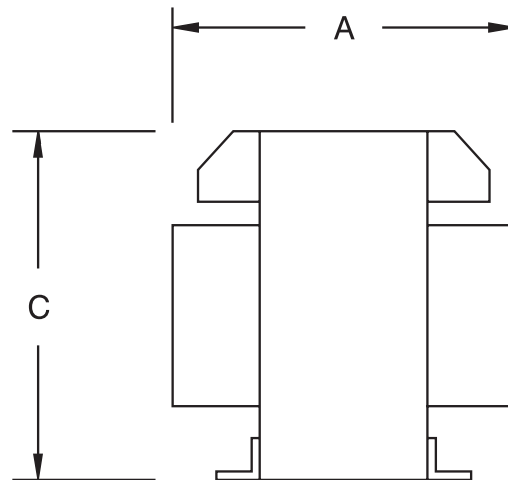
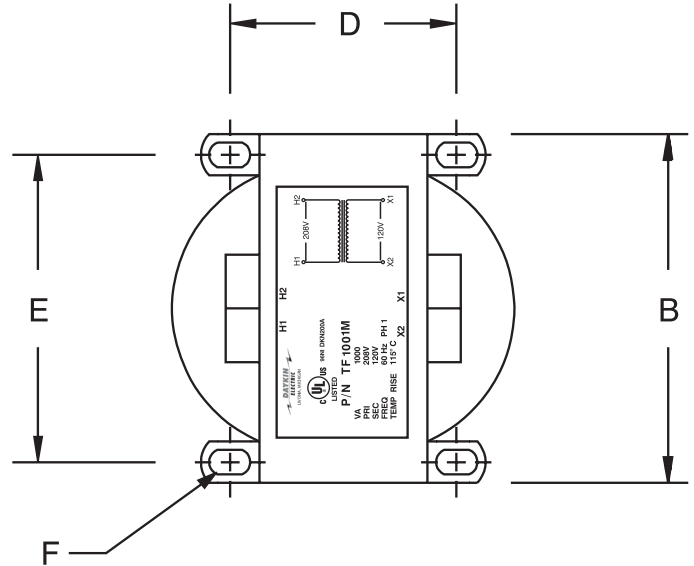


TRANSFORMERS

MACHINE TOOL & INDUSTRIAL CONTROL

SINGLE PHASE – OPEN CONSTRUCTION



Features

- us and us Listed (File No. E105527)
- 100% copper windings
- High quality silicon steel core material
- Slotted mounting for easy installation
- Easy access terminals that protect from accidental electrical contact

Machine Tool Transformer – TA Series

- 55 degree centigrade temperature rise
- Cooler operating temperature
- Superior secondary voltage regulation

Industrial Control Transformer – TF Series

- 115 degree centigrade temperature rise
- Outstanding secondary voltage regulation
- Compact size

MACHINE TOOL – SINGLE PHASE OPEN CONSTRUCTION – TA SERIES – 55° C RISE

TA Series

Primary		Secondary							
240/480V 230/460V 220/440V		120V 50/60 Hz 115V 50/60 Hz 55° C Rise 110V 50/60 Hz							
Part No.	VA Rating	A	B	C	D	E	F		
TA251	250	4.88	4.50	4.00	3.31	3.75	0.188 x 0.375		
TA501	500	5.25	5.25	4.50	4.00	4.38	0.281 x 0.406		
TA751	750	5.63	6.38	5.50	3.63	5.31	0.281 x 0.563		
TA1001	1000	6.63	6.38	5.50	4.63	5.31	0.281 x 0.563		
TA1501	1500	7.88	6.38	5.50	6.25	5.31	0.281 x 0.563		
TA2001	2000	8.75	7.50	6.50	6.56	5.50	0.375 x 1.000		
TA3001	3000	9.50	7.50	6.50	7.31	5.50	0.375 x 1.000		
TA5001	5000	10.75	9.00	9.00	7.56	6.50	0.375 x 1.000		

TA-K Series

Primary		Secondary							
480/575V		115V 50/60 Hz 55° C Rise							
Part No.	VA Rating	A	B	C	D	E	F		
TA251K	250	4.88	4.50	4.00	3.31	3.75	0.188 x 0.375		
TA501K	500	5.25	5.25	4.50	4.00	4.38	0.281 x 0.406		
TA751K	750	5.63	6.38	5.50	3.63	5.31	0.281 x 0.563		
TA1001K	1000	6.63	6.38	5.50	4.63	5.31	0.281 x 0.563		
TA1501K	1500	7.88	6.38	5.50	6.25	5.31	0.281 x 0.563		
TA2001K	2000	8.75	7.50	6.50	6.56	5.50	0.375 x 1.000		
TA3001K	3000	9.50	7.50	6.50	7.31	5.50	0.375 x 1.000		
TA5001K	5000	10.75	9.00	9.00	7.56	6.50	0.375 x 1.000		

TA-U Series

Pri.		Sec.							
208/220/230/240V 380/400/416/440/460/480V 500/550/575/600V		85/91/95/99V 100/110/115/120V 50/60/Hz 55°C Rise 125/130V							
Part No.	VA Rating	A	B	C	D	E	F		
TA251U	250	4.88	4.50	4.00	3.63	3.75	0.188 x 0.375		
TA501U	500	5.25	5.25	4.50	4.19	4.38	0.281 x 0.406		
TA751U	750	5.63	6.38	5.50	3.63	5.31	0.281 x 0.563		
TA1001U	1000	6.63	6.38	5.50	4.63	5.31	0.281 x 0.563		
TA1501U	1500	7.88	6.38	5.50	6.25	5.31	0.281 x 0.563		
TA2001U	2000	8.75	7.50	6.50	6.82	5.50	0.375 x 1.000		
TA3001U	3000	9.50	7.50	6.50	7.44	5.50	0.375 x 1.000		
TA5001U	5000	10.75	9.00	9.00	7.56	6.50	0.375 x 1.000		

TRANSFORMERS

INDUSTRIAL CONTROL – SINGLE PHASE OPEN CONSTRUCTION – TF SERIES –115° C RISE

TF Series

Primary		Secondary						
240/480V 230/460V 220/440V		120V 50/60 Hz 115V 50/60 Hz 55° C Rise 110V 50/60 Hz						
Part No.	VA Rating	A	B	C	D	E	F	
TF251	250	4.00	4.50	4.00	2.56	3.75	0.188 x 0.375	
TF501	500	4.50	5.25	4.50	3.06	4.38	0.281 x 0.406	
TF751	750	5.38	5.25	4.50	4.00	4.38	0.281 x 0.406	
TF1001	1000	5.38	6.38	5.50	3.25	5.31	0.281 x 0.563	
TF1501	1500	6.00	6.38	5.50	4.25	5.31	0.281 x 0.563	
TF2001	2000	6.88	6.38	5.50	4.94	5.31	0.281 x 0.563	
TF3001	3000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF5001	5000	8.50	9.00	9.00	5.44	6.50	0.375 x 1.000	

