ROYAL ELECTRIC SUPPLY
COMPANY
3233 W Hunting Park Avenue, Philadelphia PA 19132-1845
(800) 79-ROYAL (215) 221-1200 fax (215) 221-1201
advisors@royalelectric.com www.royalelectric.com
WE GET IT
24/7 Emergency Material Access

SOLATRON™ PLUS SERIES - THREE PHASE POWER CONDITIONERS

The rugged construction of the SOLATRON™ Plus series ensures high performance through inductive loads and poor power factor. This power quality solution for three phase equipment is able to handle many power quality problems including isolation, voltage regulation and surge protection. The lack of fans or batteries ensures long life and maintenance-free reliability.

SUITABLE 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 (regulate output voltage to ±3%) for protection against under voltage (-25%) and over voltage (+10%) conditions
- No load current interruption for auto-bypass mode
- Status indicating lights
- Shielded, copper wound isolation transformer
- Surge protection to ANSI/IEEE 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
- Contact Technical Services for custom voltages: 240 Vac Input, 240Y/139 Vac Output, 60 Hz, 480 Vac Input, 240Y/139 Vac Output, 60 Hz, 600 Vac Input, 240Y/139 Vac Output, 60 Hz .

CERTIFICATIONS AND COMPLIANCES

- c UL us Listed
  - UL 1012
  - UL 1449
  - CSA C22.2 No.107.1

Electrical Specifications

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

① *Contact Technical Services for other ratings or desired options.*

Environmental Specifications

Audible Noise	Less than 65 dBA at 3 feet
Ambient Temperature	0° to 40°C Operating, 0° to 80°C Storage
Operating Altitude	10,000 feet without derating
Operating Humidity	95% relative (non-condensing)

Mechanical Specifications

Indicators	Indicating Lamps for: over temperature; bypass; and regulated output voltage present		
Connections	Field wired, terminal blocks		
Size	H in (mm)	W in (mm)	D in (mm)
	42 (1016)	28 (712)	26 (661)

SOLAHD

For product information:
www.solahd.com
1.800.377.4384

EMERSON™

Selection Table

Output kVA	Catalog Number	Ship Weight lbs (kg)
208 Vac Input, 208Y/120 Vac Output, 60 Hz		
20	**63TAA320**	600.0 (273.00)
30	**63TAA330**	750.0 (341.00)
50	**63TAA350**	950.0 (432.00)
75	**63TAA375**	1200.0 (545.00)
480 Vac Input, 208Y/120 Vac Output, 60 Hz		
20	**63TCA320**	600.0 (273.00)
30	**63TCA330**	750.0 (341.00)
50	**63TCA350**	950.0 (432.00)
75	**63TCA375**	1200.0 (545.00)
480 Vac Input, 480Y/277 Vac Output, 60 Hz		
20	**63TCC320**	600.0 (273.00)
30	**63TCC330**	750.0 (341.00)
50	**63TCC350**	950.0 (432.00)
75	**63TCC375**	1200.0 (545.00)
600 Vac Input, 208Y/120 Vac Output, 60 Hz		
20	**63TDA320**	600.0 (273.00)
30	**63TDA330**	750.0 (341.00)
50	**63TDA350**	950.0 (432.00)
75	**63TDA375**	1200.0 (545.00)

Protection Specifications

Under Voltage	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.
Short Circuit Protection	Input circuit breaker
Over Temperature Protection	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

Common Mode Noise Attenuation	150 dB at 100 kHz
Normal Mode Noise Attenuation	65 dB at 100 kHz
Surge Protection	Meets ANSI/IEEE Standard C62.41 Cat A and B