

# DOE 2016 Transformers

<b>9T</b>	<b>1</b>	<b>0</b>	<b>W</b>	<b>100</b>	<b>1</b>	<b>G31</b>
<b>Midwest Electric Standard</b>						
<b>1 = QL DOE 2016 Design</b>						
<b>Transformer Type</b>						
0 = Standard, K1						
1 = K13*						
2 = K20*						
3 = K30*						
4 = K4*						
7 = Guard II/Servicecenter						
8 = Spare Parts						
<b>Coil Material</b>						
W = Aluminum						
X = Copper						
<b>kVA Rating</b>						
1 = 15kVA						
2 = 30kVA						
3 = 45kVA						
4 = 75kVA						
5 = 112.5kVA						
6 = 150kVA						
7 = 225kVA						
8 = 300kVA						
9 = 500kVA						
<b>Voltage Rating</b>						
See Voltage Chart on back page						

<b>Group Number</b>	
No Group Number Shown = 150°C	G34 = 115°C, Electrostatic Shield†, -3dB
G02 = 150°C, -3dB	G35 = 115°C, -5dB
G03 = 150°C, Electrostatic Shield†	G36 = 115°C, Electrostatic Shield†, -5dB
G04 = 150°C, Electrostatic Shield†, -3dB	G39 = 115°C, Non-STD kVA
G05 = 150°C, -5dB	G40 = 115°C, Non-STD kVA
G06 = 150°C, Electrostatic Shield†, -5dB	G61 = 80°C
G09 = 150°C, Non-STD kVA	G62 = 80°C, -3dB
G10 = 150°C, Non-STD kVA	G63 = 80°C, Electrostatic Shield†
G29 = 140°C, 40°C amb	G64 = 80°C, Electrostatic Shield†, -3dB
G30 = 140°C, 50°C amb	G65 = 80°C, -5dB
G31 = 115°C	G66 = 80°C, Electrostatic Shield†, -5dB
G32 = 115°C, -3dB	G69 = 80°C, Non-STD kVA
G33 = 115°C, Electrostatic Shield†	G70 = 80°C, Non-STD kVA

\*All K-factor transformers contain an electrostatic shield. Therefore, when creating new K-factor product numbers, be sure to select a Group Number that includes an electrostatic shield. Example: 9T11X1001 is incorrect. 9T11X1001G03 is correct. 9T14W1004G05 is incorrect. 9T14W1004G06 is correct.

†An Electrostatic Shield (also called a Guard I transformer) is a grounded, copper-foil barrier between the primary and secondary winding to reduce electrical noise.

## Midwest Electric Transformers TP-1 to DOE 2016 Product Number Conversion Guide K Factor =1, 480 Volts Primary, 208Y/120 Volts Secondary, Standard Sound Level

NEMA TP-1	Coil Material**	ES Shield	KVA	Temp Rise	DOE 2016
9T83W3871	AL	N	15	150	9T10W1001
9T83W3871G03	AL	Y	15	150	9T10W1001G03
9T83W3871G15	AL	N	15	115	9T10W1001G31
9T83W3871G13	AL	Y	15	115	9T10W1001G33
9T83W3871G80	AL	N	15	80	9T10W1001G61
9T83W3871G83	AL	Y	15	80	9T10W1001G63
9T83W3872	AL	N	30	150	9T10W1002
9T83W3872G03	AL	Y	30	150	9T10W1002G03
9T83W3872G15	AL	N	30	115	9T10W1002G31
9T83W3872G13	AL	Y	30	115	9T10W1002G33
9T83W3242G80	AL	N	30	80	9T10W1002G61
9T83W3872G83	AL	Y	30	80	9T10W1002G63
9T83W3873	AL	N	45	150	9T10W1003
9T83W3873G03	AL	Y	45	150	9T10W1003G03
9T83W3873G15	AL	N	45	115	9T10W1003G31
9T83W3873G13	AL	Y	45	115	9T10W1003G33
9T83W3873G80	AL	N	45	80	9T10W1003G61
9T83W3873G83	AL	Y	45	80	9T10W1003G63
9T83W3874	AL	N	75	150	9T10W1004
9T83W3874G03	AL	Y	75	150	9T10W1004G03
9T83W3874G15	AL	N	75	115	9T10W1004G31
9T83W3874G13	AL	Y	75	115	9T10W1004G33
9T83W3874G80	AL	N	75	80	9T10W1004G61
9T83W3874G83	AL	Y	75	80	9T10W1004G63
9T83W3875	AL	N	112.5	150	9T10W1005