TF-K Series

Primary		Secondary						
480/575V		115V 50/60 Hz 55° C Rise						
Part No.	VA Rating	A	B	C	D	E	F	
TF251K	250	4.00	4.50	4.00	2.56	3.75	0.188 x 0.375	
TF501K	500	4.50	5.25	4.50	3.06	4.38	0.281 x 0.406	
TF751K	750	5.38	5.25	4.50	4.00	4.38	0.281 x 0.406	
TF1001K	1000	5.38	6.38	5.50	3.25	5.31	0.281 x 0.563	
TF1501K	1500	6.00	6.38	5.50	4.25	5.31	0.281 x 0.563	
TF2001K	2000	6.88	6.38	5.50	4.94	5.31	0.281 x 0.563	
TF3001K	3000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF5001K	5000	8.50	9.00	9.00	5.44	6.50	0.375 x 1.000	

TF-U Series

Pri.		Sec.						
208/220/230/240V 380/400/416/440/460/480V 500/550/575/600V		85/91/95/99V 100/110/115/120V 50/60/Hz 55°C Rise 125/130V						
Part No.	VA Rating	A	B	C	D	E	F	
TF251U	250	4.63	4.50	4.00	3.13	3.75	0.188 x 0.375	
TF501U	500	5.13	5.25	4.50	3.63	4.38	0.281 x 0.406	
TF751U	750	6.00	5.25	4.50	4.56	4.38	0.281 x 0.406	
TF1001U	1000	6.00	6.38	5.50	4.00	5.31	0.281 x 0.563	
TF1501U	1500	6.50	6.38	5.50	4.75	5.31	0.281 x 0.563	
TF2001U	2000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF3001U	3000	8.50	7.50	6.50	6.50	5.50	0.375 x 1.000	
TF5001U	5000	9.25	9.00	9.00	6.06	6.50	0.375 x 1.000	

TRANSFORMERS

INDUSTRIAL CONTROL – SINGLE PHASE

OPEN CONSTRUCTION – TF SERIES –115° C RISE

TF-J Series

Primary 230/460/575V				Secondary 115V 50/60 Hz 115°C Rise				
Part No.	VA Rating	A	B	C	D	E	F	
TF501J	500	4.50	5.25	4.50	3.06	4.38	0.281 x 0.406	
TF1001J	1000	5.38	6.38	4.50	3.25	5.31	0.281 x 0.563	
TF1501J	1500	6.00	6.38	5.50	4.25	5.31	0.281 x 0.563	
TF2001J	2000	6.38	6.38	5.50	4.94	5.31	0.281 x 0.563	
TF3001J	3000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF5001J	5000	8.50	9.00	9.00	5.44	6.50	0.375 x 1.000	

TF-L Series

Primary 230/460/575V				Secondary 110V 50/60 Hz 115°C Rise				
Part No.	VA Rating	A	B	C	D	E	F	
TF501L	500	4.50	5.25	4.50	3.06	4.38	0.281 x 0.406	
TF1001L	1000	5.38	6.38	4.50	3.25	5.31	0.281 x 0.563	
TF1501L	1500	6.00	6.38	5.50	4.25	5.31	0.281 x 0.563	
TF2001L	2000	6.38	6.38	5.50	4.94	5.31	0.281 x 0.563	
TF3001L	3000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF5001L	5000	8.50	9.00	9.00	5.44	6.50	0.375 x 1.000	

TF-M Series

Primary 230/460/575V				Secondary 120V 50/60 Hz 115°C Rise				
Part No.	VA Rating	A	B	C	D	E	F	
TF501M	500	4.50	5.25	4.50	3.06	4.38	0.281 x 0.406	
TF1001M	1000	5.38	6.38	4.50	3.25	5.31	0.281 x 0.563	
TF1501M	1500	6.00	6.38	5.50	4.25	5.31	0.281 x 0.563	
TF2001M	2000	6.38	6.38	5.50	4.94	5.31	0.281 x 0.563	
TF3001M	3000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF5001M	5000	8.50	9.00	9.00	5.44	6.50	0.375 x 1.000	

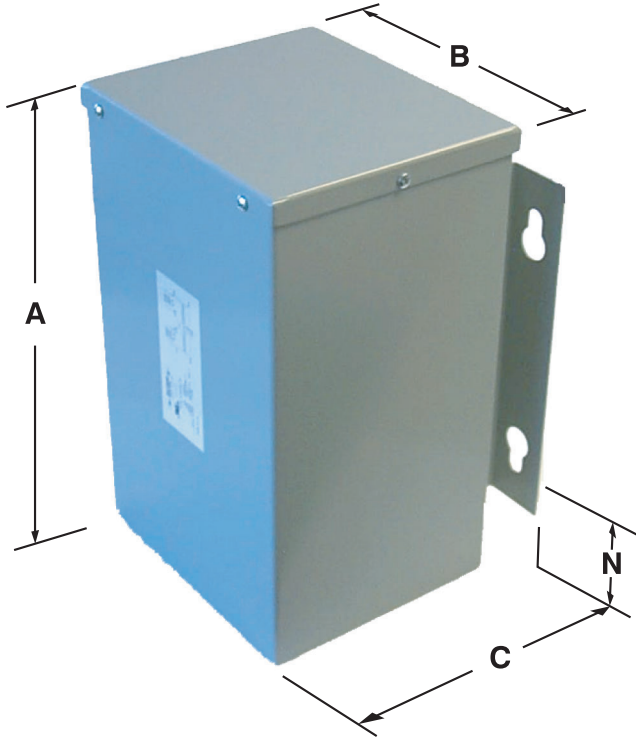
TF-Q Series

Primary 230/460/575V				Secondary 230VCT 50/60 Hz 115°C Rise				
Part No.	VA Rating	A	B	C	D	E	F	
TF501Q	500	4.50	5.25	4.50	3.06	4.38	0.281 x 0.406	
TF1001Q	1000	5.38	6.38	4.50	3.25	5.31	0.281 x 0.563	
TF1501Q	1500	6.00	6.38	5.50	4.25	5.31	0.281 x 0.563	
TF2001Q	2000	6.38	6.38	5.50	4.94	5.31	0.281 x 0.563	
TF3001Q	3000	7.63	7.50	6.50	5.63	5.50	0.375 x 1.000	
TF5001Q	5000	8.50	9.00	9.00	5.44	6.50	0.375 x 1.000	

