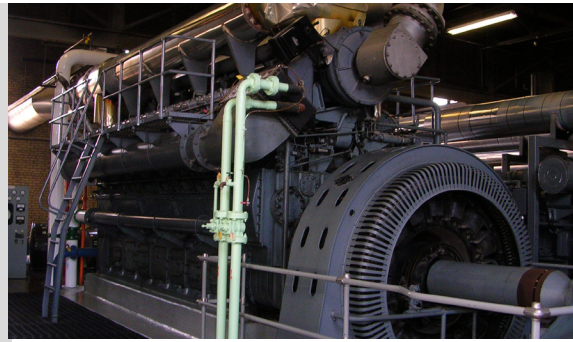
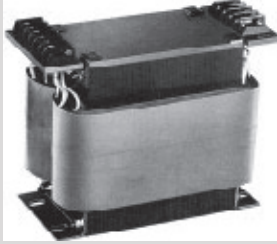
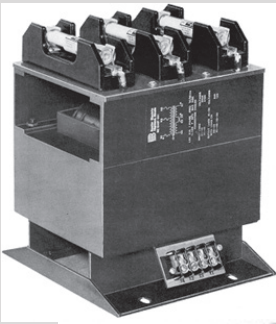


Power Isolation Transformers



Overview

Power isolation transformers are designed to work with Basler Electric's voltage regulators for high-voltage and low-voltage generation systems.

Features

- Available for high-voltage and low-voltage generating systems
- Designed for operation with Basler Electric's standard voltage regulators or equivalent equipment
- Terminals arranged for easy connection
- Frequency range of 50 to 400 Hz on low-voltage units
- Fused primary windings on 5 kV class units
- Multiple primary and secondary voltages on most types
- Capability to withstand underfrequency/overvoltage operation encountered in generating systems
- Ruggedly constructed

Description

Power isolation transformers are used with standard Basler Electric voltage regulators or anywhere power isolation or voltage matching requirements exist. These transformers outperform ordinary control transformers, particularly in the underfrequency and overvoltage conditions associated with generator operation. These transformers are available from stock with either low-voltage (up to 600 Vac) or high-voltage (more than 600 Vac) windings and ratings up to 4,000 VA. High-voltage transformers feature low corona and high moisture resistance characteristics. Low-voltage transformers operate from 50 to 400 Hz. All transformers are constructed to withstand the rigors of shock and vibration encountered in generating system applications. Conservative in design, these transformers assure years of trouble-free operation.

Application

Basler Electric AVC and DECS series voltage regulators require a source of 60, 120, 240, or 480 Vac power, depending upon the regulator. Because this power is normally obtained from generator terminal voltage, an isolation transformer must be used when the generator terminal voltage is not the same as that required by the regulator. An isolation transformer is also required to isolate the voltage regulator input from ground in installations where the exciter field or field flashing circuit is grounded.

Benefits

- Available in a wide range of voltage configurations to allow users to easily convert the generator's voltage to meet the voltage regulator's requirements.
- Enjoy flexibility with a wide frequency range of 50 to 400 Hz to accommodate multiple applications.
- Simplify installation with integrated primary fuses for 5 kV class units by eliminating the need to purchase and install high-voltage fuses.

Specifications

Dielectric Test Voltage

Low-Voltage Transformers:	2,500 Vac primary 2,500 Vac secondary
High-Voltage Transformers:	12,000 Vac primary 2,500 Vac secondary
BE14014001:	19,000 Vac primary 2,500 Vac secondary

Insulation Temperature

Low-Voltage Transformers:	185°C (365°F)
High-Voltage Transformers:	185°C (365°F)

Operating Frequency Range

Low-Voltage Transformers:	50 to 400 Hz
High-Voltage Transformers:	50/60 Hz

Finish

Low-Voltage Transformers:	Varnish impregnated
High-Voltage Transformers:	Varnish impregnated, epoxy coated

Agency/Certifications

All transformers are CSA certified except for the following part numbers:
BE11304002, BE14014001



Connection Instructions

To determine proper winding connection, refer to Table 2 and locate the primary and secondary code letters for the selected transformer. Then, in Table 1, locate the same code letters and select the required voltage. The necessary connections (jumpers) are indicated in the column headed "Jump Terminals".

