

Acme® True-Power® Constant Voltage Regulators

Acme True-Power® products consist of specially designed ferroresonant transformers. Although ferroresonant transformers have been an economical solution to power problems for many years, it took the skills of Acme's highly regarded engineering staff to refine it to meet today's exacting requirements.

For example, typical ferroresonant transformers have an input limited to 100-130 V. Acme's True-Power® units have an input range of +10/-20% around input voltage nominals of 120/208/240 and 480 volts. At 120 volt input, this relates to 95-130 volts.

The typical ferroresonant transformer has limited electrical noise suppression capability. True-Power® power line conditioners have the following noise attenuation capability:

Common Mode: 120 db
Transverse Mode: 60 db

The typical ferroresonant transformer has an audible hum that can be objectionable in most offices. Acme's True-Power® power line conditioners are encapsulated in epoxy to lower sound levels below ANSI standard C 89.2.

The typical ferroresonant transformer has an output regulation of $\pm 3\%$ for input line changes only. Acme's True-Power® power line conditioners have an output regulation of $\pm 3\%$ for input line and load changes, making them suitable for operation at any load condition.

FEATURES

- Reliable, regulated output voltage when input voltage varies, even to brownout levels.
- Extended operation to 65% of nominal when operated at 60% of full load.
- Noise rejection—effectively suppressing transient spikes and surges—120 db common mode and 60 db transverse mode.
- Rapid response to line and load changes—5% variation in 8m sec, 10% variation in 16m sec.
- Hold up time of 3m sec for complete loss of input power.
- Inherent overload and short circuit protection, without thermo protectors, fuses or circuit breakers, for immediate recovery when the overload is removed.
- Sinusoidal output features, less than 3% harmonic distortion, improves input wave forms which have total harmonic distortions of greater than 5%.
- Available in 250 through 15,000 VA in hardwired models.
- Handle multiple primary input voltages.
- Illuminated ON/OFF switch, multiple output receptacles and six foot input power cord on portable units.
- UL Listed.
- CSA Certified

APPLICATIONS

- Industrial Automation and Control Equipment
- Electronic Test Equipment
- Robotics
- X-Ray Equipment
- Communications Equipment

Product Selection Guide

PROBLEM ENCOUNTERED	Shielded Isolation Transformer	True-Power®	SPS	UPS
Power Failure	—	—	X	X
Widely Varying Source Voltage	—	X	—	X
Brown Outs	—	X	X	X
Switching Of Power Factor Correction Capacitors	X	X	X	X
Distorted Wave Shape Due To Harmonic Content	—	X	—	X
Common-Mode Transients	X	X	—	X
Transverse-Mode Transients	—	X	X	X
Voltage Spikes Due To Proximity Of Welding Equipment Or Certain Medical Diagnostic Equipment	X	X	X	X
Line Distortion Due To Noise Generated From Occasional Lightning Strikes	X	X	X	X
Operation Of Computer Storage Devices Such As Floppy Disks Or Winchester Drives Generates Transients	X	X	X	X

SPECIFICATIONS

Input (Primary)	95-132 VAC (Hardwired) ②
	166-228 VAC
	192-264 VAC
	384-528 VAC
Phase:	1 Phase

Output (Secondary)	120/208/240 VAC (Hardwire)
Load Range	0-100%
Regulation	± 3% for line/load changes
Attenuation	120 db Common Mode Noise 60 db Transverse Mode Noise
Audible Noise	Below ANSI std. C 89.2

SELECTION CHARTS

GROUP II

HARDWIRED MODELS — CONSTANT VOLTAGE REGULATORS

95-132 X 166-228 X 192-264 X 384-528 VOLT PRIMARY — 120/208/240 VOLT SECONDARY — 1Ø, 60 Hz



KVA SIZE	CATALOG NUMBER	APPROX. DIMENSIONS ③										TYPE MTG.	APPROX. SHIP WEIGHT LBS. (KG.)	FIGURE	WIRING DIAGRAMS SEE PAGE 147
		INCHES (CM.)													
		A HEIGHT	B WIDTH	C DEPTH	D	E	F	G	H	J					
0.25	T169430	15.50 (39.4)	6.30 (16.0)	5.80 (14.7)	5.63 (14.3)	8.13 (20.7)	9.30 (23.6)	1.2 (3.0)	.41 x .81 (1.0 x 2.1)	5.00 (12.7)	F&W	37 (16.8)	II	16	
0.35	T169431	17.00 (43.2)	7.00 (17.8)	7.30 (18.5)	5.63 (14.3)	8.13 (20.7)	9.40 (23.9)	2.3 (5.8)	.41 x .81 (1.0 x 2.1)	6.50 (16.5)	F&W	51 (23.1)	II	16	
0.50	T169432	17.00 (43.2)	7.00 (17.8)	7.30 (18.5)	5.63 (14.3)	8.13 (20.7)	9.40 (23.9)	2.3 (5.8)	.41 x .81 (1.0 x 2.1)	6.50 (16.5)	F&W	53 (24.0)	II	16	
0.75	T169433	17.00 (43.2)	7.00 (17.8)	7.30 (18.5)	5.63 (14.3)	8.13 (20.7)	9.40 (23.9)	2.3 (5.8)	.41 x .81 (1.0 x 2.1)	6.50 (16.5)	F&W	65 (29.5)	II	16	
1.00	T169434	18.50 (47.0)	6.50 (16.5)	8.55 (21.7)	5.63 (14.3)	8.13 (20.7)	9.50 (24.1)	2.3 (5.8)	.41 x .81 (1.0 x 2.1)	7.75 (19.7)	F&W	82 (37.2)	II	16	
2.00	T169435	19.00 (48.3)	10.50 (26.7)	10.20 (25.9)	6.00 (15.2)	12.00 (30.5)	13.25 (33.7)	2.3 (5.8)	.44 x .63 (1.1 x 1.6)	9.40 (23.9)	F&W	142 (64.4)	III	16	
3.00	T169436	19.00 (48.3)	10.50 (26.7)	10.20 (25.9)	6.00 (15.2)	12.00 (30.5)	13.25 (33.7)	2.3 (5.8)	.44 x .63 (1.1 x 1.6)	9.40 (23.9)	F&W	176 (79.8)	III	16	
5.00	T169437	22.00 (55.9)	12.54 (31.9)	12.20 (31.0)	6.00 (15.2)	14.00 (35.6)	15.25 (38.7)	2.3 (5.8)	.44 x .63 (1.1 x 1.6)	11.40 (29.0)	F&W	295 (134.0)	III	16	
10.00	T169438	23.06 (58.6)	27.31 (69.4)	24.06 (61.1)	18.00 (45.7)	25.50 (64.8)	—	—	.56 (1.4)	—	F&W ①	605 (274.0)	IV	16	
15.00	T169439	23.06 (58.6)	40.13 (101.9)	24.06 (61.1)	18.00 (45.7)	38.31 (97.3)	—	—	.56 (1.4)	—	F	880 (399.0)	IV	16	