TRANSFORMERS

MACHINE TOOL & INDUSTRIAL CONTROL

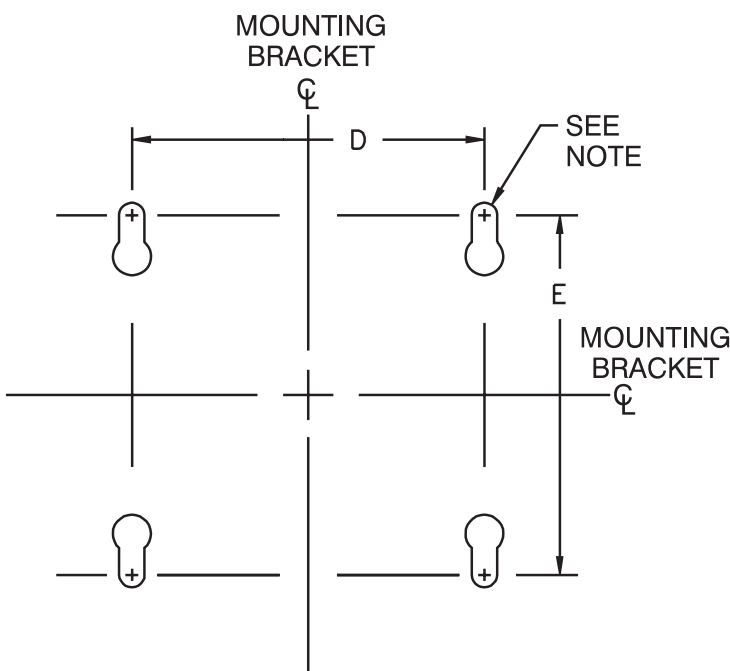
SINGLE PHASE – ENCLOSED



The Daykin Enclosed Machine Tool Transformers will accommodate most indoor applications. The coil and core are epoxy encapsulated and protected by a metal enclosure. This construction is particularly suitable where dirt or dust are present.

Features

- All copper windings
- Keyhole mounting for easy installation
- Lifting holes for convenient mounting
- Large cover and spacious connection compartment for ease of wiring
- Epoxy encapsulated to protect against environment
- High efficiency and excellent regulation
- Flexible insulated lead wire, 12" length
- **C**  **US** insulation system (File No. 95780)



Keyhole note: 1000 VA and 1500 VA – 3/8" bolt
2000 VA through 7500 VA – 1/2" bolt.

TRANSFORMERS

MACHINE TOOL & INDUSTRIAL CONTROL

SINGLE PHASE – ENCLOSED

TA-E Series

Primary		Secondary					
240/480V 230/460V 220/440V		120V 50/60 Hz 115V 50/60 Hz 55°C Rise 110V 50/60 Hz					
Part No.	VA Rating	A	B	C	D	E	N
TA1001E	1000	12.25	7.63	8.50	5.38	6.56	2.25
TA1501E	1500	12.25	7.63	8.50	5.38	6.56	2.25
TA2001E	2000	13.75	8.75	9.38	6.50	7.88	2.31
TA3001E	3000	13.75	8.75	9.38	6.50	7.88	2.31
TA5001E	5000	17.25	10.25	10.63	7.88	11.00	2.50
TA7501E	7500	17.25	10.25	10.63	7.88	11.00	2.50

TA-EK Series

Primary		Secondary					
480/575V		115V 50/60 Hz 55°C Rise					
Part No.	VA Rating	A	B	C	D	E	N
TA1001EK	1000	12.25	7.63	8.50	5.38	6.56	2.25
TA1501EK	1500	12.25	7.63	8.50	5.38	6.56	2.25
TA2001EK	2000	13.75	8.75	9.38	6.50	7.88	2.31
TA3001EK	3000	13.75	8.75	9.38	6.50	7.88	2.31
TA5001EK	5000	17.25	10.25	10.63	7.88	11.00	2.50
TA7501EK	7500	17.25	10.25	10.63	7.88	11.00	2.50

TF-E Series

Primary		Secondary					
240/480V 230/460V 220/440V		120V 50/60 Hz 115V 50/60 Hz 115° C Rise 110V 50/60 Hz					
Part No.	VA Rating	A	B	C	D	E	N
TF1001E	1000	12.25	7.63	8.50	5.38	6.56	2.25
TF1501E	1500	12.25	7.63	8.50	5.38	6.56	2.25
TF2001E	2000	13.75	8.75	9.38	6.50	7.88	2.31
TF3001E	3000	13.75	8.75	9.38	6.50	7.88	2.31
TF5001E	5000	17.25	10.25	10.63	7.88	11.00	2.50
TF7501E	7500	17.25	10.25	10.63	7.88	11.00	2.50

TF-EK Series

Primary		Secondary					
480/575V		115V 50/60 Hz 115°C Rise					
Part No.	VA Rating	A	B	C	D	E	N
TF1001EK	1000	12.25	7.63	8.50	5.38	6.56	2.25
TF1501EK	1500	12.25	7.63	8.50	5.38	6.56	2.25
TF2001EK	2000	12.25	7.63	8.50	5.38	6.56	2.25
TF3001EK	3000	13.75	8.75	9.38	6.50	7.88	2.31
TF5001EK	5000	17.25	10.25	10.63	7.88	11.00	2.50
TF7501EK	7500	17.25	10.25	10.63	7.88	11.00	2.50

TRANSFORMERS

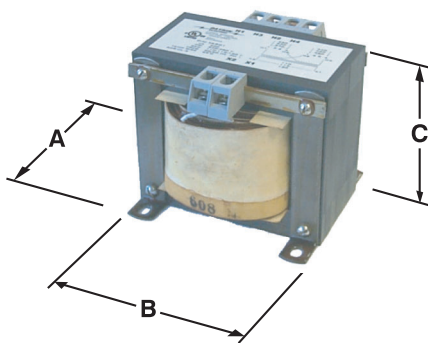
GENERAL PURPOSE – SINGLE PHASE

OPEN & ENCLOSED CONSTRUCTION

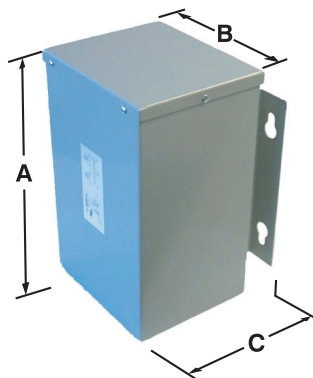
Daykin General Purpose Transformers are available in designs suitable for indoor or outdoor service. They are perfect for general applications such as lighting, heating and equipment loads in commercial office buildings and industrial plants.

Features

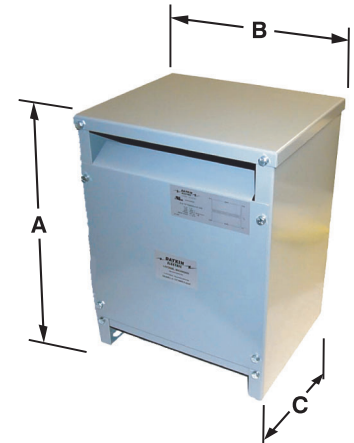
- Open construction available for use where adverse conditions do not exist or for mounting in existing enclosure.
- Enclosure construction available for use where dirt, corrosion or weather may be a factor.
- Enclosed units from 250 VA through 10 KVA are epoxy encapsulated in wall mount metal enclosures.
- Enclosed units from 15 KVA through 225 KVA are floor mount, ventilated construction.
- Many non-standard designs are available. Contact the factory for further information.
- US insulation system (File No. 95780).



