

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 Rang	ge
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
- Compact Size, High Power Density
- ▲ 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

- Hall Velocity
- Current
- Position
- Velocity

COMMAND SOURCE

- PWM and Direction
- Encoder Following
- Over the Network
- ±10 V Analog
- 24V Step and Direction
- Indexing
- Jogging

FEEDBACK SUPPORTED

- Halls
- ±10 VDC Position
- Auxiliary Incremental Encoder
- 1Vp-p Sine/Cosine Encoder
- Tachometer (±10 VDC)

INPUTS/OUTPUTS

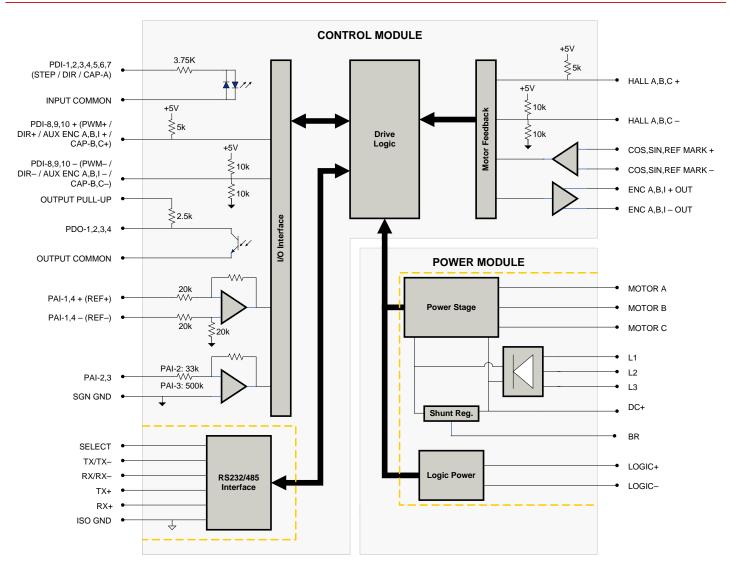
- 3 High Speed Captures
- 4 Programmable Analog Inputs (16-bit/12-bit Resolution)
- 3 Programmable Digital Inputs (Differential)
- 7 Programmable Digital Inputs (Single-Ended)
- 4 Programmable Digital Outputs (Single-Ended)

COMPLIANCES & AGENCY APPROVALS

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



BLOCK DIAGRAM



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 Compatibility (specifically EN 61000-6-4:2007 and EN 61000-6-2:2005) and LVD requirements of directive 2006/95/EC (specifically EN 60204-1:2006), a low voltage directive to protect users from electrical shock. RoHS (Reduction of Hazardous Substances) is intended to prevent hazardous substances such as lead from being manufactured in electrical and electronic equipment.



