

# R6 SERIES SINGLE PHASE INVERTER



R6-5K-S2-X | R6-6K-S2-IE-X | R6-6K-S2-X  
R6-7K-S2-X | R6-8K-S2-X | R6-9K-S2-X  
R6-10K-S2-X

**AFCI** AFCI (Optional)

**16A** String current up to 16A

 Max. Efficiency 98.2%

 Built-in AC & DC SPD

**110%** 110% AC overloading

 24/7 load monitoring (Optional)

| MODEL                               | R6-5K-S2-X                                                                                                                                                                                                         | R6-6K-S2-IE-X | R6-6K-S2-X | R6-7K-S2-X | R6-8K-S2-X | R6-9K-S2-X | R6-10K-S2-X |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|------------|------------|------------|-------------|
| <b>DC Input</b>                     |                                                                                                                                                                                                                    |               |            |            |            |            |             |
| Max. PV Array Power [Wp]@STC        | 7500                                                                                                                                                                                                               | 9000          | 9000       | 10500      | 12000      | 12000      | 12000       |
| Max. DC Voltage [V]                 | 600                                                                                                                                                                                                                |               |            |            |            |            |             |
| MPPT Voltage Range [V]              | 90 ~ 550                                                                                                                                                                                                           |               |            |            |            |            |             |
| Rated DC Voltage [V]                | 360                                                                                                                                                                                                                |               |            |            |            |            |             |
| Start Voltage [V]                   | 100                                                                                                                                                                                                                |               |            |            |            |            |             |
| Min. DC Voltage [V]                 | 80                                                                                                                                                                                                                 |               |            |            |            |            |             |
| Max. DC Input Current [A]           | 16/16                                                                                                                                                                                                              |               |            |            |            |            |             |
| Max. DC Short Circuit Current [A]   | 19.2/19.2                                                                                                                                                                                                          |               |            |            |            |            |             |
| No. of Strings per MPPT             | 1/1                                                                                                                                                                                                                |               |            |            |            |            |             |
| No. of MPPT                         | 2                                                                                                                                                                                                                  |               |            |            |            |            |             |
| DC Switch                           | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| <b>AC Output</b>                    |                                                                                                                                                                                                                    |               |            |            |            |            |             |
| Rated AC Power [W]                  | 5000                                                                                                                                                                                                               | 5500          | 6000       | 7000       | 8000       | 9000       | 10000       |
| Max. Apparent Power*1[VA]           | 5500                                                                                                                                                                                                               | 5500          | 6600       | 7700       | 8800       | 9900       | 10000       |
| Rated Output Current [A]@230Vac     | 21.7*2                                                                                                                                                                                                             | 25            | 26.1       | 30.4       | 34.8       | 39.1       | 43.5        |
| Max. Output Current [A]             | 25                                                                                                                                                                                                                 | 25            | 30         | 35         | 40         | 45         | 45.5        |
| Rated AC Voltage/Range [V]          | L+N+PE, 220,230,240/180 ~ 280                                                                                                                                                                                      |               |            |            |            |            |             |
| Rated Output Frequency/Range [Hz]   | 50,60/45 ~ 55,55 ~ 65                                                                                                                                                                                              |               |            |            |            |            |             |
| Power Factor [cos φ]                | 0.8 leading ~ 0.8 lagging                                                                                                                                                                                          |               |            |            |            |            |             |
| Total Harmonic Distortion [THDI]    | <3%                                                                                                                                                                                                                |               |            |            |            |            |             |
| <b>Efficiency</b>                   |                                                                                                                                                                                                                    |               |            |            |            |            |             |
| Max. Efficiency                     | 98.2%                                                                                                                                                                                                              |               |            |            |            |            |             |
| Euro Efficiency                     | 97.8%                                                                                                                                                                                                              |               |            |            |            |            |             |
| <b>Protection</b>                   |                                                                                                                                                                                                                    |               |            |            |            |            |             |
| Internal Overvoltage Protection     | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| DC Insulation Resistance Detection  | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| Grid Monitoring                     | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| GFCI Monitoring                     | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| DCI Monitoring                      | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| AC Short Circuit Current Protection | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| AC Grounding Detection              | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| DC Surge Protection                 | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| AC Surge Protection                 | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| Anti-islanding Protection           | Integrated                                                                                                                                                                                                         |               |            |            |            |            |             |
| AFCI Protection                     | Optional                                                                                                                                                                                                           |               |            |            |            |            |             |
| <b>Interface</b>                    |                                                                                                                                                                                                                    |               |            |            |            |            |             |
| DC Connection                       | MC4/ H4                                                                                                                                                                                                            |               |            |            |            |            |             |
| AC Connection                       | Plug-in Connector                                                                                                                                                                                                  |               |            |            |            |            |             |
| Display                             | LED+APP                                                                                                                                                                                                            |               |            |            |            |            |             |
| Communication Port                  | RS232(USB)+RS485(RJ45)+DRM                                                                                                                                                                                         |               |            |            |            |            |             |
| Communication                       | Wi-Fi/Ethernet/4G(Optional)                                                                                                                                                                                        |               |            |            |            |            |             |
| Load Monitoring                     | 24/7 (Optional)                                                                                                                                                                                                    |               |            |            |            |            |             |
| <b>General Parameters</b>           |                                                                                                                                                                                                                    |               |            |            |            |            |             |
| Topology                            | Non-isolated                                                                                                                                                                                                       |               |            |            |            |            |             |
| Consumption at Night [W]            | <1                                                                                                                                                                                                                 |               |            |            |            |            |             |
| Operating Temperature Range         | -40°C to +60°C (45°C to 60°C with derating)                                                                                                                                                                        |               |            |            |            |            |             |
| Cooling Method                      | Natural Convection                                                                                                                                                                                                 |               |            |            |            |            |             |
| Ambient Humidity                    | 0-100% Non-condensing                                                                                                                                                                                              |               |            |            |            |            |             |
| Altitude                            | 4000m (>3000m Power Derating)                                                                                                                                                                                      |               |            |            |            |            |             |
| Noise [dBA]                         | <35                                                                                                                                                                                                                |               |            |            |            |            |             |
| Ingress Protection                  | IP65                                                                                                                                                                                                               |               |            |            |            |            |             |
| Mounting                            | Wall Mounting                                                                                                                                                                                                      |               |            |            |            |            |             |
| Dimensions [H*W*D] [mm]             | 391*532*202                                                                                                                                                                                                        |               |            |            |            |            |             |
| Weight [kg]                         | 16.5                                                                                                                                                                                                               |               |            |            |            | 17.3       |             |
| Warranty [Year]                     | 5 /10/15/20                                                                                                                                                                                                        |               |            |            |            |            |             |
| Applicable Standard                 | EN 62109-1/2, EN 61000-6-1/2/3/4, EN 50438, EN 50549, C10/11, IEC 62116, IEC 61727, RD 1699, RD 413, UNE 206006, UNE 206007, NTS, CEI 0-16, CEI 0-021, AS 4777.2, NBR 16149, NBR 16150 VDE-AR-N 4105, VDE 0126-1-1 |               |            |            |            |            |             |

