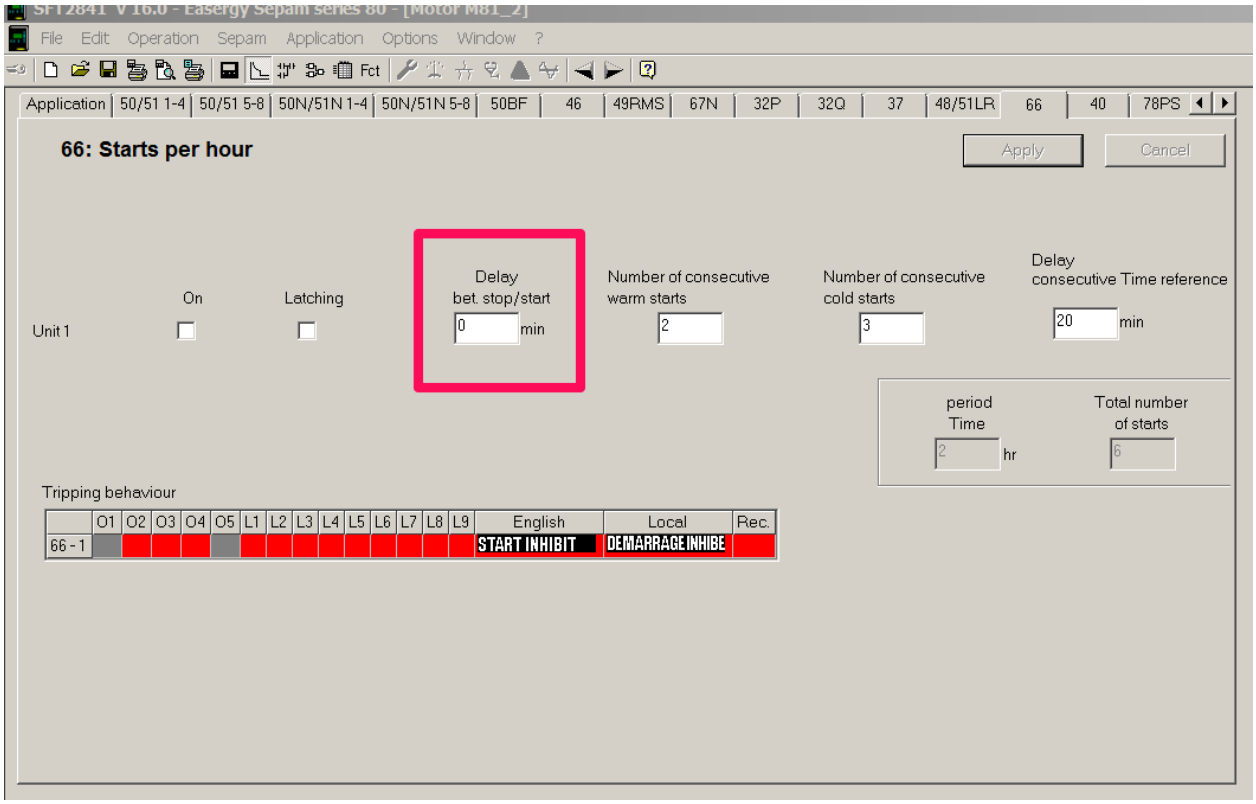
What is the use of setting “AED “ in Sepam series 20/40/60/80 motor protection relays report for start per hour protection (ANSI code 66) ?

In Electric Submersible Pump (ESP) installations, when the power supply is removed, it is possible for the fluid column to drain back to the reservoir. This may occur in installations where there is no check valve installed or the check valves are leaking. As the fluid drains back down the tubing, the submersible pump is forced to rotate in the reverse direction; commonly referred to as “backspin”. Starting the motor under this condition can be very stressful to its shaft, potentially causing failure. This setting can be used to be sure that motor is not rotating in reverse direction then we can send close order to its feeder.

This setting can also be used for large inertia motors applications. This setting will help to be sure that motor is stopped then we can have a safe start again. The reason of this setting is to avoid damaging motor’s terminals and to avoid big inrush current during start. Big motors with big inertia will not stop immediately after open order. So they will rotate and because of remaining electromagnetic field may produce voltage (became generator). So by sending closing order during its rotation we would have 2 different voltages at motor terminals and could be dangerous for it. Moreover this could have mechanical consequences for its shaft.



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