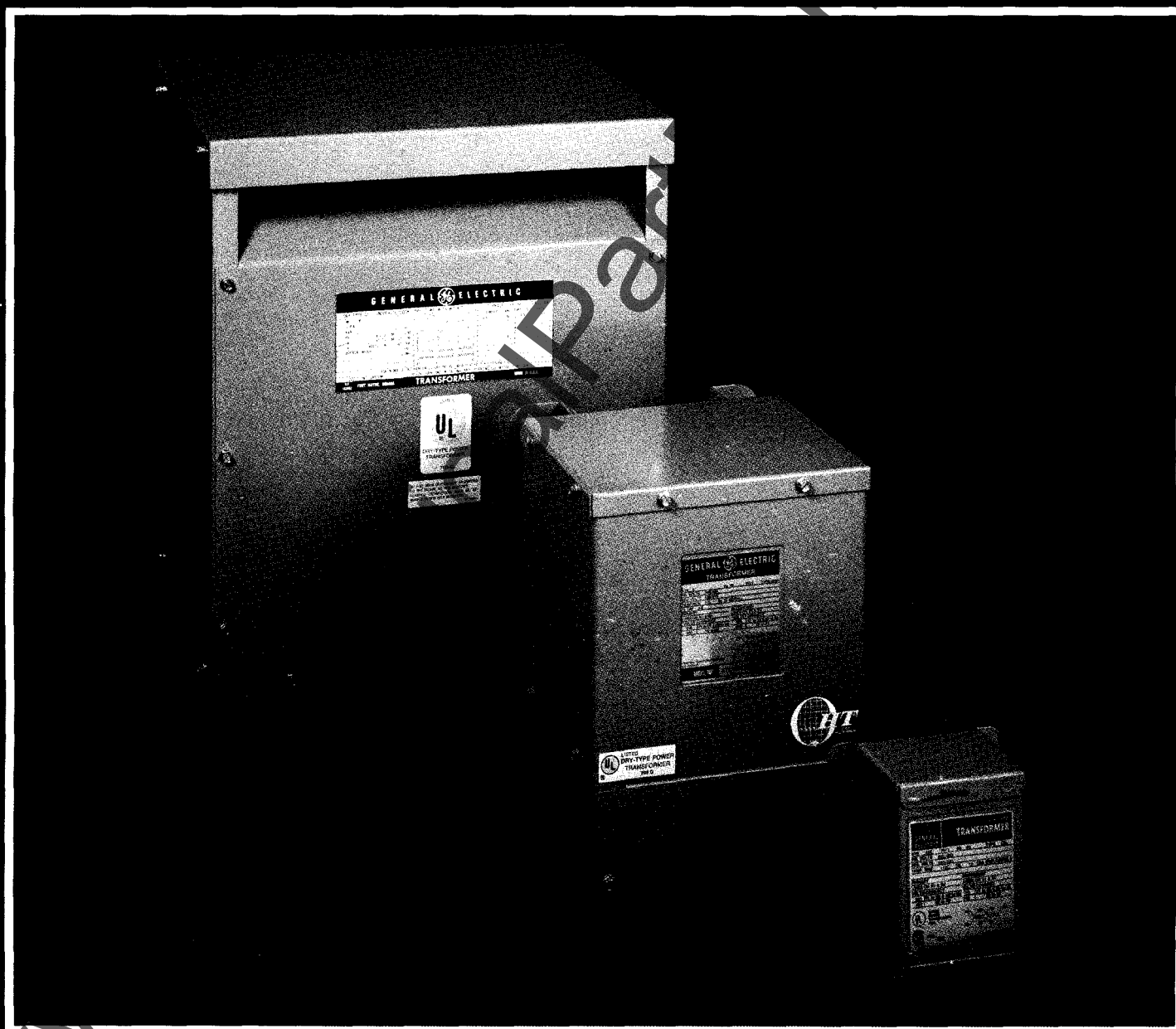


Buyer's Guide



# Dry-type Transformers

- General-purpose
- Buck-boost
- High-voltage distribution
- Special application  
Type TENV, Type DIT, Type LT,  
Type OR, Type MT,  
Servicecenter™ Mini Substations

GENERAL  ELECTRIC

## Contents

### General-purpose Transformers

Types QB, ML .....	3
Type QMS .....	4
Type QL .....	5
Sound Considerations .....	6
Selection and Application .....	7
Single-phase Data .....	8-9
Three-phase Data .....	10
Accessories and Parts .....	11
Autotransformers .....	12
Bucking and Boosting Transformers .....	13-18
Wiring Diagrams .....	19
Dimensions .....	20-24

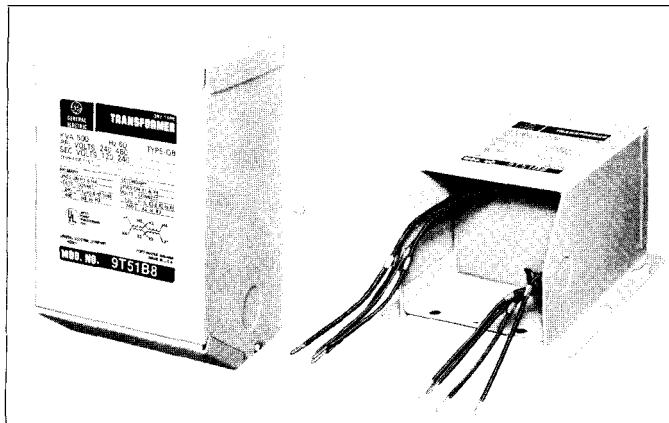
### Special Application Transformers

Totally Enclosed, Nonventilated Transformers .....	25
Drive Isolation Transformers .....	26-27
Low Temperature Rise Transformers .....	28-29
Distribution Transformers .....	30-33
Oil Rig Transformers .....	34
Mid-tapped Transformers .....	35
Servicenter™ Mini-Unit Substations .....	36-37
Power Conditioning Equipment .....	38-39



# General-purpose Transformers... Construction Types

com



## TYPE QB

**SINGLE-PHASE, .050—3.0 KVA, 60 AND 50/60 HERTZ**

### Industry Standards

UL—Type QB transformers are listed under UL-506, File E2739.

CSA—Type QB units are certified under CSA Standard C22.2, No. 66, File 3272.

ANSI—Each transformer meets the requirements of ANSI C89.2.

NEMA—These units also meet NEMA-ST-20-1978 Standards for specialty transformers.

### Insulation System

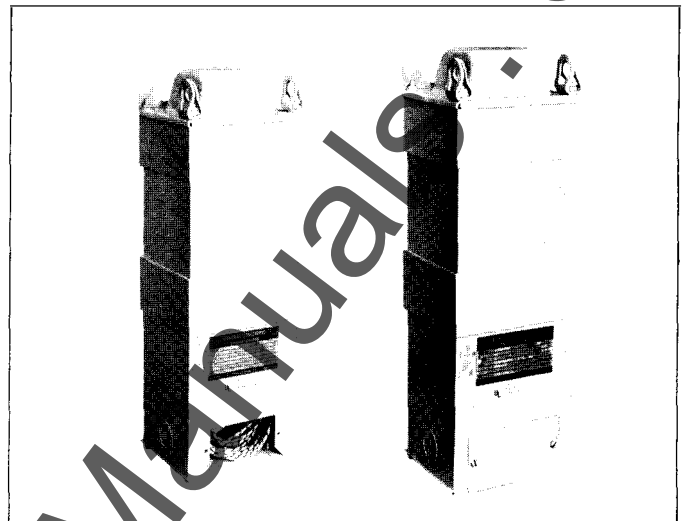
Units up through 250 va have a 55 C rise 105 C insulation system. Units 500 through 3000 va utilize a 115 C rise 180 C insulation system.

### Installation

- Mount in any position on walls or panels indoors.
- Mount in vertical position only for outdoor use.
- Rugged enclosure has easy-access mounting slots.
- Roomy wiring compartment permits fast, easy wiring.
- Connecting leads are six inches minimum.
- Convenient conduit knockouts are located on the bottom, sides, and back of the wiring compartment.
- Schematic connection diagram is located on the front enclosure panel for quick referral.

### Advantages

- Efficient insulating materials permit compact size and light weight, making these units easy to handle and install.
- General Electric warrants Type QB transformers for both indoor and outdoor service.
- Enclosed construction makes these units suitable for use in dusty atmospheres.
- Heavy-gauge steel enclosure resists weather and corrosion.
- Encapsulated core-and-coil design provides special resistance against adverse environments.
- Special testing assures long service life and quiet operation.
- Type QB transformers are designed for step down service only. The factory should be consulted if transformers for step up service are desired.



## TYPE ML

**THREE-PHASE, 3—15 KVA, 60 HERTZ**

### Industry Standards

UL—Type ML transformers are listed under UL-506, File E2739.

ANSI—Type ML units meet the requirements of ANSI C89.2.

NEMA—Each transformer is in compliance with NEMA ST-20-1978 Standards.

### Insulation System

Type ML transformers utilize a 115 C rise 180 C insulation system.

Type ML units can be used indoors or outdoors. They mount upright or horizontally indoors; upright only outdoors. Key-hole mounting slots on the top and open end slots on the bottom of the enclosure are provided for quick mounting on walls or panels.

External lifting provisions assist in handling.

Large wiring compartment located on the bottom front of the unit has convenient knockouts at the bottom and both sides. Leads that terminate in the wiring compartment are clearly marked in accordance with ANSI Standards for fast identification.

A connection diagram is placed on front of the enclosure panel for easy reference.

UL Listed for either indoor or outdoor service.

Core and coils are contained within a nonventilated, weather-proof enclosure for use outdoors and in dirt-laden atmospheres.

Rugged enclosure resists weather and corrosion.

Efficient design makes them compact and lightweight for easy handling and installation.

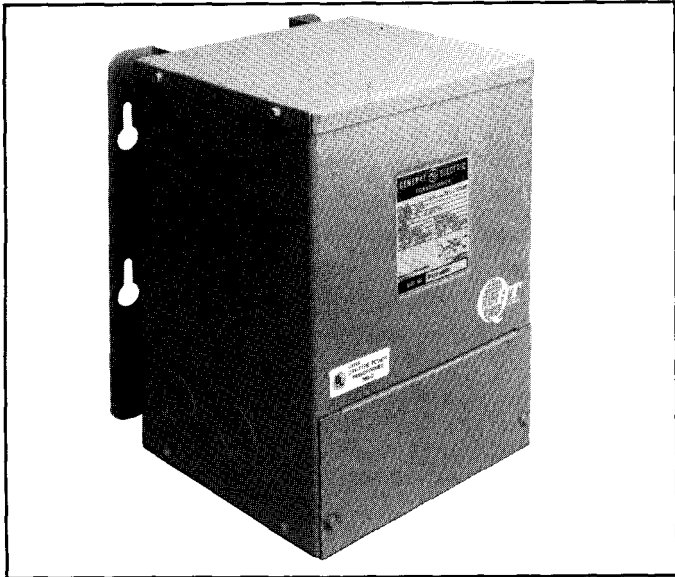
Accelerated life tests conducted in accordance with IEEE requirements demonstrate capability of long transformer service life.

Constructed to ensure whisper-quiet operation.

Type ML transformers can be operated for step-down or step-up service.

# General-purpose Transformers...

## Construction Types CONTINUED



### TYPE QMS

**SINGLE-PHASE, 5-25 KVA, 60 AND 50/60 HERTZ**

#### Industry Standards

- UL-Type QMS transformers are listed under UL-506, File E2739.
- ANSI-Type QMS transformers meet the requirements of ANSI C89.2
- NEMA — These units also comply with NEMA-ST-20-1978 Standards.

#### Insulation System

A 115 C rise 180 C insulation system is used on all Type QMS units.

#### Installation

- Units mount upright for indoor and outdoor application.
- Key-hole mounting slots facilitate easy mounting on walls or panels.
- Lifting eyes and a lifting lug are included to simplify handling.
- Sturdy mounting brackets are integral to the case.
- Identified, tinned copper connecting leads have six inches minimum free length for easy hook-up.
- Connection diagram is located on front, conduit knockouts are located on bottom and sides of the wiring compartment.
- Fits exact mounting dimensions of superseded QM Style.

#### Features

- All ratings are UL Listed for either indoor or outdoor use.
- Totally enclosed design with encapsulation protects core-and-coil against adverse atmospheric conditions.
- High efficiency core construction results in quiet transformers and low no-load losses.
- Heat barrier under core-and-coil provides added electrical and thermal isolation for wiring compartment.

- Model numbers identical to previous QM style for equivalent ratings.
- Mounting brackets designed for easier access to mounting bolts.
- New electrodeposited finish precisely controlled for optimum gloss, thickness, coverage and color uniformity.
- Heavy gauge steel case provides rigid termination for electrical conduit.

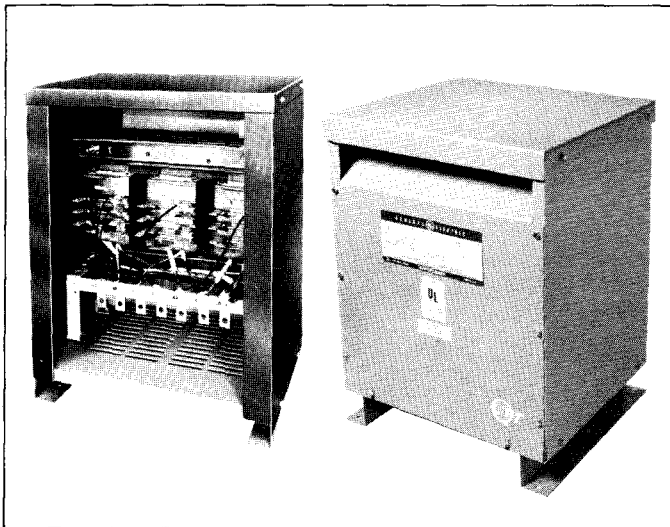
#### QMS Dry-Type

The QMS dry-type transformer is an improved version of General Electric's popular QM model. The QMS maintains the same quality, variety of ratings (5-25 Kva) and basic model numbers.

The QMS operates in either a step-up or a step-down mode and retains the same mounting dimensions common to the QM design. Unique to the QMS design are integral mounting brackets and lifting lugs. The QMS is easy to handle and mounts securely. It provides added safety because there are no welds to break as a result of mounting or lifting stress.

#### Tough Steel Case

Each QMS transformer features a strong, rust resistant steel case for protection of the core-and-coil interior from dust and moisture. The encapsulated design contributes to the low emitted audible noise.



## TYPE QL

**SINGLE-PHASE, 25—167 KVA, 60 HERTZ;  
THREE-PHASE, 15—1500 KVA, 60 HERTZ**

### Industry Standards

- UL—Applicable Type QL transformers are listed under UL-506, File E2739.
- ANSI—Type QL transformers meet the requirements of ANSI C89.2.
- NEMA—All units meet NEMA-ST-20-1978 Standards for specialty transformers.

### Insulation System

Life-tested under UL supervision, and designed in accordance with functional accelerated test procedures of IEEE No. 259, the insulation system is UL approved for 220 C (150 C rise). Units rated 220/115 C rise and 220/80 C rise are also available with UL Listing.

### Installation

- Type QL transformers are designed for indoor installation. Units are available with factory-installed UL Listed weather-resistant modification which meets NEMA 3R enclosure requirements. Where outdoor use is expected, care should be exercised that the models used are those listed for protected outdoor service.
- Separate, optional wall-mounting brackets are available as accessories on units through 75 kva. Ordering information is given on page 11 of this publication.
- New case design facilitates transport of units with fork truck lifting room at the base. Mounting holes are easily accessible too.
- Large, completely front-accessible wiring compartment meets UL wire-bending space requirements for the worst installation condition. This allows use of aluminum cable sized to 125 percent of rated current of the transformer, and the use of long-shanked, crimp-type connectors for optimum aluminum connections. Greater capability for copper cable installations is also included.
- Brazed or welded connections are used for reliability where coil conductors are joined to cables or bus terminals.

- Improved termination spacing and wiring compartment room gives greater flexibility in selecting various UL Listed connectors for either copper or aluminum cable. A listing of suitable connectors is included with each GE transformer.
- Terminal boards are made of strong fiber glass with terminals plainly identified.

### Features

- A sheet steel, dripproof enclosure, coated with mar-resistant enamel, protects the Type QL core-and-coil assembly. A sheet steel grid at the bottom of the enclosure provides added rigidity and rodent protection.
- Neoprene rubber pads isolate core-and coil assembly from transformer enclosure to ensure quiet operation.
- These computer-designed transformers with minimum hot spots provide optimum life and overload capabilities.
- Type QL transformers will not, if operated within recommended load ratings for continuous operation, exceed the 50 C rise established by UL as the limit for maximum surface temperature.
- Wiring compartment temperature rises are below the 35 C specified by Underwriters Laboratories.
- Tests show the Type QL system to be resistant to thermal shock and humidity.
- High-temperature insulation materials with proven reliability are used throughout the transformer.
- General Electric Type QL transformers are capable of continuous operation at 100 percent of nameplate rating in ambients up to 40 C.
- General Electric transformers have received extensive witness testing by UL to verify electrical and physical parameters. Listing under the Follow-up Service of UL means frequent visits by UL personnel to the GE factory. This audit of materials and processes, and product performance provides added assurance of quality and workmanship.

# General-purpose Transformers... Selection Information

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## SINGLE-PHASE DATA .050-167 Kva 600 Volts and Below

Kva	240 x 480 Volts Primary Secondary 120/240 Volts					480 Volts Primary Secondary 120/240 Volts					600 Volts Primary Secondary 120/240 Volts							
	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.			
<b>.050-3 KVA, INDOOR/OUTDOOR, TYPE QB</b>																		
.050	60	9T51B2	+	N	1	1	60	9T51B2	+	N	1	1	60	9T51B2	+	N	6	1
	50/60	9T51B502	+	N	1	1							50/60	9T51B5B2	+	N	6	1
.075	60	9T51B3	+	N	1	1	60	9T51B3	+	N	1	1						
	50/60	9T51B503	+	N	1	1							50/60	9T51B5B3	+	N	6	1
.100	60	9T51B4	+	N	1	1	60	9T51B4	+	N	1	1	60	9T51B4	+	N	6	1
	50/60	9T51B504	+	N	1	1							50/60	9T51B5B4	+	N	6	1
.150	60	9T51B5	+	N	1	2	60	9T51B5	+	N	1	2	60	9T51B5	+	N	6	2
	50/60	9T51B505	+	N	1	2							50/60	9T51B5B5	+	N	6	2
.250	60	9T51B7	+	N	1	2	60	9T51B7	+	N	1	2	60	9T51B7	+	N	6	2
	50/60	9T51B507	+	N	1	2	50/60	9T51B547	+	2	2	2	50/60	9T51B5B7	+	N	6	2
													50/60	9T51B567	+	N	2	2
.500	60	9T51B8	+	N	1	3	60	9T51B8	+	N	1	3	60	9T51B8	+	N	6	3
	50/60	9T51B508	+	N	1	3	50/60	9T51B548	+	2	2	3	50/60	9T51B5B8	+	N	6	3
.750	60	9T51B9	+	N	1	4	60	9T51B9	+	N	1	4	60	9T51B9	+	N	6	4
	50/60	9T51B509	+	N	1	4	50/60	9T51B549	+	2	2	4	50/60	9T51B5B9	+	N	6	4
1	60	9T51B10	+	N	1	4	60	9T51B10	+	N	1	4	60	9T51B10	+	N	6	4
	50/60	9T51B510	+	N	1	4	60	9T51B50	+	N	1	4	60	9T51B70	+	N	2	4
							50/60	9T51B550	+	2	2	4	50/60	9T51B590	+	N	2	4
1.5	60	9T51B11	+	N	1	5	60	9T51B11	+	N	1	5	60	9T51B11	+	N	6	5
	50/60	9T51B511	+	N	1	5	60	9T51B51	+	N	1	5	60	9T51B71	+	N	2	5
							50/60	9T51B551	+	2	2	5	50/60	9T51B591	+	N	2	5
2	60	9T51B12	+	N	1	5	60	9T51B12	+	N	1	5	60	9T51B12	+	N	6	5
	50/60	9T51B512	+	N	1	5	60	9T51B52	+	N	1	5	60	9T51B72	+	N	2	5
							50/60	9T51B552	+	2	2	5	50/60	9T51B592	+	N	2	5
3	60	9T51B13	+	N	1	6	60	9T51B13	+	N	1	6	60	9T51B13	+	N	6	6
	50/60	9T51B513	+	N	1	6	60	9T51B53	+	N	1	6	60	9T51B73	+	N	2	6
							60	9T51B55	+	N	1	6	60	9T51B593	+	N	2	6
							50/60	9T51B553	+	2	2	6	50/60	9T51B573	+	N	2	6
<b>5-25 KVA, INDOOR/OUTDOOR, TYPE QMS</b>																		
5	60	9T21B1004G2	+	N	1	7	60	9T21B1007G2	+	2	3	7	60	9T21B1016G2	+	N	6	7
	50/60	9T21B1055G2	+	N	1	7	60	9T21B1013G2	+	2	3	7	60	9T21B1019G2	+	N	2	7
7.5	60	9T21B1005G2	+	N	1	8	60	9T21B1055G2	+	2	2	8	60	9T21B1017G2	+	N	6	8
	50/60	9T21B1056G2	+	N	1	8	60	9T21B1008G2	+	2	2	8	60	9T21B1020G2	+	N	2	8
10	60	9T21B1006G2	+	N	1	9	60	9T21B1014G2	+	2	3	9	60	9T21B1018G2	+	N	6	9
	50/60	9T21B1057G2	+	N	1	9	60	9T21B1056G2	+	2	2	9	60	9T21B1021G2	+	N	2	9
15	60	9T21B9103	+	N	1	10	60	9T21B1009G2	+	2	3	9	60	9T21B9111	+	N	6	10
	50/60	9T21B9133	+	N	1	10	50/60	9T21B1057G2	+	N	1	9	60	9T21B9113	+	N	2	10
25	60	9T21B9104	+	N	1	11	60	9T21B9105	+	2	2	10	60	9T21B9112	+	N	6	11
	50/60	9T21B9134	+	N	1	11	60	9T21B9109	+	2	3	10	60	9T21B9114	+	N	2	11
							50/60	9T21B9133	+	N	1	10						
							60	9T21B9106	+	2	2	11						
							60	9T21B9110	+	2	3	11						
							50/60	9T21B9134	+	N	1	11						
<b>25-167 KVA, INDOOR, TYPE QL</b>																		
25	60	9T23B2671	+	6	4	16	60	9T23B2671	+	6	4	16	60	9T23B2681	+	6	7	16
37.5	60	9T23B2672	+	6	4	16	60	9T23B2672	+	6	4	16	60	9T23B2682	+	6	7	16
50	60	9T23B2673	+	6	4	16	60	9T23B2673	+	6	4	16	60	9T23B2683	+	6	7	16
75	60	9T23B2674	+	6	4	16	60	9T23B2674	+	6	4	16	60	9T23B2684	+	6	7	16
100	60	9T23B2675	+	6	4	16	60	9T23B2675	+	6	4	16	60	9T23B2685	+	6	7	16
167	60	9T23B2676	+	6	4	16	60	9T23B2676	+	6	4	16	60	9T23B2686	+	6	7	16
<b>25-167 KVA, OUTDOOR WEATHERPROOF, TYPE QL-WP</b>																		
25	60	9T23B2671G62	+	6	4	16	60	9T23B2671G62	+	6	4	16						
37.5	60	9T23B2672G62	+	6	4	16	60	9T23B2672G62	+	6	4	16						
50	60	9T23B2673G62	+	6	4	16	60	9T23B2673G62	+	6	4	16						
75	60	9T23B2674G62	+	6	4	16	60	9T23B2674G62	+	6	4	16						
100	60	9T23B2675G62	+	6	4	16	60	9T23B2675G62	+	6	4	16						
167	60	9T23B2676G62	+	6	4	16	60	9T23B2676G62	+	6	4	16						

\* Tap Arrangements:

N - No taps.

