

SMC-3 Troubleshooting Guide

For safety of maintenance personnel as well as others who might be exposed to electrical hazards associated with maintenance activities, the safety related work practices of NFPA 70E, Part II, should always be followed when working on electrical equipment. Maintenance personnel must be trained in the safety practices, procedures, and requirements that pertain to their respective job assignments.

Problem	Possible Cause	Solution
Pre-start Motor Fails To Start	LED OFF	<ul style="list-style-type: none"> • Check control power connections and power source to the SMC-3
	LED ON	<ul style="list-style-type: none"> • Check Isolation Contactor for proper closure • Check presence of Line Power
	LED Flashing 1 – Overload	<ul style="list-style-type: none"> • Reset Overload
	2 – Over Temperature	<ul style="list-style-type: none"> • Trip on Over Temperature. Allow time for unit to cool. Check duty cycle against Selection Guide information.
	3 – Phase Reversal	<ul style="list-style-type: none"> • Check for proper phase rotation of line power.
	4 – Phase Loss / Open Load	<ul style="list-style-type: none"> • Check Line and Load connections to SMC-3, contactors and motor, confirm that 3-phase is present
	5 – Phase Imbalance	<ul style="list-style-type: none"> • Check line current present in each phase. (Unit will trip if imbalance is >50%)
Motor Attempts to Start, but Aborts Before Up-to-Speed	LED OFF	<ul style="list-style-type: none"> • Check control power connections and power source to the SMC-3
	LED ON	<ul style="list-style-type: none"> • Check Isolation Contactor for proper closure • Check presence of Line Power
	LED Flashing 1 – Overload	<ul style="list-style-type: none"> • Reset Overload
	2 – Over Temperature	<ul style="list-style-type: none"> • Trip on Over Temperature. Allow time for unit to cool. Check duty cycle against Selection Guide information.
	4 – Phase Loss / Open Load	<ul style="list-style-type: none"> • Check Line and Load connections to SMC-3, contactors and motor, confirm that 3-phase is present
	5 – Phase Imbalance	<ul style="list-style-type: none"> • Check line current present in each phase. (Unit will trip if imbalance is >50%)
	6 – Shorted SCR	<ul style="list-style-type: none"> • Perform continuity check across the power poles (L1-T1, L2-T2, L3-T3). Remove Line and Load connections before taking measurements. Measurements should exceed 10k for good power pole.
Motor Stops Inadvertently and Fails to Start	LED OFF	<ul style="list-style-type: none"> • Check control power connections and power source to the SMC-3
	LED ON	<ul style="list-style-type: none"> • Check Isolation Contactor for proper closure • Check presence of Line Power
	LED Flashing 1 – Overload	<ul style="list-style-type: none"> • Reset Overload
	2 – Over Temperature	<ul style="list-style-type: none"> • Trip on Over Temperature. Allow time for unit to cool. Check duty cycle against Selection Guide information.
	4 – Phase Loss / Open Load	<ul style="list-style-type: none"> • Check Line and Load connections to SMC-3, contactors and motor, confirm that 3-phase is present
	5 – Phase Imbalance	<ul style="list-style-type: none"> • Check line current present in each phase. (Unit will trip if imbalance is >50%)