SECURITRON
ASSA ABLOY

# Securitron® AQD & AQS Series Power Supplies

## Product Overview

Experience a safer and more open world







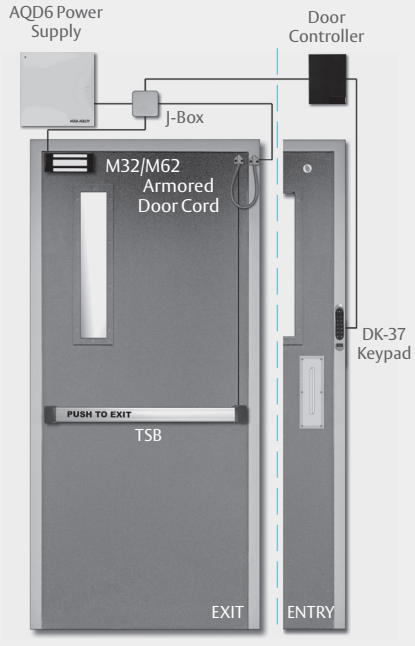
# With a wide range of options, Securitron has the power solution to fit your every need, from wall to rack mounted solutions.

Power supply selection is often one of the last decisions made when designing an electrified access control solution. However, selecting the right power supply is as important as choosing the right locking devices and accessories that may be connected to it.

Securitron offers clean, efficient and reliable power solutions for any application, including options for high efficiency sustainable locking solutions. They are available in configurations to support the smallest single door systems to the largest enterprise access control systems.

- Power over Ethernet extractors and injectors provide integrated power and data over low-cost CAT-5 cabling
- Linear power supplies offer multiple low noise power options for sensitive electronics
- Rack mounted power supplies offer a valuable space-saving solution to provide power to access control devices such as electrified door hardware and more
- Switching power supplies are a more cost effective, energy efficient solution for access control systems; Available in wall mount and rack mount options
- Power transfers assist in the secure transfer of power and/or data from the frame to electrified hardware on the door




## Let ASSA ABLOY help determine which power supply will meet your exact requirements for any new or existing electrified access control solution.

Securitron AQD & AQS switching power supplies are dual (AQD), and single (AQS) voltage supervised units with a battery charger designed to power magnetic locks, electric strikes, card readers, sensors, access control boards and other devices in access control systems. Both AQD & AQS power supplies can be used to power DC cameras and other DC locking equipment. These units provide field selectable dual (AQD) or single (AQS) 12 or 24 VDC with up to 16 independently controlled power limited outputs.

# Protection | Efficiency | Support

## Protect and enhance the performance of access control devices and systems with Securitron AQD & AQS Power Supplies.

### *Mix & Match UL Listing*

- Available in one to 16 Amp variants to support the smallest single door systems to the largest enterprise access control systems
- UL listed dynamic field configurable product offering
- Combine any of the seven power supplies and nine distribution boards in any UL listed enclosure and maintain UL code compliance

### *Protection & Efficiency*

- Heavily filtered and regulated output provides better-than-linear performance
- Up to 93% efficiency, which results in decreased operating costs which lengthens the lifespan of electronics
- Low battery cutoff protects readers and other sensitive components from under-voltage

### *Friendly & Knowledgeable Support*

- Customer Service and Technical Support offer tools and resources to address questions of all shapes and sizes
- Free, custom wiring diagram support available
- No-fault, no questions asked warranty covers installation errors




# Specifications

### *Certifications (Both)*

- UL294 Listed
- UL603 Listed
- ULC-S318 Listed
- ULC-S533 Listed
- RoHS Compliant
- REACH Compliant

### *Electrical*

- 115 or 230 VAC input (except AQD1)
- Supports up to two (2) sealed gel, AGM or wet lead acid batteries
- Up to 93% efficiency
- Low noise design with ripple as low as 70mV p-p
- Outputs are Class 2 limited when used with PTC polyswitch distribution boards
- Dual voltage 12 or 24 VDC field selectable continuous output
- Single voltage 12 or 24 VDC continuous output