Example: To connect BE10317002 for 240 V primary and 120 V secondary, refer to Table 2 and note that connection code letters for this transformer are A and Y. Then refer to Table 1, code letter A. For 240 Vac at primary terminals H1 and H6, jump H3 to H6 and H4 to H1. Referring to code letter Y, 120 Vac is made available at secondary terminals X1 and X4 by jumping X2 to X4 and X3 to X1.

	Code Letter	Voltage		Jump Terminals
		Vac	at Terminals	
Primary Windings	A	208 240 416 480	H1 and H6	H2-H6, H5-H1 H3-H6, H4-H1 H2-H5 H3-H4
	B	600	H1 and H2	None
	C	2400 4160	H1 and H2 H1 and H3	None None
	D	6600 3300	H1 and H3 H1 and H3	None None
Secondary Windings	Y	120 240	X1 and X4	X2-X4, X3-X1 X2-X3
	Z	60 120	X1 and X4	X2-X4, X3-X1 X2-X3

Table 1.

Basler Voltage Regulator Model	When using			Select Basler Electric Transformer Part No.	Per Unit Imp.	Maximum Weight in Pounds (Kilograms)		Fig. No.	Outline Dimensions in Inches (Millimeters)						Connections (Code Letters in Table 1)	
	In power isolation applications requiring					Net	Ship		A	B	C	D ± 1/32 (±0.8)	E ± 1/16 (±1.5)	F	PRI	SEC
	Primary VA	Primary Volts	Secondary Volts													
Low Voltage Transformers																
DECS-100 DECS-150	1000	208/240 x 416/480	120 x 240	BE10493002	.0414	36 (16)	38 (17)	1	6.50 (165)	7.00 (178)	8.75 (222)	2.50 (64)	4.75 (121)	.37 x .75 (9 x 19)	A	Y
	1000	600	120 x 240	BE11049002	.0418	36 (16)	38 (17)	2	6.50 (165)	6.87 (174)	8.75 (222)	2.50 (64)	4.75 (121)	.37 x .75 (9 x 19)	B	Y
AVC63-12 AVC125-10 DECS-100 DECS-150	2000	208/240 x 416/480	120 x 240	BE10494002	.0339	67 (30)	71 (32)	1	6.50 (165)	10.75 (273)	8.75 (222)	2.50 (64)	8.50 (216)	.37 x .75 (9 x 19)	A	Y
	2000	600	120 x 240	BE11050002	.0299	67 (30)	71 (32)	2	6.50 (165)	10.75 (273)	8.75 (222)	2.50 (64)	8.50 (216)	.37 x .75 (9 x 19)	B	Y
AVC63-12	1200	208/240 x 416/480	60 x 120	BE11304002	.0327	48 (22)	50 (23)	1	6.50 (165)	8.50 (216)	8.75 (222)	2.50 (64)	6.25 (159)	.37 x .75 (9 x 19)	A	Z
AVC63-4 BE300PM	500	208/240 x 416/480	120 x 240	BE10317002	.0670	19 (9)	21 (10)	1	6.50 (165)	5.25 (133)	8.75 (222)	2.50 (64)	3.00 (76)	.37 x .75 (9 x 19)	A	Y
High Voltage Transformers																
AVC63-4 AVC63-7 DECS-100	1000	2400/4160	120 x 240	BE13616001	.033	40 (18)	42 (19)	3	9.00 (229)	10.0 (254)	9.75 (248)	5.00 (127)	8.50 (216)	.41 x .75 (10 x 19)	C	Y
AVC63-12 AVC125-10 DECS-100 DECS-150	1680	2400/4160	120 x 240	BE13487001	.0175	70 (32)	74 (34)	3	9.00 (229)	10.0 (254)	11.75 (298)	5.00 (127)	8.50 (216)	.41 x .75 (10 x 19)	C	Y
AVC63-12 AVC125-10 DECS-100 DECS-150	2000	3300/6600	120 x 240	BE14014001	.020	70 (32)	74 (34)	4	10.0 (254)	9.00 (229)	11.25 (286)	8.50 (216)	5.00 (127)	.31 x .44 (8 x 11)	D	Y

Table 2.



