System engineering stages

System concept

System design

System implementation

System operation

System completion
PRODUCT SPECIFICATIONS

Power Requirements:  + 12 ± 1.0 VDC at 250 mA
                           + 5 ± 0.5 VDC (isolated) @ 60 mA
Operating Conditions: 0°C to 55°C ambient temperature
                           95% relative humidity, non-condensing
Power Dissipation:  200 watts, maximum
                     (specified with a motor rated at 10A/phase
                      with two phases on at standstill)
Cooling Requirements:  100 cfm at 55°C
Input Signals, optically isolated inputs:
   1) step rate: 0 - 5 VDC maximum, bit stream at
                   0 - 20 KHz, 50% duty cycle
   2) Half/full step: TTL logic levels + 5 VDC maximum
   3) Enable: TTL logic levels + 5 VDC maximum
   4) Current limit: TTL logic levels + 5 VDC max.
   5) CW/CCW: TTL logic levels
Outputs:
     Motor phase lines: 0 to 10A continuous with two windings on at
     standstill
Terminations: (2) card edge termination
   1) 20 pin (10 dual) card edge connector for control signals,
       +12 VDC and ground, +5 VDC for opto-isolators.
   2) 26 pin (16 dual) card edge connector for motor phases and
       motor power supply ground.
Absolute Maximum Ratings:  (25°C ambient unless otherwise specified)
  Driver/Interface Power Supply voltage           15.0 VDC
  Opto-Isolator Power Supply voltage             5.5 VDC
  Motor Power Supply voltage                     100 VDC
  Motor phase output current                     10A continuous
  Input signals:                                5.5 VDC maximum
                                                       -0.5 VDC minimum