

Dry-Type General-Purpose Transformers

Three-Phase (Cont'd.)

Refer to page 10-8 for maximum outline dimensions and weights.

kVA	480 Volts Delta Primary Secondary 208 Y/120 Volts					480 Volts Delta Primary Secondary 240 Volts Delta					600 Volts Delta Primary Secondary 208 Y/120 Volts				
	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-66A	Wiring Diagram No. Page 10-9	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-66A	Wiring Diagram No. Page 10-9	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-66A	Wiring Diagram No. Page 10-9

15-1500 kVA, Indoor, Type QL

UL Listed

For Outdoor NEMA 3R Enclosure Add Suffix G62 to Catalog Number

15	60	9T23B3871	6	\$ 2793.00	18	60	9T23B3881	6	\$ 2913.00	19	60	9T23B3891	6	\$ 3112.00	18
30	60	9T23B3872	6	3272.00	18	60	9T23B3882	6	3272.00	19	60	9T23B3892	6	3511.00	18
45	60	9T23B3873	6	3935.00	18	60	9T23B3883	6	3935.00	19	60	9T23B3893	6	4234.00	18
50	60	9T23B3864	6	4754.00	18	—	—	—	—	—	—	—	—	—	—
75	60	9T23B3874	6	5920.00	18	60	9T23B3884	6	5920.00	19	60	9T23B3894	6	6363.00	18
112.5	60	9T23B3875	6	7869.00	18	60	9T23B3885	6	7869.00	19	60	9T23B3895	6	8467.00	18
150	60	9T23B3876	6	10261.00	18	60	9T23B3886	6	10261.00	19	60	9T23B3896	6	11031.00	18
225	60	9T23B3877	6	13923.00	18	60	9T23B3887	6	13923.00	19	60	9T23B3897	6	16462.00	18
300	60	9T23B3878	6	17588.00	18	60	9T23B3888	6	17588.00	19	60	9T23B3898	6	21254.00	18
400	60	9T23B3866	6	24310.00	18	—	—	—	—	—	—	—	—	—	—
500	60	9T23B3879	6	29108.00	18	60	9T23B3889	6	29108.00	19	60	—	—	—	—
750	60	9T23B3867	Ⓢ	51063.00	21	—	—	—	—	—	—	—	—	—	—
1000	60	9T23B3868	Ⓢ	58481.00	28	—	—	—	—	—	—	—	—	—	—
1500	60	Consult Factory	—	—	—	—	—	—	—	—	—	—	—	—	—

15-1000 kVA, Indoor, Copper-Winding, Type QL

UL Listed

For Outdoor NEMA 3R Enclosure Add Suffix G62 to Catalog Number

15	60	9T23Q9871	6	3492.00	18	60	9T23Q9881	6	3639.00	19	—	—	—	—	—
30	60	9T23Q9872	6	4089.00	18	60	9T23Q9882	6	4089.00	19	—	—	—	—	—
45	60	9T23Q9873	6	4918.00	18	60	9T23Q9883	6	4918.00	19	—	—	—	—	—
50	60	9T23Q9864	6	5945.00	18	—	—	—	—	—	—	—	—	—	—
75	60	9T23Q9874	6	7398.00	18	60	9T23Q9884	6	7398.00	19	—	—	—	—	—
112.5	60	9T23Q9875	6	9834.00	18	60	9T23Q9885	6	9834.00	19	—	—	—	—	—
150	60	9T23Q9876	6	12829.00	18	60	9T23Q9886	6	12829.00	19	—	—	—	—	—
225	60	9T23Q9877	6	17403.00	18	60	9T23Q9887	6	17403.00	19	—	—	—	—	—
300	60	9T23Q9878	6	21981.00	18	60	9T23Q9888	6	21981.00	19	—	—	—	—	—
500	60	9T23C4079	6	39720.00	18	60	9T23C4089	6	39948.00	19	—	—	—	—	—
750	60	9T23C4067	4	69521.00	22	—	—	—	—	—	—	—	—	—	—
1000	60	9T23C4068	2	77273.00	28	—	—	—	—	—	—	—	—	—	—

kVA	208 Volts Delta Primary Secondary 480 Y/277 Volts					240 Volts Delta Primary Secondary 208 Y/120 Volts					480 Volts Delta Primary Secondary 480 Y/277 Volts				
	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-90E	Wiring Diagram No. Page 10-9	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-90E	Wiring Diagram No. Page 10-9	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-90E	Wiring Diagram No. Page 10-9