SPECIFICATIONS

Read Oxiogly Voltage Range VAC 200-20 AC Steply Mainten VAC 200-20 AC Steply Mainten VAC 180 AC Steply Mainten VAC 264 AC Steply French 1-C 3 AC Steply Frequency 1-C 30-0 LOS Steply Voltage Range VAC 200 Class Cher Voltage Line VAC 200 LOS Steply Voltage Range VAC 200 LOS Steply Voltage Range VAC 200 LOS Steply Voltage Range VAC 200 Marken Fred College Clared 4 A Armal 100 (70.7) Mariann Pred College Clared 4 A Armal 100 (70.7) Mariann Controlland Outrell 4 A Armal 100 (70.0) Max. Controlland College Clared JE (100.0) 100 Mac. Controlland College Clared JE (100.0) 100 Mac. Controlland College Clared JE (100.0) 100 Marc. Controlland College Clared JE (100.0) 100 Scentral Sea Capacities JE (100.0) 100 <	Description	Power : Units	Specifications Value
AS Storph Minimum	Rated Voltage	VAC (VDC)	240 (339)
AS Supply Maximum VAC 36 AC Supply Principations 1.1 30 50 <td>AC Supply Voltage Range</td> <td>VAC</td> <td>200 - 240</td>	AC Supply Voltage Range	VAC	200 - 240
A	AC Supply Minimum	VAC	180
AC Ingriph Front (Passage) 1 3 AC Supply Front (Passage) VPC 255 - 373 DC But Over Violage Limit VPC 425 - 324 DC But Devide Violage Limit VPC 257 - 370 DC But Devide Violage Limit VPC 257 - 370 (#85 mm²) Maximum Post Cuturo Cutyper Current A (Arms) 100 (78.7) Maximum Devide Device of Ethacit Violage* A (Arms) 30 (35.4) Mac. Continuous Porter R Ethacit Violage* W 400 Mac. Continuous Pero R Ethacit Violage* W 400 Mac. Continuous Pero R Ethacit Violage* W 400 Mac. Continuous Pero R Ethacit Violage* W 400 Max. Continuous Pero R Ethacit Violage* W 400 Max. Continuous Pero R Ethacit Violage* W 400 Information Statute Resistance* UF 1500 Description JH 400 Contract Statute Resistance* 160 100 Communication Interfaces 15 45 (45.2) Communication Interfaces 15 45 (45.2)	AC Supply Maximum	VAC	264
DC Suit Port Violage Energe VDC 425-373 DC Bia Under Violage Limit VDC 205 DC Bia Under Violage Limit VDC 20-3 (e) 850 mA) Montrum Peak Output Current A (Arma) 100 (70.7) Max Confinious Deptit Current A (Arma) 100 (70.7) Max Confinious Deptit Begins of Rated Violage W 400 Max Confinious Deptit Begins of Rated Violage W 400 Max Confinious Deptit Begins of Rated Violage W 400 Information State Rated Violage W 400 Information State Rated Violage W 400 Minimum Lost Inductions (Energy Limit State Violage State		-	3
DS Sub One Votage Image VDC 425 - 373 DC Bis Under Votage Imit VDC 429 DC Bis Under Votage Imit VDC 20 - 30(8 80 mA) Monitum Past Output Current A (Arms) 100 (70.7) Maximum Derination Colpus Current A (Arms) 100 (70.7) Max. Continuos Devel Departer ® Read Votage W 41 (100 Max. Continuos Devel Departer ® Read Votage W 400 Max. Continuos Devel Departer ® Read Votage W 400 Internal Bus Capacitance µF 1500 Internal Bus Capacitance µF 100 Internal Bus Capacitance µF 400 Workbrigh Frequency M6 10 Vorte Vottage Support % 100 Vorte Vottage Support % 100 Command Source 8 8 Command Source 8 8 Command Source 1 100 (200 (200 mA) Command Source 1 100 (200 (200 mA) Command Source 1 100 (200 (200 mA) <	AC Supply Frequency	Hz	50 - 60
□ Sile Sur John Virlage Limin		VDC	255 - 373
DC Bus Duck Voltage VDC 200 30 (8 85 m/m) Maximum Peak Output Current A (Arms) 100 (70.7) Maximum Deak Output Current A (Arms) 100 (80.4) Mac. Continuous Dutput Power B Rand Voltagel W 1400 Mac. Continuous Dutput Power B Rand Voltagel W 1500 Mac. Continuous Devel Designation of Rated Voltage PW 1500 Interest Blux Repeatance PW 1500 External Shurk Resistance? PW 100 Minimum Load Inductance (Line-To-Line)? PW 100 Maximum Output PVM Duly Oyde % 100 Low Voltage Supply Outputs Postrip Sectron Shurk Resistance? A VS VIC (250 AN) Command Saures Description ************************************		VDC	429
Log- Supply Vallage VDC 20 - 30 (@ 85 0m A) Maximum Pack Output Current A (Arme) 40 (70 7) Maximum Continuous Output Current A (Arme) 50 (35.4) Mac Continuous Output Power (® Rated Valtage) W 800 Mac Continuous Output Power (Baspitation & Rated Valtage) JW 800 External Shur Genation (Life-To-Line) JW 800 Suching Frequency MT 2 10 Minimum Load Induction (Life-To-Line) M 12 10 Suching Frequency M 20 10 Minimum Dought PVM Duty Cycle % 10 10 Low Vallage Supply Outputs To 10 Name To 10 Low Vallage Supply Outputs To 10 Name To 10 Low Vallage Supply Outputs To 10 Name To 10 Command Sources Info/Signal Supple Su	DC Bus Under Voltage Limit	VDC	205
Montmunc Continuous Output Dever (Rated Voltage) A (Arms) 90 (35.4) Max. Continuous Dever Designation & Rated Voltage) W 800 Max. Continuous Dever Designation & Rated Voltage W 800 External Shurd Resistor Minimum Resistance? D 40 Minimum Load Inductories (Line-To-Line)? Initia 0 Switching Frequency Net 2 10 Maximum Output PVM Duty Oyoles 5 40 (25.00 mA) Communication Interfaces Post 2 45 (26.00 mA) Communication Interfaces 1 45 (26.00 mA) Communication Interfaces 2 410 V Analogy, 240 Step and Direction, Encoder Following, Over the Network, PWM and Direction, Interfaces Feedback Supported 2 410 V Analogy, 240 Step and Direction, Encoder Following, Over the Network, PWM and Direction Interfaces Feedback Supported 2 410 V Analogy, 240 Step and Direction, Encoder Following, Over the Network, PWM and Direction Interfaces Communication Methods 2 410 V DC Poston, Vipe Sine-Conne Encoder, Auxiliary Incremental Encoder, Halls, Tachonneter Current Curr	·	VDC	20 - 30 (@ 850 mA)
