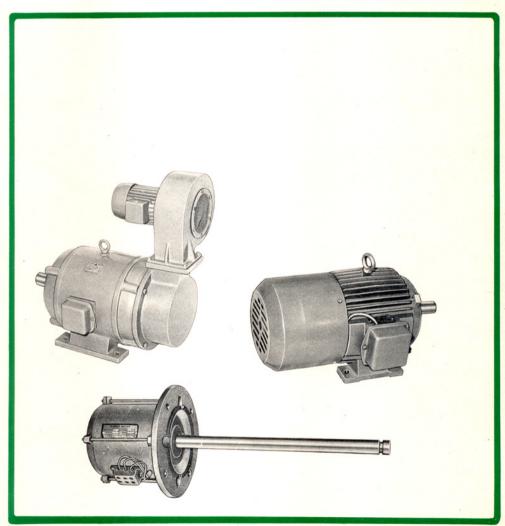


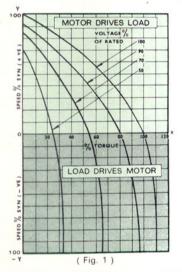
WIDE RANGE OF PRECISION MADE TORQUE MOTORS



WHAT IS A TORQUE MOTOR

There are a number of definations and interpretations of the term "Torque Motor" However a Torque Motor can be most readily identified as an Induction motor which specifies starting (stalling) torque on the nameplate. Also on the nameplate are the stall amperes and the synchronous speed. As a rule, Torque Motors have a very high slip characteristics as indicated by the curves (Fig. 1) & are capable of providing maximum starting (stalling) torque with minimum input power.

The entire torque characteristics of the motor including its performance about synchronous speed as well as the torque developed when the rotor is being driven against normal rotation are shown in FIG. 1.



By looking at Fig. 1 it can be seen that the Speed Torque (N-T) characteristic of the Torque Motor is dropping nearly linearly to zero speed without any kinks. (This is unlike ordinary squirrel-cage motors.) A standard squirrel cage motor tries to maintain the speed as it is being loaded while the Torque Motor will drop in speed as it is loaded.

Also by changing the input voltage of the Torque Motor we can change the maximum torque available at the shaft.

At any voltage if the load on the Torque Motor is removed it tries to accelerate to the synchronous speed.

APPLICATIONS

Following materials can be wound with the help of Torque motors.

Very thin plastic films; Thick plastic sheets; Webs; HDPE tape; monofilament yarn; PVC sheets; Hessian; plastic pipes; Textiles (from light material to heavy coated, impregnated fabrics); Rubber (thin sheeting, rubberised fabrics); Paper (thin, delicate, perforated); Metal foil and strips; Very fine Copper wires, Copper strips etc.

Torque Motor offers braking torque when its rotor is driven against its normal direction of rotation when energised. This characteristic is used to provide back tension in winding cycle.

CONSTRUCTION

'Mark' make TORQUE MOTOR is a precision designed brushless induction motor of robust construction and is noted for its reliability under the worst operating conditions.

Generally smaller capacity motors are available in TESC & TEFC enclosures. Motors of 100 Kg-cms Torque and above are screen protected and cooled with blowers. Foot and Flange mounted constructions available as per IS Frames.

RANGES

Torque Motors are rated in output torque at locked rotor (shaft) conditions. 'Mark' Torque Motors are available from shaft locked torque of 10 oz-in (0.7 Kg-cm) to 541 Lb-ft (750 kg-cms). Except smaller frames (63 & 71 Frames) these motors are available in 2, 4, 6, 8, 6 12 pole designs. Two & Three-Speed Torque Motors can be specially designed as per requirements.



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