2 - (2) 5% taps below rated primary volts.

4 - (4) 2½% taps 2 above and 2 below rated primary volts.

6 - (6) 2½% taps 2 above and 4 below rated primary volts.

† NOTE: For wiring diagrams, dimensions, and weights, see pages 19 through 24.

Transformers normally in factory stock are indicated by bold-faced cross +

**NOTE: FOR PRICING INFORMATION  
SEE SUPPLEMENT, GEP-1090-1**



NOTE: ALL MODELS ON THIS PAGE ARE UL LISTED UNLESS OTHERWISE INDICATED

\* ALL TYPE QB MODELS ARE CSA CERTIFIED

**SINGLE-PHASE DATA (Continued) 0.50 Kva-25 Kva 600 Volts and Below**

Kva	120 x 240 Volts Primary Secondary 120/240 Volts					208 Volts Primary Secondary 120/240 Volts					277 Volts Primary Secondary 120/240 Volts										
	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.						
<b>.050-3 KVA, INDOOR/OUTDOOR, TYPE QB</b>																					
.050	60	9T51B22	+	N	1	1															
.100	60	9T51B24	+	N	1	1															
.150	60	9T51B25	+	N	1	2															
.250	60	9T51B27	+	N	1	2															
.500	60	9T51B28	+	N	1	3															
.750	60	9T51B29	+	N	1	4															
1	60	9T51B30	+	N	1	4															
1.5	60	9T51B31	+	N	1	5															
2	60	9T51B32	+	N	1	5															
3	60	9T51B33	+	N	1	6															
							60	9T51B156	+	N	5	5	5	60	9T51B187	+	2	2	2		
							60	9T51B157	+	N	5	5	6	60	9T51B188	+	2	2	3		
																60	9T51B189	+	2	2	4
																60	9T51B190	+	2	2	4
																60	9T51B191	+	2	2	5
																60	9T51B192	+	2	2	5
																60	9T51B193	+	2	2	6

**5-25 KVA, INDOOR/OUTDOOR, TYPE QMS**

5	60	9T21B1001G2	+	N	1	7	60	9T21B1028G2	+	N	5	7	60	9T21B1046G2	+	2	2	7
7.5	60	9T21B1002G2	+	N	1	8	60	9T21B1029G2	+	N	5	8	60	9T21B1047G2	+	2	2	8
10	60	9T21B1003G2	+	N	1	9	60	9T21B1030G2	+	N	5	9	60	9T21B1048G2	+	2	2	9
15	60	9T21B9101	+	N	1	10	60	9T21B9119	+	N	5	10	60	9T21B9143	+	2	2	10
25	60	9T21B9102	+	N	1	11	60	9T21B9120	+	N	5	11	60	9T21B9144	+	2	2	11

Kva	380/400/416 Volts Primary Secondary 120/240 Volts				
	Hertz	Model No.	* Taps	† Wiring Diagram No.	† Dimen & Wgts Fig. No.

Transformers normally in factory stock are indicated by bold-face cross †.

\* Tap Arrangements:

N—No taps.

2—(2) 5% taps below rated primary volts.

4—(4) 2½% taps 2 above and 2 below rated primary volts.

6—(6) 2½% taps 2 above and 4 below rated primary volts.

**.050-3 KVA, INDOOR/OUTDOOR, TYPE QB**

.050	50/60	9T51B162		N	2	1
.150	50/60	9T51B165	+	N	2	2
.250	50/60	9T51B167	+	N	2	2
.500	50/60	9T51B168	+	N	2	3
.750	50/60	9T51B169	+	N	2	4
1	50/60	9T51B170	+	N	2	4
1.5	50/60	9T51B171	+	N	2	5
2	50/60	9T51B172	+	N	2	5
3	50/60	9T51B173	+	N	2	6

† NOTE: For wiring diagrams, dimensions, and weights, see pages 19 through 24.

**NOTE: FOR PRICING INFORMATION  
SEE SUPPLEMENT, GEP-1090-1**



NOTE: ALL MODELS ON THIS PAGE ARE UL LISTED UNLESS OTHERWISE INDICATED

# General-purpose Transformers... Selection Information CONTINUED

## THREE-PHASE DATA 3-1500 Kva 600 Volts and Below

Kva	480 Volts Primary Secondary 208Y/120 Volts					480 Volts Primary Secondary 240 Volts					600 Volts Primary Secondary 208Y/120 Volts				
	Hertz	Model No.	* Taps	†	†	Hertz	Model No.	* Taps	†	†	Hertz	Model No.	* Taps	†	†
				Wiring Diagram No.	Dimen. & Wgts Fig. No.				Wiring Diagram No.	Dimen. & Wgts Fig. No.				Wiring Diagram No.	Dimen. & Wgts Fig. No.
<b>3—15 KVA, INDOOR/OUTDOOR, TYPE ML</b>															
3	60	9T21A4001 †	N	10	12	60	9T21A4010 †	N	15	12	60	9T21A4019	2	12	12
	60	9T21A4004 †	2	12	12	60	9T21A4013 †	4	16	12					
	60	9T21A4007 †	4	13	12										
6	60	9T21A4002 †	N	10	13	60	9T21A4011 †	N	15	13	60	9T21A4020 †	2	12	13
	60	9T21A4005 †	2	12	13	60	9T21A4014 †	4	16	13					
	60	9T21A4008 †	4	13	13										
9	60	9T21A4003 †	N	10	13	60	9T21A4012 †	N	15	13	60	9T21A4021	2	12	13
	60	9T21A4006 †	2	12	13	60	9T21A4015 †	4	16	13					
	60	9T21A4009 †	4	13	13										
15	60	9T21A9301 †	N	10	14	60	9T21A9304 †	N	15	14	60	9T21A9307 †	2	12	14
	60	9T21A9302 †	2	12	14	60	9T21A9305 †	4	16	14					
	60	9T21A9303 †	4	13	14										

## 15-1500 KVA, INDOOR, TYPE QL—FOR OUTDOOR WEATHERPROOF MODELS, SEE FOOTNOTE BELOW †

15	60	9T23B3871 †	6	18	16	60	9T23B3881 †	6	19	16	60	9T23B3891 †	6	18	16
30	60	9T23B3872 †	6	14	15	60	9T23B3882 †	6	17	15	60	9T23B3892 †	6	14	15
45	60	9T23B3873 †	6	14	15	60	9T23B3883 †	6	17	15	60	9T23B3893 †	6	14	15
50	60	9T23B3864 †	6	14	15										
75	60	9T23B3874 †	6	18	16	60	9T23B3884 †	6	19	16	60	9T23B3894 †	6	18	16
112.5	60	9T23B3875 †	6	18	16	60	9T23B3885 †	6	19	16	60	9T23B3895 †	6	18	16
150	60	9T23B3876 †	6	18	16	60	9T23B3886 †	6	19	16	60	9T23B3896 †	6	18	16
225	60	9T23B3877 †	6	18	16	60	9T23B3887 †	6	19	16					
300	60	9T23B3878 †	6	18	16	60	9T23B3888 †	6	19	16					
400	60	9T23B3866 †	6	18	16										
500	60	9T23B3879 †	6	18	16	60	9T23B3889 †	6	19	16					
750	60	9T23B3867 †	▼	21	17										
1000	60	9T23B3868 †	▼	21	17										
1500	60	Consult Factory.													

## 15-300 KVA, INDOOR, COPPER WINDING, TYPE QL—FOR OUTDOOR WEATHERPROOF MODELS, SEE FOOTNOTE BELOW †

15	60	9T23C4071 †	6	18	15	60	9T23C4081 †	6	19	15					
30	60	9T23C4072 †	6	14	16	60	9T23C4082 †	6	17	16					
45	60	9T23C4073 †	6	14	16	60	9T23C4083 †	6	17	16					
75	60	9T23C4074 †	6	18	16	60	9T23C4084 †	6	19	16					
112.5	60	9T23C4075 †	6	18	16	60	9T23C4085 †	6	19	16					
150	60	9T23C4076 †	6	18	16	60	9T23C4086 †	6	19	16					
225	60	9T23C4077 †	6	14	16	60	9T23C4087 †	6	17	16					
300	60	9T23C4078 †	6	14	16	60	9T23C4088 †	6	17	16					

Kva	480 Delta Primary Secondary 480Y/277 Volts					240 Volts Delta Primary Secondary 208Y/120 Volts					208 Volt Delta Primary Secondary 480Y/277 Volts				
	Hertz	Model No.	* Taps	†	†	Hertz	Model No.	* Taps	†	†	Hertz	Model No.	* Taps	†	†
				Wiring Diagram No.	Dimen. & Wgts Fig. No.				Wiring Diagram No.	Dimen. & Wgts Fig. No.				Wiring Diagram No.	Dimen. & Wgts Fig. No.

<b>9-15 KVA, INDOOR/OUTDOOR, TYPE ML</b>															
9	60	9T21B3105 †	4	13	12	60	9T21B3103	4	13	12	60	9T21B3101	4	24	12
15	60	9T21B3106 †	4	13	14	60	9T21B3104	4	13	14	60	9T21B3102	4	24	14

## 15-500 KVA, INDOOR, TYPE QL—FOR OUTDOOR WEATHERPROOF MODELS, SEE FOOTNOTE BELOW †

15	60	9T23B3851 †	6	18	16	60	9T23B3811 †	6	20	16	60	9T23B3801	6	26	16
30	60	9T23B3852 †	6	14	15	60	9T23B3812 †	6	11	15	60	9T23B3802	6	25	15
45	60	9T23B3853 †	6	14	15	60	9T23B3813 †	6	11	15	60	9T23B3803	6	25	15
50	60	9T23B3012 †	6	14	15	60	9T23B3013 †	6	11	15	60	9T23B3014	6	25	15
75	60	9T23B3854 †	6	18	16	60	9T23B3814 †	6	20	16	60	9T23B3804	6	26	16
112.5	60	9T23B3855 †	6	18	16	60	9T23B3815 †	6	20	16	60	9T23B3805	6	26	16
150	60	9T23B3856 †	6	18	16	60	9T23B3816 †	3	20	16	60	9T23B3806	3	23	16
225	60	9T23B3857 †	6	18	16	60	9T23B3817 †	3	20	16	60	9T23B3807	3	23	16
300	60	9T23B3858 †	6	18	16	60	9T23B3818 †	3	20	16	60	9T23B3808	3	23	16
400	60	9T23B3017 †	6	18	16	60					60	9T23B3015	3	23	16
500	60	9T23B3859 †	6	18	16	60	9T23B3819	3	20	16	60	9T23B3809	3	23	16

† For Outdoor Weatherproof, Type QL-WP, add model number suffix G62.

\* Tap Arrangements:

- N — No taps.
- 2 — (2) 5% taps below rated primary volts.
- 3 — (3) 5% taps 1 above and 2 below rated primary volts.
- 4 — (4) 2½% taps 2 above and 2 below rated primary volts.
- 6 — (6) 2½% taps 2 above and 4 below rated primary volts.

▼ 750 kva has (2) 3.1% full capacity primary taps above and below rated voltage. 1000 kva has (1) 3.6% full capacity primary tap above and below rated voltage.

† NOTE: For wiring diagrams, dimensions, and weights, see pages 19 through 24.

Transformers normally in factory stock are indicated by bold-face cross †.

**FOR PRICING INFORMATION SEE SUPPLEMENT, GEP-1090-1**

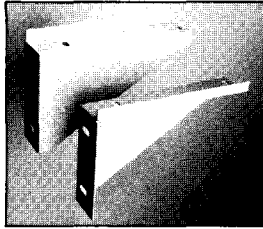


NOTE: ALL MODELS ON THIS PAGE ARE UL LISTED UNLESS OTHERWISE INDICATED



# General-purpose Transformers... Accessories and Parts

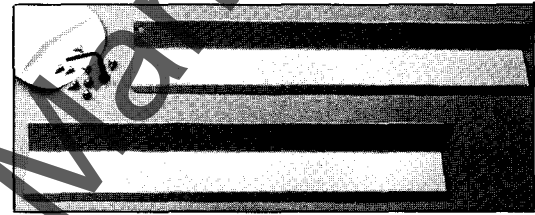
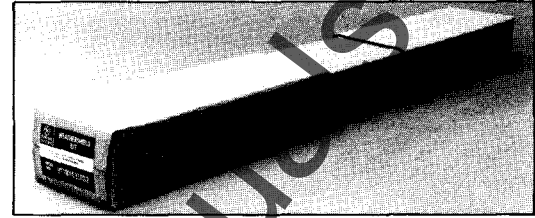
## Wall Mounting Brackets\*



Kva	Bracket Model Number (Includes 2 Per Set)
<b>SINGLE PHASE</b>	
.050-25 (Types QB, QMS) 25 (Type QL) 37.5-50	Standard on all units 9T18Y5049G2 † 9T18Y5043 †
<b>THREE PHASE</b>	
3.15 (Type ML) 15 (Type QL) 30-50 75	Standard on all units 9T18Y5042 † 9T18Y5043 †

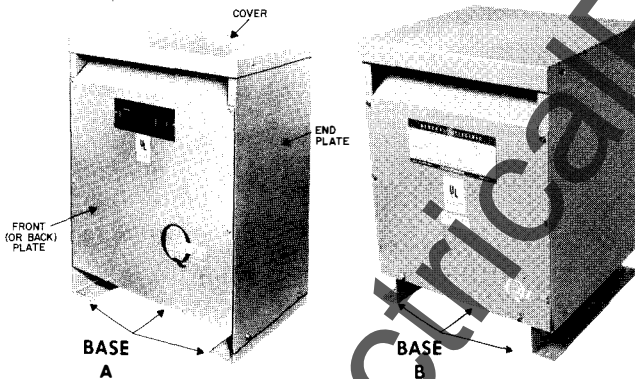
† Normally in factory stock.  
\* Not available for outdoor weatherproof (G62) units.

## Weather Shield Kits For 150 C Rise Models



Kva	Kit Catalog No.
<b>SINGLE PHASE</b>	
25	9T18Y4317G12 †
37.5, 50	9T18Y4317 †
75	9T18Y4317G2 †
100	9T18Y4317G3
167	9T18Y4317G4 †
<b>THREE PHASE</b>	
15	9T18Y4317G11 †
30, 45, 50	9T18Y4317G5 †
75, 112.5	9T18Y4317G6 †
150	9T18Y4317G7 †
225	9T18Y4317G8 †
300	9T18Y4317G9
400, 500	9T18Y4317G10

## Product Line 23 Type QL Case Parts



Base Type	Kva	Complete Enclosure Less Base	Base	Front or Back Plate	End Plate	Cover
<b>Single Phase</b>						
B	25	9T18Y4391	9T18Y4391G02	9T18Y4391G03	9T18Y4391G04	9T18Y4391G05
A	37.5	9T18Y4300	9T18Y4300G2	9T18Y4300G3	9T18Y4300G4	9T18Y4300G5
A	50	9T18Y4301	9T18Y4301G2	9T18Y4301G3	9T18Y4301G4	9T18Y4301G5
A	75	9T18Y4302	9T18Y4302G2	9T18Y4302G3	9T18Y4302G4	9T18Y4302G5
A	100	9T18Y4303	9T18Y4303G2	9T18Y4303G3	9T18Y4303G4	9T18Y4303G5
A	167	9T18Y4304	9T18Y4304G2	9T18Y4304G3	9T18Y4304G4	9T18Y4304G5
<b>Three-Phase</b>						
B	15	9T18Y4318	9T18Y4318G2	9T18Y4318G3	9T18Y4318G4	9T18Y4318G5
A	30 (20, 27 DIT)	9T18Y4305	9T18Y4305G2	9T18Y4305G3	9T18Y4305G4	9T18Y4305G5
A	45, 50 (34, 40, 51 DIT)	9T18Y4306	9T18Y4306G2	9T18Y4306G3	9T18Y4306G4	9T18Y4306G5
A	75 (63 DIT)	9T18Y4307	9T18Y4307G2	9T18Y4307G3	9T18Y4307G4	9T18Y4307G5
B	75	9T18Y4363	9T18Y4363G2	9T18Y4363G3	9T18Y4363G4	9T18Y4363G5
A	112.5 (93 DIT)	9T18Y4308	9T18Y4308G2	9T18Y4308G3	9T18Y4308G4	9T18Y4308G5
B	112.5	9T18Y4364	9T18Y4364G2	9T18Y4364G3	9T18Y4364G4	9T18Y4364G5
A	150 (118, 145 DIT)	9T18Y4309	9T18Y4309G2	9T18Y4309G3	9T18Y4309G4	9T18Y4309G5
B	150	9T18Y4365	9T18Y4365G2	9T18Y4365G3	9T18Y4365G4	9T18Y4365G5
A	225 (175, 220 DIT)	9T18Y4310	9T18Y4310G2	9T18Y4310G3	9T18Y4310G4	9T18Y4310G5
B	225	9T18Y4366	9T18Y4366G2	9T18Y4366G3	9T18Y4366G4	9T18Y4366G5
A	300 (275 DIT)	9T18Y4311	9T18Y4311G2	9T18Y4311G3	9T18Y4311G4	9T18Y4311G5
B	300	9T18Y4367	9T18Y4367G2	9T18Y4367G3	9T18Y4367G4	9T18Y4367G5
A	400, 500 (330 DIT)	9T18Y4312	9T18Y4312G2	9T18Y4312G3	9T18Y4312G4	9T18Y4312G5
B	400, 500	9T18Y4368	9T18Y4368G2	9T18Y4368G3	9T18Y4368G4	9T18Y4368G5

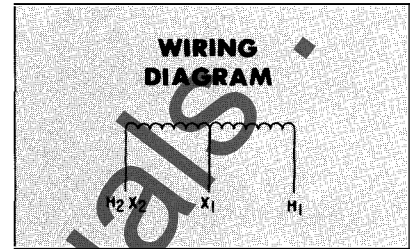


# Autotransformers

SINGLE AND THREE PHASE • 60 HERTZ • 0.5-75 KVA • 240 VOLTS AND BELOW

Autotransformers are more economical than transformers designed to carry the same load. Within their voltage limitations, they will perform the same function as transformers with the exception of insulating two circuits. You can use these autotransformers to obtain 120 volts

from a 240-volt circuit, to derive a neutral on a 240-volt, 2-wire circuit, or to balance a 120/240-volt, 3-wire circuit. They also may be used in banks of poly-phase circuits. Check possible restrictions under local codes before installing.



## SINGLE-PHASE

Kva *	Model No.	Mounting F = Floor W = Wall	Approximate Dimensions in Inches			Dimen. Fig. No. (Pages 20, 21)	Approx. Net Wt. Pounds	
			Height	Width	Depth			
<b>INPUT 120 OR 240 VOLTS—OUTPUT 120 OR 240/120 VOLTS, 3-WIRE 60 HERTZ Type QB, Indoor/Outdoor, No Taps</b>								
.500	9T51B136	+	W	7 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2	10
.750	9T51B137	+	W	8 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3	16
1	9T51B138	+	W	8 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3	16
1.5	9T51B139		W	9 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4	25
2	9T51B140	+	W	9 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4	25
3	9T51B141	+	W	11 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	5	40
5	9T51B142		W	13 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	6	60
<b>60 Hertz, Type QMS, Indoor/Outdoor, No Taps</b>								
7.5	9T21B4552G2		W#	14 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>8</sub>	7	102
10	9T21B4553G2		W#	14 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>8</sub>	7	102
15	9T21B9201		W#	15 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	9	140
25	9T21B9202		W#	18 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	10	255

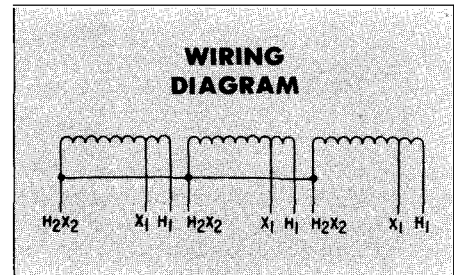
+ Normally in factory stock.

\* Kva output at 120 volts, 2-wire, or allowable unbalance at 240/120 volts, 3-wire.

# Wall mounting accessories are optional. See page 11.

For boosting voltage of three-phase grounded circuits

The autotransformers listed below are designed to boost the voltage of a three-phase secondary network system where the neutral is available and solidly grounded. **WARNING:** These are autotransformers. Do not use Buck-Boost Curves. Check possible restrictions under local codes before installing.



## THREE-PHASE †

Kva Output per Bank	Model No.	Mounting F = Floor W = Wall #	Approximate Dimensions in Inches			Dimen. Fig. No. (Pages 20, 21)	Approx. Net Wt. Per Unit Pounds	
			Height	Width	Depth			
<b>60 HERTZ, Type QB, INDOOR/OUTDOOR, INPUT 208Y/120 VOLTS—OUTPUT 230 VOLTS, NO TAPS</b>								
6 †	9T51B143		W	7 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2	10
9 †	9T51B144		W	8 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3	16
15 †	9T51B145		W	8 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3	16
30 †	9T51B146		W	9 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4	25
45 †	9T51B147		W	11 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	5	40
75 †	9T51B148		W	13 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	6	60
<b>60 HERTZ, TYPE QB, INDOOR/OUTDOOR, INPUT 208Y/120 VOLTS—OUTPUT 240 VOLTS, NO TAPS</b>								
6 †	9T51B150		W	8 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	3	16
15 †	9T51B152		W	9 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>16</sub>	4	25
30 †	9T51B153		W	11 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	5	40
45 †	9T51B154		W	11 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	5	40

† Bank of 3 single-phase autotransformers to be connected wye. Dimensions and weights are for each unit in bank. Each single autotransformer is rated 1/3 of the bank kva rating. Order 3 single-phase transformers for each three-phase.