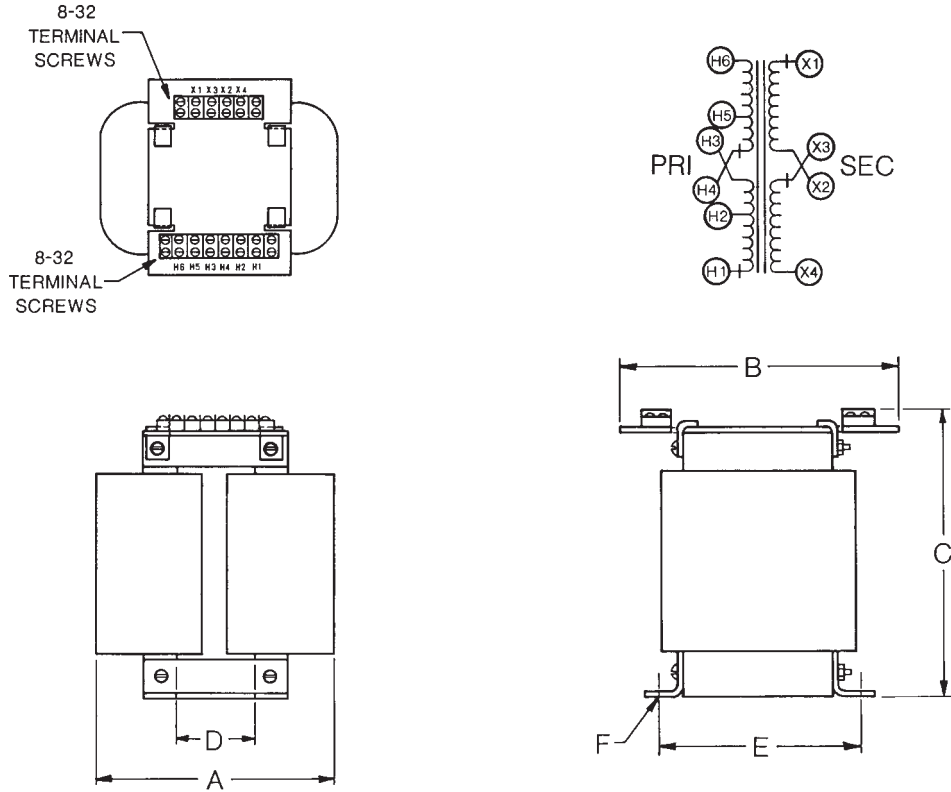


Figure 1.

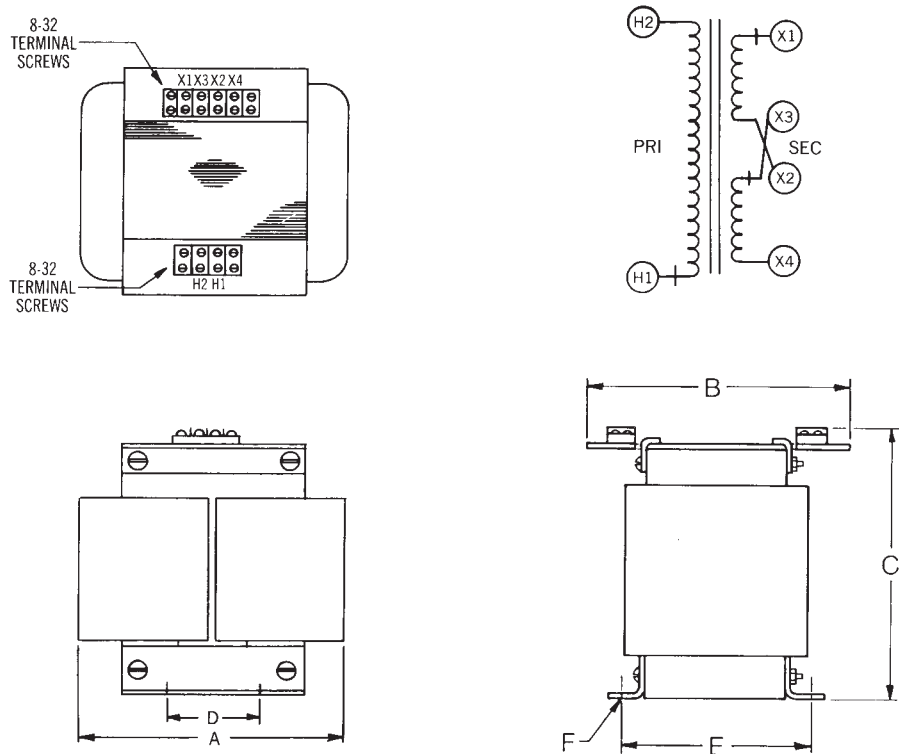


Figure 2.