Remarks: \*1 According to C10/C11, Max. Apparent Power= Rated AC Power.

\*2 According to VDE-ARN-N 4105, Rated AC Current for R6-5K-S2-X is 20A.

# R6 SERIES

## SINGLE PHASE INVERTER



R6-5K-S3 | R6-6K-S3-IE | R6-6K-S3 | R6-7K-S3  
R6-8K-S3 | R6-9K-S3 | R6-10K-S3

**AFCI** AFCI (Optional)

**16A** String current up to 16A

 Max. Efficiency 98.2%

 Built-in AC & DC SPD

**MAX** Max. 3 MPP trackers

 24/7 load monitoring (Optional)

| MODEL                               | R6-5K-S3                                                                                                                                                                                                           | R6-6K-S3-IE | R6-6K-S3 | R6-7K-S3 | R6-8K-S3 | R6-9K-S3 | R6-10K-S3 |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|----------|----------|----------|-----------|
| <b>DC Input</b>                     |                                                                                                                                                                                                                    |             |          |          |          |          |           |
| Max. PV Array Power [Wp]@ STC       | 7500                                                                                                                                                                                                               | 9000        | 9000     | 10500    | 12000    | 13500    | 15000     |
| Max. DC Voltage [V]                 | 600                                                                                                                                                                                                                |             |          |          |          |          |           |
| MPPT Voltage Range [V]              | 90 ~ 550                                                                                                                                                                                                           |             |          |          |          |          |           |
| Rated DC Voltage [V]                | 360                                                                                                                                                                                                                |             |          |          |          |          |           |
| Start Voltage [V]                   | 100                                                                                                                                                                                                                |             |          |          |          |          |           |
| Min. DC Voltage [V]                 | 80                                                                                                                                                                                                                 |             |          |          |          |          |           |
| Max. DC Input Current [A]           | 16/16/16                                                                                                                                                                                                           |             |          |          |          |          |           |
| Max. DC Short Circuit Current [A]   | 19.2/19.2/19.2                                                                                                                                                                                                     |             |          |          |          |          |           |
| No. of Strings per MPPT             | 1/1/1                                                                                                                                                                                                              |             |          |          |          |          |           |
| No. of MPPT                         | 3                                                                                                                                                                                                                  |             |          |          |          |          |           |
| DC Switch                           | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| <b>AC Output</b>                    |                                                                                                                                                                                                                    |             |          |          |          |          |           |
| Rated AC Power [W]                  | 5000                                                                                                                                                                                                               | 5500        | 6000     | 7000     | 8000     | 9000     | 10000     |
| Max. Apparent Power*[VA]            | 5500                                                                                                                                                                                                               | 5500        | 6600     | 7700     | 8800     | 9900     | 10000     |
| Rated Output Current [A]@ 230Vac    | 21.7**                                                                                                                                                                                                             | 25          | 26.1     | 30.4     | 34.8     | 39.1     | 43.5      |
| Max. Output Current [A]             | 25                                                                                                                                                                                                                 | 25          | 30       | 35       | 40       | 45       | 45.5      |
| Rated AC Voltage/ Range [V]         | L+N+PE, 220, 230, 240/ 180 ~ 280                                                                                                                                                                                   |             |          |          |          |          |           |
| Rated Output Frequency/ Range [Hz]  | 50, 60/ 45 ~ 55, 55 ~ 65                                                                                                                                                                                           |             |          |          |          |          |           |
| Power Factor [cos φ]                | 0.8 leading ~ 0.8 lagging                                                                                                                                                                                          |             |          |          |          |          |           |
| Total Harmonic Distortion [THDI]    | <3%                                                                                                                                                                                                                |             |          |          |          |          |           |
| <b>Efficiency</b>                   |                                                                                                                                                                                                                    |             |          |          |          |          |           |
| Max. Efficiency                     | 98.2%                                                                                                                                                                                                              |             |          |          |          |          |           |
| Euro Efficiency                     | 97.8%                                                                                                                                                                                                              |             |          |          |          |          |           |
| <b>Protection</b>                   |                                                                                                                                                                                                                    |             |          |          |          |          |           |