**NOTE: FOR PRICING INFORMATION  
SEE SUPPLEMENT, GEP-1090-1**



NOTE: ALL MODELS ON THIS PAGE ARE UL LISTED UNLESS OTHERWISE INDICATED

# Buck-boost Transformers

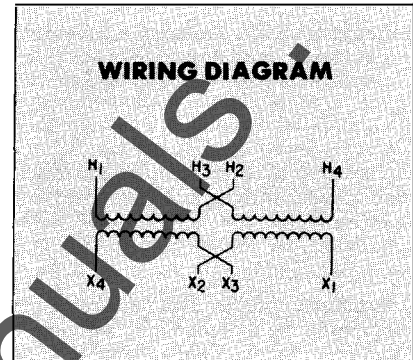
www.ElectricalPartManuals.com

General Electric bucking and boosting transformers provide an economical and convenient means for bucking or boosting voltage on single- and three-phase circuits. They are compact, lightweight, and can be easily installed for indoor or outdoor service.

*Buck-boost transformers* are employed primarily for boosting single- and three-phase circuits by connecting them as autotransformers. Before using, check possible restrictions under local codes. For application information see pages 14 through 17. *When*

*used as autotransformers*, the voltage change is small and the kva load they can handle is large in comparison to their physical size.

The transformers with series-multiple 12/24-, 16/32-, or 24/48-volt secondary windings are suitable for a wide variety of applications. In addition to boosting low circuit voltages to rated voltage, they can be used, for example, as transformers to supply 12 or 24 volts 2-wire or 24/12 volts 3-wire. Two or more units can be used in various combinations to obtain many other special voltages.



## Single-Phase, Type QB, 60 Hertz, Indoor/Outdoor

Kva	Model No.			Approximate Dimensions in Inches			Dimen. Fig. No. (Pages 20, 21)	Approx. Net Weight Pounds
				Height	Width	Depth		
	Primary Volts 120/240		Primary Volts 240/480					
Secondary Volts		Secondary Volts						
12/24		16/32	24/48					
.050	9T51B102 †	9T51B122	9T51B202	6 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	1	6
.075	9T51B103 †	9T51B123 †	9T51B203	6 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	1	6
.100	9T51B104 †	9T51B124 †	9T51B204	6 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	1	6
.150	9T51B105 †	9T51B125 †	9T51B205	7 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2	10
.250	9T51B107 †	9T51B127 †	9T51B207	7 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2	10
.500	9T51B108 †	9T51B128 †	9T51B208	8 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3	16
.750	9T51B109 †	9T51B129 †	9T51B209	9 <sup>3</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4	25
1	9T51B110 †	9T51B130 †	9T51B210	9 <sup>3</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4	25
1.5	9T51B111 †	9T51B131 †	9T51B211	11 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	5	40
2	9T51B112 †	9T51B132 †	9T51B212	11 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	5	40
3	9T51B113 †	9T51B133 †	9T51B213	13 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	6	60
60 Hertz, Type QMS, Indoor/Outdoor								
5	9T21B1037G2 †	9T21B1040G2 †		14 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	7	82
50 Hertz, Type QMS, Indoor/Outdoor								
5	9T21B1061G2	9T21B1064G2		14 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	7	89

† Normally in factory stock.

**NOTE:**  
FOR PRICING  
INFORMATION  
SEE SUPPLEMENT  
GEP-1090-1



NOTE: ALL MODELS ON THIS PAGE ARE UL LISTED UNLESS OTHERWISE INDICATED

Efficient operation of electrical equipment requires that line voltage be at or near the nameplate rating of the equipment. In order to match available line voltage (whether it be too high or low) with equipment voltage, buck-boost transformers provide the most convenient and least expensive method.

Do not use buck-boost transformers to solve a fluctuating voltage problem. They should be used to compensate for high or low voltage conditions *only* when the available line voltage is reasonably constant.

**Step selection:**

The tables on these pages greatly facilitate buck-boost transformer selection . . . no more slide rule calculations. Simply follow these five easy steps. (Buck-boost transformers can also be used in reverse by utilizing the "available line voltage" column as the output voltage.)

1. Refer to the table having the same *output voltage* as the equipment you want to operate. For example, if you are installing a 230-volt single-phase air conditioner, use Table 1.

2. Different available *line voltages* are listed across the top of each table. Select the line voltage column closest to your actual supply. If your available line voltage is exactly mid-way between two listed voltage levels, you may use either voltage column. For example, in Table 1, if you have 212 available, use either the 208 or the 216 column.

3. Read down the available line voltage column until you reach the rated load kva of the equipment you want to operate or the *next highest* kva rating. For example, in Table 1 under the 208 available line voltage column, you want to operate an air conditioner rated 2 kva. Since 2 kva is not listed as such, you must read down to the next higher value or 2.4 kva.

4. Once you have established this point, read across to the far left column for the exact GE buck-boost model number for your application. For example, in Table 1 under the 208 column for a 2 kva air conditioner, read across from 2.4 (next higher kva rating) and the model number is 9T51B107.

5. Connect the buck-boost transformer you have selected per the connection diagram specified at the *bottom* of the available line voltage column you used. For example, if you used the 208 column, you would connect the buck-boost transformer per connection diagram A. That's all there is to it!

**Calculating Load KVA**

If load KVA is not known, it may be simply calculated when the load voltage and load current are known.

$$\text{Single-Phase Load KVA} = \frac{\text{Load Voltage} \times \text{Full Load Amps}}{1000}$$

$$\text{Three-Phase Load KVA} = \frac{\text{Load Line Voltage} \times 1.73 \times \text{Full Load Amps}}{1000}$$

Select the proper buck-boost model number by matching the calculated load KVA with the KVA values listed in the tables. If the exact value is not shown, always use the next larger load KVA value listed.

**Table 1 — 230 Volts Output, 60 Hertz — Single-Phase**

Model Number 276	Available Line Voltage									
	192	203	208	216	219	242	245	253	261	276
LOAD KVA*										
9T51B102			.480	.720	.960	1.0	.770	.530	.410	.288
9T51B122	.240	.360								
9T51B202			.720	1.1	1.5	1.6	1.2	.800	.620	
9T51B103		.540								
9T51B123										
9T51B203	.359		.960	1.5	2.0	2.1	1.6	1.1	.820	.431
9T51B104		.720								
9T51B124										
9T51B204	.479		1.5	2.9	3.1	3.1	1.6	1.6		.575
9T51B105										
9T51B125		1.1	2.2	3.6	4.8	5.1	2.3	2.7	2.1	.863
9T51B205	.719		2.4	3.6	4.8	5.1	3.9	2.7	2.1	
9T51B107										
9T51B127		1.8	3.6	5.4	7.2	7.5	3.9	2.7	2.1	1.4
9T51B207	1.2		2.4	3.6	4.8	5.1	3.9	2.7	2.1	
9T51B108		3.6	4.8	7.2	9.6	10.1	7.7	5.3	4.1	2.9
9T51B128										
9T51B208	2.4		7.2	10.8	14.4	15.2	11.5	7.9	6.2	
9T51B109		5.4	7.2	10.8	14.4	15.2	11.5	7.9	6.2	
9T51B129										
9T51B209	3.6		9.6	14.4	19.2	20.2	15.4	10.6	8.2	4.3
9T51B110		7.2	9.6	14.4	19.2	20.2	15.4	10.6	8.2	
9T51B130										
9T51B210	4.8		14.4	21.6	28.8	30.3	23.0	15.9	12.3	5.7
9T51B111										
9T51B131		10.8	14.4	21.6	28.8	30.3	23.0	15.9	12.3	8.6
9T51B211	7.2		19.2	28.8	38.4	40.4	30.7	21.1	16.4	
9T51B112		14.4	19.2	28.8	38.4	40.4	30.7	21.1	16.4	
9T51B132										
9T51B212	9.6		28.8	43.2	57.6	60.5	46.0	31.7	24.5	11.5
9T51B113		21.6	28.8	43.2	57.6	60.5	46.0	31.7	24.5	
9T51B133										
9T51B213	14.4		43.2	64.8	86.4	90.9	69.0	52.7	40.8	17.3
9T21B1037G2		36.0	47.8	72.0	95.9	100.9	77.0	52.7	40.8	
9T21B1040G2										
Connection Diagram Page 18	C	A	A	B	B	B	B	A	A	C

**Table 2 — 240 Volts Output, 60 Hertz — Single-Phase**

Model Number	Available Line Voltage									
	200	208# 212	218	225	229	252	256	264	272	288
LOAD KVA*										
9T51B102		.380	.500	.750	1.0	1.1	.800	.550	.430	.300
9T51B122	.250									
9T51B202		.570	.750	1.2	1.5	1.6	1.2	.825	.640	
9T51B103										
9T51B123										
9T51B203	.375		1.0	1.5	2.0	2.1	1.6	1.1	.850	.391
9T51B104		.750								
9T51B124										
9T51B204	.500		1.5	3.0	3.2	3.2	1.7	1.7		.522
9T51B105										
9T51B125		1.2	2.3	3.6	4.8	5.1	2.4	2.8	2.2	1.3
9T51B205	.750		2.5	3.8	5.0	5.3	4.0	2.8	2.2	.782
9T51B107		1.9	2.5	3.8	5.0	5.3	4.0	2.8	2.2	
9T51B127										
9T51B207	1.3		2.5	3.8	5.0	5.3	4.0	2.8	2.2	1.4
9T51B108		3.8	5.0	7.5	10.0	10.5	8.0	5.5	4.3	2.6
9T51B128										
9T51B208	2.5		7.5	11.3	15.0	15.8	12.0	8.3	6.4	
9T51B109		5.7	7.5	11.3	15.0	15.8	12.0	8.3	6.4	
9T51B129										
9T51B209	3.8		10.0	15.0	20.0	21.0	16.0	11.0	8.5	4.0
9T51B110		7.5	10.0	15.0	20.0	21.0	16.0	11.0	8.5	
9T51B130										
9T51B210	5.0		15.0	22.5	30.0	31.5	24.0	16.5	12.8	5.2
9T51B111										
9T51B131		11.3	15.0	22.5	30.0	31.5	24.0	16.5	12.8	7.8
9T51B211	7.5		20.0	30.0	40.0	42.6	32.0	22.0	17.0	
9T51B112		15.0	20.0	30.0	40.0	42.6	32.0	22.0	17.0	
9T51B132										
9T51B212	10.0		30.0	45.0	60.0	63.0	48.0	33.0	25.5	10.4
9T51B113		22.5	30.0	45.0	60.0	63.0	48.0	33.0	25.5	
9T51B133										
9T51B213	15.0		50.0	75.0	100.0	105.0	80.0	55.0	42.5	15.6
9T21B1037G2		37.5	50.0	75.0	100.0	105.0	80.0	55.0	42.5	
9T21B1040G2										
Connection Diagram Page 18	C	A	A	B	B	B	B	A	A	C

\*Load kva is the maximum load at voltages shown when transformers are connected as autotransformers, according to the diagram referenced and shown on page 18.

The formula for calculating single-phase load kva is:

$$\frac{\text{Load Voltage} \times \text{Full Load Amps}}{1000}$$

#When 208 is the available line voltage, use the 212 voltage column. This will result in output voltage of 236 volts, which should be sufficient for most applications.

**Table 3 — 115 Volts Output, 60 Hertz, Single-Phase**

Model Number	Available Line Voltage							
	91	96	101	105	127	130	138	146
	LOAD KVA*							
9T51B102	.180	.240	.360	.480	.539	.410	.290	.230
9T51B122	.270	.360	.540	.720	.800	.610	.440	.350
9T51B103	.360	.480	.720	.960	1.1	.820	.580	.460
9T51B123								
9T51B104								
9T51B124								
9T51B105	.540	.720	1.1	1.5	1.6	1.3	.870	.690
9T51B125	.900	1.2	1.8	2.4	2.7	2.1	1.5	1.2
9T51B107	1.8	2.4	3.6	4.8	5.3	4.1	2.9	2.3
9T51B127								
9T51B108								
9T51B128								
9T51B109	2.7	3.6	5.4	7.2	8.0	6.1	4.4	3.5
9T51B129	3.6	4.8	7.2	9.6	10.4	8.2	5.8	4.6
9T51B110	5.4	7.2	10.8	14.4	15.9	12.2	8.6	6.9
9T51B130								
9T51B111								
9T51B131								
9T51B112	7.2	9.6	14.4	19.2	21.2	16.3	11.5	9.2
9T51B132	10.8	14.4	21.6	28.8	31.8	24.4	17.3	13.7
9T51B133	18.0	24.0	36.0	48.0	53.0	41.0	28.8	22.9
9T21B1037G2								
9T21B1040G2								
Connection Diagram Page 18	C	C	D	D	D	D	C	C

**Table 4 — 120 Volts Output, 60 Hertz, Single-Phase**

Model Number	Available Line Voltage							
	95	100	106	109	132	136	144	152
	LOAD KVA*							
9T51B102	.190	.250	.380	.500	.550	.430	.300	.240
9T51B122	.290	.380	.570	.750	.830	.640	.450	.360
9T51B103	.380	.500	.750	1.0	1.1	.850	.600	.480
9T51B123								
9T51B104								
9T51B124								
9T51B105	.570	.750	1.2	1.5	1.7	1.3	.900	.720
9T51B125	.940	1.3	1.9	2.5	2.8	2.2	1.5	1.2
9T51B107	1.9	2.5	3.8	5.0	5.5	4.3	3.0	2.4
9T51B127								
9T51B108								
9T51B128								
9T51B109	2.9	3.8	5.7	7.5	8.3	6.4	4.5	3.6
9T51B129	3.8	5.0	7.5	10.0	11.0	8.5	6.0	4.8
9T51B110	5.7	7.5	11.3	15.0	16.5	12.8	9.0	7.2
9T51B130								
9T51B111								
9T51B131								
9T51B112	7.5	10.0	15.0	20.0	22.0	17.0	12.0	9.5
9T51B132	11.3	15.0	22.5	30.0	33.0	25.5	18.0	14.3
9T51B133	18.8	25.0	38.0	50.0	55.0	43.0	30.0	23.8
9T21B1037G2								
9T21B1040G2								
Connection Diagram Page 18	C	C	D	D	D	D	C	C

\*Load kva is the maximum load at voltages shown when transformers are connected as autotransformers, according to the diagram referenced and shown on page 18.

The formula for calculating single-phase load kva is:

$$\frac{\text{Load Voltage} \times \text{Full Load Amps}}{1000}$$

**Table 5 — 230 Volts, 3 Wire Output, 60 Hertz, Three-Phase**

Quantity Required Per Bank	Model Number	Available Line Voltage†				
		181Y/105	192Y/111	203Y/117	208Y/120	277Y/160
LOAD KVA*						
3	9T51B102		.830	1.3	1.7	
3	9T51B122					.48
3	9T51B202	.620	1.2	1.9	2.5	
3	9T51B103					.72
3	9T51B123	.930				
3	9T51B203					
3	9T51B104		1.7		3.4	
3	9T51B124	1.2		2.5		
3	9T51B204					.96
3	9T51B105		2.5		5.0	
3	9T51B125	1.9		3.7		
3	9T51B205					1.44
3	9T51B107		4.2		8.3	
3	9T51B127	3.1		6.2		
3	9T51B207					2.4
3	9T51B108		8.3		16.6	
3	9T51B128	6.2		12.5		
3	9T51B208					4.8
3	9T51B109		12.5		25.0	
3	9T51B129	9.3		18.7		
3	9T51B209					7.2
3	9T51B110		16.6		33.2	
3	9T51B130	12.5		25.0		
3	9T51B210					9.6
3	9T51B111		25.0		50.0	
3	9T51B131	18.7		37.0		
3	9T51B211					14.4
3	9T51B112		33.0		66.0	
3	9T51B132	25.0		50.0		
3	9T51B212					19.2
3	9T51B113		50.0		100.0	
3	9T51B133	37.5		75.0		
3	9T51B213					28.8
3	9T21B1037G2		83.0		167.0	
3	9T21B1040G2	62.0		124.0		
Connection Diagram Pg. 18		F	F	G	G	F

**Table 6 — 240 Volts, 3 Wire Output, 60 Hertz Three-Phase**

Quantity Required Per Bank	Model Number	Available Line Voltage				
		189Y/109	200Y/115	208Y/120§ 212Y/122	218Y/126	288Y/165
LOAD KVA*						
3	9T51B102		.870	1.3	1.7	
3	9T51B122					.5
3	9T51B202	.650	1.3	2.0	2.6	
3	9T51B103					.75
3	9T51B123	.970				
3	9T51B203					
3	9T51B104		1.7		3.5	
3	9T51B124	1.3		2.6		
3	9T51B204					1.0
3	9T51B105		2.6		5.2	
3	9T51B125	2.0		3.9		
3	9T51B205					1.5
3	9T51B107		4.3		8.7	
3	9T51B127	3.2		6.5		
3	9T51B207					2.5
3	9T51B108		8.7		17.3	
3	9T51B128	6.5		13.0		
3	9T51B208					5.0
3	9T51B109		13.0		26.0	
3	9T51B129	9.7		19.5		
3	9T51B209					7.5
3	9T51B110		17.3		34.6	
3	9T51B130	13.0		26.0		
3	9T51B210					10.0
3	9T51B111		26.0		52.0	
3	9T51B131	19.5		39.0		
3	9T51B211					15.0
3	9T51B112		35.0		70.0	
3	9T51B132	26.0		52.0		
3	9T51B212					20.0
3	9T51B113		52.0		104.0	
3	9T51B133	39.0		78.0		
3	9T51B213					30.0
3	9T21B1037G2		87.0		173.0	
3	9T21B1040G2	65.0		130.0		
Connection Diagram Page 18		F	F	G	G	F

**Table 7 — 460 Volts, 3 Wire Output, 60 Hertz, Three-Phase**

Quantity Required Per Bank	Model Number	Available Line Voltage — 3 or 4 Wire					
		385	406	418	432	438	
THREE-PHASE LOAD KVA*							
3	9T51B102		.830	1.25	1.66	2.49	3.32
3	9T51B122						4.96
3	9T51B202	.630	1.25	1.87	2.48	3.32	
3	9T51B103						4.96
3	9T51B123	.930					
3	9T51B203						6.62
3	9T51B104		1.7		3.31		
3	9T51B124	1.3		2.49		4.97	
3	9T51B204						9.94
3	9T51B105		2.6		4.97		
3	9T51B125	2.0		3.73		7.46	
3	9T51B205						16.6
3	9T51B107		4.3		8.28		
3	9T51B127	3.2		6.22		12.4	
3	9T51B207						33.2
3	9T51B108		8.7		16.6		
3	9T51B128	6.5		12.5		24.9	
3	9T51B208						59.6
3	9T51B109		13.0		24.8		
3	9T51B129	9.7		18.7		37.3	
3	9T51B209						7.5
3	9T51B110		17.3		33.1		
3	9T51B130	13.0		24.9		49.7	
3	9T51B210						66.2
3	9T51B111		26.0		49.7		
3	9T51B131	19.5		37.3		74.6	
3	9T51B211						133.0
3	9T51B112		35.0		66.3		
3	9T51B132	26.0		49.7		99.5	
3	9T51B212						198.6
3	9T51B113		52.0		99.3		
3	9T51B133	39.0		74.6		149.0	
3	9T51B213						322.0
3	9T21B1037G2		87.0		166.0		
3	9T21B1040G2	65.0		125.0		249.0	
Connection Diagram Page 18		F	H	H	I	I	

\*Load kva is the maximum load at voltages shown when transformers are connected as autotransformers, according to the diagram referenced and shown on page 18.

The formula for calculating three-phase load kva is:

$$\frac{\text{Load Line Voltage} \times 1.73 \times \text{Full Load Amps}}{1000}$$

§When 208Y/120 volts is the available line voltage, the 212Y/122 column may be used to obtain 236 volts which should be satisfactory for most applications.

**Warning — 3 phase autotransformers should never be used to obtain 4 wire output with 3 wire input.**

**Table 8 — 480 Volts, 3 Wire Output, 60 Hertz Three-Phase**

Quantity Required Per Bank	Model Number	Available Line Voltage — 3 or 4 Wire			
		400	424	436	450
THREE-PHASE LOAD KVA*					
3	9T51B102	.866	1.3	1.74	2.6
3	9T51B122				
3	9T51B202				
3	9T51B103				
3	9T51B123	1.95	2.6	3.9	
3	9T51B203	1.3	2.6	3.5	5.2
3	9T51B104				
3	9T51B124				
3	9T51B204				
3	9T51B105	5.2			
3	9T51B125	2.6	3.9	7.8	13.0
3	9T51B205				
3	9T51B107				
3	9T51B127				
3	9T51B207	4.3	6.3	8.7	13.0
3	9T51B108	8.7	13.0	17.4	26.0
3	9T51B128				
3	9T51B208				
3	9T51B109				
3	9T51B129	19.5	26.0	39.0	
3	9T51B209	13.0	26.0	35.0	52.0
3	9T51B110				
3	9T51B130				
3	9T51B210				
3	9T51B111	17.3	52.0		
3	9T51B131	26.0	39.0	69.0	104.0
3	9T51B211				
3	9T51B112				
3	9T51B132				
3	9T51B212	34.6	52.0		
3	9T51B113	51.9	78.0	104.0	156.0
3	9T51B133				
3	9T51B213				
3	9T21B1037G2				
3	9T21B1040G2	130.0	174.0	260.0	
	Connection Diagram Page 1B	F	H	H	I

\* The load kva in tables 7, 8, 9 and 10 is the maximum load at voltages shown when transformers are connected as autotransformers according to the diagram referenced and shown on page 18.

The formula for calculating single-phase load kva is:  

$$\frac{\text{Load Voltage} \times \text{Full Load Amps}}{1000}$$

The formula for calculating three-phase load kva is:  

$$\frac{\text{Load Line Voltage} \times 1.73 \times \text{Full Load Amps}}{1000}$$

**Warning** — 3 phase autotransformers should never be used to obtain 4 wire output with 3 wire input.

Transformers listed on pages 9 and 10 can also be used to perform Buck-Boost functions by utilizing specified connection diagrams shown on page 18. Consult Tables 9 and 10 for appropriate applications.

