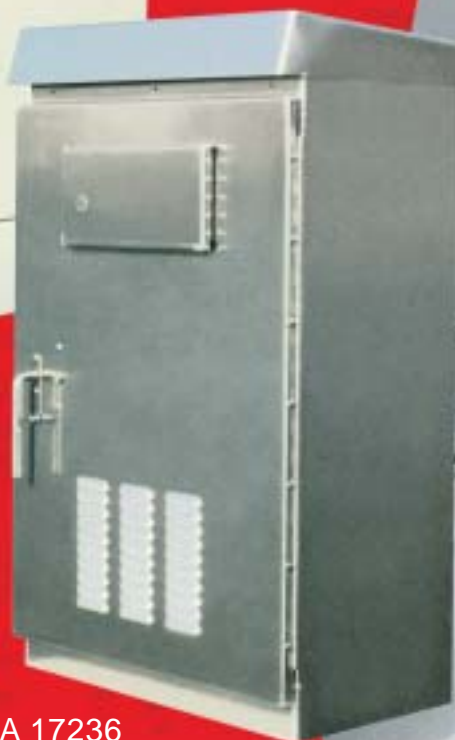




# APX Technologies, Inc.

## EXCELLENCE IN PROTECTION



200 Oregon Street, Mercersburg, PA 17236  
Tel. 717-328-9399 Fax. 717-328-2447  
[www.apx-technologies.com](http://www.apx-technologies.com)

# Excellence in Protection



## Quality Products Since 2001

APX Technologies, Inc. is your complete source for UL Listed Control Panels and Aluminum/Stainless Steel Outdoor Enclosures. All enclosures and panels manufactured by APX are UL Listed to 508A and supplied with the UL/CUL Label.

APX Technologies, Inc. is a customer-focused company. We utilize the latest state-of-the-art CAD/CAM systems in a Just-In-Time manufacturing environment. This allows us to respond quickly to a wide variety of different markets. While achieving the repeatability and performance our customers demand. We at APX Technologies, Inc. believe that flexibility is defined in design, delivery, quality of our products, and the satisfaction of our customers.

So why not put APX Technologies, Inc. expertise to work for you on your next outdoor application. We invite you to give us your problem, and we will give you the right solution for the environment you're working with. After all if you want to protect your expensive electronics from exposure, you need an APX enclosure.



For more products and service information regarding



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## Engineering Solutions

Nobody has the same exact custom enclosure needs as you. That's why APX treats you like no one else. At APX, we have the expertise and experience to meet your specific needs like no other company.



ONE ENCLOSURE AT A TIME

# Custom Enclosures

**Nobody has the same exact custom enclosure needs as you, That's why APX treats you like no one else. At APX, we have the expertise and experience to meet your specific needs like no other company.**

**Supplying custom enclosures continues to be a significant portion of our business.**

Our engineering and manufacturing systems are designed to be responsive to your special requirements. Upon receipt of your requirement, we assign a Project Engineer to handle your job from design through prototype and production.

All enclosures are developed to be fabricated in APX CAD/CAM environment.

Design information and submittals can be sent electronically via modem or provided on diskette or paper drawings.

Please contact the factory for a prompt quote and to learn more about our custom enclosure services.

**State-of-the-art equipment** ensures constant product excellence - from precise and quick design capabilities with our CAD system, to consistent, accurate fabricating results with our direct computer numerically controlled fabricating equipment.

**Our finishing department** offers many types of material finishes, including:

- Three-stage iron phosphate pretreatment
- Wash and etch primer
- Enamel - bake or air dried
- Epoxy powder - bake
- Polyester powder - bake
- Anodizing
- See color chart on page C15.

**Additional services** are offered that make APX a one-stop, turnkey supplier:

- Special assembly - Electrical
- Silk screening
- Custom metal panels
- Climate control
- Product support information, upon request-catalogs, brochures, price lists, spec sheets, etc.
- Welcomed plant facility tours and inspection
- On-site project consultation
- On-line order status, computerized order acknowledge-





## TCMC

**Size Range:** 62" x 50" x 36" thru 62" x 106" x 36"

**3 Standard Sizes:** one, two or three rack bays

**Material:** aluminum

**Equipment Mounting:** 19" or 24" rack front and rear access

**NEMA Rating(s):** main chamber 4X, electrical/air conditioning chamber-3R, fiber entry/storage chamber-3R (see pages A3)



