



**Catalog  
LVGP-10A**



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Supercedes: LVGP-09A

# **MICRON INDUSTRIES CATALOG LVGP-10A**

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## **THE MICRON EDGE**

**While other manufacturers  
treat transformers as  
just one of a variety of  
products, transformers  
and power supplies  
are THE major product  
focus for Micron**

**This focus and resulting  
commitment to excellence,  
has made Micron  
#1  
with specifiers of  
transformers**



## Low Voltage General Purpose Transformers



UL Listed, CSA Certified

**Single Phase  
Type 1-E  
Encapsulated**

Type 1-E general purpose transformers are single phase, resin encapsulated designs suitable for indoor or outdoor applications. It's totally enclosed, non-ventilated enclosure make it ideally suited for use in areas that contain dust, moisture, or corrosive fumes. Available in ratings through 25 KVA type 1-E transformers can be mounted in any position for indoor installations and in upright positions only for outdoor installations.

UL Listed

**Three Phase  
Type 3-E  
Encapsulated**

Type 3-E resin encapsulated, 3-phase transformers are available in ratings of 3-75 KVA. Its totally enclosed non-ventilated enclosure makes the 3-E ideally suited for outdoor as well as indoor locations. Type 3-E transformers utilize the 185°C insulation system with 115°C rise. 3-E transformers 3-15 KVA are T-T connected.

UL Listed

**Single Phase  
Type 1-V  
Ventilated**

1-V general purpose transformers are single phase ventilated units designed primarily for indoor locations (also for outdoor for 600 volt class with the addition of weathershields). The 1-V utilizes a 220°C insulation system with 150°C rise and is available in ratings of 15-167 KVA.

UL Listed

**Three Phase  
Type 3-V  
Ventilated**

The 3-phase 3-V ventilated dry-type is available in ratings of 15-750 KVA. Its 220°C insulation system (150°C rise) is self-extinguishing. 3-V enclosures are designed for indoor locations (or outdoors for 600 volt class with addition of weathershields).

Units installed outdoors must be mounted in upright position.

The Micron series of ventilated 600 volt class general purpose distribution transformers meet NEMA TP-1 efficiency requirements and federal energy efficiency laws as mandated by the Energy Policy Act of 2005. Distribution transformers installed in the United States are required to meet these energy efficiency requirements.

## General Information

### Industry Standards

All Micron dry-type distribution and control transformers are built and tested in accordance with applicable NEMA, ANSI and IEEE standards. All 600 volt class transformers are UL listed unless otherwise noted.

### Seismic Qualified

The Micron family of dry-type distribution transformers is seismically tested, seismically qualified, and exceeds requirements of the Uniform Building Code (UBC) and California Code Title 24.

### Frequency

Micron standard dry-type distribution transformers are designed for 60 Hz operation. Transformers required for other frequencies must be specifically designed.

### Overload Capability

Short term overload is designed into transformers as required by ANSI. Basically, dry-type distribution transformers will deliver 200% nameplate load for one-half hour; 150% load for one-hour; and 125% load for four-hours without being damaged provided that a constant 50% load precedes and follows the overload. See ANSI C57.96-01.250 for additional limitations.

Continuous overload capacity is not deliberately designed into a transformer because the design objective is to be within the allowed winding temperature rise with nameplate loading.

### Insulation System & Temperature Rise

Industry standards classify insulation systems and rise as 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		30°C		185°C	

The design life of transformers having different insulation systems is the same -the lower temperature systems are designed for the same life as the higher temperature systems.

### Sound Levels

All Micron 600 volt class dry-type distribution transformers are designed to meet NEMA ST-20 levels listed here.

KVA	NEMA Average* Sound Level in db40
0-9	40
10-50	45

\*Applies to general purpose transformers only.

**Winding Terminations**

Primary and secondary windings are terminated in the wiring compartment. Encapsulated units have copper leads or stabs brought out for connections. Micron recommends external cables be rated 90°C (sized at 75°C ampacity) for encapsulated designs.

**Series-Multiple Windings**

Series-multiple windings consist of 2 similar coils in each winding which can be connected in series or parallel (multiple). Transformers with series-multiple windings are designated with an "X" or "I" between the voltage ratings, such as primary voltage of "120/240" or "240 X 480". If the series-multiple winding is designated by an "X" the winding can be connected only for a series or parallel. With the "I" designation, a mid-point also becomes available in addition to the series or parallel connection. As an example, a 120 X 240 winding can be connected for either 120 (parallel) or 240 (series), but a 120/240 winding can be connected for 120 (parallel), or 240 (series), or 240 with a 120 mid-point.

## DRY TYPE TRANSFORMERS

### Single Phase Selection Guide

#### Selection Guide for Single Phase Transformers

##### How to Select Single Phase Units

- Determine the primary (source) voltage — the voltage presently available.
- Determine the secondary (load) voltage — the voltage needed at the load.
- Determine the kVA load:
  - If the load is defined in kVA, a transformer can be selected from the tabulated data.
  - If the load rating is given in amperes, determine the load kVA from the below chart. To determine kVA when volts and amperes are known, use the formula:

$$\text{kVA} = \frac{\text{Volts} \times \text{Amperes}}{1000}$$

- If the load is an AC motor, determine the minimum transformer kVA from the chart at the right.
- Select a transformer rating equal to or greater than the load kVA.

- Define tap arrangements needed.

- Define temperature rise.

Using the above procedure, select the transformer from the listings in this catalog.

##### Single Phase AC Motors<sup>●</sup>

Horsepower	Full Load Amperes				Minimum Transformer kVA <sup>●</sup>
	115 Volts	208 Volts	220 Volts	230 Volts	
1/6	4.4	2.4	2.3	2.2	.53
1/4	5.8	3.2	3.0	2.9	.70
1/3	7.2	4.0	3.8	3.6	.87
1/2	9.8	5.4	5.1	4.9	1.18
3/4	13.8	7.6	7.2	6.9	1.66
1	16	8.8	8.4	8	1.92
1-1/2	20	11.0	10.4	10	2.40
2	24	13.2	12.5	12	2.88
3	34	18.7	17.8	17	4.10
5	56	30.8	29.3	28	6.72
7-1/2	80	44	42	40	9.6
10	100	55	52	50	12.0

##### Full Load Current in Amperes — Single Phase Circuits

kVA	120 Volts	208 Volts	220 Volts	240 Volts	277 Volts	480 Volts	600 Volts	2400 Volts	4160 Volts
.250	2.0	1.2	1.1	1.0	0.9	0.5	0.4	.10	.06
.500	4.2	2.4	2.3	2.1	1.8	1.0	0.8	.21	.12
.750	6.3	3.6	3.4	3.1	2.7	1.6	1.3	.31	.18
1	8.3	4.8	4.5	4.2	3.6	2.1	1.7	.42	.24
1.5	12.5	7.2	6.8	6.2	5.4	3.1	2.5	.63	.36
2	16.7	9.6	9.1	8.3	7.2	4.2	3.3	.83	.48
3	25	14.4	13.6	12.5	10.8	6.2	5.0	1.2	.72
5	41	24.0	22.7	20.8	18.0	10.4	8.3	2.1	1.2
7.5	62	36	34	31	27	15.6	12.5	3.1	1.8
10	83	48	45	41	36	20.8	16.7	4.2	2.4
15	125	72	68	62	54	31	25	6.2	3.6
25	208	120	114	104	90	52	41	10.4	6.0
37.5	312	180	170	156	135	78	62	15.6	9.0
50	416	240	227	208	180	104	83	20.8	12.0
75	625	360	341	312	270	156	125	31.3	18.0
100	833	480	455	416	361	208	166	41.7	24.0
167	1391	802	759	695	602	347	278	69.6	40.1

<sup>●</sup> When motor service factor is greater than 1, increase full load amps proportionally. Example: If service factor is 1.15, increase above amp values by 15%.

<sup>●</sup> If motors are started more than once per hour, increase minimum transformer kVA by 20%.

**MICRON**

## DRY TYPE TRANSFORMERS

### Three Phase Selection Guide

#### **Selection Guide for Three Phase Transformers**

##### **How to Select Three Phase Units**

1. Determine the primary (source) voltage — the voltage presently available.
2. Determine the secondary (load) voltage — the voltage needed at the load.
3. Determine the kVA load:  
— If the load is defined in kVA, a transformer can be selected from the tabulated data.  
— If the load rating is given in amperes, determine the load kVA from the below chart. To determine kVA when volts and amperes are known, use the formula:

$$\text{kVA} = \text{Volts} \times \text{Amperes} \times 1.732$$

**1000**

- If the load is an AC motor, determine the minimum transformer kVA from the chart at the right.
- Select a transformer rating equal to or greater than the load kVA.

4. Define tap arrangements needed.
5. Define temperature rise.

Using the above procedure, select the transformer from the listings in this catalog.

##### **Three Phase AC Motors<sup>©</sup>**

<b>Horsepower</b>	<b>Full Load Amperes</b>					<b>Minimum Transformer kVA<sup>©</sup></b>
	<b>208 Volts</b>	<b>230 Volts</b>	<b>380 Volts</b>	<b>460 Volts</b>	<b>575 Volts</b>	
1/2	2.2	2.0	1.2	1.0	0.8	0.9
3/4	3.1	2.8	1.7	1.4	1.1	1.2
1	4.0	3.6	2.2	1.8	1.4	1.5
1-1/2	5.7	5.2	3.1	2.6	2.1	2.1
2	7.5	6.8	4.1	3.4	2.7	2.7
3	10.7	9.6	5.8	4.8	3.9	3.8
5	16.7	15.2	9.2	7.6	6.1	6.3
7-1/2	24	22	14	11	9	9.2
10	31	28	17	14	11	11.2
15	46	42	26	21	17	16.6
20	59	54	33	27	22	21.6
25	75	68	41	34	27	26.6
30	88	80	48	40	32	32.4
40	114	104	63	52	41	43.2
50	143	130	79	65	52	52
60	170	154	93	77	62	64
75	211	192	116	96	77	80
100	273	248	150	124	99	103
125	342	312	189	156	125	130
150	396	360	218	180	144	150
200	528	480	291	240	192	200

##### **Full Load Current in Amperes — Three Phase Circuits**

<b>kVA</b>	<b>208 Volts</b>	<b>240 Volts</b>	<b>380 Volts</b>	<b>480 Volts</b>	<b>600 Volts</b>	<b>2400 Volts</b>	<b>4160 Volts</b>
3	8.3	7.2	4.6	3.6	2.9	.72	.42
6	16.6	14.4	9.1	7.2	5.8	1.4	.83
9	25	21.6	13.7	10.8	8.6	2.2	1.2
15	41.7	36.1	22.8	18.0	14.4	3.6	2.1
22.5	62.4	54.1	34.2	27.1	21.6	5.4	3.1
30	83.4	72.3	45.6	36.1	28.9	7.2	4.2
37.5	104	90.3	57.0	45.2	38.1	9.0	5.2
45	124	108	68.4	54.2	43.4	10.8	6.3
50	139	120	76	60.1	48.1	12.0	6.9
75	208	180	114	90	72	18.0	10.4
112.5	312	270	171	135	108	27.1	15.6
150	416	360	228	180	144	36.1	20.8
225	624	541	342	270	216	54.2	31.3
300	832	721	456	360	288	72.2	41.6
500	1387	1202	780	601	481	120	69.4
750	2084	1806	1140	903	723	180	104
1000	2779	2408	1519	1204	963	241	139

<sup>©</sup> When motor service factor is greater than 1, increase full load amps proportionally. Example: If service factor is 1.15, increase above amp values by 15%.

<sup>©</sup> If motors are started more than once per hour, increase minimum transformer kVA by 20%.

**MICRON**  
For additional information call: 800.621.1233

**SINGLE-PHASE TRANSFORMERS***Selection Information*

KVA	CATALOG NUMBER	TAPS FCAN	TAPS FCBN	TYPE	TEMP RISE °C	Dimensions (Inches)	WEIGHT LBS.	WIRING DIAGRAM #	WEATHER SHIELD	
GROUP A: PRI: 240 x 480 SEC:120/240										
.050	G050A1KF1A01	-	-	1E	115	6 1/2    3 7/8    3 1/2	7	52	A	
.075	G075A1KF1A01	-	-	1E	115	6 1/2    3 7/8    3 1/2	7	54	A	
.100	G100A1KF1A01	-	-	1E	115	6 1/2    3 7/8    3 1/2	7	54	A	
.150	G150A1KF1A01	-	-	1E	115	6 1/2    3 7/8    3 1/2	8	55	A	
.250	G250A1KF1A02	-	-	1E	115	6 1/2    4 7/8    3 7/8	12	56	A	
.500	G500A1KF1A02	-	-	1E	115	6 1/2    4 7/8    4 5/8	13	57	A	
.750	G750A1KF1A02	-	-	1E	115	8 5/8    5 3/4    5 3/4	20	58	A	
1	G001K1KF1A02	-	-	1E	115	8 5/8    5 3/4    5 3/4	30	59	A	
1.5	G1X5K1KF1A02	-	-	1E	115	10 1/2    6 3/8    6 1/8	40	67	A	
2	G002K1KF1A02	-	-	1E	115	10 1/2    6 3/8    6 1/8	40	68	A	
3	G003K1KF7A03	1	1	1E	115	14 1/8    7 3/4    8	65	176	B	
5	G005K1KF7A03	1	1	1E	115	16    10 3/8    9 7/8	113	177	B	
7.5	G7X5K1KF7A03	1	1	1E	115	16    10 3/8    9 7/8	123	178	B	
10	G010K1KF7A03	1	1	1E	115	19    13 3/8    10 1/2	193	179	B	
15	G015K1KF6A03	2	2	1E	115	19    13 3/8    10 1/2	216	180	C	
25	G025K1KF6A03	2	2	1E	115	22 3/8    16 3/8    14 1/2	385	182	C	
15	G015K2KF6A04	2	2	1V	150	31 1/4    22 5/8    17 1/2	212	816	S    WS11MI	
25	G025K2KF6A04	2	2	1V	150	31 1/4    22 5/8    17 1/2	212	816	S    WS11MI	
37.5	G037K2KF6A04	2	2	1V	150	37 5/8    22 5/8    19 1/2	306	817	S    WS11MI	
50	G050K2KF9A04	2	2	1V	150	42    24	23 3/8	550	819	S    WS16MI
75	G075K2KF6A04	2	2	1V	150	42    24	23 3/8	600	819	S    WS16MI
100	G100K2KF6A04	2	2	1V	150	63    30	34	820	821	S    WS13MI
(1) 1@+10% FCBN @ 240V; 2@+5% FCBN @ 480V										
(2) 1@+5%, 2@-5% at 240V primary; 2@+2.5%, 4@-2.5% at 480V primary										
GROUP B: PRI: 190/200/208/220 x 380/400/416/440 SEC: 110/220 50/60Hz										
1	G001K1PG1A06	-	-	1E	115	10 1/2    6 3/8    6 1/8	40	67	D	
1.5	G1X5K1PG1A06	-	-	1E	115	14 1/8    7 3/4    8	40	176	D	
2	G002K1PG1A07	-	-	1E	115	14 1/8    7 3/4    8	65	176	D	
3	G003K1PG1A07	-	-	1E	115	16    10 3/8    9 7/8	113	177	D	
5	G005K1PG1A07	-	-	1E	115	16    10 3/8    9 7/8	123	178	D	
7.5	G7X5K1PG1A07	-	-	1E	115	19    13 3/8    10 1/2	193	179	D	
10	G010K1PG1A07	-	-	1E	115	19    13 3/8    10 1/2	216	180	D	
15	G015K1PG1A07	-	-	1E	115	22 3/8    16 3/8    14 1/2	375	182	D	
GROUP D: PRI: 600 SEC: 120/240										
1	G001K1RF8A02	-	2@-5%	1E	115	8 5/8    5 3/4    5 3/4	31	59	H	
1.5	G1X5K1RF8A02	-	2@-5%	1E	115	10 1/2    6 3/8    6 1/8	42	67	H	
2	G002K1RF8A02	-	2@-5%	1E	115	10 1/2    6 3/8    6 1/8	42	68	H	
3	G003K1RF8A03	-	2@-5%	1E	115	14 1/8    7 3/4    8	65	176	H	
5	G005K1RF8A03	-	2@-5%	1E	115	16    10 3/8    9 7/8	105	177	H	
7.5	G7X5K1RF8A03	-	2@-5%	1E	115	16    10 3/8    9 7/8	123	178	H	
10	G010K1RF8A03	-	2@-5%	1E	115	19    13 3/8    10 1/2	193	179	H	
15	G015K1RF5A03	-	4@-2.5%	1E	115	19    13 3/8    10 1/2	216	180	I	
25	G025K1RF2A03	2@+2.5% 4@-2.5%	1E	115	20 3/4    19 1/8    13 5/8	395	132	J		
25	G025K2RF2A04	2@+2.5% 4@-2.5%	1V	150	31 1/4    22 5/8    17 1/2	212	816	V    WS11MI		
37.5	G037K2RF2A04	2@+2.5% 4@-2.5%	1V	150	37 5/8    22 5/8    19 1/2	306	817	V    WS11MI		
50	G050K2RF2A04	2@+2.5% 4@-2.5%	1V	150	42    24	23 3/8	550	819	V    WS16MI	
75	G075K2RF2A04	2@+2.5% 4@-2.5%	1V	150	42    24	23 3/8	600	819	V    WS16MI	
100	G100K2RF2A04	2@+2.5% 4@-2.5%	1V	150	63    30	34	820	821	V    WS13MI	

