



R5 3–8K Single Phase On-Grid Inverter

The R5 series represents SAJ's advanced on-grid solar inverters, boasting high efficiency, optional AFCI, quiet heat emission, and a reliable remote control connection. Covering a range of 3–8kW, featuring 2 MPPTs, and designed for single-phase grid systems.



- Lightning protection, High precision leakage monitoring
- Low standby consumption High efficiency, high yield
- APP connection, All data at real time
- Remote maintenance, Remote configuration
- Quiet generation, No noise pollution
- Intelligent & grid-friendly, Active response to grid dispatch

R5-3K-S2-15 | R5-5K-S2-15
R5-6K-S2-15 | R5-8K-S2-15

MODEL	R5-3K-S2-15	R5-5K-S2-15	R5-6K-S2-15	R5-8K-S2-15
DC Input				
Max. PV Array Power [Wp]@STC	4500	7500	9000	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]		15/15		30/15
Max. DC Short Circuit Current [A]		18/18		36/18
No. of Strings per MPPT		1/1		2/1
No. of MPPT			2	
DC Switch			Integrated	
AC Output				
Rated AC Power [W]	3000	5000	6000	8000
Max. Apparent Power ^{*1} [VA]	3300	5500	6000	8000
Rated Output Current [A]@230Vac	13.1	21.8 ^{*2}	26.1	34.8
Max. Output Current [A]	14.4	23.9	26.1	34.8
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%		
Efficiency				
Max. Efficiency	97.8%	98.1%	98.2%	98.3%
Euro Efficiency	97.2%	97.6%	97.6%	97.8%
MPPT Efficiency			>99.9%	
Protection				
Internal Overvoltage Protection			Integrated	
DC Insulation Resistance Detection			Integrated	
DC Reverse Polarity Protection			Integrated	
Grid Monitoring			Integrated	
GFCI Monitoring			Integrated	
DCI Monitoring			Integrated	
AC Short Circuit Current Protection			Integrated	
AC Grounding Detection			Integrated	
DC Surge Protection			Type II	
AC Surge Protection			Type III (Type II optional)	
Anti-islanding Protection			Integrated	
Interface				
DC Connection			MC4/H4	
AC Connection		Plug-in Connector		Terminal Block
Display			LED+APP	
Communication Port			RS232(USB)+RS485(RJ45)+DRM	
Communication			Wi-Fi/Ethernet/4G(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		Natural Convection		
Ambient Humidity		0-100% Non-condensing		
Altitude		4000m (>3000m Power Derating)		
Noise [dBA]		<25		
Ingress Protection		IP65		
Mounting		Wall Mounting		
Dimensions [H*W*D] [mm]		389*367*143		429*418*177
Weight [kg]		12.2		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, IEC 61683, IEC 60068, 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 VDE-ARN-N 4105, Rated AC Current for R5-5K-S2-15 is 20A; According to AS4777.2, Rated AC Current for R5-5K-S2-15 is 21.7A