Montmunc Continuous Output Dever (Rated Voltage) A (Arms) 90 (35.4) Max. Continuous Dever Designation & Rated Voltage) W 800 Max. Continuous Dever Designation & Rated Voltage W 800 External Shurd Resistor Minimum Resistance? D 40 Minimum Load Inductories (Line-To-Line)? Initia 0 Switching Frequency Net 2 10 Maximum Output PVM Duty Oyoles 5 40 (25.00 mA) Communication Interfaces Post 2 45 (26.00 mA) Communication Interfaces 1 45 (26.00 mA) Communication Interfaces 2 410 V Analogy, 240 Step and Direction, Encoder Following, Over the Network, PWM and Direction, Interfaces Feedback Supported 2 410 V Analogy, 240 Step and Direction, Encoder Following, Over the Network, PWM and Direction Interfaces Feedback Supported 2 410 V Analogy, 240 Step and Direction, Encoder Following, Over the Network, PWM and Direction Interfaces Communication Methods 2 410 V DC Poston, Vipe Sine-Conne Encoder, Auxiliary Incremental Encoder, Halls, Tachonneter Current Curr	Maximum Peak Output Current ³	A (Arms)	100 (70.7)
Max. Continuous Output Power B Rated Voltage W 600 Max. Continuous Devel Dissipation ® Rated Voltage μF 1500 Internal Busic Capacitance μF 1500 Exernal Shuri Rosstor Minimum Resistance? μP 600 Shutching Frequency H32 16 Shutching Frequency H32 16 Low Voltage Supply Outputs Town Internal Shuring PVIM Duty Cycle % 100 Communication Interfaces Town Internal Shuring PVIM Duty Cycle % 100 Communication Interfaces RS 489702 Not National Shuring PVIM Duty Cycle Communication Interfaces PS 489702 Not National Shuring PVIM Duty Cycle Internal Shuring PVIM PVIM PVIM PVIM PVIM PVIM PVIM PVIM	·	1 1	
Mox. Continuous Power Dissipation of Rated Voltage W js 1500 Internal Sus Capacitance μF 1500 External Shurt Resistance? μH 2000 External Shurt Resistance? μH 2000 Michimum Load Inductance (Line To-Line)? μH 2000 Nativiting Froquency kH 2000 Nativiting Programs Output PVM Duty Options % 40 VCD (250 mA) Common Description 2.0 RS-488222 Command Sources 410 VA Availage, 24V Step and Direction, Encoder Following, Over the Network, PVM and Direction, Command Sources 410 VAD (250 mA) Feedback Supported 2.0 810 VA Availage, 24V Step and Direction, Encoder Following, Over the Network, PVM and Direction, Availage, 24V Step and Direction, Encoder, Auxiliary Incremental Encoder, Halls, Tachometer (240 VCD) Communication Methods 2.0 Sinusacidal Motors Supported 2.0 Sinusacidal Motors Supported 2.0 Ciocaet Looy Vexes, Single Phase (Round, Viole Coll, Inductive Load), Three Phase (Brushless) Hardware Protection 2.0 Ciocaet Looy Vexes, Single Phase (Round, Viole Coll, Inductive Load), Three Phase (Brushless) Hardware Protection 2.0 Ciocaet Looy Vexes, Single Phase (Round, Viole Coll, Inductive Load), Three Phase (Brushless)<	·	` ′	` '
Internal Bus Capacitance μF 500 External Bus Capacitance (Barbana) Minimum Resistance) Q 10 Minimum Load Inductance (Line-To-Line)* μH 800 Macketing Frequecy 4 Mate 15 VDC (250 mA) Corn Vollage Supph Outputs 2 March 4 VDC (250 mA) Cornmunation Interfaces 1 March 8 - 488-322 Command Sources 2 March 8 - 488-323 Command Sources 1 March 8 - 488-323 Command Sources 2 March 1 March 9 March Command Sources 2 March 1 March 9 March Command Sources 4 March 2 March 1 March 9 March Command Sources 4 March 2 March	·		
Exernal Shurt Resize Mnimum Resistances Q 10 Mnimum Lond Indextance (Line To-Line)* MHz 680 Switching Frequency MHz 18 Water Dury Output MHz 18 Low Voltagis Supply Outputs 2 - 4 × VDC (250 mA) Description Value Communication Interfaces 2 - 8 84.98.923 Command Sources 410 V Anotag, 24V Step and Direction, Encoder Following, Over the Network, PWM and Direction, Indicated, 20,000 and 190 (200 (200 (200 (200 (200 (200 (200 (2			
Minimum Load Inductance (Line*To-Line)* lyH 600 Switching Frequency lkHz 15 Maximum Output PVM Duty Cycle % 100 Low Yotage Supply Outputs 2 - 4 × VDC (250 mA) Description Value No. 88-488-203 Value Communication Interfaces 2 - 8 - 10 VAR Paylang, 24V Step and Direction. Encoder Following, Over the Network, PVM and Direction, Encoder Solowing, Over Units (PVM) and Direction, Encoder Solowing, Over the Network, PVM and Direction, Encoder Solowing, Over Units (PVM) and Direction, Encoder Solowing, Over Units (PVM) and Direction, Encoder Solowing, Units (VM) and Direction, Encoder	·	· ·	