**SINGLE-PHASE TRANSFORMERS****Selection Information**

KVA	CATALOG NUMBER	TAPS FCAN	TAPS FCBN	TYPE	C TEMP RISE	Dimensions (Inches)			WEIGHT LBS.	WIRING DIAGRAM #	WEATHER SHIELD
<b>GROUP E: PRI 208 SEC:120/240</b>											
.5	G500A1HF1A02	-	-	1E	115	6 1/2	4 7/8	4 5/8	13	57	L
1	G001K1HF1A02	-	-	1E	115	8 3/8	6	5 1/2	30	59	L
1.5	G1X5K1HF1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	67	L
2	G002K1HF1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	68	L
3	G003K1HF1A03	-	-	1E	115	14 1/8	7 3/4	8	65	176	L
5	G005K1HF1A03	-	-	1E	115	16	10 3/8	18 1/2	113	177	L
7.5	G7X5K1HF1A03	-	-	1E	115	16	10 3/8	9 7/8	123	178	L
10	G010K1HF1A03	-	-	1E	115	19	13 3/8	10 1/2	193	179	L
15	G015K1HF1A03	-	-	1E	115	19	13 3/8	10 1/2	216	180	L
25	G025K1HF1A03	-	-	1E	115	22 3/8	16 3/8	14 1/8	375	182	L
25	G025K2HF1A04	2@+2.5%	4@-2.5%	1V	150	31 1/4	22 5/8	17 1/2	212	816	Q WS11MI
37.5	G037K2HF1A04	2@+2.5%	4@-2.5%	1V	150	37 5/8	22 5/8	19 1/2	306	817	Q WS11MI
50	G050K2HF1A04	2@+2.5%	4@-2.5%	1V	150	42	24	23 3/8	510	819	Q WS16MI
75	G075K2HF1A04	1@+2.5%	2@-5%	1V	150	42	24	23 3/8	550	819	Q WS16MI
100	G100K2HF1A04	2@+2.5%	4@-2.5%	1V	150	63	30	34	1200	814	Q WS13MI
<b>GROUP F: PRI: 277 SEC: 120/240</b>											
3	G003K1MF1A03	-	-	1E	115	14 1/8	7 3/4	8	65	176	M
5	G005K1MF1A03	-	-	1E	115	16	10 3/8	18 1/2	113	177	M
7.5	G7X5K1MF1A03	-	-	1E	115	16	10 3/8	9 7/8	123	178	M
10	G010K1MF1A03	-	-	1E	115	19	13 3/8	10 1/2	193	179	M
15	G015K1MF1A03	-	-	1E	115	19	13 3/8	10 1/2	216	180	M
25	G025K1MF1A03	-	-	1E	115	22 3/8	16 3/8	14 1/8	375	182	M
25	G025K2MF1A04	2@+2.5%	4@-2.5%	1V	150	31 1/4	22 5/8	17 1/2	212	816	R WS11MI
37.5	G037K2MF1A04	2@+2.5%	4@-2.5%	1V	150	37 5/8	22 5/8	19 1/2	306	817	R WS11MI
50	G050K2MF1A04	2@+2.5%	4@-2.5%	1V	150	42	24	23 3/8	510	819	R WS16MI
75	G075K2MF1A04	2@+2.5%	4@-2.5%	1V	150	42	24	23 3/8	550	819	R WS16MI
100	G100K2MF1A04	2@+2.5%	4@-2.5%	1V	150	63	30	34	1200	814	R WS13MI
<b>GROUP G: PRI: 120 x 240 SEC: 120/240</b>											
1	G001K1EF1A02	-	-	1E	115	8 3/8	6	5 1/2	30	59	K
1.5	G1X5K1EF1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	67	K
2	G002K1EF1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	68	K
3	G003K1EF1A03	-	-	1E	115	14 1/8	7 3/4	8	65	176	K
5	G005K1EF1A03	-	-	1E	115	16	10 3/8	18 1/2	113	177	K
7.5	G7X5K1EF1A03	-	-	1E	115	16	10 3/8	9 7/8	123	178	K
10	G010K1EF1A03	-	-	1E	115	19	13 3/8	10 1/2	193	179	K
15	G015K1EF1A03	-	-	1E	115	19	13 3/8	10 1/2	216	180	K
25	G025K1EF1A03	-	-	1E	115	22 3/8	16 3/8	14 1/8	375	182	K

**THREE-PHASE TRANSFORMERS**  
Selection Information

KVA	CATALOG NUMBER	TAPS FCAN	TAPS FCBN	TYPE	TEMP RISE °C	Dimensions (Inches)			WEIGHT LBS.	WIRING DIAGRAM #	WEATHER SHIELD
<b>GROUP H: 208Δ SEC: 480Y/277</b>											
15	G015K5HQ2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	152	912B	X WS38MI
30	G030K5HQ2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	361	912B	X WS38MI
45	G045K5HQ2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	360	912B	X WS38MI
75	G075K5HQ2A04	2@+2.5%	4@-2.5%	3V	150	39	29	22	500	914D	X WS39MI
112.5	G112K5HQ2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	600	916A	X WS19MI
150	G150K5HQ2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	1270	916A	X WS19MI
225	G225K5HQ4A04	2@+2.5%	4@-2.5%	3V	150	62	31 1/4	30 1/4	1386	918A	Y WS34MI
300	G300K5HQ4A04	2@+2.5%	4@-2.5%	3V	150	75	44 1/2	35 3/4	2045	919	Y WS35MI
<b>GROUP I: PRI: 240Δ SEC: 208Y/120</b>											
9	G009K3JH8A03	-	2@-5%	3E	115	15 7/8	16 1/2	9 7/8	190	103	AA
15	G015K3JH8A03	-	2@-5%	3E	115	17 3/8	20	10 9/16	275	95	AA
30	G030K3JH2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	25 1/4	12 3/4	422	243	BB
45	G045K3JH2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	28 1/2	14 5/8	660	244	BB
15	G015K5JH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	179	912B	CC WS38MI
30	G030K5JH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	324	912B	CC WS38MI
45	G045K5JH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	360	912B	CC WS38MI
75	G075K5JH2A04	2@+2.5%	4@-2.5%	3V	150	39	29	22	496	914D	CC WS39MI
112.5	G112K5JH2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	600	916A	CC WS19MI
150	G150K5JH2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	806	916A	CC WS19MI
225	G225K5JH5A04	2@+2.5%	4@-2.5%	3V	150	56	31	24 1/4	1386	917	DD WS34MI
300	G300K5JH5A04	2@+2.5%	4@-2.5%	3V	150	62	31 1/4	30 1/4	2045	918A	DD WS34MI
<b>GROUP J: PRI 480Δ SEC: 208Y/120</b>											
3	G003K3QH8A03	-	2@-5%	3E	115	13 3/8	15 15/16	8 5/16	116	201	FF
6	G006K3QH8A03	-	2@-5%	3E	115	15 7/8	16 1/2	9 7/8	165	200	FF
6	G006K3QH3A03	2@+2.5%	2@-2.5%	3E	115	15 7/8	16 1/2	9 7/8	165	200	GG
9	G009K3QH8A03	-	2@-5%	3E	115	15 7/8	16 1/2	9 7/8	185	103	FF
9	G009K3QH5A03	-	4@-2.5%	3E	115	15 7/8	16 1/2	9 7/8	185	103	HH
9	G009K3QH3A03	2@+2.5%	2@-2.5%	3E	115	15 7/8	16 1/2	9 7/8	185	103	GG
15	G015K3QH8A03	-	2@-5%	3E	115	17 3/8	20	10 9/16	275	95	FF
15	G015K3QH5A03	-	4@-2.5%	3E	115	17 3/8	20	10 9/16	275	95	HH
15	G015K3QH3A03	2@+2.5%	2@-2.5%	3E	115	17 3/8	20	10 9/16	275	95	GG
30	G030K3QH2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	25 1/4	12 3/4	422	243	II
45	G045K3QH2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	28 1/2	14 1/2	720	244	II
75	G075K3QH2A03	2@+2.5%	4@-2.5%	3E	115	32 1/8	30 1/4	15 5/8	1275	245	II
15	G015K5QH2A04	2@+2.5%	2@-2.5%	3V	150	30	23	16 1/2	152	912B	JJ WS38MI
30	G030K5QH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	310	912B	JJ WS38MI
45	G045K5QH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	310	912B	JJ WS38MI
75	G075K5QH2A04	2@+2.5%	4@-2.5%	3V	150	39	29	22	480	914D	JJ WS39MI
112.5	G112K5QH2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	630	916A	JJ WS19MI
150	G150K5QH2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	820	916A	JJ WS19MI
225	G225K5QH2A04	2@+2.5%	4@-2.5%	3V	150	56	31	24 1/4	1200	917	JJ WS34MI
300	G300K5QH2A04	2@+2.5%	4@-2.5%	3V	150	62	31 1/4	30 1/4	1444	918A	JJ WS34MI
500	G500K5QH2A04	2@+2.5%	4@-2.5%	3V	150	75	44 1/2	36	2600	919	KK WS35MI
750	G750K5QH2A04	2@+2.5%	4@-2.5%	3V	150	75	44 1/2	36	2900	920	KK WS35MI

**THREE-PHASE TRANSFORMERS***Selection Information*

KVA	CATALOG NUMBER	TAPS FCAN	TAPS FCBN	TYPE	TEMP RISE °C	Dimensions (Inches)			WEIGHT LBS.	WIRING DIAGRAM #	WEATHER SHIELD
<b>GROUP L: PRI: 480Δ SEC: 240Δ /120LT</b>											
3	G003K4QJ8A03	-	2@-5%	3E	115	13 3/8	16	8 5/16	116	201	B1B
6	G006K4QJ8A03	-	2@-5%	3E	115	15 7/8	16 1/2	9 7/8	165	200	B1B
9	G009K4QJ5A03	-	4@-2.5%	3E	115	15 7/8	16 1/2	9 7/8	185	103	C1C
15	G015K4QJ5A03	-	4@-2.5%	3E	115	17 3/8	20	10 9/16	275	95	C1C
30	G030K4QJ2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	25 1/4	12 3/4	422	243	D1D
45	G045K4QJ2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	28 1/2	14 5/8	660	244	D1D
15	G015K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	152	912B	LL WS38MI
30	G030K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	310	912B	LL WS38MI
45	G045K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	480	912B	LL WS38MI
75	G075K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	39	29	22	600	914D	LL WS39MI
112.5	G112K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	600	916A	LL WS19MI
150	G150K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	820	916A	LL WS19MI
225	G225K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	56	31	24 1/4	1300	917	LL WS34MI
300	G300K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	57 1/2	36 1/4	32	2400	923	LL WS37MI
500	G500K6QJ9B02	2@+2.5%	4@-2.5%	3V	150	75	44 1/2	35 3/4	2600	919	MM WS35MI
<b>GROUP M: PRI: 480Δ SEC: 480Y/277</b>											
9	G009K3QQ3A03	2@+2.5%	2@-2.5%	3E	115	15 7/8	16 1/2	9 7/8	190	103	NN
15	G015K3QQ3A03	2@+2.5%	2@-2.5%	3E	115	17 3/8	20	10 9/16	275	95	NN
30	G030K3QQ2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	25 1/4	12 3/4	422	243	PP
45	G045K3QQ2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	28 1/2	14 5/8	660	244	PP
15	G015K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	196	912B	QQ WS38MI
30	G030K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	308	912B	QQ WS38MI
45	G045K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	331	912B	QQ WS38MI
75	G075K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	39	29	22	513	914D	QQ WS39MI
112.5	G112K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	650	916A	QQ WS19MI
150	G150K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	770	916A	QQ WS19MI
225	G225K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	56	31	24 1/4	1296	917	QQ WS34MI
300	G300K5QQ2A04	2@+2.5%	4@-2.5%	3V	150	62	31 1/4	30 1/4	2400	918A	QQ WS34MI
<b>GROUP N: PRI: 600Δ SEC: 208Y/120</b>											
9	G009K3RH8A03	-	2@-2.5%	3E	115	15 7/8	16 1/2	9 7/8	185	103	SS
15	G015K3RH8A03	-	2@-2.5%	3E	115	17 3/8	20	10 9/16	275	95	SS
30	G030K3RH2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	25 1/4	12 3/4	422	243	TT
45	G045K3RH2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	28 1/2	14 5/8	660	244	TT
15	G015K5RH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	196	912B	UU WS38MI
30	G030K5RH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	308	912B	UU WS38MI
45	G045K5RH2A04	2@+2.5%	4@-2.5%	3V	150	30	23	16 1/2	331	912B	UU WS38MI
75	G075K5RH2A04	2@+2.5%	4@-2.5%	3V	150	39	29	22	513	914D	UU WS39MI
112.5	G112K5RH2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	650	916A	UU WS19MI
150	G150K5RH2A04	2@+2.5%	4@-2.5%	3V	150	46 5/8	28	23	770	916A	UU WS19MI
225	G225K5RH2A04	2@+2.5%	4@-2.5%	3V	150	62	31 1/4	30 1/4	1296	918A	UU WS34MI
300	G300K5RH2A04	2@+2.5%	4@-2.5%	3V	150	62	31 1/4	30 1/4	2400	918A	UU WS34MI
<b>GROUP O: PRI: 600Δ SEC: 240Δ</b>											
30	G030K4RJ2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	25 1/4	12 3/4	422	243	WW
45	G045K4RJ2A03	2@+2.5%	4@-2.5%	3E	115	26 5/8	28 1/2	14 5/8	660	244	WW

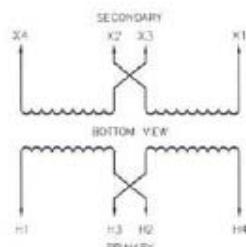
## GENERAL PURPOSE TRANSFORMERS

### Wiring Diagrams

**FIGURE A**

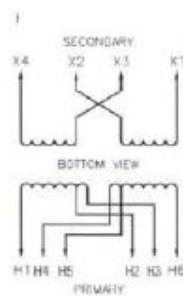
WDG	VOLTS	CONNECT	LINE
PRI	480	H3-H5	H1-H4
	240	H1H5-H2H4	H1-H4
SEC	240	X2-X3	X1-X4
	120	X1X3-X2X4	X1-X4
120/240 X2-X3 * X1-X3-X4			

\* THREE WIRE OPERATION

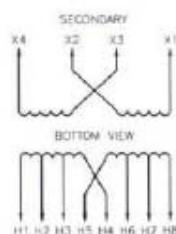
**FIGURE B**

WDG	VOLTS	CONNECT	LINE
PRI	480	H3-H4	H1-H6
	456	H3-H5	H1-H6
SEC	452	H2-H5	H1-H6
	240	H1H4-H3H6	H1-H6
216 H1H5-H2H6 H1-H6			
240 120 X2-X3 X1-X3-X4			
120 X1X3-X2X4 X1-X4			

\* THREE WIRE OPERATION

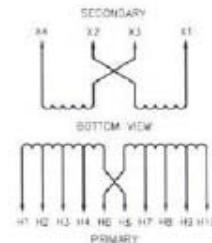
**FIGURE C**

WDG	VOLTS	CONNECT	LINE
PRI	480	H4 - H5	H1 - H8
	468	H3 - H5	H1 - H8
	456	H3 - H6	H1 - H8
	444	H2 - H6	H1 - H8
	432	H2 - H7	H1 - H8
	240	H1H5 - H4H8	H1 - H8
	228	H1H6 - H3H8	H1 - H8
	216	H1H7 - H2H8	H1 - H8
SEC	240	X2 - X3	X1 - X4
	240/120*	X2 - X3	X1-X5-X4
	120	X1X3-X2X4	X1 - X4

**FIGURE D**

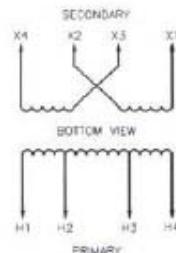
WDG	VOLTS	CONNECT	LINE
PRI	480	H5-H6	H1-H10
	416	H4-H6	H1-H9
	400	H3-H6	H1-H8
	380	H2-H6	H1-H7
	220	H1H5-H9H10	H1-H8D
	208	H1H6-H4H9	H1-H8
	200	H1H6-H3H8	H1-H8
	150	H1H6-H2H7	H1-H7
SEC	220	X2-X3	X1-X4
	110	X1X3-X2X4	X1-X4

\* THREE WIRE OPERATION

**FIGURE E**

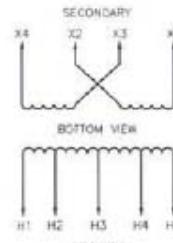
WDG	VOLTS	CONNECT	LINE
PRI	480	H1 - H4	
	456	H2 - H4	
SEC	432	H2 - H3	
	240	X2 - X3	X1 - X4
240/120* X2 - X3 X1-X3-X4			
120 X1X3-X2X4 X1 - X4			

\* THREE WIRE OPERATION

**FIGURE F**

WDG	VOLTS	CONNECT	LINE
PRI	504		H1 - H5
	492		H1 - H4
SEC	480		H1 - H3
	468		H2 - H4
SEC	456		H2 - H3
	240	X2 - X3	X1 - X4
240/120* X2 - X3 X1-X3-X4			
120 X1X3-X2X4 X1 - X4			

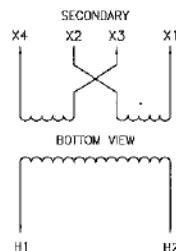
\* THREE WIRE OPERATION

**MICRON**

**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE G**

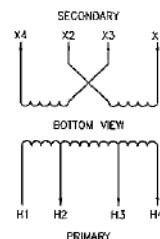
WDG	VOLTS	CONNECT	LINE
PRI	600		H1-H2
	240	X2-X3	H1-H4
SEC	240/120*	X2-X3	X1-X3-X4
	120	X1X3-X2X4	X1-X4

\*THREE WIRE OPERATION

**FIGURE H**

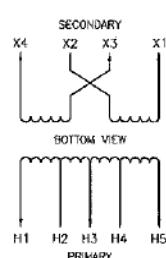
WDG	VOLTS	CONNECT	LINE
PRI	600		H1 - H4
	570		H1 - H3
SEC	540		H2 - H3
	240	X2 - X3	X1 - X4
SEC	240/120*	X2 - X3	X1-X3-X4
	120	X1X3-X2X4	X1-X4

