

## ***On-Grid Solar Inverter*** ***SINV Series***



### **Solar Inverter- SINV Series**

Hannibal three-phase on-grid solar inverters have high power density and are equipped with a one-stop intelligent data management platform to provide flexible and efficient solutions for larger industrial and commercial power stations, large poverty alleviation power stations, and large ground power stations.

All inverter is true power rates and will not use fake components to reduce any cost. To get the most out of the power inverter, it must be installed and used properly

| Model                               | SINV17R                         | SINV20R | SINV22R     | SINV25R     |
|-------------------------------------|---------------------------------|---------|-------------|-------------|
| <b>Input (DC)</b>                   |                                 |         |             |             |
| Max. Input Power                    | 27.2kW                          | 32kW    | 35.2kW      | 40kW        |
| Max. Input Voltage                  | 1100V                           |         |             |             |
| Start Voltage                       | 250V                            |         |             |             |
| Rated Input Voltage                 | 600V                            |         |             |             |
| Full-load MPP Voltage Range         | 480V ~ 800V                     |         | 520V ~ 800V | 560V ~ 800V |
| MPPT Voltage Range                  | 200V ~ 1000V                    |         |             |             |
| Number of MPP Trackers              | 2                               |         |             |             |
| Number of String per MPPT           | 2 / 2                           |         |             | 2 / 3       |
| Max. Current per MPPT               | 32A                             |         |             | 32A / 48A   |
| Max. Short Circuit Current per MPPT | 40A                             |         |             | 40A / 60A   |
| <b>Output (AC)</b>                  |                                 |         |             |             |
| Max. Output Current                 | 27.2A                           | 32.1A   | 35.3A       | 39.8A       |
| Rated Output Power                  | 17kW                            | 20kW    | 22kW        | 25kW        |
| Max. Output Power                   | 18.8kVA                         | 22.2kVA | 24.4kVA     | 27.5kVA     |
| Rated Grid Frequency                | 50Hz / 60Hz                     |         |             |             |
| Rated Grid Voltage                  | 230Vac / 400Vac, 3L / N / PE    |         |             |             |
| Power Factor                        | >0.99 (0.8 leading~0.8 lagging) |         |             |             |
| THDi                                | <3% (Rated Power)               |         |             |             |
| <b>Efficiency</b>                   |                                 |         |             |             |
| Max. Efficiency                     | 98.40%                          |         |             |             |
| European Efficiency                 | 98.00%                          |         |             |             |
| MPPT Efficiency                     | 99.90%                          |         |             |             |

## Protection

|                                  |          |
|----------------------------------|----------|
| DC reverse polarity protection   | Yes      |
| Anti-islanding protection        | Yes      |
| AC short circuit protection      | Yes      |
| Residual current monitoring unit | Yes      |
| Insulation resistance monitoring | Yes      |
| Ground fault monitoring          | Yes      |
| Grid monitoring                  | Yes      |
| PV string monitoring             | Yes      |
| Surge protection                 | Type II  |
| AFCI protection                  | Optional |

## Communication

|               |   |
|---------------|---|
| Display       | LCD / LED+APP   |
| Communication | Standard : RS485<br>Optional : WiFi / GPRS / Ethernet |

## Standard Compliance

|               |  |
|---------------|--|
| Certification | IEC/EN 62109-1/2, IEC/EN 61000-6-1/3, IEC60068, IEC61683, EN 50549, IEC61727/IEC62116, CEI 0-21, C10/C11, VDE 4105, VDE 0124, RD244, UNE217001, UNE217002, NC RfG, AS4777, NB/T 32004, BIS |
|---------------|--|

