



## Troubleshooting with MCA™

Not only is MCA (Motor Circuit Analysis) a great way to determine developing winding faults of a motor at the earliest stage but it also can be used to pinpoint the exact location of a fault in a motor system from the MCC (Motor Control Center) all the way to the motor. One of the most crucial factors to find early-stage faults is conducting two baseline tests when installing the motor. The first baseline test should be performed directly at the motor completely disconnected from any motor cables or other equipment. Future tests can then be compared and trended to this baseline test to look for changes which will signify a motor fault.

Once the motor is installed into the machine a second baseline test should be performed directly from the MCC. This will establish a baseline test all the way from the MCC to the motor and again can be referenced when taking future tests.



With both baseline tests it will be quite simple to determine the exact location of a fault if a motor is starting to fail or intermittently tripping a drive or circuit breaker. First a test should be performed directly at the MCC and then compared to the initial reference test from the MCC. If there is a deviation between test results or a WARN or BAD indicator is displayed on the results screen the technician should then conduct a test directly at the motor with the motor cables disconnected. If there is still a deviation between the new test and the initial baseline test taken directly at the motor or a WARN or BAD indicator the technician can conclude the motor is the root cause of the failure and should be addressed appropriately. If the deviation between tests clears and no WARN or BAD indicators are established, then the motor cables and connection points at the MCC can be investigated further until the root issue is found.