

Description

The DigiFlex® Performance™ (DP) Series digital servo drives are designed to drive brushed and brushless servomotors. These fully digital drives operate in torque, velocity, or position mode and employ Space Vector Modulation (SVM), which results in higher bus voltage utilization and reduced heat dissipation compared to traditional PWM. The drive can be configured for a variety of external command signals. Commands can also be configured using the drive's built-in Motion Engine, an internal motion controller used with distributed motion applications. In addition to motor control, these drives feature dedicated and programmable digital and analog inputs and outputs to enhance interfacing with external controllers and devices.

This DP Series drive features a single RS-232/RS-485 interface used for drive configuration and setup. Drive commissioning is accomplished using DriveWare® 7, available for download at www.a-m-c.com.

All drive and motor parameters are stored in non-volatile memory.

Power Range	
Peak Current	100 A (70.7 A _{RMS})
Continuous Current	50 A (35.4 A _{RMS})
Supply Voltage	200 - 240 VAC



Features

- ▲ Four Quadrant Regenerative Operation
- Space Vector Modulation (SVM) Technology
- ✓ Fully Digital State-of-the-art Design
- Programmable Gain Settings
- Fully Configurable Current, Voltage, Velocity and Position Limits
- PIDF Velocity Loop

- ✓ PID + FF Position Loop
- ▲ 16-bit Analog to Digital Hardware
- Built-in brake/shunt regulator
- On-the-Fly Mode Switching
- On-the-Fly Gain Set Switching

MODES OF OPERATION

- Current
- Position
- Velocity
- Hall Velocity

COMMAND SOURCE

- PWM and Direction
- Encoder Following
- Over the Network
- 5V Step and Direction
- Indexing
- Jogging

FEEDBACK SUPPORTED

- Halls
- Incremental Encoder
- ±10 VDC Position
- Auxiliary Incremental Encoder
- Tachometer (±10 VDC)

INPUTS/OUTPUTS

- 3 Programmable Analog Inputs (12-bit Resolution)
- 5 Programmable Digital Inputs (Differential)
- 5 Programmable Digital Inputs (Single-Ended)
- 4 Programmable Digital Outputs (Single-Ended)

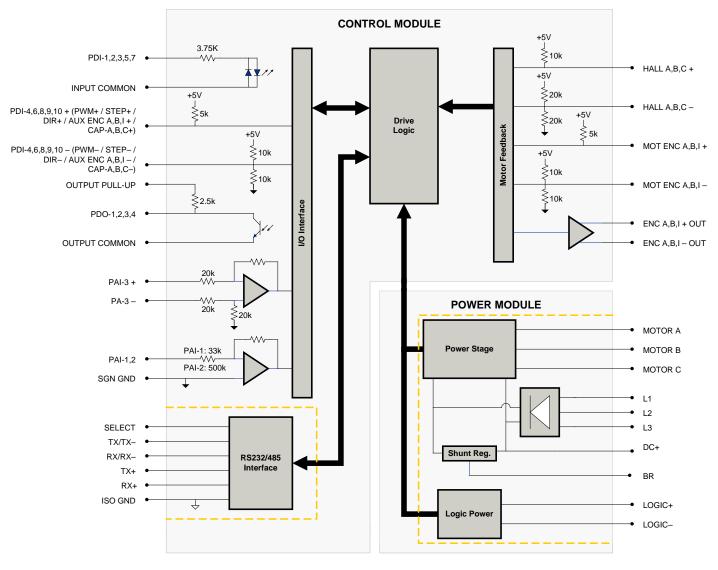
COMPLIANCES & AGENCY APPROVALS

- UL
- cUL
- CE Class A (LVD)
- CE Class A (EMC)
- RoHS





BLOCK DIAGRAM



	Information on Approvals and Compliances
c FL °us	US and Canadian safety compliance with UL 508c, the industrial standard for power conversion electronics. UL registered under file number E140173. Note that machine components compliant with UL are considered UL registered as opposed to UL listed as would be the case for commercial products.
Compliant with European CE for both the Class A EMC Directive 2004/108/EC on Electromagnetic Com (specifically EN 61000-6-4:2007 and EN 61000-6-2:2005) and LVD requirements of directive 2006/95/Ed (specifically EN 60204-1:2006), a low voltage directive to protect users from electrical shock.	
ROHS	RoHS (Reduction of Hazardous Substances) is intended to prevent hazardous substances such as lead from being manufactured in electrical and electronic equipment.





