

Allen-Bradley 2097 Series Service Manual

2097-V34PR6

1. Description

Allen-Bradley 2097-V34PR6 Kinetix 300 EtherNet/IP Indexing Servo Drive, 400/480V AC, 3-Phase, 3.0 kW, 6A

2. Specifications

Specification	Value
Part	Number/Catalog No. 2097-V34PR6
Input	Voltage 320-528V rms three-phase (480V nom)
Integrated	AC Line Filter No
Brand	Allen-Bradley
Manufacturer	Rockwell Automation
Product	Bulletin 2097 Kinetix 300 Drives
Product	Description 2097 Kinetix 300 Ethernet I/P Indexing Drives
Input	Frequency 48...62 Hz
Main	AC input current, Nom (rms) 7.9 A
Max	inrush 22.6 A
Control	power back-up input voltage 20...26V DC
Control	power back-up input current, nominal 500 mA
Control	power back-up input current, max. inrush 30 A
Continuous	output current (rms) 6.0 A
Continuous	output current (0-pk) 8.5 A
Peak	output current (rms) 18.0 A
Peak	output current (0-pk) 25.5 A
Continuous	power output 3.00 kW
Drive	Voltage 480 Volts (Three Phase)
Continuous	Output Current (0-peak) 8.5 Amperes
Power	Dissipation 99 Watts
Torque	Value 5.0-7.0 lb*in (0.56-0.79 N*m)
Safe	Torque-Off Yes
120	Volt Doubler Mode No
Operating	Temperature 32-104 F (0-40 C)
Dimensions	9.37 x 9.04 x 2.68 in (238 x 230 x 68.0 mm)
Weight	4.0 lbs (1.8

3. Product Information

Allen-Bradley 2097-V34PR6 Kinetix 300 EtherNet/IP Indexing Servo Drive, 400/480V AC, 3-Phase, 3.0 kW, 6A

The Allen-Bradley 2097-V34PR6 is a Kinetix 300 Ethernet I/P Indexing servo drive. This drive has an AC input voltage requirement of 3-Phase, 320-528V rms, 3-phase with 480V nominal value. This drive has continuous output current and power of 8.5 A and 3.0 kW respectively. This drive features a safe Torque-Off functionality.

Technical specifications for 2097-V34PR6

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Input Voltage 320-528V rms three-phase (480V nom)

Integrated AC Line Filter No

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Product Bulletin 2097 Kinetix 300 Drives

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Drive Voltage 480 Volts (Three Phase)

Continuous Output Current (0-peak) 8.5 Amperes

Power Dissipation 99 Watts

Torque Value 5.0-7.0 lb*in (0.56-0.79 N*m)

Safe Torque-Off Yes

120 Volt Doubler Mode No

Operating Temperature 32-104 F (0-40 C)

Dimensions 9.37 x 9.04 x 2.68 in (238 x 230 x 68.0 mm)

Weight 4.0 lbs (1.8 kg)

The Allen-Bradley 2097-V34PR6 is a Servo Drive that belongs to the Kinetix 300 family of Ethernet I/P Indexing Servo Drives. This drive is used to implement motion control over Ethernet I/P network and supports seamless integration with Programmable Logic Controllers (PLC) such as MicroLogix 1400 controllers and Logix based controllers including CompactLogix and ControlLogix controllers. Compatible linear and rotary drive and actuators for this Kinetix Servo drive include Kinetix MP and TLY Rotary Motors, Kinetix MPAL Heavy-duty Electric Cylinders, Kinetix MPAR Electric Cylinders, LDAT-Series Linear Thrusters , LDC-Series™ Linear Motors , LDL-Series™ Linear Motors and Kinetix MPAS Integrated Linear Stages.

The 2097-V34PR6 has an AC input voltage requirement of 3-Phase, 320-528V rms, 3-phase with 480V nominal supply voltage. It is also built with safe Torque-Off functionality. The drive's putput capabilities include an output current and power of 8.5 A and 3.0 kW respectively. With CompactLogix controllers, Allen-Bradley's Integrated Architecture System may be used.

The 2097-V34PR6 Kinetix Indexing Servo Drive supports installation of I/O Terminal Expansion Block that attached to the drive's embedded 50-pin IOD connector, Memory module for automatic drive replacement, Line filters for eliminating noise in the supply line Shunt resistor and encoder module.

For UL applications, this drive must be installed with appropriate line protection devices such as with Busmann fuse with catalog number KTK-R-10 (10A), miniature circuit breaker of 1489-M3C100 and Self-protected CMC Motor Protection CB with catalog number of 140M-C2E-C10.

The 2097-V34PR6 is fused with a 480V AC Class CC and Class T Current-Limiting Bussman fuse and provides short-circuit protection using the 480V (140M-F8E-C20) fully-rated circuit breaker, and the 480V DC/AC coil contactor. The drive has a 50-pin I/O (IOD) connector for the installation of an I/O expansion terminal block and it requires an EEPROM module for the backup of the drive's configurations. When operational, it has a maximum power loss of 99W (dissipation) and is built to operate optimally at a temperature range of 0-40 deg. Celsius (32-104 Deg. Fahrenheit) at around 5-95% non-condensing relative humidity. The 2097-V34PR6 is designed for installation at an altitude of up to 1500m without de-rating and it can maintain optimal function with an operational shock of 15G and a vibration of 2.5G at 5-200Hz. The 2097-V34PR6 weighs approximately 1.8g (4lb) and has dimensions of 238mm by 68mm by 230mm.