

3 SS SERIES

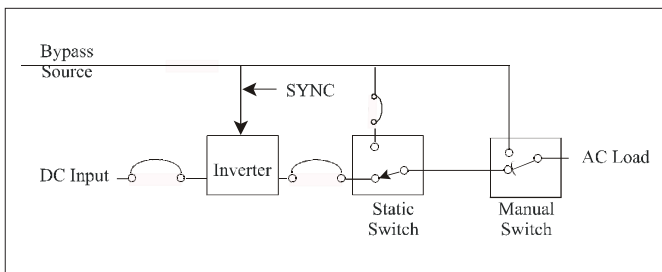
Three Phase Static Inverter 10kVA - 100kVA

The 3SS Series Inverters are true on-line ferroresonant transformer based devices intended for UPS systems or in standalone 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 indicators

- High reliability - exceeds 140,000 hours (16 years) MTBF
- Patented Zero-Break Static Switch - no break, even in case of inverter failure
- Patented Scott-T Transformer - maintains 5% regulation with 100% unbalanced load
- Front Panel accessible indicators
- Unique crest factor circuitry provides full capacity for non-linear loads
- Industrial grade - built to operate in extreme no side or back clearance required
- Integral make-before-break manually operated bypass switch - allows load to continue operating during maintenance



Cabinet Dimensions				
Cabinet Style	H	W		D
		x	x	
Inches (mm)				
B	78 (1981)	x	56 1422	x 36 (914)
H	85 (2159)	x	56 1422	x 36 (914)
GH	85 (2159)	x	85 2159	x 36 (914)
HH	85 (2159)	x	112 2844	x 36 (914)
GHH	85 (2159)	x	141 3581	x 36 (914)
G	85 (2159)	x	29 737	x 36 (914)

Note:

The **GH** cabinet style is made up of **G & H** size cabinets.

The **HH** cabinet style is made up of two **H** size cabinets.

The **GHH** cabinet style is made up of one **G** size and two **H** size cabinets.

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

Model	kVA	kW	Nom. DC Volts	DC-AC Efficiency	Heat Loss Watts	Circuit Breaker Ampacity				Cabinet Style	Weight ¹	
						DC Input	AC Bypass Input				lbs	kg
							208/60	380/50	415/50			
3SS12100P	10	10	130	75	3333	150	40	20	20	B	1700	773
3SS12150P	15	15	130	77	4481	225	60	30	25	B	2500	1136
3SS12200P	20	20	130	79	5317	300	70	40	35	H	3250	1477
3SS12300P	30	30	130	83	6144	400	125	60	50	GH	3450	1568
3SS12400P	40	40	130	83	8105	600	150	80	70	GH	4525	2057
3SS12500P	50	50	130	83	10241	700	175	100	90	GH	5125	2330
3SS12600P	60	60	130	83	12289	800	225	125	100	HH	5650	2568
3SS25750P	75	75	260	85	13235	500	300	150	125	HH	7575	3443
3SS251000P	100	100	260	85	17647	700	350	200	175	GHH	9500	4318

¹ Weight of 60 Hz units, 50 Hz 7% more

General Specifications

Inverter

DC Input

Voltages: 105 - 140 VDC 10 - 60 kVA
210 - 280 VDC 75 -100 kVA

AC Output

Capacity: 10 - 100 kVA
Voltages: 208/120, 380/220, 415/240,
480/277 VAC
Regulation: $\pm 2\%$
Frequency: 50 or 60 Hz $\pm 0.5\%$
Load Power Factor: 0.8 to 1.0
Harmonic Distortion: $< 5\%$ total THD
Overload: 120% continuous
500% for one cycle
Crest Factor: 3:1 at full load
Voltage Unbalance: For balanced loads, the voltage
unbalance will be less than $\pm 2\%$;
For 100% load unbalance, the output
voltage will be balanced to within $\pm 5\%$

Conversion Efficiency

Inverter DC - AC: 80 - 87% at full load

Transient Protection

4000V for 10 microseconds with 40 ohms
or greater transient source impedance

Static Switch

Normal Source: Inverter Output
Alternate Source: Bypass Supply (Must be 4-wire)
Voltage: Bypass Supply Voltage must match
the inverter output voltage
Transfer Time: Zero (make-before-break in both
directions)
Transfer Criteria: (from inverter to bypass)
1. Inverter Bridge Failure
2. Load Overcurrent
3. Low Inverter Voltage
4. Manual Pushbutton Operation
Overcurrent Transfer: 120%
Overload Capacity: 1000% for 1 cycle
Retransfer Criteria: (from bypass to inverter)
1. Inverter in sync
2. Auto Retransfer Defeat Switch Off

Manual Bypass Switch

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

Environmental

Ambient Temperature: 0°C - 40°C (32°F - 104°F)
Relative Humidity: 0 - 95% non-condensing
Operating Altitude: 0 to 2500 meters (8,300 ft.)
Audible Noise: 70 - 78 dB(A)@1.5 meters
Cooling: Forced air

Cable Entry

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

Controls

Inverter to Load Pushbutton
Bypass to Load Pushbutton
Precharge Pushbutton

Standard Features

Meters:

AC Inverter Output Voltmeters
AC Output Ammeters
Inverter Output Frequency Meter

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)

Optional Features

Meters:

DC Input Voltmeter
DC Input Ammeter
System Output Voltmeter
Bypass Source Input Voltmeter
Bypass Frequency Meter
Bypass Ammeter

Indicator & Alarms*:

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

Cabinet Options

Top Mounted Dripshield
Fungus/Moisture Spray
Vermin Screen

*Alarms provide one SPDT contact rated for 3 amps at 120VAC
Consult factory for additional options



Specifications subject to change without notice

*The Columbus, Ohio facility
is ISO 9001 Certified*

World Headquarters

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

Latin American/South American Headquarters

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

Asia Pacific Headquarters

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

Mexico Office

Calle Lago Meru
No. 32 3rd Floor
Mexico City, Mexico 11520 D.F.
Phone: +52-555-250-1232
Fax: +52-555-250-7981

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