**Table 9 — 480 Volts, 3 Wire Output, 60 Hertz, Three-Phase**

Quantity Required per Bank	Model Number	Available Line Voltage	
		600	575
THREE PHASE LOAD KVA*			
2	9T51BB	4.3	4.1
2	9T51BBB	6.5	6.2
2	9T51B9	8.6	8.3
2	9T51BB9		
2	9T51B10	13.0	12.4
2	9T51B90	17.2	16.5
2	9T51B11	25.8	24.8
2	9T51B13		
2	9T51B93		
2	9T21B1004G2§		
2	9T21B1016G2¶	43.2	41.0
2	9T21B1005G2§	65.0	
2	9T21B1017G2§	86.0	83.0
2	9T21B1006G2¶		
2	9T21B1018G2¶	130.0	124.0
2	9T21B9103§		
2	9T21B9111¶		
2	9T21B9104§	216.0	207.0
2	9T21B9112¶	324.0	250.0
2	9T23B2672§		
2	9T23B2673§		
	Connection Diagram Pg. 1B	J	K

**Table 10 — 480 Volts Output, 60 Hertz, Single-Phase**

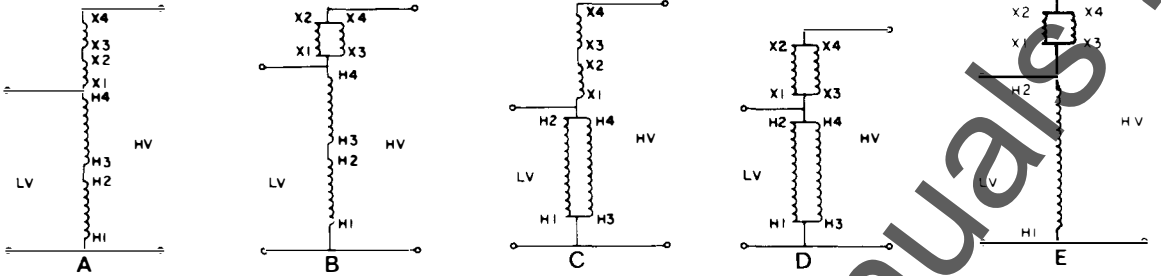
Model No.	Available Line Voltage	
	600	575
SINGLE PHASE LOAD KVA*		
9T51BB	2.5	2.4
9T51BBB	3.7	3.6
9T51B9	5.0	4.8
9T51B99		
9T51B10		
9T51B10		
9T51B90	7.5	7.2
9T51B11	10.0	9.6
9T51B12	15.0	14.3
9T51B92		
9T51B13		
9T51B93	25.0	24.0
9T21B1004G2§	37.5	36.0
9T21B1016G2¶		
9T21B1005G2§		
9T21B1017G2¶		
9T21B1006G2¶	50.0	48.0
9T21B1018G2¶	75.0	72.0
9T21B9103§		
9T21B9111¶		
9T21B9104§	125.0	
9T21B9112¶	187.0	120.0
9T23B2672§		
9T23B2673§		
Connection Diagram Pg. 1B	B	E

§ This model can be found in single phase 480-120 volt listing.

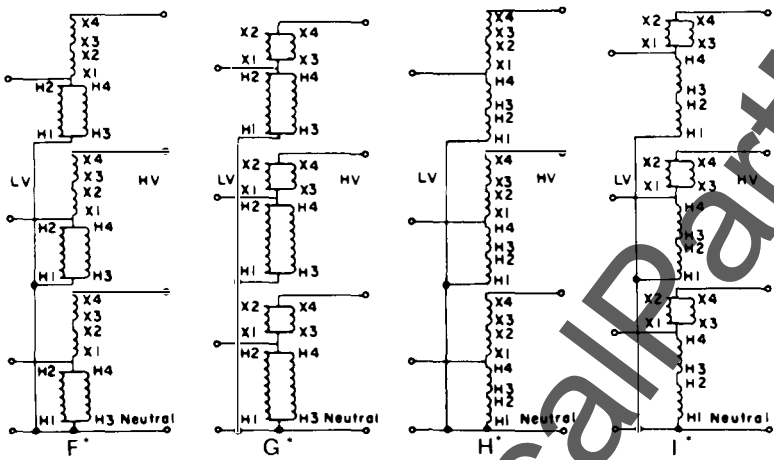
¶ This model can be found in single phase 600-120 volt listing.

# Buck-boost Transformers CONTINUED

## CONNECTION DIAGRAMS

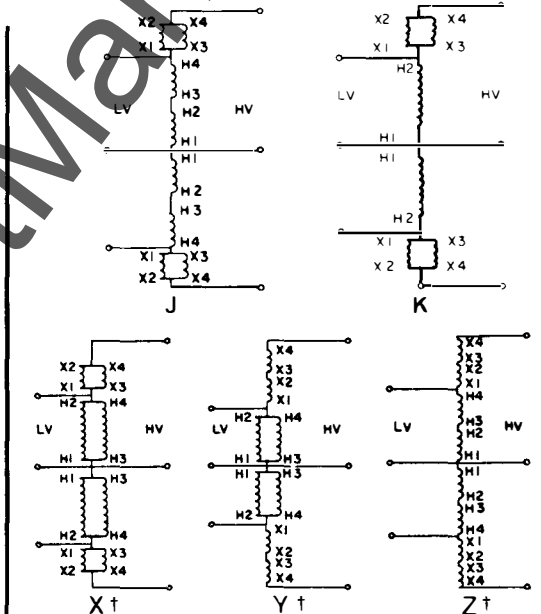


## Single-Phase Connections



\* WARNING If input is 3 wire only, "neutral" connection must be isolated and insulated

## Three-Phase Wye Connections

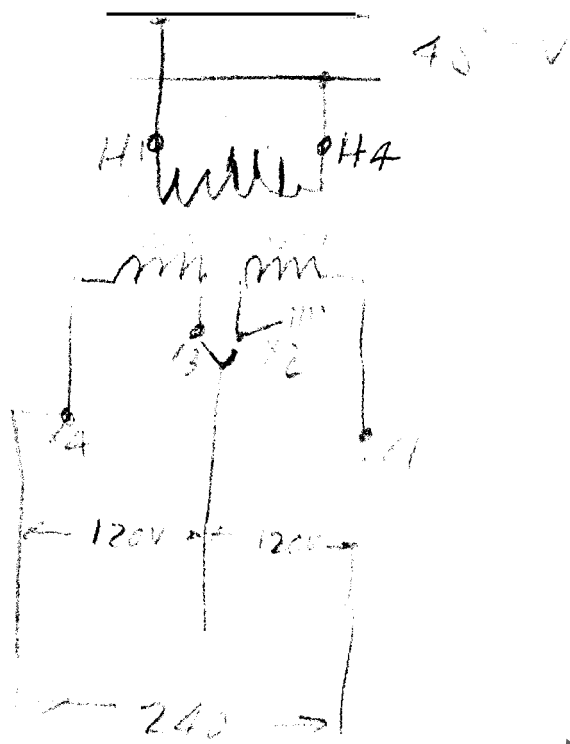


## Three-Phase Open Delta Connections

† ALTERNATE CONNECTIONS  
TO BE USED ONLY AFTER CONTACTING THE FACTORY.  
DIAGRAMS NOT REFERENCED IN THIS GUIDE.



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# General-purpose Transformers Wiring Diagrams

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## WIRING DIAGRAMS

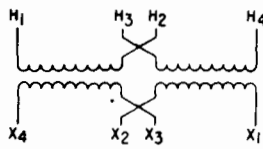


Diagram 1

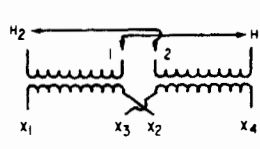


Diagram 8

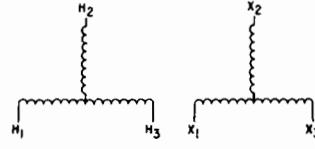


Diagram 15

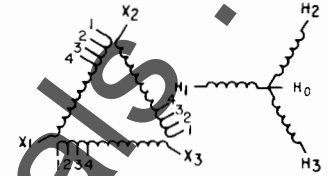


Diagram 22

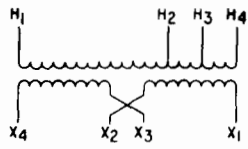


Diagram 2

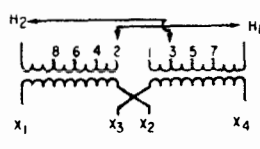


Diagram 9

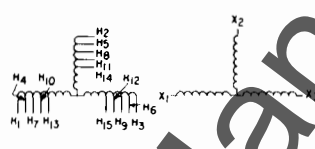


Diagram 16

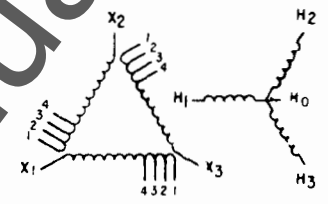


Diagram 23

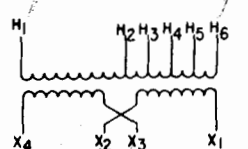


Diagram 3

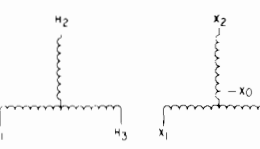


Diagram 10

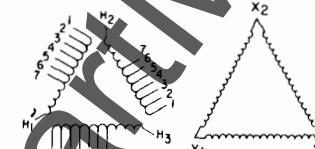


Diagram 17

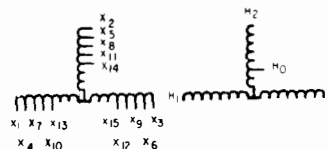


Diagram 24

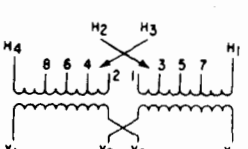


Diagram 4

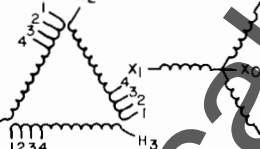


Diagram 11

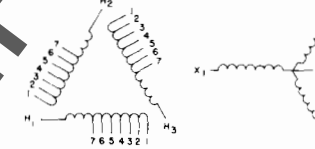


Diagram 18

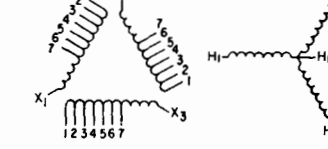


Diagram 25

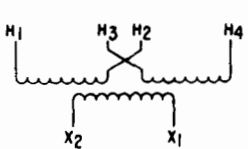


Diagram 5

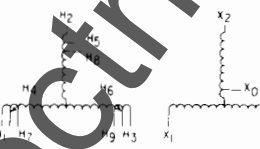


Diagram 12

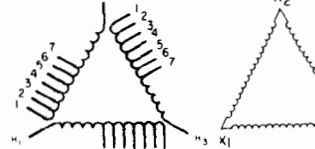


Diagram 19

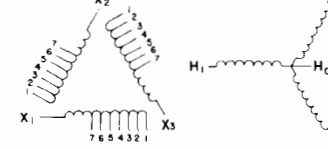


Diagram 26

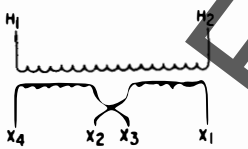


Diagram 6

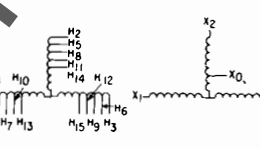


Diagram 13

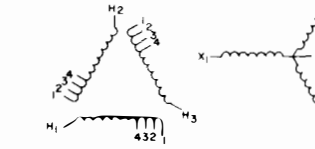


Diagram 20

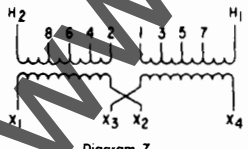


Diagram 7

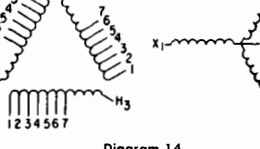


Diagram 14

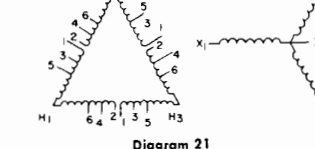


Diagram 21

WWW.ElectricalArtManuals.com

# General-purpose Transformers... Dimensions

WWW.ElectricalPartManuals.com

## DIMENSIONS—TYPE QB

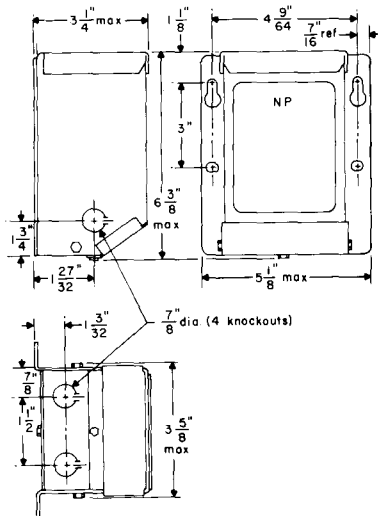


Fig. 1

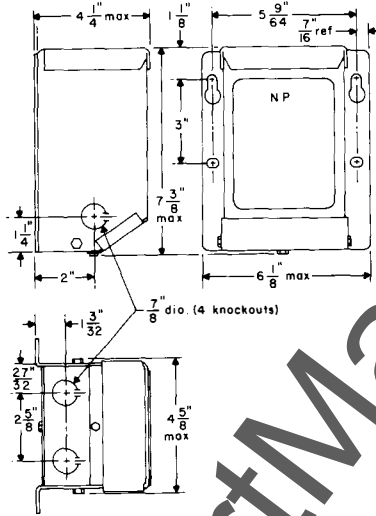


Fig. 2

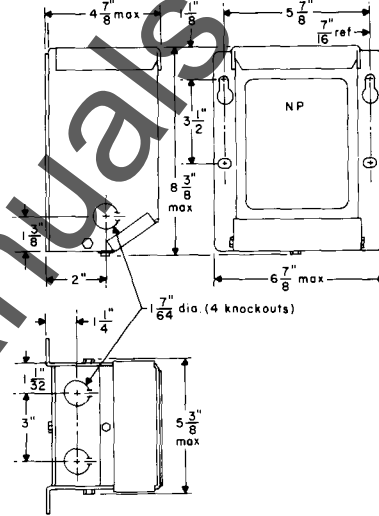


Fig. 3

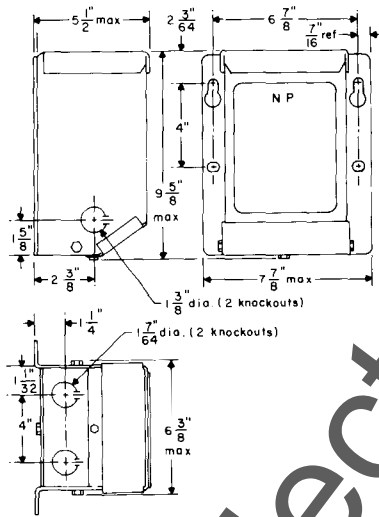


Fig. 4

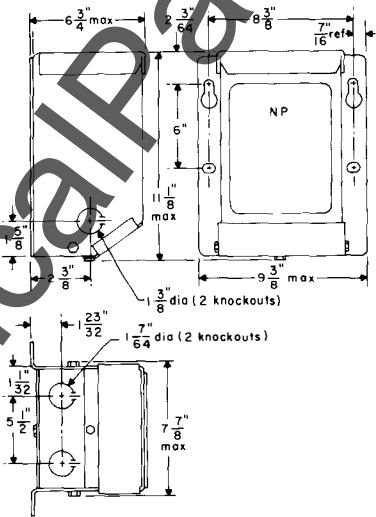


Fig. 5

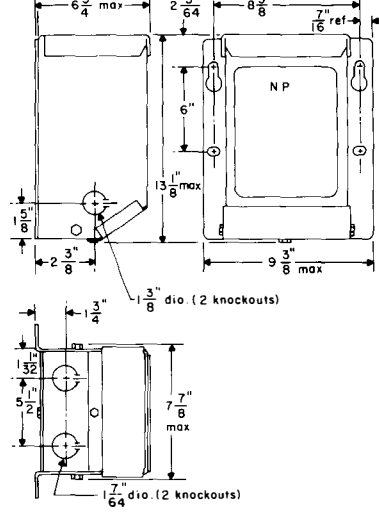
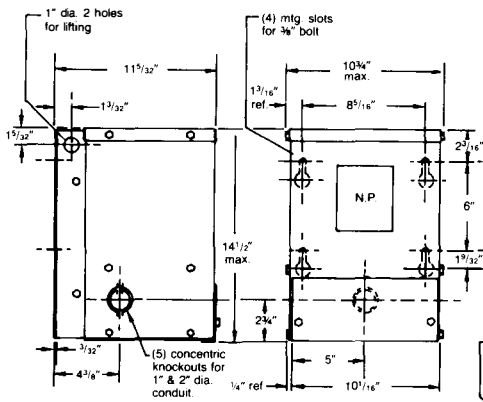


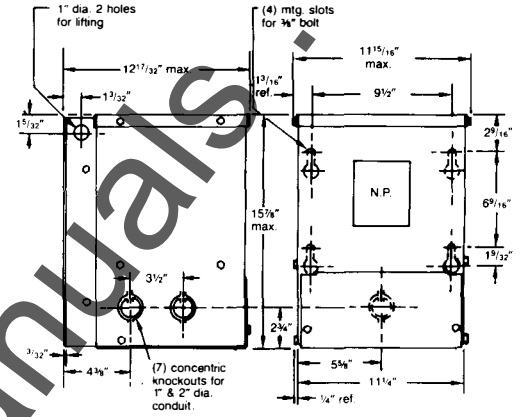
Fig. 6

Kva	Model Number	Approx. Net Wt. in Lb.	Fig. No.
<b>SINGLE-PHASE</b>			
.050	9T51B2, -22, -82, -162, -502, -582	6	1
.075	9T51B3, -28, -83, -503	6	1
.100	9T51B4, -24, -84, -164, -504, -584	6	1
.150	9T51B5, -25, -85, -165, -505, -585	10	2
.250	9T51B7, -27, -87, -167, -187, -507, -547, -567, -587	10	2
.500	9T51B8, -28, -88, -168, -188, 508, 548, -568, -588, -4001	16	3
.750	9T51B9, -29, -89, -169, -189, -509, -549, -569, -589	25	4
1.00	9T51B10, -30, -50, -70, -90, -170, -190, -510, -550, -570, -590	25	4
1.50	9T51B11, -31, -51, -71, -91, -171, -191, -511, -551, -571, -591, -4004	40	5
2.00	9T51B12, -32, -52, -72, -92, -156, -172, -192, -512, -552, 572, -592	40	5
3.00	9T51B13, -33, -53, -73, -93, -135, -137, -173, -193, -513, -553, -573, -593	60	6

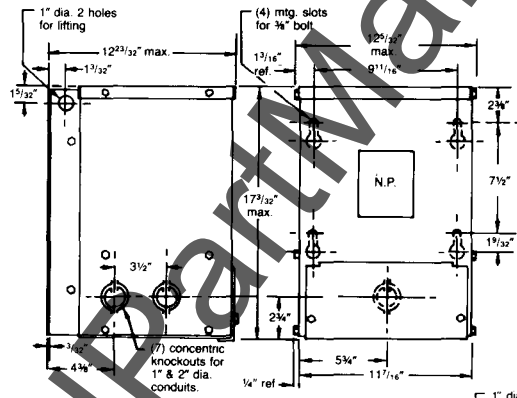
**DIMENSIONS — TYPE QMS**



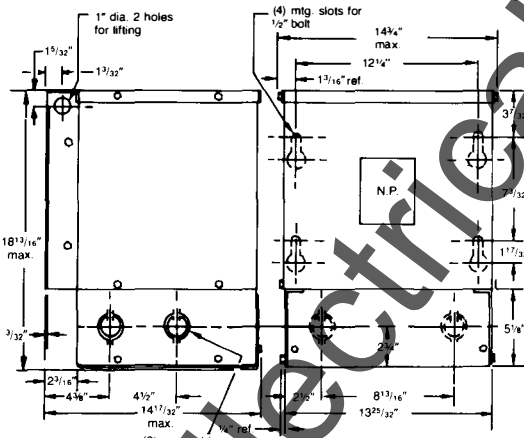
**Fig. 7**



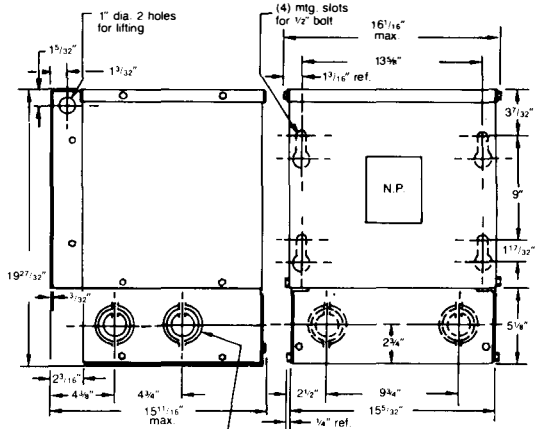
**Fig. 8**



**Fig. 9**



**Fig. 10**



**Fig. 11**

Kvo	Model Number	Approx. Net. Wt. in Lbs.	Fig. No.
<b>SINGLE-PHASE, 60 HERTZ</b>			
5	9T21B1001G2, 1004G2, 1007G2, 1013G2, 1016G2, 1019G2, 1028G2, 1043G4, 1046G2	102	7
7.5	9T21B1002G2, 1005G2, 1008G2, 1014G2, 1017G2, 1020G2, 1029G2, 1044G4, 1047G2	140	8
10	9T21B1003G2, 1006G2, 1009G2, 1015G2, 1018G2, 1021G2, 1030G2, 1045G4, 1048G2	172	9
15	9T21B9101, 9103, 9105, 9109, 9111, 9113, 9119, 9143	255	10
25	9T21B9102, 9104, 9106, 9110, 9112, 9114, 9120, 9144	370	11
<b>SINGLE-PHASE, 50 HERTZ</b>			
5	9T21B1052G2, 1055G2	109	7
7.5	9T21B1053G2, 1056G2	150	8
10	9T21B1054G2, 1057G2	187	9
15	9T21B9131, 9133	272	10
25	9T21B9132, 9134	400	11