SPECIFICATIONS

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AS Steply Minorims VAC 200 - 200 AS Steply Minorims VAC 360 AS Steply Minorims VAC 364 AS Steply Minorims VAC 264 AS Steply Minorims VAC 265 - 273 AS Steply Minorims VAC 265 - 273 AS Steply Prequency VAC 265 - 273 DC Biss Over Vestage Limit VAC 269 DC Biss Over Vestage Limit VAC 269 DC Biss Over Vestage Limit VAC 260 DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Related Vallage* W VAC DC Biss Over Designation & Part Vallage* VAC DC Biss Over Designation Methods & VAC DC Biss Over Designation	·		
AS Supply Mainman VAC 314 CS lungly Immune VAC 314 CS lungly Prisenes 1-2 3 CS Supply Frequency 1-2 3-2 CS Supply Voltage Range ¹ VDC 255-373 CD Bus David Voltage Limit VDC 255-373 CD Bus David Voltage Limit VDC 20-30 Logic Supply Voltage Range ¹ VDC 20-30 (8 85 m²a) Logic Supply Voltage Range ¹ VDC 20-30 (8 85 m²a) Mounter Presidency A 14 mm 100 (76.7) Mounter David Voltage A 14 mm 100 (76.7) Maccontinuous Culput Prover Stand Voltage W 400 (76.7)			
AC Supply Maximum VAC 264 AC Input Prisezier - 3 3 AC Supply Frequency PEC 255-373 3 DC Bus Under Voltage Limit VDC 255-373 3 CB Bus Under Voltage Limit VDC 250-373 3 Logic Supply Voltage VDC 20-30 (8 850 mA) Maximum Peace Outque Clement A (Arms) 100 (707) Maximum Continuous Outque Clement A (Arms) 150 (354) Maximum Continuous Outque Clement A (Arms) 150 (354) Max. Continuous Outque Clement B (A May 100) 150 (354) Max. Continuous Outque Clement B (A May 100) 150 (354) Max. Continuous Outque Clement B (A May 100) 150 (354) Max. Continuous Outque Clement B (A May 100) 150 (354) Max. Continuous Outque Clement B (A May 100) 150 (354) <td></td> <td></td> <td></td>			
Κο Ιτρικοπίστη 3 OC Supply Francing 14 50 - 60 OC Supply Francing Range VOC 256 - 373 OC Bus Dev Voltage Limit VOC 265 - 373 OC Bus Low			
AS Supply Frequency Hz SD - 80 DC Supply Valage Inmi VDC 255 - 373 DC Bus Lower Voltage Inmi VDC 429 Logs Supply Valage VDC 20 - 30 (8 850 mk) Maximum Peaks Output Current A (Arms) 100 (70 7) Maximum Continuous Output Current A (Arms) 100 (38 4) Max. Continuous Output Current A (Arms) 150 (38 4) Max. Continuous Output Current A (Arms) 150 (38 4) Max. Continuous Output Current J (A 10 4) 150 (38 4) Max. Continuous Output Current J (A 10 4) 150 (38 4) Max. Continuous Output Power Disapsion (8 Rady Voltage) J (A 10 4) 150 (38 4) Max. Continuous Output Current J (A 10 4) 16 (30 4) Max. Continuous Output Current J (A 10 4) 16 (30 4) Max. Continuous Output Current J (A 10 4) 16 (30 4) Max. Continuous Output Current J (A 10 4) 16 (30 4) Morthory Continue Current J (A 10 4) 16 (30 4) Morthory Continue Current J (A 10 4) 16 (30 4) <t< td=""><td></td><td></td><td></td></t<>			
DC Sign Der Vortage Range* VDC 265-373 CB Bis Der Vortage Limit VDC 29- CB Bis Der Vortage VDC 29- Logic Supply Voltage VDC 20- 30 (8 80 m/k) Maximum Pach Culput Current* A (Arms) 100 (70.7) Max. Confinious Output Power & Rand Voltage* W 11400 Max. Confinious Der Power Designition & Bander Voltage W 1500 International Bis Capacitance PF 1500 International Extra Strumt Resistance* µ H 800 Maximum Output Power & Strate Voltage ¼ M 100 Maximum Output Power Designition & Bander Voltage ¼ M 100 Maximum Output Pow Duty Code ¼ 10 Communication Interfaces ¼ M 100 Communication Interfaces ¼ M 20 20 20 <	·		
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Lop C supply Voltage VDC 20 - 30 (8 stor IA) Maximum Peak Output Current* A Mm 90 (70 7) Maximum Continuous Output Current* A Mm 90 (35 4) Maximum Peak Output Devert Residence* A Mm 90 (35 4) Max. Continuous Output Devert Designation 8 Rated Voltage IV W 800 Internal Bus Cipacition Earth of Minimum Load Inductions (Line To-Line) IV Ho 900 Switching Frequency MHz 18 190 Switching Frequency Maximum Output PVM Duty Cycle % 100 Command Sources 1 8 Mm 100 Command Sources 2 8 Mm 20 (20 mA) Command Sources 1 3 Mm 8 Mm 20 (20 mA) Feedback Supported 2 3 Mm 3 Mm 20 (20 mA) Command Sources 3 3 Mm	-		•
Mashmum Peak Output Current A (Arms) 100 (70.7) Max. Continuous Output Pown ® Rated Voltage W 11400 Max. Continuous Output Pown ® Rated Voltage W 1500 Max. Continuous Output Pown ® Rated Voltage W 600 Infernal Blus Capocaltance µF 1500 Edermal Shurt Resistor Minimum Resistance? Q 10 Minimum Load Muctance (Line 10 Line)* µH 000 Switching Frequency ½4 10 Lov Voltage Supply Output 2 40 VOC (250 mA) Communication Interfaces 2 85 485232 Value Communication Interfaces 2 85 485232 Value Communication Interfaces 2 85 58pp and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, PVM	ū		
Maximum Continuous Output Deven's Rated Voltage' A (Arma) 9 (35.4) Max. Continuous Cutput Deven's Rated Voltage W 60 Max. Continuous Cutput Deven's Rated Voltage W 60 Internal Bus Cipacitance µF 1500 External Shunt Resistor Minimum Resistance ² 0 10 Obilitimum Load Inductance (Line-To-Line) ² ½ 16 Maximum Output PVM Duy Cycle ½ 10 Control Supply Outputs ½ 50 Control Supply Outputs ½ 50 Commonistion Interfaces ½ 50 Commonistion Interfaces ½ 6 Commonistion Methods ½ 6 Commonistion Methods ½ 6 Modes of Opening ½ 6 Commonistion Methods ½ 6 Modes of Opening ½ 6 Motors Supported ½ 6 Motors Supported ½ 6 Motors Supported ½ 6 Motors Opening ½ 6 Motors Opening ½ 6 Motors Opening ½ 6 Motors Opening ½ 6 Communication			·
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Internal Blus Cagacitance	Max. Continuous Output Power @ Rated Voltage ⁴	W	11400
Exernal Shunt Resident Minimum Resistance) Q 10 Minimum Load Industance (Line-To-Line)* WH 2 80 Minimum Load Industration (Line To-Line)* kHz 10 Maximum Output PWM Duty Cycle % 10 Low Vollage Supply Outputs 25 v Vol (250 mA) Command Sources Control Specifications Command Sources \$ 5.95 Sep and Direction, Encoder Following, Over the Network, PWM and Direction, Indexing, Long September (Line Supply Only 100 Vol (100 Vol (Max. Continuous Power Dissipation @ Rated Voltage	W	600