\*THREE WIRE OPERATION

**FIGURE I**

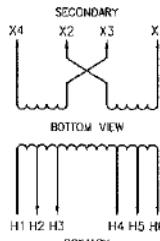
WDG	VOLTS	CONNECT	LINE
PRI	600		H1-H5
	585		H1-H4
	570		H1-H3
	555		H2-H4
	540		H2-H3
SEC	240	X2-X3	X1-X4
	240/120*	X2-X3	X1-X3-X4
	120	X1X3-X2X4	X1-X4

\*THREE WIRE OPERATION

**FIGURE J**

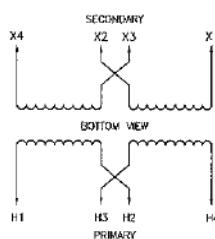
WDG	VOLTS	CONNECT	LINE
PRI	630		H1-H6
	615		H1-H5
	600		H1-H4
	585		H2-H5
	570		H2-H4
	555		H3-H5
SEC	540		H3-H4
	240	X2-X3	X1-X4
	120/240*	X2-X3	X1-X3-X4
SEC	120	X1X3-X2X4	X1-X4

\*THREE WIRE OPERATION

**FIGURE K**

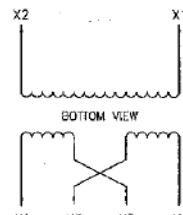
WDG	VOLTS	CONNECT	LINE
PRI	240	H2-H3	H1-H4
	120	H1H3-H2H4	H1-H4
SEC	240	X2-X3	X1-X4
	120	X1X3-X2X4	X1-X4
SEC	240/120	X2-X3	X1-X3-X4

\*THREE WIRE OPERATION

**FIGURE L**

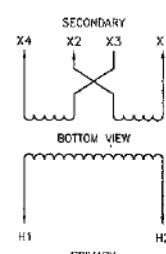
WDG	VOLTS	CONNECT	LINE
PRI	208		X1-X2
	240	H2-H3	H1-H4
	120/240*	H2-H3	H1-H3-H4
SEC	120	H1H3-H2H4	H1-H4

\*THREE WIRE OPERATION

**FIGURE M**

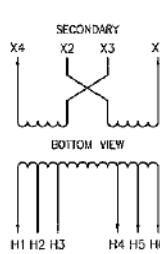
WDG	VOLTS	CONNECT	LINE
PRI	277		H1-H2
	240	X2-X3	X1-X4
SEC	240/120*	X2-X3	X1-X3-X4
	120	X1X3-X2X4	X1-X4

\*THREE WIRE OPERATION

**FIGURE N**

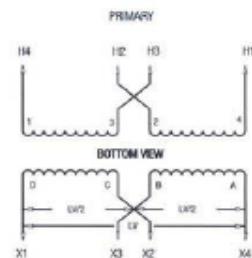
WDG	VOLTS	CONNECT	LINE
PRI	504		H1-H6
	492		H1-H5
	480		H1-H4
	468		H2-H6
	456		H2-H5
	444		H3-H6
SEC	432		H3-H4
	240	X2-X3	X1-X4
	240/120*	X2-X3	X1-X3-X4
SEC	120	X1X3-X2X4	X1-X4

\*THREE WIRE OPERATION

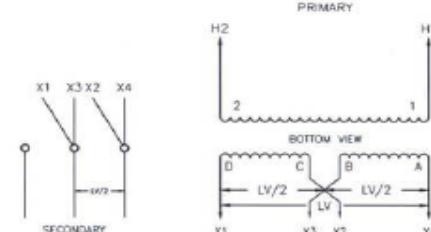


**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE P**

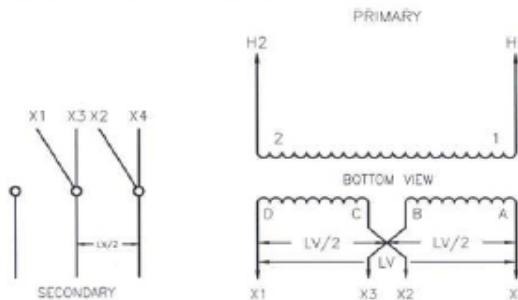
VOLTS	CONNECT	LINE
240	H2 TO H3 H1 TO H5 H2 TO H4	H1 - H4
120		H1 - H4

**FIGURE Q**

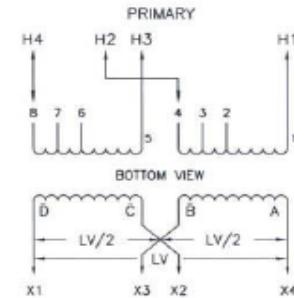
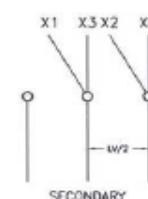
VOLTS	CONNECT	LINE
208		H1 - H2
240	X2 TO X3	X1 - X4
120	X1 TO X3 & X2 TO X4	X1 - X4

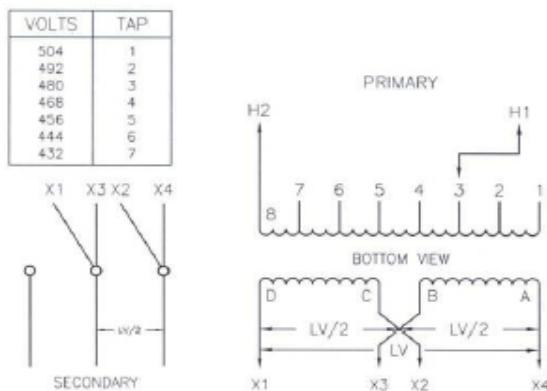
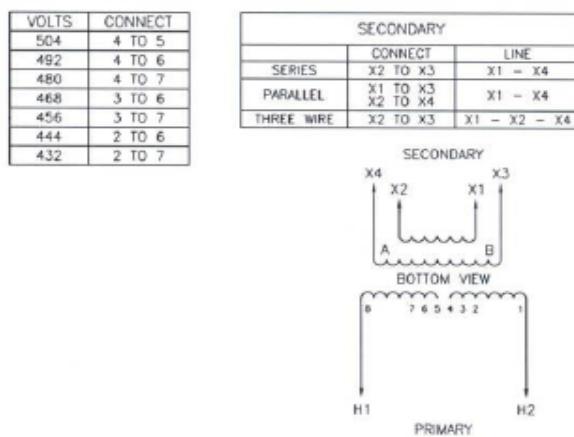
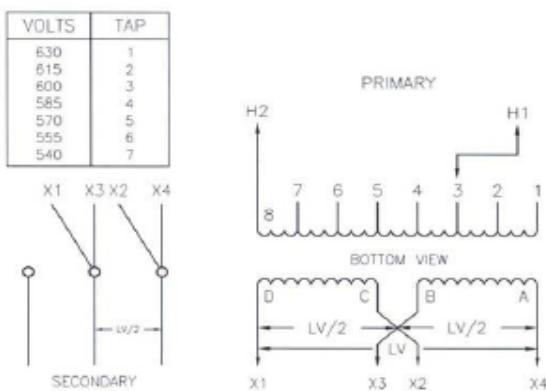
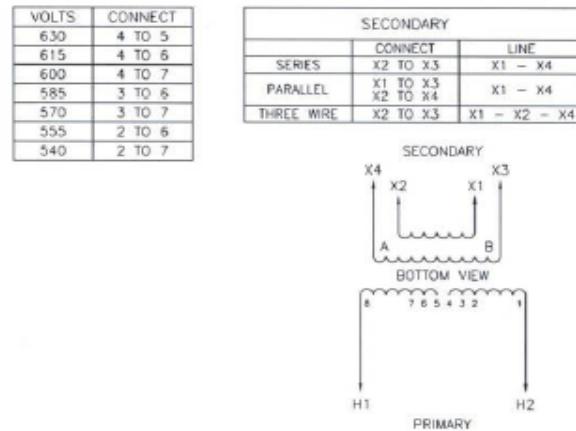
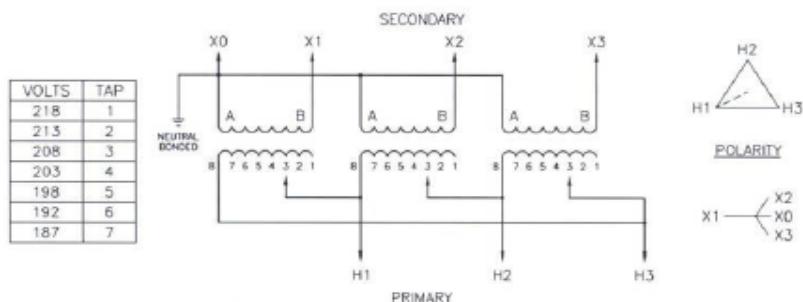
**FIGURE R**

VOLTS	CONNECT	LINE
277		H1 - H2
240	X2 TO X3	X1 - X4
120	X1 TO X3 & X2 TO X4	X1 - X4

**FIGURE S**

VOLTS	COIL TAPS		PRI LINKS ON T BD	LINE LEADS
	H2 TO TO	H4 TO		
480	4	8		
468	4	7		
456	3	7	H2 TO H3	H1 TO H4
444	3	6		
432	2	6		
240	4	8		
228	3	7	H1 TO H3	H1 TO H2
216	2	6	H2 TO H4	



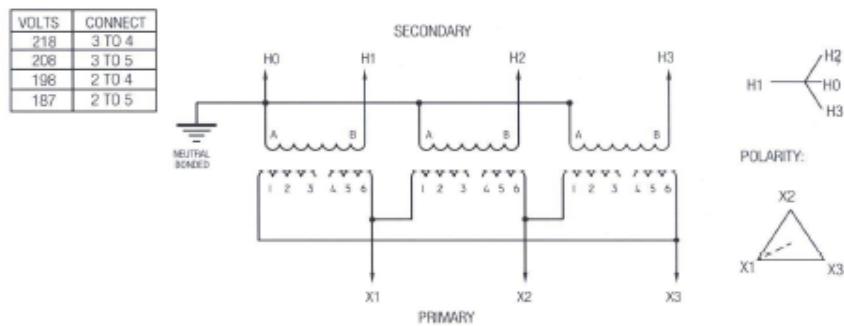
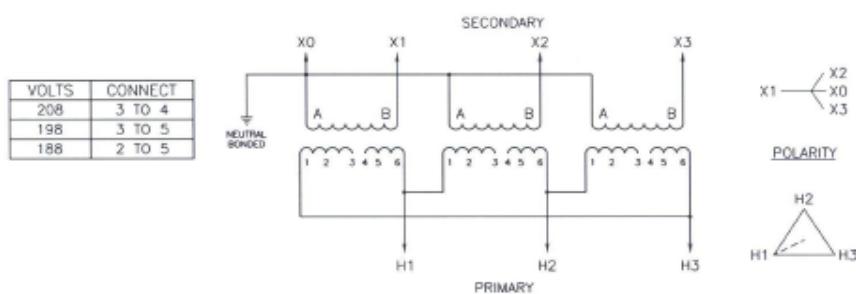
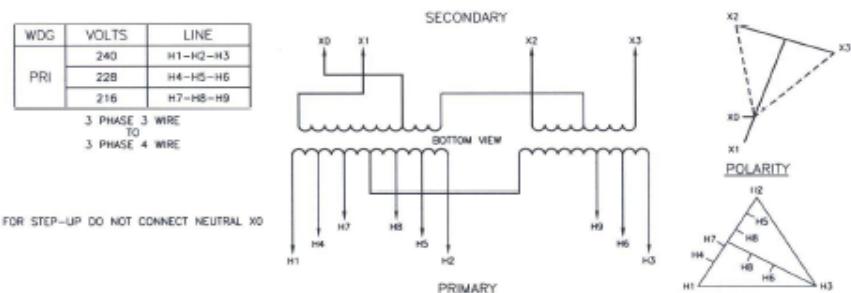
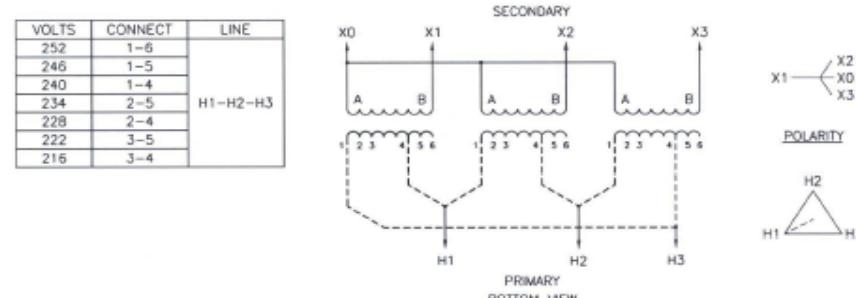
**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE T****FIGURE U****FIGURE V****FIGURE W****FIGURE X**

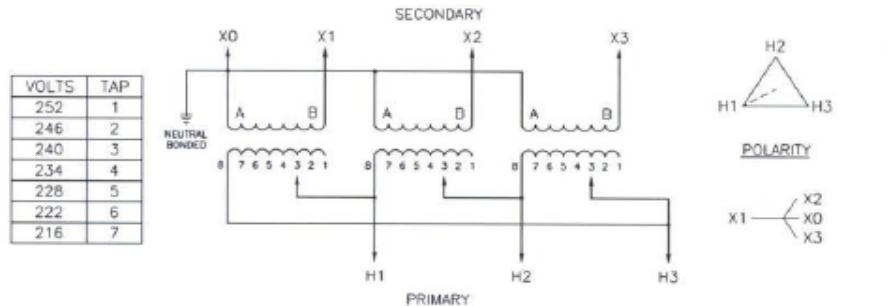
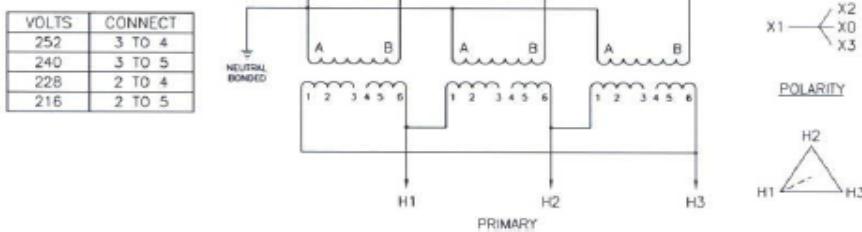
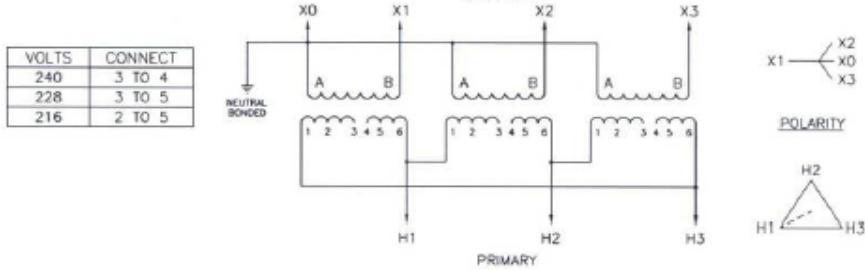
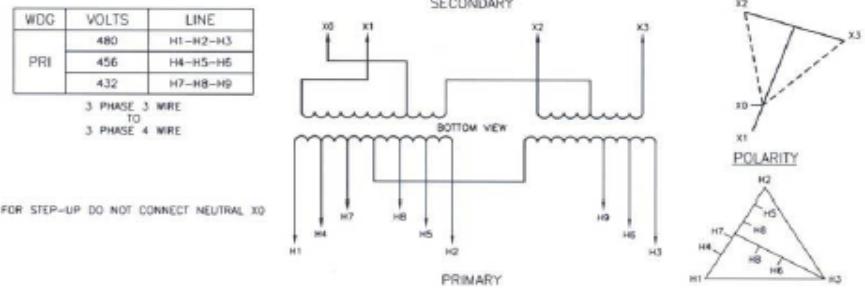
**MICRON**  
800 664-4660

For additional information call:

## GENERAL PURPOSE TRANSFORMERS

### Wiring Diagrams

**FIGURE Y****FIGURE Z****FIGURE AA****FIGURE BB****MICRON**

**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE CC****FIGURE DD****FIGURE EE****FIGURE FF**

## GENERAL PURPOSE TRANSFORMERS

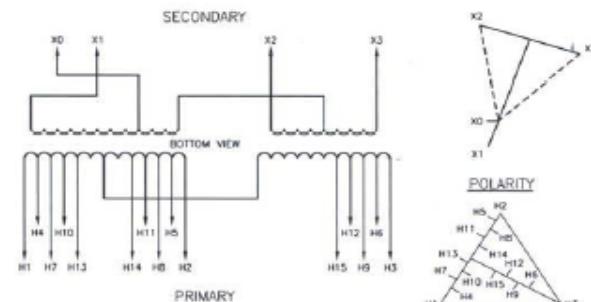
### Wiring Diagrams

**FIGURE GG**

WDG	VOLTS	LINE LEADS
504		H1-H2-H3
492		H4-H5-H6
480		H7-H8-H9
468		H10-H11-H12
456		H13-H14-H15

3 PHASE 3 WIRE  
TO  
3 PHASE 4 WIRE

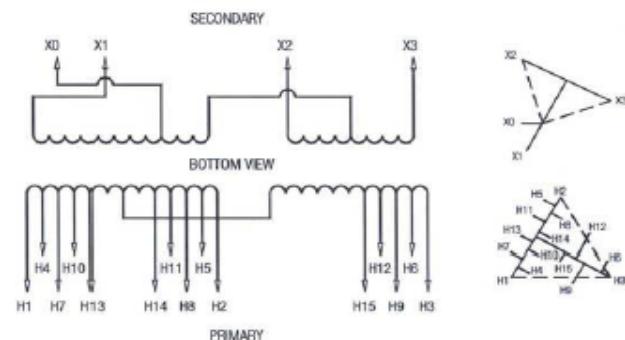
FOR STEP-UP DO NOT CONNECT NEUTRAL X0

**FIGURE HH**

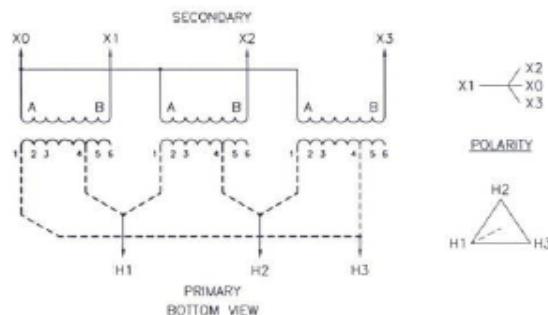
WDG	VOLTS	LINE LEADS
480		H1-H2-H3
468		H4-H5-H6
456		H7-H8-H9
444		H10-H11-H12
432		H13-H14-H15