9, 15 kVA, Indoor/Outdoor, Type QMS 3

UL Listed

C-UL Listed

9	60	9T21J9712	4	\$2310.00	30	60	9T21J9713	4	\$2310.00	30	60	9T21J9710	4	\$2310.00	30
15	60	9T21J1710	4	2730.00	30	60	9T21J1711	4	2730.00	30	60	9T21J1712	4	2730.00	30

kVA	208 Volts Delta Primary Secondary 480 Y/277 Volts					240 Volts Delta Primary Secondary 208 Y/120 Volts					480 Volts Delta Primary Secondary 480 Y/277 Volts				
	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-66A	Wiring Diagram No. Page 10-9	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-66A	Wiring Diagram No. Page 10-9	Hertz	Catalog Number	Ⓢ Taps	List Price, GO-66A	Wiring Diagram No. Page 10-9

15-500 kVA, Indoor, Type QL

UL Listed

For Outdoor NEMA 3R Enclosure Add Suffix G62 to Catalog Number

15	60	9T23B3801	6	\$ 3515.00	26	60	9T23B3811	6	\$ 3515.00	18	60	9T23B3851	6	\$ 3377.00	18
30	60	9T23B3802	6	3929.00	26	60	9T23B3812	6	3929.00	18	60	9T23B3852	6	3925.00	18
45	60	9T23B3803	6	4719.00	26	60	9T23B3813	6	4719.00	18	60	9T23B3853	6	4719.00	18
50	60	9T23B3014	6	5716.00	26	60	9T23B3013	6	5716.00	18	60	9T23B3012	6	5710.00	18
75	60	9T23B3804	6	7100.00	26	60	9T23B3814	6	7100.00	18	60	9T23B3854	6	7100.00	18
112.5	60	9T23B3805	6	9446.00	26	60	9T23B3815	6	9446.00	18	60	9T23B3855	6	9446.00	18
150	60	9T23B3806	3	12314.00	23	60	9T23B3816	3	12314.00	20	60	9T23B3856	6	12314.00	18
225	60	9T23B3807	3	16703.00	23	60	9T23B3817	3	16703.00	20	60	9T23B3857	6	16703.00	18
300	60	9T23B3808	3	21103.00	23	60	9T23B3818	3	21103.00	20	60	9T23B3858	6	21103.00	18
400	60	9T23B3015	3	29167.00	23	—	—	—	—	—	60	9T23B3017	6	29167.00	18
500	60	9T23B3809	3	35144.00	23	60	9T23B3819	3	35144.00	20	60	9T23B3859	6	35144.00	18

Ⓢ 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 voltages. 1000

kVA has (1) 3.6% full capacity primary tap above and below rated voltage.

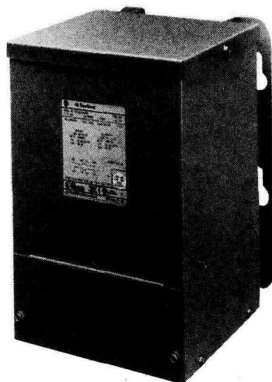


Dry-Type General-Purpose Transformers

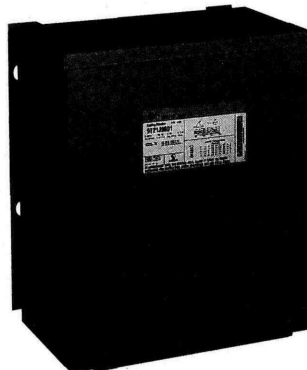
Types QB, QMS, QMS 3, and QL
600 Volts and Below



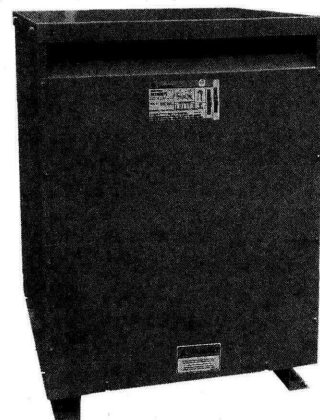
Type QB,
.050 kVA-3 kVA,
Single-Phase



Type QMS,
5 kVA-25 kVA,
Single-Phase



Type QMS 3
3 kVA-15 kVA
Three-Phase



Type QL,
25 kVA-167 kVA,
Single-Phase
15 kVA-1500 kVA,
Three-Phase

10 SPECIALTY TRANSFORMERS

General Information

The complete family of transformers from GE provide quiet, reliable transformer operation.

