

Definition

S1-Continuous Duty

- Operation under constant load
- Operate long enough to allow the machine to reach thermal equilibrium

S2-Short Time Duty

- Operation under repeat ,constant load in specified cycles.
- Neither operating nor resting period are long enough to allow the machine to reach thermal equilibrium .
- Idle time of the machine is long enough to allow the machine to cool down to ambient temperature
- Short term operation between 10 , 30 , 60 & 90 minutes

S3-Intermittent Periodic Duty with insignificant Starting Time

- Operation under repeat ,constant load in specified cycles.
- Neither operating nor resting period are long enough to allow the machine to reach thermal equilibrium .
- Small starting loss , does not influence the temperature rise.
- Starting time are 15 , 25 , 40 & 60 % at a 10 minute cycle

S4-Intermittent Periodic Duty with Significant Starting Time

- Operation under repeat ,constant load in specified cycles.
- Start of motor do influence the temperature rise.

S5-Intermittent Periodic Duty with Influence of Electric Braking

- Same as S4 operation
- Electric braking of the machine has an essential influence on the temperature rise

S6-Continuously Operation with Cyclic Load

- Operation consisting of a continuous series of equal cycles
- Each cycle consists of no load and constant load period
- Cycle is not long enough to allow the machine to reach thermal equilibrium in one cycle
- Relative starting time must be specified.

S7-Intermittent Periodic Duty with Starting and Braking

- Uninterrupted operation with a series of constant loading and braking periods
- Number of cycles / hour and inertial constant must be specified

S8-Intermittent Periodic Duty with Pole Changing

- Only with pole amplitude modulated motors.
- Operation must have the following data for each pole : Number of start per hour , Inertial constant & Relative operation period

