

**SENIOR POWER ELECTRONICS ENGINEER**

## Company Overview:

Ampaire is a tech startup based in California that is leading the charge in electric aviation. We're on a mission to provide the world with electric commercial flights that are affordable, quiet, and environmentally conscious. We're building the future of air travel, reimagining the way people and their things fly. We are a practical and lean start-up that quickly iterates and learns, and this has allowed Ampaire to be among the first of the electric aviation companies to actually fly. We currently are flying what we believe to be the world's largest electrified aircraft by weight and capacity.

We're located at the intersection of aerospace and electric vehicles, right next to SpaceX and Tesla at Hawthorne Airport in Los Angeles County. As part of Starburst, the world's top aerospace accelerator, we have access to an international support network. We're proud to have won multiple international awards as a Top Aerospace Startup (Hello Tomorrow, Paris), Top Electrification Startup (New Mobility Challenge, Los Angeles), and IEEE N3XT Stars. We've also been featured in Aviation Week for our creative business approach and early success. Our talented team brings a diverse background from top institutions including: Caltech, Stanford, USC, Northrop Grumman, SpaceX, Virgin Orbit, and General Motors.

## Job Description:

We're looking for a highly motivated Power Electronics System Engineer to join our team. You will define the requirements of Power components within Ampaire's combustion and battery powered hybrid system. You will be responsible for the design the overall power system and Interfaces to the Aircraft. Working with CTO and Director of Electrical and Power Electronics you will establish System and Product level technical requirements, perform calculations, simulations and analysis for the entire Power system architecture.

## Required Qualifications:

- + BSEE

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- + 6+ years of industry experience in power electronics
- + Be able to write Technical, Aircraft Certification and Manufacturing requirements for Ampaire's partners and suppliers
- + Manage supplier technical progress
- + Define interfaces between Power components within Ampaire's system
- + Have a proven track record of rapid, efficient project execution in a fast-paced environment
- + You have experience working with a team of engineers to design, iterate, and make trade-offs between various design disciplines
- + Good written and verbal communication skills
- + Strong interpersonal and organizational skills
- + You are a self-starter, are deeply motivated to achieve big dreams, and are passionate about our shared mission
- + Your experience includes developing electric drive systems in the 100's of kW and 1 kV class power bus systems, DCDC converters, and power distribution systems
- + Knowledge of power supply architectures; PFC Boost, Half and Full Bridge, Multi-phased Buck, and Buck-Boost
- + You understand multiphase motor controls
- + You understand the physics of failure of power electronics devices and assemblies
- + You understand the standards and methods of achieving the functional safety of high power systems
- + Good knowledge of PCB design and fabrication, placement and routing guidelines
- + Oversight and participation in integration, test, and qualification of new products
- + Oversight of creation of test plans and procedures
- + working knowledge of EMI/EMC qualification

## Desired Qualifications:

- + Your experience includes working with or testing electric vehicles (of any kind)
- + You have knowledge of batteries, electric machines specific power electronics
- + Projects oriented towards power and energy systems, including vehicles and their powertrain systems are highly desirable
- + You are experienced with embedded systems programming
- + You are comfortable working with your hands and are familiar with shop environments
- + You have a general understanding of thermal and mechanical systems
- + Aircraft electrical systems design to DO-160, DO-254 and ARP 4761
- + Familiarity with FAA certification requirements for electrical systems

**SENIOR POWER ELECTRONICS ENGINEER****Benefits:**

- + 401k
- + Health + Dental + Vision insurance
- + Aviation Enthusiast Benefit credit

**Equal Opportunity Employer:**

At Ampaire, we are committed to building a more inclusive ecosystem that integrates women, people of color, and other underrepresented groups into the cleantech sector and aerospace industry. We strongly encourage applications from qualified applicants and members of underrepresented groups.

Ampaire is an Equal Opportunity Employer; employment with Ampaire is governed on the basis of merit, competence and qualifications and will not be influenced in any manner by race, color, religion, gender, national origin/ethnicity, veteran status, disability status, age, sexual orientation, gender identity, marital status, mental or physical disability or any other legally protected status.