### *Operating Temperature*

- -4° to 122°F [-20° to 50°C]

### *Dimensions*

- 14" x 14" x 4-3/4" [355.6mm x 355.6mm x 120.65mm]

### *Shipping Weight*

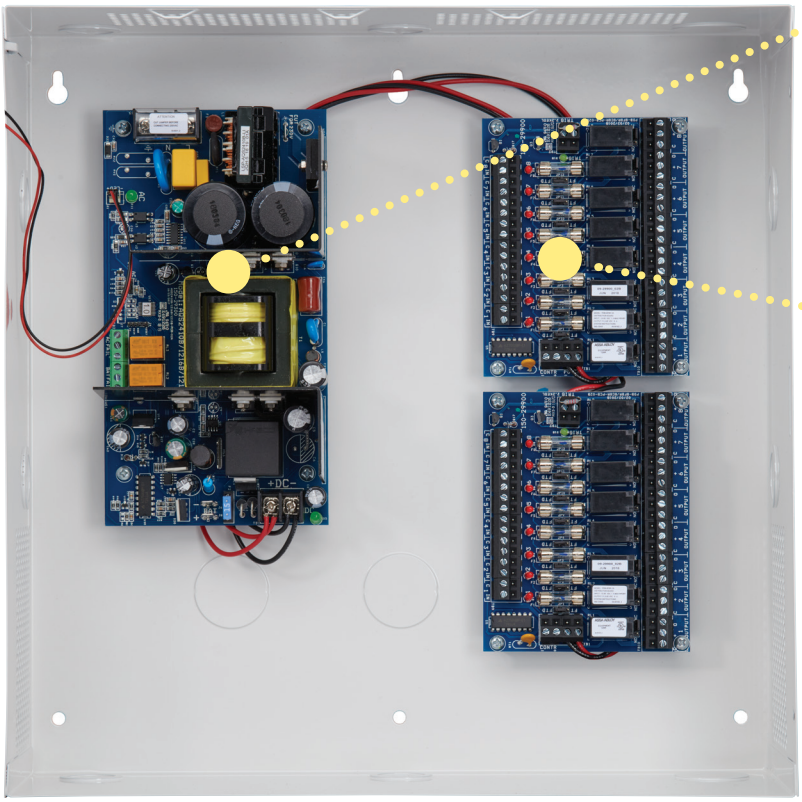
- 12.7 lbs [5.76kg]

# Features

- All combinations of AQD & AQS power supplies and distribution boards are UL Listed
- Tolerates brownout or over-voltage input ± 15% of nominal voltage
- Thermal shutdown protection with auto restart
- Circuit breaker protects against over-current and reverse battery faults
- Dedicated battery charging circuit* prevents over-voltage on locking devices
- Expandable up to 16 outputs in the standard enclosure
- Available with a single relay fire trigger or individually triggered relayed outputs
- Low battery cutoff at 9 V

**Except AQD1. Battery disconnect module available. Please contact the factory.*

# Step by Step Configuration



*NOTE: Fuse type and size must be the same for both distribution boards for standard ordering. For custom configurations, please contact the factory at 800.626.7590.

## 1 *Select One Power Supply with Enclosure*

- AQD1
- AQD2
- AQD4
- AQD6
- AQS1210
- AQS2410
- AQS1216

## 2 *Select Up to Two Power Distribution Boards**

- PDB-1R
- PDB-4C
- PDB-4F
- PDB-8C
- PDB-8F
- PDB-8C1R
- PDB-8F1R
- PDB-8C8R
- PDB-8F8R

## 3 *Add Distribution Board Part Numbers*

8F1R**2** + 8F8R**2** = 16F9R**2**
*Include fuse size on end:
2A Fuse = 16F9R**2**

