WHAT IS CLAIMED IS:

1. An ignition protected~~compliant~~ switch device for an explosive environment, the ignition protected ~~compliant~~ switch device comprising:

a housing that is fabricated to exhibit chemical resistance in the explosive environment;

a line-side power input terminal and a load-side power output terminal coupled to the housing and being enclosed to provide ignition protected terminations in the explosive environment;

a bus structure in the housing and including at least one solid state switching element operable in an arc-free manner to connect the load-side power output terminal to the line-side power input terminal and disconnect the load-side power output terminal from the line-side power input terminal;

whereby the switch device is compliant for use in the explosive environment without requiring a separately provided explosion-proof enclosure.

2. The ignition protected ~~compliant~~ switch device of claim 1, wherein the housing is further fabricated to exhibit antistatic properties in the explosive environment.

3. The ignition protected ~~compliant~~ switch device of claim 1, wherein the housing is configured to be electrically grounded.

4. The ignition protected ~~compliant~~ switch device of claim 1, wherein the housing ~~is further~~ comprises an outer surface area configured and designed to operate at a surface temperature at or below a rated temperature for the explosive environment, thereby precluding the housing from being an ignition source in the explosive environment.

5. The ignition protected ~~compliant~~ switch device of claim 4, further comprising a controller configured to operate the at least one solid state switching

element to maintain the surface temperature at or below the rated temperature, thereby precluding the housing from being an ignition source in the explosive environment.

6. The ignition protected ~~compliant~~ switch device of claim 1, ~~-~~further comprising at least one mechanical switch contact in the bus structure, and the housing including a sealed internal enclosure containing the at least one mechanical switch contact, thereby precluding the at least one mechanical switch contact from being an ignition source in the explosive environment.

7. The ignition protected ~~compliant~~ switch device of claim 1, wherein the ignition protected terminations comprise a cable gland.

8. The ignition protected ~~compliant~~ switch device of claim 7, wherein the ignition protected terminations further comprise an armored cable.

9. The ignition protected ~~compliant~~ switch device of claim 7, wherein the line-side power input and load-side power output terminal each comprises a lug terminal and a fastener.

10. The ignition protected ~~compliant~~ switch device of claim 1, wherein the line-side power input and load-side power output terminal are each respectively enclosed in portions of the housing.

11. The ignition protected ~~compliant~~ switch device of claim 10, wherein the portions of the housing are explosion proof.

12. The ignition protected switch device of claim 10, wherein the portions of the housing are sealed.

13. The ignition protected ~~compliant~~ switch device of claim 10, wherein the portions of the housing are vacuum sealed.

14. The ignition protected ~~compliant~~ switch device of claim 10, wherein the portions of the housing are filled with a dielectric fluid.

15. The ignition protected ~~compliant~~ switch device of claim 1, further comprising an active cooling element.

16. The ignition protected ~~compliant~~ switch device of claim 1, further comprising a passive cooling element.

17. The ignition protected ~~compliant~~ switch device of claim 1, wherein the at least one solid state switching element is encapsulated.

18. The ignition protected switch device of claim 1, further comprising a controller, wherein the controller includes a memory storage including executable instructions executed by a processor ~~configured~~ to provide motor starter and overload control.

19. The ignition protected switch device of claim 1, wherein the device is configured as a solid state circuit breaker.

20. The ignition protected switch device of claim 1, wherein the device is configured as a hybrid circuit breaker.