## 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 <br> H.P. | Transformer <br> kVA |
| :---: | :---: |
| 5 | 7.5 |
| 7.5 | 11 |
| 10 | 14 |
| 15 | 20 |
| 20 | 27 |
| 25 | 34 |
|  |  |
| 30 | 40 |
| 40 | 51 |
| 50 | 63 |
| 60 | 75 |


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

## 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, | $220^{\circ} \mathrm{C}\left(150^{\circ} \mathrm{C}\right.$ rise $)$ <br> $200^{\circ} \mathrm{C}\left(130^{\circ} \mathrm{C}\right.$ rise) on some Copper units up to 40 kVA | $220^{\circ} \mathrm{C}\left(150^{\circ} \mathrm{C}\right.$ rise $)$ <br> (Optional $115^{\circ} \mathrm{C}$ and $80^{\circ} \mathrm{C}$ 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. |

## 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

0.56" Dia. (Qty. 2)

DIAGRAM 2
DIAGRAM 3

