

Motion Controllers



Wide range of connectivity options



Programmable PMP motion controller via MATLAB Simulink integration



Integrated filtering



Ultra-low output noise & High output linearity



EtherCAT, CANopen and IO bus device busses

Prodrive Technologies offers a number of drive options which are readily available. These drives can be operated in stand-alone mode, used in combination with one of our motion controllers, or can be integrated within an existing motion control system.

Powerful series of motion controllers for controlling demanding multi-axis motion systems. Supporting EtherCAT, CANopen and IObus communication networks, including multiple synchronized EtherCAT busses using the Prodrive Motion Platform (PMP).

Motion controllers



Arcas series
Compact fanless motion controller

- ✓ Up to 12 axes @ 10kHz
- ✓ GbE host interface
- ✓ EtherCAT, CANopen and IObus device busses
- ✓ Panel or DIN rail mounting

[Detailed data sheet](#)



Poseidon CFL series
Powerful x86-based motion controller

- ✓ Up to 70 axes @ 10kHz
- ✓ GbE host interface
- ✓ Multiple parallel EtherCAT device busses
- ✓ 19" rack mounting

[Detailed data sheet](#)

Motion controllers

Controllers (Arcas series)

Model		Arcas 2CG	Arcas 5EG
Power input			
V _{logic} input voltage, rated		12V _{DC} - 24V _{DC}	
V _{logic} input voltage, absolute maximum		28V _{DC}	
Maximum input power		35W	
GPIO			
Isolated	Digital inputs	4 x 24V input (V _{IH} ≥11V, V _{IL} ≤5V, I _{IN} <15mA)	
	Digital outputs	4 x 0-30V / 500mA	
Control			
Processor		Dual Cortex-A53 @ 1.2GHz	Quad Cortex-A53 @ 1.5GHz
Number of cores	Real-time	1	3
	Management	1	1
Number of axes		4 axes @ 10kHz	12 axes @ 10kHz
Host interface		Gigabit Ethernet	
Device interfaces		1x EtherCAT bus 2x CANopen bus 2x IO bus	
Electrical safety			
Applicable standard		IEC 62368-1	
Accessibility		Closed electrical operating area	
Pollution degree		2	
Overvoltage category (primary circuits)		2	
IP-protection class / enclosure type		20 / open type	
Maximum altitude during operation		2000m	
EMC			
Applicable standards		EN 55011 IEC 61000-6-1	

Motion controllers

Controllers (Arcas series)

Model		Arcas 2CG	Arcas 5EG
Mechanical & Environmental			
Dimensions (WxDxH)		44 x 132 x 160mm	
Mass		850g	
Climatic conditions			
Operating	Temperature range	-5 – 45°C	
	Humidity range	0-90% Non-condensing	
Storage	Temperature range	-20 – 70°C	
	Humidity range	0-95% non-condensing	
Shock & Vibration	Standard	IEC 60068-2-27	
Shock	Directions	All directions	
	Peak acceleration	10G	
	Pulse duration	11ms, 1000 bumps	
	Wave shape	Half sine	
Vibration	Frequency range	10-500Hz (sine)	
	Peak acceleration	2G	
Lifetime		≥ 10 Years	



Visit our website for more information:

<https://prodrive-technologies.com/products/motion-mechatronics/motion-controllers/>

Motion controllers

Controllers (Poseidon series)

Model	Poseidon G5400T-FFF-GGG	Poseidon E2124G-FFF-GGG	Poseidon E2226GE-FFF-GGG	Poseidon E2278GE-FFF-GGG
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Power input	
V _{logic} input voltage, rated	100V _{AC} - 127V _{AC} , 200V _{AC} - 240V _{AC}
V _{logic} input voltage, absolute maximum	264V _{AC}
Maximum input power	500W

Control		Dual-core x86 @ 3.1GHz	Quad-core x86 @ 3.4GHz	Hex-core x86 @ 3.4GHz	Octo-core x86 @ 3.3GHz
Processor					
Number of cores	Real-time	1	3	5	7
	Management	1	1	1	1
Number of axes		10 axes @ 10kHz	30 axes @ 10kHz	50 axes @ 10kHz	70 axes @ 10kHz
Host interface		Gigabit Ethernet			
Device interfaces (GGG-option code)	A	4x EtherCAT bus			
	BAH ¹	8x EtherCAT bus			
	AAH ²	8x EtherCAT bus			
	AAI ²	12x EtherCAT bus			
	AAJ ²	16x EtherCAT bus			
	AAK ²	20x EtherCAT bus			

Electrical safety	
Applicable standard	IEC 62368-1
Pollution degree	2
Overvoltage category (primary circuits)	2
IP-protection class	IPx0
Maximum altitude during operation	2000m

EMC	
Applicable standards	CISPR 35
	CISPR 32

Motion controllers

Controllers (Poseidon series)

Model	Poseidon G5400T-FFF-GGG	Poseidon E2124G-FFF-GGG	Poseidon E2226GE-FFF-GGG	Poseidon E2278GE-FFF-GGG
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Mechanical & Environmental		
Dimensions (WxHxD) (FFF-option code)	1Ux	19" x 1U x 413mm
	3Ux	19" x 1U x 450mm
Mass (FFF-option code)	1Ux	19kg
	3Ux	24kg

Climatic conditions		
Operating	Temperature range	0 – 50°C
	Humidity range	10-90% non-condensing
Storage	Temperature range	-25 – 70°C
	Humidity range	10-95% non-condensing
Shock & Vibration	Standard	ISTA 2A
Lifetime		≥ 7 Years

