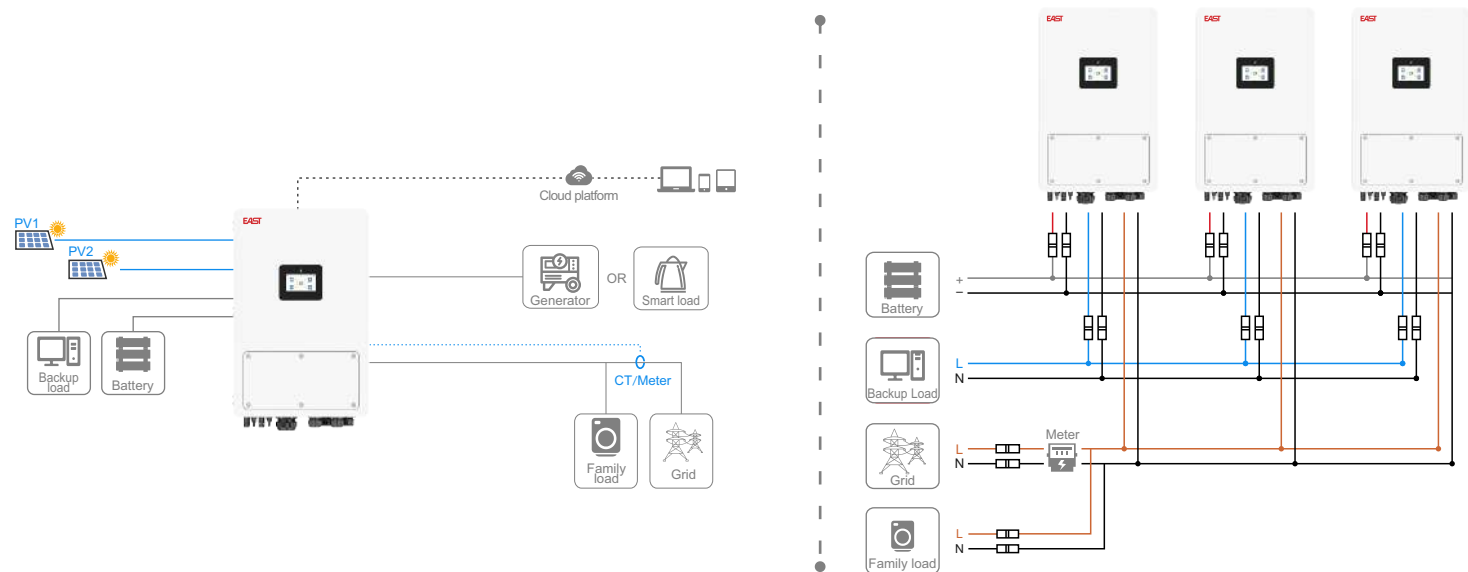
## ESH6K/8K/12K1PLVG2-AA

Single phase



- Three independent MPPT channels, 200% oversized PV capacity with 160% usable power, 36A current per MPPT channel, max. 250A battery charge/discharge current
- Compatible with 40~60V lithium & lead-acid batteries, support generator connection, smart load output and AC coupling
- Powerful parallel capability: up to 9 units for single-phase parallel connection, 3 units combinable to build three-phase system
- IP66 dustproof & waterproof design, equipped with seamless UPS backup transfer function for power outage

### Typical application



### Specification

| MODEL                                        | ESH6K1PLVG2-AA                                                                 | ESH8K1PLVG2-AA | ESH12K1PLVG2-AA |
|----------------------------------------------|--------------------------------------------------------------------------------|----------------|-----------------|
| PV input                                     |                                                                                |                |                 |
| Max. input power                             | 12000W                                                                         | 16000W         | 24000W          |
| Max. input voltage                           | 500V                                                                           |                |                 |
| Start-up voltage                             | 90V                                                                            |                |                 |
| MPPT voltage range                           | 70V~450V                                                                       |                |                 |
| Max. input current                           | 20A                                                                            | 40A            | 40A             |
| Max. short circuit current                   | 25A                                                                            | 50A            | 50A             |
| Number of MPPT/<br>Max. number of PV strings | 2/1                                                                            | 2/2            | 3/2             |
| Battery input/output                         |                                                                                |                |                 |
| Battery voltage range                        | 40V~60V                                                                        |                |                 |
| Max. charge/<br>discharge current            | 140A/140A                                                                      | 190A/190A      | 250A/250A       |
| Max. charge/<br>discharge power              | 6600W/6600W                                                                    | 8000W/8000W    | 12000W/12000W   |
| Battery BMS communication                    | RS485/CAN                                                                      |                |                 |
| AC output(Backup & Smart)                    |                                                                                |                |                 |
| Rated output power                           | 6000W                                                                          | 8000W          | 12000W          |
| Max. apparent output power                   | 6600VA                                                                         | 8800VA         | 13200VA         |
| Rated output current                         | 30A                                                                            | 40A            | 60A             |
| Rated output voltage/<br>frequency           | L+N+PE, 220V/230V/240V, 50Hz/60Hz                                              |                |                 |
| Power factor                                 | >0.99(0.8 leading~0.8 lagging)                                                 |                |                 |
| THDi                                         | <3%@rated power                                                                |                |                 |
| EPS switching time                           | <10ms                                                                          |                |                 |
| Starting surge                               | 10s@2×rated power                                                              |                |                 |
| THDu                                         | <3%(Linear load)                                                               |                |                 |
| AC input(Grid & Gen)                         |                                                                                |                |                 |
| Max. AC charging power<br>(grid to battery)  | 6600W                                                                          | 8000W          | 12000W          |
| Max. grid input current                      | 41A                                                                            | 68.2A          |                 |
| Max. generator input power                   | 6600W                                                                          | 12000W         |                 |
| Rated input voltage/<br>frequency            | L+N+PE,220V/230V/240V, 50Hz/60Hz                                               |                |                 |
| Efficiency                                   |                                                                                |                |                 |
| Max. efficiency                              | 97.3%                                                                          | 97.6%          |                 |
| European efficiency                          | 96.5%                                                                          | 97%            |                 |
| MPPT efficiency                              | 99%                                                                            |                |                 |
| General parameters                           |                                                                                |                |                 |
| Display                                      | LED+LCD                                                                        |                |                 |
| Communications                               | RS485/CAN(for BMS), RS485, CAN(for parallel), 1 DO, 1 DI, Wi-Fi, LAN(Optional) |                |                 |
| Max. operation altitude                      | 4000m(>2000m derating)                                                         |                |                 |
| IP rating                                    | IP66                                                                           |                |                 |
| Operating temperature                        | -25°C~60°C                                                                     |                |                 |
| Humidity                                     | 0~100%                                                                         |                |                 |
| Cooling mode                                 | Smart Cooling                                                                  |                |                 |
| Noise level                                  | <40dB                                                                          |                |                 |
| Dimensions(W×H×D)(mm)                        | 367x421x215                                                                    | 443x679x209    |                 |
| Net weight(kg)                               | 11.5                                                                           | 31.1           |                 |