# General-purpose Transformers...

## Dimensions CONTINUED

DIMENSIONS TYPE MI

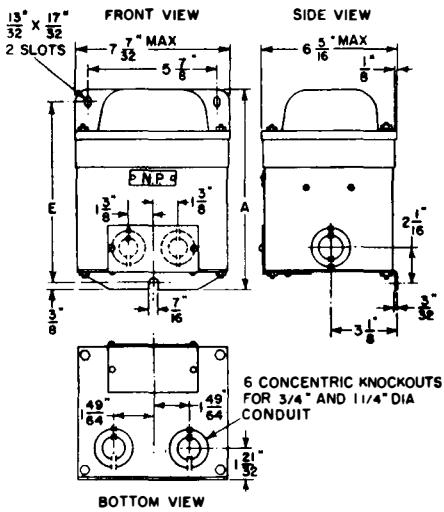


Fig. 12

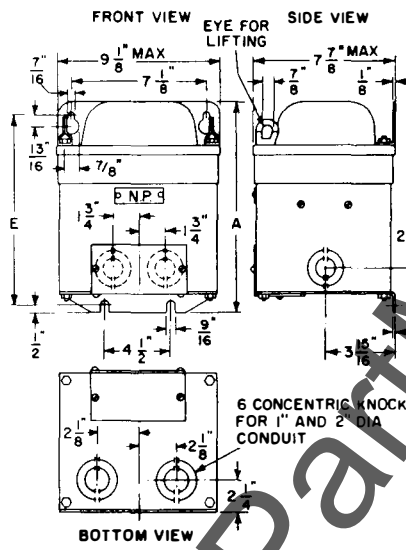


Fig. 13

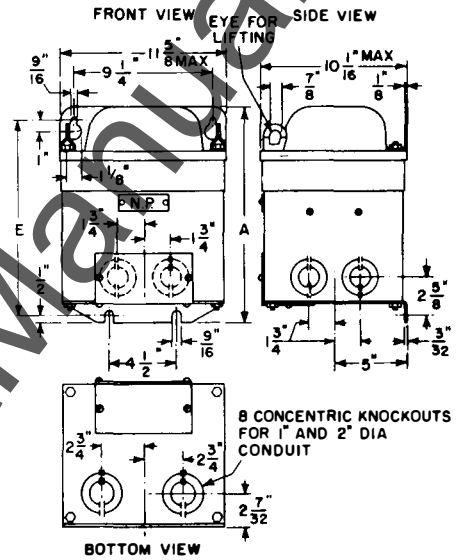


Fig. 14

Kva	Model Number	Dimensions in Inches		Approx. Net Wt. in Lb.	Fig. No.
		A Max.	E Nominal		
<b>THREE-PHASE</b>					
3	9T21A4001, 4004, 4007, 4010, 4013, 4019	22 3/8	20 3/8	68	12
6	9T21A4002, 4005, 4008, 4011, 4014, 4020	25 9/16	23 3/4	106	13
9	9T21A4003, 4006, 4009, 4012, 4015, 4021	28 15/16	27 1/4	153	13
9	9T21B3103, 3105	28 15/16	27 1/4	153	13
15	9T21A9301, 9302, 9303, 9304, 9305, 9306	31 1/4	29 1/2	268	14

**DIMENSIONS—TYPE QL (Single-phase—25 through 167 Kva)  
(Three-phase—see page 24)**

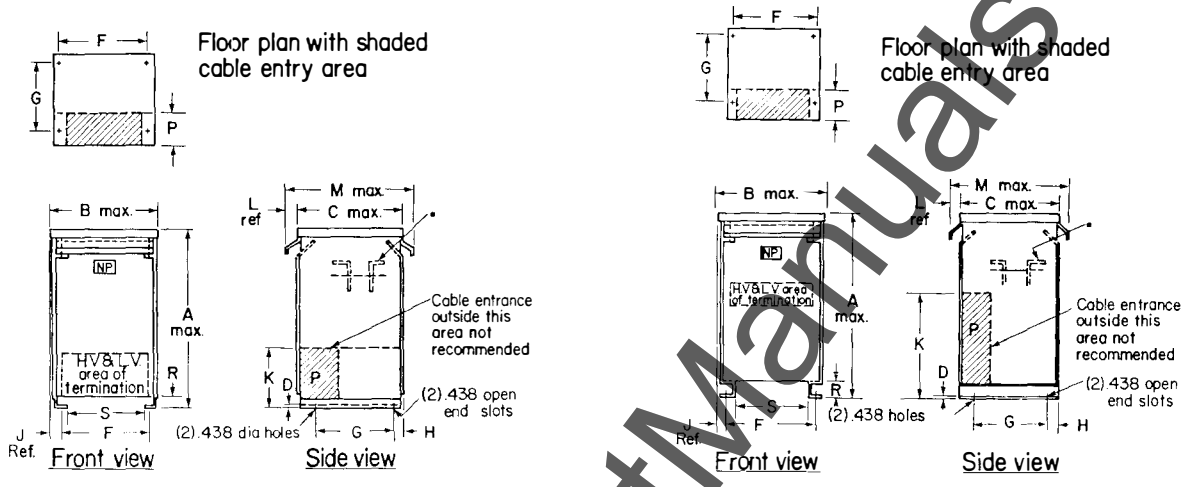


Fig. 15

Fig. 16

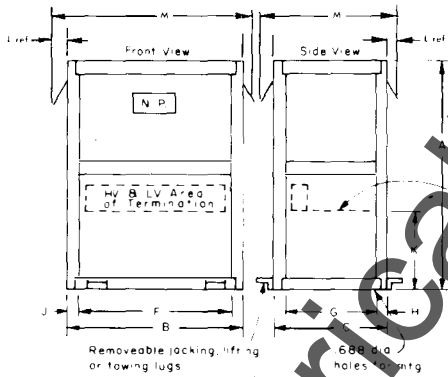


Fig. 17

UNITS RATED 750 AND 1000 KVA

**NOTE:** Wall-mounting brackets are optional on ratings up to 75 kva and are supplied as separate accessories, but cannot be applied to G62 units.

For lifting, other than with fork truck, remove top cover and use 1" diameter holes in top of core clamps per instruction sheet GEK-33276A.

**SINGLE PHASE DIMENSIONS (For Three-phase See page 24)**

Kva	Model* No.	Approx. Net Wt. in Lbs.	Fig. No.	Approximate Dimensions in Inches														
				A Max. Height	B Max. Width	C Max. Depth	D	F	G	H	J	K	L	M	P	R	S	
25	9T23B2671	185	16	25	16 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	1/8	13 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	11
	9T23B268	185	16	25	16 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	1/8	13 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	11
37.5	9T23B2672	270	15	34 <sup>7</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>8</sub>	1/8	16 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	14	2 <sup>1</sup> / <sub>8</sub>	26 <sup>3</sup> / <sub>8</sub>	8	3 <sup>3</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>16</sub>
	9T23B2682	270	15	34 <sup>7</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>8</sub>	1/8	16 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	14	2 <sup>1</sup> / <sub>8</sub>	26 <sup>3</sup> / <sub>8</sub>	8	3 <sup>3</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>16</sub>
50.0	9T23B2673	385	15	37 <sup>1</sup> / <sub>2</sub>	20 <sup>1</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>8</sub>	1/8	16 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	13	2 <sup>1</sup> / <sub>8</sub>	26 <sup>3</sup> / <sub>8</sub>	8	3 <sup>3</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>16</sub>
	9T23B2683	385	15	37 <sup>1</sup> / <sub>2</sub>	20 <sup>1</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>8</sub>	1/8	16 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	13	2 <sup>1</sup> / <sub>8</sub>	26 <sup>3</sup> / <sub>8</sub>	8	3 <sup>3</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>16</sub>
75.0	9T23B2674	550	15	38 <sup>1</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>2</sub>	27 <sup>1</sup> / <sub>2</sub>	1/8	19	25 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>4</sub>	8	3 <sup>3</sup> / <sub>8</sub>	14 <sup>9</sup> / <sub>16</sub>
	9T23B2684	550	15	38 <sup>1</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>2</sub>	27 <sup>1</sup> / <sub>2</sub>	1/8	19	25 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>4</sub>	8	3 <sup>3</sup> / <sub>8</sub>	14 <sup>9</sup> / <sub>16</sub>
100.0	9T23B2675	685	15	44 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>4</sub>	1/8	21 <sup>1</sup> / <sub>2</sub>	25 <sup>7</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	32 <sup>1</sup> / <sub>2</sub>	8	3 <sup>3</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>
	9T23B2685	685	15	44 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>4</sub>	1/8	21 <sup>1</sup> / <sub>2</sub>	25 <sup>7</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	32 <sup>1</sup> / <sub>2</sub>	8	3 <sup>3</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>
167.0	9T23B2676	1130	15	51 <sup>3</sup> / <sub>4</sub>	29	33 <sup>3</sup> / <sub>4</sub>	1/8	24	31 <sup>3</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	18	2 <sup>1</sup> / <sub>8</sub>	38	9 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>8</sub>
	9T23B2686	1130	15	51 <sup>3</sup> / <sub>4</sub>	29	33 <sup>3</sup> / <sub>4</sub>	1/8	24	31 <sup>3</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	18	2 <sup>1</sup> / <sub>8</sub>	38	9 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>8</sub>

For ESTIMATING ONLY unless endorsed for construction.

\*For Type QL-WP (weatherproof), add suffix -G62, i.e. 9T23B2672 becomes 9T23B2672G62.







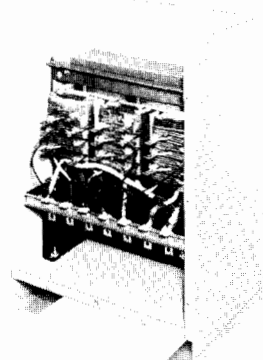
**DRY-TYPE  
TRANSFORMERS**

# Type TENV Totally Enclosed, Nonventilated Transformers

THREE PHASE • 60 HERTZ • 30-300 KVA • 600 VOLT CLASS



Type TENV transformer; 150C rise insulation class, closed view



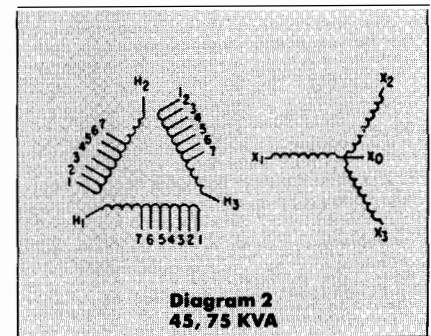
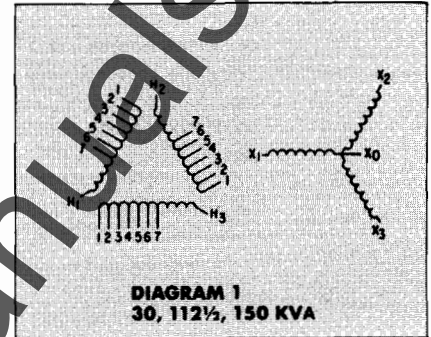
Type TENV transformer, open view

TENV transformers are highly suitable for those special applications where dry-type transformer benefits are desired, but the openings in standard, dry-type enclosures are not acceptable because of adverse atmospheric conditions.

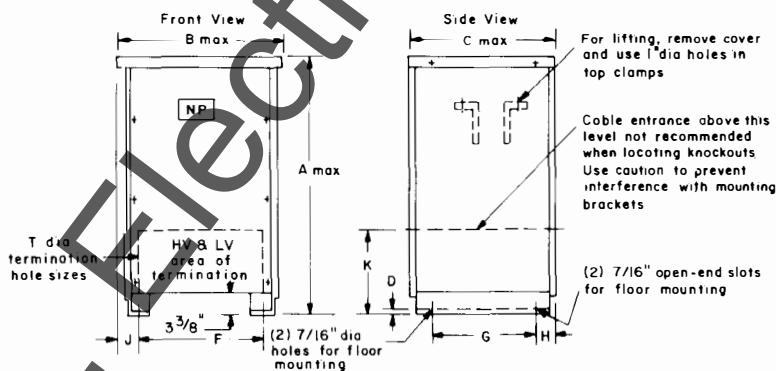
General Electric totally enclosed, non-ventilated transformer enclosures do not allow air to flow directly over the core-and-coil and are, therefore, ideal for many applications in the textile automotive, foundry, and other industries where combustible or conductive materials are present.

TENV units are recommended for use where dust or lint conditions exist, or where transformers are subject to moisture such as spray or wash-down conditions. Type TENV transformers are UL Listed through 150 kva under File E2739 for indoor or outdoor applications.

## WIRING DIAGRAMS



## DIMENSIONS (For Estimating Only)



## THREE PHASE

480 Volts Primary Secondary 208Y/120 Volts				
Kva	Model No.	Taps	Maximum Sound Level †	Approx. Wt. (Lbs.)
30	9T23C3038	6	45	360
45	9T23C3039	6	45	760
75	9T23C3044	6	50	910
112 1/2	9T23C3045	6	50	1350
150	9T23C3049	6	55	
300				Consult Factory

\* 6-(6) 2 1/2% taps, 2 above and 4 below rated primary volts

† Measured in decibels per ANSI Standard C89.2.

‡ Normally in factory stock.

Kva	Model No.	Dimensions (in inches)										T Dia	
		A	B	C	D	F	G	H	J	K	HV	LV	
30	9T23C3038	32 1/4	24	17 3/4	7/4	20 1/2	15 1/2	1 3/16	1 3/4	11 1/4	13/32	13/32	
45	C3039	35 3/4	32	21 3/4	7/4	28 1/2	19 1/2	1 3/16	1 3/4	12 1/2	13/32	13/32	
75	C3044	46	35	23 1/4	1/8	30	21	1 3/16	2 1/2	17	17/32	17/32	
112 1/2	C3045	48	38 1/2	25	1/8	33 3/4	22 1/16	1 3/16	2 1/2	19	17/32	17/32	
150	C3049												
225													
300													

Contact Company

‡ Normally in factory stock.



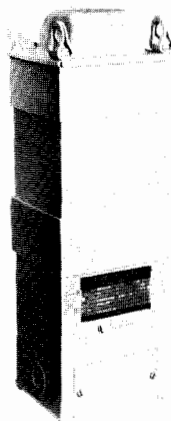
# Type DIT Drive Isolation Transformers

THREE PHASE • 60 HERTZ • ENCLOSED

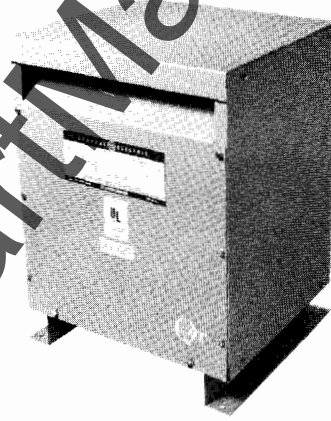
The use of SCR control circuitry with adjustable-speed drives has resulted in a need for a line of isolation transformers specifically designed to meet the demanding requirements of SCR drives. Symmetrically placed taps and added coil bracing minimize mechanical forces caused by the often severe SCR drive duty cycles. These features also help protect the transformer from the regenerative nature and more frequent short circuits associated with SCR drives.

Isolation transformers also reduce line-pollution feedback resulting from SCR firing circuits. The GE delta-wye designs meet the NEC requirements for grounded secondary neutrals that isolate primary distribution systems. Kva ratings of the DIT line cover most d-c motor requirements from 3 to 300 hp.

Enclosed drive isolation transformers are UL-listed. Insulation systems (vacuum impregnated) are UL recognized.



Type ML enclosed transformer (Indoor/Outdoor)



Type QL enclosed transformer (Indoor)

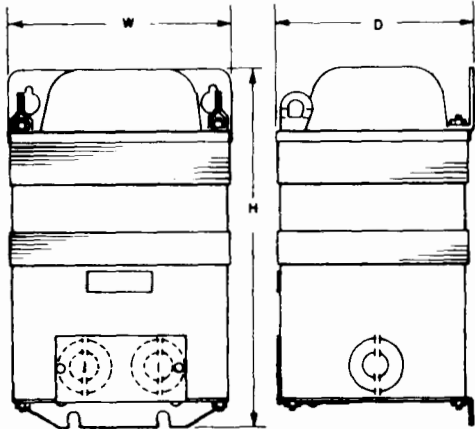
Model Type	Kva	230 V Δ Primary		460 V Δ Primary		575 V Δ Primary		Approx. Net Wt. Pounds	Approx. Impedance in %	Photo Type	Wiring Diagram No.
		230Y Volt Secondary	460Y Volt Secondary	230Y Volt Secondary	460Y Volt Secondary	230Y Volt Secondary	460Y Volt Secondary				
ML	3	9T21B3001G29	9T21B3001G28	9T21B3001G23	9T21B3001G22	9T21B3001G27	9T21B3001G26	70	3.4	ML	1
	6	9T21B3002G29	9T21B3002G28	9T21B3002G23	9T21B3002G22	9T21B3002G27	9T21B3002G26	110	3.2	ML	1
	7.5	9T21B3003G29	9T21B3003G28	9T21B3003G23	9T21B3003G22	9T21B3003G27	9T21B3003G26	150	2.3	ML	1
	11	9T21B3004G29	9T21B3004G28	9T21B3004G23	9T21B3004G22	9T21B3004G27	9T21B3004G26	260	2.0	ML	1
QL	15	9T23F3005G29	9T23F3005G28	9T23F3005G23	9T23F3005G22	9T23F3005G27	9T23F3005G26	270	2.6	QL	2
	20	9T23B4001G29	9T23B4001G28	9T23B4001G23	9T23B4001G22	9T23B4001G27	9T23B4001G26	305	2.9	QL	2
	27	9T23B4002G29	9T23B4002G28	9T23B4002G23	9T23B4002G22	9T23B4002G27	9T23B4002G26	305	3.7	QL	2
	34	9T23B4003G29	9T23B4003G28	9T23B4003G23	9T23B4003G22	9T23B4003G27	9T23B4003G26	395	2.9	QL	2
	40	9T23B4004G29	9T23B4004G28	9T23B4004G23	9T23B4004G22	9T23B4004G27	9T23B4004G26	405	2.9	QL	2
	51	9T23B4005G29	9T23B4005G28	9T23B4005G23	9T23B4005G22	9T23B4005G27	9T23B4005G26	415	3.5	QL	2
	63	9T23B4006G29	9T23B4006G28	9T23B4006G23	9T23B4006G22	9T23B4006G27	9T23B4006G26	630	2.4	QL	3
	75	9T23B4007G29	9T23B4007G28	9T23B4007G23	9T23B4007G22	9T23B4007G27	9T23B4007G26	640	3.2	QL	3
	93	9T23B4008G29	9T23B4008G28	9T23B4008G23	9T23B4008G22	9T23B4008G27	9T23B4008G26	750	4.0	QL	3
	118	9T23B4009G29	9T23B4009G28	9T23B4009G23	9T23B4009G22	9T23B4009G27	9T23B4009G26	920	4.1	QL	3
	145	9T23B4010G29	9T23B4010G28	9T23B4010G23	9T23B4010G22	9T23B4010G27	9T23B4010G26	945	4.9	QL	3
	175	9T23B4011G29	9T23B4011G28	9T23B4011G23	9T23B4011G22	9T23B4011G27	9T23B4011G26	1185	4.3	QL	3
	220	9T23B4012G29	9T23B4012G28	9T23B4012G23	9T23B4012G22	9T23B4012G27	9T23B4012G26	1225	5.9	QL	3
	275	9T23B4013G29	9T23B4013G28	9T23B4013G23	9T23B4013G22	9T23B4013G27	9T23B4013G26	1750	5.5	QL	3
	330	9T23B4014G29	9T23B4014G28	9T23B4014G23	9T23B4014G22	9T23B4014G27	9T23B4014G26	2070	5.5	QL	3
	440	9T23B4018G07	9T23B4018G08	9T23B4018G04	9T23B4018G06	9T23B4018G50	9T23B4018G51	2400	5.5	QL	3
	550	9T23B4018G52	9T23B4018G53	9T23B4018G13	9T23B4018G19	9T23B4018G54	9T23B4018G55	2575	5.6	QL	3
	750	*	*	9T23B4027G23	9T23B4027G22	9T23B4027G27	9T23B4027G26	4100	4.7	QL	3
	1000	*	*	9T23B4028G23	9T23B4028G22	9T23B4028G27	9T23B4028G26	4500	4.5	QL	3

NOTE: Full capacity symmetrical taps (1)+5% and (1)-5%, in primary windings for 230 and 460 Y thru 550 KVA; (1)+6.2% and (1)-6.2% at 750 KVA; (1)+6.4% and (1)-6.4% at 1000 KVA. With 575V primary, symmetrical 5% taps apply thru 750 KVA; at 1000 KVA, (1)+5.1% and (1)-5.1%. For ratings less than 15 KVA, all taps are (1)+5% and (1)-5%, but not symmetrical.

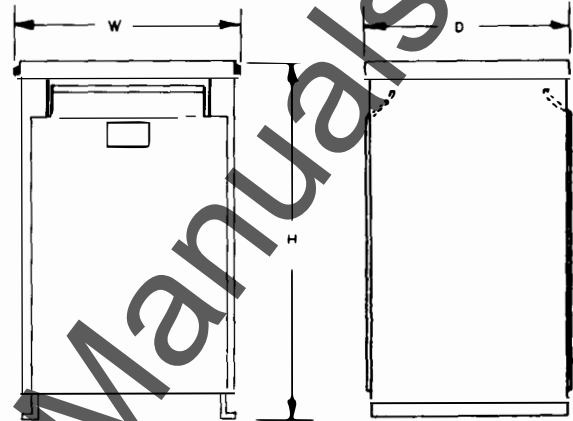
Contact factory.