NEMA TP-1	Coil Material**	ES Shield	KVA	Temp Rise	DOE 2016
9T83W3875G03	AL	Y	112.5	150	9T10W1005G03
9T83W3875G15	AL	N	112.5	115	9T10W1005G31
9T83W3875G13	AL	Y	112.5	115	9T10W1005G33
9T83W3875G80	AL	N	112.5	80	9T10W1005G61
9T83W3875G83	AL	Y	112.5	80	9T10W1005G63
9T83W3876	AL	N	150	150	9T10W1006
9T83W3876G03	AL	Y	150	150	9T10W1006G03
9T83W3876G15	AL	N	150	115	9T10W1006G31
9T83W3876G13	AL	Y	150	115	9T10W1006G33
9T83W3876G80	AL	N	150	80	9T10W1006G61
9T83W3876G83	AL	Y	150	80	9T10W1006G63
9T83W3877	AL	N	225	150	9T10W1007
9T83W3877G03	AL	Y	225	150	9T10W1007G03
9T83W3877G15	AL	N	225	115	9T10W1007G31
9T83W3877G13	AL	Y	225	115	9T10W1007G33
9T83W3877G80	AL	N	225	80	9T10W1007G61
9T83W3877G83	AL	Y	225	80	9T10W1007G63
9T83W3878	AL	N	300	150	9T10W1008
9T83W3878G03	AL	Y	300	150	9T10W1008G03
9T83W3878G15	AL	N	300	115	9T10W1008G31
9T83W3878G13	AL	Y	300	115	9T10W1008G33
9T83W3878G80	AL	N	300	80	9T10W1008G61
9T83W3878G83	AL	Y	300	80	9T10W1008G63
9T83W3879	AL	N	500	150	9T10W1009
9T83W3879G03	AL	Y	500	150	9T10W1009G03

\*\*For DOE 2016 copper coil product numbers, change "W" to "X".  
Example: 9T10W1004 changes to 9T10X1004.



### Midwest Electric DOE 2016 Transformers Feature...

- Outward facing mounting feet for faster installation
- Lug kit included up to 150kVA
- Copper ground bar kit included
- Larger interior clearances for easier wiring & enhanced safety

### 3-Phase Common Voltages

Series	Primary Voltage	Secondary Voltage
100	480	208Y/120
101	480	220
102	480	220Y/127
103	480	208
104	480	230Y/133
105	480	240Y/139
106	480	380
107	480	380Y/219
108	480	400Y/231
109	480	415Y/240
110	480	480
111	480	575
112	480	600
113	480	440Y/254
114	480	600Y/346
115	480	440
116	480	230/115
117	480	480Y/277
118	480	240/120
119	480	240
121	480	220/110
123	480	400
124	480	460
125	480	420
126	480	230
127	480	575Y/332
129	480	460Y/266
131	208	240
132	208	240/120
133	208	480
134	208	480Y/277
135	208	380Y/219
136	208	230
137	208	575
138	208	460
139	208	400Y/231
140	208	208
141	208	230Y/133
142	208	380
143	208	220/110
144	208	220Y/127
145	208	208Y/120
146	208	400
147	208	315
148	208	600
149	208	460Y/266
150	208	220
151	208	230/115
152	208	415Y/240
153	240	480Y/277
154	240	480
155	240	400Y/231
157	240	575
158	240	460Y/266
159	240	240Y/139
160	240	600
161	240	208Y/120
162	240	380
163	240	440
164	240	240/120
165	240	380Y/219

