Elmo's ExtrIQ Line

Durable Servo Products for Extreme Environments

110 mm x75 mm x 30 mm
4.33" x 2.95" x 1.18"

Super Compact Servo Drives
For 400 VDC or 700 VDC

ExtrIQ Panther

A PCB-mounted servo drive that operates directly from a non-isolated 400 VDC or 700 VDC power source with up to 7 kW of continuous qualitative power

Panther Digital Servo Drive

The Panther is a new addition to Elmo's ExtrIQ product suite - intelligent digital servo drives for sinusoidal, trapezoidal and DC motors that are designed to operate under extreme environmental conditions.

This servo drive is PCB-mounted and it provides top performance, coupled with intelligent networking capabilities in a high level programming environment.

A Feature-rich Solution

The Panther is truly feature-rich, combining high power density, programming flexibility, CANopen networking and numerous motion control features, resulting in a very effective solution for a wide variety of challenging applications.

There are two single DC bus options: 50 — 400 VDC and 95 — 700 VDC, with a built-in smart supply for controlling the back-up capabilities. The Panther can also operate with a 24 VDC auxiliary power supply for the back-up features.

Panther Highlights

- Ready for use in extreme applications
- Based on SimplIQ core motion control technology
- Ultra-compact, highest power density
- PCB-mounted
- Highly efficient
- Supports a wide variety of feedback sensors
- Vector control sinusoidal commutation
- Advanced filtering and velocity gain scheduling for enhanced dynamic performance

Elmo

Motion Control

Motion Control Solutions Made Small, Smart & Simple

ExtrIQ Panther

Environmental Conditions

Feature	Operating Conditons	Range	
Ambient Temperature Range	Non-Operating Conditions	-50 °C to 100 °C (-58 °F to 212 °F)	
	Operating Condition	-40 °C to 71°C (-40 °F to 160 °F)	
Temperature Shock	Non-Operating	-40 °C to +71°C (-40 °F to 160 °F) within 3 min.	
Altitude	Non-Operating Conditions	Unlimited	
	Operating Conditions	-400 m to 10,000 m (-1,000 ft to 30,000 ft) Higher altitudes available on request	
Relative Humidity	Non-Operating Conditions	Up to 95% relative humidity non-condensing at 35 °C (95 °F)	
	Operating Conditions	Up to 95% relative humidity non-condensing at 25 °C (77 °F), up to 90% relative humidity non-condensing at 42 °C (108 °F)	
Vibration	Operating Conditions	20 Hz -2000 Hz, 14.6 g	
Mechanical Shock	Non-Operating Conditions	±40 g	Half sine, 11 msec.
	Operating Conditions	±20 g	Half sine, 11 msec.

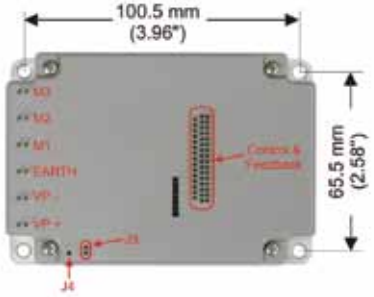
Electrical Power Characteristics

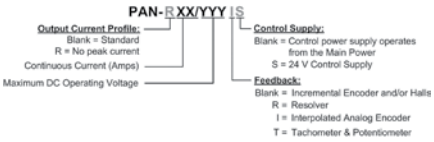
Specification	Details
MIL-STD-1275	Characteristics of 28 Volt DC Electrical Systems In Military Vehicles. Note: Compliant with versions A and B
MIL-STD-704	Aircraft Electric Power Characteristics

Electrical Specifications

Feature	12/400	R17/400	8/800	R11/800
Minimum supply voltage (VDC)	S suffix in P/N*: 50 No S suffix in P/N: 100		S suffix in P/N*: 95 No S suffix in P/N: 200	
Nominal supply voltage (VDC)	325		560	
Maximum supply voltage (VDC)	400		700	
Maximum cont. electrical output power from the drive	Up to 7 kW of continuous qualitative power			
STO Inputs (optional)	2			
Digital In / Digital Out / Analog In	6/4/1			
Efficiency at rated conditions	> 98%			
Auxiliary supply voltage (external option)	18 V – 32 V			
Auxiliary power supply	≤ 3 VA without external loading ≤ 7 VA with full external loading			
Continuous current limit (Ic). Amplitude of sinusoidal or DC trapezoidal commutation (A)	12	17	8	11
Continuous RMS sinusoidal commutation (Ic) (A)	2 x Ic	NA	2 x Ic	NA
Weight	315 g (11.1 oz)			
Dimensions	110 x 75 x 30 mm (4.33" x 2.95" x 1.18")			
Mounting method	PCB Mounted			

*See the part number to the right of this table. The S suffix appears in models where there is a 24 V control supply.





Disclaimer: The information in this document is subject to change without notice. 1.10.2010 REV 2

Elmo Motion Control

Head Office: Elmo Motion Control Ltd. • Tel: +972 (3) 929-2300 • info-il@elmomc.com
North America: Elmo Motion Control Inc. • Tel: +1 (603) 821-9979 • info-us@elmomc.com
Europe: Elmo Motion Control GmbH • Tel: +49 (0) 7720-85 77 60 • info-de@elmomc.com
APAC: Elmo Motion Control (South Korea) • Tel: +82-31-698-2010 • info-asia@elmomc.com
China: Elmo Motion Control Technology (Shanghai) Co. Ltd. • Tel: +86-21-3251-6651 • info-asia@elmomc.com

Studio Gold