

## SOLATRON™ Plus Series - Three Phase Power Conditioners

### Applications

- Automatic Packaging Machinery
- Large Machine Tool Equipment
- UPS Bypass Circuits
- Retail Store
- Process Equipment

### Features

- Rugged, industrial construction
- High overload capability
- High MTBF - No fans used
- No power factor restriction on loads
- Tight regulation for protection against sag (-25%) and swell (+10%) conditions
- No load current interruption for auto-bypass mode
- Status indicating lights
- Shielded, copper wound isolation transformer
- Surge protection to ANSI/IEEE and IEC Standards
- High efficiency (96%) microprocessor controlled on-load tap changer
- Automatic over and under voltage regulation. Auto restart upon power loss and return
- Two year limited warranty

### Certifications and Compliances

-  Listed
  - UL 1012
  - CSA C22.2 No.125
- FCC Rules: complies with Part 15 Subpart J for a Class A computing device

#### Input Surge Suppressor

- UL 1449

### Related Products

- STV100K
- Isolation Transformers



Selection Table

| Output kVA   | Catalog Number  | Vac Input | Vac Output | Ship Weight lbs (kg) |
|--|-----------------|-----------|------------|----------------------|
| <b>208 Vac Input, 208Y/120 Vac Output, 60Hz</b>  |                 |           |            |                      |
| 30   | <b>63TAA330</b> | 208       | 208Y/120   | 750.0 (341.00)       |
| 50   | <b>63TAA350</b> | 208       | 208Y/120   | 950.0 (432.00)       |
| 75   | <b>63TAA375</b> | 208       | 208Y/120   | 1200.0 (545.00)      |
| <b>480 Vac Input, 208Y/120 Vac Output, 60 Hz</b>   |                 |           |            |                      |
| 20   | <b>63TCA320</b> | 480       | 208Y/120   | 600.0 (273.00)       |
| 30   | <b>63TCA330</b> | 480       | 208Y/120   | 750.0 (341.00)       |
| 50   | <b>63TCA350</b> | 480       | 208Y/120   | 950.0 (432.00)       |
| 75   | <b>63TCA375</b> | 480       | 208Y/120   | 1200.0 (545.00)      |
| <b>480 Vac Input, 480Y/277 Vac Output, 60 Hz</b>   |                 |           |            |                      |
| 20   | <b>63TCC320</b> | 480       | 480Y/277   | 600.0 (273.00)       |
| 30   | <b>63TCC330</b> | 480       | 480Y/277   | 750.0 (341.00)       |
| 50   | <b>63TCC350</b> | 480       | 480Y/277   | 950.0 (432.00)       |
| 75   | <b>63TCC375</b> | 480       | 480Y/277   | 1200.0 (545.00)      |
| 100  | <b>63TCC410</b> | 480       | 480Y/277   | 1600 (726.00)        |
| 150  | <b>63TCC415</b> | 480       | 480Y/277   | 2000 (907.00)        |
| 200  | <b>63TCC420</b> | 480       | 480Y/277   | 2300 (1043.00)       |
| <b>600 Vac Input, 208Y/120 Vac Output, 60 Hz</b>   |                 |           |            |                      |
| 20   | <b>63TDA320</b> | 600       | 208Y/120   | 600.0 (273.00)       |
| 30   | <b>63TDA330</b> | 600       | 208Y/120   | 750.0 (341.00)       |
| 50   | <b>63TDA350</b> | 600       | 208Y/120   | 950.0 (432.00)       |
| 75   | <b>63TDA375</b> | 600       | 208Y/120   | 1200.0 (545.00)      |
| <b>Contact Technical Services for custom voltages, kVA sizes. LCD display or power monitoring options.</b> |                 |           |            |                      |

Protection Specifications

|                                    |  |
|------------------------------------|--|
| <b>Under Voltage</b>               | Output voltage will switch to bypass mode when input is less than 50% of nominal. Regulated output voltage will be re-established once input voltage is with specifications. |
| <b>Short Circuit Protection</b>    | Input circuit breaker  |
| <b>Over Temperature Protection</b> | Amber lamp indication of over temperature at approximately 180°C. Unit switches to by-pass mode until internal temperature is reduced to specified values.                   |

Noise Suppression Performance Specifications

|                                      |   |
|--------------------------------------|---|
| <b>Common Mode Noise Attenuation</b> | 150 dB at 100 kHz                       |
| <b>Normal Mode Noise Attenuation</b> | 65 dB at 100 kHz                        |
| <b>Surge Protection</b>              | Tested to ANSI/IEEE standard C62.41 A&B |

## Electrical Specifications

|                              |   |
|------------------------------|---|
| <b>Power Ratings</b>         | 20, 30, 50, 75 kVA, Three Phase *   |
| <b>Nominal Voltages</b>      | See Selection Table   |
| <b>Input Voltage Range</b>   | -25% to +10% of nominal rated voltage   |
| <b>Output Voltage Range</b>  | Regulated to $\pm 3\%$ of nominal voltage with an input voltage range of -25% to +10%.  |
| <b>Response Time</b>         | Responds to any line variation in <1.5 cycles typical.  |
| <b>Technology</b>            | Enhance Voltage Regulation (EVR), Microprocessor controlled electronic tap switching. 6 steps, switched independent of waveform zero cross, with no load interruption. Regulation is RMS based. |
| <b>Operating Frequency</b>   | 57-63 Hz  |
| <b>Load Power Factor</b>     | No Restriction  |
| <b>Insulation Resistance</b> | 100 megohms from winding to core measured at 500 Vdc  |
| <b>Efficiency</b>            | 96% typical   |
| <b>Overload Capability</b>   | 1000% of rated load for 1 second<br>200% of rated load for 1 minute   |
| <b>EMI</b>                   | Less than 0.2 gauss at a distance of 3 ft.  |

\* Contact Technical Services for other ratings.

## Mechanical Specifications

Power Rating: 20–75 kVA, Three Phase

|                    |  |      |     |     |
|--------------------|--|------|-----|-----|
| <b>Indicators</b>  | Indicating Lamps: 2 amber (over temperature and bypass mode), 1 green (regulated output present) |      |     |     |
| <b>Connections</b> | Field wired, terminal blocks   |      |     |     |
| <b>Size</b>        |  | H    | W   | D   |
|                    | in   | 43   | 28  | 26  |
|                    | mm   | 1093 | 712 | 661 |

Power Rating: 100–200 kVA, Three Phase

|                    |  |      |      |     |
|--------------------|--|------|------|-----|
| <b>Indicators</b>  | LCD Status Display, 4 x 20 Character, 3-Button Interface |      |      |     |
| <b>Connections</b> | Field wired, terminal blocks                             |      |      |     |
| <b>Size</b>        |  | H    | W    | D   |
|                    | in   | 65   | 44   | 33  |
|                    | mm   | 1651 | 1118 | 838 |

## Environmental Specifications

|                            |   |
|----------------------------|---|
| <b>Audible Noise</b>       | Less than 65 dBA at 1 meter                 |
| <b>Ambient Temperature</b> | 0° to 40°C Operating,<br>0° to 80°C Storage |
| <b>Operating Altitude</b>  | 10,000 feet without derating                |
| <b>Operating Humidity</b>  | 95% relative (non-condensing)               |

## Design Style