Type A
OPEN CONSTRUCTION



Type B
ENCAPSULATED CONSTRUCTION

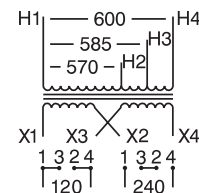


Type C
ENCLOSED VENTILATED CONSTRUCTION

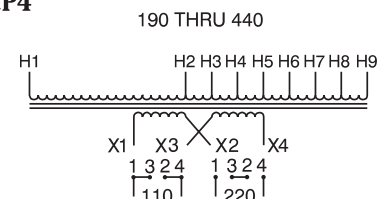
Single Phase Enclosed Construction					
570/585/600 Volt					
Primary 570/585/600V		Secondary 120/240V 60 Hz 115° C Rise			
KVA Rating	Part Number	A	B	C	Const. Type
1	TF1000EN-1017	12.25	7.63	8.50	B
3	TF3000EN-1018	13.75	8.75	9.38	B
5	TF5000EN-1019	17.25	10.25	10.63	B
7.5	TF7500EN-1020	17.25	10.25	10.63	B

Single Phase Enclosed Construction					
Multiple Volt					
Primary 190/200/208/220/380/400/416/440V		Secondary 110/220V 50/60 Hz 115° C Rise			
KVA Rating	Part Number	A	B	C	Const. Type
1	TF1000EN-1026	12.25	7.63	8.50	B
3	TF3000EN-1027	13.75	8.75	9.38	B
5	TF5000EN-1028	17.25	10.25	10.63	B
7.5	TF7500EN-1029	17.25	10.25	10.63	B

GP3



GP4



TRANSFORMERS

GENERAL PURPOSE – SINGLE PHASE

OPEN & ENCLOSED CONSTRUCTION

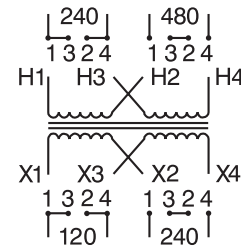
240/480 Volt - Single Phase

Primary 240/480V - Secondary 120/240V - 60 Hz - TF 115°C Rise/TH 150°C Rise

Open Construction

KVA Rating	Part No.	A	B	C	Const. Type	Elec. Conn.	
.250	TF250P	4.00	4.50	4.00	A	GP1	
.500	TF500P	4.38	5.25	4.50	A	GP1	
.750	TF750P	5.00	5.25	4.50	A	GP1	
1.00	TF1000P	5.00	6.38	5.50	A	GP1	
1.5	TF1500P	5.50	6.38	5.50	A	GP1	
2	TF2000P	6.75	6.38	5.50	A	GP1	
3	TF3000P	7.00	7.50	6.50	A	GP1	
5	TF5000P	7.75	9.00	7.88	A	GP1	
7.5	TF7500P	9.00	9.00	7.88	A	GP1	
10	TF10000P	11.00	9.00	7.88	A	GP1	
15	TH15000P	Contact The Factory			A	GP2	Contact The Factory
25	TH25000P				A	GP2	
37.5	TH37500P				A	GP2	
50	TH50000P				A	GP2	
75	TH75000P				A	GP2	
100	TH100000P				A	GP2	

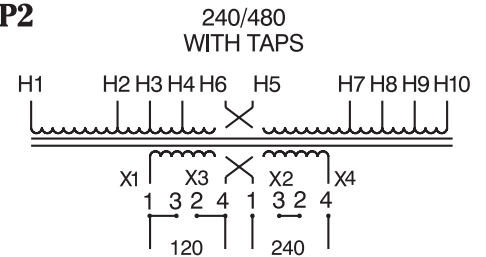
GP1



Enclosed Construction

KVA Rating	Part No.	A	B	C	Const. Type	Elec. Conn.	
.250	TF250EP	9.25	5.50	6.13	B	GP1	
.500	TF500EP	10.25	6.25	6.75	B	GP1	
.750	TF750EP	10.25	6.25	6.75	B	GP1	
1.00	TF1000EP	12.25	7.63	8.50	B	GP1	
1.5	TF1500EP	12.25	7.63	8.50	B	GP1	
2	TF2000EP	12.25	7.63	8.50	B	GP1	
3	TF3000EP	13.75	8.75	9.38	B	GP1	
5	TF5000EP	17.25	10.25	10.63	B	GP1	
7.5	TF7500EP	17.25	10.25	10.63	B	GP1	
10	TF10000EP	17.25	10.25	10.63	B	GP1	
15	TH15000EP	22.25	16.25	14.25	C	GP2	
25	TH25000EP	24.25	20.25	18.25	C	GP2	
37.5	TH37500EP	24.25	20.25	18.25	C	GP2	Contact The Factory
50	TH50000EP	24.25	20.25	18.25	C	GP2	
75	TH75000EP	27.25	25.25	24.25	C	GP2	
100	TH100000EP	27.25	25.25	24.25	C	GP2	

GP2




TRANSFORMERS

GENERAL PURPOSE

THREE PHASE ENCLOSED

Features

- Large wiring compartment with access panel for convenient installation
- All copper windings
- High quality silicon steel core for high efficiency and excellent performance
- Available for indoor and outdoor service
- Isolated windings for separate circuit protection
- 3 KVA to 6 KVA Transformers are Type D construction
- 9 KVA & Up Transformers are Type C construction
-  us insulation system (File No. 95780)

Applications

Daykin Three Phase General Purpose Transformers are suitable for most installations. Typical applications include commercial, institutional, construction and industrial service.

Options

- Open core and coil construction
- Electrostatic shield
- Special enclosures, including non-ventilated designs and galvanized construction
- Special voltage or frequency requirements

Contact the factory for more information on these and other special design requirements.

KVA Rating	480 Δ 208Y / 120	480 Δ 240Y / 139	240/480 Δ 240Y / 139	240/480 Δ 208Y / 120
3	D3EA	D3EB	D3EC	D3ED
6	D6EA	D6EB	D6EC	D6ED
9	D9EA	D9EB	D9EC	D9ED
15	D15EA	D15EB	D15EC	D15ED
25	D25EA	D25EB	D25EC	D25ED
30	D30EA	D30EB	D30EC	D30ED
37.5	D37EA	D37EB	D37EC	D37ED
45	D45EA	D45EB	D45EC	D45ED
50	D50EA	D50EB	D50EC	D50ED
75	D75EA	D75EB	D75EC	D75ED
100	D100EA	D100EB	D100EC	D100ED
112.5	D112EA	D112EB	D112EC	D112ED
150	D150EA	D150EB	D150EC	D150ED
225	D225EA	D225EB	D225EC	D225ED
Pg. 75	Elec. Conn. # 1	Elec. Conn. # 1	Elec. Conn. # 3	Elec. Conn. # 3