Switching Frequency Ikitz 16 Low Voltage Supply Outputs 7 4 VDC (250 mA) Common Description Command Sources RS-485232 Value Command Sources 1 S. 485232 All OV Analog, 24V Step and Direction, Encoder Following, Over the Network, PVIM and Direction, Induction, Judgaing Feedback Supported 1 S. 4 (cit 0 VDC) (cit 00 VDC) Command Sources 2 Sinusoidal Modes of Operation 3 Sinusoidal Modes of Operation 4 Sinusoidal Modes of Operation 4 Sinusoidal Modes of Operation Sinusoidal 4 Sinusoidal Modes of Operation Sinusoidal 4 Sinusoidal Modes of Ope			
Maximum Cutyut PVM Duty Cycle % 100 Low Voltage Supply Outputs 1 45 VCD C50 mA) Commonication Interfaces 8 PS-485/232 Value Command Sources 1 RS-485/232 A 10 V Analog, 24V Step and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Joagning Feedback Supported 2 8 10 V AD Position, 1Vtp- P Sinse/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachoneter (±10 VCD) Commutation Methods 3 Colling May 10 VCD Modes of Operation 4 C 10 VCD Position, 1Vtp- P Sinse/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachoneter (±10 VCD) Modes of Operation 4 C 10 VCD Position, 1Vtp- P Sinse/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachoneter (±10 VCD) Modes of Operation 4 C 10 VCD Position, 1Vtp- P Sinse/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachoneter (±10 VCD) Modes of Operation C 10 VCD Position, 1Vtp- P Sinse/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachoneter (±10 VCD) Modes of Operation C 10 VCD 40 VCD Programmable Annual Incremental Encoder, Halls, Tachoneter (±10 VCD) 40 VCD Programmable Annual Incremental Encoder, Auxiliary Incremental Encoder, Malls, Titte & Molor), Over Vollage, Stort (Trection Encoder) </td <td>` ,</td> <td>· ·</td> <td></td>	` ,	· ·	
Description Description			
Obsertition Control Specifications Units Value Communication Interfaces - 0 R-4845223 As 4845224 Command Sources - 10 V A Panalog, 24V Step and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging - 10 V VA Postboom, 17 Virp Sine/Cosine Encoder, Auxillary Incremental Encoder, Haills, Tachometer (+10 VDC) - 10 V VC Postboom, 17 Virp Sine/Cosine Encoder, Auxillary Incremental Encoder, Haills, Tachometer (+10 VDC) - 10 V VC Postboom, 17 Virp Sine/Cosine Encoder, Auxillary Incremental Encoder, Haills, Tachometer (+10 VDC) - 10 V VC Postboom, 17 Virp Sine/Cosine Encoder, Auxillary Incremental Encoder, Haills, Tachometer (+10 VDC) - 10 V VC Postboom, 17 Virp Sine/Cosine Encoder, Auxillary Incremental Encoder, Haills, Tachometer (+10 VDC) - 10 V VC Postboom, 10 Virp Sine/Cosine Encoder, Auxillary Incremental Encoder, Haills, Tachometer (+10 VDC) - 10 V VC V			
Obscription Units Value Communication Interfaces - RS-485/23 Command Sources - 410 V Analog, 24V Step and Direction, Encoder Following, Over the Network, PVM and Direction, Indexing, Jogging Feedback Supported - 410 VPDC Position, 1Vp-p Sine/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachometer (ctro VDC) Communication Methods - - Sinusoidal Motors Supported - Current, Hall Velocity, Position, Velocity Mark Warren Protection - 40+ Configurate Function, Very Temperature (Drive & Motor), Over Veltage, Short Circuit (Phase-Phase & Phase Ground), Under Voltage Programmable Availage (Inputs/Outputs (PAlis/PAGs) - 40 Pinnary ID Cape Level µs 25 Velocity Loop Sample Time µs 125 Velocity Loop Sample Time µs 125	2011 Voltago Cappiy Calputo		
Command Sources 1 of Varialing 24V Step and Direction, Encoder Following, Over the Network, PWM and Direction, Indexing, Jogging Feedback Supported 2 of 10 VDC Position, 19-p Sine/Cosine Encoder, Auxiliary Incremental Encoder, Halls, Tachometer (±10 VDC) Commutation Methods 3 of Sinusoidal Modes of Operation 4 of Configurable Functions, Velocity Motors Supported 2 of Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless) Hardware Protection 2 of Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless) Hardware Protection 2 of Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless) Hardware Protection 2 of Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless) Programmable Digital Inputs/Outputs (PDIs/PDOs) 2 of Vector, Closed Loop Vector, Single Phase (Brushled, Voice Coil, Inductive Load), Three Phase (Brushleds) Programmable Digital Inputs/Outputs (PDIs/PDOs) 2 of Vector, Closed Loop Vector, Single Phase (Brushled, Voice Coil, Inductive Load), Three Phase (Brushleds) Programmable Digital Inputs/Outputs (PDIs/PDOs) 3 of Vector Programmable Digital Inputs/Outputs (PDIs/PDOs) 4 of Vector Programmable Digital Inputs/Outputs (PDIs/PDOS) 4 of Vector Program	Description		
Commutation Soutcome	Communication Interfaces	-	RS-485/232
	Command Sources	-	
