





INDUSTRIAL AUTOMATION

Addressing Power Supplies & EMI/EMC Requirements

INNOVATION & EFFICIENCY

Industrial automation reduces the need for human involvement. It consists of feedback loops and sensory programs that monitor and regulate processes to provide improved and consistent output in a manufacturing environment. Power and EMI/EMC application characteristics in industrial automation include:

-  **Variable Output Power**
-  **Vulnerability to Electrical Noise**
-  **Unique Voltage Requirements**
-  **Reliability & Temperature Control**

CONDITION-BASED MONITORING

Connectivity and communication are essential for process monitoring to ensure optimum operating performance. In order to achieve that, a power solution must interface with the system control based on system conditions.

DISTRIBUTED CONTROL SYSTEMS

The control system is distributed throughout the facility which offers improved and local control over the process. Dedicated power and control systems are required at each location resulting in a larger need for power and noise mitigation. EtherCAT communication capabilities can ensure central process monitoring.

PROGRAMMABLE LOGIC CONTROLLERS

PLC relies on a programmable industrial microprocessor that can store program instructions and control logic. Programmable control modules are compact and often work on AC or DC power, creating a need for power solutions. DIN-rail mounting is highly desirable for the components used inside a PLC cabinet.

ROBOTICS & MOTION CONTROL

Robots in manufacturing environments rely on extreme accuracy. Industrial robots and motion control equipment require a power supply that can withstand backward EMF from the motor. Power and EMI/EMC system integration are valuable to meet space and design requirements. The need for extended energy storage to ensure a safe holding position can be met with a battery backup solution.



COMMON EMI FILTER SPECIFICATIONS?

- < 20 Amps Single-Phase
- < 20 Amps High Performance IEC Inlets
- < 60 Amps 3-Phase
- < 20 Amps DIN Rail Mount

COMMON POWER SUPPLY SPECIFICATIONS?

- 15-550 Watts Power Supply Form Factors
 - ✓ Opened Framed/Enclosed
 - ✓ Encapsulated, Chassis Mount
 - ✓ External Desktop
 - ✓ External Wall Mount
- 0.5-36K Watts 3-Phase Heater and Motion Control
- 1.1K Watts Single -Phase Motion Control
- Communication: CANBus, Modbus, Ethernet, and EtherCAT**