## 4 *Combine to Generate Final Part Number*

*Example: AQD6-16F9R2*

AQD6 + 8F8R2 + 8F1R2 = **AQD6-16F9R2**





# Power Supply Component Part Numbers

## AQD & AQS Series Power Supply in 14" x14" Enclosure

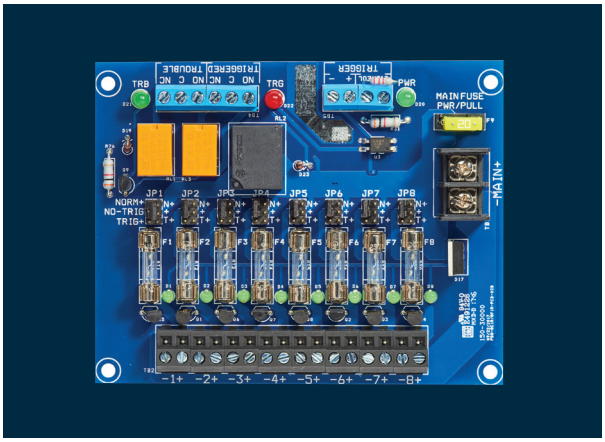
| NEW PARTS | DESCRIPTION | REPLACES |
|---|---|---|
| AQD1 | 1 Amp, Dual Voltage Power Supply with enclosure | AQD3 |
| AQD2 | 2 Amp, Dual Voltage Power Supply with enclosure | AQD3 |
| AQD4 | 4 Amp, Dual Voltage Power Supply with enclosure | AQD5 |
| AQD6 | 6 Amp, Dual Voltage Power Supply with enclosure | AQD6 |
| AQS1210 | 10 Amp, 12 VDC Power Supply with enclosure | AQU128 |
| AQS2410 | 10 Amp, 24 VDC Power Supply with enclosure | AQM20 |
| AQS1216 | 16 Amp, 12 VDC Power Supply with enclosure | AQM20 |



## AQD & AQS Series Power Distribution Board

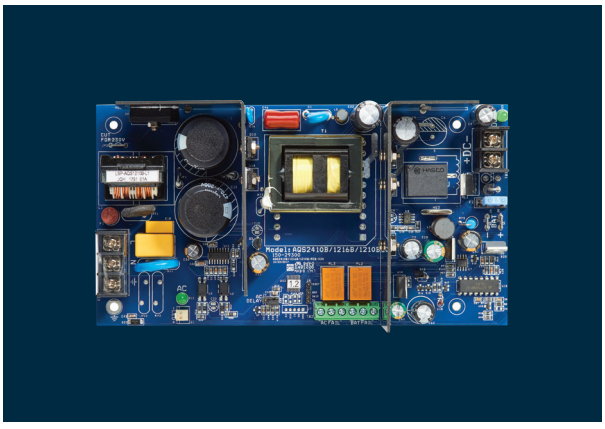
*(PDB prices are the same for C and F fuse variants)*

| NEW PART | DESCRIPTION |
|---|---|
| PDB-1R | Fire Trigger / Relay Interface Board |
| PDB-4F1 | PDB, 4 Output, 1 A Glass Fuse |
| PDB-4F2 | PDB, 4 Output, 2 A Glass Fuse |
| PDB-4C1 | PDB, 4 Output, 1 A PTC |
| PDB-4C2 | PDB, 4 Output, 2 A PTC |
| PDB-8F1 | PDB, 8 Output, 1 A Glass Fuse |
| PDB-8F2 | PDB, 8 Output, 2 A Glass Fuse |
| PDB-8C1 | PDB, 8 Output, 1 A PTC |
| PDB-8C2 | PDB, 8 Output, 2 A PTC |
| PDB-8F8R1 | PDB, 8 Relayed Outputs, 1 A Glass Fuse |
| PDB-8F8R2 | PDB, 8 Relayed Outputs, 2 A Glass Fuse |
| PDB-8C8R1 | PDB, 8 Relayed Outputs, 1 A PTC |
| PDB-8C8R2 | PDB, 8 Relayed Outputs, 2 A PTC |
| PDB-8C1R1 | PDB, 8 Output w/ Fire Trigger Relay, 1 A PTC |
| PDB-8C1R2 | PDB, 8 Output w/Fire Trigger Relay, 2 A PTC |
| PDB-8F1R1 | PDB, 8 Output w/ Fire Trigger Relay, 1 A Glass Fuse |
| PDB-8F1R2 | PDB, 8 Output w/Fire Trigger Relay, 2 A Glass Fuse |