## Quad Door

**Size Range:** 58" x 74" x 30" thru 72" x 72" x 24", 5 standard sizes

**Material:** 125 aluminum and 14 gauge stainless

**Equipment Mounting:** 19" or 24" rack, center panel, shelf, custom

**NEMA Rating(s):** 3R and 4X

Custom Sizes Available

**Additional literature by FAX-Code 1737**



## Rack Mount

**Size Range:** 39" x 24" x 20" thru 67" x 24" x 38", 6 standard sizes

**Material:** 125 aluminum and 14 gauge stainless

**Equipment Mounting:** 19" and 24" removable rack frame, front and rear access

**NEMA Rating(s):** 3R and 4X

Custom Sizes Available

**Additional literature by FAX-Code 1738**



## Large Single Door

**Size Range:** 30" x 18" x 15" thru 77" x 44" x 26", 14 standard sizes

**Material:** 125 aluminum and 14 gauge stainless

**Equipment Mounting:** shelf, panel, 19" and 24" rack, dead front, custom

**NEMA Rating(s):** 3R and 4X Custom Sizes Available Additional literature by



## Front and Rear

**Size Range:** 36" x 36" x 24" thru 77" x 44" x 26", 5 standard sizes

**Material:** 125 aluminum and 14 gauge stainless

**Equipment Mounting:** shelf, center panel, 19" and 24" rack, dead front, custom

**NEMA Rating(s):** 3R and 4X Custom Sizes Available Additional literature by FAX-Code 1735



## Double Door

**Size Range:** 36" x 32" x 12" thru 90" x 72" x 24", 11 standard sizes

**Material:** 125 aluminum and 14 gauge stainless

**Equipment Mounting:** shelf, back panel, 19" and 24" rack, custom

**NEMA Rating(s):** 3R and 4X Custom Sizes Available Additional literature by FAX-Code 1736



## Spec Line 4X

**Size Range:** 16" x 12" x 6" thru 60" x 36" x 12", 21 standard sizes

**Material:** 080 aluminum and 14 gauge stainless

**Equipment Mounting:** back panel, swing panel, side panel, custom

**NEMA Rating(s):** 4X

U.L. listed

Custom Sizes Available



## Small Single Door

**Size Range:** 14" x 10" x 7" thru 26" x 17" x 15", 8 standard sizes

**Material:** 125 aluminum and 14 gauge stainless

**Equipment Mounting:** back panel, swing panel, shelf, custom

**NEMA Rating(s):** 3R and 4X

U.L. listed

Custom Sizes Available



## Free-Standing 4X

**Size Range:** 48" x 31" x 24" thru 72" x 31" x 24", 4 standard sizes

**Material:** stainless and aluminum

**Equipment Mounting:** panel, shelf, rack, custom

**NEMA Rating(s):** 4X

Custom Sizes Available



## Two-Door 4X

**Size Range:** 66" x 60" x 16" thru 72" x 72" x 16", 2 standard sizes

**Material:** stainless and aluminum

**Equipment Mounting:** back panel, side panel, dead front, custom

**NEMA Rating(s):** 3R and 4X

Custom Sizes Available



## Pedestal Enclosure

**Size Range:** 40" x 16" x 15"

**Material:** 125 aluminum

**Equipment Mounting:** back panel, custom

**NEMA Rating(s):** 3R

Detailed engineering specifications are available for each of our enclosure styles. The text portion of these technical sheets is available on diskette in IBM compatible ASCII format on request. Please feel to contact our sales and engineering staff for assistance in preparing your proposal.



Our Modular TCMC  
Wireless Application

TCMC 200  
CATV Application



Rack Mount Enclosure  
CATV Application



## APPLICATION-NEMA 3R AND 4X

APX Technologies, Inc. TCMC SERIES 100 is a user configurable communication enclosure for use in applications such as CATV, Telephony and Cellular. They provide protection from wind-driven rain, sleet, snow, dripping water and corrosion, as well as vandalism.

## INDUSTRY STANDARD:

U.L.Type 3R, 4X, Bellcore TA-NWT-000487

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction.
2. The enclosures are equipped with two adjustable 19" and 24" rack rails, providing versatile positioning of equipment and ease of service. Optional panels or shelves may be added.
3. The door frame opening is flanged on all four sides. These flanges increase the strength of the door opening and prevent dust and liquids from dropping into the enclosure when the door is opened.
4. All exterior seams are sealed weathertight with silicone sealant.
5. (3R Areas) End chambers house electrical components, air conditioning, fiber and cable entry. Custom entry holes and boots can be provided. Air conditioning systems are thermostatically controlled.

### B. DOOR:

1. Equipped with three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is flush mount style, with Bellcore approved lock and provisions for a padlock.
3. (3R only) The standard side door latches are flush mount style with Bellcore locks and provisions for pad locking.
4. (3R only) A louvered air vent with screening is provided. Fiber side door is solid with no ventilation.
5. The main doors are sealed with closed-cell neoprene gasket.
6. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

### C. ELECTRICAL:

1. All electrical accessories are housed in the electrical end chamber unless otherwise specified.
2. Electrical accessories include: a 100 amp load center, a 60 amp main disconnect, and an A/C receptacle.
3. The main chamber contains two duplex ground fault receptacles.