## General Data

|                             |                    |
|-----------------------------|--------------------|
| Dimensions (W x H x D)      | 534 x 440 x 220 mm |
| Weight                      | 24kg               |
| Operating Temperature Range | -30°C ~ +60°C      |
| Cooling Method              | Smart Cooling      |
| Protection Degree           | IP66               |
| Max. Operating Altitude     | 4000m              |
| Relative Humidity           | 0 ~ 100%           |
| Topology                    | Transformerless    |
| Night Power Consumption     | <1W                |

| Models                              | SINV30R                         | SINV33R | SINV36R | SINV40R |
|-------------------------------------|---------------------------------|---------|---------|---------|
| <b>Input (DC)</b>                   |                                 |         |         |         |
| Max. Input Power                    | 48kW                            | 52.8kW  | 57.6kW  | 64kW    |
| Max. Input Voltage                  | 1100V                           |         |         |         |
| Start Voltage                       | 250V                            |         |         |         |
| Rated Input Voltage                 | 600V                            |         |         |         |
| Full-load MPP Voltage Range         | 500V ~ 800V                     |         |         |         |
| MPPT Voltage Range                  | 200V ~ 1000V                    |         |         |         |
| Number of MPP Trackers              | 3                               |         | 4       |         |
| Number of String per MPPT           | 2                               |         |         |         |
| Max. Current per MPPT               | 26A                             |         |         |         |
| Max. Short Circuit Current per MPPT | 32A                             |         |         |         |
| <b>Output (AC)</b>                  |                                 |         |         |         |
| Max. Output Current                 | 48.3A                           | 53A     | 57.8A   | 64.3A   |
| Rated Output Power                  | 30kW                            | 33kW    | 36kW    | 40kW    |
| Max. Output Power                   | 33.3kVA                         | 36.6kVA | 39.6kVA | 44kVA   |
| Rated Grid Frequency                | 50Hz / 60Hz                     |         |         |         |
| Rated Grid Voltage                  | 230Vac / 400Vac, 3L / N / PE    |         |         |         |
| Power Factor                        | >0.99 (0.8 leading~0.8 lagging) |         |         |         |
| THDi                                | <3% (Rated Power)               |         |         |         |
| <b>Efficiency</b>                   |                                 |         |         |         |
| Max. Efficiency                     | 98.6%                           |         |         |         |
| European Efficiency                 | 98.5%                           |         |         |         |
| MPPT Efficiency                     | 99.9%                           |         |         |         |

## Protection

|                                  |          |
|----------------------------------|----------|
| DC reverse polarity protection   | Yes      |
| Anti-islanding protection        | Yes      |
| AC short circuit protection      | Yes      |
| Residual current monitoring unit | Yes      |
| Insulation resistance monitoring | Yes      |
| Ground fault monitoring          | Yes      |
| Grid monitoring                  | Yes      |
| PV string monitoring             | Yes      |
| Surge protection                 | Type II  |
| AFCI protection                  | Optional |

## Communication

|               |   |
|---------------|---|
| Display       | LCD / LED+APP   |
| Communication | Standard : RS485<br>Optional : WiFi / GPRS / Ethernet |

## Standard Compliance

|               |  |
|---------------|--|
| Certification | IEC/EN 62109-1/2, IEC/EN 61000-6-1/3, EN50549, IEC61727/IEC62116, CEI 0-21,C10/C11, VDE 4105, VDE 0124, RD244, UNE217001, UNE217002, NC RfG, TOR Erzeuger, AS4777, NRS097-2-1, NB/T 32004, BIS |
|---------------|--|

## General Data

|                             |                    |      |
|-----------------------------|--------------------|------|
| Dimensions (W x H x D)      | 600 x 430 x 230 mm |      |
| Weight                      | 30kg               | 32kg |
| Operating Temperature Range | -30°C ~ +60°C      |      |
| Cooling Method              | Smart Cooling      |      |
| Protection Degree           | IP66               |      |
| Max. Operating Altitude     | 4000m              |      |
| Relative Humidity           | 0 ~ 100%           |      |
| Topology                    | Transformerless    |      |
| Night Power Consumption     | <1W                |      |

