

**marvel<sup>®</sup>** Tech  
SUN-40/45/50K-G04



Max. 4 MPPT trackers, Max. efficiency up to 98.7%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



# Technical Data

Model	SUN-40K-G04	SUN-45K-G04	SUN-50K-G04
<b>PV String Input Data</b>			
Max. PV Input Power (kW)	52	58.5	65
Max. PV Input Voltage (V)		1100	
Start-up Voltage (V)		250	
MPPT Voltage Range (V)		200-1000	
Rated PV Input Voltage (V)		600	
Max. Operating PV Input Current (A)	40+40+40		40+40+40+40
Max. Input Short Circuit Current (A)	60+60+60		60+60+60+60
No. of MPP Trackers/ No. of Strings MPP Tracker	3/3+3+3		4/3+3+3+3
<b>AC Output Side</b>			
Rated AC Output Active Power (kW)	40	45	50
Max. AC Output Apparent Power (kVA)	44	49.5	55
Rated AC Output Current (A)	60.6/58	68.2/65.2	75.8/72.5
Max. AC Output Current (A)	66.7/63.8	75/71.7	83.3/79.7
Rated Output Voltage/Range (V)		220/380V ,230/400V	0.85Un-1.1Un
Grid Connection Form		3L/N/PE	
Rated Output Grid Frequency/Range(Hz)		50/45-55, 60/55-65	
Power Factor Adjustment Range		0.8 leading to 0.8 lagging	
Total Current Harmonic Distortion THDi		<3%	
DC Injection Current		<0.5%In	
<b>Efficiency</b>			
Max. Efficiency		98.7%	
Euro Efficiency		98.1%	
MPPT Efficiency		>99%	
<b>Equipment Protection</b>			
DC Polarity Reverse Connection Protection		Yes	
AC Output Overcurrent Protection		Yes	
AC Output Overvoltage Protection		Yes	
AC Output Short Circuit Protection		Yes	
Thermal Protection		Yes	
DC Terminal Insulation Impedance Monitoring		Yes	
DC Component Monitoring		Yes	
Ground Fault Current Monitoring		Yes	
Power Network Monitoring		Yes	
Island Protection Monitoring		Yes	
Earth Fault Detection		Yes	
Overvoltage Load Drop Protection		Yes	
Residual Current (RCD) Detection		Yes	
Surge Protection Level		TYPE II(DC), TYPE II(AC)	
<b>Interface</b>			
Communication Interface		RS485/RS232	
Monitor Mode		GPRS/WIFI/Bluetooth/4G/LAN(optional)	
<b>General Data</b>			
Operating Temperature Range (°C)		-25 to +60 °C, >45°C Derating	
Permissible Ambient Humidity		0-100%	
Permissible Altitude (m)		4000m	
Noise (dB)		<65	
Ingress Protection(IP) Rating		IP 65	
Inverter Topology		Non-Isolated	
Over Voltage Category		OVC II(DC), OVC III(AC)	
Cabinet Size (WxHxD mm)		434×570×243 (Excluding Connectors and Brackets )	
Weight (kg)		37.1	
Warranty		5 Years	
Type of Cooling		Intelligent Air Cooling	
Grid Regulation		IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105	
Safety EMC/Standard		IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	