3 PHASE 3 WIRE  
TO  
3 PHASE 4 WIRE

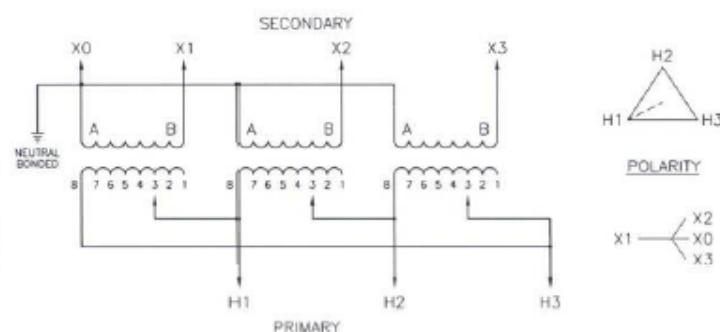
FOR STEP-UP DO NOT CONNECT NEUTRAL X0

**FIGURE II**

VOLTS	CONNECT	LINE
504	1-6	H1-H2-H3
492	1-5	
480	1-4	
468	2-5	
456	2-4	
444	3-5	
432	3-4	

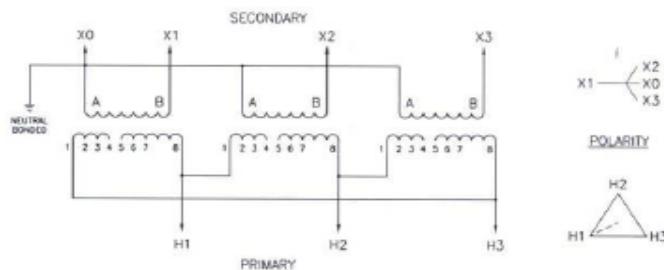
**FIGURE JJ**

VOLTS	TAP
504	1
492	2
480	3
468	4
456	5
444	6
432	7

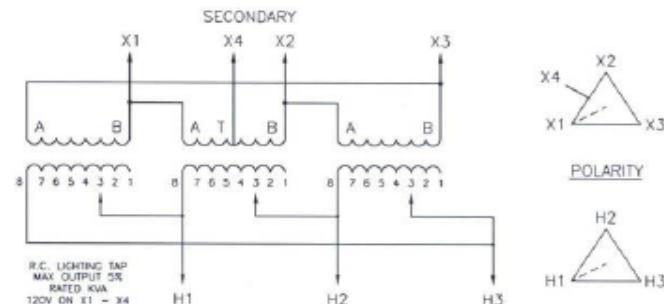
**MICRON**

**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE KK**

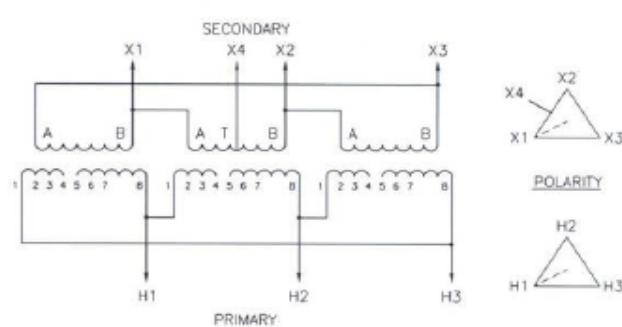
VOLTS	CONNECT
504	4 TO 5
492	4 TO 6
480	4 TO 7
468	5 TO 6
456	3 TO 7
444	2 TO 6
432	2 TO 7

**FIGURE LL**

VOLTS	TAP
504	1
492	2
480	3
468	4
456	5
444	6
432	7

**FIGURE MM**

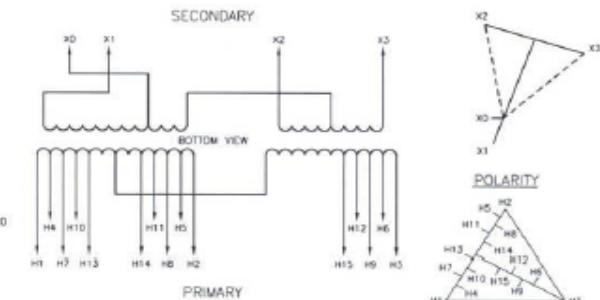
VOLTS	CONNECT
504	4 TO 5
492	4 TO 6
480	4 TO 7
468	5 TO 6
456	3 TO 7
444	2 TO 6
432	2 TO 7

**FIGURE NN**

WDG	VOLTS	LINE
PRI	504	H1-H2-H3
	492	H4-H5-H6
	480	H7-H8-H9
	468	H10-H11-H12
	456	H13-H14-H15

3 PHASE 3 WIRE  
TO  
3 PHASE 4 WIRE

FOR STEP-UP DO NOT CONNECT NEUTRAL X0

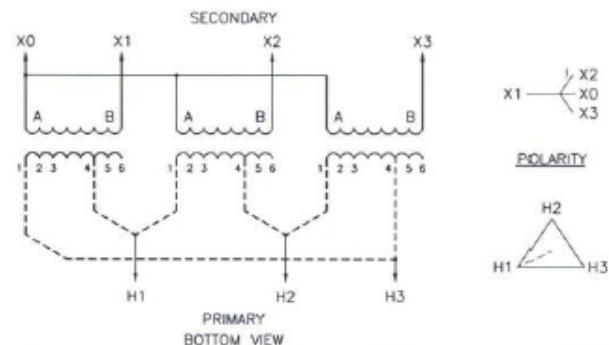


For additional information call:

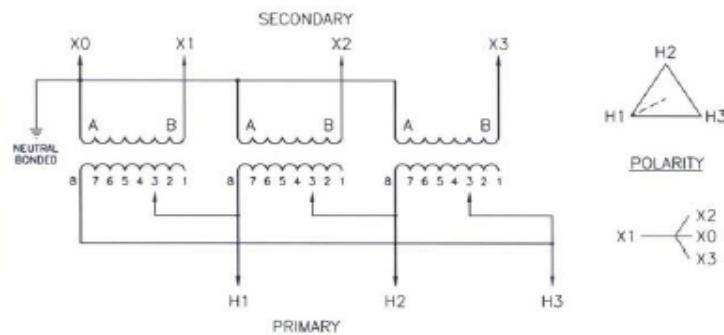
**MICRON**  
800 664-4660

**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE PP**

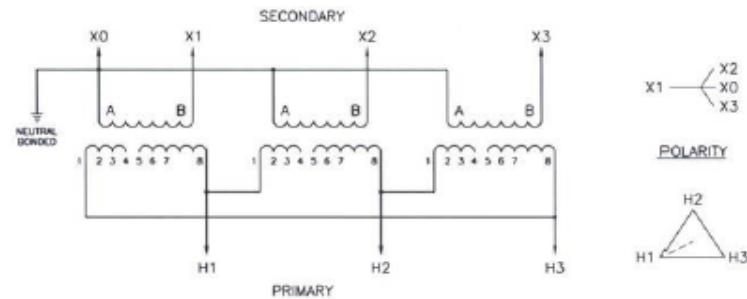
VOLTS	CONNECT	LINE
504	1-6	
492	1-5	
480	1-4	
468	2-5	H1-H2-H3
456	2-4	
444	3-5	
432	3-4	

**FIGURE QQ**

VOLTS	TAP
504	1
492	2
480	3
468	4
456	5
444	6
432	7

**FIGURE RR**

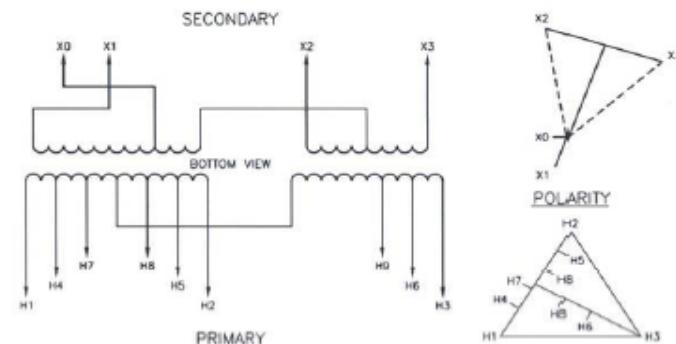
VOLTS	CONNECT
504	4 TO 5
492	4 TO 6
480	4 TO 7
468	3 TO 6
456	3 TO 7
444	2 TO 6
432	2 TO 7

**FIGURE SS**

WDG	VOLTS	LINE
PRI	600	H1-H2-H3
	570	H4-H5-H6
	540	H7-H8-H9

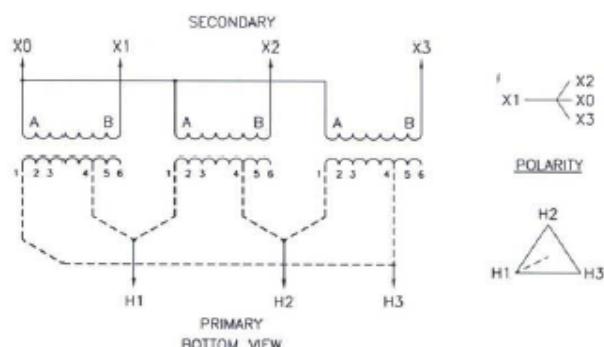
3 PHASE 3 WIRE  
TO  
3 PHASE 4 WIRE

FOR STEP-UP DO NOT CONNECT NEUTRAL X0

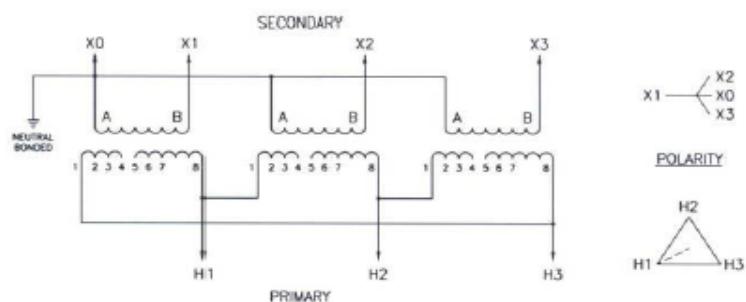
**MICRON**

**GENERAL PURPOSE TRANSFORMERS***Wiring Diagrams***FIGURE TT**

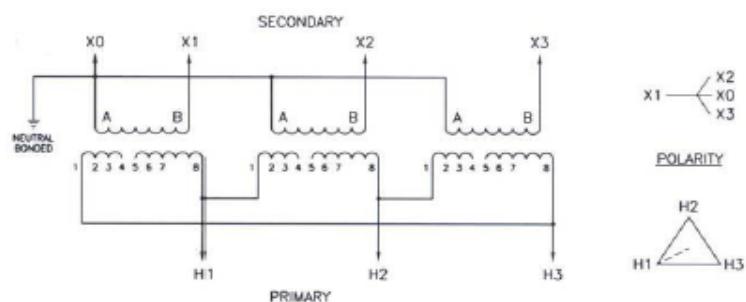
VOLTS	CONNECT	LINE
630	1-6	H1-H2-H3
615	1-5	
600	1-4	
585	2-5	
570	2-4	
555	3-5	
540	3-4	

**FIGURE UU**

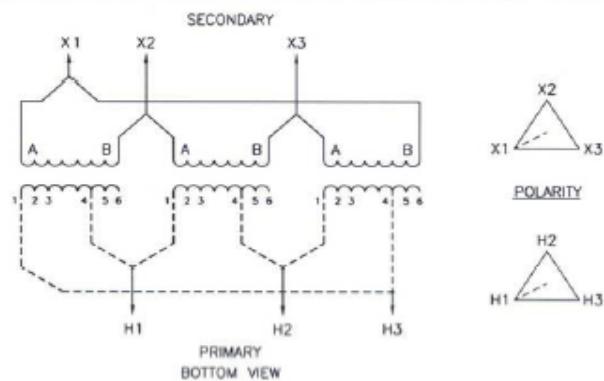
VOLTS	CONNECT
630	4 TO 5
615	4 TO 6
600	4 TO 7
585	3 TO 6
570	3 TO 7
550	2 TO 6
540	2 TO 7

**FIGURE VV**

VOLTS	CONNECT
630	4 TO 5
615	4 TO 6
600	4 TO 7
585	3 TO 6
570	3 TO 7
550	2 TO 6
540	2 TO 7

**FIGURE WW**

VOLTS	CONNECT	LINE
630	1-6	H1-H2-H3
615	1-5	
600	1-4	
585	2-5	
570	2-4	
555	3-5	
540	3-4	



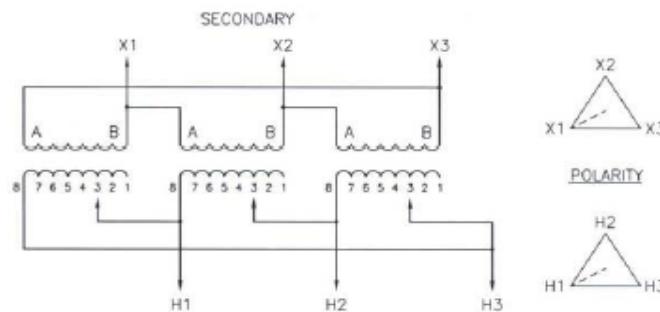
For additional information call: **MICRON**  
**800 664-4660**

## GENERAL PURPOSE TRANSFORMERS

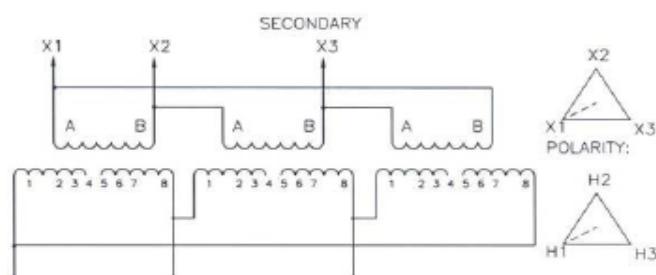
### Wiring Diagrams

**FIGURE XX**

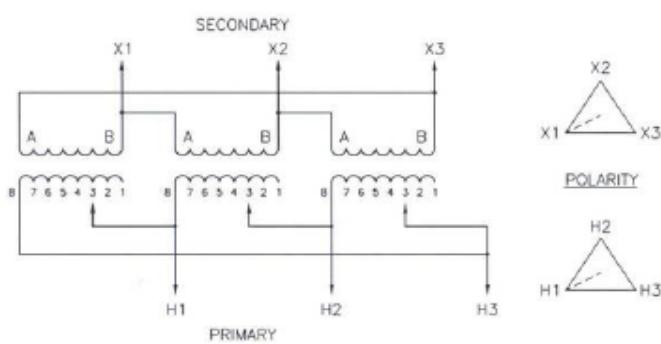
VOLTS	TAP
630	1
615	2
600	3
585	4
570	5
555	6
540	7

**FIGURE YY**

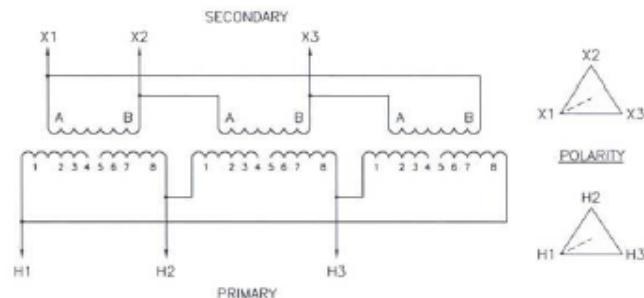
VOLTS	CONNECT
630	4 TO 5
615	4 TO 6
600	4 TO 7
585	3 TO 7
570	3 TO 6
555	2 TO 6
540	2 TO 7

**FIGURE ZZ**

VOLTS	TAP
504	1
492	2
480	3
468	4
456	5
444	6
432	7

**FIGURE A1A**

VOLTS	CONNECT
504	4 TO 5
492	4 TO 6
480	4 TO 7
468	3 TO 7
456	3 TO 6
444	2 TO 6
432	2 TO 7

**MICRON**

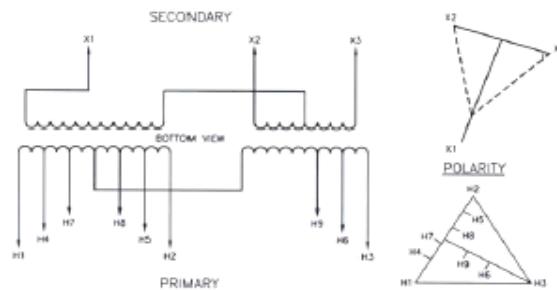
## GENERAL PURPOSE TRANSFORMERS

### Wiring Diagrams

**FIGURE B1B**

Wdg	VOLTS	LINE
PRI	480	H1-H2-H3
	456	H4-H5-H6
	432	H7-H8-H9

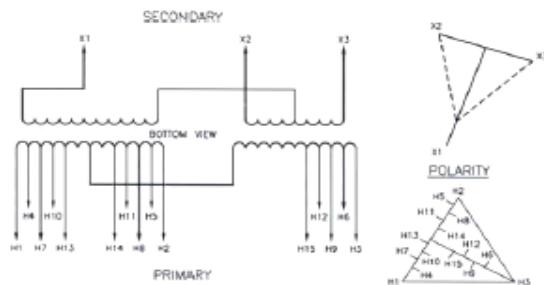
3 PHASE 3 WIRE  
TO  
3 PHASE 3 WIRE

**FIGURE C1C**

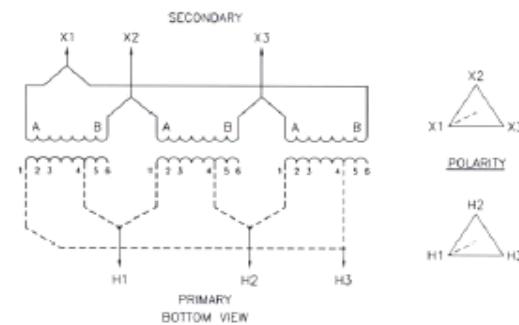
Wdg	VOLTS	LINE
PRI	480	H1-H2-H3
	456	H4-H5-H6
	456	H7-H8-H9
	444	H10-H11-H12
	432	H13-H14-H15

3 PHASE 3 WIRE  
TO  
3 PHASE 3 WIRE

FOR STEP UP DO NOT CONNECT NEUTRAL X0

**FIGURE D1D**

VOLTS	CONNECT	LINE
504	1-6	
492	1-5	
480	1-4	H1-H2-H3
468	2-5	
456	2-4	
444	3-5	
432	3-4	



For additional information call:

**MICRON**  
**800 664-4660**

## **BUCK-BOOST TRANSFORMERS**

*Single and Three Phase Applications, 60 Hz*



A Buck-Boost Transformer is used to provide an economical method of correcting a lower or higher voltage to a voltage rating more suitable for efficient operation of electrical equipment.

