

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 Ristance 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