Standard Three Phase

- 60 Hz
- 1-15 KVA 115° C Rise
- 20 KVA and up 150° C Rise

KVA Rating	480 Δ 480Y / 277	600 Δ 208Y / 120	600 Δ 240Y / 139	480 Δ 240 / 120CT
3	D3EF	D3EJ	D3EK	D3EP
6	D6EF	D6EJ	D6EK	D6EP
9	D9EF	D9EJ	D9EK	D9EP
15	D15EF	D15EJ	D15EK	D15EP
25	D25EF	D25EJ	D25EK	D25EP
30	D30EF	D30EJ	D30EK	D30EP
37.5	D37EF	D37EJ	D37EK	D37EP
45	D45EF	D45EJ	D45EK	D45EP
50	D50EF	D50EJ	D50EK	D50EP
75	D75EF	D75EJ	D75EK	D75EP
100	D100EF	D100EJ	D100EK	D100EP
112.5	D112EF	D112EJ	D112EK	D112EP
150	D150EF	D150EJ	D150EK	D150EP
225	D225EF	D225EJ	D225EK	D225EP
Pg. 75	Elec. Conn. # 1	Elec. Conn. # 1	Elec. Conn. # 1	Elec. Conn. # 2

TRANSFORMERS

MOTOR DRIVE ISOLATION

THREE PHASE ENCLOSED

In addition to the below standard drive isolation transformers, Daykin has the capability of manufacturing isolation transformers for all major drives.

KVA Rating	Motor HP	Primary 230V Delta				Primary 460V Delta			
		Secondary				Secondary			
		230V Y		460V Y		230V Y		460V Y	
3	2	D3EN-895		D3EN-912		D3EN-929		D3EN-946	
6	3	D6EN-896		D6EN-913		D6EN-930		D6EN-947	
7.5	5	D7EN-897		D7EN-914		D7EN-931		D7EN-948	
11	7.5	D11EN-898		D11EN-915		D11EN-932		D11EN-949	
15	10	D15EN-899		D15EN-916		D15EN-933		D15EN-950	
20	15	D20EN-900		D20EN-917		D20EN-934		D20EN-951	
27	20	D27EN-901		D27EN-918		D27EN-935		D27EN-952	
34	25	D34EN-902		D34EN-919		D34EN-936		D34EN-953	
40	30	D40EN-903		D40EN-920		D40EN-937		D40EN-954	
51	40	D51EN-904		D51EN-921		D51EN-938		D51EN-955	
63	50	D63EN-905		D63EN-922		D63EN-939		D63EN-956	
75	60	D75EN-906		D75EN-923		D75EN-940		D75EN-957	
93	75	D93EN-907		D93EN-924		D93EN-941		D93EN-958	
118	100	D118EN-908		D118EN-925		D118EN-942		D118EN-959	
145	125	D145EN-909		D145EN-926		D145EN-943		D145EN-960	
175	150	D175EN-910		D175EN-927		D175EN-944		D175EN-961	
220	200	D220EN-911		D220EN-928		D220EN-945		D220EN-962	

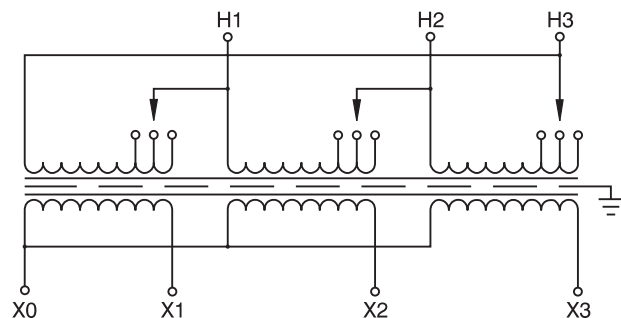
Features

- All copper windings
- Extra coil support to withstand mechanical forces associated with SCR drive duty cycles.
- Isolated windings to help deliver a clean wave to the drive and to aid in keeping SCR controller from sending transients into the line.
- Electrostatically shielded to reduce noise between the primary and secondary windings.
- Full capacity primary taps (1) 5% FCAN, (1) 5% FCBN
- us insulation system (File No. 95780).

KVA Rating	Motor HP	Primary 575V Delta			
		Secondary			
		230V Y		460V Y	
3	2	D3EN-963		D3EN-980	
6	3	D6EN-964		D6EN-981	
7.5	5	D7EN-965		D7EN-982	
11	7.5	D11EN-966		D11EN-983	
15	10	D15EN-967		D15EN-984	
20	15	D20EN-968		D20EN-985	
27	20	D27EN-969		D27EN-986	
34	25	D34EN-970		D34EN-987	
40	30	D40EN-971		D40EN-988	
51	40	D51EN-972		D51EN-989	
63	50	D63EN-973		D63EN-990	
75	60	D75EN-974		D75EN-991	
93	75	D93EN-975		D93EN-992	
118	100	D118EN-976		D118EN-993	
145	125	D145EN-977		D145EN-994	
175	150	D175EN-978		D175EN-995	
220	200	D220EN-979		D220EN-996	

Standard Three Phase

- 60 Hz
- 1-15 KVA 115° C Rise
- 20 KVA and up 150° C Rise

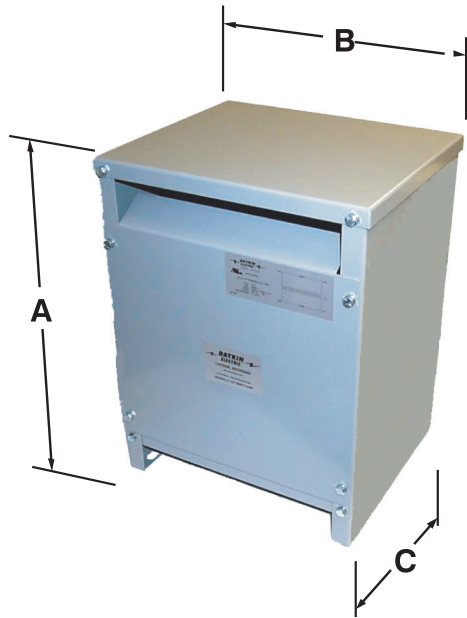


TRANSFORMERS

GENERAL PURPOSE & MOTOR DRIVE ISOLATION – THREE PHASE ENCLOSED

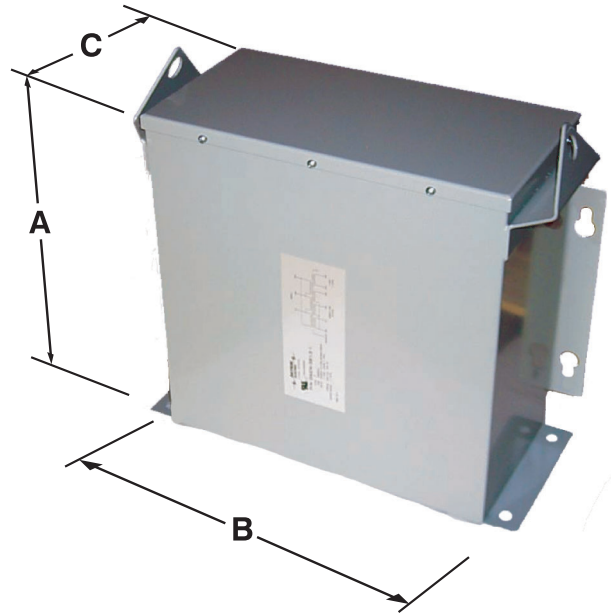
Specifications and Dimensions

KVA Rating	Dimensions			Temperature Rise (°C)	Construction Type
	A	B	C		
3	13.50	14.75	7.50	115	D
6	13.50	19.00	7.50	115	D
7.5	17.50	19.00	7.50	115	D
9 – 15	22.25	16.25	14.25	115	C
20 – 37.5	24.25	20.25	18.25	150	C
40 – 63	28.50	25.00	24.25	150	C
75 – 150	Contact the Factory			150	C
175 – 225	Contact the Factory			150	C



