Enclosure

- **Open Drip Proof (ODP)**
  - An Open Drip Proof type machine is an open motor in which, the ventilating openings are so constructed that drops of liquid or solid particles falling on it at any angle not greater than 15 degrees from the vertical, cannot enter either directly or by striking and running along a horizontal or inwardly inclined surface. (See WP-I for a picture of this enclosure)
- **Weather Protected I - (WPI)**
  - A Weather Protected Type I machine is an open machine with its ventilating passages so constructed to minimize the entrance of rain, snow and airborne particles to the electric parts and having its ventilated openings so constructed as to prevent the passage of a 3/4 inch cylindrical rod. The WP-I motor has mechanical parts and windings that are resistant to contaminated atmospheres. WP-I motors are provided with the following features: weather proof conduit box; bearing housing protected by external brass slingers; all internal parts (including rotor and stator) protected using rust inhibiting materials; frame and end shields are heavy steel plate or cast iron; neoprene lead separator seal where leads exit from the motor frame into the conduit box; form wound class F epoxy VPI insulation system with Class B temperature rise; non washing grease; galvanized corrosion resistant rodent screens on air inlets and outlets.

Enclosure

- **Weather Protected II - (WPII)**
  - A Weather Protected Type II machine shall have, in addition to the WP-I features, its ventilating passages at both intake and discharge so arranged that high velocity air and airborne particles blown into the machine by storms or high winds can be discharged without entering the internal ventilating passages leading directly to the electric parts of the machine itself. The normal path of the ventilating air which enters the electric parts of the machine shall be so arranged by baffling or separate housing as to provide at least three abrupt changes in direction, none of which shall be less than 90 degrees. In addition, an area of low velocity not exceeding 600 feet per minute shall be provided in the intake air path to minimize the possibility of moisture or dirt being carried into the electric parts of the machine. WP-II includes stainless steel screens on air inlets and outlets, and air filter racks with provisions for a differential pressure switch.

Enclosure

- **Totally Enclosed Fan Cooled - (TEFC)**
  - A Totally Enclosed Fan Cooled machine is so constructed as to prevent free exchange of air between the inside and outside of the enclosure but is not airtight. The machine is cooled by means of a fully guarded fan mounted on the motor shaft external to the enclosed parts. The fan blows cooling air over the outside of the motor. This enclosure will be provided with breather and drains at no charge but only when specified at time of purchase.
- **Totally Enclosed Air to Air Cooled - (TEAAC)**
  - A totally enclosed machine cooled by circulating internal air through a heat exchanger which, in turn, is cooled by circulating external air. It is provided with an air-to-air heat exchanger for cooling the ventilating air and a fan or fans mounted on the rotor for circulating the internal air and a separate shaft mounted fan for circulating the external air. When specified on sales order, breathers and drains are provided at no charge.

Enclosure

- **Totally Enclosed Water to Air Cooled - (TEWAC)**
  - A totally enclosed machine cooled by circulated air which, in turn, is cooled by circulating water. Provided with a top mounted, water-cooled heat exchanger for cooling ventilating air and fan or fans, integral with the rotor shaft or separate, for circulating ventilating air. The heat exchanger tubes are 90 percent copper, 10 percent nickel, tube sheets and headers are made of steel, and fins are constructed of aluminum. Cooler is designed for use with 80 degree F max, cooling water at a pressure not exceeding 50 psi (test at 75psi) with a minimal fouling factor of 0.001. Standard tube construction is single wall. Not available on 447, 449, 7111 frames.
- **Totally Enclosed Forced Ventilated Pipe in Pipe Out - (PIPO, aka TEFV)**
  - A totally enclosed machine except for openings so arranged that inlet and outlet ducts or pipes may be connected to it for the admission and discharge of ventilating air. Air may be circulated by means integral with the machine or by means external to and not a part of the machine. In latter case, these machines shall be known as separately-forced-ventilated machines.

Enclosure

- **Drip Proof Guarded - (DPG)**
  - See ODP/WPI
- **Drip Proof Guarded-Separately Ventilated - (DPG-SV) see WPI-SV**
  - This motor is designed to have separately supplied cooling air ducted into dual (two) provisions for connecting users air inlet ducts with discharge to local atmosphere. Air inlets are on both ends of motor at 12:00 or 6:00 position. Outlets are on both sides of motor.
- **Splash Proof Guarded - (SPG)**
  - See WPI
- **Splash Proof Guarded-Separately Ventilated - (SPG-SV)**
  - See DPS-SV
- **Force Ventilated - (FV)**
  - This motor is designed to have forced cooling air ducted into the motor, by dual (two) motor mounted blowers.