Minimum Load Inductance (Line To-Line)¹ µH 600 Switching Frequency 1 kHz 16 Low Voltage Supply Output % 100 Common/Supple Supply Output % 15 VPC (250 mA) Common/Supple Supple Output 2 km 25 voltage 2 km 25 voltage Communication Interfaces 9 Rs 48s 232 Command Sources 9 St Sp and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging Feedback Supported 9 St Sp and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging Modes of Operation 9 St Sp and Direction, Decider Following, Over the Network, PVM and Direction, Indexing, Jogging Modes of Operation 9 St Sp and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging Modes of Operation 9 St Sp and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging Modes of Operation 9 St Sp and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing Indexi	Internal Bus Capacitance	μF	1500
Switching Frequency BHZ 16 Maximum Output PWM Duty Cycle % 100 Low Voltages Dupply Outputs Town Town State Supply College Town Town State Supply College Command Sources 5.85-885/32 St.485/32 Command Sources 5.95 St.885/32 St.485/32 Feedback Supported 5.90 St.90 pand Direction, Encoder Following, Over the Network, PWM and Direction, Indexing, Jogging Feedback Supported 6.90 St.90 St.90 pand Direction, Encoder Following, Over the Network, PWM and Direction, Indexing, Jogging Commutation Methods 6.90 St.90 St.90 pand Direction, Encoder Following, Over the Network, PWM and Direction, Indexing, Jogging Modes of Operation 6.90 St.90 St.90 pand St. 485/32 Modes of Operation 6.90 St.90 St.90 pand Command St.90 pand Modes of Operation 6.90 St.90 St.90 pand Command St.90 pand Modes of Operation 6.90 St.90 pand Command St.90 pand Modes of Operation 6.90 St.90 pand Configurable Functions, Over Current, Over Temperature (Driv & Motor), Over Voltage, Short Circuit (Phase According), Under Voltage (Phase According) Programmable Digital Inputs/Outputs (PMIs/PAO) 9.90 St.90 pand 1.90 pand 2.90 pand <	External Shunt Resistor Minimum Resistance ⁵	Ω	10
Maximum Outquit PVMM Duty Cycle % 100 Low Voltage Supply Outpuis Control Specifications Value Description Value Communication Interfaces S. 84.85/232 Command Sources S. 9 sep and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jougnal Output Seption, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 VDC) Command Sources 2 - 0 Style pand Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jougnal Output Seption, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 VDC) Command Sources 2 - 0 Sinsusdail, Trapezoidal Modes of Operation 2 - 0 Courrent, Hall Velocity, Position, Velocity Modes of Operation 2 - 0 Courrent, Hall Velocity, Position, Velocity (Policy PDC) Motors Supported 3 - 0 Courrent, Hall Velocity, Velocity (Policy PDC) Programmable Protection 3 - 0 40° Confliquable Functions, Over Voltage, Short	Minimum Load Inductance (Line-To-Line) ⁶	μH	600
Low Voltage Supply Outputs Control Specifications Description Control Specifications Command Sources RS-485/232 Command Sources SV Step and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jougnage Feedback Supported SV Step and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jougnage Commutation Methods 3 - 10 VDC Position, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 VDC) Commutation Methods 3 - 2 Cincaset Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushelss) Modes of Operation 4 - 2 Cincaset Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushelss) Hardware Protection 3 - 2 Cincaset Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushelss) Hardware Protection 4 - 2 Cincaset Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushelss) Programmable Digital Inputs/Outputs (PDIs/PDOs) 4 - 2 Cincaset Loop Vector, Single Phase (Brushelss) Programmable Analog Inputs Outputs (PDIs/PDOs) 4 - 2 VBC Programmable Analog Inputs Outputs (PAIs/PAOs) 4 - 2 VBC Current Loop Sample Time 4 ps 125 Value 2 VBC	Switching Frequency	kHz	16
Description Control Control RS-485/23 Communication Interfaces 9.8 88-485/23 Command Sources 9.0 Syspa and Direction, Encoder Following, Over the Network, PWM and Direction, Indoxing, Jogging Feedback Supported 9.0 UC/DC Position, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 of UC) Communiation Methods 9.0 Sinusoidol, Trapezoidal Modes of Operation 9.0 Current, Hall Velocity, Position, Velocity Motors Supported 9.0 Current, Hall Velocity, Position, Velocity Programmable Analog Inputs Outputs (PAIs)PAOs) 9.0 Current, Hall Velocity, Position, Velocity Programmable Analog Inputs Outputs (PAIs)PAOs) 9.0 3.0 Primary IOL Logic Level 9.2 24 VDC Current Loop Sample Time µs 8.25 Velocity Loop Sample Time µs 125 Maximum Encoder Frequ	Maximum Output PWM Duty Cycle	%	100
Description Control Control RS-485/23 Communication Interfaces 9.8 88-485/23 Command Sources 9.0 Syspa and Direction, Encoder Following, Over the Network, PWM and Direction, Indoxing, Jogging Feedback Supported 9.0 UC/DC Position, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 of UC) Communiation Methods 9.0 Sinusoidol, Trapezoidal Modes of Operation 9.0 Current, Hall Velocity, Position, Velocity Motors Supported 9.0 Current, Hall Velocity, Position, Velocity Programmable Analog Inputs Outputs (PAIs)PAOs) 9.0 Current, Hall Velocity, Position, Velocity Programmable Analog Inputs Outputs (PAIs)PAOs) 9.0 3.0 Primary IOL Logic Level 9.2 24 VDC Current Loop Sample Time µs 8.25 Velocity Loop Sample Time µs 125 Maximum Encoder Frequ	Low Voltage Supply Outputs	-	+5 VDC (250 mA)
Description Units Value Communication Interfaces - RS-485/232 Command Sources - SV Step and Direction, Encoder Following, Over the Network, PWM and Direction, Indexing, Jogging Feedback Supported - - 150 VDC Position, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 VDC Position, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 VDC Position, SV Position, Velocity Modes of Operation - Current, Hall Velocity, Position, Velocity Motors Supported - Closed Loop Vector, Single Phase (Brushed, Voice Coll, Inductive Load), Three Phase (Brushless) Hardware Protection - - Closed Loop Vector, Single Phase (Brushed, Voice Coll, Inductive Load), Three Phase (Brushless) Hardware Protection - - Closed Loop Vector, Single Phase (Brushed, Voice Coll, Inductive Load), Three Phase (Brushless) Programmable Digital Inputs/Outputs (Pols/PDOs) - - 104 Programmable Digital Inputs/Outputs (Pols/PDOs) - - 104 Programmable Digital Inputs/Outputs (Pols/PDOs) - - 30 Programmable Digital Inputs/Outputs (Pols/Pols/Pols) - 24 VDC Current, Lop	, , , , , , , , , , , , , , , , , , ,	Control	