## AQD & AQS Series Power Supply Board Only

| NEW PART | DESCRIPTION | REPLACES |
|---|---|---|
| AQD1B | 1 Amp, Dual Voltage Power Supply Board Only | AQD3B |
| AQD2B | 2 Amp, Dual Voltage Power Supply Board Only | AQD3B |
| AQD4B | 4 Amp, Dual Voltage Power Supply Board Only | AQD5B |
| AQD6B | 6 Amp, Dual Voltage Power Supply Board Only | AQD6B |
| AQS1210B | 10 Amp, 12 VDC Power Supply Board Only | AQU128B |
| AQS2410B | 10 Amp, 24 VDC Power Supply Board Only | AQM20B |
| AQD1216B | 16 Amp, 12 VDC Power Supply Board Only | AQM20B |



# Common Power Supply Configurations

| PART NUMBER | DESCRIPTION |
|---|---|
| AQD1-4F1 | 1 Amp, Dual Voltage Power Supply with enclosure, 4 outputs, 1 Amp glass fuses |
| AQD1-4C1 | 1 Amp, Dual Voltage Power Supply with enclosure, 4 outputs, 1 Amp PTC polyswitch |
| AQD2-1R | 2 Amp, Dual Voltage Power Supply with enclosure, Fire Trigger |
| AQD2-4C1 | 2 Amp, Dual Voltage Power Supply with enclosure, 4 outputs, 1 Amp PTC polyswitch |
| AQD2-4F1 | 2 Amp, Dual Voltage Power Supply with enclosure, 4 outputs, 1 Amp glass fuses |
| AQD2-8C8R1 | 2 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 1 Amp PTC polyswitch, 8 relays, Fire Trigger |
| AQD2-8F8R1 | 2 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 1 Amp glass fuses 8 relays, Fire Trigger |
| AQD4-4F1 | 4 Amp, Dual Voltage Power Supply with enclosure, 4 outputs, 1 Amp glass fuses |
| AQD4-8C1 | 4 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 1 Amp PTC polyswitch |
| AQD4-8C8R1 | 4 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 1 Amp PTC polyswitch, 8 relays, Fire Trigger |
| AQD4-8F8R1 | 4 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 1 Amp glass fuses, 8 relays, Fire Trigger |
| AQD6-8C2 | 6 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 2 Amp PTC polyswitch |
| AQD6-8C8R2 | 6 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 2 Amp PTC polyswitch, 8 relays, Fire Trigger |
| AQD6-8F8R2 | 6 Amp, Dual Voltage Power Supply with enclosure, 8 outputs, 2 Amp glass fuses, 8 relays, Fire Trigger |
| AQS1210-16F2 | 10 Amp, 12 VDC Power Supply with enclosure, 16 outputs, 2 Amp glass fuses |
| AQS1210-16F16R2 | 10 Amp, 12 VDC Power Supply with enclosure, 16 outputs, glass fuses, 16 relays, Fire Trigger |
| AQS2410-16F2 | 10 Amp, 24 VDC Power Supply with enclosure, 16 outputs, 2 Amp glass fuses |
| AQS2410-16F16R2 | 10 Amp, 24 VDC Power Supply with enclosure, 16 outputs, 2 Amp glass fuses, 16 relays, Fire Trigger |
| AQS2410-16C16R2 | 10 Amp, 24 VDC Power Supply with enclosure, 16 outputs, 2 Amp PTC polyswitch, 16 relays, Fire Trigger |
| AQS1216-16F16R2 | 16 Amp, 12 VDC Power Supply with enclosure, 16 outputs, 2 Amp glass fuses, 16 relays, Fire Trigger |