Modes of Operation Current, Hall Velocity, Position, Velocity Motors Supported Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless) Hardware Protection 40+ Configurable Inputsions, Over Current, Over Temperature (Drive & Motor), Over Voltage, Short Circuit (Phass-Phase & Phase-Ground), Under Voltage Programmable Digital Inputs/Outputs (PDIs/PDOs) 4/0 Programmable Analog Inputs Outputs (PAIs/PAOs) 4/0 Primary I/O Logic Level 24 VDC Current Loop Sample Time μs 6.5 Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Maximum Sin/Cos Encoder Frequency kHz 200 Maximum Sin/Cos Encoder Frequency kHz 200 Maximum Regulator 2048 counts per sin/cos cycle Internal Shurt Registor 2 Vec Internal Shurt Resistor CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Agency Approvals CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W. D) mm (in) 27.28 x 230.4 x 149.4 (107 x 9.1 x 5.9) Weight (° (°) (°)	Feedback Supported	-	
Motors Supported - Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushleds) Hardware Protection - 40+ Configurable Functions, Over Current, Over Temperature (Drive & Motor), Over Voltage, Short Circuit (Phase-Phase & Phase-Ground), Under Voltage Programmable Digital Inputs/Outputs (PIsi/PDOs) - 1 0/4 Programmable Analog Inputs/Outputs (PAIs/PAOs) - 4 0/0 Primary I/O Logic Level - 2 4 VDC Current Loop Sample Time µs 125 Position Loop Sample Time µs 125 Position Loop Sample Time µs 125 Sin/Cos Encoder Frequency kHz 200 Maximum Sin/Cos Interpolation - No Internal Shurt Regulator - No No Internal Shurt Regulator - No Value Internal Shurt Regulator - No Value Agency Approvals - C Class A (EWC), CE Class A (LVD), cUL, RoHS, UL Current Love Temperature Range* ° C (F) 0 - 75 (32 - 167) Value (Harrian Marcoulle Classe) ° C (F) 0 - 75 (32 - 167) 0	Commutation Methods	-	Sinusoidal
Hardware Protection d-0- Configurable Functions, Over Current, Over Temperature (Drive & Motor), Over Voltage, Short Circuit (Phase-Phase-Ground), Under Voltage Programmable Digital Inputs/Outputs (Polis/PDOs) - 0 10/4 Programmable Analog Inputs/Outputs (PAIs/PAOs) - 0 4/0 Primary I/O Logic Level - 9 4/2 Current Loop Sample Time μs 62.5 Volcoty Loop Sample Time μs 125 Spillor Loop Sample Time μs 23.4 Spillor Loop Sample Time 125 2.9 Spillor Loop Sample Ti	Modes of Operation	-	Current, Hall Velocity, Position, Velocity
Factorial Protection	Motors Supported	-	Closed Loop Vector, Single Phase (Brushed, Voice Coil, Inductive Load), Three Phase (Brushless)
Programmable Analog Inputs/Outputs (PAIs/PAOs) - 4/0 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 Sin/Cos Encoder DC Offset Range V 2.3.4 Maximum Sin/Cos Interpolation BkHz 200 Maximum Sin/Cos Interpolation - Ves Internal Shunt Regulator - No Internal Shunt Resistor - No Agency Approvals - CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 27.28 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) 0.75 (32-167) Storage Temperature Range °C (°F) 0.75 (32-167) Storage Temperature Range °C (°F) 0.76 (20-160) Storage Temperature Range °C (°F) 4.0 s (40-185)	Hardware Protection	-	
Primary I/O Logic Level - 24 VDC Current Logo Sample Time μs 62.5 Velocity Logo Sample Time μs 125 Position Logo Sample Time μs 125 Sin/Cos Encoder DC Offset Range V 2-3.4 Maximum Sin/Cos Interpolation - 2048 counts per sin/cos cycle Internal Shunt Regulator - - No Internal Shunt Resistor - No No Agency Approvals - - CE class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H xW x D) - - CE class A (EMC), CE Class A (LVD), cUL, RoHS, UL Veight - - CE class A (EMC), CE Class A (LVD), cUL, RoHS, UL Veight - - CE class A (EMC), CE Class A (LVD), cUL, RoHS, UL Veight - - CE class A (LVD), cUL, RoHS, UL Veight - - CE class A (LVD), cUL, RoHS, UL Veight - - - CE class A (LVD), cUL, RoHS, UL Veight - - - - -	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 Sin/Cos Encoder DC Offset Range V 2 - 3.4 Maximum Sin/Cos Interpolation + L 200 Maximum Sin/Cos Interpolation Ves Internal Shunt Regulator No Nechanics Specifications Units Value Description Mechanics 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 (c) 5500 (194) Heatsink (Base) Temperature Range ⁷ c° (°F) 4-0 x 5(3-2-167) Storage Temperature Range c° (°F) 4-0 x 5(4-0-185) Form Factor - Panel Mount Coling System - Porced Convection IP Rating - Porced Convection IP Rating - - Pin Jigh-density, male D-sub <	Programmable Analog Inputs/Outputs (PAIs/PAOs)	-	4/0
Velocity Loop Sample Time μs 125 Position Loop Sample Time μs 125 Sin/Cos Encoder DC Offset Range V 2.3.4 Maximum Sin/Cos Encoder Frequency kHz 200 Maximum Sin/Cos Interpolation - 2048 counts per sin/cos cycle Internal Shunt Regulator - Yes Internal Shunt Resistor - No Description Mechanical Specifications Units Value Mechanical Specifications Units Value Description mm (in) 272.8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Value Weight g (c) C C 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) Value Weight g (c) C** 0.75 (32 - 167) Value Weight g (c) C** 0.75 (32 - 167) Value Storage Temperature Range ² c° C** 4.9 (40 - 185) Proceed Convection Form Factor 2. Panel Mount Proceed Convection Proceed Convection Proceed Convec	Primary I/O Logic Level	-	24 VDC
