

R6 25–50K Three Phase On-Grid Inverter

R6 series is SAJ's mid- to high-output platform for on-grid solar inverters, offering excellent efficiency, optional AFCI, 110% AC overload protection, and a stable remote control connection. This series covers a range of 25–50kW, features 4 MPPTs, and is compatible with three-phase grid systems.



- ❑ AFCI (Integrated)
- ❑ String current up to 16A
- ❑ Max. efficiency 98.8%
- ❑ Built-in AC & DC SPD
- ❑ 110% AC overloading
- ❑ Safety & reliability

R6-25K-T3-32 | R6-30K-T3-32 | R6-33K-T3-32
 R6-36K-T3-32 | R6-36K-T4-32 | R6-40K-T4-32
 R6-50K-T4-32

| MODEL | R6-25K-T3-32 | R6-30K-T3-32 | R6-33K-T3-32 | R6-36K-T3-32 | R6-36K-T4-32 | R6-40K-T4-32 | R6-50K-T4-32 |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------|--------------|--------------|---------------------|--------------|
| DC Input | | | | | | | |
| Max. PV Array Power [Wp]@STC | 37500 | 45000 | 49500 | 54000 | 54000 | 60000 | 75000 |
| Max. DC Voltage [V] | | | | 1100 | | | |
| MPPT Voltage Range [V] | | | | 180 ~ 1000 | | | |
| Rated DC Voltage [V] | | | | 600 | | | |
| Start Voltage [V] | | | | 200 | | | |
| Min. DC Voltage [V] | | | | 180 | | | |
| Max. DC Input Current [A] | 32/32/32 | | | | | 32/32/32/32 | |
| Max. DC Short Circuit Current [A] | 38.4/38.4/38.4 | | | | | 38.4/38.4/38.4/38.4 | |
| No. of Strings per MPPT | 2/2/2 | | | | | 2/2/2/2 | |
| No. of MPPT | 3 | | | | | 4 | |
| DC Switch | Integrated | | | | | | |
| AC Output | | | | | | | |
| Rated AC Power [W] | 25000 | 30000 | 33000 | 36000 | 36000 | 40000 | 50000 |
| Max. Apparent Power ^{*1} [VA] | 25000 | 33000 | 36300 | 39600 | 39600 | 44000 | 50000 |
| Rated Output Current [A]@230Vac | 36.3 | 43.5 ^{*2} | 47.8 | 52.2 | 52.2 | 58 | 72.5 |
| Max. Output Current [A] | 37.9 | 50 | 55 | 60 | 60 | 66.7 | 75.8 |
| Rated AC Voltage/Range [V] | 3L+N+PE, 220/380, 230/400, 240/415; 180 ~ 280/312 ~ 485 | | | | | | |
| 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% | | | | | | |
| Efficiency | | | | | | | |
| Max. Efficiency | 98.8% | | | | | | |
| Euro Efficiency | 97.5% | | | | | | |
| Protection | | | | | | | |
| 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 | Integrated | | | | | | |
| Interface | | | | | | | |
| 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) | | | | | | |
| General Parameters | | | | | | | |
| 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 | Intelligent Fan cooling | | | | | | |
| Ambient Humidity | 0-100% Non-condensing | | | | | | |
| Altitude | 4000m (>3000m Power Derating) | | | | | | |
| Noise [dBA] | <50 | | | | | | |
| Ingress Protection | IP65 | | | | | | |
| Mounting | Wall Mounting | | | | | | |
| Dimensions [H*W*D] [mm] | 473*659.4*240 | | | | | | |
| Weight [kg] | 35 | | | | | 37 | 37.5 |
| 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 0-21, 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 AS4777.2, Rated AC Current for R6-30K-T3-32 is 43.4A