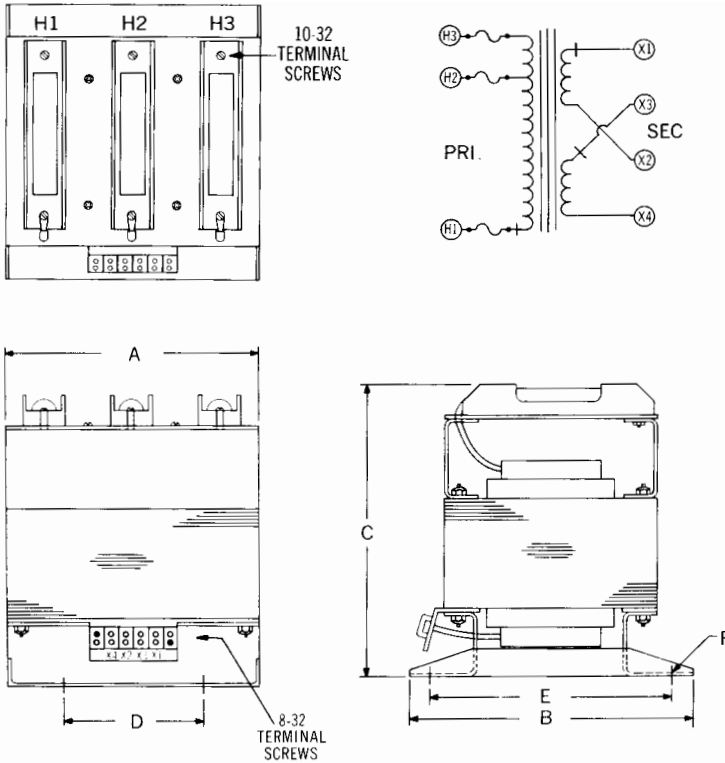


Figure 3.

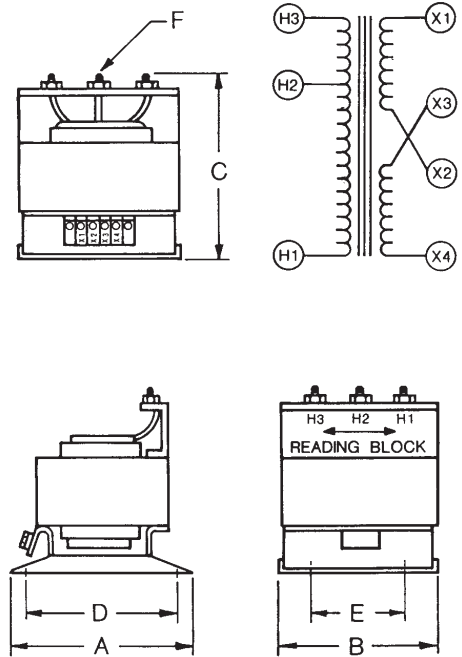


Figure 4.

Related Products

[APR63-5, APR63-5X Voltage Regulators](#)

A top performing voltage regulator in a cost effective package. Basler Electric's analog AVR provides reliable operation in harsh environments and a wide variety of applications.

[AVC63-12, AVC125-10 Voltage Regulators](#)

Enjoy proven, dependable, high performance with Basler Electric's AVC line. These extremely rugged and reliable regulators provide the performance and functionality that revolutionized the modern analog voltage regulator market.

[DECS-150 Digital Excitation Control System](#)

Provides precise voltage regulation and exceptional system response, as well as valuable protection of the generator and excitation system.

[DECS-250 Digital Excitation Control System](#)

Provides precise voltage, var and Power Factor regulation, and exceptional system response, plus generator protection.

[DECS-250N Digital Excitation Control System with Negative Forcing](#)

A high-powered digital excitation control system featuring negative field forcing that provides exceptional system response, precise voltage regulation, and integrated generator protection.

[SGC-250 Synchronous Generator Controller](#)

A prepackaged solution for applications that require a single or dual DECS-250 Digital Excitation Control System.