



# Littelfuse® Developing NEXT GENERATION Products and Continuously Improving TECHNOLOGIES

## HWA20 Sealed ATO® Fuse Holder

### Specifications

|                            |                            |
|----------------------------|----------------------------|
| <b>Max Voltage Rating:</b> | 80V DC                     |
| <b>Max Current Rating:</b> | 200A                       |
| <b>Number of Cavities:</b> | 20                         |
| <b>IP Rating:</b>          | IP67                       |
| <b>Operating Temp:</b>     | -40° to 85° C              |
| <b>Mounting Torque:</b>    | 4 - 6 Nm                   |
| <b>Wire Size:</b>          | 0.5mm - 5.0mm <sup>2</sup> |

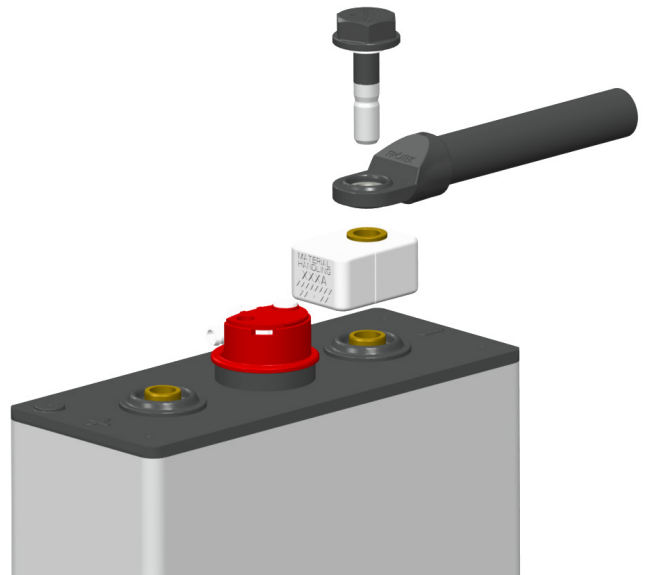


[Littelfuse.com/HWA20](http://Littelfuse.com/HWA20)

## Sealed ZCASE for MH Battery

### Specifications

|                             |   |
|-----------------------------|---|
| <b>Max Voltage Rating:</b>  | 80V DC  |
| <b>Current Rating:</b>      | 600A  |
| <b>Geometry Interface:</b>  | M10 Screw   |
| <b>IP Rating:</b>           | IP67, IP69K   |
| <b>Operating Temp:</b>      | -40° to 85° C   |
| <b>UL Rating:</b>           | UL94 V0   |
| <b>Chemical Resistance:</b> | Diesel Fuel, Gasoline, Engine Oil,<br>Brake and Battery Fluid |