Buck-Boost Transformers are small kVA, single phase, 600 volt class insulating transformers with dual primary and dual secondary windings and are usually connected as autotransformers by utilizing one unit for single phase applications and either two or three units banked for three phase operation. They are primarily used for motor operation and should not be used for motor control circuits, to correct fluctuating line voltage or to obtain a neutral on a delta system. These applications require transformers especially designed for these specific applications.

**Note:** When installation is to be made on a grounded system, consideration must be given to the resulting voltage. Thus, on a 208 grounded wye/120 system the voltage can be boosted to 240 volts but the voltage to ground will be 139 volts. If 240/120 volts with a mid-point ground is needed, a standard two-winding transformer must be used.

The following formulas can be used to calculate specific requirements.

For Single Phase:

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

For Three Phase:

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

**For quick selection data, refer to the tables on the following pages.**

### **Selection Requirements**

First, you should have this information before selecting a buck-boost transformer.

**Line Voltage** – The voltage that you want to buck (decrease) or boost (increase). This can be found by measuring the supply line voltage with a voltmeter.

**Load Voltage** – The voltage at which your equipment is designed to operate. This is listed on the nameplate of the load equipment.

**Load Amps or Load kVA** – You do not need to know both—one or the other is sufficient for selection purposes. This information usually can be found on the nameplate of the equipment that you want to operate.

**Frequency** – The supply line frequency must be the same as the frequency of the equipment to be operated—Micron Buck-Boost Transformers operate at 60 Hertz only.

**Phase** – The supply line should be the same as the equipment to be operated—either single or three phase.

### **Transformer Interconnection**

For three phase applications, interconnections of transformers should be made in a junction box. Two or three transformers may be used depending on an open delta (2) or wye (3) connection.

### **5-Step Selector**

The tables which follow will simplify the selection of the buck-boost transformers. There are no calculations needed; simply follow these 5 steps.

1. Refer to the table having the same output voltage as the equipment you want to operate. For example, if you are installing a 240 volt 6 kVA single phase load use Selection Table 4.
2. Select the available line voltage across the top of the chart which is closest to the actual supply voltage. Therefore, for example, if the available line voltage is 213 volts, use the 212 volt column.
3. Read down the column until you reach an output kVA or amps rating equal to or greater than the load requirements. Since 6 kVA, in the example, is not listed, use the next higher rating of 7.5 kVA.
4. Read across to the far left columns for the catalog number and quantity of transformers for your application. In this case, you will need one (1) catalog number J001K1EB1A02.
5. Connect the buck-boost transformer(s) you have selected in accordance with the connection diagram specified at the bottom of the available line voltage column. In this example, Diagram "F" would be used.

**Note:** For 1 phase connections and 3 phase open delta connections, inputs and outputs may be reversed. kVA capacity remains constant.

**BUCK-BOOST TRANSFORMERS***Selection Information*

KVA	CATALOG NUMBER	TAPS FCAN	TAPS FCBN	TYPE	C TEMP RISE	Dimensions (Inches)			WEIGHT	
						H	W	D	LBS.	FRAME
<b>GROUP A: PRI: 120 x 240 SEC: 16/32</b>										
.05	J050A1EB1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	6	52
.10	J100A1EB1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	8	54
.150	J150A1EB1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	10	55
.250	J250A1EB1A02	-	-	1E	115	6 1/2	5	3 7/8	11	56
.500	J500A1EB1A02	-	-	1E	115	6 1/2	4 7/8	4 5/8	13	57
.750	J750A1EB1A02	-	-	1E	115	8 5/8	5 3/4	5 3/4	20	58
1	J001K1EB1A02	-	-	1E	115	8 5/8	5 3/4	5 3/4	30	59
1.5	J1X5K1EB1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	67
2	J002K1EB1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	68
3	J003K1EB1A03	-	-	1E	115	14 1/8	7 11/16	8	65	176
5	J005K1EB1A03	-	-	1E	115	16	10 3/8	9 7/8	113	177
7.5	J7X5K1EB1A03	-	-	1E	115	16	10 3/8	9 7/8	123	178
<b>GROUP B: PRI: 240 x 480 SEC: 24/48</b>										
.05	J050A1KC1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	6	52
.10	J100A1KC1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	8	54
.150	J150A1KC1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	10	55
.250	J250A1KC1A02	-	-	1E	115	6 1/2	5	3 7/8	11	56
.500	J500A1KC1A02	-	-	1E	115	6 1/2	4 7/8	4 5/8	13	57
.750	J750A1KC1A02	-	-	1E	115	8 5/8	5 3/4	5 3/4	20	58
1	J001K1KC1A02	-	-	1E	115	8 5/8	5 3/4	5 3/4	30	59
1.5	J1X5K1KC1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	67
2	J002K1KC1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	68
3	J003K1KC1A03	-	-	1E	115	14 1/8	7 11/16	8	65	176
5	J005K1KC1A03	-	-	1E	115	16	10 3/8	9 7/8	113	177
7.5	J7X5K1KC1A03	-	-	1E	115	16	10 3/8	9 7/8	123	178
<b>GROUP C: PRI: 120 x 240 SEC: 12/24</b>										
.05	J050A1EA1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	6	52
.10	J100A1EA1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	8	54
.150	J150A1EA1A01	-	-	1E	115	6 1/2	3 7/8	3 1/2	10	55
.250	J250A1EA1A02	-	-	1E	115	6 1/2	5	3 7/8	11	56
.500	J500A1EA1A02	-	-	1E	115	6 1/2	4 7/8	4 5/8	13	57
.750	J750A1EA1A02	-	-	1E	115	8 5/8	5 3/4	5 3/4	20	58
1	J001K1EA1A02	-	-	1E	115	8 5/8	5 3/4	5 3/4	30	59
1.5	J1X5K1EA1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	67
2	J002K1EA1A02	-	-	1E	115	10 1/2	6 3/8	6 1/8	40	68
3	J003K1EA1A03	-	-	1E	115	14 1/8	7 11/16	8	65	176
5	J005K1EA1A03	-	-	1E	115	16	10 3/8	9 7/8	113	177
7.5	J7X5K1EA1A03	-	-	1E	115	16	10 3/8	9 7/8	123	178

## **BUCK-BOOST TRANSFORMERS**

Single Phase 115-120 Volt Output, 60 Hz

**Single Phase 115 Volt Output, 60 Hz (Selection Table Number 1)**

Units Req'd.❶	Unit kVA	Catalog Number	Available Voltage									
			84	91	96	100	102	105	127	130	138	146
Output kVA Amps												
1 .05	J050A1EA1A01	— —	— —	0.24 2.09	— —	— —	0.48 4.17	0.54 4.58	— —	0.29 2.5	— —	— —
1 .05	J050A1EB1A01	0.13 1.14	0.18 1.56	— —	0.31 2.70	0.36 3.13	— —	— —	0.41 3.54	— —	0.23 1.98	— —
1 .10	J100A1EA1A01	— —	— —	0.48 4.17	— —	— —	0.96 8.33	1.1 9.17	— —	0.58 5.0	— —	— —
1 .10	J100A1EB1A01	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
1 .15	J150A1EA1A01	— —	— —	0.72 6.25	— —	— —	1.44 12.5	1.6 13.7	— —	0.87 7.5	— —	— —
1 .15	J150A1EB1A01	0.39 3.44	0.54 4.69	— —	0.93 8.12	1.08 9.37	— —	— —	1.3 10.6	— —	0.69 5.93	— —
1 .25	J250A1EA1A02	— —	— —	1.2 10.4	— —	— —	2.39 20.8	2.63 22.9	— —	1.44 12.5	— —	— —
1 .25	J250A1EB1A02	0.69 5.73	.899 7.81	— —	1.56 13.5	1.8 15.6	— —	— —	2.03 17.7	— —	1.14 9.88	— —
1 .50	J500A1EA1A02	— —	— —	2.4 20.8	— —	— —	4.79 41.6	5.27 45.8	— —	— —	2.87 25	— —
1 .50	J500A1EB1A02	1.32 11.5	1.8 15.6	— —	3.11 27.1	3.59 31.2	— —	— —	4.07 35.4	— —	2.27 19.8	— —
1 .75	J750A1EA1A02	— —	— —	3.6 31.2	— —	— —	7.19 62.4	7.9 68.7	— —	4.31 37.5	— —	— —
1 .75	J750A1EB1A02	1.98 17.2	2.7 23.4	— —	4.67 40.6	5.39 46.8	— —	— —	6.1 53.1	— —	3.41 29.6	— —
1 1	J001K1EA1A02	— —	— —	4.79 41.7	— —	— —	9.58 83.3	10.5 91.7	— —	5.75 50	— —	— —
1 1	J001K1EB1A02	2.64 22.9	3.55 31.2	— —	6.23 54.1	7.19 62.5	— —	— —	8.14 70.8	— —	4.55 39.5	— —
1 1.5	J1X5K1EA1A02	— —	— —	7.2 62.5	— —	— —	14.4 125	15.8 137	— —	— —	8.62 75	— —
1 1.5	J1X5K1EB1A02	3.95 34.4	5.39 46.9	— —	9.34 81.2	10.8 93.7	— —	— —	12.2 106	— —	6.82 59.3	— —
1 2	J002K1EA1A02	— —	— —	9.58 83.3	— —	— —	19.2 16.7	21.1 183	— —	— —	11.5 100	— —
1 2	J002K1EB1A02	5.27 45.8	7.19 62.5	— —	12.5 108	14.4 125	— —	— —	16.3 142	— —	9.10 79.2	— —
1 3	J003K1EA1A03	— —	— —	14.37 125.1	— —	— —	28.7 249.9	31.5 275.1	— —	17.3 150	— —	— —
1 3	J003K1EB1A03	7.92 68.7	10.77 93.6	— —	18.69 162.3	21.57 187.5	— —	— —	24.4 212.4	— —	13.6 118.5	— —
1 5	J005K1EA1A03	— —	— —	23.95 208.5	— —	— —	47.9 416.5	52.5 458.5	— —	28.7 250	— —	— —
1 5	J005K1EB1A03	13.2 115	18 156	— —	31.15 270.5	35.95 312.5	— —	— —	40.7 354	— —	22.7 197.5	— —
1 7.5	J7X5K1EA1A03	— —	— —	36 312	— —	— —	71.9 624	79 687	— —	— —	43.1 357	— —
1 7.5	J7X5K1EB1A03	19.8 172	27 234	— —	46.7 406	53.9 468	— —	— —	61 531	— —	34.1 296	— —
Connection Diagram❷			D	B	B	C	A	A	A	A	B	B

**Single Phase 120 Volt Output, 60 Hz (Selection Table Number 2)**

Units Req'd.❶	Unit kVA	Catalog Number	Available Voltage									
			88	95	100	104	106	109	132	136	144	152
Output kVA Amps												
1 .05	J050A1EA1A01	— —	— —	0.25 2.09	— —	— —	0.5 4.17	0.65 4.58	— —	0.3 2.5	— —	— —
1 .05	J050A1EB1A01	0.14 1.15	0.19 1.56	— —	0.33 2.70	0.38 3.13	— —	— —	0.43 3.54	— —	0.24 1.98	— —
1 .10	J100A1EA1A01	— —	— —	0.50 4.17	— —	— —	1.0 8.33	1.1 9.17	— —	0.6 5.0	— —	— —
1 .10	J100A1EB1A01	0.28 2.29	0.38 3.12	— —	0.65 5.41	0.75 6.25	— —	— —	0.85 7.08	— —	0.48 3.95	— —
1 .15	J150A1EA1A01	— —	— —	0.75 6.25	— —	— —	1.5 12.5	1.6 13.7	— —	0.9 7.5	— —	— —
1 .15	J150A1EB1A01	0.41 3.44	0.56 4.69	— —	0.98 9.12	1.12 9.37	— —	— —	1.27 10.6	— —	0.71 5.93	— —
1 .25	J250A1EA1A02	— —	— —	1.25 10.4	— —	— —	2.5 20.8	2.75 22.9	— —	1.5 12.5	— —	— —
1 .25	J250A1EB1A02	0.67 5.73	.937 7.81	— —	1.62 13.5	1.87 15.6	— —	— —	2.12 17.7	— —	1.19 9.88	— —
1 .50	J500A1EA1A02	— —	— —	2.5 20.8	— —	— —	5 41.6	5.5 45.8	— —	3 25	— —	— —
1 .50	J500A1EB1A02	1.37 11.5	1.87 15.6	— —	3.25 27.1	3.75 31.2	— —	— —	4.25 35.4	— —	2.37 19.8	— —
1 .75	J750A1EA1A02	— —	— —	3.75 31.2	— —	— —	7.5 62.4	8.25 68.7	— —	4.5 37.5	— —	— —
1 .75	J750A1EB1A02	2.06 17.2	2.82 23.4	— —	4.87 40.6	5.62 46.8	— —	— —	6.37 53.1	— —	3.56 29.6	— —
1 1	J001K1EA1A02	— —	— —	5 41.7	— —	— —	10 83.3	11 91.7	— —	6 50	— —	— —
1 1	J001K1EB1A02	2.75 22.9	3.75 31.2	— —	6.5 54.1	7.5 62.5	— —	— —	8.5 70.8	— —	4.75 39.5	— —
1 1.5	J1X5K1EA1A02	— —	— —	7.5 62.5	— —	— —	15 125	16.5 137	— —	9 75	— —	— —
1 1.5	J1X5K1EB1A02	4.12 34.4	5.62 46.9	— —	9.75 81.2	11.2 93.7	— —	— —	12.7 106	— —	7.12 59.3	— —
1 2	J002K1EA1A02	— —	— —	10 83.3	— —	— —	20 167	22 183	— —	12 100	— —	— —
1 2	J002K1EB1A02	5.5 45.8	7.5 62.5	— —	13 108	15 125	— —	— —	17 142	— —	9.5 79.2	— —
1 3	J003K1EA1A03	— —	— —	15 125.1	— —	— —	30 249.9	33 275.1	— —	18 150	— —	— —
1 3	J003K1EB1A03	8.25 68.7	11.25 93.6	— —	19.5 162.3	22.5 187.5	— —	— —	25.5 212.4	— —	14.25 118.5	— —
1 5	J005K1EA1A03	— —	— —	25 208.5	— —	— —	50 416.5	55 458.5	— —	30 250	— —	— —
1 5	J005K1EB1A03	13.75 114.5	18.75 156	— —	32.5 270.5	37.5 312.5	— —	— —	42.5 354	— —	23.7 197.5	— —
1 7.5	J7X5K1EA1A03	— —	— —	37.5 312	— —	— —	75 624	82.5 687	— —	45 375	— —	— —
1 7.5	J7X5K1EB1A03	20.8 172	28.2 234	— —	48.7 406	56.2 468	— —	— —	53.7 531	— —	35.6 286	— —
Connection Diagram❷			D	B	B	C	A	A	A	A	B	B

❶ Additional wiring trough may be required.

❷ Refer to page 33 for Buck-Boost wiring diagrams.

