# AMP Step Motor and Drive for Hazardous Locations

## STAC6-Q-H Advanced Step Motor Drive

The STAC6-Q-H stepper drive is certified for Class I, Zone 2 locations (also known as Class I, Division 2 locations). Class I hazardous locations are those in which flammable gases, vapours or liquids are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures. Zone 2, also known as Division 2, defines a hazardous location in which flammable gases, vapours or liquids are not likely to occur in normal operation but, if they do occur, will only persist for a short period of time.



Explosive atmospheres are commonly found in the oil, gas, mining and printing industries as well as in paint-finishing locations and aircraft hangars.

#### **FEATURES:**

- ATEX and IECEx certified for Class I, Zone 2 locations
- UL certified for Class 1, Div 2, Group C & D locations
- HazLoc certified for USA, Canada, Europe and Middle East
- Superior performance
- Advanced anti-resonance algorithm
- Torque ripple smoothing
- Micro-stepping to 51,200 steps/rev
- Stored program for stand-alone operation
- High power output for medium and large size step motors
- Designed for use with the HX56-100 Step Motor

### **SPECIFICATIONS:**

- Input supply voltage: 94 to 135 VAC, 50/60 Hz, single-phase
- Control Modes:
  - Streaming Commands
  - Modbus RTU
  - > Q Programmer (inbuilt stand-alone motion controller, full details on request)
  - Encoder Following
  - Analog Positioning
- Idle Current Reduction: 0 to 100% Output Current: 0.5 to 6 A/phase



- Encoder Feedback: Yes, Incremental
- Step Resolution: Full, Half, Microstepping, Microstep Emulation
- Setup Method: Software setup
- Digital I/O: 7/3
- Ambient Temperature Range: -40 to 131 °F
- Circuit Protection: Over-temp, Under-voltage, Over-voltage, Short circuit
- Dimensions (mm): 161 x 118 x 59
- Weight: 0.9 kg
- Output Power, Continuous Duty Rating: 500 Watts
- Analog Inputs: 1 differential or 2 single-ended
- Communication Protocols: RS-232 or RS-485
- Programming manual available on request

### HX56-100 Advanced stepper motor

#### **FEATURES:**

- ATEX and IECEx certified for Class I, Zone 1 locations
- UL certified for Class 1, Div 1, Group C & D locations
- HazLoc certified for USA, Canada, Europe and Middle East
- High torque design
- Optimized for micro-stepping
- NEMA 56 Frame Size
- Insulation Class B
- Continuous Duty Rating
- Voltage Rating 120 (170 VDC peak) VDC rms
- Maximum current: 3.39 (4.8 A peak) A rms/phase
- Max speed: 2200 rpm
- Operating Temperature Code (External Surfaces) UL / cUL T4A; ATEX / IECEx T5
- Number of Phases: 2
- Frequency Range Motor PWM-Variable Torque 0 to 2.5 kHz
- Maximum Power: 400 Watts
- Environmental Rating: IP66 / Type 4X
- Drawing and 3D model on request





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