

6

kW



BRIGGS &amp; STRATTON

## SIMPLI<sup>PHI</sup> HYBRID INVERTER



### SPECIFICATIONS

#### OVERVIEW

<b>Model Designation</b>	SPHI-IN-6
<b>Environmental Protection</b>	IP65
<b>Protective Class</b>	1
<b>Battery Input Data</b>	
<b>Nominal Battery Voltage</b>	48VDC
<b>DC Voltage Range</b>	40~62VDC
<b>Maximum Charging Voltage</b>	62VDC (Configurable)
<b>Maximum Charging Current</b>	100 A
<b>Maximum Discharging Current</b>	120 A
<b>Charging Curve</b>	3 Stages / Float
<b>Charging Strategy for Li-Ion Battery</b>	Self-adaption to BMS
<b>Number of DC Connections</b>	1
<b>PV String Input Data</b>	
<b>Maximum DC Input Power</b>	7,500 W
<b>Nominal DC Voltage</b>	360VDC
<b>Maximum DC Input Voltage</b>	600VDC
<b>MPPT Range</b>	120~550VDC
<b>Start-up Voltage / Initial Feed In Voltage</b>	160VDC / 125VDC
<b>Maximum Input Current per MPPT</b>	15 A
<b>Maximum Isc PV</b>	21 A
<b>Maximum Inverter Back Feed Current to Array</b>	0 A
<b>Number of MPP Trackers</b>	2 with 2 inputs each

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Hybrid Inverter



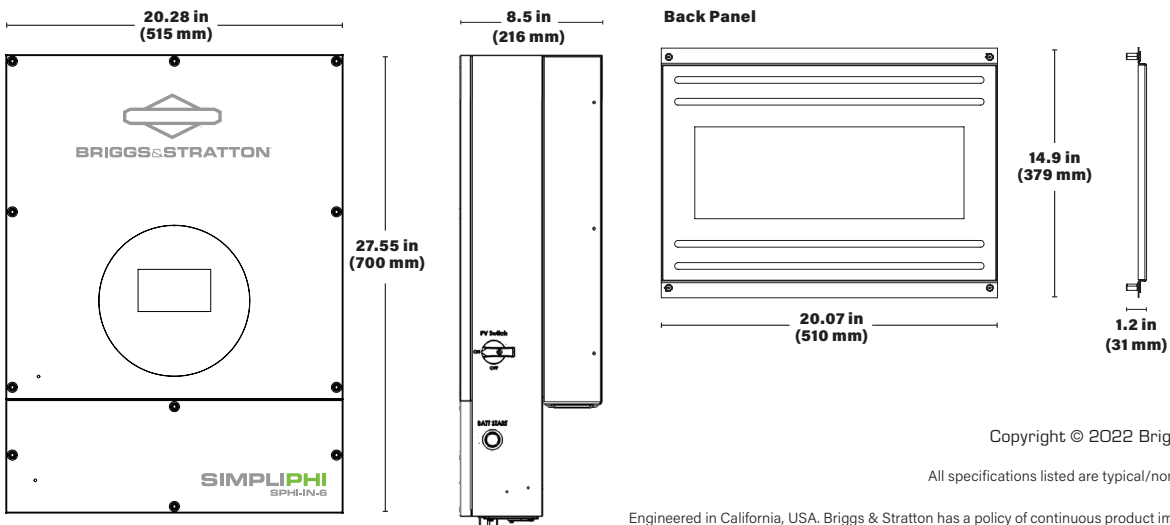
AC Output Data (On-grid)	
Nominal Apparent Power Output to Utility Grid	6,000 VA
Nominal Output Voltage	220VAC / 240VAC L1-L2, 110VAC / 120VAC L-N
Nominal Output Frequency	50 / 60 Hz
Output Frequency Range	47.5~51.5 Hz or 59.3~60.5 Hz
Output Voltage Range	105.5~132VAC per phase
Inrush Current/Duration	30 A per phase / 20 ms
O/P DC Component	<100 mA
Output Power Factor	>0.99 (Adjustable from 0.9 leading to 0.9 lagging)
Output THDi (@Nominal Output)	<3%
Switch Over Time (Grid Down)	<8 ms
AC Output Data (Back-up)	
Maximum Output Apparent Power	6,000VA
Instantaneous Power (10ms)	12,000VA
Surge Power (5 sec)	9,000VA
Maximum Output Active Power	6,000 W
Nominal Output Voltage	220VAC / 240VAC L1-L2, 110VAC / 120VAC L-N
Nominal Output Frequency - Auto Sensing	50/60 (±0.1 Hz)
Output THDv (@Linear Load)	<3%
Output THDv (@PF 0.8 Non-Linear Load)	<5%
Parallel Function	Yes
Parallel Units	9
Automated Generator Start	Included
Efficiency	
Maximum Solar to Utility Efficiency	96.50%
Maximum Battery to Load Efficiency	91.00%
Protection	
Anti-Islanding Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
AFCI (Arc-Fault)	Integrated
Ground Fault Monitoring	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Output Over Current Protection	Integrated - 90 A per phase

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Protection	
Output Short Protection	Integrated
Rapid Shut Down Relay	Integrated - AP Smart devices
General Data	
Operating Temperature Range	-13 – 140 °F (-25 – 60 °C)
Transformerless	Yes
Consumption Modes	UPS, Self-Consumption, TOU, Off-Grid Backup, Grid-Tied without Batteries
Relative Humidity	0~90%
Operating Altitude	<13,123 ft (4,000 m)
Cooling	External Force Convection
Noise	<50 dB
Dimensions (W x H x D)	20.28 x 27.55 x 8.5 in (515 x 700 x 216 mm)
Weight	86 lb (39 kg)
Back Panel Dimensions (W x H x D)	20.07 x 14.9 x 1.2 in (510 x 379 x 31 mm)
Communications Interface	
User Interface	LCD / Phone Application (iOS & Android)
Communication with BMS	CANBUS
Communications Between Inverters	CANBUS
Communication with Cloud - API with Grid Services	via EnergyTrak™ Gateway
Communication Port	RS-232
Intelligent Slot	RS232 / USB, BMS, Wi-Fi
Certifications / Standards	
Grid Regulation	UL 1741SA / TR-2020, IEEE1547.1-2020
Safety Regulation	6-1, 6-4 IEC / EN 62109-1&2
EMC	EN 61000-6-2, EN 61000-6-3



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