

LAUNCHPOINT®

ELECTRIC PROPULSION SOLUTIONS

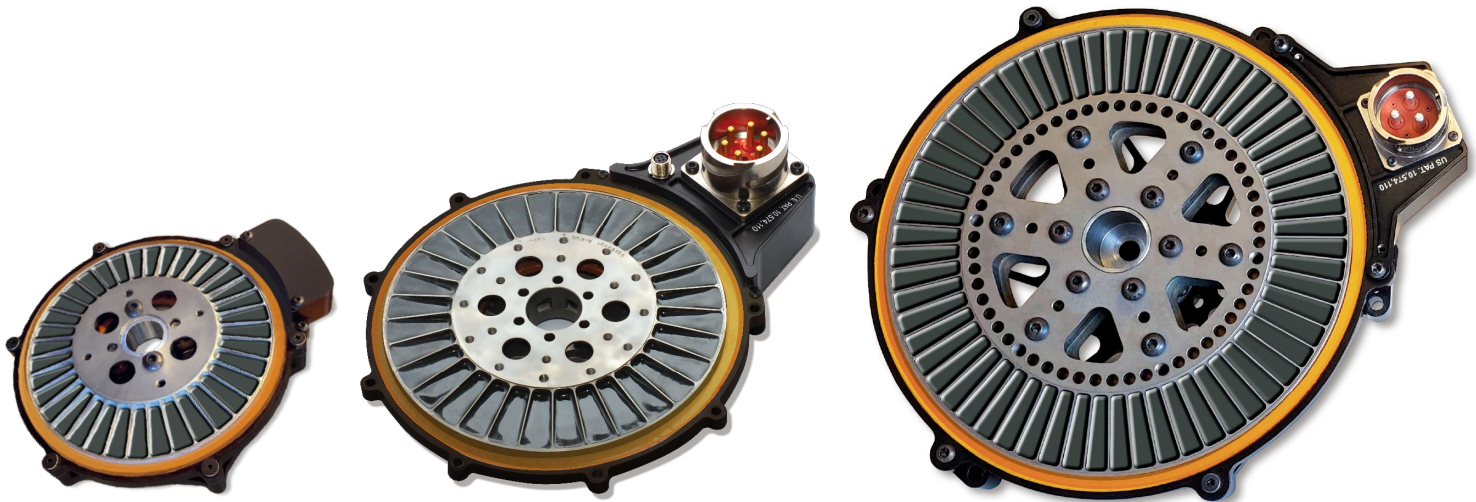
Electric Machines & Controllers



▼ LaunchPoint® specializes in lightweight electric machines and controllers to enable highly efficient and reliable electric and hybrid electric flight. Our patented, scalable technologies also serve advanced thermal management needs and auxiliary power generation for aerial and ground applications.

- Best-in-class combined power, efficiency and weight
- Bi-directional capabilities (motor or generator)
- SmartPoint™ Control Software
- 3.5x greater power density than existing electric machines
- Air-cooled
- Starting capabilities
- Available today

▼ LaunchPoint Electric Machines



1.5 kW Ø 127 mm

6 kW Ø 190.5 mm

40 kW Ø 317.5 mm

▼ LaunchPoint has developed a family of high efficiency and high specific power electric machines for the demanding, high reliability applications associated with electric and hybrid electric flight.

	Continuous Power (kW)	Continuous Speed (RPM)	Peak Power (kW)	Specific Power (kW/kg)	Diameter (mm)	Length (mm)	Weight (kg)	Voltage* (V DC)
DHA050-4 ALTERNATOR	0.75	4,100	1.00	2.22	127.0	15	0.45	60+
DHA050-7 ALTERNATOR	1.50	7,000	2.00	4.40	127.0	15	0.45	44
DHA075 ALTERNATOR	6.00	6,250	6.75	4.30	190.5	30	1.56	58
DHA120 ALTERNATOR	35.00	6,500	40.00	6.90	317.5	45	5.78	214+

*Different windings are available – Please ask about custom voltages

▼ Core Technology – Electric Machines

- Ironless Axial Flux Machines
- Dual Halbach Electric Machine Scalable to High Power
- Advanced Magnet Materials
 - Maintain Specific Energy to 130 °C
- Fault-tolerant and patented
- Reduces Eddy Current Losses and Weight
- Compact and Lightweight
 - 1.5 kW, 127 mm dia x 17.1 mm thick, 0.45 kg
 - 6 kW, 190.5 mm dia x 25.4 mm thick, 1.56 kg
 - 40 kW, 317.5 mm dia x 38.1 mm thick, 5.78 kg

Call +1.805.683.9659 or email Sales@LaunchPointEPS.com

www.LaunchPointEPS.com

▼ LaunchPoint Controllers



LaunchPoint's Controllers are advanced electric motor drives, generator controllers, and hybrid electric power system management units that are designed for all electric and hybrid electric propulsion applications.

▼ Core Technology – Advanced SiC Controller

- High Efficiency High Switching Frequency
 - Low current ripple
 - Ideal current waveform
 - Fast control response
- Lightweight and Compact
 - SiC offers excellent power-to-weight
 - SiC lowers losses for smaller heat exchangers
- Smart – Developed over a Decade
 - Fail-operational capabilities
 - Comprehensive onboard diagnostics
 - Real-time feedback via CAN bus
- HPS055 6 kW Hybrid System Controller
 - 60 V DC Maximum Bus Rating (12S to 18S)
 - 228.6 mm x 114.3 mm x 88.9 mm, 1.5 kg including heat exchanger
- MC15 15 kW Motor Controller
 - 400 V DC Maximum Bus Rating
 - 127 mm x 177.8 mm x 76.2 mm, 1.7 kg including heat exchanger
- MC40 40 kW Motor Controller
 - 500 V DC Maximum Bus Rating
 - 233.7 mm x 152.4 mm x 81.3 mm, 5.0 kg including heat exchanger
- MC250 250 kW Generator Controller
 - 800 V Maximum Bus Voltage
 - 381 mm x 381 mm x 152.4 mm, 8.2 kg including heat exchanger