# TreStar Sx®

## 12 - 80 kVA ▪ Three Phase On-Line ▪ Uninterruptible Power System

The TreStar SX® is a true online, double conversion UPS built tough to withstand industrial environments, and sensitive enough to handle the most delicate electronic and computer equipment. With features like a wide input voltage range, and advanced battery management, the TreStar SX is the smart choice for applications where continuous power is a MUST.

The TreStar SX totally isolates the connected load from the AC primary supply, protecting it from voltage sags, spikes, transients, RFI, and frequency variations. In the event of an AC power failure, an internal alarm sounds and the UPS will continue providing safe, clean power without interruption. When the AC power returns to normal, the TreStar SX automatically recharges the batteries to be ready for the next power disturbance. With available options such as remote diagnostics and a remote alarm unit, you'll know immediately when power problems or outages occur.

Reliability begins with design. The TreStar SX is designed to meet the power protection needs of today's sensitive electronic and computer loads. The TreStar SX is designed with circuitry to prevent unexpected failure. A front-mounted, user-friendly diagnostic display gives complete access to 15 critical measurements and 33 alarms, including measurements made just before and after an inverter stop.

The TreStar SX is designed to protect and extend the battery system -- the most sensitive and expensive component of a UPS System. The TreStar SX has superior battery diagnostic circuits and a weekly self-initiated diagnostic battery test to provide the highest level of protection against overheating, deep discharge and low current.

## Features

### General:

- True Online, Double Conversion UPS
- Automatic and Front Panel Operated Diagnostics
- Automatic Systems Bypass w/ Manual Isolation Switch
- Isolated Redundant Ready Separate Bypass Feed
- Internal Maintenance Bypass

### Input:

- Input Voltage Rating: 208 VAC or 480 VAC (contact factory for other)
- Input Voltage Range: +/- 20% (166 - 250 VAC, 384 - 576 VAC)
- Input Power Factor: 0.82 typical without Harmonic Filter
- Input frequency: 60 Hz +/- 5%

### Output:

- Voltage Rating: 208 VAC or 480 VAC (contact factory for other)
- Voltage Regulation: +/- 1% w/balanced load, 3% w/100% unbalanced load
- THD: Less than 3% for 100% linear, less than 5% for 100% nonlinear load
- Frequency Regulation: +/- 0.05%

## Options

- REDDI PC and Network Communications Management Software
- REDDI SNMP Network Adapter
- External Maintenance Bypass
- 10% Input Harmonic Filter
- Extended Service and Maintenance
- External Battery Cabinets for Extended Battery Runtimes



*Shown with optional battery cabinet.*

## STACO ENERGY PRODUCTS CO.

A Components Corporation of America Company

## Performance and Physical Specifications

| TreStar SX 6024 Models | 12 kVA | | | 18 kVA | | | 24 kVA | | |
|---|---|---|---|---|---|---|---|---|---|
| kVA/kW @ .67 PF | 12/8 | | | 18/12 | | | 24/18 | | |
| Input Voltage | 208Y/120 | 480 | 480 | 208Y/120 | 480 | 480 | 208Y/120 | 480 | 480 |
| Output Voltage | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480/277 | 208Y/120 | 208Y/120 | 480Y/277 |
| Field Upgradeable (kVA Output) | 18/24 | 18/24 | 18/24 | 24 | 24 | 24 | -- | -- | -- |
| Nominal Input Current (Amps) | 37 | 16 | 16 | 57 | 25 | 25 | 76 | 33 | 33 |
| Maximum Input Current (Amps) | 42 | 19 | 19 | 60 | 26 | 26 | 78 | 34 | 34 |
| Nominal Output Current (Amps) | 33 | 33 | 14 | 50 | 50 | 22 | 67 | 67 | 29 |
| System Efficiency @ 100% Load | 88 | 87 | 86 | 88 | 87 | 86 | 88 | 87 | 86 |
| Height x Width x Depth (in.) | 56 x 27.5 x 28.7 | | | 56 x 27.5 x 28.7 | | | 56 x 27.5 x 28.7 | | |
| Weight (lbs.) | 900 | 1200 | 1400 | 900 | 1200 | 1400 | 900 | 1200 | 1400 |

