



Where electrical isolation is not required between the supply and load, one can match the supply voltage to load voltage through a step up or step down autotransformer. Autotransformers have a portion of their winding common to the input (supply) side and output (load) side and hence cannot be used where electrical isolation is required.

There are few advantages of auto transformers over isolation transformers:

1. Relatively smaller size for the same throughput kVA
2. Both no load loss and load loss are much less than same kVA isolation transformer
3. No phase shift between input and output voltage of a three phase transformer when wye connected configuration is used

Hammond Power Solutions Inc. has a line of standard three phase autotransformers. The windings are Wye connected but they are suitable for connection to a Delta system. Higher voltage terminals are marked with "H" and lower voltage terminals with "X" designation (see the attached name plate drawing). For step down functions, the supply would be connected to "H" terminals and output to the "X" terminals. This is also the case, for step up functions. The supply would then be connected to the "X" terminals and output to the "H" terminals. There is zero degree phase shift between input and output voltages in both step up and step down functions unlike isolation transformers that have a standard minus 30 degree phase shift.

The neutral point is not brought out on HPS autotransformers. An optional neutral may be requested at the time of order for connection to a protection device or connection to the system neutral.

Grounding the neutral of the autotransformer may create a multiple grounding situation and would be against the electrical codes in North America. This needs to be reviewed with your respective local inspection agency.

		Hammond Power Solutions Inc.		LR 3902 DRY TYPE TRANSFORMER 252L E50394 LISTED	
GUELPH, ONT. BARABOO, WI COMPTON, CA MONTERREY, MX					
THREE PHASE DRY TYPE AUTOTRANSFORMER AUTOTRANSFORMATEUR SEC TRIPHASE					
HV/HT	600V			Cust. Ref. Réf. du client	
BIL	-			Serial No. No. de série	
TERM. BORNES	H1 H2 H3			Part No. No. de pièce	Y030PKCF
	VOLTS	CURRENT COURANT	% RATED VOLTAGE % TENSION NOMINALE	CONNECTION EACH PHASE CONNEXION PAR PHASE	kVA
					30.0
					TYPE
					QT
					Cooling Refroidissement
					ANC
					Temp. Rise Echauffement
					115 °C
					Temp. Class Classe de temp.
					180 °C
					Frequency Fréquence
					60 Hz
					Impédance % @ °C
LV/BT	480V			Encl. Type Type de boîtier	NEMA-3R
BIL	-			Wt LBS Poids en lbs.	130
TERM. BORNES	X1 X2 X3			Winding Enroulement	COPPER
	4003303B				