

Hybrid Inverter

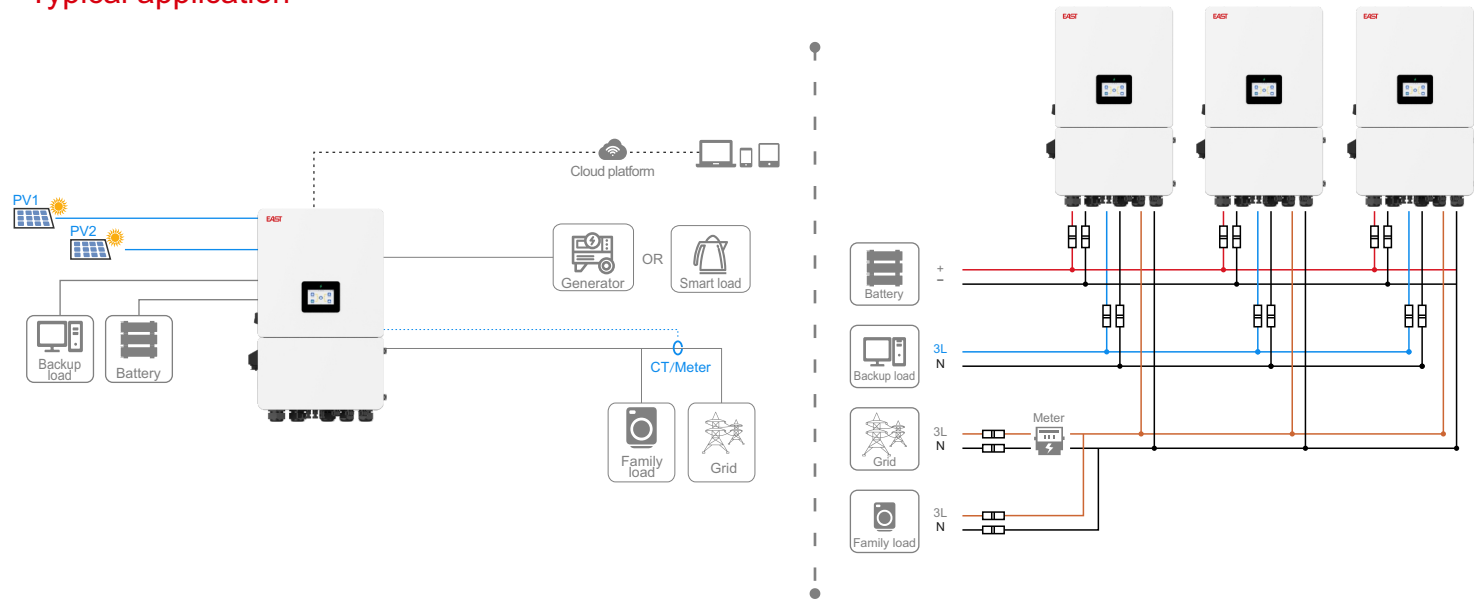
ESH10K/15K/20K3PLVG2-AA

Three phase



- Three independent MPPT channels, max. 30kW PV input, up to 380A battery charge/discharge current
- Compatible with 40~60V lithium & lead-acid batteries, support generator connection, smart load output and AC coupling
- Powerful parallel capability: max. 9 units parallel connection, compatible with both on-grid and off-grid working modes, support three-phase unbalanced output
- IP65 dustproof & waterproof design, equipped with MC4 PV connectors, multiple built-in protection circuits, optional AFCI 2.0 arc fault protection
- Equipped with seamless UPS backup transfer function to keep loads powered during power outage
- Equipped with 4.3-inch color touch screen, support 6-stage timing schedule for battery charging and discharging, local operation & cloud real-time remote monitoring

