ACCESS BOX

E1MSC3000V3/E2MSC6000V3

2.0

IDCUBE®

Facelift


IDCUBE
Wiring Schematics
EZMSC6000V3
Power Distribution PCB
Access Controller(s)
idcubesystems.com

The Access Box series enclosures, developed by IDCUBE, are designed to simplify the installation process of various Mercury and Aero access control boards (controllers) and peripherals. These enclosures come with multiple layout options to cater to diverse installation requirements.

The product's design philosophy revolves around meeting the security and safety standards required by critical infrastructure, industrial, and commercial facilities. Additionally, it ensures easy installation, improved ergonomics, and a compact form factor. IDCUBE's dedication to user-friendly solutions is evident in these enclosures, which makes them an ideal choice for hassle-free access control integration.

Benefits

Versatility

The one-of-a-kind enclosure can support up to two boards (four doors) of Mercury, Aero, and Vertx, and even four boards of certain Mercury models without requiring additional peripherals.

Lift-off hinge

The enclosure door can be easily removed for installation and cabling, making implementation and maintenance easier.

Compact dimensions

It is one of the most compact enclosures for typical two-door or four-door access control scenarios, easily fitting into smaller spaces.

Universal AC input/Full range

The power circuitry is designed to be compatible with all AC mains voltage levels, making installation worry-free.

Indicator LEDs

The enclosure's power distribution board includes five LEDs that indicate the current status visually.

Fire alarm integration

The enclosure allows for direct integration with fire alarms in Fail-Safe scenarios. It disconnects the door power during a fire event, ensuring compliance with fire emergency norms without relying on access control controllers.

Color-coded standoffs

The enclosure comes equipped with color-coded standoffs that make it easy to mount different boards. This simplifies the process of installation.

Battery charger with UPS function

The built-in battery charger with UPS function can charge up to two 12V-7Ah batteries, ensuring facility security during power outages.

100% full load burn-in test

The power circuitry has undergone a full-load burn-in test for endurance and stability, ensuring high reliability.

Power/Battery switches

The power distribution board in the enclosure includes switches for both AC mains and battery power cut-off, making maintenance operations easier.

Universal knockouts

The enclosure includes 11 knockouts to support 1/2", 3/4", 1", and 1.25" set screw connectors for conduit integration.

Protections

The power circuitry is highly durable and dependable, offering protection against accidental short circuits, overload, and overvoltage.

Power circuitry remote monitoring

The enclosure provides outputs for AC mains cut-off and low battery alarms for remote monitoring.

Additional coolant fan compatibility

The enclosure supports the installation of up to four 40mm x 40mm coolant fans for reliable operation in high temperatures.

Locking system and tamper switch

The enclosure is secured with a universal key lock and a tamper switch to prevent unwanted access to the access control boards.

Battery safety

The battery charger ensures battery safety with protection against low charge and reversed polarity.

Access controller position chart

LP-1502 / LP-4502 / MR-52 / MR-16 IN / MR-16 OUT (Mercury)