| Internal Overvoltage Protection     | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| DC Insulation Resistance Detection  | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| Grid Monitoring                     | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| GFCI Monitoring                     | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| DCI Monitoring                      | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| AC Short Circuit Current Protection | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| AC Grounding Detection              | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| DC Surge Protection                 | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| AC Surge Protection                 | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| Anti-islanding Protection           | Integrated                                                                                                                                                                                                         |             |          |          |          |          |           |
| AFCI Protection                     | Optional                                                                                                                                                                                                           |             |          |          |          |          |           |
| <b>Interface</b>                    |                                                                                                                                                                                                                    |             |          |          |          |          |           |
| DC Connection                       | MC4/ H4                                                                                                                                                                                                            |             |          |          |          |          |           |
| AC Connection                       | Plug-in Connector                                                                                                                                                                                                  |             |          |          |          |          |           |
| Display                             | LED+APP                                                                                                                                                                                                            |             |          |          |          |          |           |
| Communication Port                  | RS232(USB) +RS485(RJ45) +DRM                                                                                                                                                                                       |             |          |          |          |          |           |
| Communication                       | Wi-Fi/ Ethernet/ 4G(Optional)                                                                                                                                                                                      |             |          |          |          |          |           |
| Load Monitoring                     | 24/7 (Optional)                                                                                                                                                                                                    |             |          |          |          |          |           |
| <b>General Parameters</b>           |                                                                                                                                                                                                                    |             |          |          |          |          |           |
| Topology                            | Non-isolated                                                                                                                                                                                                       |             |          |          |          |          |           |
| Consumption at Night [W]            | <1                                                                                                                                                                                                                 |             |          |          |          |          |           |
| Operating Temperature Range         | -40°C to +60°C (45°C to 60°C with derating)                                                                                                                                                                        |             |          |          |          |          |           |
| Cooling Method                      | Natural Convection                                                                                                                                                                                                 |             |          |          |          |          |           |
| Ambient Humidity                    | 0-100% Non-condensing                                                                                                                                                                                              |             |          |          |          |          |           |
| Altitude                            | 4000m (>3000m Power Derating)                                                                                                                                                                                      |             |          |          |          |          |           |
| Noise [dBA]                         | <35                                                                                                                                                                                                                |             |          |          |          |          |           |
| Ingress Protection                  | IP65                                                                                                                                                                                                               |             |          |          |          |          |           |
| Mounting                            | Wall Mounting                                                                                                                                                                                                      |             |          |          |          |          |           |
| Dimensions [H*W*D][mm]              | 391*532*202                                                                                                                                                                                                        |             |          |          |          |          |           |
| Weight [kg]                         | 17.3                                                                                                                                                                                                               |             |          | 18       |          |          |           |
| Warranty [Year]                     | 5/10/15/20                                                                                                                                                                                                         |             |          |          |          |          |           |
| Applicable Standard                 | EN 62109-1/2, EN 61000-6-1/2/3/4, EN 50438, EN 50549, C10/11, IEC 62116, IEC 61727, RD 1699, RD 413, UNE 206006, UNE 206007, NTS, CEI 0-16, CEI 0-021, AS 4777.2, NBR 16149, NBR 16150 VDE-AR-N 4105, VDE 0126-1-1 |             |          |          |          |          |           |

Remarks: \*1 According to C10/C11, Max. Apparent Power= Rated AC Power.

\*\*According to VDE-AR-N 4105, Rated AC Current for R6-5K-S3 is 20A.