CONTROL

ADVANCED ELECTRONIC CONTROL TECHNOLOGIES

PUMP / MOTOR CONTROLLER

DUAL CHANNEL

MAROTTA®

We're in Control

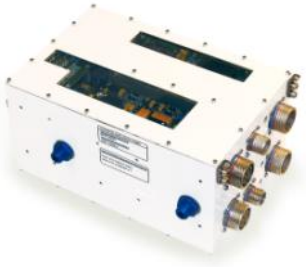
DC Brushless, Sensorless Motor Controller

Marotta has designed, developed and demonstrated its MCONTROL Dual Channel Controller for use on today's most sophisticated military aircraft.

Designed to control two PAO pumps for the ECS and APU avionics, the MCONTROL Dual Channel Controller is an integral part of a next-generation advanced thermal management system capable of acquiring, transporting and rejecting high thermal loads.

The Dual Channel Controller design uses a shared liquid cold plate that provides performance advantages over air-cooled solutions, making it ideal for effectively cooling the concentrated heat loads of the high-density IGBT motor drive circuits.

This fairly high-power density controller can drive two 3.5 kw motors in a lightweight, compact package.



More reliable than a "brushed" device, DC brushless accelerates faster, produces little acoustic noise and since there are no brushes to wear, there is no maintenance.

Key Features

–DC Brushless, sensorless motor control
–Variable speed operation
–DSP servo control
–Proven, two-loop state-of-the-art all digital velocity servo control
–PID algorithms tailored for optimum control.
–Built-in-test (BIT) diagnostics.
–Proven 10w power bias supply
–Pulse Width Modulated PWM motor driver for optimum power conversion efficiency.
–State-of-the-art motor drive circuits using Isolated Gate Bipolar Transistors (IGBTs)
–Analog and discrete control and status interfaces.
–Input power –270 VDC
–Motor output power – up to 3.5 kw per channe
–Shared cold plate utilizing liquid cooling
–Weight – 10.5 lbs
–Size: 6.38" x 4.83" x 9.8"

MAROTTA®

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WHEN IT COMES TO
ELECTRONIC CONTROL SYSTEMS
WE'RE IN CONTROL