

CASE STUDY



The defence customer required a stand-alone power supply system for a harsh environment.

Rockford was chosen for its pedigree in defence and harsh environment electrical systems.

- FULL MIL STD TESTING
- SYSTEMS DESIGN
- 🧹 CABLES
- DESIGN ENGINEERING
- COMPLETE DOCUMENTS

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THE CHALLENGE

The customer required a power supply to be designed and manufactured to provide power to the turret via a slip ring. The unit had to be located in the hull but not electrically connected to the hull electrical system.

Additional design objectives were:

- 500AH 24V capacity
- 300A peak current
- Hard mounted
- Supply all electrical and mechanical hardware
- Charging required from an external source
- Full safety documentation required
- Additional outputs for hull-mounted equipment

THE SOLUTION

Rockford was commissioned to design and develop the complete electrical and mechanical assembly. Rockford was also tasked with the installation of the equipment.

One of the deliverables for this contract was a complete documentation suite. This included:

Harness drawings Block wiring diagram Theoretical wiring diagram Mechanical data pack Operating instructions Safety case support Installation instruction Full system test certification

- Week 1: Initial meeting and whiteboard solution. The fully-costed proposal included risks by Friday.
- Week 2: Contract placed and detailed design began. We did a vehicle visit and survey for final mechanical interfaces.
- Week 3: Detailed design complete and approved by the customer.
- Week 4: Manufacturing began.
- Week 7: Test fitting of the frame and mechanical components.
- Week 10: System complete and testing.
- Week 12: System installed and commissioned into the vehicle.

THE RESULTS

As a result of Rockford's high-speed design and production, the customer was able to meet a key milestone in their development program. Rockford delivered a full documentation pack, which included user instructions and provided training in the use of the system to the customer's technicians.

Defence projects are an area in which we've always worked and that we want to develop and grow further.

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