\*Normally in factory stock

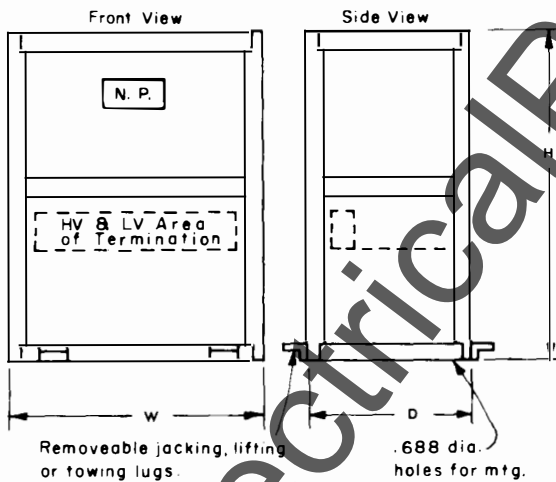
**DIMENSIONS (For Estimating Only)**



Type ML enclosed



Type QL enclosed



**UNITS RATED 750 AND 1000 KVA**

Model Type	Kva	Approximate Dimensions (in inches)		
		Height	Width	Depth
ML	3	23 3/16	7 1/4	6 1/8
	6	25 3/16	9 1/8	7 3/4
	7.5	28 3/16	9 1/8	7 3/4
	11	31 3/16	11 5/8	9 1/16
QL	15	24 1/4	19	16 1/4
	20	31 1/4	24	16 1/4
	27	31 1/4	24	16 1/4
	34	32 1/4	24	17 3/4
	40	32 1/4	24	17 3/4
	51	32 1/4	24	17 3/4
	63	35 3/4	32	23 3/4
	75	35 3/4	32	23 3/4
	93	40	32	23 3/4
	118	40	32	23 3/4
	145	46	35	23 3/4
	175	48	38 1/2	29
	220	48	38 1/2	29
	275	51 3/4	42 1/2	30 1/4
	330	58 3/4	47 1/2	32 1/2
440	58 3/8	47 1/2	32 1/2	
550	58 3/8	47 1/2	32 1/2	
750	76	60	50	
1000	76	60	50	

**WIRING DIAGRAMS**

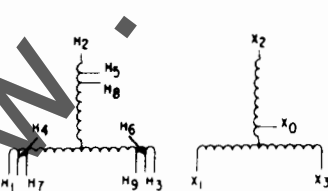


Diagram 1, Type ML

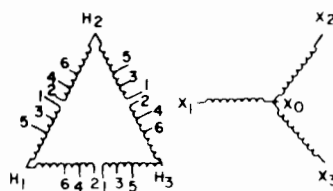


Diagram 2, Type QL

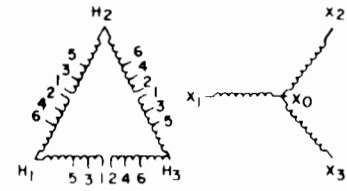
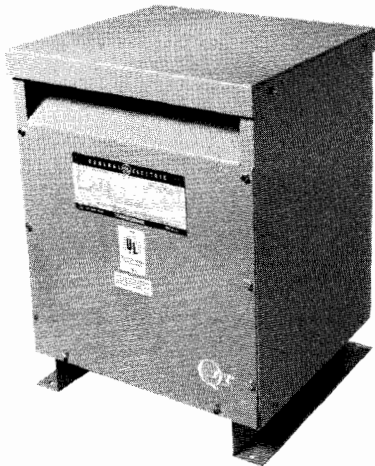


Diagram 3, Type QL

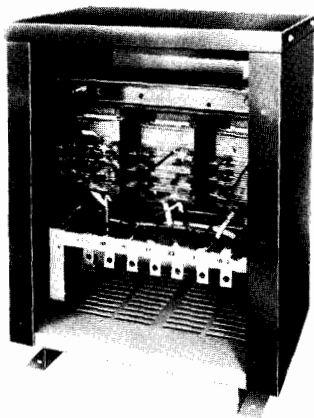


# Type LT Low Temperature Rise Transformers

SINGLE AND THREE PHASE • 60 HERTZ • 30-500 KVA • 600 VOLT CLASS



Type LT transformer, closed view



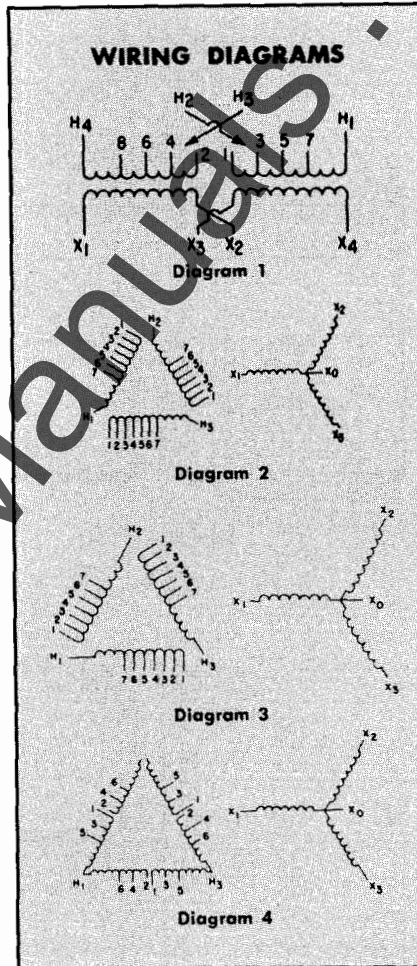
Type LT transformer, open view

These low temperature rise transformers utilize a UL Recognized 220 C insulation system featuring either 80 C or 115 C temperature rise. They provide inherent overload capability and the same long life as General Electric's standard Type QL design.

Available in both single- and three-phase ratings, General Electric Type LT transformers are UL Listed, File E2739 for indoor operation.

### EFFICIENT SOLUTION TO HIGH-LOAD SYSTEM REQUIREMENTS

Type LT transformers can help cut operating expenses for systems requiring unit loading at 80 to 100 percent of nameplate rating, 24 hours a day, or where load growth is expected. Units with 115 C temperature rise can be operated continuously at 15 percent above nameplate rating without loss of transformer life. Units with 80C temperature rise offer loading capability at 30 percent above nameplate rating.



### SINGLE PHASE

Kva	240 x 480 Volts Primary Secondary 120/240 Volts				
	Model No.	Mounting F=Floor W=Wall	* Taps	Wiring Diagram No.	Dimen. & Wgts. Fig. No. (Page 29)

#### 80 C Rise

37.5	9T23L3672	F†	6	1	1
50	9T23L3673	F	6	1	1
75	9T23L3674	F	6	1	1
100	9T23L3675	F	6	1	1

#### 115 C Rise

37.5	9T23L2672	F†	6	1	1
50	9T23L2673	F†	6	1	1
75	9T23L2674	F	6	1	1
100	9T23L2675	F	6	1	1

- \* Tap Arrangements:  
6-(6) 2 1/2 % taps, 2 above and 4 below rated primary volts.
- ▲ 500 kva has (2) 3 1/2 % full capacity primary taps above and below nominal voltage.
- † Can be wall mounted by using wall mounting brackets 9T18Y5043. See page 11.
- ‡ Can be wall mounted by using wall mounting brackets 9T18Y5042. See page 11.

### THREE PHASE

Kva	480 Volts Primary Secondary 208Y/120 Volts				
	Model No.	Mounting F=Floor W=Wall	* Taps	Wiring Diagram No.	Dimen. & Wgts. Fig. No. (Page 29)

#### 80 C Rise

30	9T23L8072	FS	6	2	1
45	9T23L8073	F†	6	3	2
50	9T23L8064	F†	6	3	2
75	9T23L8074	F	6	3	2
112.5	9T23L8075	F	6	2	2
150	9T23L8076	F	6	2	2
225	9T23L8077	F	6	3	2
300	9T23L8078	F	6	3	2
500	9T23L8079	F	▲	4	3

#### 115 C Rise

15	9T23L1571*	FS	6	3	2
30	9T23L1572	FS	6	2	1
45	9T23L1573	F†	6	3	2
50	9T23L1564	F†	6	3	2
75	9T23L1574	F	6	3	2
112.5	9T23L1575	F	6	3	2
150	9T23L1576	F	6	2	2
225	9T23L1577	F	6	2	2
300	9T23L1578	F	6	3	2
400	9T23L1566	F	6	3	2
500	9T23L1579	F	▲	4	3

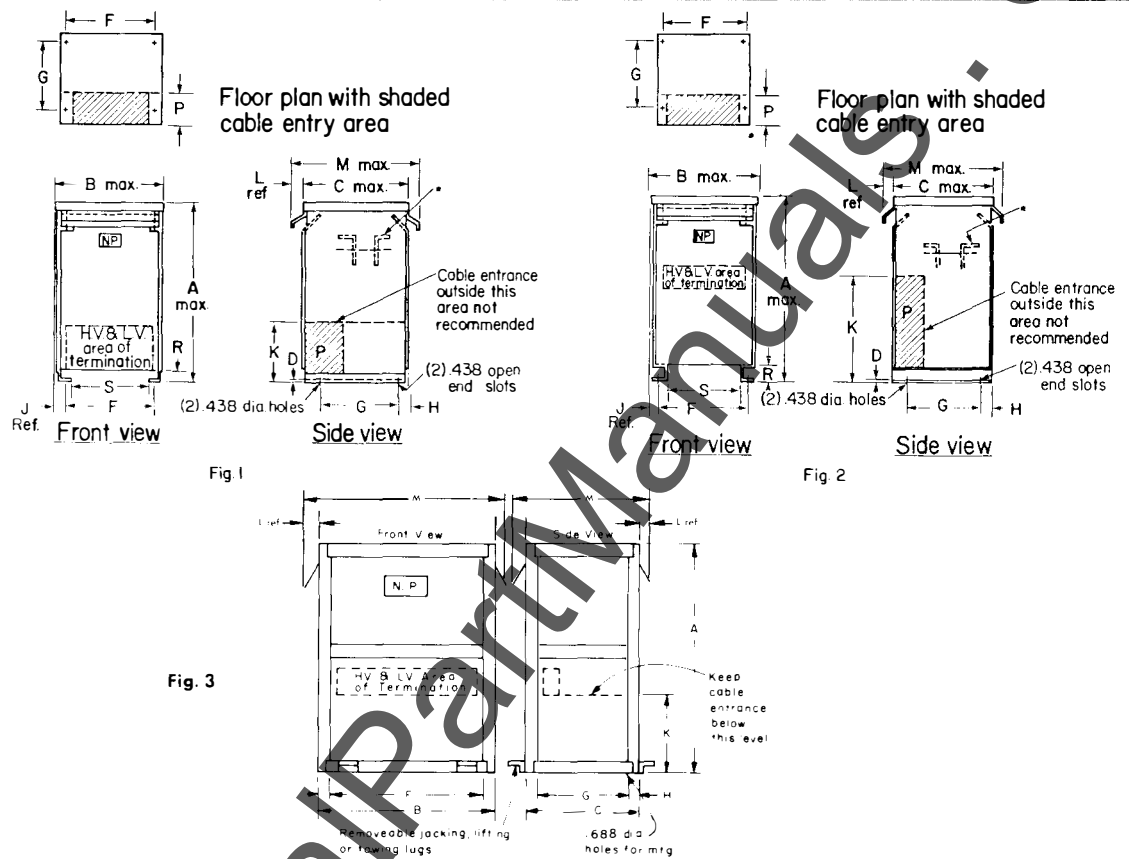
Normally in factory stock \*

# Low Temperature Rise Transformers CONTINUED

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## DIMENSIONS

(For Estimating Only)



Kva	Model Number	Fig. No.	Approximate Dimensions in Inches															Approx. (Lbs.) Net Wt.
			A	B	C	D	G	H	J	K	L	M	N	P	R	S		
<b>Single-Phase, 37.5-100 KVA</b>																		
37.5	9T23L2672	1	37 1/2	20 1/4	22 1/8	1 1/8	16 3/4	19 3/4	13 1/16	1 3/4	13	2 1/8	26 3/8	—	8	3 3/8	12 5/16	385
	9T23L3672	1	38 1/8	22 1/2	27 1/2	1 1/8	19	25 5/8	1 3/16	1 3/4	11 1/2	2 1/8	31 3/4	—	8	3 3/8	14 9/16	550
50	9T23L2673	1	38 1/8	22 1/2	27 1/2	1 1/8	19	25 5/8	1 3/16	1 3/4	11 1/2	2 1/8	31 3/4	—	8	3 3/8	14 9/16	550
	9T23L3673	1	44 1/2	26 1/2	28 1/4	1 1/8	21 1/2	25 7/8	1 3/16	2 1/4	12 1/4	2 1/8	32 1/2	—	9	3 3/8	18 5/8	685
75	9T23L2674	1	44 1/2	26 1/2	28 1/4	1 1/8	21 1/2	25 7/8	1 3/16	2 1/4	12 1/4	2 1/8	32 1/2	—	9	3 3/8	18 5/8	685
	9T23L3674	1	51 3/4	29	33 3/4	1 1/8	24	31 3/8	1 3/16	2 1/2	18	2 1/8	38	—	9 1/4	3 3/8	21 1/8	1130
100	9T23L2675	1	51 3/4	29	33 3/4	1 1/8	24	31 3/8	1 3/16	2 1/2	18	2 1/8	38	—	9 1/4	3 3/8	21 1/8	1130
	9T23L3675	1	51 3/4	29	33 3/4	1 1/8	24	31 3/8	1 3/16	2 1/2	18	2 1/8	38	—	9 1/4	3 3/8	21 1/8	1130
<b>Three-Phase, 15-500 KVA</b>																		
15	9T23L1571	2	24 1/4	19	16 1/4	3/32	16	14 3/8	5/8	1 1/2	14	2 3/4	15 7/8	—	4 7/8	2 3/4	17 1/2	125
30	9T23L1572	1	32 1/4	24	17 1/4	1/8	20 1/2	15 1/2	1 1/16	1 3/4	11 1/4	2 1/8	22	—	4 7/8	3 3/8	17 1/2	360
	9T23L8072	1	32 1/4	24	17 3/4	1/8	20 1/2	15 1/2	1 3/16	1 3/4	11 1/4	2 1/8	22	—	4 7/8	3 3/8	17 1/2	360
45	9T23L1573	2	35 3/4	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19	2 1/8	23	—	6	3	23 7/8	466
	9T23L8073	2	35 3/4	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19	2 1/8	23	—	6	3	23 7/8	466
50	9T23L1564	2	35 3/4	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19	2 1/8	23	—	6	3	23 7/8	466
	9T23L8064	2	35 3/4	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19	2 1/8	23	—	6	3	23 7/8	466
75	9T23L1574	2	40	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19	2 1/8	23	—	6	3	23 7/8	604
	9T23L8074	2	40	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19	2 1/8	23	—	6	3	23 7/8	604
112.5	9T23L1575	2	46	35	23 3/4	3/16	31 1/2	19 1/2	1 3/16	1 3/4	20	2 1/8	23	—	6	3	26 7/8	776
	9T23L8075	2	48	38 1/2	29	3/16	33 1/2	22 7/16	1 3/16	2 1/2	21	2 1/8	33 1/4	—	6	3	29 7/8	1030
150	9T23L1576	2	48	38 1/2	29	3/16	33 1/2	27 9/16	1 3/16	2 1/2	21	2 1/8	33 1/4	—	6	3	29 7/8	1030
	9T23L8076	2	51 3/4	42 1/2	30 1/4	3/16	37 1/2	27 9/16	1 3/16	2 1/2	21	2 1/8	34 1/4	—	8	3	34 3/8	1320
225	9T23L1577	2	51 3/4	42 1/2	30 1/4	3/16	37 1/2	27 9/16	1 3/16	2 1/2	21	2 1/8	34 1/4	—	8	3	34 3/8	1320
	9T23L8077	2	58 3/8	47 1/2	34 3/4	3/16	42 1/2	30 1/16	1 1/4	2 1/2	25	2 1/8	39	—	11	3	39 3/8	1630
300	9T23L1578	2	58 3/8	47 1/2	34 3/4	3/16	42 1/2	30 1/16	1 1/4	2 1/2	25	2 1/8	39	—	11	3	39 3/8	1630
	9T23L8078	2	58 3/8	47 1/2	34 3/4	3/16	42 1/2	30 1/16	1 1/4	2 1/2	25	2 1/8	39	—	11	3	39 3/8	1850
400	9T23L1566	2	58 3/8	47 1/2	34 3/4	3/16	42 1/2	30 1/16	1 1/4	2 1/2	25	2 1/8	39	—	11	3	39 3/8	1850
500	9T23L1579	3	76	60	50	—	53 1/2	43 1/2	3 1/4	3 1/4	25	5 3/8	70 3/4	60 3/4	—	—	—	3450
	9T23L8079	3	76	60	50	—	53 1/2	43 1/2	3 1/4	3 1/4	25	5 3/8	70 3/4	60 3/4	—	—	—	3450



# Type M, Q-HV Indoor Distribution Transformers

SINGLE AND THREE PHASE • 60 HERTZ • 13,800 VOLTS AND BELOW

com

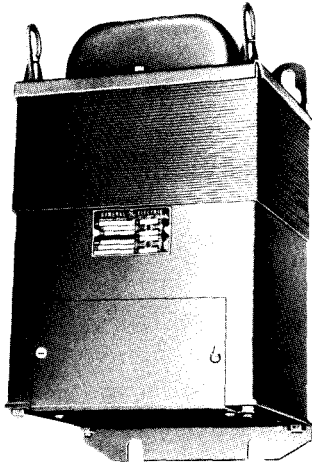


Fig. 1 Type M transformer;  
115 C winding  
temperature rise

Available in both single-phase and three-phase ratings, these lightweight transformers need no fireproof vaults for protection, have no liquids to inspect, and have no moving parts which require maintenance.

General Electric Type M and Q-HV distribution transformers are designed to step down incoming distribution voltages to 120, 240 or 480 volts for direct utilization, or further plant distribution.

General Electric distribution transformers are designed to meet the American National Standards Institute and the National Electrical Manufacturers Association standards for dry-type distribution transformers. The construction of General Electric distribution units is similar to that of the General Electric general-purpose line.

### INDOOR DISTRIBUTION MODELS

Dry-type distribution transformers listed on pages 35 and 36 are for indoor operation only. They are not designed to operate on distribution lines which are subject to lightning strikes.

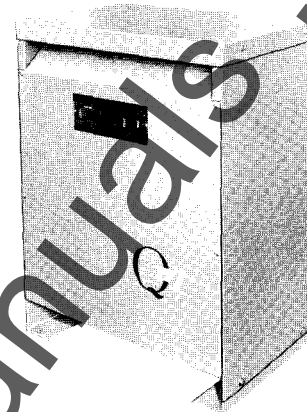


Fig. 2 Type Q-HV transformer;  
150 winding  
temperature rise

### WIRING DIAGRAMS Types M and Q-HV

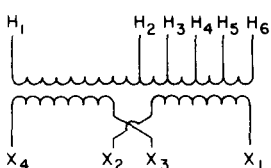


Diagram 1

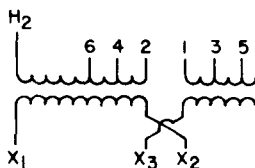


Diagram 2

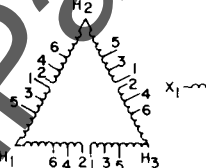


Diagram 3

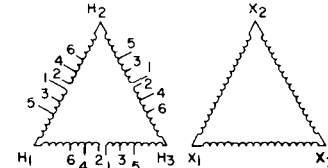


Diagram 4

### AVAILABLE OPTIONS

#### 1. Outdoor Weatherproof NEMA 3R Enclosures

##### DESCRIPTION

General Electric's high-voltage QHT distribution transformers are now available with outdoor weatherproof NEMA 3R enclosures. All single-phase and three-phase units are offered with this option. All units are designed to be rodent and bird resistant. They incorporate all tamper-resistant hardware and are padlockable.

##### HOW TO ORDER

To order NEMA 3R enclosed units, simply add the suffix/WP to the end of the model number of the comparable indoor high-voltage unit (9T25B . . .). For example, to order the outdoor weatherproof NEMA 3R option for a unit rated 500 kva three phase, 13,800 volts primary, 208Y/120 volts secondary; order 9T25B5849G13/WP. Final model number designations will be supplied on acknowledgment of receipt of order.

##### DIMENSIONS

Dimensions for distribution transformer units with the NEMA 3R outdoor weatherproof option are equivalent to dimensions for comparable indoor units except for an additional 4½ inches added to the depth dimension.

For example:

	Height	Width	Depth
	(in inches)		
9T25B5849G13	70	62	40
9T25B5849G13/WP	70	62	44½

#### 2. 95 KV Basic Impulse Level Capability

##### DESCRIPTION

General Electric's high-voltage QHT 15 kv class distribution transformers are also available with 95 kv basic impulse level capability as tested per NEMA ST-20-1972 and ANSI C89.2. This option is available only on units rated 112.5–500 kva, three phase, 15 kv class primary voltage, for indoor use only.

**NOTE: FOR PRICING INFORMATION SEE SUPPLEMENT, GEP-1090-1**

##### HOW TO ORDER

To order units with 95 kv basic impulse level capability, simply add the suffix /95 to the model number of the comparable basic indoor model (9T25B . . .). For example, to order the 95 kv BIL option for a unit rated 500 kva three phase, 13,800 volts primary, 208Y/120 volts secondary; order 9T25B5849G13/95. Final model number designations will be supplied on acknowledgment of receipt of order.

##### DIMENSIONS

Consult your local General Electric sales representative for dimensions of units with 95 kv BIL option.

NOTE: 95 kv BIL capability is also available on 15 kv class units of the UNI-CENTER\* integral distributions centers by General Electric. Refer to Apparatus Handbook Section 5242 for details.

\*Trademark of General Electric Company

Use the following model number listing to select and order distribution transformers for indoor applications only. These basic model numbers must be modified as described on page 30 to order outdoor units.

**SINGLE PHASE**

Kva Output	Model Number	Sound Level (Decibels) *	Mounting F = Floor W = Wall	Dimen. Ref. Fig. No. (Page 37)	Approx. Wt. (lbs)		Wiring Diagram No. (Page 30)
					Net	Ship	
<b>PRIMARY 2400/4160Y VOLTS WITH (4) 2½% TAPS BELOW NORMAL—</b>							
<b>SECONDARY 120/240 VOLTS, TYPE M</b>							
3	9T25B9700	45	W	1	77	83	1
5	9T25B9701	45	W	1	98	104	1
10	9T25B9703	45	W	2	175	181	1
15	9T25B9704	45	W	2	320	340	1
<b>PRIMARY 2400/4160Y VOLTS WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL—</b>							
<b>SECONDARY 120/240 VOLTS, TYPE Q-HV</b>							
25	9T25B5730	45	F	3	550	575	2
37.5	9T25B5731	45	F	3	650	700	2
50	9T25B5732	45	F	3	750	800	2
75	9T25B5733	50	F	3	900	950	2
100	9T25B5734	50	F	4	1100	1150	2
167	9T25B5735	55	F	4	1550	1650	2
200	9T25B5736	55	F	5	1650	1750	2
250	9T25B5737	55	F	5	1900	2000	2
333	9T25B5738	60	F	5	2100	2200	2
500	9T25B5739	60	F	5	2800	2900	2
<b>PRIMARY 4160/7200Y VOLTS WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL—</b>							
<b>SECONDARY 120/240 VOLTS, TYPE Q-HV</b>							
25	9T25B5740	45	F	4	900	950	2
37.5	9T25B5741	45	F	4	1050	1100	2
50	9T25B5742	45	F	4	1150	1200	2
75	9T25B5743	50	F	4	1350	1400	2
100	9T25B5744	50	F	4	1500	1550	2
167	9T25B5745	55	F	5	1850	1950	2
200	9T25B5746	55	F	5	2000	2100	2
250	9T25B5747	55	F	6	2300	2400	2
333	9T25B5748	60	F	6	2500	2600	2
500	9T25B5749	60	F	6	3300	3400	2
<b>PRIMARY 7200/12,470Y VOLTS WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL—</b>							
<b>SECONDARY 120/240 VOLTS, TYPE Q-HV</b>							
25	9T25B5740G2	45	F	4	900	950	2
37.5	9T25B5741G2	45	F	4	1050	1100	2
50	9T25B5742G2	45	F	4	1150	1200	2
75	9T25B5743G2	50	F	4	1350	1400	2
100	9T25B5744G2	50	F	4	1500	1550	2
167	9T25B5745G2	55	F	5	1850	1950	2
200	9T25B5746G2	55	F	5	2000	2100	2
250	9T25B5747G2	55	F	6	2300	2400	2
333	9T25B5748G2	60	F	6	2500	2600	2
500	9T25B5749G2	60	F	6	3300	3400	2
<b>PRIMARY 7620/13,200Y VOLTS WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL—</b>							
<b>SECONDARY 120/240 VOLTS, TYPE Q-HV</b>							
25	9T25B5740G3	45	F	4	900	950	2
37.5	9T25B5741G3	45	F	4	1050	1100	2
50	9T25B5742G3	45	F	4	1150	1200	2
75	9T25B5743G3	50	F	4	1350	1400	2
100	9T25B5744G3	50	F	5	1500	1550	2
167	9T25B5745G3	55	F	5	1850	1950	2
200	9T25B5746G3	55	F	5	2000	2100	2
250	9T25B5747G3	55	F	6	2300	2400	2
333	9T25B5748G3	60	F	6	2500	2600	2
500	9T25B5749G3	60	F	6	3300	3400	2
<b>PRIMARY 7960/13,800Y VOLTS WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL—</b>							
<b>SECONDARY 120/240 VOLTS, TYPE Q-HV</b>							
25	9T25B5740G4	45	F	4	900	950	2
37.5	9T25B5741G4	45	F	4	1050	1100	2
50	9T25B5742G4	45	F	4	1150	1200	2
75	9T25B5743G4	50	F	4	1350	1400	2
100	9T25B5744G4	50	F	4	1500	1550	2
167	9T25B5745G4	55	F	5	1850	1950	2
200	9T25B5746G4	55	F	5	2000	2100	2
250	9T25B5747G4	55	F	6	2300	2400	2
333	9T25B5748G4	60	F	6	2500	2600	2
500	9T25B5749G4	60	F	6	3300	3400	2

\* Normally in factory stock.

