

# Variable Reluctance Motor Control System 8 Axis

[www.DanaherMotion.com](http://www.DanaherMotion.com)



## DESCRIPTION

Complete high power control chassis, which drives 8 linear variable reluctance motors. The control chassis consists of 6 kW regulated power supply and 8 independent amplifiers. Each amplifier performs current control of the motor's three independent phases.

## RATIONALE

- Special motor with unique bridge structure and PWM pattern demanding current loop requirement
- Non linear electro-mechanical structure
- Special safety requirements
- Stabilized power supply voltage at peak acceleration condition

## SOLUTION

- Chassis with signal distribution panel
- Boost Power supply topology
- Safety features on distribution panel
- High sampling rate digital controller
- Adaptive gains

## Applications

- SMT assembly machine

## FEATURES

- Fully digital
- Current loop mode, externally commutated
- Sampling time 25 micro seconds, BW > 3 kHz
- PWM frequency 20 kHz
- Analog input,
- 3 dedicated inputs
- Fault output
- Special breaking algorithm in feedback sensor absence

## Rating

- Power Supply - 6 kW, 230 VAC three phase input, Power peaks 22 kW
- Amplifier (each) - 380 VDC, 10 amp continues ADC, 30 amp peak ADC.

## Mechanical Dimensions

19" (height) X 18" (width) X 21.3" (length)