| Models                              | SINV50                          | SINV50L | SINV60          | SINV60L       | SINV66L         | SINV70L |
|-------------------------------------|---------------------------------|---------|-----------------|---------------|-----------------|---------|
| <b>Input (DC)</b>                   |                                 |         |                 |               |                 |         |
| Max. Input Power                    | 80kW                            |         | 96kW            |               | 105.6kW         |         |
| Max. Input Voltage                  | 1100V                           |         |                 |               |                 |         |
| Start Voltage                       | 250V                            |         |                 |               |                 |         |
| Rated Input Voltage                 | 600V                            |         |                 |               | 700V            |         |
| Full-load MPP Voltage Range         | 520V ~ 850V                     |         |                 |               | 600V ~ 850V     |         |
| MPPT Voltage Range                  | 200V ~ 1000V                    |         |                 |               |                 |         |
| Number of MPP Trackers              | 4                               |         |                 |               |                 |         |
| Number of string per MPPT           | 3 / 2 / 3 / 2                   |         |                 | 3 / 3 / 3 / 3 |                 |         |
| Max. Current per MPPT               | 39A / 26A / 39A / 26A           |         |                 | 39A           |                 |         |
| Max. Short Circuit Current per MPPT | 48A / 32A / 48A / 32A           |         |                 | 48A           |                 |         |
| <b>Output (AC)</b>                  |                                 |         |                 |               |                 |         |
| Max. Output Current                 | 79.7A                           | 66.2A   | 95.6A           | 79.4A         | 87.4A           | 92.6A   |
| Rated Output Power                  | 50kW                            |         | 60kW            |               | 70kW            |         |
| Max. Output Power                   | 55kVA                           |         | 66kVA           |               | 77kVA           |         |
| Rated Grid Frequency                | 50Hz / 60Hz                     |         |                 |               |                 |         |
| Rated Grid Voltage                  | 230Vac / 400Vac                 |         | 277Vac / 480Vac |               | 230Vac / 400Vac |         |
| Power Factor                        | >0.99 (0.8 leading~0.8 lagging) |         |                 |               |                 |         |
| THDi                                | <3% (Rated Power)               |         |                 |               |                 |         |
| <b>Efficiency</b>                   |                                 |         |                 |               |                 |         |
| Max. Efficiency                     | 98.70%                          |         | 98.80%          |               |                 |         |
| European Efficiency                 | 98.40%                          |         |                 |               | 98.50%          |         |
| MPPT Efficiency                     | 99.90%                          |         |                 |               |                 |         |



## Protection

|                                  |          |
|----------------------------------|----------|
| DC reverse polarity protection   | Yes      |
| Anti-islanding protection        | Yes      |
| AC short circuit protection      | Yes      |
| Residual current monitoring unit | Yes      |
| Insulation resistance monitoring | Yes      |
| Ground fault monitoring          | Yes      |
| Grid monitoring                  | Yes      |
| PV string monitoring             | Yes      |
| Surge protection                 | Type II  |
| AFCl protection                  | Optional |

## Communication

|               |                                   |
|---------------|-----------------------------------|
| Display       | LCD / LED+APP                     |
| Communication | Standard : RS485                  |
|               | Optional : WiFi / GPRS / Ethernet |

## Standard Compliance

|                           |   |
|---------------------------|---|
| Grid Connection Standards | IEC/EN 62109-1/2, IEC/EN 61000-6-1/3, EN50549, IEC61727/IEC62116,                 |
|                           | CEI 0-21, CEI 0-16, C10/C11, VDE 4105, VDE 0124, G99, RD244, UNE217001, UNE217002 |
|                           | NC RfG, NRS097-2-1, NB/T 32004  |

## General Data

|                             |                    |
|-----------------------------|--------------------|
| Dimensions (W x H x D)      | 650 x 450 x 260 mm |
| Weight                      | 50kg               |
| Operating Temperature Range | -30°C ~ +60°C      |
| Cooling Method              | Smart Cooling      |
| Protection Degree           | IP66               |
| Max. Operating Altitude     | 4000m              |
| Relative Humidity           | 0 ~ 100%           |
| Topology                    | Transformerless    |
| Night Power Consumption     | <1W                |