Type C

ENCLOSED VENTILATED CONSTRUCTION



Type D

ENCAPSULATED CONSTRUCTION


TRANSFORMERS

AUTOTRANSFORMERS – SINGLE & THREE PHASE OPEN & ENCLOSED CONSTRUCTION

When A Simple Voltage Adjustment Is Required Without The Need For Isolation

The Daykin Autotransformer is used when a simple voltage adjustment is required without the need for isolation. This device has only one winding per phase. Part of the winding is common to both primary and secondary circuits, thus providing no isolation.

Features

-  us insulation system (File No. E95780)
- All copper windings
- High quality silicon steel core material
- 150 degree centigrade temperature rise rating

- Compact size
- Non-isolated windings

Single Phase Enclosed

- 1-10 KVA in epoxy encapsulated enclosure
- 15-50 KVA in ventilated enclosure

Three Phase Enclosed

- 9 KVA in epoxy encapsulated enclosure
- 15-150 KVA in ventilated enclosure

Single Phase 60 Hz

KVA Rating	120/240/480V				120/240/600V			
	Open		Enclosed		Open		Enclosed	
1	TH1000N-1151		TH1000EN-1152		TH1000N-1167		TH1000EN-1168	
3	TH3000N-1153		TH3000EN-1154		TH3000N-1169		TH3000EN-1170	
5	TH5000N-1155		TH5000EN-1156		TH5000N-1171		TH5000EN-1172	
7.5	TH7500N-1157		TH7500EN-1158		TH7500N-1173		TH7500EN-1174	
10	TH10000N-1159		TH10000EN-1160		TH10000N-1175		TH10000EN-1176	
15	TH15000N-1161		TH15000EN-1162		TH15000N-1177		TH15000EN-1178	
25	TH25000N-1163		TH25000EN-1164		TH25000N-1179		TH25000EN-1180	
50	TH50000N-1165		TH50000EN-1166		TH50000N-1181		TH50000EN-1182	
Pg. 75	Elec. Conn. # 4		Elec. Conn. # 4		Elec. Conn. # 4		Elec. Conn. # 4	

Three Phase 60 Hz

KVA Rating	240/480V Y				208/240/480/600V Y			
	Open		Enclosed		Open		Enclosed	
9	D9N-1199		D9EN-1200		D9N-1217		D9EN-1218	
15	D15N-1201		D15EN-1202		D15N-1219		D15EN-1220	
25	D25N-1203		D25EN-1204		D25N-1221		D25EN-1222	
30	D30N-1205		D30EN-1206		D30N-1223		D30EN-1224	
37.5	D37N-1207		D37EN-1208		D37N-1225		D37EN-1226	
50	D50N-1209		D50EN-1210		D50N-1227		D50EN-1228	
75	D75N-1211		D75EN-1212		D75N-1229		D75EN-1230	
100	D100N-1213		D100EN-1214		D100N-1231		D100EN-1232	
150	D150N-1215		D150EN-1216		D150N-1233		D150EN-1234	
Pg. 75	Elec. Conn. # 5		Elec. Conn. # 5		Elec. Conn. # 6		Elec. Conn. # 6	