Command Sources - RS-486/232 Command Sources 25' Step and Irrection, Encoder Following, Over the Network, PWM and Direction, Indexing, Jogging 1, 2010 (PO Postion, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (at 10 Postion) Feedback Supported - Sinuscidal, Trapezoidal Modes of Operation - Current, Half Volocity, Position, Velocity Motors Supported - Closed Loop Vector, Single Phase (Brushlesd, Voloc Coll, Inductive Load), Three Phase (Brushlesd) Hardware Protection - 40° Colliquable Functions Current, Over Temperature (Drive & Motor), Over Voltage, Short Circuit (Phase-Phase & Phase-Ground), Under Voltage Programmable Digital Inputs/Outputs (PIs/PDOs) - 100' Programmable Analog Inputs/Outputs (PIs/PDOs) - 40° Colliquable Functions Current Lover Temperature (Drive & Motor), Over Voltage, Short Circuit (Phase-Phase & Phase-Ground), Under Voltage Programmable Analog Inputs/Outputs (PIs/PDOs) - 10° Programmable Analog Inputs/Outputs (PIs/PDOs) - 20° Valocity Loop Sample Time µs 82.5 Valocity Loop Sample Time µs 125 National Shurt Regulator µs 125 Internal Shurt Regulator µm<	Description		
Command Sources SV Step and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging Ingoration Feedback Supported -1 410 VDC Position, Auxiliary Incremental Encoder, Halls, Incremental Encoder, Tachometer (±10 VDC) Commutation Methods -2 Sinusoidal, Trapezoidal Motors Supported -2 Current, Hall Valocity, Position, Velocity Hordright Supported -2 Closed Loop Vectors, Single Phase (Brushed, Voice Coll, Inductive Load), Three Phase (Brushelss) Hardware Protection -2 40+ Configurable Functions, Over Current, Over Temperature (Drive & Motor), Over Voltage, Short Circle Phase & Phase & Phase & Phase - Ground), Under Voltage Programmable Digital Inputs/Outputs (PDIs/PDOs) -2 10/4 Programmable Analog Inputs/Outputs (PAIs/PAOs) -3 24 VDC Current Loop Sample Time μs 62.5 Valocity Loop Sample Time μs 125 Valocity Loop Sample Time μs 125 Internal Shurt Resistor -4 No Pose Packenace Packenace Suz (H x x x x) -4 EC Elass A (EMO, CE Class A (LVD), cUL, RoHS, UL Suz (H x x x x z) -5 -6 </td <td>·</td> <td></td> <td></td>	·		
Peeblack Supported Peeblack Supported Supporte	Command Sources	-	
Modes of Operation - Current, Hall Velocity, Position, Velocity Motors Supported - Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brusheds) Hardware Protection - 40 + Configuration Floring Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brusheds) Programmable Digital Inputs/Outputs (PDIs/PDOs) - 1 0/4 Programmable Digital Inputs/Outputs (PAIs/PAOs) - 3 100 Primary I/O Logic Level - 2 4 VDC Current Lop Sample Time μs 125 Velocity Loop Sample Time μs 125 Maximum Encoder Frequency MHz 2 (6) pre-quadrature) Internal Shunt Registor μs 125 Internal Shunt Resistor - No Description - Ves Description - C Class A (EMC), CE Class A (LVD), cUL, ROHS, UL Size (H x W x D) mm (m) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (α) 5500 (194) Heastink (Base) Temperature Range °C (°F) - - C Class A (LVD), cUL, ROHS, UL, ROHS, UL, ROHS, UL, ROHS, UL, ROHS, UL,	Feedback Supported	-	
Motors Supported Closed Loop Vector, Single Phase (Brushled, Voice Coil, Inductive Load), Three Phase (Brushless) Hardware Protection α 40+ Configurable Functions, Over Current, Over Temperature (Drive & Motor), Over Voitage, Short Circuit (Phase-Phase & Phase-Ground), Under Voitage Programmable Digital Inputs/Outputs (PDIs/PDOs) - 10/4 Programmable Analog Inputs/Outputs (PAIs/PAOs) - 3/0 Primary I/O Logic Level - 24 VDC Current Loop Sample Time μs 62.5 Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Maximum Encoder Frequency MHz 20 (spre-quadrature) Internal Shunt Regulator μs 125 Internal Shunt Regulator μs 25 pecifications Description Units Value Agency Approvals • CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (r) 0 - 75 (32-167) Storage Temperature Range ¹ °C (°F) 0 - 75 (32-167) Storage Temperature Range	Commutation Methods	-	Sinusoidal, Trapezoidal
Hardware Protection - Circuit (Phase-Phase & Puse-Ground), Under Voltage, Short Circuit (Phase-Phase & Phase-Ground), Under Voltage Programmable Digital Inputs/Outputs (PDIs/PDOs) - 10/4 Programmable Analog Inputs/Outputs (PAIs/PAOs) - 3/0 Primary I/O Logic Level - 24 VDC Current Loop Sample Time μs 62-5 Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Maximum Encoder Frequency MHz 20 (6 pre-quadrature) Internal Shunt Regulator - No No Internal Shunt Resistor - No No Description Mechanics Specifications Units Value Agency Approvals - C (ES as A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heasishik (Base) Temperature Range ³ ° C (°F) 0.75 (32-167) Storage Temperature Range ° C (°F) 4-0 × 5 (32-167) Storage Temperature Range ° C (°F) 4-0 × 5 (32-167) C	Modes of Operation	-	Current, Hall Velocity, Position, Velocity
Fractivate Policizion Sicricuit (Phase-Phase & Phase-Ground), Under Voltage Programmable Digital Inputs/Outputs (PDIs/PDOs) - 10/4 Programmable Analog Inputs/Outputs (PAIs/PAOs) - 3/0 Primary I/O Logic Level - 24 VDC Current Loop Sample Time µs 125 Position Loop Sample Time µs 125 Maximum Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - No Internal Shunt Regulator - No Description Units Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 27.2 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (cz) 5500 (194) Heatsink (Base) Temperature Range² °C (°F) -40 -85 (-40 - 185) Storage Temperature Range °C (°F) -40 -85 (-40 - 185) Storage Temperature Range °C (°F) -40 -85 (-40 - 185) Storage Temperature Range °C (°F) -40 -85 (-40 - 185) Storage Temperature Range °C	Motors Supported	-	Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless)
Programmable Analog Inputs/Outputs (PAIs/PAOs) - 3/0 Primary I/O Logic Level - 62 / DC Current Loop Sample Time μs 62 / DC Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Maximur Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - No Internal Shunt Resistor - No Description Units Value Agency Approvals - CE Class A (EMO), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range² °C (°F) 0.75 (32 - 167) Storage Temperature Range °C (°F) 40-75 (3-40-185) Form Factor - Panel Mount Coling System - Forced Convection IP Rating - Forced Convection BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block C	Hardware Protection	-	