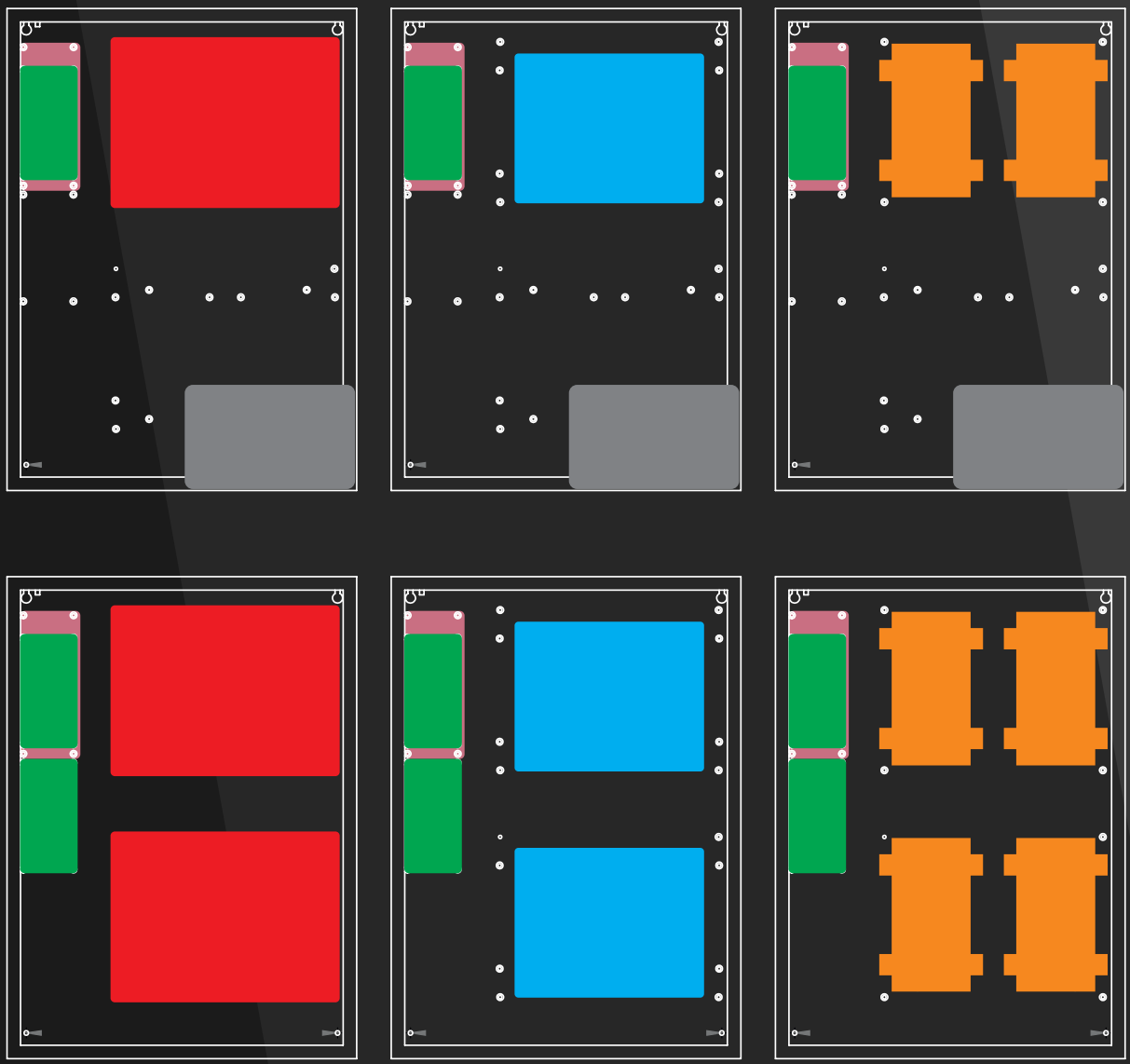
X110 / X100 / X200 / X300 (AERO)

LP-1501 / MR-62E (Mercury)

