

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

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)