TRANSFORMERS

ELECTRICAL CONNECTIONS & SCHEMATICS

<p>1</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 3-30 KVA</th> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 37.5 KVA UP</th> <th style="text-align: left; border-bottom: 1px solid black;">CONNECT H1, H2 & H3 TO TAP OF PRECEEDING WINDING</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">-</td><td style="text-align: center;">-10%</td><td style="text-align: center;">7</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">-7.5%</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">-5%</td><td style="text-align: center;">5</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">-2.5%</td><td style="text-align: center;">4</td></tr> <tr><td style="text-align: center;">-2.5%</td><td style="text-align: center;">NOMINAL</td><td style="text-align: center;">3</td></tr> <tr><td style="text-align: center;">NOMINAL</td><td style="text-align: center;">+2.5%</td><td style="text-align: center;">2</td></tr> <tr><td style="text-align: center;">+2.5%</td><td style="text-align: center;">+5%</td><td style="text-align: center;">1</td></tr> </tbody> </table> <p>CONNECT INPUT LINES TO H1, H2, H3 OUTPUT LINES ARE X1, X2, X3</p>	PRIMARY VOLTS 3-30 KVA	PRIMARY VOLTS 37.5 KVA UP	CONNECT H1, H2 & H3 TO TAP OF PRECEEDING WINDING	-	-10%	7	-	-7.5%	6	-	-5%	5	-	-2.5%	4	-2.5%	NOMINAL	3	NOMINAL	+2.5%	2	+2.5%	+5%	1	<p>2</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 3-30 KVA</th> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 37.5 KVA UP</th> <th style="text-align: left; border-bottom: 1px solid black;">CONNECT H1, H2 & H3 TO TAP OF PRECEEDING WINDING</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">-</td><td style="text-align: center;">432</td><td style="text-align: center;">7</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">444</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">456</td><td style="text-align: center;">5</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">468</td><td style="text-align: center;">4</td></tr> <tr><td style="text-align: center;">468</td><td style="text-align: center;">480</td><td style="text-align: center;">3</td></tr> <tr><td style="text-align: center;">480</td><td style="text-align: center;">492</td><td style="text-align: center;">2</td></tr> <tr><td style="text-align: center;">492</td><td style="text-align: center;">504</td><td style="text-align: center;">1</td></tr> </tbody> </table> <p>CONNECT INPUT LINES TO H1, H2, H3 OUTPUT LINES FOR 240 V ARE X1, X2, X3 WITH 120V FROM X4 TO X1 OR X2</p>	PRIMARY VOLTS 3-30 KVA	PRIMARY VOLTS 37.5 KVA UP	CONNECT H1, H2 & H3 TO TAP OF PRECEEDING WINDING	-	432	7	-	444	6	-	456	5	-	468	4	468	480	3	480	492	2	492	504	1
PRIMARY VOLTS 3-30 KVA	PRIMARY VOLTS 37.5 KVA UP	CONNECT H1, H2 & H3 TO TAP OF PRECEEDING WINDING																																															
-	-10%	7																																															
-	-7.5%	6																																															
-	-5%	5																																															
-	-2.5%	4																																															
-2.5%	NOMINAL	3																																															
NOMINAL	+2.5%	2																																															
+2.5%	+5%	1																																															
PRIMARY VOLTS 3-30 KVA	PRIMARY VOLTS 37.5 KVA UP	CONNECT H1, H2 & H3 TO TAP OF PRECEEDING WINDING																																															
-	432	7																																															
-	444	6																																															
-	456	5																																															
-	468	4																																															
468	480	3																																															
480	492	2																																															
492	504	1																																															
<p>3</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS</th> <th style="text-align: left; border-bottom: 1px solid black;">CONNECT</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">240</td> <td style="text-align: center;">H1 & H3, H4 & H6, H7 & H2, H1 & H5, H4 & H8, H7 & H9</td> </tr> <tr> <td style="text-align: center;">480</td> <td style="text-align: center;">H2 & H3, H5 & H6, H8 & H9</td> </tr> </tbody> </table> <p>CONNECT INPUT LINES TO H1, H4, H7 OUTPUT LINES ARE X1, X2, X3</p>	PRIMARY VOLTS	CONNECT	240	H1 & H3, H4 & H6, H7 & H2, H1 & H5, H4 & H8, H7 & H9	480	H2 & H3, H5 & H6, H8 & H9	<p>4</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 1-7.5 KVA</th> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 10 KVA UP</th> <th style="text-align: left; border-bottom: 1px solid black;">CONNECT INPUT LINES TO</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">NOMINAL</td> <td style="text-align: center;">NOMINAL</td> <td style="text-align: center;">H0 & H1</td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">-2.5%</td> <td style="text-align: center;">H0 & H2</td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">-5%</td> <td style="text-align: center;">H0 & H3</td> </tr> </tbody> </table>	PRIMARY VOLTS 1-7.5 KVA	PRIMARY VOLTS 10 KVA UP	CONNECT INPUT LINES TO	NOMINAL	NOMINAL	H0 & H1	-	-2.5%	H0 & H2	-	-5%	H0 & H3																														
PRIMARY VOLTS	CONNECT																																																
240	H1 & H3, H4 & H6, H7 & H2, H1 & H5, H4 & H8, H7 & H9																																																
480	H2 & H3, H5 & H6, H8 & H9																																																
PRIMARY VOLTS 1-7.5 KVA	PRIMARY VOLTS 10 KVA UP	CONNECT INPUT LINES TO																																															
NOMINAL	NOMINAL	H0 & H1																																															
-	-2.5%	H0 & H2																																															
-	-5%	H0 & H3																																															
<p>5</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 3-30 KVA</th> <th style="text-align: left; border-bottom: 1px solid black;">PRIMARY VOLTS 37.5 KVA UP</th> <th style="text-align: left; border-bottom: 1px solid black;">CONNECT INPUT ACROSS</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">-</td><td style="text-align: center;">468</td><td style="text-align: center;">1, 2, 3</td></tr> <tr><td style="text-align: center;">480</td><td style="text-align: center;">480</td><td style="text-align: center;">H1, H2, H3</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">492</td><td style="text-align: center;">4, 5, 6</td></tr> </tbody> </table> <p>OUTPUT IS 240V ACROSS X1, X2, X3</p>	PRIMARY VOLTS 3-30 KVA	PRIMARY VOLTS 37.5 KVA UP	CONNECT INPUT ACROSS	-	468	1, 2, 3	480	480	H1, H2, H3	-	492	4, 5, 6	<p>6</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">VOLTAGE</th> <th style="text-align: left; border-bottom: 1px solid black;">USE</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">208</td><td style="text-align: center;">X1, X3, X5</td></tr> <tr><td style="text-align: center;">240</td><td style="text-align: center;">X2, X4, X6</td></tr> <tr><td style="text-align: center;">480</td><td style="text-align: center;">H1, H3, H5</td></tr> <tr><td style="text-align: center;">600</td><td style="text-align: center;">H2, H4, H6</td></tr> </tbody> </table>	VOLTAGE	USE	208	X1, X3, X5	240	X2, X4, X6	480	H1, H3, H5	600	H2, H4, H6																										
PRIMARY VOLTS 3-30 KVA	PRIMARY VOLTS 37.5 KVA UP	CONNECT INPUT ACROSS																																															
-	468	1, 2, 3																																															
480	480	H1, H2, H3																																															
-	492	4, 5, 6																																															
VOLTAGE	USE																																																
208	X1, X3, X5																																																
240	X2, X4, X6																																																
480	H1, H3, H5																																																
600	H2, H4, H6																																																

PART NUMBER EXPLANATION

T

DESIGNATES
SINGLE PHASE
TRANSFORMER

A

TEMPERATURE
RISE

- A – 55° C RISE
- B – 80° C RISE
- F – 115° C RISE
- H – 150° C RISE

3001

VA
RATING
(3000)

E

ENCLOSED

NO SUFFIX
FOR OPEN
CONSTRUCTION WITH
TERMINALS

N 123*

VOLTAGE RATING

- N-NON STANDARD, MUST BE ACCOMPANIED BY 3 OR 4 DIGIT MFG. NO.*
- J-230/460/575 – 115
- K-460/575 – 115
- L-380 – 110
- M-208 – 120
- P-240 x 480-240/120
- Q-460-230 CT
- U-UNIVERSAL
PRI 208-600V SEC 85-130V
- NO SUFFIX FOR
230/460 – 115 TRIPLE RATED

D

DESIGNATES
THREE PHASE
TRANSFORMER

75

KVA
RATING

E

ENCLOSED

NO SUFFIX
FOR OPEN
CONSTRUCTION WITH
TERMINALS

N 123*

VOLTAGE RATING

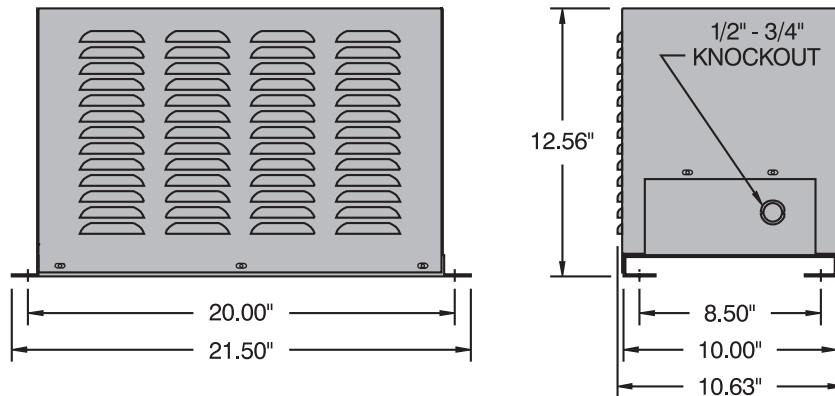
- N-NON STANDARD, MUST BE ACCOMPANIED BY 3 OR 4 DIGIT MFG. NO.*
- A-480 Δ – 208Y/120
- B-480 Δ – 240Y
- C-240/480 Δ – 240Y
- D-240/480 Δ – 208-120Y
- F-480 Δ – 480Y/277
- J-600 Δ – 208Y/120
- K-600 Δ – 240Y
- P-480 Δ – 240YΔ/120 CT
4 WIRE

*** NOTE:** NON-STANDARD TEMP RISE
NON-STANDARD VOLTAGE OR FREQUENCY
NON-STANDARD ENCLOSURE
NON-STANDARD TAPS, SHIELDING, ETC.
FUSE CLIP OPTION ON SECONDARY

The Daykin Constant Voltage Transformer will provide a highly regulated sine wave output with low harmonic distortion. This device is commonly used in applications where wave shape and voltage regulation are of primary importance.