Primary I/O Logic Level - 24 VDC Current Loop Sample Time µs 62.5 Velocity Loop Sample Time µs 125 Position Loop Sample Time µs 125 Maximum Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - Yes Internal Shunt Resistor - No Mechanical Specifications Mechanical Specifications Mescription To CE Class A (EMC), CE Class A (LVD), cUL, ROHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range¹ °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) 0 - 75 (32 - 167) Form Factor - - - Coling System - - - LOW ENCODER Connector - 15-pin, high-density, male D-sub BAKE/LOGIC Connector -	Programmable Digital Inputs/Outputs (PDIs/PDOs)	-	10/4
Current Loop Sample Time μs 62.5 Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Maximum Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - Yes Internal Shunt Resistor - No Mechanical Specifications Units Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, ROHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range' "C (*F) 0 - 75 (32 - 167) Storage Temperature Range "C (*F) -40 - 85 (-40 - 185) Form Factor Panel Mount Cooling System - Proced Convection IP Rating - 1P10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9pin, fe	Programmable Analog Inputs/Outputs (PAIs/PAOs)	-	3/0
Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Maximum Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - Yes Internal Shunt Resistor - No Mechanical Support	Primary I/O Logic Level	-	24 VDC
Position Loop Sample Time μs 125 Maximum Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - Yes Mechanical Successions Description Mechanical Specifications Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range ² °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	Current Loop Sample Time	μs	62.5
Maximum Encoder Frequency MHz 20 (5 pre-quadrature) Internal Shunt Regulator - Yes Mechanical Specifications Description Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range² °C (°F) 0 -75 (32 - 167) Storage Temperature Range °C (°F) 1-40 - 85 (-40 - 185) Form Factor Panel Mount Cooling System - Forced Convection IP Rating - Forced Convection IP RAKE/LOGIC Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block I/O Connector - 15-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	Velocity Loop Sample Time	μs	125
Internal Shunt Regulator - Yes Mechanical Specifications Mechanical Specifications Description Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range? °C (°F) 0 -75 (32 - 167) Storage Temperature Range °C (°F) 4-60 - 85 (-40 - 185) Form Factor Panel Mount Cooling System - Forced Convection IP Rating - Forced Convection IP Rating - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 15-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	Position Loop Sample Time	μs	125
No Description	Maximum Encoder Frequency	MHz	20 (5 pre-quadrature)
Mechanical SpecificationsDescriptionUnitsValueAgency Approvals-CE Class A (EMC), CE Class A (LVD), cUL, RoHS, ULSize (H x W x D)mm (in)272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9)Weightg (oz)5500 (194)Heatsink (Base) Temperature Range?°C (°F)0 - 75 (32 - 167)Storage Temperature Range°C (°F)-40 - 85 (-40 - 185)Form Factor-Panel MountCooling System-Forced ConvectionIP Rating-IP10AUX ENCODER Connector-15-pin, high-density, male D-subBRAKE/LOGIC Connector-4-contact, 13 mm spaced, dual-barrier terminal blockCOMM Connector-9-pin, female D-subI/O Connector-15-pin, high-density, female D-subMOTOR POWER Connector-26-pin, high-density, female D-subMOTOR POWER Connector-4-contact, 13 mm spaced, dual-barrier terminal block	Internal Shunt Regulator	-	Yes
Description Units Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, ROHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range² °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - 1P10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	Internal Shunt Resistor	-	No
Description Units Value Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, ROHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range² °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - 1P10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block		Mechanica	al Specifications
Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range ⁷ °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor Panel Mount Cooling System - Forced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	Description		·
Size (H x W x D) mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range ⁷ °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block		-	
Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range ⁷ °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block		mm (in)	
Heatsink (Base) Temperature Range? °C (°F) 40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System IP Rating AUX ENCODER Connector BRAKE/LOGIC Connector COMM Connector FEEDBACK Connector I/C Connector I/C Connector - Spin, high-density, female D-sub I/C Connector - 15-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	` '	1	
Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	•		
Form Factor - Panel Mount Cooling System - Forced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block			
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IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block			
AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub //O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	• .		
BRAKE/LOGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	·		
COMM Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block			
FEEDBACK Connector - 15-pin, high-density, female D-sub I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block			
I/O Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block		-	
MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block		-	
	I/O Connector	-	26-pin, high-density, female D-sub
POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	MOTOR POWER Connector	-	4-contact, 13 mm spaced, dual-barrier terminal block
	POWER Connector	-	4-contact, 13 mm spaced, dual-barrier terminal block

