

VARIABLE SPEED CONTROLLER W/BUILT-IN DRIVE

MAIN FEATURES



- Easy start up and operation;
- Most common application parameters are contained in a basic program group, making programming fast and easy;
- Dynamic braking for all ratings 0.75 kW (1 HP) and greater
- Possibility of programming/controlling by computer and dedicated software;
- Network solutions possibility;
- An integral keypad featuring a 4-digit display plus additional LED indicators, providing an intuitive display of drive status information;
- Dedicated safety sockets and switches;
- Relay output; and
- Programmable inputs such as preset speed, jog, etc.

DESCRIPTION

Providing users with a powerful motor speed control in a compact, space saving design, the CL-150 Variable Speed Controller with Built-in Drive is the smallest and most cost effective drive trainer. Ideal for machine level speed control, this product provides the application versatility to meet the demand of end-users that require flexibility, space savings and ease of use.

Available in different versions (Allan-Bradley or Schneider models), the CL-150 drive is designed to control the speed of applications such as machine tools, fans, pumps and conveyors and material handling systems.

With the CL-150, alternative current squirrel cage motors or synchronous reluctance motors can be varied over a continuous speed range. The drive automatically provides auto boost (IR compensation) and slip compensation. The CL-150 obtains excellent speed regulation and high levels of torque across the entire speed range of the drive as well as improved speed regulation.

SPECIFICATIONS FOR THE ALLAN-BRADLEY DRIVE

CHARACTERISTICS	DESCRIPTION															
Operator Interface	• Integral keypad with a 4-digit display • Keypad features a local potentiometer and additional LED indicators.															
Standards	• CSA/cUL • CE • UL EMC EN61800-3 • C-Tick Low Voltage EN60204-1/EN50178.															
Input Specifications	• 1-Phase Voltage: 100 - 120V / 200 - 240V • 3-Phase Voltage: 200 - 240V / 380 - 480V • Frequency: 47 to 63 Hz • Logic Control Ride Through: ≥ 0.5 seconds, 2 seconds typical															
Output Specifications	• Voltage: Adjustable from 0V to rated motor voltage • Frequency Range: 0 – 240 Hz															
Over load capacity	• 150 % for 60 seconds • 200 % for 3 seconds															
Enclosure and Ambient	Open Type / IP20: -10° - 50°C (14° - 122° F)															
Operating Temperatures	NEMA Type 1 / IP30: -10° - 40°C (14° - 104° F)															
Control	• 24V sink or source control • 2 programmable inputs for functions • 1 programmable form C relay output such as preset speeds, jog, etc. • 3 dedicated inputs for start, stop and reverse • 0 – 10V or 4 – 20mA input															
Dynamic Braking	7th IGBT included on all ratings, 0.75 kW (1 HP) and larger															
Ratings	<table border="1"> <thead> <tr> <th>Voltage Class</th> <th>A Frame Ratings</th> <th>B Frame Ratings</th> </tr> </thead> <tbody> <tr> <td>100 – 120V, 1ϕ</td> <td>0.20 – 0.37 kW (0.25-0.5 HP)</td> <td>0.75 kW (1 HP)</td> </tr> <tr> <td>200 – 240V, 1ϕ</td> <td>0.20 – 0.75 kW (0.25-1 HP)</td> <td>1.5 kW (3 HP)</td> </tr> <tr> <td>200 – 240V, 3ϕ</td> <td>0.20 – 1.50 kW (0.25-2 HP)</td> <td>2.20 – 3.7 kW (3 – 5 HP)</td> </tr> <tr> <td>380 – 480V, 3ϕ</td> <td>0.37 – 1.50 kW (0.5-2 HP)</td> <td>2.20 – 3.7 kW (3 – 5 HP)</td> </tr> </tbody> </table>	Voltage Class	A Frame Ratings	B Frame Ratings	100 – 120V, 1 ϕ	0.20 – 0.37 kW (0.25-0.5 HP)	0.75 kW (1 HP)	200 – 240V, 1 ϕ	0.20 – 0.75 kW (0.25-1 HP)	1.5 kW (3 HP)	200 – 240V, 3 ϕ	0.20 – 1.50 kW (0.25-2 HP)	2.20 – 3.7 kW (3 – 5 HP)	380 – 480V, 3 ϕ	0.37 – 1.50 kW (0.5-2 HP)	2.20 – 3.7 kW (3 – 5 HP)
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SPECIFICATIONS FOR THE SCHNEIDER DRIVE

CHARACTERISTICS	DESCRIPTION
Operator Interface	• Integral keypad with a 4-digit display
Standards	• Electrical equipment complies with industrial control standards (IEC, EN), such as: EN 50178 for low voltage, CEM immunity and CEM for radiation emission. UL, CSA, NOM 117 and C-Tick.
Input Specifications	200 V- 15 % to 240 V + 10 % single phase for model ATV 31ppppM2p; 50 Hz - 5 % to 60 Hz + 5 % 200 V- 15 % to 240 V + 10 % three phase for model ATV 31ppppM3X; 50 Hz - 5 % to 60 Hz + 5 % 380 V- 15 % to 500 V + 10 % three phase for model ATV 31ppppN4p; 50 Hz - 5 % to 60 Hz + 5 % 525 V- 15 % to 600 V + 10 % three phase for model ATV 31ppppS6X; 50 Hz - 5 % to 60 Hz + 5 %
Output Specifications	Maximum three phase voltage equal to the electric network
Protections	Thermal protection against overheating, motor phase shorts, input phase outage, over-current between the output phase and ground; protection against network over voltage and under voltage, lack of network three
Operating Temperature	-10° to 50 °C
Functions:	<ul style="list-style-type: none"> • Integrated power supply; • Three (3) programmable analog inputs; • One (1) programmable analog output for voltage and current; • Programmable output relays; • Six (6) programmable logical inputs; • Ramp rates; • DC breaking; and, • Optional Modbus and CANopen communication through the RJ45-type drive connector.

SPECIFICATIONS FOR THE VARIABLE SPEED CONTROLLER

CHARACTERISTICS	DESCRIPTION
Weight:	Dependent upon drive selected
Dimensions:	51 x 39 x 32 cm (20 x 15.5 x 12.5 in)



CL-150 WITH SCHNEIDER DRIVE



CL-150 WITH ALLAN-BRADLEY DRIVE