Series	Primary Voltage	Secondary Voltage
166	220	380Y/219
167	220	400Y/231
168	220	240Y/139
169	220	220
170	220	208Y/120
171	220	480Y/277
172	220	440Y/254
173	220	480/240
174	220	480
175	220	415Y/240
176	380	220Y/127
177	380	480
178	380	220
179	380	208Y/120
180	380	415Y/240
181	380	240/120
184	380	480Y/277
185	380	380Y/219
186	380	230Y/133
187	380	240
188	440	220Y/127
189	440	480
190	440	208Y/120
191	440	380
192	440	380Y/219
193	440	400Y/231
194	440	575Y/332
195	440	240/120
196	440	480Y/277
197	440	240
198	230	460
199	230	400Y/231
200	230	400
201	230	480Y/277
202	230	208Y/120
203	230	480
204	400	230Y/133
205	400	380Y/219
206	400	480
207	400	220Y/127
209	400	400Y/231
210	400	208Y/120
211	400	208Y/120
212	400	480Y/277
213	415	208Y/120
214	415	460
215	415	220Y/127
216	416	208Y/120
217	416	480Y/277
218	460	208Y/120
219	460	220
221	460	400Y/231
222	460	220Y/127
223	460	230
224	460	575Y/332
225	460	230Y/133
226	460	460Y/266
227	550	208Y/120
228	550	480Y/277
229	575	208Y/120
230	575	480Y/277

Series	Primary Voltage	Secondary Voltage
231	575	240Y/139
232	575	460
233	575	480
234	575	230Y/133
235	575	230
236	600	240/120
237	600	480
238	600	480Y/277
239	600	240
240	600	208Y/120
241	600	230Y/133
242	600	240Y/139
243	600	208
244	600	600Y/346
245	690	400Y/231
246	690	208Y/120
247	277	415Y/240
248	315	208Y/120
249	320	480Y/277
250	420	480Y/277
251	490	480Y/277
252	500	480Y/277

### 3P Servicenter Product Numbers - DOE 2016

Material	KVA	Primary Voltage	Secondary Voltage	Product Number
AL	15	240	208Y/120	9T17W0001
	22.5	240	208Y/120	9T17W0002
	30	240	208Y/120	9T17W0003
	15	480	208Y/120	9T17W0011
	22.5	480	208Y/120	9T17W0012
	30	480	208Y/120	9T17W0013
	15	600	208Y/120	9T17W0021
	22.5	600	208Y/120	9T17W0022
	30	600	208Y/120	9T17W0023
	15	240	208Y/120	9T17X0004
CU	22.5	240	208Y/120	9T17X0005
	30	240	208Y/120	9T17X0006
	15	480	208Y/120	9T17X0014
	22.5	480	208Y/120	9T17X0015
	30	480	208Y/120	9T17X0016
	15	600	208Y/120	9T17X0024
	22.5	600	208Y/120	9T17X0025
	30	600	208Y/120	9T17X0026

### Guard II Product Numbers - DOE 2016

Material	KVA	Primary Voltage	Secondary Voltage	Product Number
AL	15	480	208Y/120	9T17W1001G03
	30	480	208Y/120	9T17W1002G03
	45	480	208Y/120	9T17W1003G03
	75	480	208Y/120	9T17W1004G03
	112.5	480	208Y/120	9T17W1005G03
CU	15	480	208Y/120	9T17X1001G03
	30	480	208Y/120	9T17X1002G03
	45	480	208Y/120	9T17X1003G03
	75	480	208Y/120	9T17X1004G03
	112.5	480	208Y/120	9T17X1005G03



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