All of the dry-type transformers through 1,000 kVA are UL listed under the requirements of Standard 506 and 1561. In addition, each transformer meets the requirements of NEMA ST-20, 1992. Type QB, QMS, and QMS 3 models are C-UL listed.

General-purpose transformers are rated 600 Volts and below for supplying appliance, lighting, and power loads from electrical distribution systems. Standard distribution voltages are 600, 480, and 240 Volts; standard load voltages are 480, 240, 208, and 120 Volts. The transformer is used to obtain the load voltage from the distribution voltage. Since no vaults are required for installation, these transformers can be located right at the load to provide the correct voltage for the application. This eliminates the need for long, costly, low-voltage feeders.

Construction

Types QB, QMS, and QMS 3

Core and coils are contained within a NEMA 3R nonventilated weatherproof enclosure. Type QB, QMS, and QMS 3 units feature encapsulated core and coils.

Type QL

Units are enclosed in a NEMA 2 drip-proof metal enclosure with natural-draft ventilation. Core-and-coil assembly is mounted on rubber isolation pads to reduce noise. Weathershield kits are available for conversion to a NEMA 3R enclosure suitable for outdoor service.

How to Select

- Establish phase and frequency
- Determine the primary voltage—the voltage presently available
- Determine the secondary voltage—the voltage needed at the load
- Determine the kVA load, allowing room for expansion
- Using the facts determined in the four steps, locate the transformer model in the listings on the following pages.

Voltage Tap Arrangement

Transformer taps compensate for high or low line voltages. Standard NEMA, ANSI three-phase taps are two 5 percent taps below normal on transformers smaller than 30 kVA. This arrangement provides a 10 percent range of tap voltage adjustment.

Most standard QL units rated 15 through 500 kVA have available six universal voltage taps—four 2½ percent below normal, and two 2½ percent above normal. This arrangement provides a 15 percent range of tap voltage adjustment.

Temperature Class

Industry standards classify insulation systems in accordance with the rating system shown below.

Insulation System Classification			
Ambient	+ Winding Rise	+ Hot Spot	= Temp. Class
40°C	55°C	10°C	105°C
40°C	80°C	30°C	150°C
40°C	115°C	25°C	180°C
40°C	150°C	30°C	220°C

All standard, general-purpose, GE transformers meet all applicable NEMA, ANSI, UL, and IEEE standards.

The design life of transformers having different insulation systems is the same, since the allowable temperature rise of an insulation material system is predicated on a specified life for all insulation. The lower temperature systems are designed for the same life as higher temperature systems.

Termination

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 packaged with each GE transformer.