Position Loop Sample Time μs 125 Sin/Cos Encoder DC Offset Range V 2 - 3.4 Maximum Sin/Cos Encoder Frequency kHz 200 Maximum Sin/Cos Interpolation - 2048 counts per sin/cos cycle Internal Shurt Regulator - Yes Mechanics Specifications Description Mechanics Specifications Description Value Agency Approvals CE Class A (EMC), CE Class A (LVD), cUL, RoHS, UL Size (H x W x D) mm (in) 27.2 8 x 230.4 x 149.4 (10.7 x 9.1 x 5.9) Weight (S (°F) 0 - 75 (32 - 167) Storage Temperature Range? °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) 0 - 75 (32 - 167) Storage Temperature Range °C (°F) -40 - 85 (-40 - 185) For Rator - For Ced Convection IP 10 AUX ENCODE	Current Loop Sample Time	μs	62.5
Sin/Cos Encoder DC Offset Range V 2 - 3.4 Maximum Sin/Cos Encoder Frequency kHz 200 Maximum Sin/Cos Interpolation - 2048 counts per sin/cos cycle Internal Shunt Regulator - No Mechanical Sund Registor - No Description 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 - Forced Convection F P Asting - 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 termi	Velocity Loop Sample Time	μs	125
Maximum Sin/Cos Encoder Frequency kHz 200 Maximum Sin/Cos Interpolation - 2048 counts per sin/cos cycle Internal Shunt Regulator - Yes Mechanical Shunt Resistor - No Mechanical Specifications Value 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 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 - IP 10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKEL OGIC Connector - 4-contact, 13 mm spaced, dual-barrier terminal block COMM Connector - <th< td=""><td>Position Loop Sample Time</td><td>μs</td><td>125</td></th<>	Position Loop Sample Time	μs	125
Maximum Sin/Cos Interpolation - 2048 counts per sin/cos cycle Internal Shunt Regulator - Yes Internal Shunt Resistor - No Description Mechanical Specifications Unitis 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) 0.75 (32 - 167) Storage Temperature Range ° C (°F) 0.75 (32 - 167) Storage Temperature Range ° C (°F) 0.75 (32 - 167) Storage Temperature Range ° C (°F) 0.75 (32 - 167) Storage Temperature Range ° C (°F) 0.75 (40 - 185) For Ced Convection 1.70 (201) 1.70 (201) Post Month 1.70 (201) 1.70 (201) 1.70 (201) BRAKE/LOGIC Connector 1.70 (201) 1.70 (201)	Sin/Cos Encoder DC Offset Range	V	2 - 3.4
Internal Shunt Regulator - Yes Internal Shunt Resistor - No Mechanical Specifications Value Description Value 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 Range³ °C (°F) 0.75 (32 - 167) Storage Temperature Range °C (°F) 4-0 - 85 (-40 - 185) Form Factor Panel Mount Cooling System - Porced Convection IP Rating - IP10 AUX ENCODER Connector - 15-pin, high-density, male D-sub BRAKE/LOGIC Connector - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub MOTOR POWER Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	Maximum Sin/Cos Encoder Frequency	kHz	200
Description Description	Maximum Sin/Cos Interpolation	-	2048 counts per sin/cos cycle
Description Mechanical Units 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? °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	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 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	Internal Shunt Resistor	-	No
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 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			
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 MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block	•	Units	
Weight g (oz) 5500 (194) Heatsink (Base) Temperature Range³ °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			
Heatsink (Base) Temperature Range? °C (°F) 1-40 - 85 (-40 - 185) Form Factor Panel Mount Cooling System PRating IP10 AUX ENCODER Connector BRAKE/LOGIC Connector BRAKE/LOGIC Connector COMM Connector FEEDBACK Connector 1			
Storage Temperature Range C (°F) -40 - 85 (-40 - 185) Form Factor Panel Mount Cooling System Forced Convection IP Rating IP10 AUX ENCODER Connector BRAKE/LOGIC Connector COMM Connector FEEDBACK Connector FEEDBACK Connector SP-pin, female D-sub FEEDBACK Connector FEEDBACK Connector SP-pin, high-density, female D-sub WO Connector A-contact, 13 mm spaced, dual-barrier terminal block FEEDBACK Connector SP-pin, high-density, female D-sub MOTOR POWER Connector A-contact, 13 mm spaced, dual-barrier terminal block A-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 - 9-pin, female D-sub FEEDBACK Connector - 15-pin, high-density, female D-sub VO Connector - 26-pin, high-density, female D-sub MOTOR POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block - 4-contact, 13 mm spaced, dual-barrier terminal block - 4-contact, 13 mm spaced, dual-barrier terminal block			· ·
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			· ·
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 1/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		-	
		-	1 . 0
POWER Connector - 4-contact, 13 mm spaced, dual-barrier terminal block		-	
	POWER Connector	-	4-contact, 13 mm spaced, dual-barrier terminal block

