

Elmdene 1 Door Enclosure



A high efficiency cost effective power supply, specifically designed for use with Avigilon's range of Mercury Security access control controllers & modules. Featuring a regulated 13.8V dc 2A output supplying continuous full rated current to load and a universal mains voltage input. Enhanced battery life is assured using deep discharge protection to prevent premature battery failure when operating in standby mode for extended periods. Two sets of volt free contacts are provided to signal (i) loss of mains and (ii) battery and loss of output faults.

KEY FEATURES

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|--|--|
| Continuous full rated current to load | Green Mains present LED |
| Universal mains input voltage 90-264V ac | Red Fault diagnostic LED |
| High efficiency electronics for reduced running costs and lower operating temperatures | Volt free contact signalling mains failure (EPS) |
| Installer safe design with all high voltage electronics fully shrouded | Volt free contact signalling output and battery faults (GEN) |
| Mains transient protection circuit | Full electronic short circuit and overload protection on load output under mains operation |
| Lid and removal from wall tamper detection | Individual battery and output fuse protection |

Specifications

MODEL SPECIFICATION

| | |
|------------|--|
| Model | Description |
| AC-ELM-1DR | 1 door, 13.8V dc 2A Battery Monitoring Switch Mode Power supply, to fit 1 x Mercury EP1501 and/or 1 x MR50 interface |

SPECIFICATION (INPUT)

| | |
|---------------------|--------------------|
| Voltage (rated) | 100-240V ac |
| Voltage (operating) | 90-264V ac |
| Frequency | 50-60Hz |
| Max input current | < 1.0A @ Full load |
| Mains Input Fuse | T2.0A |

SPECIFICATION (OUTPUT)

| | |
|-------------------|--|
| Voltage | 12.8 – 14.2V dc (13.8V dc nominal) on mains power 9.8 – 13.0V dc on battery standby |
| Max load current | 2A |
| Ripple | < 400 mV pk-pk max |
| Load output Fuses | F2.0A |
| Overload | Electronic shutdown until overload or short circuit removed (under mains power only) |

STANDBY BATTERY

| | |
|----------------------------------|--|
| Battery Type | 12V Valve Regulated Lead Acid |
| Battery Capacity (max) | See below under Mechanical specification |
| Battery Charging Fuse protection | F2.0A |

MECHANICAL

| | |
|-----------------------|---------------------------|
| Dimensions (HxWxD mm) | 275x330x80 |
| Battery Capacity | 1 x 12V NP7 (7Ah) |
| Weight (kg) | 3.3 |
| Enclosure Material | Steel white powder coated |

ENVIRONMENTAL

| | |
|-------------------------|--|
| Temperature – Operating | -10 to +40°C (operating) 75% RH non-condensing |
| Temperature - Storage | -20 to +80°C (storage) |

SIGNALLING OUTPUTS

| | |
|------------|--|
| Rating: | 0.10A @ 60V dc 16Ω solid state relay contacts, volt free. |
| EPS Fault: | Open if Loss of mains for >8s |
| GEN Fault: | Open if Battery terminal voltage < 11.5V dc (when operating in standby with no mains present), battery not present or Output and/or battery fuse blown |
| Tamper: | 0.5A @ 30V dc volt free contact. Open when lid is open or enclosure removed from surface. |

FAULT DIAGNOSTIC TABLE:

| RED LED (FAULT) | GREEN LED (MAINS) | PSU STATUS |
|--|-------------------|---|
| OFF | ON | Normal: Battery fully charged |
| One short flash every second | ON | Normal: Battery charging but not fully charged |
| Flashing: 1 second On 1 second Off | ON | Fault: Output fuse or battery fuse blown, or battery missing |
| | OFF | Fault: No mains, output fuse blown |
| One short flash every 3 seconds | OFF | Fault: No mains, battery supplying load. |
| OFF | OFF | Fault: No mains, No output, Batteries disconnected or completely discharged |

CONNECTIONS

| | |
|------------|---|
| O/P +, - | Connection to equipment to be powered (Observe polarity) |
| EPS Fault: | Relay output for mains fail. Open if loss of mains. |
| GEN Fault: | Relay output for General Fault. Open in fault condition |
| BATT +, - | Connection to standby battery. Use cables provided (Observe polarity) |