Drive Isolation Transformers

The Acme Drive Isolation Transformers are specifically designed to accommodate the special voltages and KVA sizes unique to AC and DC motor drive applications.

FEATURES

- **UL Type 3R Enclosures with Weather Shield on Ventilated Units (above 20 KVA).** Type 2 Enclosure without weather shield. UL Listed and CSA certified. 7.5–20.0 KVA are encapsulated, UL 3R.
- 3-Phase 60 Hertz.
- 180°C and 220°C insulation systems.
- Encapsulated and ventilated designs. All ventilated units, are of strip wound construction. Acme's reinforced core assemblies enhance quiet operation.
- Nominally 6% impedance.
- Designed for use with AC, adjustable frequency or DC drives.
- Full capacity taps are featured on all units. On 7.5 through 20 KVA units, taps are 1-5% ANFC and 1-5% BNFC. On 27 through 660 KVA units, taps are 2-2 ½% ANFC and 2-2 ½% BNFC.
- Full range of KVA ratings cover all standard drive systems.
- Ample wiring compartment for easy cable entry.
- Optional wall mounting brackets for certain sizes.

Stress relief

Acme uses strip conductors (above 7.5 KVA) instead of wire for a DIT series that easily accommodates the severe electrical and mechanical stresses found in today's AC & DC motor drives. The inherent excellent line isolation of these transformers is further enhanced with the extra protection of Acme's Electrostatic Shield — free in all DIT's.

Lower losses

The harmonic currents generated by AC & DC drives increase eddy current losses (heat) in transformer windings. The thicker the winding conductor, the greater the losses. Acme uses one turn per layer of thin strip conductor which provides lower eddy current losses than comparable wire wound units. Lower losses = cooler operation and longer transformer life.

DTGB-040-4S

DTGA-7-2S

DTGA-014-2S

DTHA-0330-4S

Reduced short circuit forces

Strip windings minimize axial short circuit forces that can cause mechanical displacement of the windings under fault conditions. For extra protection all designs 7.5 KVA and above use primary and secondary coils of equal axial length. This feature tends to negate axial short circuit forces, further improving transformer life expectancy.

Selection instructions

If you know the motor horse-power, simply follow the drive system manufacturer's recommendation. Or, select the corresponding KVA from the chart at right.

For example, a 40 Hp motor requires a 51 KVA DIT.

H.P.	KVA
5.0	7.5
7.5	11.0
10.0	14.0
15.0	20.0
20.0	27.0
25.0	34.0
30.0	40.0
40.0	51.0
50.0	63.0
60.0	75.0
75.0	93.0
100.0	118.0
125.0	145.0
150.0	175.0
200.0	220.0
250.0	275.0
300.0	330.0
400.0	440.0
500.0	550.0
600.0	660.0

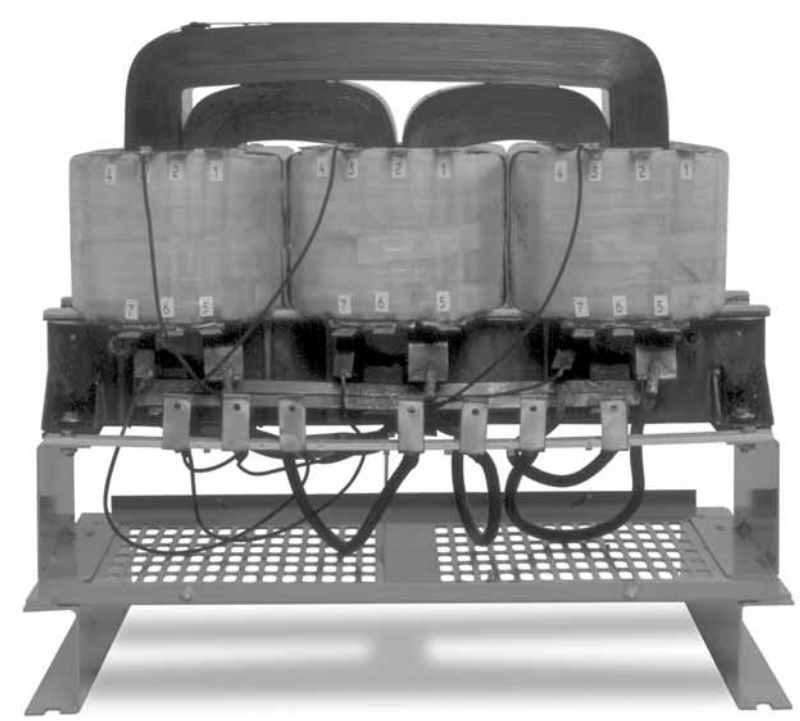
Acme Advantages

Wound Cores and Strip Winding mean lower losses

All Acme DITs above 7.5 KVA are wound with strip windings to ensure the lowest possible eddy current losses. All our DITs use a three leg wound core. This superior design has very low losses and quiet operation. Both of these features combine to significantly reduce losses and operating costs compared to other types of constructions.

Copper terminations provide trouble-free operation

All Acme DITs up to and including 220 KVA have copper terminations. The transition from aluminum strip coil conductors to copper terminations is accomplished by a bonding process known as "Koldwelding™." This process has been used by Acme for over 25 years to provide a trouble-free, permanent bonding of the two metals.



Wound core construction showing all copper terminations