

**VEICHI**

# SI Series Off Grid/Hybrid Inverter

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Pure Sine Wave Output



Programmable Supply Priority



Work with or without Battery



Convenient Design & Installation

## Model Description

### SIS 1 - 5K - 48 - S

**Product Series**

SIS: Single phase output  
SIT: Three phase output

**Capacity Rating**

5K : 5kw(or 5kWh for battery)  
1.5K : 1.5kW  
3K : 3kW  
.....: .....

**Product Type**

S : Off-Grid  
H : Hybrid

**Voltage for Battery**

24 : 24V DC  
48 : 48V DC  
.....: .....

# Hybrid

MODEL	SIS-3K-H	SIS-5K-H	SIS1-5.6K-H	SIS1-6K-H	SIT-12K-H	SIT-15K-H	SIT-30K-H
Rated Output Power	3000W	5000W	5600W	6000W	12000W	15000W	30000W
<b>GRID-TIE OPERATION</b>							
<b>PV INPUT (DC)</b>							
Nominal DC Voltage / Maximum DC Voltage	360VDC / 500VDC	360VDC / 450 VDC	360VDC / 450 VDC	360VDC / 500 VDC	720VDC / 1000 VDC	720VDC / 1000 VDC	720VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150VDC	120VDC / 150VDC	110VDC / 120VDC	120VDC / 150VDC	320VDC / 350VDC	320VDC / 350VDC	320VDC / 350VDC
MPPT Voltage Range	120VDC ~ 430VDC	120VDC ~ 430VDC	120VDC ~ 430VDC	120VDC ~ 430VDC	350VDC ~ 950VDC	350VDC ~ 950VDC	350VDC ~ 900VDC
Number of MPPT Trackers / Maximum Input Current	1 / 13A	1 / 23A	1 / 27A	1 / 23A	2 / A:27A, B:27A		3 / A:26A, B:26A, C:26A
<b>GRID OUTPUT (AC)</b>							
Nominal Output Voltage	220/230/240 VAC	220/230/240 VAC	220/230/240 VAC	220/230/240 VAC	230VAC (P-N) / 400VAC (P-P)		
Output Voltage Range	184~264.5 VAC or 195.5~253 VAC (Selectable)				184~265 VAC per phase		
Nominal Output Current	13A	21.7A	24.3A	26.1A	17.4A per phase	21.7A per phase	43.5A per phase
Power Factor	>0.99	>0.99	>0.9	>0.9	0.9 lag ~ 0.9 lead	0.9 lag ~ 0.9 lead	0.9 lag ~ 0.9 lead
<b>EFFICIENCY</b>							
Maximum Conversion Efficiency (DC/AC)	95%	95%	96%	95%	96%	96%	96.5%
<b>OFF-GRID OPERATION</b>							
<b>AC INPUT</b>							
AC Start-up Voltage / Auto Restart Voltage	120~140VAC / 180VAC						
Acceptable Input Voltage Range	90~280 VAC or 170~280 VAC				170~290 VAC per phase		170~280 VAC per phase
Frequency Range	50Hz/60Hz (Auto sensing)						
Maximum AC Input Current	40A	40A	40A	40A	40A	40A	50A
<b>PV INPUT (DC)</b>							
Maximum DC Voltage	500VDC	450VDC	450VDC	500VDC	1000VDC	1000VDC	1000VDC
MPPT Voltage Range	120VDC ~ 430VDC	120VDC ~ 430VDC	120VDC ~ 430VDC	120VDC ~ 430VDC	350VDC ~ 950VDC	350VDC ~ 950VDC	350VDC ~ 950VDC
Number of MPPT Trackers / Maximum Input Current	1 / 13A	1 / 27A	1 / 27A	1 / 27A	2 / A:27A, B:27A		3 / A:26A, B:26A, C:26A
<b>BATTERY MODE OUTPUT (AC)</b>							
Nominal Output Voltage	220/230/240VAC	220/230/240VAC	220/230/240VAC	220/230/240VAC	230VAC (P-N) / 400VAC (P-P)		
Output Waveform	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave
Efficiency (DC to AC)	93%	93%	93%	93%	91%	91%	96%
<b>HYBRID OPERATION</b>							
<b>PV INPUT (DC)</b>							
