

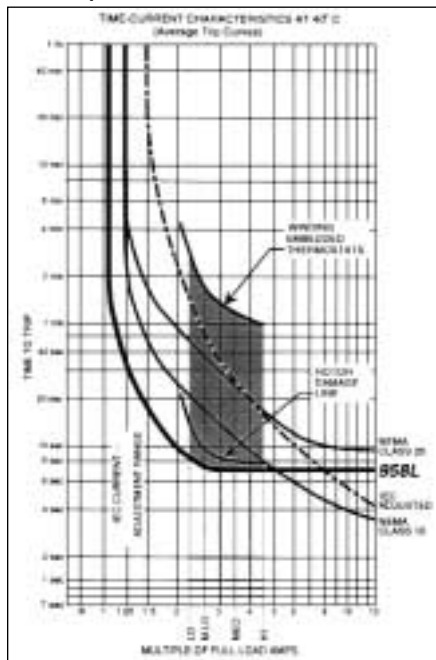


Oil Field Solid State Overloads, Class 958L

Features

- Oil Pump Motor Applications
- Phase Loss Protection
- Thermal Memory Circuitry
- Self-Powered
- Short Circuit Self Protection
- -22°F to 159°F (-30°C to 70°C)
- Coated Circuit Board
- Ambient Insensitive
- Easy Installation
- 2:1 FLA Adjustment Range
- Heaterless Construction
- ±2% Repeat Trip Accuracy
- High-Accuracy Trip Curve Settings
- UL Listed and CSA Certified
- Output Contact Rated NEMA A600, P600 (10 Amps 600VAC Max, 5 Amps 600VDC Max)
- Self-Reset Output contact rated NEMA B300, P150 (5 Amps, 300VAC Max, 5 Amps, 150VDC Max)

958L Trip Curve



Application

The 958L Series ESP100 solid state overload is designed specifically for the oil market to prevent rotor damage.

Rotors can be damaged in 8 to 15 seconds during motor stall conditions if electrical power is not removed. To prevent damage during motor stall, the 958L solid-state overload provides the solution.

As indicated on the time-current characteristics graph below left, the 958L curve shows power will be removed in 7 seconds starting at 250% locked rotor current. Therefore, die cast or fabricated rotors will be protected from damage, saving lost time and money.

The 958L gives full protection on all standard motors, oil well pump motors, multi-torque connections, and ultra-high slip motors.

Furnas Brand NEMA starters with the 958L series overload combine the rugged characteristics of a NEMA contactor with the custom overload which provides phase loss protection. It offers the user greater protection and added life for motors in heavy duty oilfield applications. The inherent benefits of the NEMA starters with the 958L series overload result in unsurpassed reliability and performance.

The 958L series overload relays are self-powered solid-state overload relays.

They generate their own running power and do not need a separate 120V source to power the circuit board. They are wired just like a traditional thermal overload relay. These overload relays are designed specifically for the cyclical loads experienced with oil well pumps.

The self-reset overload is ideal for applications where the controls are mounted in a remote location that may be difficult to access. The NC overload contact opens for a short duration (50–75 msec) on an overload or phase loss condition. The unit provided can be applied in one of three ways:

1. Three wire control circuit using Size 0–4 contactor. The self-reset overload can be retrofitted and applied in a three wire control application as a remote reset overload without additional components or wiring.
2. PLC—(assuming initiating starter coil via PLC) Timers and counters can be used to determine time between restarts and maximum number of restarts.
3. Use NC overload contact to drop out a control relay. See wiring diagrams on page 490.



Class 958L A1 Frame



Class 958L B Frame

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Panel Mounted
Overload Relays