Typical application



Specification

| MODEL                                        | ESH10K3PLVG2-AA                                                                                       |               | ESH15K3PLVG2-AA |               | ESH20K3PLVG2-AA |  |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------|-----------------|---------------|-----------------|--|
| PV input                                     |                                                                                                       |               |                 |               |                 |  |
| Max. input power                             | 40000W                                                                                                |               |                 |               |                 |  |
| Max. input voltage                           | 1000V                                                                                                 |               |                 |               |                 |  |
| Start-up voltage                             | 120V                                                                                                  |               |                 |               |                 |  |
| MPPT voltage range                           | 160V~980V                                                                                             |               |                 |               |                 |  |
| Max. input current                           | 20A                                                                                                   |               |                 |               |                 |  |
| Max. short circuit current                   | 30A                                                                                                   |               |                 |               |                 |  |
| Number of MPPT/<br>Max. number of PV strings | 3/1                                                                                                   |               |                 |               |                 |  |
| Battery input/output                         |                                                                                                       |               |                 |               |                 |  |
| No.of battery input                          | 2                                                                                                     |               |                 |               |                 |  |
| Battery voltage range                        | 40V~60V                                                                                               |               |                 |               |                 |  |
| Max. charge/<br>discharge current            | 380A/250A                                                                                             | 380A/350A     |                 | 380A/380A     |                 |  |
| Max. charge/<br>discharge power              | 20000W/12000W                                                                                         | 20000W/18000W |                 | 20000W/20000W |                 |  |
| Battery BMS communication                    | RS485/CAN                                                                                             |               |                 |               |                 |  |
| AC output(Backup & Smart)                    |                                                                                                       |               |                 |               |                 |  |
| Rated output power                           | 10000W                                                                                                | 15000W        |                 | 20000W        |                 |  |
| Max. apparent output power                   | 11000VA                                                                                               | 16500VA       |                 | 22000VA       |                 |  |
| Rated output current                         | 16.7A                                                                                                 | 25A           |                 | 33.3A         |                 |  |
| Rated output voltage/<br>frequency           | 3L+N+PE, 220V/380V; 230V/400V; 240V/415V, 50Hz/60Hz                                                   |               |                 |               |                 |  |
| Power factor                                 | >0.99(0.8 leading~0.8 lagging)                                                                        |               |                 |               |                 |  |
| THDi                                         | <3%@rated power                                                                                       |               |                 |               |                 |  |
| EPS switching time                           | <10ms(Typical)                                                                                        |               |                 |               |                 |  |
| Starting surge                               | 5min@1.2×rated power                                                                                  |               |                 |               |                 |  |
| THDu                                         | <3%(Linear load)                                                                                      |               |                 |               |                 |  |
| AC input(Grid & Gen)                         |                                                                                                       |               |                 |               |                 |  |
| Max. AC charging power<br>(grid to battery)  | 20000W                                                                                                |               |                 |               |                 |  |
| Max. grid input current                      | 45A                                                                                                   |               |                 |               |                 |  |
| Max. generator input power                   | 30000W                                                                                                |               |                 |               |                 |  |
| Rated input voltage/<br>frequency            | 3L+N+PE, 220V/380V; 230V/400V; 240V/415V, 50Hz/60Hz                                                   |               |                 |               |                 |  |
| Efficiency                                   |                                                                                                       |               |                 |               |                 |  |
| Max. efficiency                              | 97.6%                                                                                                 |               |                 |               |                 |  |
| European efficiency                          | 97.00%                                                                                                |               |                 |               |                 |  |
| MPPT efficiency                              | 99%                                                                                                   |               |                 |               |                 |  |
| General parameters                           |                                                                                                       |               |                 |               |                 |  |
| Display                                      | LED+LCD                                                                                               |               |                 |               |                 |  |
| Communications                               | RS485/CAN(for BMS), RS485(for Meter), DRMs, CAN(for parallel), 2DO, 2DI, USB(for Wi-Fi/LAN, optional) |               |                 |               |                 |  |
| Max. operation altitude                      | 4000m(>2000m derating)                                                                                |               |                 |               |                 |  |
| IP rating                                    | IP65                                                                                                  |               |                 |               |                 |  |
| Operating temperature                        | -25°C~60°C(>45°C derating)                                                                            |               |                 |               |                 |  |
| Humidity                                     | 0~100%                                                                                                |               |                 |               |                 |  |
| Cooling mode                                 | Smart Cooling                                                                                         |               |                 |               |                 |  |
| Noise level                                  | <45dB                                                                                                 |               |                 |               |                 |  |
| Dimensions(W×H×D)(mm)                        | 460x742x266                                                                                           |               |                 |               |                 |  |
| Net weight(kg)                               | 46.5                                                                                                  |               |                 |               |                 |  |