Notes

- 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.
- 4. 5.

- Additional cooling and/or heatsink may be required to achieve rated performance.



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	I
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 +		
9	PDI-10 -	Programmable Digital Input (For Single-Ended 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-4 +	Differential Programmable Analog Input (12-bit Resolution)	
15	PAI-4 -		

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

	сомг	M - 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	COS+	Cosine Input	I
2	COS -	Cosilie iliput	1
3	SIN +	Sine Input	I
4	SIN -	Sine input	1
5	SGN GND	Signal Ground	SGND
6	HALL A+	Commutation Sensor Input (For Single-Ended Signals Leave Negative Terminal Open)	I
7	HALL A-	Commutation Sensor input (For Single-Ended Signals Leave Negative Terminal Open)	
8	HALL B+	Commutation Sensor Input (For Single Ended Signals Leave Negative Terminal Open)	I
9	HALL B-	Commutation Sensor Input (For Single-Ended Signals Leave Negative Terminal Open)	I
10	REF MARK +	Reference mark from sine/cosine encoder	I
11	HALL C+	Commutation Sensor Input (For Single-Ended Signals Leave Negative Terminal Open)	I
12	HALL C-	Commutation Sensor input (For Single-Ended Signals Leave Negative Terminal Open)	I
13	+5V OUT	+5V Encoder Supply Output (Short Circuit Protected)	0
14	PAI-3	Programmable Analog Input (12-bit Resolution)	I
15	REF MARK -	Reference mark from sine/cosine encoder	I

Revision:

2.02



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	PAI-1 + (REF+)	Differential December 1 Apple I have a Defender Circuit I have 4/40 hit December 1	I
5	PAI-1 - (REF-)	Differential Programmable Analog Input or Reference Signal Input (16-bit Resolution)	I
6	PAI-2	Programmable Analog Input (12-bit Resolution)	I
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	
12	PDI-2	Isolated Programmable Digital Input	
13	PDI-3	Isolated Programmable Digital Input	
14	PDO-4	Isolated Programmable Digital Output	
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)	Isolated Programmable Digital Input or Step	I
18	PDI-6 (DIR)	Isolated Programmable Digital Input or Direction	I
19	PDI-7 (CAP-A)	Isolated Programmable Digital Input or High Speed Capture	I
20	ENC A+ OUT	Emulated Encoder Channel A Output	0
21	ENC A- OUT	Emulated Encoder Channel A Output	0
22	ENC B+ OUT	Emulated Encoder Channel B Output	0
23	ENC B- OUT	Emulated Encoder Channel B Output	
24	ENC I+ OUT	Emulated Encoder Index Output	0
25	ENC I- OUT	Emulated Encoder Index Output	
26	SGN GND	Signal Ground	SGND

	MOTOR POWER - Motor Power Connector				
Pin	Pin Name Description / Notes I/O				
1	1 SHIELD Motor feedback 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)	I
3	L3		I
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

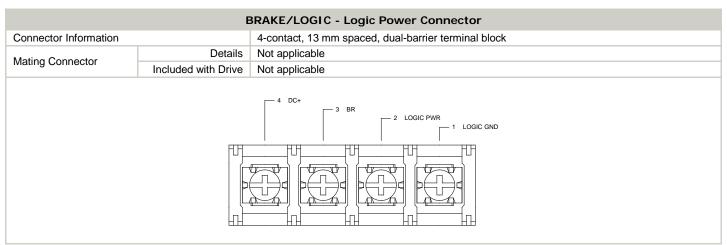
The drive can be configured to use the address and/or bit rate stored in non-volatile memory by setting the address and/or bit rate value to 0. Use the table below to map actual bit rates to a bit rate setting.