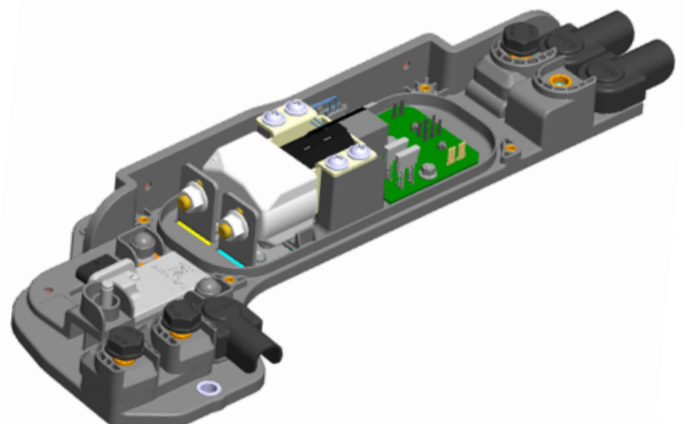


**Available: Early 2019**

## PDU Power Distribution Module

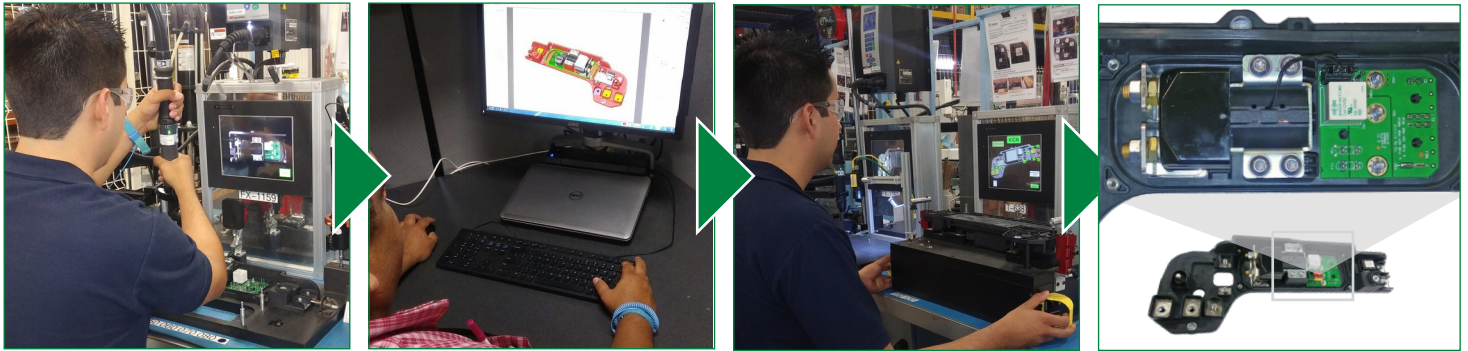
### Specifications

|                               |   |
|-------------------------------|---|
| <b>Voltage Ratings:</b>       | 48V DC or 80V DC  |
| <b>Current ZCASE Ratings:</b> | 70A, 160A, 200A, 425A and 600A                                |
| <b>Geometry Interface:</b>    | M10 Screw   |
| <b>IP Rating:</b>             | IP67, IP69K   |
| <b>Operating Temp:</b>        | -40° to 85° C   |
| <b>UL Rating:</b>             | UL94 V0   |
| <b>Chemical Resistance:</b>   | Diesel Fuel, Gasoline, Engine Oil,<br>Brake and Battery Fluid |



# Business Excellence from Concept to Completion

Leading vehicle OEMs look to Littelfuse Commercial Vehicle Products for answers to their Power Distribution, Protection and Control needs. Our innovation, technical expertise and product offerings enable us to provide comprehensive solutions for customer's unique applications. That is the value you can expect from Littelfuse.



## Listening & Understanding

- Listen to customer to understand goals
- Review warranty and areas targeted for improvement
- Visit factory to understand customer manufacturing
- Employ APQP design methodology

## Design & Prototyping

- Leverage extensive Littelfuse technology portfolio
- Reduce system costs and increase performance
- 3D, mechanical and electrical designs for customer review
- Concept prototyping with 3D prototyped circuits

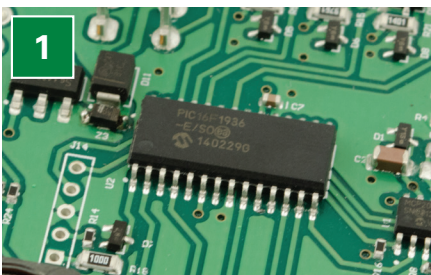
## Development & Validation

- Design for manufacturing and cost-based engineering
- Design verification including FMEA, thermal and RF analysis
- Review of early builds with OEM team and field trials
- Production product and process validation

## Deliver On Time & Budget

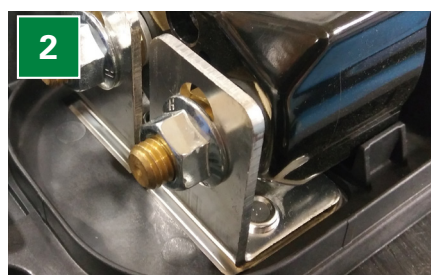
- PPAP product delivered
- Global distribution and support of OEM supply chain
- On-site support for customer's start of production
- Formal post product-launch review for lessons learned and continuous improvements

# Products Designed for Your Industry Leading Equipment



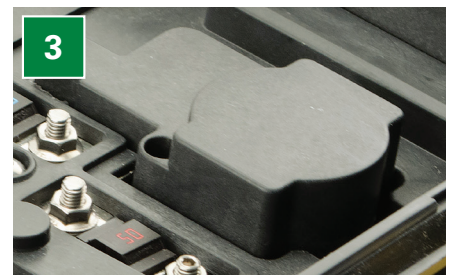
## Smart Control: Integrated CAN / LIN Interface

Support CAN (LIN or J1939) interfaces for message based interfaces and diagnostics.



## High Current Performance

Expertise in design and production of robust high current electrical systems.



## Integrated High-Current Relay

Eliminate cost and liability of connecting external high current relays for power control.



## Combine High and Low Current Fuses and Relays

Reduce extra modules by combining high and low current circuits into a single module.



## AssureLatch™ Technology

Rugged, sealed enclosures with positive latching provides confidence that module is completely closed.



## Robust Connections for High Power Input and Output

Best in class connection systems for sealed, efficient and safe power transfer.