# How To Order

Select a power supply and up to two distribution boards in the 14" x 14" enclosure. All combinations of power supplies and distribution boards are UL Listed and are available in a number of possible configurations. Use the tables below to build the right solution for your needs.

| Model Series | Output Type | Voltage | Output Power | Enclosure Style | Number of Outputs | Fuse Type | Number of Relays | Relays | Fuse Size |
|---|---|---|---|---|---|---|---|---|---|
| AQ | D | | 6 | – | 8 | F | 8 | R | 2 |
| **AQ** | **D** Dual Voltage* | **Blank** Dual Voltage* | **1*** | **–** In Enclosure | **Blank** One Output, No Distribution Board | | | | |
| | **S** Single Voltage** | **12** 12VDC** | **2*** | **B** Circuit Board Only | **4** | **F** Glass† Fuses | **1** | **R** Relays | **1** 1 Amp |
| | | **24** 24VDC*** | **4*** | | **8** | **C** PTC† Polyswitch | **2** | | **2** 2 Amp |
| | | | **6*** | | **12** | | **8** | | |
| | | | **10**** | | **16** | | **9** | | |
| | | | **16**** | | | | **16** | | |

** Dual Voltage Option Only. ** Single Voltage Option Only. *** Available for 10A Option Only.*

*† Fuse type and size must be the same for both distribution boards for standard ordering. For custom configurations, please contact the factory at 800.626.7590.*

# Power Supply Cross Reference Guide

| ALTRONIX | LIFESAFETY POWER | AQD & AQS SERIES |
|---|---|---|
| AL1012ULACM | FPO150-C8E1 | AQS1210-8F8R2 |
| AL1012ULACMCB | FPO150-C8PE1 | AQS1210-8C8R2 |
| AL1012ULACMCBJ | FPO150-C8PE2 | AQS1210-8C8R2 |
| AL1012ULACMJ | FPO150-C8E2 | AQS1210-8F8R2 |
| AL1012ULM | FPO150-F8PE1 | AQS1210-8F8R2 |
| AL1012ULX | FPO150-E1 | AQS1210 |
| AL1012ULXB | FPO150 | AQS1210B |
| AL1012ULXPD16 | FPO150-2D8E1 | AQS1210-16F2 |
| AL1012ULXPD16CB | FPO150-2D8PE1 | AQS1210-16C2 |
| AL1012ULXPD8 | FPO150-D8E1 | AQS1210-8F2 |
| AL1012ULXPD8CB | FPO150-D8PE1 | AQS1210-8C2 |
| AL1024ULACM | FPO250-C8E1 | AQS2410-8F8R2 |
| AL1024ULACMCB | FPO250-C8PE1 | AQS2410-8C8R2 |
| AL1024ULACMCBJ | FPO250-C8PE2 | AQS2410-8C8R2 |
| AL1024ULACMJ | FPO250-C8E2 | AQS2410-8F8R2 |
| AL1024ULM | FPO250-F8PE1 | AQS2410-8F8R2 |
| AL1024ULX | FPO250-E1 | AQS2410 |
| AL1024ULXB | FPO250 | AQS2410B |
| AL1024ULXPD16 | FPO250-2D8E1 | AQS2410-16F2 |
| AL1024ULXPD16CB | FPO250-2D8PE1 | AQS2410-16C2 |
| AL1024ULXPD8 | FPO250-D8E1 | AQS2410-8F2 |
| AL1024ULXPD8CB | FPO250-D8PE1 | AQS2410-8C2 |
| AL125UL | FPO25-E5 | AQD1 |
| AL125ULX | FPO25-E1 | AQD1 |
| AL175UL | FPO75-E5 | AQD2-1R |
| AL175ULX | FPO75-E1 | AQD2-1R |
| AL176UL | FPO75-E5 | AQD2 |
| AL176ULX | FPO75-E1 | AQD2 |
| AL300ULM | FPO75-F8PE1 | AQD2-8F8R1 |
| AL300ULPD4 | FPO75-D8E1 | AQD2-4F1 |
| AL300ULPD4CB | FPO75-D8PE1 | AQD2-4C1 |
| AL300ULX | FPO75-E1 | AQD2 |
| AL300ULXB | FPO75 | AQD2B |
| AL300ULXPD16CB | FPO75-2D8PE1 | AQD2-16C1 |
| AL400UL | FPO75-E5 | AQD4 |
| AL400ULACM | FPO75-C8E1 | AQD4-8F8R |
| AL400ULACMCB | FPO75-C8PE1 | AQD4-8C8R |
| AL400ULACMCBJ | FPO75-C8PE2 | AQD4-8C8R |
| AL400ULACMJ | FPO75-C8E2 | AQD4-8F8R |
| AL400ULM | FPO75-F8PE1 | AQD4-8F8R1 |
| AL400ULPD4 | FPO75-D8E1 | AQD4-4F1 |
| AL400ULPD8 | FPO75-D8E1 | AQD4-8F1 |
| AL400ULPD4CB | FPO75-D8PE1 | AQD4-4C1 |
| AL400ULPD8CB | FPO75-D8PE1 | AQD4-8C1 |

