INSTALLATION AND OPERATING INSTRUCTIONS

DRY-TYPE GENERAL PURPOSE

TRANSFORMERS

(WALL MOUNTED, TOTALLY ENCLOSED NON-VENTILATED (TENV), RESIN FILLED)

RECEIVING

Upon receipt examine the package for any damage that may have occurred in shipment. If the shipping container must be opened outdoors, take proper precautions to prevent the entrance of moisture. Examine the transformer for broken, bent or loose parts, or other damage. If damage from outside sources is evident, file a damage claim with the transportation company and notify the nearest manufacturers sales representative.

HANDLING AND STORAGE

The transformers have two one-inch diameter holes provided at the top of the mounting bracket for lifting.

The storage rooms should be clean and dry and without extreme temperature variations. Before placing the transformer in service after a period of storage, be sure that it is clean and dry by observing the instructions under "installation".

INSTALLATION

PREPARATION

Any accumulation of dirt or dust may be removed by brushing or by blowing dry air on the unit. If moisture is evident by feel or appearance, the unit should be dried by placing it in an oven or by blowing heated air over until dry. In either case the temperature should not exceed 110°C (230°F).

MOUNTING

The only foundation necessary is a flat vertical surface or wall strong enough to support the weight of the unit. Regardless of the type of mounting surface, permanent and effective grounding of the metal case is recommended as a safety precaution. Free circulation of air is essential for the proper operation of all dry-type transformers; therefore, a minimum distance to adjacent structures of six inches is required. These transformers must be mounted upright with the wiring compartment at the bottom.

All general purpose dry-type transformers are cooled by free circulation of surrounding air over their surfaces. In the totally enclosed, non ventilated designs all heat is transferred by the exterior surfaces. These transformers will perform satisfactorily at their rated output when surrounding air does not exceed 40°C (104°F) and adjacent structures do not impede free movement of air.

CONNECTIONS

Reference should be made to the wiring diagram and/or nameplate when making electrical connections to the transformer. *Do not change connections while the unit is energized.* To minimize circulating currents in the enclosure all leads to the same load must pass through one knockout and all supply leads must pass through one knockout.

Make certain that all connections are electrically tight so that current-carrying parts are joined under adequate pressure. If aluminum cable is used, adequate preparation of the aluminum cable and protection of the joint is essential.

These transformers require 90°C minimun for field connecting cable.

To protect dry-type transformers from voltage surges imposed upon the lines by lightning, switching, or other sources, adequate surge protection devices should be connected near any transformer exposed to such overvoltages.

Buck-Boost transformers may also be connected as autotransformers for boosting or bucking voltage. However, the use of autotransformers is subject to precautions: secondary circuits supplied by autotransformers may be subject to exceptionally severe short circuit currents unless protected by current-limiting means. It is recommended that suitable current-limiting devices be installed, where necessary, to limit the short-circuit current to 25 times that rated current. In all cases the National Electrical Code regulations should be followed.

MAINTENANCE

Dry-type transformers have no moving parts. The only maintenance required is periodic inspection of connections and removal of accumulated dust and dirt.

Additional information relating to the installation and maintenance of general purpose transformers can be found in the American National Standards Institute publication C57-94. "Guide for Installation and Maintenance of Dry-type Transformers".

NOTE
This transformer is constructed with substances which are potentially harmful for the environment. Shall not be disposed as normal waste. Please consult your local regulations for disposal

RENEWAL PARTS

Because of the unit structure of these transformers, field repairs are usually uneconomical and no spare parts and renewal parts are recommended. If conditions of operation dictate the need for standby equipment, a complete spare unit is recommended.

DESCRIPTION

Shown in Fig. 1, These TENV general purpose transformers are designed for wall mounting and for ratings of 600 volts or below. They are suitable for outdoor as well as indoor service.

General purpose transformers are designed to reach rated temperature rise above ambient air temperature when operating continuously at reated voltage, frecuency and load. Serious overheating with possible fire damage may result if the unit is operated for sustained periods at "above" rated voltage, "above" rated current,* or at "lower" than rated frequency.

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*Rated current equals volt-amperes divided by rated voltage for single-phase units; or for three-phase units, rated volt-amperes divided by rated line-to-line volts, the total of which is divided by square root of the three…1.732.

Fig. 1 Wall mounted, TENV construction with single-phase ratings, 5-25kVa and three-phase ratings, 3-15kVa.