

# Solar Mate

Solar Mate directly connects the battery to the solar system on the PV side, without installing an additional energy storage inverter or replacing the current solar inverter. In addition, no component replacement or AC side wiring changes are required, saving the waiting time for grid connection permit application, which is very friendly to families with installed solar systems.

Compared with traditional AC coupling systems, it saves installation time and improves system efficiency, allowing users to achieve energy self-sufficiency in a simple and cost-effective way.



Easy installation



No need to wait for grid connection permit



Can be installed indoors or outdoors (IP65)



High compatibility  
(supports mainstream single-phase/three-phase inverters)



Anti-backflow protection & load monitoring



One-click configuration

# Technical Parameters

| Model                            | D12K-PVC                                                                                                        |         | D10K-PVC | D8K-PVC | D6K-PVC | D5K-PVC |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------|---------|----------|---------|---------|---------|
| Battery Input Data               |                                                                                                                 |         |          |         |         |         |
| Battery Type                     | Lithium battery                                                                                                 |         |          |         |         |         |
| Battery Voltage Range (V)        | 160-750                                                                                                         | 160-750 | 160-750  | 80-490  | 80-490  |         |
| Max.Charge/Discharge Current(A)  | 40/40                                                                                                           |         |          |         |         |         |
| Max.Charge/Discharge Power(W)    | 13200                                                                                                           | 11000   | 8800     | 6600    | 5500    |         |
| PV String Input Data             |                                                                                                                 |         |          |         |         |         |
| Max.PV Input Power (W)           | 19200                                                                                                           | 16000   | 12800    | 9600    | 8000    |         |
| Max.PV Input Voltage (V)         | 1000                                                                                                            | 1000    | 1000     | 600     | 600     |         |
| MPPT Range(V)                    | 200-850                                                                                                         | 200-850 | 80-480   | 80-480  | 80-480  |         |
| SPS Start-up Voltage (V)         | 150                                                                                                             | 150     | 150      | 60      | 60      |         |
| MPPT Range For Nominal Power (V) | 350-850                                                                                                         | 350-850 | 350-850  | 230-480 | 230-480 |         |
| Nominal PV Input Voltage (V)     | 620                                                                                                             | 620     | 350      | 350     | 350     |         |
| Max.Input Current(A)             | 32/16                                                                                                           | 32/16   | 32/16    | 16/16   | 16/16   |         |
| Max.Short Current(A)             | 42/21                                                                                                           | 42/21   | 42/21    | 21/21   | 21/21   |         |
| No.of MPP Trackers               | 2                                                                                                               |         |          |         |         |         |
| Strings per MPP Tracker          | 2/1                                                                                                             |         |          | 1/1     |         |         |
| DC Output Data                   |                                                                                                                 |         |          |         |         |         |
| Max.Output Power (W)             | 12000                                                                                                           | 10000   | 8000     | 6000    | 5000    |         |
| MAX.Output Voltage (V)           | 1000                                                                                                            | 1000    | 1000     | 600     | 600     |         |
| Nominal Output Voltage (V)       | 600                                                                                                             | 600     | 600      | 300     | 300     |         |
| Nominal.Output Current(A)        | 10/10                                                                                                           | 8.3/8.3 | 6.8/6.8  | 10/10   | 8.5/8.5 |         |
| No.of Output Trackers            | 2                                                                                                               |         |          |         |         |         |
| Strings per MPP Tracker          | 2/1                                                                                                             |         |          | 1/1     |         |         |
| Efficiency                       |                                                                                                                 |         |          |         |         |         |
| MPPT efficiency                  | 0.99                                                                                                            | 0.99    | 0.99     | 0.99    | 0.99    |         |
| Max.efficiency                   | 0.982                                                                                                           | 0.982   | 0.982    | 0.983   | 0.983   |         |
| Protection                       |                                                                                                                 |         |          |         |         |         |
| PV AFCI                          | Optional                                                                                                        |         |          |         |         |         |
| PV Reverse Protection            | Integrated                                                                                                      |         |          |         |         |         |
| Battery Reverse Protection       | Integrated                                                                                                      |         |          |         |         |         |
| Over Current/Voltage Protection  | Integrated                                                                                                      |         |          |         |         |         |
| DC Switch(PV)                    | Integrated                                                                                                      |         |          |         |         |         |
| Surge Protection                 | DC Type II                                                                                                      |         |          |         |         |         |
| Communication Interface          |                                                                                                                 |         |          |         |         |         |
| Battery BMS                      | CAN                                                                                                             |         |          |         |         |         |
| EMS                              | RS485                                                                                                           |         |          |         |         |         |
| Meter                            | RS485                                                                                                           |         |          |         |         |         |
| Remote Shut Down                 | YES(DI)                                                                                                         |         |          |         |         |         |
| IO IN                            | YES(DI)                                                                                                         |         |          |         |         |         |
| Dry-Point                        | YES(DO)                                                                                                         |         |          |         |         |         |
| Cloud                            | Wi-Fi,Bluetooth                                                                                                 |         |          |         |         |         |
| Display/User Interface           | LED/APP/LCD                                                                                                     |         |          |         |         |         |
| General Data                     |                                                                                                                 |         |          |         |         |         |
| Operating Temperature Range(℃)   | -25-60                                                                                                          |         |          |         |         |         |
| Relative Humidity(%)             | 0-95%                                                                                                           |         |          |         |         |         |
| Operating Altitude(m)            | ≤3000                                                                                                           |         |          |         |         |         |
| Cooling                          | Nature Cooling                                                                                                  |         |          |         |         |         |
| Noise(dB)                        | <35                                                                                                             |         |          |         |         |         |
| Weight(kg)                       | TBD                                                                                                             |         |          |         |         |         |
| Size(W/H/D)(mm)                  | 470*400*185                                                                                                     |         |          |         |         |         |
| Installation                     | Wall-Mounted                                                                                                    |         |          |         |         |         |
| Protection Degree                | IP65(can outdoor use)                                                                                           |         |          |         |         |         |
| Certifications&Standards         |                                                                                                                 |         |          |         |         |         |
| Safety Regulation                | IEC62109-1                                                                                                      |         |          |         |         |         |
| EMC                              | EN61000-6-1,EN61000-6-2,EN610006-3,EN61000-6-4,EN62920, EN55011,EN61000-3-2,EN61000-3-3,EN61000-3-12,ENIEC61000 |         |          |         |         |         |