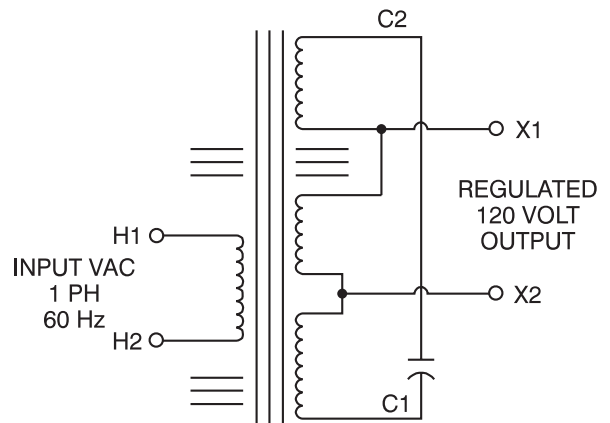
Features

- Voltage regulation $\pm 3\%$ for an input variation of $\pm 15\%$
- Low harmonic distortion
- 500 VA through 3000 VA
- Input 120 VAC or 480 VAC
- NEMA 1 enclosed
- Single phase – 60 Hz
- Typical efficiency 90%



Type CV – 60 Hz Single Phase 120 Volt Output Regulated $\pm 3\%$

VA Rating	Nominal Input Voltage	Part Number	Approx. Wt. (LBS)	
500	120	CV500-120	97	
1000	120	CV1000-120	125	
1500	120	CV1500-120	152	
2000	120	CV2000-120	171	
3000	120	CV3000-120	239	
500	480	CV500-480	96	
1000	480	CV1000-480	124	
1500	480	CV1500-480	147	
2000	480	CV2000-480	180	
3000	480	CV3000-480	223	



Single Phase

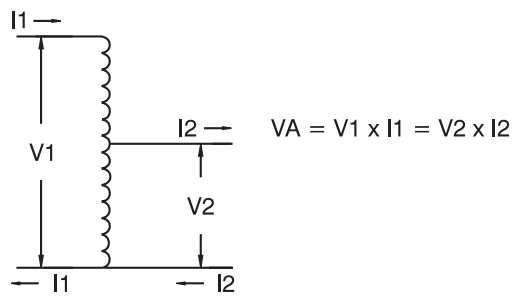
$$\text{KVA} = \frac{\text{Volts} \times \text{Amps}}{1000}$$

$$\% \text{ Efficiency} = \frac{\text{Power Out}}{\text{Power In}} \times 100$$

$$\text{Kilowatts} = \frac{\text{Volts} \times \text{Amps} \times \text{P.F.}}{1000}$$

$$\text{Horsepower} = \frac{\text{Volts} \times \text{Amps} \times \% \text{ Eff.} \times \text{P.F.}}{746}$$

Autotransformers



Autotransformer – is a transformer with one winding per phase. Part of the winding is common to both primary and secondary circuits, thus providing no isolation.

Core Loss – Losses due to magnetization of the core and eddy currents produced within the core.

Delta (Δ) – A common three phase connection in which the start of one winding is connected to the finish of the previous winding to form a closed loop.

Dry Type Transformer – is a transformer which uses air as a cooling medium.

Efficiency – The ratio of input power to output power usually expressed as a percentage.

Electrostatic Shield – a grounded copper foil or sheet placed between two windings to reduce noise between the windings or the windings and ground.

Exciting Current – The current which flows in the primary with the load disconnected, ie. The current necessary to energize the core.

FCAN – Full capacity above normal taps.

FCBN – Full capacity below normal taps.

Impedance – The current limiting characteristic of a transformer, usually expressed as a percentage.

Industrial Control Transformer – A transformer with excellent regulation and current inrush characteristics.

Inrush Current – Initial start-up current of a device, usually exceeding the name plate rating.

Insulating Transformer – Same as isolation transformer.

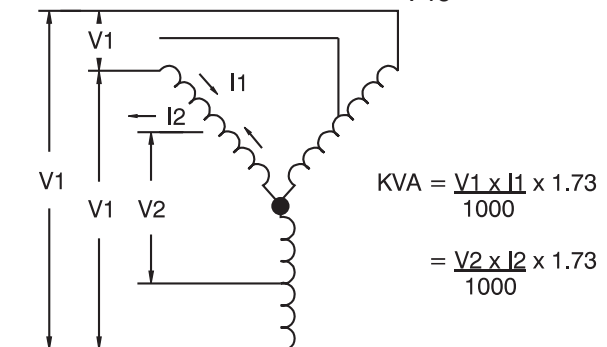
Three Phase

$$\text{KVA} = \frac{\text{Volts} \times \text{Amps} \times 1.73}{1000}$$

$$\% \text{ Efficiency} = \frac{\text{Power Out}}{\text{Power In}} \times 100$$

$$\text{Kilowatts} = \frac{\text{Volts} \times \text{Amps} \times 1.73 \times \text{P.F.}}{1000}$$

$$\text{Horsepower} = \frac{\text{Volts} \times \text{Amps} \times 1.73 \times \% \text{ Eff.} \times \text{P.F.}}{746}$$



Isolation Transformer – A transformer which insulates the primary winding from the secondary winding.

KVA – Kilo volt ampere rating. Indicates the output a transformer can deliver.

Machine Tool Transformer – A well regulated low reactance transformer. A low temperature rise and the best choice for very high inrush applications.

Motor Drive Isolation Transformer – A three phase transformer specifically designed to match motor drive horsepower requirements and additional impedance.


NEMA – National Electrical Manufacturers Association.

Primary Winding – Source side winding of a transformer.

Regulation (Voltage) – Is the difference between no load voltage and full load voltage and is usually expressed as a percentage.

Secondary Winding – Load side winding of a transformer.

Temperature Rise – Refers to the increase in operating temperature over ambient of a transformer due to load. Conventionally measured in degrees centigrade.

 – Underwriters Laboratories Inc. An independent testing organization.

 – UL listed to Canadian safety standards

WYE (Y) – A common secondary connection for three phase transformers in which the start of each winding is tied together. The load is then connected to the finish of each winding. Three phase autotransformers commonly use the WYE configuration.