\* Measured per ANSI Standard C89.2 in General Electric's sound laboratory at Ft. Wayne, Indiana.

NOTE: The primary voltages as shown consist of the nominal single-phase voltage and a "Y" voltage which indicates the insulation level for which the unit is designed in accordance with NEMA standards. For example, 2400/4160Y means the transformer is designed for 2400V single-phase application and/or three units may be connected for three-phase, 2400V delta. It is not intended nor recommended that the transformer primaries be connected in a three-phase wye configuration.

**NOTE: FOR PRICING INFORMATION SEE SUPPLEMENT, GEP-1090-1**



# Indoor Distribution Transformers CONTINUED

## THREE-PHASE

Kva	Secondary Voltage					Sound Level (Decibels) *	Mounting F = Floor W = Wall	Dimen. Ref. Fig. No. (Page 33)	Approx. Wt. (Lbs.)		
	208Y/120	Wiring Diagram No. (Page 30)	240 Delta	Wiring Diagram No. (Page 30)	480Y/277				Wiring Diagram No. (Page 30)	Net	Ship
	Model No	Model No	Model No	Model No							
<b>PRIMARY 2400 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585830	3	9T2585830G2	4	9T2585830G3	3	45	F	3	550	600
30	9T2585831	3	9T2585831G2	4	9T2585831G3	3	45	F	3	650	700
45	9T2585832	3	9T2585832G2	4	9T2585832G3	3	45	F	3	750	800
75	9T2585833	3	9T2585833G2	4	9T2585833G3	3	50	F	3	950	1000
112.5	9T2585834	3	9T2585834G2	4	9T2585834G3	3	50	F	4	1200	1250
150	9T2585835	3	9T2585835G2	4	9T2585835G3	3	50	F	4	1500	1550
225	9T2585836	3	9T2585836G2	4	9T2585836G3	3	55	F	4	1950	2000
300	9T2585837	3	9T2585837G2	4	9T2585837G3	3	55	F	5	2350	2450
400	9T2585838	3	9T2585838G2	4	9T2585838G3	3	60	F	5	2800	2900
500	9T2585839	3	9T2585839G2	4	9T2585839G3	3	60	F	5	3100	3200
<b>PRIMARY 4160 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585830G4	3	9T2585830G5	4	9T2585830G6	3	45	F	3	550	600
30	9T2585831G4	3	9T2585831G5	4	9T2585831G6	3	45	F	3	650	700
45	9T2585832G4	3	9T2585832G5	4	9T2585832G6	3	45	F	3	750	800
75	9T2585833G4	3	9T2585833G5	4	9T2585833G6	3	50	F	3	950	1000
112.5	9T2585834G4	3	9T2585834G5	4	9T2585834G6	3	50	F	4	1200	1250
150	9T2585835G4	3	9T2585835G5	4	9T2585835G6	3	50	F	4	1500	1550
225	9T2585836G4	3	9T2585836G5	4	9T2585836G6	3	55	F	4	1950	2000
300	9T2585837G4	3	9T2585837G5	4	9T2585837G6	3	55	F	5	2350	2450
400	9T2585838G4	3	9T2585838G5	4	9T2585838G6	3	60	F	5	2800	2900
500	9T2585839G4	3	9T2585839G5	4	9T2585839G6	3	60	F	5	3100	3200
<b>PRIMARY 4800 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585830G7	3	9T2585830G8	4	9T2585830G9	3	45	F	3	550	600
30	9T2585831G7	3	9T2585831G8	4	9T2585831G9	3	45	F	3	650	700
45	9T2585832G7	3	9T2585832G8	4	9T2585832G9	3	45	F	3	750	800
75	9T2585833G7	3	9T2585833G8	4	9T2585833G9	3	50	F	3	950	1000
112.5	9T2585834G7	3	9T2585834G8	4	9T2585834G9	3	50	F	4	1200	1250
150	9T2585835G7	3	9T2585835G8	4	9T2585835G9	3	50	F	4	1500	1550
225	9T2585836G7	3	9T2585836G8	4	9T2585836G9	3	55	F	4	1950	2000
300	9T2585837G7	3	9T2585837G8	4	9T2585837G9	3	55	F	5	2350	2450
400	9T2585838G7	3	9T2585838G8	4	9T2585838G9	3	60	F	5	2800	2900
500	9T2585839G7	3	9T2585839G8	4	9T2585839G9	3	60	F	5	3100	3200
<b>PRIMARY 7200 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585840	3	9T2585840G2	4	9T2585840G3	3	45	F	4	1000	1050
30	9T2585841	3	9T2585841G2	4	9T2585841G3	3	45	F	4	1000	1050
45	9T2585842	3	9T2585842G2	4	9T2585842G3	3	45	F	4	1150	1200
75	9T2585843	3	9T2585843G2	4	9T2585843G3	3	50	F	5	1450	1550
112.5	9T2585844	3	9T2585844G2	4	9T2585844G3	3	50	F	5	1800	1900
150	9T2585845	3	9T2585845G2	4	9T2585845G3	3	50	F	6	2000	2100
225	9T2585846	3	9T2585846G2	4	9T2585846G3	3	55	F	6	2550	2650
300	9T2585847	3	9T2585847G2	4	9T2585847G3	3	55	F	6	3000	3100
400	9T2585848	3	9T2585848G2	4	9T2585848G3	3	60	F	6	3400	3500
500	9T2585849	3	9T2585849G2	4	9T2585849G3	3	60	F	6	3700	3800
<b>PRIMARY 12,000 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585840G4	3	9T2585840G5	4	9T2585840G6	3	45	F	4	1000	1050
30	9T2585841G4	3	9T2585841G5	4	9T2585841G6	3	45	F	4	1000	1050
45	9T2585842G4	3	9T2585842G5	4	9T2585842G6	3	45	F	4	1150	1200
75	9T2585843G4	3	9T2585843G5	4	9T2585843G6	3	50	F	5	1450	1550
112.5	9T2585844G4	3	9T2585844G5	4	9T2585844G6	3	50	F	5	1800	1900
150	9T2585845G4	3	9T2585845G5	4	9T2585845G6	3	50	F	6	2000	2100
225	9T2585846G4	3	9T2585846G5	4	9T2585846G6	3	55	F	6	2550	2650
300	9T2585847G4	3	9T2585847G5	4	9T2585847G6	3	55	F	6	3000	3100
400	9T2585848G4	3	9T2585848G5	4	9T2585848G6	3	60	F	6	3400	3500
500	9T2585849G4	3	9T2585849G5	4	9T2585849G6	3	60	F	6	3700	3800
<b>PRIMARY 12,470 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585840G7	3	9T2585840G8	4	9T2585840G9	3	45	F	4	1000	1050
30	9T2585841G7	3	9T2585841G8	4	9T2585841G9	3	45	F	4	1000	1050
45	9T2585842G7	3	9T2585842G8	4	9T2585842G9	3	45	F	4	1150	1200
75	9T2585843G7	3	9T2585843G8	4	9T2585843G9	3	50	F	5	1450	1550
112.5	9T2585844G7	3	9T2585844G8	4	9T2585844G9	3	50	F	5	1800	1900
150	9T2585845G7	3	9T2585845G8	4	9T2585845G9	3	50	F	6	2000	2100
225	9T2585846G7	3	9T2585846G8	4	9T2585846G9	3	55	F	6	2550	2650
300	9T2585847G7	3	9T2585847G8	4	9T2585847G9	3	55	F	6	3000	3100
400	9T2585848G7	3	9T2585848G8	4	9T2585848G9	3	60	F	6	3400	3500
500	9T2585849G7	3	9T2585849G8	4	9T2585849G9	3	60	F	6	3700	3800
<b>PRIMARY 13,200 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585840G10	3	9T2585840G11	4	9T2585840G12	3	45	F	4	1000	1050
30	9T2585841G10	3	9T2585841G11	4	9T2585841G12	3	45	F	4	1000	1050
45	9T2585842G10	3	9T2585842G11	4	9T2585842G12	3	45	F	4	1150	1200
75	9T2585843G10	3	9T2585843G11	4	9T2585843G12	3	50	F	5	1450	1550
112.5	9T2585844G10	3	9T2585844G11	4	9T2585844G12	3	50	F	5	1800	1900
150	9T2585845G10	3	9T2585845G11	4	9T2585845G12	3	50	F	6	2000	2100
225	9T2585846G10	3	9T2585846G11	4	9T2585846G12	3	55	F	6	2550	2650
300	9T2585847G10	3	9T2585847G11	4	9T2585847G12	3	55	F	6	3000	3100
400	9T2585848G10	3	9T2585848G11	4	9T2585848G12	3	60	F	6	3400	3500
500	9T2585849G10	3	9T2585849G11	4	9T2585849G12	3	60	F	6	3700	3800
<b>PRIMARY 13,800 VOLTS DELTA WITH (2) 2½% TAPS ABOVE AND BELOW NORMAL, TYPE Q-HV</b>											
15	9T2585840G13	3	9T2585840G14	4	9T2585840G15	3	45	F	4	1000	1050
30	9T2585841G13	3	9T2585841G14	4	9T2585841G15	3	45	F	4	1000	1050
45	9T2585842G13	3	9T2585842G14	4	9T2585842G15	3	45	F	4	1150	1200
75	9T2585843G13	3	9T2585843G14	4	9T2585843G15	3	50	F	5	1450	1550
112.5	9T2585844G13	3	9T2585844G14	4	9T2585844G15	3	50	F	5	1800	1900
150	9T2585845G13	3	9T2585845G14	4	9T2585845G15	3	50	F	6	2000	2100
225	9T2585846G13	3	9T2585846G14	4	9T2585846G15	3	55	F	6	2550	2650
300	9T2585847G13	3	9T2585847G14	4	9T2585847G15	3	55	F	6	3000	3100
400	9T2585848G13	3	9T2585848G14	4	9T2585848G15	3	60	F	6	3400	3500
500	9T2585849G13	3	9T2585849G14	4	9T2585849G15	3	60	F	6	3700	3800

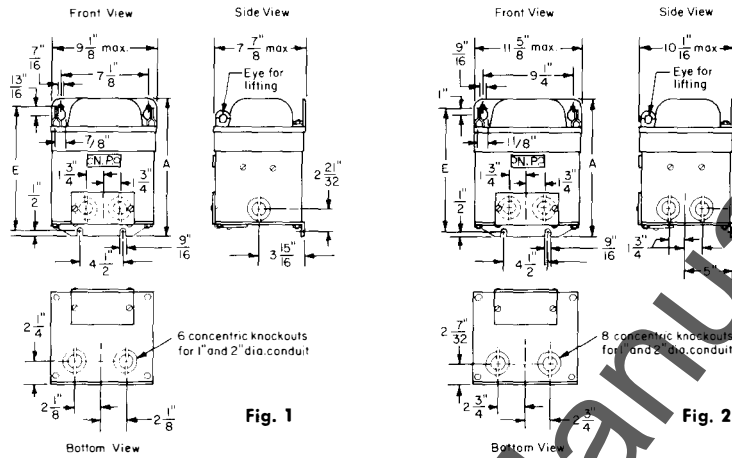
\* Normally in factory stock.

\* Measured per ANSI Standard C89.2 in General Electric's sound laboratory at Ft. Wayne, Indiana.



# Indoor Distribution Transformers CONTINUED

## DIMENSIONS—Type M (For reference only)



Kva	Model Number	Dimensions (in inches)		Fig. No.	Approx. Net Wt. in Lbs.
		A Max	E Nominal		
3	9T25B9700	14 $\frac{3}{4}$	13 $\frac{5}{8}$	1	77
5	9T25B9701	16 $\frac{3}{4}$	15 $\frac{5}{8}$	1	98
10	9T25B9703	17 $\frac{1}{2}$	16 $\frac{5}{8}$	2	175
15	9T25B9704	24	22 $\frac{5}{8}$	2	320

## DIMENSIONS—Type Q-HV (For reference only)

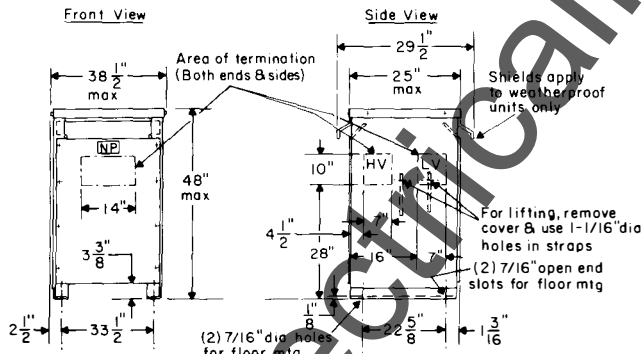


Fig. 3

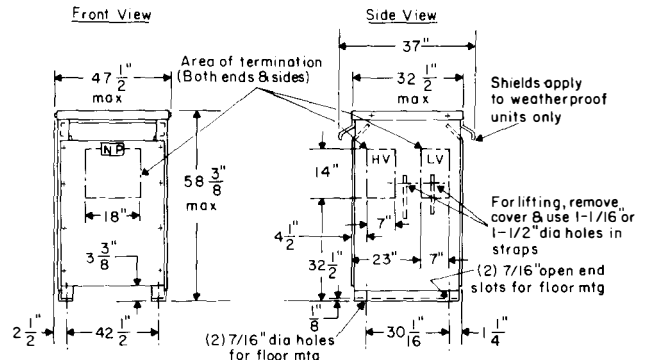


Fig. 4

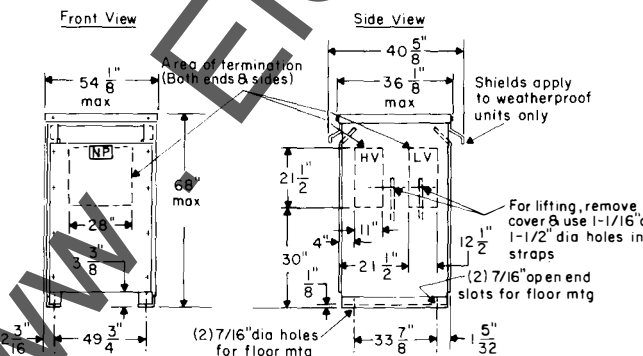


Fig. 5

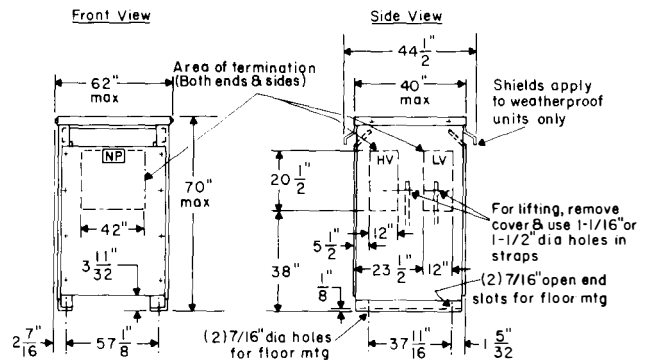


Fig. 6



# Type OR Oil Rig Transformers

THREE-PHASE • 600 VOLTS AND BELOW • 75 KVA-1000 KVA

Com

## DESCRIPTION

These General Electric dry-type transformers are engineered for continuous use in the rugged environments commonly found at oil rig sites. A broad selection is offered with a choice of copper or aluminum windings. All models include special bracing to withstand the normal shock and vibration loads experienced in transit and during rig installation and operation.

Utilizing a 220 C insulation system designed for 140 C rise in ambients of 50 C, these units will withstand the humidity common to offshore and land-based oil rig operations. All models are designed and tested to meet or exceed applicable industry standards and conform to ABS, IEEE 45, and U.S. Coast Guard requirements.

## APPLICATION

General Electric oil rig transformers are intended to handle the rigorous requirements of voltage conversion for motors and control associated with superchargers, shale shakers, desanders, mud mixers, fuel pumps, and

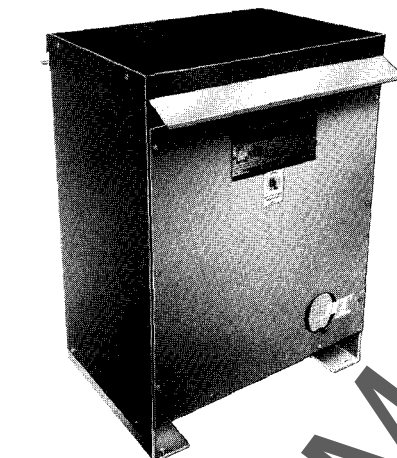


Fig. 1. NEMA 3R enclosure for ratings less than 750 Kva

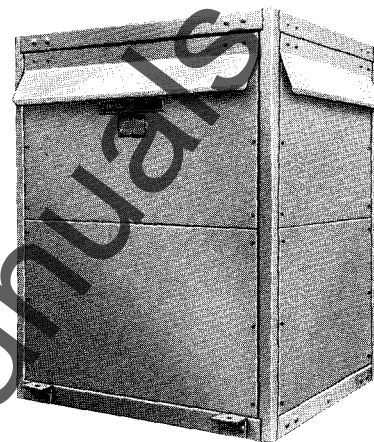


Fig. 2. NEMA 3R enclosure for ratings 750 Kva and up

other auxiliary rig equipment in addition to lighting and air-handling loads in living quarters.

Standard units, furnished in NEMA 3R enclosures for outdoor, drip-proof applica-

tion, are suitable for use in the moist sea-air and oil-vapor atmosphere of off-shore installations. These General Electric transformers are designed to provide reliable service and reduce costly downtime.

## OIL RIG TRANSFORMERS —

Three-Phase — 60 Hz — Self-Cooled Dry-Type — Aluminum or Copper Windings  
Designed and tested to meet or exceed applicable ANSI and NEMA standards.

GE Std. Model Number	Conductor Type	KVA	HVΔ	Standard HV Taps		Insulation System	Typical Impedance	Max. Outline Dimensions (in.)			Std. Encl.	Approx. Wt. Lbs.
					LV			H	W	D		
9T23C9102G62	AL	75	480		208Y/120	220 C Insulation System	5.3%	35 3/4	32	26	Outdoor	640
9T23C9208G62	CU	75	480		208Y/120		5.3%	35 3/4	32	26		785
9T23C9107G62	AL	75	600		208Y/120		5.3%	35 3/4	32	26		640
9T23C9209G62	CU	75	600		208Y/120		5.3%	35 3/4	32	26		735
9T23C9103G62	AL	112.5	480		208Y/120	220 C Insulation System	4.5%	40	32	26	Outdoor	760
9T23C9200G62	CU	112.5	480		208Y/120		4.5%	40	32	26		870
9T23C9106G62	AL	112.5	600		208Y/120		4.5%	40	32	26		760
9T23C9201G62	CU	112.5	600		208Y/120		4.5%	40	32	26		870
9T23C9111G62	AL	150	480	Six (2)+2 1/2% (4)-2 1/2%	208Y/120	140 C Rise Over 50 Max. Ambient	4.0%	46	35	28	Drip-Proof	910
9T23C9202G62	CU	150	480		208Y/120		4.0%	46	35	28		1065
9T23C9104G62	AL	150	600		208Y/120		4.0%	46	35	28		910
9T23C9203G62	CU	150	600		208Y/120		4.0%	46	35	28		1065
9T23C9126G62	AL	225	480		208Y/120		4.0%	48	38 1/2	29 1/4	NEMA 3R	1350
9T23C9204G62	CU	225	480		208Y/120		4.0%	48	38 1/2	29 1/4		1570
9T23C9122G62	AL	225	600		208Y/120		4.0%	48	38 1/2	29 1/4		1350
9T23C9205G62	CU	225	600		208Y/120		4.0%	48	38 1/2	29 1/4		1570
9T23C9127G62	AL	300	480		208Y/120		4.4%	51 3/4	42 1/2	34 1/2	Suitable For Moist Sea Air & Oil Vapors	1800
9T23C9206G62	CU	300	480		208Y/120		4.4%	51 3/4	42 1/2	34 1/2		2090
9T23C9128G62	AL	300	600		208Y/120		4.4%	51 3/4	42 1/2	34 1/2		1800
9T23C9207G62	CU	300	600		208Y/120		4.4%	51 3/4	42 1/2	34 1/2		2090
9T26C9104	AL	500	600		480Y/277		6.0%	58 3/8	47 1/2	36 3/4		3000
9T26C9110G02	CU	500	600		480Y/277		6.0%	58 3/8	47 1/2	36 3/4		3500
9T26C9104G03	AL	500	600		480Δ		6.0%	58 3/8	47 1/2	36 3/4		3000
9T26C9110	CU	500	600		480Δ		6.0%	58 3/8	47 1/2	36 3/4		3500
9T26C9103G10	AL	750	600	Four (2)+2 1/2%	480Y/277		5.0%	60	61 1/4	51 1/4		4200
9T26C9111G02	CU	750	600		480Y/277		5.0%	60	61 1/4	51 1/4		4850
9T26C9103G09	AL	750	600		480Δ		5.0%	60	61 1/4	51 1/4		4200
9T26C9111G03	CU	750	600		480Δ		5.0%	60	61 1/4	51 1/4		4850
9T26C9106G05	AL	1000	600	(2)-2 1/2%	480Y/277		7.0%	76	70 3/4	60 3/4		5600
9T26C9112G02	CU	1000	600		480Y/277		7.0%	76	70 3/4	60 3/4		6500
9T26C9106G03	AL	1000	600		480Δ		7.0%	76	70 3/4	60 3/4		5600
9T26C9112	CU	1000	600		480Δ		7.0%	76	70 3/4	60 3/4		6500

Models listed conform to requirements of ABS, IEEE45 and the U.S. Coast Guard.