**MICRON**

**Single Phase 230 Volt Output, 60 Hz (Selection Table Number 3)**

Units Req'd.❶	Unit kVA	Catalog Number	Available Voltage																
			199		203		207		209		216		219		242		246		253
Output kVA Amps																			
1 .05	J050A1EA1A01	— —	— —	0.43	1.88	0.48	2.08	— —	— —	0.96	4.16	1.0	4.38	— —	0.53	2.29	— —	— —	
1 .05	J050A1EB1A01	0.31	1.38	0.36	1.56	— —	— —	0.72	3.12	— —	— —	0.77	3.34	— —	0.41	1.77	— —	— —	
1 .10	J100A1EA1A01	— —	— —	0.86	3.75	0.96	4.17	— —	— —	1.92	8.33	2.01	8.75	— —	1.05	4.58	— —	— —	
1 .10	J100A1EB1A01	0.62	2.71	0.72	3.12	— —	— —	1.44	6.25	— —	— —	1.53	6.67	— —	0.82	3.54	— —	— —	
1 .15	J150A1EA1A01	— —	— —	1.29	5.62	1.44	6.25	— —	— —	2.87	12.5	3.02	13.1	— —	1.58	8.87	— —	— —	
1 .15	J150A1EB1A01	0.93	4.06	1.08	4.69	— —	— —	2.16	9.37	— —	— —	2.3	10.0	— —	1.22	5.31	— —	— —	
1 .25	J250A1EA1A02	— —	— —	— —	— —	2.15	9.37	2.39	10.4	— —	— —	4.79	20.8	5.03	21.9	— —	2.63	11.5	— —
1 .25	J250A1EB1A02	1.55	6.77	1.8	7.81	— —	— —	3.59	15.6	— —	— —	3.83	16.7	— —	2.04	8.85	— —	— —	
1 .50	J500A1EA1A02	— —	— —	4.31	18.7	4.79	20.8	— —	— —	9.58	41.6	10.1	43.7	— —	5.27	22.9	— —	— —	
1 .50	J500A1EB1A02	3.11	13.5	3.6	15.6	— —	— —	7.19	31.2	— —	— —	7.87	33.3	— —	4.07	17.7	— —	— —	
1 .75	J750A1EA1A02	— —	— —	6.46	28.2	7.19	31.2	— —	14.4	62.4	15.1	65.6	— —	7.9	34.4	— —	— —	— —	
1 .75	J750A1EB1A02	4.66	20.3	5.4	23.4	— —	— —	10.8	46.8	— —	— —	11.5	50	— —	6.11	26.6	— —	— —	
1 1	J001K1EA1A02	— —	— —	— —	— —	8.62	37.5	9.58	41.7	— —	— —	19.2	83.3	20.1	87.5	— —	10.5	45.8	— —
1 1	J001K1EB1A02	5.23	27.1	7.2	31.2	— —	— —	14.4	82.5	— —	— —	15.3	65.7	— —	8.15	35.4	— —	— —	
1 1.5	J1X5K1EA1A02	— —	— —	— —	— —	12.9	56.2	14.4	62.5	— —	— —	28.7	125	30.2	131	— —	15.8	68.7	— —
1 1.5	J1X5K1EB1A02	9.34	40.6	10.8	46.9	— —	— —	21.6	93.7	— —	— —	23	100	— —	12.2	53.1	— —	— —	
1 2	J002K1EA1A02	— —	— —	17.2	75	19.2	83.3	— —	— —	38.3	187	40.2	175	— —	21.1	91.7	— —	— —	
1 2	J002K1EB1A02	12.5	54.2	14.4	62.5	— —	— —	28.7	125	— —	— —	30.7	133	— —	16.3	70.8	— —	— —	
1 3	J003K1EA1A03	— —	— —	— —	— —	25.8	112.5	28.7	125.1	— —	— —	57.6	249.9	60.3	262.5	— —	31.5	137.4	— —
1 3	J003K1EB1A03	18.6	81.3	21.6	93.6	— —	— —	43.2	187.5	— —	— —	45.9	200.1	— —	24.4	106.2	— —	— —	
1 5	J005K1EA1A03	— —	— —	— —	— —	43.1	187.5	47.9	208.5	— —	— —	96	416.5	100.5	437.5	— —	52.5	229	— —
1 5	J005K1EB1A03	31.1	135.5	36	156	— —	— —	72	312.5	— —	— —	76.5	333.5	— —	40.7	177	— —	— —	
1 7.5	J7X5K1EA1A03	— —	— —	64.8	282	71.9	312	— —	— —	144	624	151	656	— —	79	344	— —	— —	
1 7.5	J7X5K1EB1A03	46.6	203	54	234	— —	— —	108	468	— —	— —	115	500	— —	61.1	266	— —	— —	
Connection Diagram❷			G	F	G	F	E	E	E	E	E	E	E	E	F	F	F	F	

**Single Phase 240 Volt Output, 60 Hz (Selection Table Number 4)**

Units Req'd.❶	Unit kVA	Catalog Number	Available Voltage																	
			208		212		216		218		225		229		252		256		264	
Output kVA Amps																				
1 .05	J050A1EA1A01	— —	— —	0.45	1.88	0.5	2.08	— —	— —	1.0	4.16	1.05	4.38	— —	0.55	2.29	— —	— —	— —	— —
1 .05	J050A1EB1A01	0.32	1.35	0.38	1.56	— —	— —	0.75	3.12	— —	— —	0.8	3.33	— —	0.42	1.77	— —	— —	— —	— —
1 .10	J100A1EA1A01	— —	— —	0.9	3.75	1.0	4.17	— —	— —	2.0	8.33	2.1	8.75	— —	1.1	4.58	— —	— —	— —	— —
1 .10	J100A1EB1A01	0.65	2.71	0.75	3.12	— —	— —	1.5	6.25	— —	— —	1.6	6.67	— —	0.85	3.54	— —	— —	— —	— —
1 .15	J150A1EA1A01	— —	— —	1.35	5.62	1.5	6.25	— —	— —	3.0	12.5	3.15	13.1	— —	1.65	6.87	— —	— —	— —	— —
1 .15	J150A1EB1A01	0.98	4.06	1.12	4.69	— —	— —	2.25	9.37	— —	— —	2.4	10.0	— —	1.27	5.31	— —	— —	— —	— —
1 .25	J250A1EA1A02	— —	— —	— —	— —	2.25	9.37	2.5	10.4	— —	— —	5	20.8	5.25	21.9	— —	2.75	11.5	— —	— —
1 .25	J250A1EB1A02	1.62	6.77	1.87	7.81	— —	— —	3.75	15.6	— —	— —	4	16.7	— —	2.12	8.85	— —	— —	— —	— —
1 .50	J500A1EA1A02	3.25	13.5	3.75	15.6	— —	— —	7.5	31.2	— —	— —	8	33.3	— —	4.25	17.7	— —	— —	— —	— —
1 .75	J750A1EA1A02	— —	— —	6.75	28.2	7.5	31.2	— —	— —	15	62.4	15.7	65.6	— —	8.25	34.4	— —	— —	— —	— —
1 .75	J750A1EB1A02	4.87	20.3	5.62	23.4	— —	— —	11.2	46.8	— —	— —	12	50	— —	6.37	26.6	— —	— —	— —	— —
1 1	J001K1EA1A02	— —	— —	— —	— —	9	37.5	10	41.7	— —	— —	20	83.3	21	87.5	— —	11	45.8	— —	— —
1 1	J001K1EB1A02	6.5	27.1	7.5	31.2	— —	— —	15	62.5	— —	— —	16	66.7	— —	8.5	35.4	— —	— —	— —	— —
1 1.5	J1X5K1EA1A02	— —	— —	— —	— —	13.5	56.2	15	62.5	— —	— —	30	125	31.5	131	— —	16.5	68.7	— —	— —
1 1.5	J1X5K1EB1A02	9.75	40.6	11.2	46.9	— —	— —	22.5	93.7	— —	— —	24	100	— —	12.2	53.1	— —	— —	— —	— —
1 2	J002K1EA1A02	— —	— —	18	75	20	83.3	— —	— —	40	167	42	175	— —	22	91.7	— —	— —	— —	— —
1 2	J002K1EB1A02	13	54.2	15	62.5	— —	— —	30	125	— —	— —	32	133	— —	17	70.8	— —	— —	— —	— —
1 3	J003K1EA1A03	— —	— —	— —	— —	27	112.5	30	125.1	— —	— —	60	249.9	63	262.5	— —	33	137.4	— —	— —
1 3	J003K1EB1A03	19.5	81.3	22.5	93.6	— —	— —	45	187.5	— —	— —	48	200.1	— —	25.5	106.2	— —	55	229	— —
1 5	J005K1EA1A03	— —	— —	— —	— —	45	187	50	208	— —	— —	100	416.5	105	437.5	— —	55	229	— —	— —
1 5	J005K1EB1A03	32.5	135	37.5	156	— —	— —	75	312	— —	— —	80	333	— —	42.5	177	— —	82.5	344	— —
1 7.5	J7X5K1EA1A03	— —	— —	67.5	282	75	312	— —	— —	150	624	157	656	— —	120	500	— —	63.7	266	— —
1 7.5	J7X5K1EB1A03	48.7	203	56.2	234	— —	— —	112	408	— —	— —	120	500	— —	63.7	266	— —	82.5	344	— —
Connection Diagram❷			G	F	G	F	E	E	E	E	E	E	E	E	F	F	F	F	F	

**BUCK-BOOST TRANSFORMERS**

Three Phase Open Delta Connection, 230-240 Volt Output, 60 Hz

Three Phase Open Delta Connection 230 Volt Output, 60 Hz Selection (Table Number 5)

Units Req'd.❶	Unit kVA	Catalog Number	Available Voltage									
			199		203		207		209		216	
			Output kVA	Amps	Output kVA	Amps	Output kVA	Amps	Output kVA	Amps	Output kVA	Amps
2	.05	J050A1EA1A01	—	—	—	—	0.75	1.87	0.83	2.08	—	—
2	.05	J050A1EB1A01	0.54	1.35	0.62	1.56	—	—	1.24	3.12	1.66	4.17
2	.10	J100A1EA1A01	—	—	—	—	1.49	3.75	1.66	4.17	—	—
2	.10	J100A1EB1A01	—	—	—	—	—	—	—	—	1.33	3.33
2	.15	J150A1EA1A01	1.08	2.71	1.24	3.12	—	—	2.49	6.25	—	—
2	.15	J150A1EB1A01	—	—	—	—	2.24	5.62	2.49	6.25	—	—
2	.15	J150A1EB1A01	1.62	4.06	1.87	4.69	—	—	3.73	9.37	—	—
2	.25	J250A1EA1A02	—	—	—	—	3.3	9.37	4.15	10.4	—	—
2	.25	J250A1EB1A02	2.7	6.77	3.11	7.81	—	—	6.22	15.6	—	—
2	.50	J500A1EA1A02	—	—	—	—	7.47	18.7	8.3	20.8	—	—
2	.50	J500A1EB1A02	5.39	13.5	6.22	15.6	—	—	—	—	8.3	20.8
2	.75	J750A1EA1A02	—	—	—	—	11.2	28.2	12.4	31.2	—	—
2	.75	J750A1EB1A02	8.09	20.3	9.33	23.4	—	—	18.7	46.8	—	—
2	1	J001K1EA1A02	—	—	—	—	14.9	37.5	16.6	41.7	—	—
2	1	J001K1EB1A02	10.8	27.1	12.4	31.2	—	—	24.9	62.5	—	—
2	1.5	J1X5K1EA1A02	—	—	—	—	22.4	56.2	24.9	62.5	—	—
2	1.5	J1X5K1EB1A02	16.2	40.6	18.7	46.9	—	—	37.3	93.7	—	—
2	2	J002K1EA1A02	—	—	—	—	29.9	75	33.2	83.3	—	—
2	2	J002K1EB1A02	21.6	54.2	24.9	62.5	—	—	49.8	125	—	—
2	3	J003K1EA1A03	—	—	—	—	44.7	112.5	49.8	125.1	—	—
2	3	J003K1EB1A03	32.4	81.3	32.7	93.6	—	—	74.7	187.5	—	—
2	5	J005K1EA1A03	—	—	—	—	74.7	187	83	208	—	—
2	5	J005K1EB1A03	53.9	135	62.2	156	—	—	124	312.5	—	—
2	7.5	J7X5K1EA1A03	—	—	—	—	112	282	124	312	—	—
2	7.5	J7X5K1EB1A03	80.9	203	93.3	234	—	—	187	468	—	—
Connection Diagram ❷			L	K	L	K	I	I	I	I	I	K

Three Phase Open Delta Connection 240 Volt Output, 60 Hz Selection (Table Number 6)

Units Req'd.❶	Unit kVA	Catalog Number	Available Voltage									
			208		212		216		218		225	
			Output kVA	Amps	Output kVA	Amps	Output kVA	Amps	Output kVA	Amps	Output kVA	Amps
2	.05	J050A1EA1A01	—	—	—	—	0.73	1.87	0.87	2.08	—	—
2	.05	J050A1EB1A01	0.56	1.35	0.65	1.56	—	—	1.3	3.12	1.73	4.18
2	.10	J100A1EA1A01	—	—	—	—	1.56	3.75	1.73	4.17	—	—
2	.10	J100A1EB1A01	1.13	2.71	1.3	3.12	—	—	2.6	6.25	—	—
2	.15	J150A1EA1A01	—	—	—	—	2.34	5.62	2.6	6.25	—	—
2	.15	J150A1EB1A01	1.69	4.06	1.95	4.69	—	—	3.9	9.37	—	—
2	.25	J250A1EA1A02	—	—	—	—	3.9	9.37	4.33	10.4	—	—
2	.25	J250A1EB1A02	2.81	6.77	3.25	7.81	—	—	6.49	15.6	8.66	20.8
2	.50	J500A1EA1A02	—	—	—	—	7.79	18.7	8.66	20.8	—	—
2	.50	J500A1EB1A02	5.63	13.5	6.5	15.6	—	—	13	31.2	—	—
2	.75	J750A1EA1A02	—	—	—	—	11.7	28.2	13	31.2	—	—
2	.75	J750A1EB1A02	8.44	20.3	9.75	23.4	—	—	19.5	46.8	—	—
2	1	J001K1EA1A02	—	—	—	—	15.6	37.5	17.3	41.7	—	—
2	1	J001K1EB1A02	11.3	27.1	13	31.2	—	—	26	62.5	—	—
2	1.5	J1X5K1EA1A02	—	—	—	—	23.4	56.2	26	62.5	—	—
2	1.5	J1X5K1EB1A02	16.9	40.6	19.5	46.9	—	—	39	93.7	—	—
2	2	J002K1EA1A02	—	—	—	—	31.2	75	34.6	83.3	—	—
2	2	J002K1EB1A02	22.5	54.2	26	62.5	—	—	52	125	—	—
2	3	J003K1EA1A03	—	—	—	—	46.8	112.5	51.9	125.1	—	—
2	3	J003K1EB1A03	33.9	81.3	39	93.6	—	—	78	187.5	—	—
2	5	J005K1EA1A03	—	—	—	—	77.9	187	86.6	208	—	—
2	5	J005K1EB1A03	56.3	135	65	156	—	—	130	312	—	—
2	7.5	J7X5K1EA1A03	—	—	—	—	117	282	130	312	—	—
2	7.5	J7X5K1EB1A03	84.4	203	97.5	234	—	—	195	468	—	—
Connection Diagram ❷			L	K	L	K	I	I	I	I	I	K

❷ Additional wiring trough may be required. ❸ Refer to page 33 for Buck-Boost wiring diagrams.

**MICRON**

## BUCK-BOOST TRANSFORMERS

Three Phase Wye Connection, 60 Hz

Three Phase Wye Connection • 208 Volt Output, 60 Hz Selection (Table Number 7)

Units Req'd.	Unit kVA	Catalog Number	Available Voltage									
			152	164	173	180	184	189	229	236	250	264
Output kVA Amps												
3 .05	J050A1EA1A01	— —	— —	0.75 2.08	— —	— —	1.5 4.16	1.65 4.58	— —	0.9 2.5	— —	— —
3 .05	J050A1EB1A01	0.41 1.15	0.56 1.56	— —	0.98 2.71	1.12 3.12	— —	— —	1.27 3.54	— —	0.71 1.98	— —
3 .10	J100A1EA1A01	— —	— —	1.50 4.17	— —	— —	3.0 8.33	3.3 9.17	— —	1.8 5.0	— —	— —
3 .10	J100A1EB1A01	0.82 2.29	1.12 3.12	— —	1.95 5.41	2.25 6.25	— —	— —	2.55 7.08	— —	1.42 3.95	— —
3 .15	J150A1EA1A01	— —	— —	2.25 6.25	— —	— —	4.5 12.5	4.95 13.7	— —	2.7 7.5	— —	— —
3 .15	J150A1EB1A01	1.24 3.44	1.69 4.69	— —	2.92 8.12	3.73 9.37	— —	— —	3.82 10.6	— —	2.14 5.93	— —
3 .25	J250A1EA1A02	— —	— —	3.75 10.4	— —	— —	7.5 20.8	8.25 22.9	— —	4.5 12.5	— —	— —
3 .25	J250A1EB1A02	2.06 5.73	2.81 7.81	— —	4.87 13.5	5.62 15.6	— —	— —	6.35 17.7	— —	3.56 9.88	— —
3 .50	J500A1EA1A02	— —	— —	7.5 20.8	— —	— —	15 41.6	16.5 45.8	— —	9 25	— —	— —
3 .50	J500A1EB1A02	4.12 11.5	5.62 15.6	— —	9.75 27.1	11.2 31.2	— —	— —	12.7 35.4	— —	7.12 19.3	— —
3 .75	J750A1EA1A02	— —	— —	11.2 31.2	— —	— —	22.5 62.4	24.7 88.7	— —	13.5 37.5	— —	— —
3 .75	J750A1EB1A02	6.19 17.2	8.44 23.4	— —	14.6 40.6	16.8 46.8	— —	— —	19 53.1	— —	10.7 29.3	— —
3 1	J001K1EA1A02	— —	— —	15 41.7	— —	— —	30 83.3	33 91.7	— —	18 50	— —	— —
3 1	J001K1EB1A02	8.25 22.9	11.2 31.2	— —	19.5 54.1	22.5 62.5	— —	— —	25.5 70.8	— —	14.2 39.5	— —
3 1.5	J1X5K1EA1A02	— —	— —	22.5 62.5	— —	— —	45 125	49.5 137	— —	27 75	— —	— —
3 1.5	J1X5K1EB1A02	12.4 34.4	16.9 46.9	— —	29.2 81.2	33.7 93.7	— —	— —	38.2 106	— —	21.4 59.3	— —
3 2	J002K1EA1A02	— —	— —	30 83.3	— —	— —	60 167	66 183	— —	361 100	— —	— —
3 2	J002K1EB1A02	16.5 45.8	22.5 62.5	— —	39 108	45 125	— —	— —	51 142	— —	28.5 79.2	— —
3 3	J003K1EA1A03	— —	— —	45 125	— —	— —	90 249.9	99 275.1	— —	54 150	— —	— —
3 3	J003K1EB1A03	24.7 68.7	33.6 93.6	— —	58.5 162.3	67.5 187.5	— —	— —	76.5 212.4	— —	46.2 118.5	— —
3 5	J005K1EA1A03	— —	— —	75 208	— —	— —	150 416	165 458	— —	90 250	— —	— —
3 5	J005K1EB1A03	41.2 115	56.2 156	— —	97.5 271	112 312	— —	— —	127 354	— —	71.2 198	— —
3 7.5	J7X5K1EA1A03	— —	— —	112 312	— —	— —	225 624	274 887	— —	135 375	— —	— —
3 7.5	J7X5K1EB1A03	61.9 172	84.4 234	— —	146 406	168 468	— —	— —	190 531	— —	107 293	— —
Connection Diagram			P	N	N	O	M	M	M	M	N	N