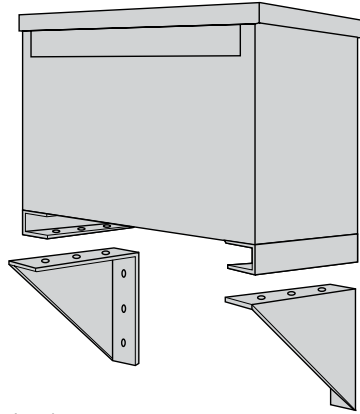
F = Floor W = Wall

① Wall mounting brackets required for this size. Refer to Page 133.

② All hardwired models will accommodate these primary input voltages.

③ Dimensions not suitable for construction. Contact factory.

Wall Mounting Brackets



Required on:

Ventilated Units:

1Ø, 37.5 and 50 kVA
3Ø, 30, 45 and 75 kVA

Catalog Number: PL-79912

Encapsulated Units:

3Ø dit., 11 kVA — 20 kVA
3Ø std. distribution — 15 kVA

Catalog Number: PL-79911

Wall mounting brackets are not required on:

1Ø units — 25 kVA and below
3Ø units — 9 kVA and below

Standard Taps

The catalog number suffix provides tap information as outlined in chart below:

If the catalog number has no suffix, there are no taps available.

EXAMPLE: T-2-53019-3S

The suffix 3S indicates the unit has two 2.5% (+) ANFC taps and four 2.5% (-) BNFC taps.

Suffix	Tap Arrangement
- 1S	Two 5% (-) BNFC Taps
- 2S	One 5% (+) ANFC Tap and One 5% (-) BNFC Tap
- 3S	Two 2-1/2% (+) ANFC Taps and Four 2-1/2% (-) BNFC Taps
- 4S	Two 2-1/2% (+) ANFC Taps and Two 2-1/2% (-) BNFC Taps
- 5S	Two 5% (+) ANFC Taps and Two 5% (-) BNFC Taps

Thermal Switch Kits

Acme Thermal Switch Kits are designed for use with single and three phase drive isolation and distribution transformers. Thermal switch kits are available for one or three sensor systems.

Thermal sensors can be field or factory installed in the transformer winding ducts to detect abnormal temperatures. The thermal sensors are a normally closed contact that opens at 200°C ± 10°C and has a current capacity of 5 amps @ 120V or 2.5 amps @ 240V. This contact can activate any number of different types of alarms or mechanisms that could warn of a potential failure.

Catalog Number: PL-79900

kVA	Mounting Position	Illustration
27.0 – 220.0	Bottom of the case	Figure 1
275.0 – 750	Top Flange of the Core Bracket	Figure 2

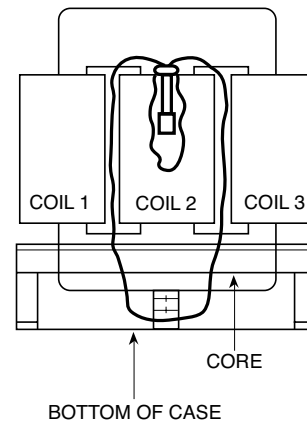


Figure 1

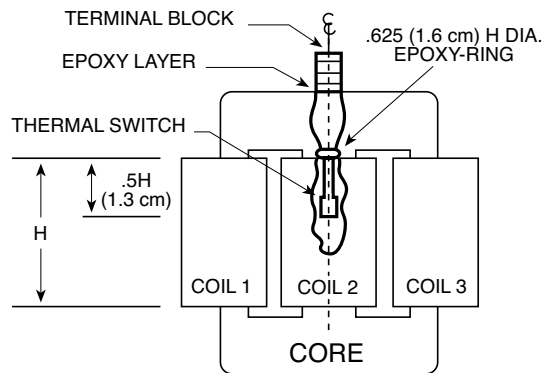


Figure 2