

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

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

HPS TRIBUNE

Energy Efficient (TP1/C802.2) Drive Isolation Transformers

ALUMINUM AND COPPER WOUND FEATURES



THREE PHASE SPECIFICATIONS

	7.5 to 175 kVA	220 to 660 kVA
Efficiency	Meets TP1/C802.2 efficiencies at 35% of rated load. Efficiencies are calculated under a linear load profile.	
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.



TERMINATION DETAILS

THREE PHASE, ALUMINUM AND COPPER TERMINATION - LUGS OR PADS

kVA	VOLTAGE							
	208	230	240	380	460	480	575	600
7.5	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
11	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
14	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
20	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
27	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
34	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
40	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
51	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
63	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
75	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs
93	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	Lugs	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 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 1B	Diagram 1B
550	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3
660	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3	Diagram 3

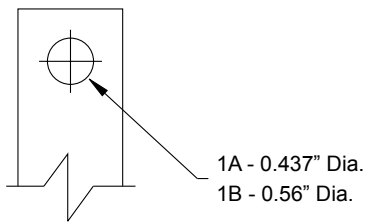


DIAGRAM 1

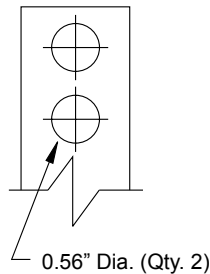


DIAGRAM 2

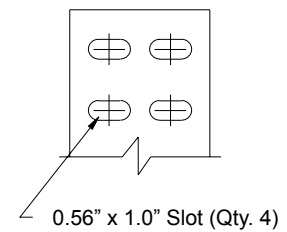


DIAGRAM 3