Three Phase Wye Connection • 230 Volt Output, 60 Hz Selection (Table Number 8)

Units Req'd.	Unit kVA	Catalog Number	Available Voltage									
			183	192	199	208	218	242	245	253	260	265
Output kVA Amps												
3 .05	J050A1EA1A01	— —	0.83 2.08	— —	1.65 4.58	1.66 4.17	1.74 4.37	— —	— —	0.91 2.29	— —	— —
3 .05	J050A1EB1A01	0.62 1.56	— —	0.54 1.35	— —	— —	— —	1.33 3.33	— —	0.70 1.77	0.62 1.56	— —
3 .10	J100A1EA1A01	— —	1.66 4.17	— —	3.3 9.17	3.32 8.35	3.48 8.75	— —	— —	1.83 4.58	— —	— —
3 .10	J100A1EB1A01	1.25 3.12	— —	1.08 2.71	— —	— —	— —	— —	— —	— —	— —	— —
3 .15	J150A1EA1A01	— —	2.49 6.25	— —	4.95 13.7	4.98 12.5	5.23 13.1	— —	— —	2.74 6.87	— —	— —
3 .15	J150A1EB1A01	1.87 4.69	— —	1.62 4.06	— —	— —	— —	— —	— —	— —	2.12 5.31	1.87 4.69
3 .25	J250A1EA1A02	— —	4.15 10.4	— —	8.2 22.9	8.3 20.9	8.71 21.9	— —	— —	4.56 11.5	— —	— —
3 .25	J250A1EB1A02	3.11 7.81	— —	2.70 6.77	— —	— —	— —	— —	— —	3.52 8.85	3.11 7.81	— —
3 .50	J500A1EA1A02	— —	8.3 20.8	— —	16.5 45.8	16.6 41.7	17.4 43.7	— —	— —	9.31 22.9	— —	— —
3 .50	J500A1EB1A02	6.22 15.6	— —	5.39 13.5	— —	— —	— —	— —	— —	— —	7.05 17.7	6.22 15.6
3 .75	J750A1EA1A02	— —	12.4 31.2	— —	24.7 68.8	24.9 62.6	26.1 65.6	— —	— —	13.7 34.4	— —	— —
3 .75	J750A1EB1A02	9.33 23.4	— —	8.09 20.3	— —	— —	— —	19.9 50	— —	— —	10.6 26.6	9.33 23.4
3 1	J001K1EA1A02	— —	16.6 41.7	— —	33 91.7	33.2 83.5	34.8 87.5	— —	— —	18.3 45.8	— —	— —
3 1	J001K1EB1A02	12.5 31.2	— —	10.8 27.1	— —	— —	— —	— —	— —	— —	14.1 35.4	12.5 31.2
3 1.5	J1X5K1EA1A02	— —	24.9 62.5	— —	49.5 137	49.8 125	52.3 131	— —	— —	27.4 68.7	— —	— —
3 1.5	J1X5K1EB1A02	18.7 46.9	— —	16.2 40.6	— —	— —	— —	— —	— —	— —	21.2 53.1	18.7 46.9
3 2	J002K1EA1A02	— —	33.2 83.3	— —	68 183	66.4 167	69.7 175	— —	— —	36.6 91.6	— —	— —
3 2	J002K1EB1A02	24.9 62.5	— —	21.6 54.2	— —	— —	— —	— —	— —	— —	28.2 70.8	24.9 62.5
3 3	J003K1EA1A03	— —	49.8 125.1	— —	99 275	99.6 250.5	104.4 262.5	— —	— —	54.9 137.4	— —	— —
3 3	J003K1EB1A03	37.5 93.6	— —	32.4 81.3	— —	— —	— —	79.5 200	— —	— —	42.3 106.2	37.5 93.6
3 5	J005K1EA1A03	— —	83 208	— —	165 458	166 417	174 437	— —	— —	91.3 229	— —	— —
3 5	J005K1EB1A03	62.2 156	— —	53.9 135	— —	— —	— —	— —	— —	— —	70.5 177	62.2 156
3 7.5	J7X5K1EA1A03	— —	124 312	— —	247 688	249 626	261 656	— —	— —	137 344	— —	— —
3 7.5	J7X5K1EB1A03	93.3 234	— —	80.9 203	— —	— —	— —	— —	— —	— —	106 266	93.3 234
Connection Diagram			N	N	S	M	Q	Q	Q	R	R	S

• **WARNING!** Three phase autotransformers should never be used to obtain 4 wire output with 3 wire input. 4 wire output requires 4 wire wye input.

• Additional wiring trough may be required. • Refer to page 33 for Buck-Boost wiring diagrams.

For additional information call:

**MICRON**  
800 664-4660

## BUCK-BOOST TRANSFORMERS

Three Phase Wye Connection, 60 Hz

Three-Phase Wye Connection 240 Volt Output, 60 Hz Selection (Table Number 9)

Units Req'd.	Unit kVA	Catalog Number	Available Voltage														
			190	200	208	218	228	252	256	264	272	277					
Output kVA Amps																	
3 .05	J050A1EA1A01	- -	0.86	2.08	- -	0.86	2.08	1.73	4.17	1.85	4.37	- -	0.95	2.29	- -	- -	- -
3 .05	J050A1EB1A01	0.65	1.65	- -	1.27	3.05	- -	- -	- -	1.39	3.33	- -	0.74	1.77	0.65	1.56	- -
3 .10	J100A1EA1A01	- -	1.73	4.17	- -	1.73	4.17	3.46	8.34	3.64	8.75	- -	1.91	4.58	- -	- -	- -
3 .10	J100A1EB1A01	1.3	3.12	- -	2.55	6.12	- -	- -	- -	2.77	6.87	- -	1.47	3.54	1.3	3.12	- -
3 .15	J150A1EA1A01	- -	2.59	6.25	- -	2.59	6.25	5.20	12.5	5.46	13.1	- -	2.86	6.87	- -	- -	- -
3 .15	J150A1EB1A01	1.95	4.69	- -	3.82	9.16	- -	- -	- -	4.16	10.0	- -	2.21	5.31	1.95	4.69	- -
3 .25	J250A1EA1A02	- -	4.32	10.4	- -	4.32	10.4	8.66	20.9	9.09	21.9	- -	4.76	11.5	- -	- -	- -
3 .25	J250A1EB1A02	3.25	7.81	- -	6.3	15.1	- -	- -	- -	6.93	16.7	- -	3.68	8.85	3.25	7.81	- -
3 .50	J500A1EA1A02	- -	8.65	20.8	- -	8.65	20.8	17.3	41.7	18.2	43.7	- -	9.53	22.9	- -	- -	- -
3 .50	J500A1EB1A02	6.5	15.6	- -	12.7	30.4	- -	- -	- -	13.9	33.3	- -	7.36	17.7	6.5	15.6	- -
3 .75	J750A1EA1A02	- -	13	31.2	- -	13	31.2	26	62.6	27.3	65.6	- -	14.3	34.4	- -	- -	- -
3 .75	J750A1EB1A02	9.75	23.4	- -	19.2	46	- -	- -	- -	20.8	50	- -	11	26.6	9.75	23.4	- -
3 1	J001K1EA1A02	- -	17.3	41.7	- -	17.3	41.7	34.6	83.4	36.4	87.5	- -	19.1	45.8	- -	- -	- -
3 1	J001K1EB1A02	13	31.2	- -	25.5	61.2	- -	- -	- -	27.7	66.7	- -	14.7	35.4	13	31.2	- -
3 1.5	J1X5K1EA1A02	- -	25.9	62.5	- -	25.9	62.5	52	125	54.6	131	- -	28.6	68.7	- -	- -	- -
3 1.5	J1X5K1EB1A02	19.5	46.9	- -	38.2	91.6	- -	- -	- -	41.6	100	- -	22.1	53.1	19.5	46.9	- -
3 2	J002K1EA1A02	- -	34.6	83.3	- -	34.6	83.3	69.3	167	72.8	175	- -	38.1	91.7	- -	- -	- -
3 2	J002K1EB1A02	26	62.5	- -	51	122.4	- -	- -	- -	55.4	133	- -	29.5	70.8	26	62.5	- -
3 3	J003K1EA1A03	- -	51.9	125.1	- -	51.9	125.1	103.8	250.2	109.2	262.5	- -	57.3	137.4	- -	- -	- -
3 3	J003K1EB1A03	39	93.6	- -	76.5	183.6	- -	- -	- -	83.1	200	- -	44.1	106.2	39	93.6	- -
3 5	J005K1EA1A03	- -	86.5	208	- -	86.5	208	173	417	182	437	- -	95.3	229	- -	- -	- -
3 5	J005K1EB1A03	65	156	- -	127.2	305.2	- -	- -	- -	139	333	- -	73.6	177	65	156	- -
3 7.5	J7X5K1EA1A03	- -	130	312	- -	130	312	260	626	273	656	- -	143	344	- -	- -	- -
3 7.5	J7X5K1EB1A03	97.5	234	- -	192	460	- -	- -	- -	208	500	- -	110	266	97.5	234	- -
Connection Diagram			N	N	M	R	Q	Q	Q	R	R	S					

Three Phase Wye Connection 460 Volt Output, 60 Hz Selection (Table Number 10)

Units Req'd.	Unit kVA	Catalog Number	Available Voltage									
			406	418	432	438						
Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps									
3 .05	J050A1EA1A01	- -	1.66	2.08	- -	3.22	4.04					
3 .05	J050A1EB1A01	1.25	1.57	- -	2.49	3.12	- -					
3 .10	J100A1EA1A01	- -	3.31	4.15	- -	6.62	8.31					
3 .10	J100A1EB1A01	2.49	3.12	- -	4.97	6.24	- -					
3 .15	J150A1EA1A01	- -	- -	4.97	6.24	- -	9.94	12.48				
3 .15	J150A1EB1A01	3.73	4.68	- -	7.46	9.36	- -	- -				
3 .25	J250A1EA1A02	- -	8.28	10.39	- -	16.6	20.84					
3 .25	J250A1EB1A02	6.22	7.81	- -	12.4	15.56	- -	- -				
3 .50	J500A1EA1A02	- -	- -	16.6	20.84	- -	33.2	41.67				
3 .50	J500A1EB1A02	12.5	15.69	- -	24.69	31.25	- -	- -				
3 .75	J750A1EA1A02	- -	24.8	31.12	- -	49.6	62.25					
3 .75	J750A1EB1A02	18.7	23.47	- -	37.3	46.82	- -	- -				
3 1	J001K1EA1A02	- -	33.1	41.54	- -	66.2	83.09					
3 1	J001K1EB1A02	24.9	31.25	- -	49.7	62.38	- -	- -				
3 1.5	J1X5K1EA1A02	- -	- -	49.7	62.38	- -	99.4	124.75				
3 1.5	J1X5K1EB1A02	37.3	46.94	- -	74.6	93.63	- -	- -				
3 2	J002K1EA1A02	- -	66.3	83.22	- -	133	166.93					
3 2	J002K1EB1A02	49.7	62.38	- -	99.5	124.88	- -	- -				
3 3	J003K1EA1A03	- -	99.3	124.64	- -	198.6	249.27					
3 3	J003K1EB1A03	74.6	93.63	- -	149	187.01	- -	- -				
3 5	J005K1EA1A03	- -	166	208.35	- -	322	404.16					
3 5	J005K1EB1A03	125	156.89	- -	249	312.53	- -	- -				
3 7.5	J7X5K1EA1A03	- -	248	311	- -	496	622					
3 7.5	J7X5K1EB1A03	187	235	- -	373	468	- -	- -				
Connection Diagram			R	R	Q	Q						

Three Phase Wye Connection 480 Volt Output, 60Hz Selection (Table Number 11)

Units Req'd.	Unit kVA	Catalog Number	Available Voltage			
			424	436	450	
Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps			
3 .05	J050A1EA1A01	- -	1.7	2.1	- -	- -
3 .05	J050A1EB1A01	1.3	1.56	- -	2.6	3.13
3 .10	J100A1EA1A01	- -	- -	3.5	4.2	- -
3 .10	J100A1EB1A01	2.6	3.12	- -	5.2	6.25
3 .15	J150A1EA1A01	- -	- -	5.2	6.25	- -
3 .15	J150A1EB1A01	3.9	4.68	- -	7.8	9.38
3 .25	J250A1EA1A02	- -	- -	8.7	10.4	- -
3 .25	J250A1EB1A02	6.5	7.82	- -	13	15.6
3 .50	J500A1EA1A02	- -	- -	17.4	20.9	- -
3 .50	J500A1EB1A02	13	15.6	- -	26	31.2
3 .75	J750A1EA1A02	- -	- -	26	31.2	- -
3 .75	J750A1EB1A02	19.5	23.4	- -	39	46.9
3 1	J001K1EA1A02	- -	- -	35	42	- -
3 1	J001K1EB1A02	26	31.2	- -	52	62.5
3 1.5	J1X5K1EA1A02	- -	- -	52	62.5	- -
3 1.5	J1X5K1EB1A02	39	46.8	- -	78	93.8
3 2	J002K1EA1A02	- -	- -	69	82.9	- -
3 2	J002K1EB1A02	52	62.5	- -	104	125
3 3	J003K1EA1A03	- -	- -	104	125	- -
3 3	J003K1EB1A03	78	93.8	- -	156	187.6
3 5	J005K1EA1A03	- -	- -	174	209.2	- -
3 5	J005K1EB1A03	130	156.3	- -	260	312.7
3 7.5	J7X5K1EA1A03	- -	- -	260	312	- -
3 7.5	J7X5K1EB1A03	195	234	- -	390	469
Connection Diagram			R	R	Q	

• WARNING! Three phase autotransformers should never be used to obtain 4 wire output with 3 wire input. 4 wire output requires 4 wire wye input.

• Additional wiring trough may be required.

• Refer to page 33 for Buck-Boost wiring diagrams.

**MICRON**

## **BUCK-BOOST TRANSFORMERS**

*Single and Three Phase Group B Applications, 60 Hz*

**Single Phase Group B Applications,  
60 Hz Selection (Table Number 12)**

Units Req'd. <sup>❶</sup>	Unit kVA	Catalog Number	Available Voltage/Output Voltage																							
			200/240	230/277	346/380	362/380	378/416	416/457	436/480	458/480	277/230	480/456	504/480	528/480												
Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps												
1	.25	J250A1KC1A02	1.25	5.2	1.44	5.2	3.95	10.4	2.16	5.2	2.38	5.2	2.50	5.2	4.99	10.4	1.44	6.26	5.23	11.4	5.47	11.4	2.75	5.72		
1	.50	J500A1KC1A02	2.50	10.4	2.88	10.4	3.95	10.4	7.90	20.8	4.33	10.4	4.76	10.4	9.99	20.8	2.88	12.5	10.4	22.8	10.9	22.8	5.49	11.4		
1	.75	J750A1KC1A02	3.75	15.6	4.32	15.6	5.93	15.6	11.9	31.2	6.49	15.6	7.14	15.6	7.49	15.6	15.0	31.2	4.33	18.8	15.7	34.2	16.4	34.2	8.24	17.2
1	1	J001K1KC1A02	5.00	20.8	5.76	20.8	7.90	20.8	15.8	41.6	8.65	20.8	9.52	20.8	9.93	20.8	20.0	41.6	5.76	25.0	20.9	45.6	21.8	45.6	11.0	22.9
1	1.5	J1X5K1KC1A02	7.50	31.2	8.64	31.2	11.9	31.2	23.8	62.5	13.0	31.2	14.3	31.2	15.0	31.2	30.0	62.5	8.64	37.6	31.3	68.4	32.8	68.4	16.5	34.3
1	2	J002K1KC1A02	10.00	41.6	11.5	41.6	15.8	41.6	31.5	83.3	17.3	41.6	19.0	41.6	20.0	41.6	40.0	83.3	11.5	50.1	41.8	91.2	43.7	91.2	22.0	45.8
1	3	J003K1KC1A02	15.00	62.5	17.3	62.5	23.8	62.5	47.5	125.0	26.0	62.5	28.6	62.5	30.0	62.5	60.0	125.0	17.3	75.3	62.7	136.0	65.2	136.0	33.0	68.8
1	5	J005K1KC1A02	25.00	104.0	28.8	104.0	39.5	104.0	79.0	208.0	43.3	104.0	47.6	104.0	49.9	104.0	99.8	208.0	28.8	125.3	104.5	227.0	108.0	227.0	54.9	114.4
1	7.5	J7X5K1KC1A02	37.50	156.0	43.2	156.0	59.3	156.0	118.6	312.0	64.9	156.0	71.4	156.0	74.9	156.0	149.8	312.0	43.2	187.9	156.8	341.0	163.0	341.0	82.4	171.6
Connection Diagram <sup>❷</sup>			B	B	F	E	F	F	F	E	B	E	E	F												

**Three-Phase Group B Applications,  
60 Hz Selection (Table Number 13)**

Unit kVA	Catalog Number	Available Voltage/Output Voltage															
		362/380	346/416	430/473	400/480	436/480	460/483	457/380	504/480	528/480							
Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps	Output kVA Amps							
.25	J250A1KC1A02	6.52	10.4	3.75	5.2	4.26	5.2	4.33	5.2	8.7	10.4	4.12	6.25	9.08	10.9	4.76	5.72
.50	J500A1KC1A02	13.00	20.8	7.50	10.4	8.52	10.4	8.65	10.4	17.4	20.8	8.23	12.5	18.2	21.8	9.51	11.4
.75	J750A1KC1A02	19.6	31.2	11.2	15.6	12.8	15.6	13.0	15.6	26.1	31.2	12.3	18.8	27.2	32.8	14.3	17.2
1	J001K1KC1A02	26.1	41.6	15.0	20.8	17.0	20.8	17.3	20.8	34.8	41.6	16.5	25.0	36.3	43.7	19.0	22.9
1.5	J1X5K1KC1A02	39.1	62.4	22.5	31.2	25.5	31.2	26.0	31.2	52.2	62.4	24.7	37.5	54.5	65.5	28.5	34.3
2	J002K1KC1A02	52.2	83.2	30.0	41.6	34.1	41.6	34.6	41.6	69.8	83.2	32.9	50.0	72.6	87.4	38.0	45.8
3	J003K1KC1A03	78.4	125.0	45.0	62.5	51.2	62.5	52.0	62.5	104.6	125.0	49.5	75.2	109.7	131.3	57.2	68.8
5	J005K1KC1A03	130.4	208.0	75.1	104.0	85.2	104.0	86.6	104.0	174.0	208.0	82.3	125.1	181.6	218.4	95.1	114.4
7.5	J7X5K1KC1A03	195.6	312.0	112.8	156.0	127.8	156.0	129.9	156.0	261.0	312.0	123.5	187.6	272.4	327.6	142.7	171.6
Connection Diagram <sup>❷</sup>		I	N	K	N	K	I	N	I	K							
Units Required <sup>❸</sup>		2	3	2	3	2	2	3	2	2							

❶ Additional wiring trough may be required.

