



# Series 514C

**514C Regen Digital Drives  
from 4 to 32 Ampere ( up to 7.5 Hp)**

## Description

The regenerative 514C DC drive offers full four-quadrant control of DC motors from single phase supplies. As such it is ideal for applications involving overhauling loads or where rapid and accurate deceleration is required.

Together with the non-regenerative 512C, they offer the perfect solution for lower power single motor and multi-drive applications.

- ▶ **Isolated input Circuitry**
- ▶ **Multiple inputs for reference speed/current**
- ▶ **Integrated pilot relay for main contactor**
- ▶ **Integrated Field Supply**
- ▶ **Extremely linear control loops**

### OPTIONS

- ▶ EMC filter
- ▶ Line reactors for European and North American markets (UL-CSA)

### POTENTIOMETERS

- ▶ Maximum speed
- ▶ Minimum speed
- ▶ Current limit
- ▶ Acceleration rate (1-40s)
- ▶ Deceleration rate (1-40s)
- ▶ Current Proportional Gain
- ▶ Current integral Gain
- ▶ Speed Proportional Gain
- ▶ Speed Integral gain
- ▶ I.R. Compensation
- ▶ Zero Speed Threshold
- ▶ Zero speed offset

### SWITCH SELECTIONS

- ▶ Speed Calibration
- ▶ Tachometer/Armature Voltage Feedback Select
- ▶ At zero speed
- ▶ Output current bipolar/unipolar
- ▶ Ramp isolate
- ▶ Stall logic On/Off
- ▶ Current reference input/output
- ▶ Over-current trip
- ▶ Set-point comparator

### TECHICAL SPECIFICATIONS

#### Switch Selectable Supply Power

Single Phase 110Vac  $\pm 10\%$   
 Single Phase 220Vac  $\pm 10\%$   
 Single Phase 380Vac  $\pm 10\%$   
 Single Phase 480Vac  $\pm 10\%$   
 50-60Hz  $\pm 5\%$

#### Ambient Temperature

0-40°C

### TECHNICAL CHARACTERISTICS

#### Motor Protection

Stall condition 15 seconds internal  
 Electronic Overload Protection

#### Overload

**150% for 60 seconds**

#### Available Field Current

**Up to 3A D.C.**

#### Available Frame Sizes

**4, 8, 16 and 32 ampere**

### INPUTS/OUTPUTS

#### Analogue Inputs

Ramp input  
 Reference input - positive  
 Reference input - negative  
 Tachometer feedback  
 Current limit  
 Current reference  
 Minimum speed  
 Thermistor input

#### Analogue Outputs

Speed  
 Load  
 Current reference  
 Ramp output  
 Total reference  
 Total reference inverted  
 Reference supplies  $\pm 10V$  DC and +24VDC

#### Digital Inputs

Run (Active)  
 Stall enable

#### Digital Outputs

Zero speed  
 At stall condition  
 Healthy

**INTERNATIONAL CODE**

The 514C series drive complies with UL508C and complies to standard code when installed in accordance to manufacturers installation manual.

**EN50178**

(Protection Low Voltage Directive)

**EN50081-1 (1992)**

(Emission in ambient EMC)

**EN50082-2 (1995)**

(Immune in industrial EMC environment)

**Complies with CE, UL e c-UL**