| TreStar SX 6036 Models | 24 kVA | | | 30 kVA | | | 36 kVA | | |
|---|---|---|---|---|---|---|---|---|---|
| kVA/kW @ .67 PF | 24/18 | | | 30/20 | | | 36/24 | | |
| Input Voltage | 208Y/120 | 480 | 480Y/277 | 208Y/120 | 480 | 480Y/277 | 208Y/120 | 480 | 480Y/277 |
| Output Voltage | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480Y/277 |
| Field Upgradeable | 30/36 | 30/36 | 30/36 | 36 | 36 | 36 | -- | -- | -- |
| Nominal Input Current (Amps) | 75 | 33 | 33 | 93 | 40 | 40 | 112 | 49 | 49 |
| Maximum Input Current (Amps) | 78 | 34 | 34 | 97 | 42 | 42 | 118 | 51 | 51 |
| Nominal Output Current (Amps) | 67 | 67 | 29 | 83 | 83 | 36 | 100 | 100 | 43 |
| System Efficiency @ 100% Load | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Height x Width x Depth (in.) | 56 x 27.5 x 28.7 | | | 56 x 27.5 x 28.7 | | | 56 x 27.5 x 28.7 | | |
| Weight (lbs.) | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 |

| TreStar SX 6050 Models | 30 kVA | | | 40 kVA | | | 50 kVA | | |
|---|---|---|---|---|---|---|---|---|---|
| kVA/kW @ .67 PF | 30/24 | | | 40/32 | | | 50/40 | | |
| Input Voltage | 208 | 480 | 480 | 208 | 480 | 480 | 208 | 480 | 480 |
| Output Voltage | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480Y/277 |
| Field Upgradeable | 40/50 | 40/50 | 40/50 | 50 | 50 | 50 | -- | -- | -- |
| Nominal Input Current (Amps) | 115 | 50 | 50 | 127 | 55 | 55 | 157 | 68 | 68 |
| Maximum Input Current (Amps) | 132 | 57 | 57 | 152 | 66 | 66 | 192 | 83 | 83 |
| Nominal Output Current (Amps) | 83 | 83 | 36 | 111 | 111 | 48 | 138 | 138 | 60 |
| System Efficiency @ 100% Load | 87 | 88 | 88 | 87 | 88 | 88 | 87 | 88 | 88 |
| Height x Width x Depth (in.) | 63 x 53.2 x 28.7 | 63 x 35.4 x 28.7 | | 63 x 53.2 x 28.7 | 63 x 35.4 x 28.7 | | 63 x 53.2 x 28.7 | 63 x 35.4 x 28.7 | |
| Weight (lbs.) | 1750 | 1350 | 1350 | 1750 | 1350 | 1350 | 1750 | 1350 | 1350 |

| TreStar SX 6080 Models | 50 kVA | | | 65 kVA | | | 80 kVA | | |
|---|---|---|---|---|---|---|---|---|---|
| kVA/kW @ .67 PF | 50/40 | | | 65/52 | | | 80/60 | | |
| Input Voltage | 208 | 480 | 480 | 208 | 480 | 480 | 208 | 480 | 480 |
| Output Voltage | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480Y/277 | 208Y/120 | 208Y/120 | 480Y/277 |
| Field Upgradeable | 65/80 | 65/80 | 65/80 | 80 | 80 | 80 | -- | -- | -- |
| Nominal Input Current (Amps) | 157 | 68 | 68 | 208 | 90 | 90 | 258 | 112 | 112 |
| Maximum Input Current (Amps) | 192 | 83 | 83 | 254 | 110 | 110 | 311 | 135 | 135 |
| Nominal Output Current (Amps) | 139 | 139 | 60 | 180 | 180 | 78 | 222 | 222 | 96 |
| System Efficiency 100% | 88 | 87 | 86 | 88 | 87 | 86 | 88 | 87 | 86 |
| Height x Width x Depth (in.) | 63 x 53.2 x 28.7 | 63 x 35.4 x 28.7 | | 63 x 53.2 x 28.7 | 63 x 35.4 x 28.7 | | 63 x 53.2 x 28.7 | 63 x 35.4 x 28.7 | |
| Weight (lbs.) | 2200 | 1800 | 1800 | 2200 | 1800 | 1800 | 2200 | 1800 | 1800 |

### Environmental

- Agency Compliance: UL 1778, FCC & CSPR22 Class A
- Transient Surge Suppression: IEEE/ANSI C62.41
- Ambient Operating Temperature: 32 - 104F (-8 to 40 degrees C)
- Acoustical Noise: 52 dBA at 3 feet
- Relative Humidity: 0-95%, non-condensing

### Battery

| Internal Battery | Valve Regulated Lead Acid (VRLA) |
|---|---|
| Recharge Time | Less than 8 hours to 90% w/standard battery |

### Communications

| LCD Display | 2 x 20 Character |
|---|---|
| Communications Ports | RS/232, Dry Contact (AS/400), Remote Alarm |
| SNMP Capability | With optional Network Adapter |
| Emergency Power Off (EPO) | Front panel push button, remote enabled |

# ISE, Inc.

10100 Royalton Rd.
Cleveland, OH 44133 USA
Tel: (440) 237-3200   Fax: (440) 237-1744
http://InstServ.com

STACO ENERGY PRODUCTS CO.
A Components Corporation of America Company

ISO 9001 Certified