

SS Series

Static Inverter 60 kVA - 100 kVA Single Phase

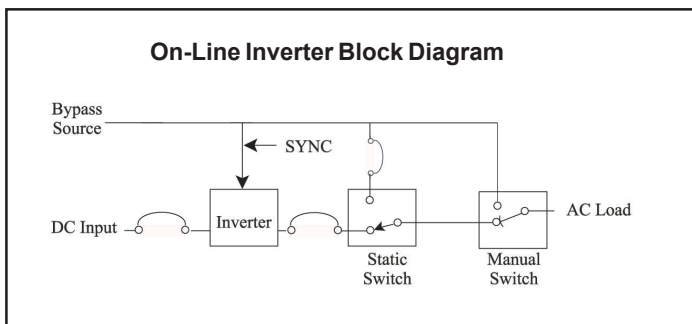
The SS Series Inverters are true on-line ferroresonant transformer based designs intended for use in UPS systems or stand-alone applications. The inverter's basic function is to convert DC power from a rectifier/charger or battery to an extremely accurate regulated AC output for powering the load.



Shown with optional meters and breakers

- ◆ High reliability - MTBF exceeds 140,000 hours (16 years)
- ◆ Patented zero break static switch - no break, even in case of inverter failure
- ◆ High efficiency
- ◆ Front Panel accessible indicators
- ◆ Unique crest factor circuitry provides full capacity for non-linear loads
- ◆ Full complement of meters
- ◆ Industrial grade - built to operate in extreme conditions
- ◆ Manufactured under stringent quality control standards approved by the nuclear industry
- ◆ All components are accessible from the front - no side or back clearance required
- ◆ Integral make-before-break, manually operated bypass switch - allows the load to continue operating during maintenance
- ◆ Expert technicians available for warranty service, start-up service, preventive maintenance programs, and on-site training

On-Line Inverter Block Diagram



Cabinet Dimensions

Cabinet Style	Dimensions			
	H	x	W	x D
Inches (mm)				
GH	85	x	85	x 36
	(2159)	x	2159	x 914)
HH	85	x	112	x 36
	(2159)	x	2844	x 914)
G	85	x	29	x 36
	(2159)	x	737	x 914)
H	85	x	56	x 36
	(2159)	x	1422	x 914)

Note: GH cabinet style is made up of G & H size cabinets. The HH cabinet style is made up of two H size cabinets.

Certain optional features and/or combinations may require larger cabinets. Contact factory.

Model	kVA	kW	DC Bus	DC - AC Efficiency	Heat Loss¹ BTU/Hr	Cabinet Style	Circuit Breaker Ampacity			Weight²	
							DC Input	Bypass Input			
								120/60	220/50	lbs	kg
SS12600P	60	60	130	84	31214	GH	800	700	350	5350	2432
SS25750P	75	75	260	86	33346	GH	500	800	450	7300	3318
SS251000P	100	100	260	87	40815	HH	700	1100	600	8625	3920

¹At 0.8 P.F. Output

²Weight of 60 Hz units; 50Hz 7% more

General Specifications

Inverter

DC Input

Voltage: 105 - 140VDC 60kVA
210 - 280VDC 75 - 100kVA

AC Output

Capacity: 60, 75 & 100kVA
Voltages: 120, 220, VAC $\pm 1\%$, 1 phase,
2-wire
Regulation: $\pm 2\%$
Frequency: 50 or 60Hz $\pm 0.5\%$
Load Power Factor: 0.8 to 1.0
Harmonic Distortion: $< 5\%$ THD
Overload: 120% Continuous
500% for 1 cycle
Crest Factor: 3:1 at full load

Conversion Efficiency

Inverter DC - AC: 84 - 87% at full load

Static Switch

Normal Source: Inverter Output
Alternate Source: Bypass Supply
Voltage: Bypass Supply voltage must
match the inverter output voltage

Transfer Time: Zero (make-before-break in
both directions)

Transfer Criteria: 1. Inverter Bridge Failure
(from inverter to bypass)
2. Load Overcurrent
3. Low Inverter Voltage
4. Manual Pushbutton Operation

Overcurrent Transfer: 120%
Overload Capacity 1000% for 1 cycle
Retransfer Criteria: 1. Inverter in sync
(from bypass to inverter)
2. Auto Retransfer Defeat Switch Off

Manual Bypass Switch

(Optional Remote Bypass Switch Available)
Switch Style: 600 VAC, rotary drum,
make-before-break switching
Transfer time: Zero
Transfer Criteria: The inverter must be in sync
with the bypass

Cabinet Options:

Top Mounted Dripshield
Fungus/Moisture Spray
Vermin Screen

Controls

Inverter to Load Pushbutton
Bypass to Load Pushbutton
Precharge Pushbutton

Environmental

Ambient Temperature: 0°C - 40°C (32°F - 104°F)
Relative Humidity: 0 - 95% non-condensing
Operating Altitude: 0 - 2500 meters (8,300 ft.)
Audible Noise: 70 - 78dB(A) @ 1.5 meters
typical
Addition of drip shield may increase the noise by 1-3dB (A) typical
Cooling: Forced air

Cable Entry

Top or bottom via removable
gland plate (one plate per bay)

Standard Features

Optional Features

Meters:

AC Inverter Output Voltmeter
AC Output Ammeter
Inverter Output Frequency Meter
Bypass Source Input Voltmeter
Bypass Frequency Meter
Bypass Ammeter

Meters:

DC Input Voltmeter
DC Input Ammeter
System Output Voltmeter

Circuit Breakers:

DC Input
Bypass Source Input
Inverter Output (non-automatic)

Indicator & Alarms*:

Battery Supplying Load
Bypass Source Failure
In Sync (Pilot Light)
Fan Failure
Low DC Disconnect
Inverter Failure
Static Switch Transfer (alarm)

Indicator & Alarms*:

High DC Voltage
Low DC Voltage
High DC Disconnect
Negative to Ground
Positive to Ground
Over Temperature
Reverse Polarity
Bypass Source Available
Low AC Output
Bypass Source Low Voltage
Bypass Source High Voltage
High AC Output
Out of Sync
Inverter Fuse Blown
Static Switch Fuse Blown
Inverter Available

*Alarms provide one SPDT contact rated for 3 Amps at 120VAC
Consult Factory for Additional Options



All facilities are ISO 9001 Certified

Specifications subject to change without notice

World Headquarters:

875 Dearborn Drive,
Columbus, Ohio 43085
Phone: 1-614-846-7500
1-800-635-7300
Fax: 1-614-885-3990

Asia Pacific Headquarters

AMETEK Singapore Office
43 Changi South Ave 2 #04-01
Singapore 486164
Phone: 65-6484-2388
Fax: 65-6481-6588

Latin American/

South American Headquarters:

Olive 1954 2000 Rosario, Argentina
Phone: +54-341-455-3332
Fax: +54-341-454-0142

Mexico Office:

Avenida Ejercito Nacional
Number 423 2o. piso Colonia Granada
C.P. 11520 Miguel Hidalgo, Mexico, D.F.
Phone: +52 55 5250 1232

Visit our Websites:

English: www.solidstatecontrolsinc.com Nuclear: www.nuclearups.com

Spanish: www.solidstatecontrolsinc-esp.com Russian: www.solidstatecontrolsinc-ru.com

Chinese: www.solidstatecontrolsinc-chn.com Brazilian Portuguese: www.solidstatecontrolsinc-bz.com