# HPS TRIBUNE

# THREE PHASE, DRIVE ISOLATION TRANSFORMERS

With today's technological advances in solid-state power control devices, the use of AC and DC variable speed drives has proliferated in many industrial markets. General purpose distribution transformers are not adequate for this type of application.

**HPS Drive Isolation Transformers** are designed to meet the rugged demands of both AC and DC variable speed drives and also to provide the required voltage change. The separate primary and secondary windings provide electrical isolation between the incoming line and the SCR load. The windings are designed to withstand overcurrent of 150% of the rated load for 60 seconds or 200% of the rated load for 30 seconds. (A duty cycle of one start for every two hours is permitted.)

Drive Isolation Transformers are sized to match standard motor horsepower and voltage ratings. Standard sizes range from 5 to 600 HP in six standard voltages. Non-standard sizes and voltages are available upon request.







#### **SELECTION INSTRUCTIONS**

Select the Drive Isolation Transformer according to the recommendations from the motor drive system manufacturer or supplier. If this information is unavailable, use the table below as a guide for selecting the transformer kVA for a required motor horsepower.

Motor	Transformer				
H.P.	kVA				
5	7.5				
7.5	11				
10	14				
15	20				
20	27				
25	34				
30	40				
40	51				
50	63				
60	75				

Motor	Transformer			
H.P.	kVA			
75	93			
100	118			
125	145			
150	175			
200	220			
250	275			
300	330			
400	440			
500	550			
600	660			

# STANDARD DRIVE ISOLATION TRANSFORMERS

## ALUMINUM AND COPPER WOUND FEATURES





#### THREE PHASE STANDARD SPECIFICATIONS

	7.5 to 175 kVA	220 to 660 kVA		
UL Listed	File: E112313	File: E112313		
CSA Certified	File: LR3902	File: LR3902		
Frequency	60 Hz	60 Hz		
Insulation System,	220°C (150°C rise) 200°C (130°C rise) on some Copper units up to 40kVA	220°C (150°C rise) (Optional 115°C and 80°C rise available)		
Enclosure Type	Heavy Duty Ventilated NEMA Type 3R Optional NEMA 4, 4X(stainless steel) and 12	Heavy Duty Ventilated NEMA Type 3R Optional NEMA 4, 4X(stainless steel) and 12		
Enclosure Finish	ANSI 61 Grey, UL50	ANSI 61 Grey, UL50		
Neutral	Neutral terminal for field connection (on applicable units).	Neutral terminal for field connection (on applicable units).		
Standard Primary Taps	Refer to wiring diagrams for details.	Refer to wiring diagrams for details.		
Termination	Front accessible separate high and low voltage terminations; suitable for copper and aluminum are provided for easy cable installation.	Front accessible separate high and low voltage terminations, suitable for copper and aluminum are provided for easy cable installation.		
Thermostat	Standard on all units.	Standard on all units.		
Conduit Knock-Outs	Standard on all units.	None		
Impedance	Typically 3 to 6%	Typically 3 to 6%		
Mounting	Floor mounting available on all units. Wall & ceiling mount available on units up to 750 lbs. Refer to selection tables for details.	Floor mounting only.		
Seismic	Meets all seismic parameters for IBC 2009 and NBCC 2005 for ground level installations only for all locations in North America.	Meets all seismic parameters for IBC 2009 and NBCC 2005 for ground level installations only for all locations in North America.		
Short Circuit Withstand	Meets UL and CSA short circuit withstand requirements.	Meets UL and CSA short circuit withstand requirements.		

# STANDARD DRIVE ISOLATION TRANSFORMERS

## **TERMINATION DETAILS**



### THREE PHASE, ALUMINUM AND COPPER TERMINATION - LUGS OR PADS

	VOLTAGE							
KVA	208	230	240	380	460	480	575	600
7.5	Lugs							
11	Lugs							
14	Lugs							
20	Lugs							
27	Lugs							
34	Lugs							
40	Lugs							
51	Lugs							
63	Lugs							
75	Lugs							
93	Lugs							
118	Diagram 1A	Diagram 1A	Diagram 1A	Lugs	Lugs	Lugs	Lugs	Lugs
145	Diagram 1A	Diagram 1A	Diagram 1A	Lugs	Lugs	Lugs	Lugs	Lugs
175	Diagram 2	Diagram 1A	Diagram 1A	Lugs	Lugs	Lugs	Lugs	Lugs
220	Diagram 2	Diagram 2	Diagram 2	Diagram 1A	Diagram 1A	Lugs	Lugs	Lugs
275	Diagram 2	Diagram 2	Diagram 2	Diagram 1A	Diagram 1A	Diagram 1A	Diagram 1A	Lugs
330	Diagram 2	Diagram 2	Diagram 2	Diagram 2	Diagram 1A	Diagram 1A	Diagram 1A	Diagram 1A
440	Diagram 3	Diagram 1B	Diagram 1B					
550	Diagram 3							
660	Diagram 3							



DIAGRAM 1

0.56" x 1.0" Slot (Qty. 4)

0.56" Dia. (Qty. 2)

DIAGRAM 2

DIAGRAM 3