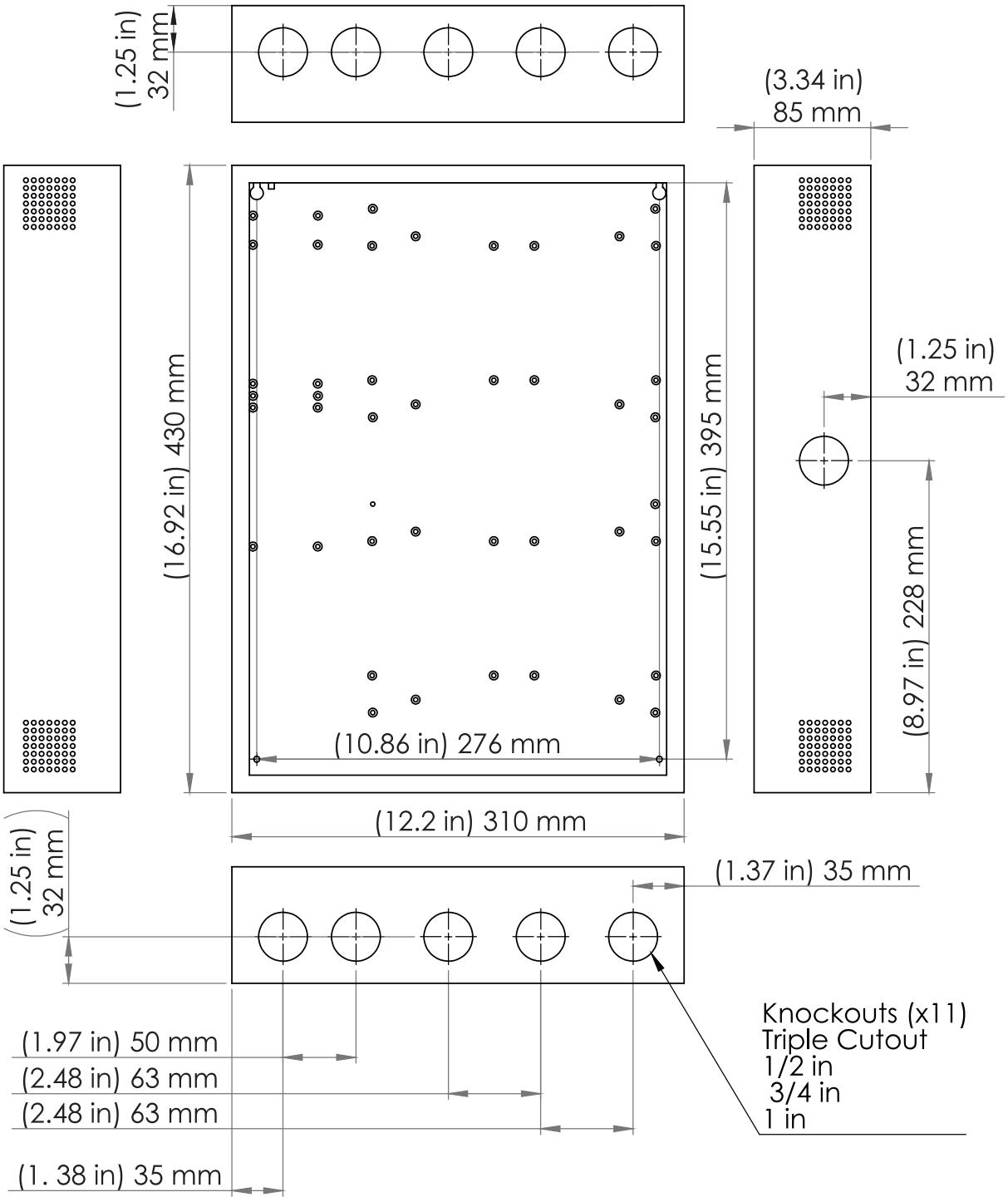
Power Distribution Board

Power Supply

Standard 7AH Battery **(L x W x H) 5.94 x 2.56 x 3.7 in (151 x 65 x 94 mm)**



Dimensions



All dimensions without door

Technical specifications

Features	Model	
	E1MSC3000V3	E2MSC6000V3
Dimensions	435mm x 321mm x 84mm (17.12in x 12.63in x 3.30in) (H x W x D)	
Dimensions (Without Door and Hinge)	430mm x 310mm x 80mm (16.92in x 12.2in x 3.15in) (H x W X D) (Without door)	
Material	Mild Steel 16AWG (1.2 mm)	
Color	Black	
Surface Finish	Powder Coated	
Net Weight	4.5 KG (9.92 Lbs)	4.7 KG (10.36 Lbs)
Gross Weight	4.5 KG (10.8 Lbs)	5.1 KG (11.25 Lbs)
Cam Lock	Universal Key lock	
Tamper Switch	Inbuilt Tamper switch in Power Distribution Board	
Controller Compatibility	Up to 1x Mercury LP-1502 / LP-4502 / MR-52 / MR-16 IN / MR-16 OUT	Up to 2x Mercury LP-1502 / LP-4502 / MR-52 / MR-16 IN / MR-16 OUT
	Up to 1x AERO X1100 / X100 / X200 / X300	Up to 2x AERO X1100 / X100 / X200 / X300
	Up to 2x Mercury LP-1501 / MR-62E	Up to 4x Mercury LP-1501 / MR-62E
Custom Controller Compatibility	Any, Using custom baseplate	
Knockouts	11x Triple Knockout (1/2", 3/4", 1" Conduit size), or M32 Cable Gland	
Fan cutout/ Vents	4 Sets of Vents on side faces, also compatible for Mounting Standard 40x40x10 Fan	
Base Plate	No baseplate as standard, only provided for custom boards	
Battery Support	Supports up to 1x 12v 7Ah Battery	Supports Up to 2x 12V 7Ah Batteries
Battery Placement	One battery inside the enclosure	NA
Electrical (inbuilt power supply ratings)		
Input Voltage	90-264 VAC / 127-370VDC	
Input Frequency	47 ~ 63Hz	
Input Current	1.6A/115VAC or 1A/230VAC	3.2A/115VAC or 2A/230VAC
Output Voltage	13.8 VDC	
Output Battery charging current	1.5 A	3.0 A
Output Load Current	Max Current load @ 12VDC = 3.2A (2.8A @ 13.8V)	Max Current load @ 12VDC = 6.4A (5.6A @ 13.8V)
Battery Cutoff voltage	10.5V ± 0.5V	
Other Signal I/O		
AC OK	TTL open collector output, ON: AC OK; OFF: AC Fall; Ice: max. 30mA@50VDC	
Battery Fail	TTL open collector output, ON: Battery Low; OFF: Battery OK; Ice: max. 30mA@50VDC	
Tamper Switch	N.O. Type, Inbuilt on the power distribution PCB	
Fire Input	N.O. / N.C. Type (selectable via Switch)	
AC Disconnect Switch	Yes	
Battery Disconnect switch	Yes	
Safety and Regulatory		
Ingress Protection	NA	
Impact Protection	NA	
Environmental Protection	NA	
Safety Standard (Power supply)	UL62368-1, TUV BS EN/EN62368-1, approved EAC TPTC 004	
EMC Emission **(Power supply)**	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EACTPTC020	
EMC Immunity **(Power supply)**	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EACTPTC020	
MTBF **(Power supply)**	3681.4K hrs min. Telcordia SR-332 (Bellcore) ; 589.7K hrs min. MIL-HDBK-217F (25°C)	
Working Temperature **(Power supply)**	-20 Degree to +70 Degree C	
Relative Humidity **(Power supply)**	20-90% RH non-condensing	

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