| ALTRONIX | LIFESAFETY POWER | AQD & AQS SERIES |
|---|---|---|
| AL400ULX | FPO75-E1 | AQD4 |
| AL400ULXB | FPO75 | AQD4B |
| AL400ULXPD16 | FPO75-2D8E1 | AQD4-16F1 |
| AL400ULXPD16CB | FPO75-2D8PE1 | AQD4-16C1 |
| AL600ULACM | FPO150-C8E1 | AQD6-8F8R2 |
| AL600ULACMCB | FPO150-C8PE1 | AQD6-8C8R2 |
| AL600ULACMCBJ | FPO150-C8PE2 | AQD6-8C8R2 |
| AL600ULACMJ | FPO150-C8E2 | AQD6-8F8R2 |
| AL600ULM | FPO150-F8PE1 | AQD6-8F8R2 |
| AL600ULPD4 | FPO150-D8E1 | AQD6-4F2 |
| AL600ULPD4CB | FPO150-D8PE1 | AQD6-4C2 |
| AL600ULPD8 | FPO150-D8E1 | AQD6-8F2 |
| AL600ULPD8CB | FPO150-D8PE1 | AQD6-8C2 |
| AL600ULX | FPO150-E1 | AQD6 |
| AL600ULXB | FPO150 | AQD6B |
| AL600ULXPD16 | FPO150-2D8E1 | AQD6-16F2 |
| AL600ULXPD16CB | FPO150-2D8PE1 | AQD6-16C2 |
| NETWAY1 | NPM115 | AQE15 |
| NETWAY1512 | NPE130 | AQE30E |
| NETWAY3012 | NPE130 | AQE30E |
| ACM4 | C4 | PDB-8F8R |
| ACM4E | C4 | PDB-8F8R |
| ACM4CB | C4P | PDB-8C8R2 |
| ACM4CBE | C4P | PDB-8C8R2 |
| ACM8 | C8 | PDB-8F8R2 |
| ACM8E | C8 | PDB-8F8R2 |
| ACM8CB | C8P | PDB-8C8R2 |
| ACM8CBE | C8P | PDB-8C8R2 |
| PD16W | 2D8 | 2x PDB-8F2 |
| PD16WCB | 2D8P | 2x PDB-8C2 |
| PD4UL | D8 | PDB-4F2 |
| PD4ULCB | D8P | PDB-4C2 |
| PD4 | D8 | PDB-4F2 |
| PD4CB | D8 | PDB-4C2 |
| PD8 | D8 | PDB-8F2 |
| PD8CB | D8P | PDB-8C2 |
| PD8UL | D8 | PDB-8F2 |
| PD8ULCB | D8P | PDB-8C2 |



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