Nominal DC Voltage / Maximum DC Voltage	360VDC / 500VDC	360VDC / 450VDC	360VDC / 450VDC	360VDC / 450VDC	720VDC / 1000 VDC	720VDC / 1000 VDC	720VDC / 1000 VDC
Start-up Voltage / Initial Feeding Voltage	120VDC / 150VDC	120VDC / 150VDC	110VDC / 120VDC	120VDC / 150VDC	320VDC / 350VDC	320VDC / 350VDC	320VDC / 350VDC
MPPT Voltage Range	120VDC ~ 430VDC	120VDC ~ 430VDC	120VDC ~ 430VDC	120VDC ~ 430VDC	350VDC ~ 950VDC	350VDC ~ 950VDC	350VDC ~ 900VDC
Number of MPPT Trackers / Maximum Input Current	1 / 13A	1 / 27A	1 / 27A	1 / 27A	2 / A:27A, B:27A		3 / A:26A, B:26A, C:26A
<b>GRID OUTPUT (AC)</b>							
Nominal Output Voltage	220/230/240VAC	220/230/240VAC	220/230/240VAC	220/230/240VAC	230VAC (P-N) / 400VAC (P-P)		
Output Voltage Range	184~264.5 VAC or 195.5~253 VAC (Selectable)				184~265 VAC per phase		
Nominal Output Current	13A	21.7A	24.3A	26.1A	17.4A per phase	21.7A per phase	43.5A per phase
<b>AC INPUT</b>							
AC Start-up Voltage / Auto Restart Voltage	120~140VAC / 180VAC						
Acceptable Input Voltage Range	90~280 VAC or 170~280 VAC				170~290 VAC per phase		170~280 VAC per phase
Maximum AC Input Current	40A	40A	40A	40A	40A	40A	50A
<b>BATTERY MODE OUTPUT (AC)</b>							
Nominal Output Voltage	220/230/240VAC	220/230/240VAC	220/230/240VAC	220/230/240VAC	230VAC (P-N) / 400VAC (P-P)		
Efficiency (DC to AC)	93%	93%	93%	93%	91%	91%	96%
<b>BATTERY &amp; CHARGER</b>							
Nominal DC Voltage	48VDC	48VDC	48VDC	48VDC	40VDC ~ 62VDC	40VDC ~ 62VDC	500VDC ~ 800VDC
Maximum Charge Current	60A	100A	120A	120A	250A	300A	50A
<b>PROTECTION</b>							
Over temperature	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Battery low	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Battery high	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Output short circuit	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Output voltage too high	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Output voltage too low	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Bus voltage high	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Bus voltage low	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
PV voltage is over limitation	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
<b>GENERAL</b>							
<b>PHYSICAL</b>							
Dimension, D×W×H (mm)	140×295×468	140×295×468	140×295×468	140×295×468	255×660×750	255×660×750	255×660×750
Net Weight (kgs)	11	12	12	12	70	73	73
<b>INTERFACE</b>							
Parallel Function	9 units	9 units	9 units	9 units	6 units	6 units	6 units
Communication Interface	USB/RS232/WIFI/Dry-contact		USB/RS232/RS485/WIFI/Dry-contact		USB/RS232/RS485/WIFI/CAN		
<b>ENVIRONMENT</b>							
Humidity	0% to 90% Relative Humidity (Non-condensing)				0% to 100% Relative Humidity (Non-condensing)		
Operating Temperature	-10℃ to 50℃	-10℃ to 50℃	-10℃ to 50℃	-10℃ to 50℃	-25℃ to 60℃, >45℃ power derating		