

"GE" brand Drives have been serving the Industries since 1980 and have developed a reputation of its own class and Quality. Equipped with the most Latest Techniques, Designs & Materials these drives have found their positions in the International Markets as well.

1. Speed Range (Ratio) 50:1 - This specification means that the DC Drive has the ability to reduce the base speed of the motor from full speed to 1/50th of that speed. For example, a 1750 RPM base speed motor can be reduced in speed to 35 RPM. The base speed of a motor is the nameplate speed at the rated voltage and full load.
2. Load Regulation (0 - Full Load, 50:1 Speed Range, % Base Speed) 1% - This specification pertains to the DC Drive's ability to maintain a set speed, as the load varies from no load to full load over the stated speed range. Example: 1% of base speed is 17.5 RPM. No matter what speed the motor is running at, from 1750 RPM to 35 RPM, as the load increases from no load to full load, the speed will not drop more than 17.5 RPM. On open loop systems (armature feedback), the percent of regulation is always related to the base speed of the motor. On closed loop systems (tachometer feedback), the percent of regulation is always based on the set speed of the motor.
3. Line Voltage Regulation (At Full Load; +/- 10% Line Variation) 1/2% - This specification relates to the ability of the DC Drive to maintain the set speed of the motor (as expressed in percentage of base speed of the motor, typically 1/2% of 1750 RPM) at full load, as the line voltage fluctuates from the rated voltage by +/- 10%. Example: If the motor is set at 900 RPM at full load and the line voltage fluctuates from 115 VAC down to 100VAC or up to 130 VAC, the speed of the motor will not change more than 9 RPM, or 1/2% of base speed.
4. DC Drive Linearity (% Speed vs. Dial Rotation) 2% - This specification indicates that the speed of the motor will be within 2% of the dial setting. For example, if the motor is set at 1750 RPM at 100% dial rotation, and the dial is rotated to 50%, the motor speed will drop to 875 RPM plus or minus 2%.
5. CL/Torque Range (% Full Load) 50-200% - This specification indicates that when the CL trimpot is rotated in the counterclockwise direction (turned down), the current the motor can draw is limited to no less than 50% of the nameplate rating of the motor. For example, a motor with a 5.0 Amp nameplate rating could be limited to 2.5 Amps. However, due to the tolerances in the DC Drive, the setting may actually go as low as 2.0 Amps.
6. Maximum Allowable Ambient Temperature at Full Rating (- This specification indicates that with the DC Drive operating at its maximum capacity, on a continuous basis, the ambient temperature around the DC Drive rating, then the ambient temperature can be increased. If forced ventilation is introduced, then higher operating currents are possible.

TECHNICAL ASPECTS of "GE" make DC Thyristor Drives :

DESIGN	Our Designs, parts & Dimensions are as per I.S.I Standards. Latest Innovations are incorporated. Changes are made with times and also as per Customer demands.
CONTROLLER MODULE	This is an electronic solid state controller either on a single board or on a multiboard rack arrangement. The system incorporates all the necessary functional blocks such as power supply, error amplifiers, speed amplifier, current amplifier and SCR firing circuits.
THYRISTOR BLOCK.	This block consists of suitably rated thyristors mounted on properly selected heatsinks. While designing, due consideration has been given to the starting torque, ambient temperature and the atmosphere in which the drive is to be operated. The starting torque requirement from 1.6 to 2.5 times can be met. Normally, a single stack is used upto 400 KW and parallel stacks for those in the range of 500 to 1000 KW.
ELECTRICAL BLOCK.	This meets the electrical and functional requirements of the drive and comprises switchgears like input switch or circuit breakers. output contactors, indicating meters, push buttons and contactors/relay logics. Meters to indicate the DC voltage, DC current and motor rpm and lamps for mains ON and motor ON are provided on the front panel. Additional meters can be provided on request.
CONSTRUCTION	<ul style="list-style-type: none"> • The panels are free standing, floor mounted types with or without the cooling fan depending on the rating of the drive. • Almost all components are accessible through the front door. • The layout is such that the power module and the controller module can be identified easily. • Enclosures are available in IP 22, IP 41 and IP 51 types. • All cables are colour-coded and ferruled and components labelled for identification.
SALIENT FEATURES	<ul style="list-style-type: none"> • Acceleration / Deceleration Control. This enables the system to achieve the rated rpm within 2 to 10 seconds for drives upto 5 HP and 4 to 30 seconds for drives of higher HP. Special requirements can also be met. • Provision for armature feedback or tacho- feedback for better speed regulation. • Smooth, solid state current limit adjustment. • Sufficient number of test points for easier testing and maintenance.

	<ul style="list-style-type: none">• LED indications for various stages.• Available in fully controlled i.e. Six pulse as well as 12 pulse versions.
OPTIONAL FEATURES	<p>(Against specific orders)</p> <ul style="list-style-type: none">• Dynamic braking for quick stoppage.• Pendant control for remote operation• Inching.• 10- Turn potentiometer for accurate speed setting.• Tachogenerator feedback for better speed regulation.

We manufacture DC Drives in two broad ranges :

- 1) Thyristor Drives &
- 2) Manual Rectifier Drives

"GE" brand **Thyristor Drives** are specially engineered to meet the demands of variable speed applications and have emerged as an Economical Drive for DC Motors.

With the increasing need for automation, efficiency, high speed range and better speed holding accuracy, thyristor converters using the static converter technology are gaining wide acceptance in continuous process industries like steel, paper, cement, textile and synthetic fibre, rubber and machine tools.





" GE " brand **Manual Rectifier Drives** are specially engineered to meet the demands of variable speed applications. These drives are Purely electrical with no problems of harmonics & ripples, Speed variation is achieved through dimmer stats. Rectifier drives are the oldest and reliable means of speed control. Suitable for working under extreme conditions.