For other ratings and special features contact factory.

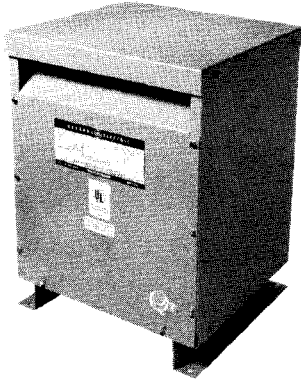
Note: Units 750 thru 1000 KVA are not QL constructed.

Note: For pricing information see supplement GEP-1090-1

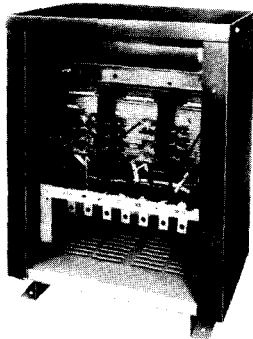


# Type MT Mid-tapped Transformers

THREE PHASE • 60 HERTZ • 30-500 KVA • 600 VOLT CLASS



Type MT transformer, closed view



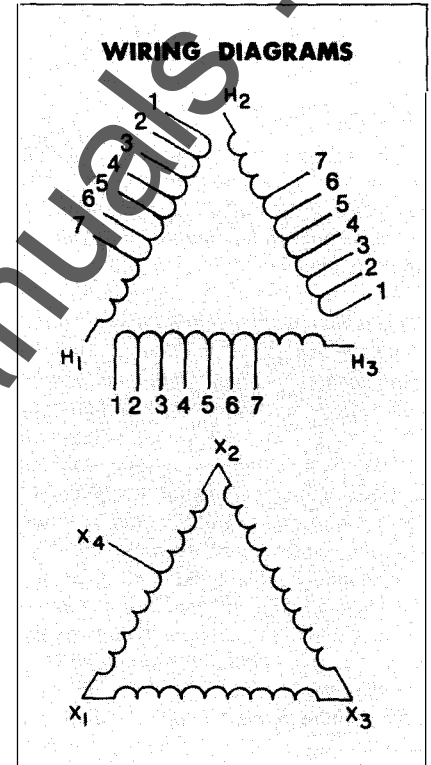
Type MT transformer, open view

General Electric's Type MT transformer enables the user to transform three-phase power from 480 volts primary to 240 volts secondary and have 120-volt, single-phase capability as well. This is because a single-phase mid-tap is brought out of one coil of the unit's three-phase secondary winding.

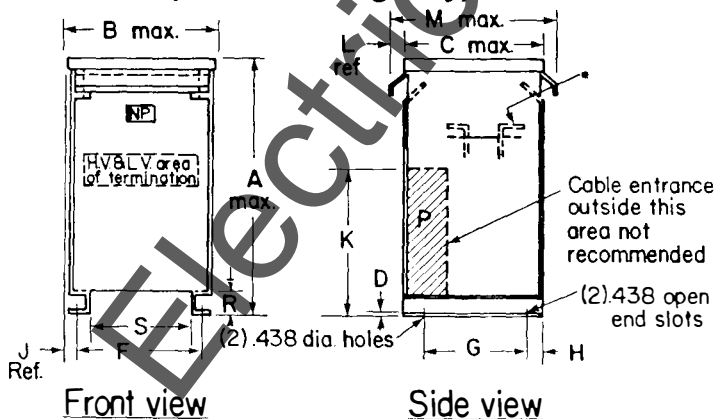
### TYPE MT DOES DOUBLE DUTY WHEN PROPERLY APPLIED

The Type MT can be used wherever there is 480-volt, three-phase supply available and the load is primarily 240-volt three-phase with a nominal amount of 120-volt, single-phase power required. Normally, in this instance, a small single-phase as well as a three-phase transformer would be required to provide the necessary transformation.

**Caution:** When utilizing the 120-volt mid-tap for single-phase applications, the single-phase load should not exceed 5% of the three-phase kva rating. Additional loading beyond 5% may cause the transformer to overheat and fail. If the single-phase load is in excess of 5%, it is recommended that a separate single-phase unit be used to handle the load. See single-phase transformer listings pages 8 and 9.



### DIMENSIONS (For Estimating only)



### THREE PHASE

KVA	480 Volts Primary Secondary 120/240 Volts		Approx. Wt. (Lbs.)
	Model No.	*Taps	
30	9T23B3842	6	280
45	9T23B3843	6	360
75	9T23B3844	6	466
112.5	9T23B3845	6	604
150	9T23B3846	6	776
225	9T23B3847	6	1030
300	9T23B3848	6	1320
500	9T23B3849	6	1850

\* 6—(6) 2 1/2% taps, 2 above and 4 below rated primary volts.

KVA	Model No.	A Max. Height	B Max. Width	C Max. Depth	D	F	G	H	J	K
30	9T23B3842	11 1/4	24	16 1/4	1/8	20 1/2	14	1 3/16	1 3/4	10 1/4
45	9T23B3843	32 1/4	24	17 3/4	1/8	20 1/2	15 1/2	1 3/16	1 3/4	11 1/4
75	9T23B3844	35 3/4	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19
112.5	9T23B3845	40	32	23 3/4	3/16	28 1/2	19 1/2	1 3/16	1 3/4	19
150	9T23B3846	46	35	23 3/4	3/16	31 1/2	19 1/2	1 3/16	1 3/4	20
225	9T23B3847	48	38 1/2	29	3/16	35	22 7/16	1 3/16	2 1/2	21
300	9T23B3848	51 3/4	42 1/2	30 1/4	3/16	37 1/2	27 1/16	1 3/16	2 1/2	21
500	9T23B3849	58 3/4	47 1/2	34 3/4	3/16	42 1/2	30 1/16	1 3/16	2 1/2	25

⊕ Normally in factory stock



# Servicenter™ Mini-Unit Substations

UL LISTED • 5—25 KVA, SINGLE-PHASE • 600 VOLT CLASS

## DESCRIPTION

The Servicenter mini-unit substation from General Electric brings proven encapsulated transformer benefits together with GE advanced breaker techniques to provide one, highly reliable power supply package. This easily installed and serviceable unit incorporates a Type QMS transformer, a primary main circuit breaker, a secondary main circuit breaker, and a load-center-design breaker panel. Since these components don't have to be installed and interconnected separately, the contractor or user can reduce installation time and costs. Because of the single-unit concept, only one, handy Servicenter need be mounted.

Available in single-phase, 5 through 25 kva, 600-volt class ratings, the GE Servicenter is a convenient, economical way to meet your light industrial and temporary power requirements.

**The transformer** — The Servicenter utilizes General Electric transformer design which has close to 20 years of field experience behind it and a long track record for assuring consistent, reliable performance. Type QMS transformers employ a 185 C UL recognized insulation system with a 115 C rise.

**The panel** — The panel assembly includes the rugged General Electric Power Mark® circuit breaker load center interior, a Type TED primary main circuit breaker, and a Type THQL secondary main circuit breaker on units 5 through 15 kva. Type TQD secondary main circuit breakers are

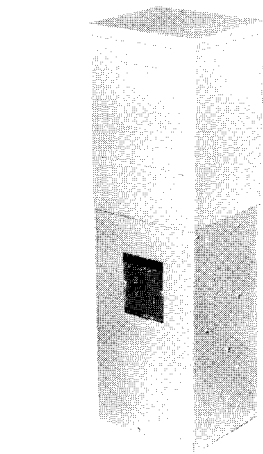


Fig. 1. Servicenter, closed view

used on the 25 kva model. The load center will accept one- or two-pole common trip circuit breakers and ground fault breakers. All Servicenters come equipped with the properly sized primary main and secondary main circuit breakers installed and prewired. Branch breakers are not included.

## APPLICATION

The Servicenter can be used wherever 480-volt power is available and 120- or 240-volt branch circuits are required. The unit can be used in such applications as vending

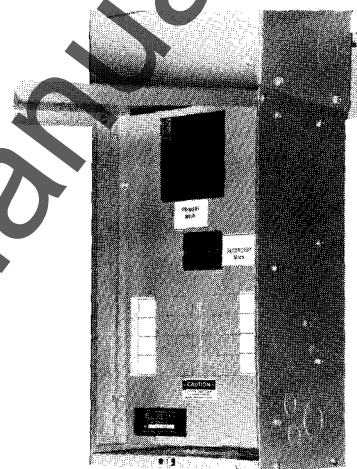


Fig. 2. Servicenter, hinged door up

machine areas, laboratory test areas, where temporary power is required, or where future expansion of branch circuits is planned.

## UL LISTED

The Servicenter carries a UL Label for unit substations, and is suitable for both indoor and outdoor installation.

## NEC REQUIREMENTS

The Servicenter conforms with Article 450-3 of the 1978 National Electric Code.

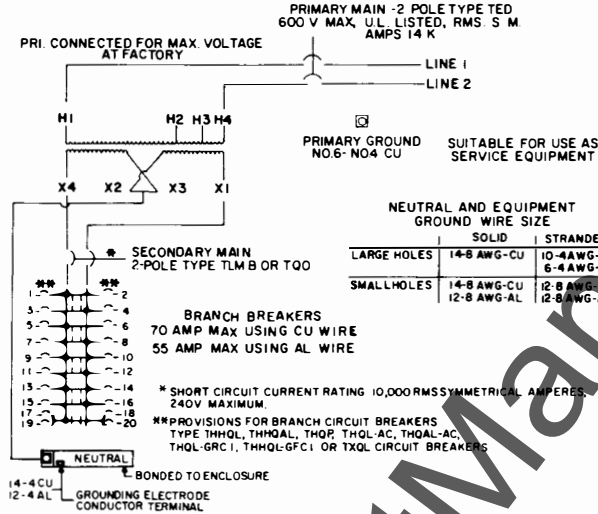
## DATA

Kva	Model No.	Maximum Secondary Circuits		Breaker Ratings	
		120 V One-pole	240 V Two-pole	Primary Main	Secondary Main
<b>480 VOLTS PRIMARY, 120/240 VOLT SECONDARY (2) 5% TAPS BELOW RATED PRIMARY VOLTS</b>					
5	9T21S1050+	6	3	25A	30A
7.5	9T21S1070	6	3	35A	40A
10	9T21S1100+	8	4	50A	50A
15	9T21S1150+	12	6	60A	70A
25	9T21S1250+	20	10	100A	150A
<b>600 VOLTS PRIMARY, 120/240 VOLT SECONDARY (2) 5% TAPS BELOW RATED PRIMARY VOLTS</b>					
5	9T21S1052	6	3	20A	30A
7.5	9T21S1072	6	3	30A	40A
10	9T21S1102	8	4	40A	50A
15	9T21S1152	12	6	60A	70A

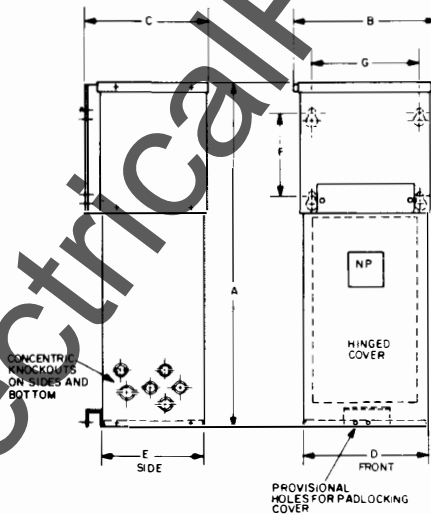
+ Normally in factory stock.

# Servicenter™ Mini-Unit Substations continued

## TYPICAL WIRING DIAGRAM



## DIMENSIONS (For reference only)



Kva	Model No.	Approximate Dimensions in Inches							Approx. Wt. in Lb.	
		A Max. Height	B Max. Width	C Max. Depth	D	E	F	G	Net	Ship
		5	9T21S1050, 1052	32 <sup>1</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	11	9 <sup>7</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>	6	8 <sup>5</sup> / <sub>16</sub>
7.5	9T21S1070, 1072	33 <sup>5</sup> / <sub>8</sub>	12	12 <sup>3</sup> / <sub>8</sub>	11	9 <sup>7</sup> / <sub>8</sub>	6 <sup>9</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	161	171
10	9T21S1100, 1102	34 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>4</sub>	10	7 <sup>1</sup> / <sub>2</sub>	9 <sup>11</sup> / <sub>16</sub>	198	208
15	9T21S1150, 1152	34	14 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>4</sub>	12	7 <sup>1</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>4</sub>	280	290
25	9T21S1250	39	16 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>8</sub>	9	13 <sup>5</sup> / <sub>8</sub>	418	430

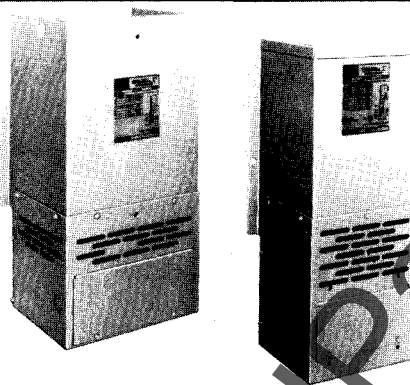
† Normally in factory stock.

# Power Conditioning Equipment

## “Dirty” Power Problems Can Be Solved with GE Power Conditioning Equipment

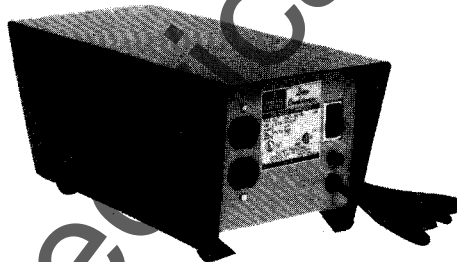
Voltage problems that were considered relatively minor just a few years ago are now causing serious problems. Erratic voltage for even a fraction of a second can cause electronic and other voltage-sensitive equipment to malfunction. Worse yet is the damage that occurs to computer systems where the memory can be lost, equipment damaged, or the entire system shut down completely.

Fortunately, there is an economical solution to these problems. General Electric's power conditioning equipment is especially designed to prevent voltage problems from developing. Bulletin GEA-11062 is available to help you select the proper product to protect your investment in computers and other sophisticated electronic equipment.



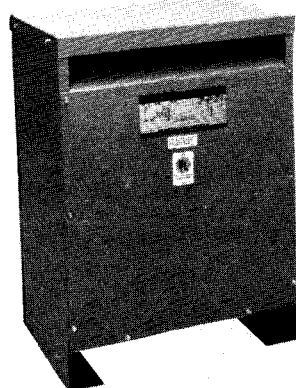
### Stabiltron I<sup>™</sup> Voltage Stabilizers

Stabiltron I voltage stabilizers provide precise voltage regulation to protect your equipment from voltage dips and surges. With input fluctuations up to  $\pm 15\%$ , Stabiltron I units will hold output voltage constant within  $\pm 1\%$ . Even with voltage swings up to 65%, voltage output will be held within 10% of nominal. Stabiltron I units are designed primarily for voltage regulation. If your major concern is protection from electrical “noise” problems, you may need a GE line conditioner or noise isolation transformer.



### Line Conditioners

GE line conditioners provide voltage regulation similar to Stabiltron I units. With input fluctuations up to  $\pm 15\%$ , line conditioners will hold output voltage constant within  $\pm 2\%$ . In addition, line conditioners provide excellent noise attenuation. That is, they filter out electrical noise — those unwanted signals and spikes that are present on power lines. Since they provide both voltage regulation and excellent noise attenuation, line conditioners offer the widest possible protection.



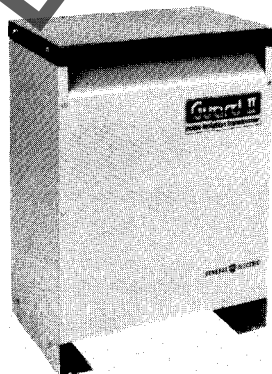
### Guard I<sup>™</sup> Noise Isolation Transformers

Guard I noise isolation transformers do not provide voltage regulation. But, they do provide excellent common mode noise attenuation. And, they do offer other advantages. They are generally less expensive than alternative methods of electrical noise attenuation, and there are more voltage combinations available from which to select. Also, since they are available in larger power ratings, noise isolation transformers can be used on a feeder system to protect all equipment on the line.

# Power Conditioning Equipment

If you don't have a GE power line monitor to help you analyze your voltage problems use the handy selection guide below. In addition, refer to bulletin GEA-11062 for complete information to help you select the specific model that's right for your job.

Function To Be Performed	Stabiltron Voltage Stabilizer	Line Conditioner	Noise Isolation Transformers	
			Guard I	Guard II
Circuit isolation between primary & secondary	Yes	Yes	Yes	Yes
Voltage transformation between primary & secondary	Yes	Yes	Yes	Yes
Voltage Stabilization	Yes	Yes	No	No
Voltage stabilization response within 30 msec.	Yes	Yes	No	No
Continuity of output voltage during a primary circuit interruption of 5 msec. or less	Yes	Yes	No	No
Common mode noise suppression	Moderate	Excellent	Excellent	Excellent
Transverse mode noise suppression	Moderate	Excellent	Fair	Excellent
<b>Problem To Be Solved</b>				
Source voltage that varies widely from nominal rating	Yes	Yes	No	No
Voltage spikes from switching operations or lightning discharges	Yes	Yes	Yes	Yes
Utility circuit voltage reduction (Brownout)	Yes	Yes	No	No
Source circuit interruption of 5 msec. or less	Yes	Yes	No	No
Source voltage containing both transverse and common mode noise, 1-500KHz range	Moderate	Excellent	Fair	Excellent
Source voltage containing only common mode noise	Moderate	Excellent	Excellent	Excellent



## Guard II™ Noise Isolation Transformers

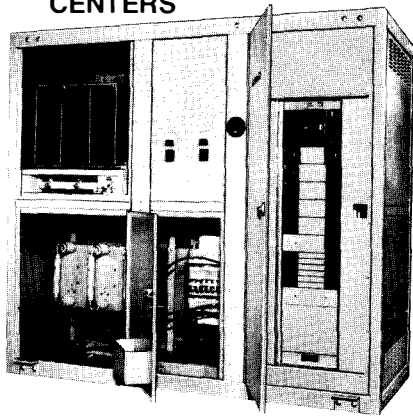
Guard II noise isolation transformers provide the ultimate in protection from "dirty" power problems. Noise suppression components combined with an electrostatic shield offer excellent common and transverse mode noise attenuation. Additional protection is also provided by spike/surge suppression components. They are furnished in attractive brown and beige enclosures that are compatible with office and computer room decors. When clean power is a must, select a Guard II noise isolation transformer.



**DRY-TYPE  
TRANSFORMERS**

# General Electric Offers You A Complete Package of Related Products

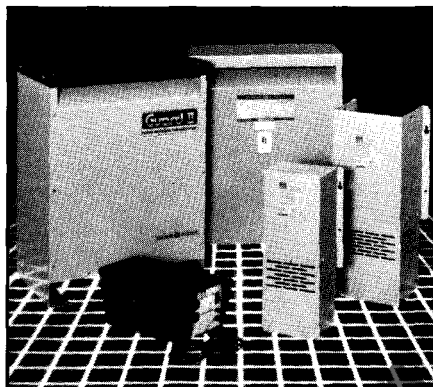
## UNI-CENTER™ INTEGRAL DISTRIBUTION CENTERS



UNI-CENTER™ integral distribution centers by General Electric provide easy-access, one-unit construction for transforming and switching power from primary feeders at utility voltage levels to in-plant utilization voltage requirements. Ratings are available from 112.5 through 1000 kva, 1.2-kv class; 112.5 through 500 kva, 5.0—15.0-kv class. Available in indoor and outdoor NEMA 3R enclosures.

Descriptive Publication, GEA-7893

## POWER CONDITIONING EQUIPMENT

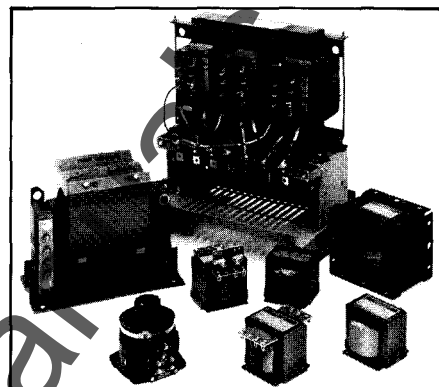


General Electric offers a quality line of power conditioning equipment. Select from Stabiltron I™ voltage stabilizers, line conditioners and Guard I or Guard II noise isolation transformers.

These three product lines protect your sophisticated electronic and electrical equipment from "dirty" power problems resulting from dips, surges, voltage transients and electrical noise. There are a variety of models and ratings from which to choose in each product line.

Descriptive Publication, GEA-11062

## CORE-AND-COIL DRY-TYPE TRANSFORMERS



General Electric offers a complete line of open, dry-type, core-and-coil transformers for a wide range of power and control applications. Installation flexibility is provided by a choice of mounting types. Units are available for mounting either integrally within equipment cabinets or separately in individual enclosures.

Types include machine tool, control and power, high voltage, power and cast coil construction.

Descriptive Publication, GEA-9955

## VOLT-PAC® VARIABLE AUTOTRANSFORMERS

Volt-Pac variable autotransformers offer continuously adjustable voltage, with no wave-form distortion over ranges of 0-100% or 0-117% of line voltage. Suitable for many electronic and electrical applications, its simple operation is based on autotransformer action. Models, optionally cased or uncased, are manual, manual plug-in and motor-operated types -30 through -60-frame, and larger -75, -85 and -95 frame. Single and three-phase ratings are available with an input of 120, 240 and 480 volts; an output of 0-120/140, 0-240/280, and 0-480/560 volts. Current is 2.5 to 360 amperes.

Descriptive Publication, GEA-8110



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General Electric  
Sales Office or ...

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Specialty Transformer Operation  
P.O. Box 1701, Fort Wayne, IN 46801

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