Notes

- 1.
- Can operate on single-phase VAC if peak/cont. current ratings are reduced by at least 30%.

 DC Supply operation will reduce peak/cont. current ratings by at least 30%.

 Capable of supplying drive rated peak current for 2 seconds with 10 second foldback to continuous value. Longer times are possible with lower current limits.
- P = (DC Rated Voltage) * (Cont. RMS Current) * 0.95.
- ADVANCED Motion Controls recommends using an external fuse in series with the the shunt resistor. A 3 amp motor delay fuse is typical
- Lower inductance is acceptable for bus voltages well below maximum. Use external inductance to meet requirements.
- Additional cooling and/or heatsink may be required to achieve rated performance.

ELECTROMATE Toll Free Phone (877) SERV098 Toll Free Fax (877) SERV099 www.electromate.com sales@electromate.com



PIN FUNCTIONS

AUX ENCODER - Auxiliary Feedback Connector			
Pin	Name	Description / Notes	1/0
1	RESERVED	Reserved	-
2	RESERVED	Reserved	-
3	RESERVED	Reserved	-
4	PDI-8 + (PWM+ / AUX ENC A+ / CAP-B+)	Programmable Digital Input or PWM or Auxiliary Encoder or High Speed Capture (For	- 1
5	PDI-8 - (PWM- / AUX ENC A- / CAP-B-)	Single-Ended Signals Leave Negative Terminal Open)	I
6	PDI-9 + (DIR+ / AUX ENC B+ / CAP-C+)	Programmable Digital Input or Direction Input or Auxiliary Encoder or High Speed Capture (For Single-Ended Signals Leave Negative Terminal Open)	
7	PDI-9 - (DIR- / AUX ENC B- / CAP-C-)		
8	PDI-10 + (AUX ENC I+ / CAP-A+)	Programmable Digital Input or Auxiliary Encoder or High Speed Capture (For Single-Ended	I
9	PDI-10 - (AUX ENC I- / CAP-A-)	Signals Leave Negative Terminal Open)	I
10	SGN GND	Signal Ground	SGND
11	SGN GND	Signal Ground	SGND
12	SGN GND	Signal Ground	SGND
13	+5V OUT	+5V Encoder Supply Output (Short Circuit Protected)	0
14	PAI-3 +	Differential Programmable Analog Input (12-bit Resolution)	
15	PAI-3 -		

	BRAKE/LOGIC - Logic Power Connector		
Pin	Name	Description / Notes	1/0
1	LOGIC GND	Logic Supply Ground	GND
2	LOGIC PWR	Logic Supply Input	I
3	3 BR External Brake Resistor Connection		-
4 DC+ Brake Resistor DC+. Connection for brake resistor.		0	

	COMM - RS232/RS485 Communication Connector			
Pin	Name	Description / Notes	1/0	
1	SELECT	RS232/485 selection. Pull to ground (CN1-5) for RS485.	I	
2	RS232 TX / RS485 TX-	Transmit Line (RS-232 or RS-485)	0	
3	RS232 RX / RS485 RX-	Receive Line (RS-232 or RS-485)	I	
4	RESERVED	Reserved	-	
5	ISO GND	Isolated Signal Ground	IGND	
6	RS485 TX+	Transmit Line (RS-485)	0	
7	RESERVED	Reserved	-	
8	RS485 RX+	Receive Line (RS-485)	I	
9	RESERVED	Reserved	-	