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



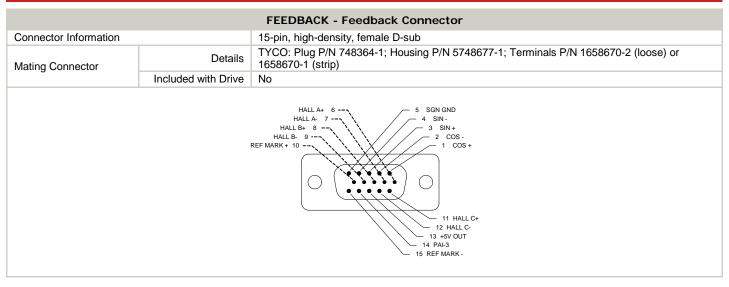
MECHANICAL INFORMATION

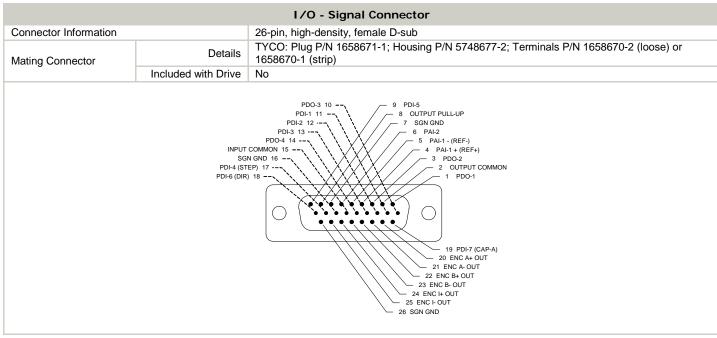
AUX ENCODER - Auxiliary Feedback Connector		
Connector Information		15-pin, high-density, male D-sub
Mating Connector Details		TYCO: Plug P/N 1658681-1; Housing P/N 5748677-1; Terminals P/N 1658686-2 (loose) or 1658686-1 (strip)
· ·	Included with Drive	No
	PDI-9 - (DIR- / AUX ENC PDI-9 + (DIR+ / AUX ENC B+	

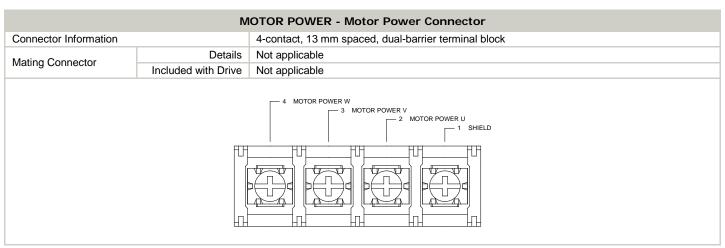


COMM - RS232/RS485 Communication Connector			
Connector Information		9-pin, female D-sub	
Mating Connector	Details	TYCO: Plug P/N 205204-4; Housing P/N 5748677-1; Terminals P/N 1658540-5 (loose) or 1658540-4 (strip)	
	Included with Drive	No	
5 ISO GND 3 R\$232 RX / R\$485 RX- 2 R\$232 TX / R\$485 TX- 1 SELECT 6 R\$485 TX+ 8 R\$485 RX+			







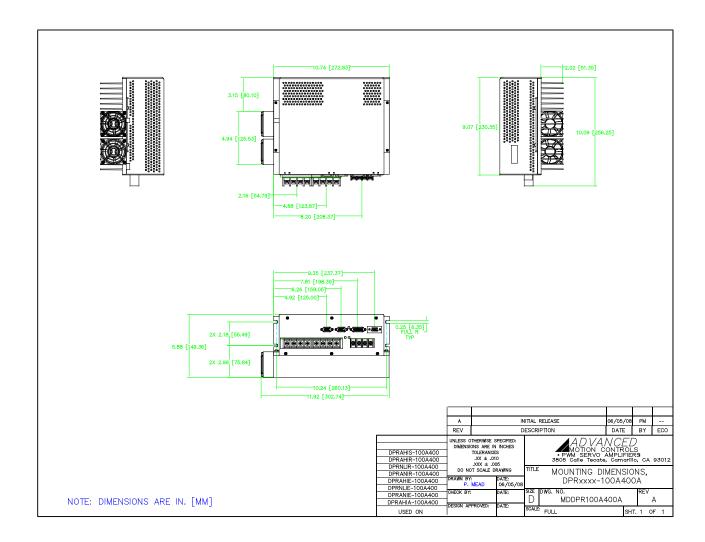




POWER - AC Power Connector			
Connector Information		4-contact, 13 mm spaced, dual-barrier terminal block	
Mating Connector	Details	Not applicable	
	Included with Drive	Not applicable	
4 PE			

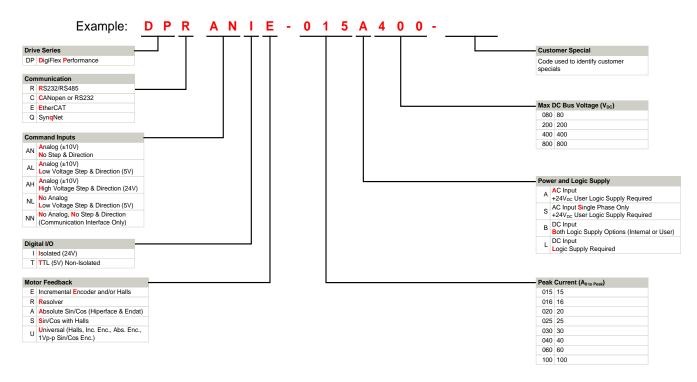


MOUNTING DIMENSIONS





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

All specifications in this document are subject to change without written notice. Actual product may differ from pictures provided in this document.