Dry-Type General-Purpose Transformers

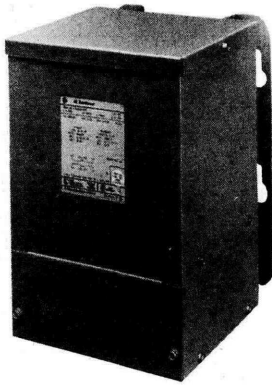
Dimensions and Weights

Wiring Diagrams

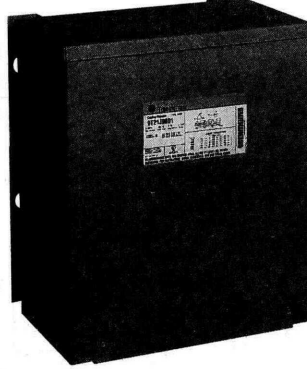
10 SPECIALTY TRANSFORMERS



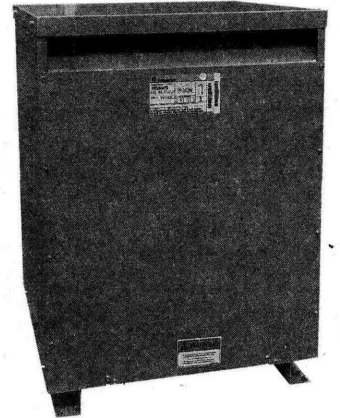
Type QB



Type QMS



Type QMS 3



Type QL

kVA	Max. Height (In.)	Max. Width (In.)	Max. Depth (In.)	Approx. Net Wt. (Lbs.)
Type QB—Single-Phase, 60, 50/60 Hertz				
.050	6.38	5.13	3.25	6
.075	6.38	5.13	3.25	6
.100	6.38	5.13	3.25	6
.150	7.38	6.13	4.25	10
.250	7.38	6.13	4.25	10
.500	8.38	6.88	4.88	16
.750	9.63	7.88	5.50	25
1.00	9.63	7.88	5.50	25
1.50	11.13	9.38	6.72	40
2.00	11.13	9.38	6.72	40
3.00	11.13	9.38	6.72	60

kVA	Max. Height (In.)	Max. Width (In.)	Max. Depth (In.)	Approx. Net Wt. (Lbs.)
Type QMS—Single-Phase, 60 Hertz 115°C Rise				
5	14.50	10.75	11.16	107
7.5	15.88	11.94	12.54	156
10	17.10	12.62	12.72	197
15	18.82	14.75	14.54	267
25	20.53	16.31	15.60	388

kVA	Max. Height (In.)	Max. Width (In.)	Max. Depth (In.)	Approx. Net Wt. (Lbs.)
Type QMS—Single-Phase, 50/60 Hertz 115°C Rise				
5	14.50	10.75	11.16	109
7.5	15.88	11.94	12.54	170
10	17.10	12.62	12.72	197
15	18.82	14.75	14.54	316
25	20.53	16.31	15.60	425

kVA	Max. Height (In.)	Max. Width (In.)	Max. Depth (In.)	Approx. Net Wt. (Lbs.)
Type QMS 3—Three-Phase, 60 Hertz 115°C Rise				
3	14.75	14.30	10.44	120
6	14.75	14.30	10.44	145
9	19.62	18.03	11.62	240
15	19.62	18.03	11.62	265

kVA	Max. Height (In.)	Max. Width (In.)	Max. Depth (In.)	Approximate Net Wt. (Lbs.)	
				Al	Cu
Type QL—Single-Phase, 25-167 kVA, 60 Hertz 150°C Rise					
25	32.25	24	18.07	185	255
37.50	35.75	32	23.69	270	305
50	35.75	32	23.69	340	375
75	40.00	32	23.69	490	560
100	48	38.50	28.94	630	745
167	48	38.50	28.94	975	1080

kVA	Max. Height (In.)	Max. Width (In.)	Max. Depth (In.)	Approximate Net Wt. (Lbs.)	
Type QL—Three-Phase, 15-1000 kVA, 60 Hertz 150°C Rise					
15	27.38	19	16.57	185	200
30	32.25	24	18.07	300	315
45	32.25	24	18.07	365	410
50	32.25	24	18.07	365	—
75	35.75	32	23.69	505	556
112.5	40	32	23.69	650	717
150	46	35	23.69	775	865
225	48	38.50	28.94	1030	1180
300	51.75	42.50	30.25	1370	1535
400	58.38	47.50	34.75	1900	2100
500	58.38	47.50	34.75	2500	2850
750	76	60	50	4190	4650
1000	76	60	50	4530	5400

Decimal	Fraction
.13	1/8
.38	3/8
.63	5/8
.88	7/8

Wiring Diagrams

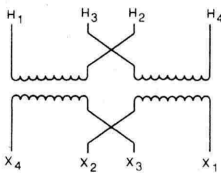


Diagram 1

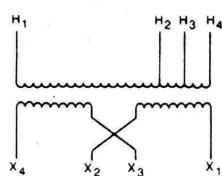


Diagram 2

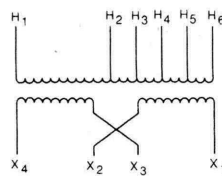


Diagram 3

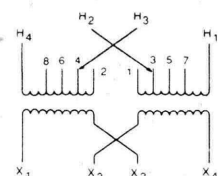


Diagram 4