FEEDBACK - Feedback Connector			
Pin	Name	Description / Notes	1/0
1	HALL A+		1
2	HALL B+	Commutation Sensor Inputs	I
3	HALL C+		I
4	MOT ENC A+	Differential Encoder A Channel Input (For Single Ended Signals Use Only The Positive	I
5	MOT ENC A-	Input)	I
6	MOT ENC B+	Differential Encoder B Channel Input (For Single Ended Signals Use Only The Positive	I
7	MOT ENC B-	Input)	I
8	MOT ENC I+	Differential Encoder Index Input /For Cingle Ended Cignels Lies Only The Decitive Input)	I
9	MOT ENC I-	Differential Encoder Index Input (For Single Ended Signals Use Only The Positive Input)	I
10	HALL A-	Commutation Sensor Input (For Differential Signals Only)	I
11	HALL B-	Commutation Sensor Input (For Differential Signals Only)	I
12	SGN GND	Signal Ground	SGND
13	+5V OUT	+5V Encoder Supply Output (Short Circuit Protected)	0
14	PAI-2	Programmable Analog Input (12-bit Resolution)	I
15	HALL C-	Commutation Sensor Input (For Differential Signals Only)	1





		I/O - Signal Connector	
Pin	Name	Description / Notes	1/0
1	PDO-1	Isolated Programmable Digital Output	0
2	OUTPUT COMMON	Digital Output Common	OGND
3	PDO-2	Isolated Programmable Digital Output	0
4	PDI-4 - (STEP-)	Programmable Digital Input or Step- (For Differential Signals Only)	I
5	PDI-6 - (DIR-)	Programmable Digital Input or Direction- (For Differential Signals Only)	1
6	PAI-1	Programmable Analog Input (12-bit Resolution)	1
7	SGN GND	Signal Ground	SGND
8	OUTPUT PULL-UP	Digital Output Pull-Up For User Outputs	I
9	PDI-5	Isolated Programmable Digital Input	I
10	PDO-3	Isolated Programmable Digital Output	0
11	PDI-1	Isolated Programmable Digital Input	I
12	PDI-2	Isolated Programmable Digital Input	I
13	PDI-3	Isolated Programmable Digital Input	I
14	PDO-4	Isolated Programmable Digital Output	0
15	INPUT COMMON	Digital Input Common (Can Be Used To Pull-Up Digital Inputs)	IGND
16	SGN GND	Signal Ground	SGND
17	PDI-4 + (STEP+)	Programmable Digital Input or Step+	I
18	PDI-6 + (DIR+)	Programmable Digital Input or Direction+	I
19	PDI-7	Isolated Programmable Digital Input	I
20	ENC A+ OUT	Deffered Freedow Observal A Outside	0
21	ENC A- OUT	Buffered Encoder Channel A Output	0
22	ENC B+ OUT	Duffered Feeder Channel B Outsut	0
23	ENC B- OUT	Buffered Encoder Channel B Output	0
24	ENC I+ OUT	Deffered Franchischer Outsit	0
25	ENC I- OUT	Buffered Encoder Index Output	
26	SGN GND	Signal Ground	SGND

	MOTOR POWER - Motor Power Connector		
Pin	Name	Description / Notes	1/0
1	SHIELD	Motor cable shield. Internally connected to protective earth ground.	-
2	MOTOR POWER U	Motor Phase U	0
3	MOTOR POWER V	Motor Phase V	0
4	MOTOR POWER W	Motor Phase W	0

		POWER - AC Power Connector	
Pin	Name	Description / Notes	1/0
1	L1		I
2	L2	AC Supply Input (Three Phase)	1
3	L3		1
4	PE	Protective Earth Ground	-





HARDWARE SETTINGS

Switch Functions

Switch	Description	Set	ting
Switch	Description	On	Off
1	Bit 0 of binary RS-485 drive address. Does not affect RS-232 settings.	1	0
2	Bit 1 of binary RS-485 drive address. Does not affect RS-232 settings.	1	0
3	Bit 2 of binary RS-485 drive address. Does not affect RS-232 settings.	1	0
4	Bit 3 of binary RS-485 drive address. Does not affect RS-232 settings.	1	0
5	Bit 4 of binary RS-485 drive address. Does not affect RS-232 settings.	1	0
6	Bit 5 of binary RS-485 drive address. Does not affect RS-232 settings.	1	0
7	Bit 0 of drive RS-485 baud rate setting. Does not affect RS-232 settings.	1	0
8	Bit 1 of drive RS-485 baud rate setting. Does not affect RS-232 settings.	1	0

Additional Details

The drive can be configured to use the address and/or bit rate stored in non-volatile memory by setting the address and/or bit rate value to 0. Use the table below to map actual bit rates to a bit rate setting.

Baud Rate (kbps)	Value For Bit Rate Setting
Load from non-volatile memory	0
9.6	1
38.4	2
115.2	3





MECHANICAL INFORMATION

AUX ENCODER - Auxiliary Feedback Connector				
Connector Information		15-pin, high-density, male D-sub		
Mating Connector	Details	TYCO: Plug P/N 1658681-1; Housing P/N 5748677-1; Terminals P/N 1658686-2 (loose) or 1658686-1 (strip)		
	Included with Drive	No		
SGN GND 10				

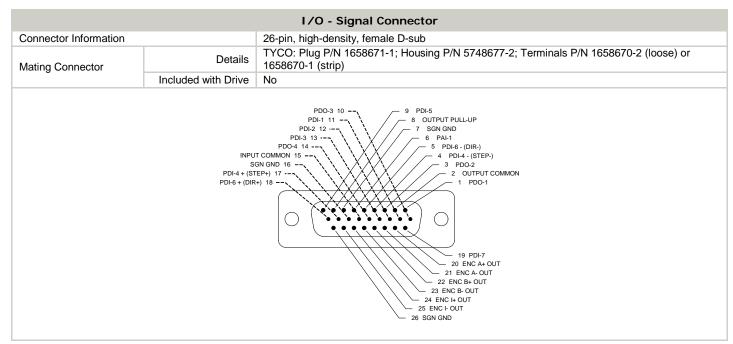
BRAKE/LOGIC - Logic Power Connector				
Connector Information		4-contact, 13 mm spaced, dual-barrier terminal block		
Mating Connector	Details	Not applicable		
	Included with Drive	Not applicable		
4 DC+ 3 BR 2 LOGIC PWR 1 LOGIC GND				

