


Soft Start and Star Delta Trip Class by Application Chart.

| Default – Light to Medium Load Start | 10 |
|--|------------|
| Medium to Heavy Load Start | 20 |
| Heavy Load Start | 30 |
| Application | Trip Class |
| Agitator | 10 |
| Air Compressor – Equalised (low start load) | 10 |
| Air Compressor – Loaded during start | 20 |
| Air Compressor – Reciprocal (piston type) | 20 |
| Auger - Screw | 10 |
| Ball Mill | 10 |
| Centrifuge (Contact supplier - very heavy start) | >30 |
| Chillers | 10 |
| Conveyor - unloaded or lightly loaded start | 10 |
| Conveyor – heavily loaded start | 20 |
| Crusher | 30 |
| Escalator | 10 |
| Extruder | 10 |
| Fan – Low inertia < 50Amps FLC | 10 |
| Fan – Medium inertia between 51A FLC & 75A FLC | 20 |
| Fan – High inertia >76Amps FLC | 30 |
| Feeder - Screw | 10 |
| Granulator – Unloaded start | 10 |
| Granulator – loaded start | 20 |
| Grinder | 20 |
| Hammer Mill | 20 |
| Lathe | 20 |
| Mill – Flour etc. | 20 |
| Mixer – unloaded start | 10 |
| Mixer – loaded start | 20 |
| Pelletisers | 20 |
| Plastic machines | 10 |
| Press with Flywheel | 20 |
| Pump - centrifugal | 10 |
| Pump – positive displacement unloaded start | 10 |
| Rolling Mill | 20 |
| Saw - Band | 10 |
| Saw - Circular | 20 |
| Screen - Vibrating | 20 |
| Transformer, voltage regulators | 10 |
| Tumblers | 10 |
| Wood chipper | 30 |

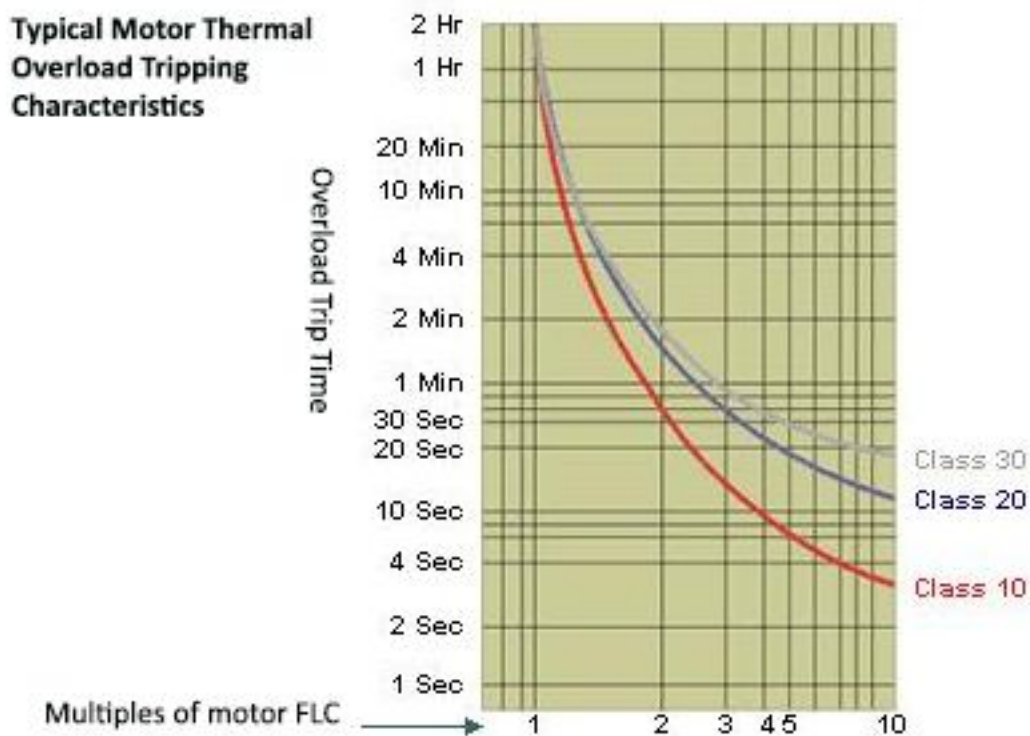
 Rows shaded grey (trip class 30) require special consideration

Trip Class Explained

At between 500% & 600% of the maximum current rating of the motor during application starting, the **Trip Class 10** motor thermal overload will trip in 10 seconds or less, **Trip Class 20** motor thermal overload will trip in 20 seconds or less, and **Trip Class 30** motor thermal overload will trip in 30 seconds or less. So the trip class rating of a motor thermal overload relates to the load the motor is under and the time it takes the motor to start the application.

If a **trip class 10** Star Delta Starter or Softstarter is applied to a **trip class 20** application the product will likely trip its motor overload during the starting phase, so it may not be capable of starting the application.

It is always advisable to match the trip class of the application to the trip class of the Star Delta Starter or Softstarter.



These characteristics are an indication of the overload trip time versus motor current with the thermal overload in a cold state, they will change if the motor thermal overload is in a hot condition during motor start.

Starting the star delta starter or softstarter more than once every 10 minutes will alter the thermal overload tripping characteristics, making the overload trip more quickly for a given thermal overload current setting.