❷ Refer to page 33 for Buck-Boost wiring diagrams.

For additional information call:

**MICRON**  
**800 664-4660**

## AUTOTRANSFORMER ARRANGEMENTS USING SINGLE-PHASE TRANSFORMERS

Single and Three Phase, 480 Volt Output, 60 Hz

Three Phase Open Delta Connection 480 Volt Output,  
60 Hz Selection (Table Number 14)

Units Req'd. <sup>❶</sup>	Catalog Number <sup>❷</sup>	Available Voltage					
		600		575		575	
		Output kVA	Amps	Output kVA	Amps	Output kVA	Amps
2	G500A1KF1A02	4.3	5.1	—	—	—	—
2	G001K1RF8A02	—	—	—	—	4.1	4.9
2	G750A1KF1A02	6.5	7.8	—	—	—	—
2	G001K1RF8A02	—	—	—	—	8.2	7.4
2	G001K1KF1A02	8.6	10.3	—	—	—	—
2	G001K1RF8A02	—	—	—	—	8.3	9.9
2	G1X5K1KF1A02	13.0	15.6	—	—	—	—
2	G1X5K1RF8A02	—	—	—	—	12.4	14.9
2	G002K1KF1A02	17.2	20.6	—	—	—	—
2	G002K1RF8A02	—	—	—	—	16.5	19.8
2	G003K1KF1A03	25.8	31	—	—	—	—
2	G003K1RF8A03	—	—	—	—	24.8	29.8
2	G005K1KF1A03	43.2	51.9	—	—	—	—
2	G005K1RF8A03	—	—	—	—	41	49.3
2	G7X5K1KF1A03	65	78.1	—	—	—	—
2	G7X5K1RF8A03	—	—	—	—	62	74.5
2	G010K1KF1A03	86	103.4	—	—	—	—
2	G010K1RF8A03	—	—	83	99.8	—	—
2	G015K1KF1A03	130	156.3	—	—	—	—
2	G015K1RF1A03	—	—	124	149.1	—	—
Connection Diagram <sup>❸</sup>		I	J	T			

Single Phase 480 Volt Output, 60 Hz  
Selection (Table Number 15)

Units Req'd. <sup>❶</sup>	Catalog Number <sup>❷</sup>	Available Voltage					
		600		575		575	
		Output kVA	Amps	Output kVA	Amps	Output kVA	Amps
1	G500A1KF1A02	2.5	5.2	—	—	—	—
1	G001K1RF8A02	—	—	—	—	2.4	5.0
1	G750A1KF1A02	3.7	7.7	—	—	—	—
1	G001K1RF8A02	—	—	—	—	3.6	7.5
1	G001K1KF1A02	5.0	10.4	—	—	—	—
1	G001K1RF8A02	—	—	—	—	4.8	10
1	G1X5K1KF1A02	7.5	15.6	—	—	—	—
1	G1X5K1RF8A02	—	—	—	—	7.2	15
1	G002K1KF1A02	10	20.8	—	—	—	—
1	G002K1RF8A02	—	—	—	—	9.6	20
1	G003K1KF1A03	15	31.2	—	—	—	—
1	G003K1RF8A03	—	—	—	—	14.3	29.7
1	G005K1KF1A03	25	52	—	—	—	—
1	G005K1RF8A03	—	—	—	—	24	50
1	G7X5K1KF1A03	37.5	78.1	—	—	—	—
1	G7X5K1RF8A03	—	—	—	—	36	75
1	G010K1KF1A03	50	104.1	—	—	—	—
1	G010K1RF8A03	—	—	48	100	—	—
1	G015K1KF1A03	75	156.2	—	—	—	—
1	G015K1RF1A03	—	—	72	150	—	—
Connection Diagram <sup>❸</sup>		E	H	T			

❶ Additional wiring trough may be required.

❷ On transformers supplied with standard taps, taps must be placed at nominal settings.

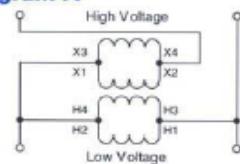
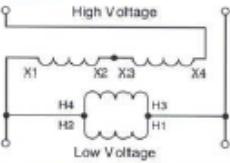
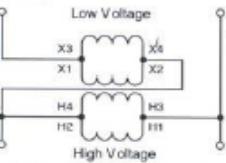
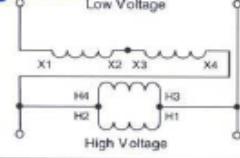
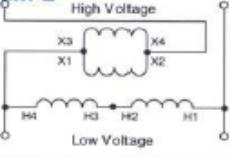
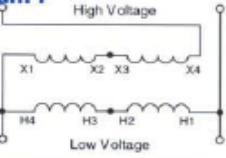
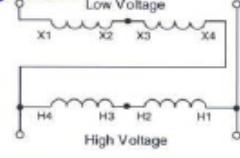
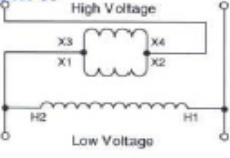
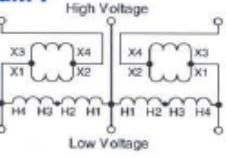
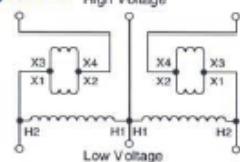
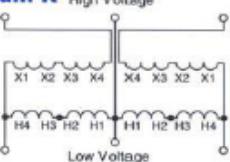
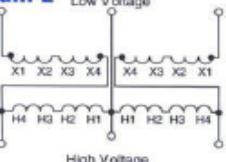
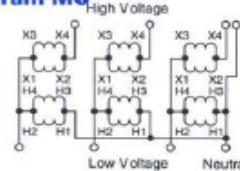
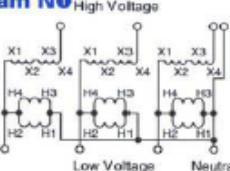
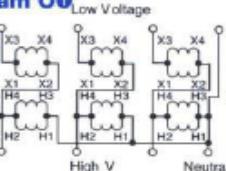
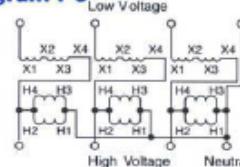
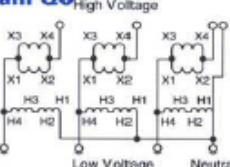
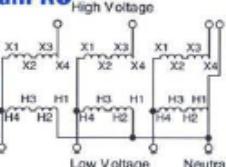
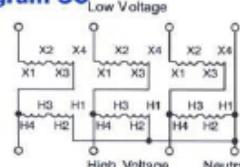
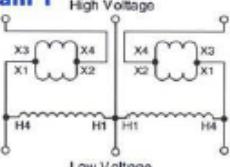
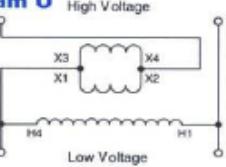
❸ Refer to page 33 for Buck-Boost wiring diagrams.

Note: Autotransformers can be used only where local electric codes permit and isolation of the two circuits is not required.

**MICRON**

# BUCK-BOOST TRANSFORMERS

## Wiring Diagrams

**Diagram A****Diagram B****Diagram C****Diagram D****Diagram E****Diagram F****Diagram G****Diagram H****Diagram I****Diagram J****Diagram K****Diagram L****Diagram M****Diagram N****Diagram O****Diagram P****Diagram Q****Diagram R****Diagram S****Diagram T****Diagram U**

**WARNING!** If input is 3 wire, "neutral" connection must be isolated and insulated! When used to supply a 3 phase, 4 wire load, the source must be 3 phase, 4 wire wye.

For additional information call:  
**MICRON**  
800 664-4660

**DRY TYPE TRANSFORMER ACCESSORIES**  
**Terminal Lug Kits & Rodent Screens**

**Terminal Lug Kits for Type 3-V Transformers**

Catalog Number	Typical Sizing	Terminal Lugs Cable Range	Qty	Hardware Bolt Size	Qty
<b>LKS1MI</b>	15 - 37.5 KVA Single Phase	#14 - #2	8	1/4-20 x 3/4	8
	15 - 45 KVA Three Phase	#6 - 250 MCM	4		
<b>LKS2MI</b>	50 - 75 KVA Single Phase	#6 - 250 MCM	12	1/4-20 x 3/4	8
	75 - 112.5 KVA Three Phase			1/4-20 x 1 3/4	8
<b>LKS3MI</b>	100 - 167 KVA Single Phase	#6 - 250 MCM	3	1/4-20 x 3/4	3
	150 - 300 KVA Three Phase	#2 - 600 MCM	22	3/8-16 x 2	16
<b>LKS4MI</b>	500 KVA Three Phase	#2 - 600 MCM	29	3/8-16 x 2	18

**Note:** Lugs are rated Al/Cu and are suitable for use suitable for use with either aluminum or copper conductors.

**Rodent Screen**

Catalog Number	Frame Size(s)	Description
<b>RS01MI</b>	908, 909	Rodent screens are used to discourage entry by birds or rodents.
<b>RS02MI</b>	910A, 911, 912	
<b>RS03MI</b>	913B, 914B, 915B	
<b>RS04MI</b>	916	
<b>RS05MI</b>	917, 918, 918A	
<b>RS06MI</b>	919, 920	
<b>RS07MI</b>	916A, 916B	
<b>RS08MI</b>	922	
<b>RS09MI</b>	923	
<b>RS11MI</b>	814, 821	
<b>RS12MI</b>	815	
<b>RS13MI</b>	816	
<b>RS14MI</b>	817, 818	
<b>RS15MI</b>	819, 820	
<b>RS16MI</b>	912B	
<b>RS17MI</b>	914D, 915D	

***DRY TYPE TRANSFORMER ACCESSORIES***  
***Mounting Brackets & Weathershield Kit***

**Wall Mounting Bracket**

Catalog Number	Frame Size(s)	Description
<b>WMB01MI</b>	809, 810, 811, 812, 813, 815, 816, 817, 818 819, 820, 835, 836, 837, 814A 908, 909, 910, 911, 912, 910A, 911A, 912A 913A, 913B, 914A, 914B, 915A, 915B	Wall mounting brackets are used to wall mount most 15 through 75 KVA and some 100 KVA Type 1-V and 3-V transformers. This bracket allows for 6" clearance from the wall as recommended by Micron.

**Weathershield Kit**

Catalog Number	Length*	Frame Size(s)	Description
<b>WS11MI</b>		809, 810, 811, 816, 817, 818	
<b>WS13MI</b>	29 3/8	814	
<b>WS15MI</b>		815	
<b>WS16MI</b>		819, 820	
<b>WS31MI</b>	19 3/4	808, 908, 909, 910, 911, 912, 910A 911A, 912A	A weathershield kit consisting of a front and rear cover shield must be installed on all ventilated dry-type distribution transformers when the unit is located outdoors. The shields protect the transformer top ventilation openings against rain but allow for proper ventilation. Field
<b>WS33MI</b>	25 3/4	812, 813, 913A, 913B, 914A, 915A 916, 914B, 915B	installation hardware is not required. Refer to specific transformer listing for selection of weathershield kit. Proper installation provides a NEMA 3R rating.
<b>WS19MI</b>		916A, 916B	
<b>WS34MI</b>	31	917, 918, 918A	
<b>WS35MI</b>	44	919, 920	
<b>WS36MI</b>		922	
<b>WS37MI</b>		923	
<b>WS38MI</b>		912B	
<b>WS39MI</b>		914D, 915D	

\* The weather shields marked with a length dimension may fit earlier non-TP-1 frames.

**Note:** For 316 grade stainless steel add the suffix "S" to the catalog number.

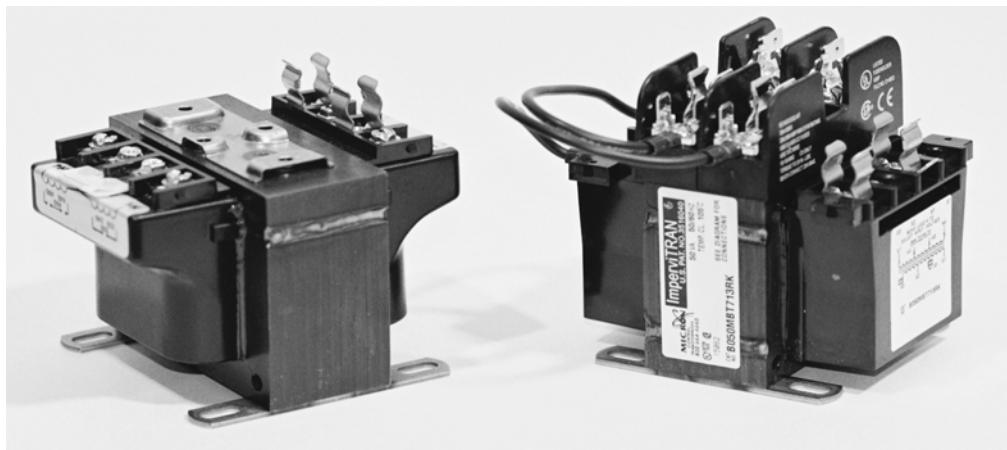
## DINergy™ Industrial DIN Rail Power Supplies



### Micron DINergy™ Power Supply Selection Guide

Model	Output Power (Watts)	Output Voltage (VDC)	Voltage Adj. Range	Output Current (A)	Peak Current (A)	Input Voltage (VAC)	Size WxDxH(mm)
MDP30-24-1	30	24	22 - 28	1.25	1.70	90-255	22.5X100X90
MDP30-15-1	30	15	14 - 18	2.0	2.70	90-255	22.5X100X90
MDP30-12-1	30	12	10 - 14	2.5	3.40	90-255	22.5X100X90
MDP30-5-1	30	5	4.5 - 5.5	4.0	5.40	90-255	22.5X100X90
MDP50-24-1	50	24	22 - 28	2.27 - 1.79	3.09	90-255	32X102X90
MDP50-12-1	50	12	10 - 14	5.0 - 3.57	6.80	90-255	32X102X90
MD60-24-1	60	24	22 - 28	2.5	3.0	85-264	50x105x124
MD60-12-1	54	12	10 - 16	4.5	5.4	85-264	50x105x124
MD60-48-1	60	48	46 - 52	1.3	1.5	85-264	50x105x124
MD120-24-1	120	24	22 - 28	5.0	6.0	85-264	65x105x124
MD120-12-1	96	12	10 - 16	8.0	9.6	85-264	65x105x124
MD120-48-1	120	48	46 - 52	2.5	3.0	85-264	65x105x124
MD240-24-1	240	24	22 - 28	10.0	12.0	85-264	87x124x130
MD240-12-1	180	12	11 - 14	15.0	18.0	85-264	87x124x130
MD240-48-1	240	48	46 - 52	5.0	6.0	85-264	87x124x130
MD480-24-1	480	24	22 - 28	20.0	24.0	85-264	156x126x130
MD480-36-1	480	36	34 - 40	13.0	16.0	85-264	156x126x130
MD480-24-1	480	48	46 - 52	10.0	12.0	85-264	156x126x130
MD-PDMA REDUNDANCY DIODE MODULE	480	24	N/A	20.0 MAX	24.0 MAX	85-264	50x105x124
MD-VSB240-24-1 VOLTAGE SAG BUFFER	240	24	N/A +/-10%	10.0	N/A	24VDC +/-5%	76X116X130
MD-LAB24-DINBRKTA	N/A	24	N/A	3.4AH/20HR	N/A	N/	145X77X143
MD-LAB24-DINBRKTB	N/A	24	N/A	1.3AH/20HR	N/A	N/	95X81X105
MD-DINBRKTA				BRACKET ASSEMBLY FOR 3.4AH SLA			145X77X143
MD-DINBRKTB				BRACKET ASSEMBLY FOR 1.3AH SLA			95X81X105

# IMPERVITRAN



ImperviTRAN's feature-laden Series 2 design. Developed to address **ALL** customer needs with a product designed in a highly efficient manner. ImperviTRAN designs span over 35 years of market leadership.

#### UL/CSA or C-UL Family Listing

- Absolute flexibility of design for 600 volt class product

#### Fully encapsulated coil

- Tough environment-proof construction
- Eases wire routing around the transformer

#### Fusion-welded coil terminations instead of solder joints

- Eliminates cold solder joint breakage, improves conductivity
- Provides a lead-free RoHS compliant construction

#### Face-on terminal labels with large schematic indicators

- Terminal designations clearly visible to the installer and technician
- Indicators aligned with terminal screws for clarity

#### SEMS screw terminal strips as an integral part of the coil bobbin

- Allows bare wire and terminal connection methods
- Easily adaptable to slot, Phillips and hex driver tools
- Robust physical support instead of "floating" terminal strips

#### Integral accessory mounting plate on transformer top

- Allows field modification to block-style primary fusing
- Reduces SKU count for fused/non-fused applications
- Provides mounting platform for additional items (DIN Rail)

#### Standard strap brackets or optional mounting plate

- Features a superior weld result for vibration-resistant stability
- Offers common mounting template across a wide range of voltages
- Alternate plates available for OEM volumes

#### IP-20 cover kits available

- Quickly convertible to an IP-20 safety level

## **NOTES**



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