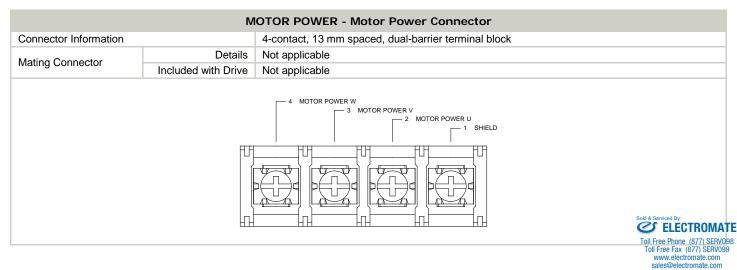
COMM - RS232/RS485 Communication Connector				
Connector Information		9-pin, female D-sub		
Mating Connector	Details	TYCO: Plug P/N 205204-4; Housing P/N 5748677-1; Terminals P/N 1658540-5 (loose) or 1658540-4 (strip)		
	Included with Drive	No		
3 RS232 RX / RS485 RX- 2 RS232 TX / RS485 TX- 1 SELECT 6 RS485 TX+ 8 RS485 RX+				





FEEDBACK - Feedback Connector				
Connector Information		15-pin, high-density, female D-sub		
Mating Connector	Details	TYCO: Plug P/N 748364-1; Housing P/N 5748677-1; Terminals P/N 1658670-2 (loose) or 1658670-1 (strip)		
	Included with Drive	No		
MOT ENC B+ 6 4 MOT ENC A+ MOT ENC I+ 8 2 HALL B+ HALL A- 10 1 HALL B- 12 SGN GND 13 +5V OUT 14 PAL2 15 HALL C-				





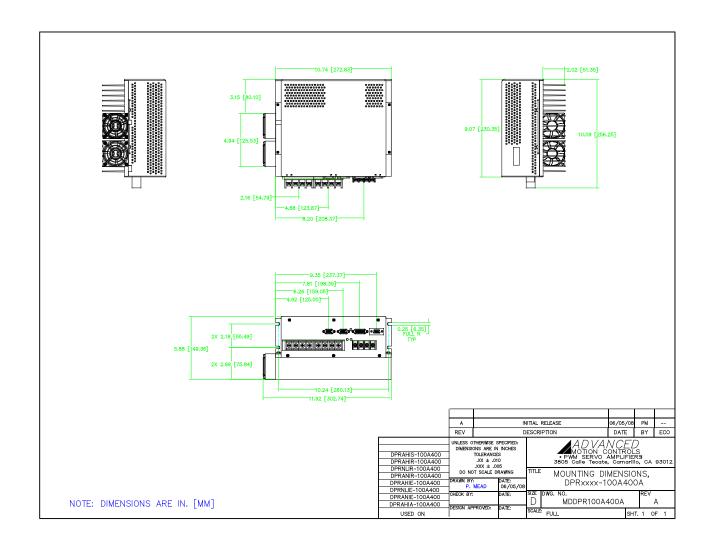


POWER - AC Power Connector				
Connector Information		4-contact, 13 mm spaced, dual-barrier terminal block		
Mating Connector	Details	Not applicable		
	Included with Drive	Not applicable		
4 PE				





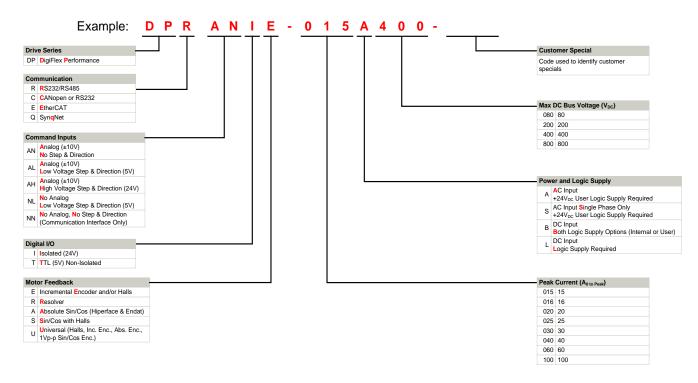
MOUNTING DIMENSIONS







PART NUMBERING INFORMATION



DigiFlex® Performance™ series of products are available in many configurations. Note that not all possible part number combinations are offered as standard drives. All models listed in the selection tables of the website are readily available, standard product offerings.

ADVANCED Motion Controls also has the capability to promptly develop and deliver specified products for OEMs with volume requests. Our Applications and Engineering Departments will work closely with your design team through all stages of development in order to provide the best servo drive solution for your system. Equipped with on-site manufacturing for quick-turn customs capabilities, ADVANCED Motion Controls utilizes our years of engineering and manufacturing expertise to decrease your costs and time-to-market while increasing system quality and reliability. Feel free to contact Applications Engineering for further information and details.

Examples of Customized Products

- Optimized Footprint
- ▲ Private Label Software
- ▲ OEM Specified Connectors
- No Outer Case
- ✓ Increased Current Resolution
- ▲ Increased Temperature Range
- Custom Control Interface
- ✓ Integrated System I/O

- ▲ Tailored Project File
- ▲ Silkscreen Branding
- Optimized Base Plate
- Increased Current Limits
- ✓ Increased Voltage Range
- Conformal Coating
- Multi-Axis Configurations
- Reduced Profile Size and Weight