4. The main chamber is equipped with a UL approved light fixture that operates automatically when the door is opened.
5. All chambers are grounded. All doors shall be equipped with ground straps.
6. All components are UL approved.

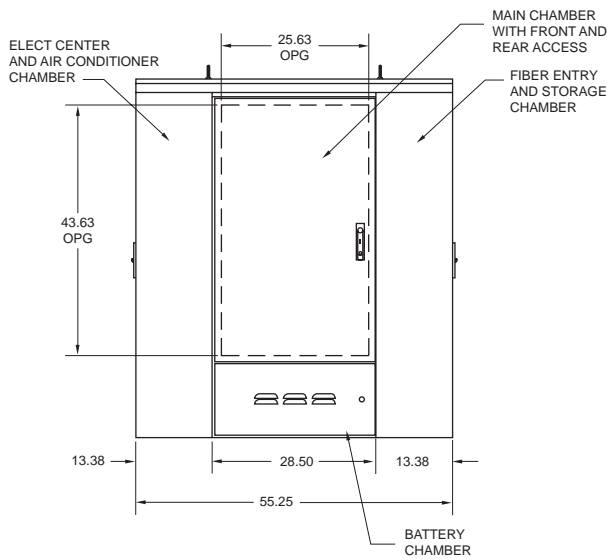
### D. BATTERY COMPARTMENT:

The battery compartment is designed to hold 6 batteries 13.51" long, 6.76" wide and 8.51" high. Tray extends 25" and will support up to 700 lbs. Optional battery heaters are available.

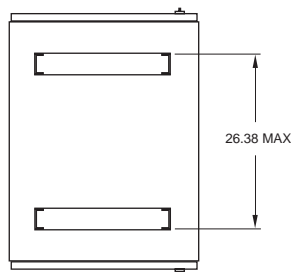
### E. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.

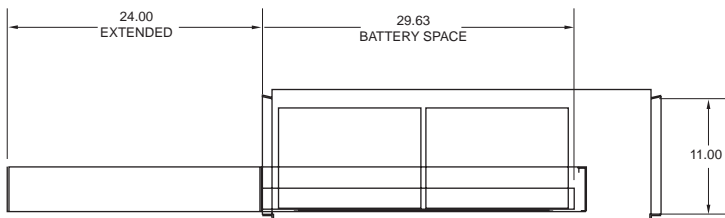




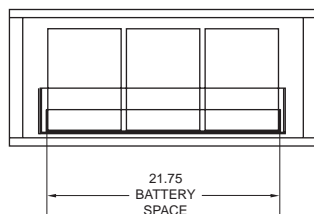
TCMC 100 FRONT VIEW DWG.



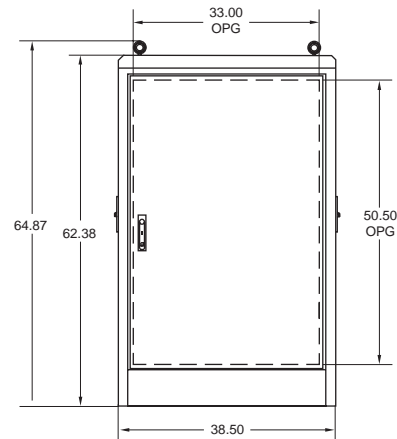
TCMC 100 MAIN CHAMBER TOP VIEW DWG.



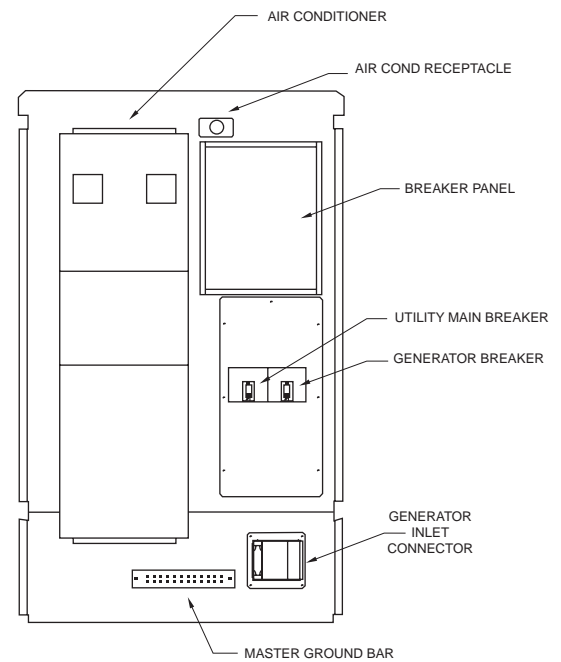
TCMC COMMON BATT. CHAMBER SIDE VIEW DWG.



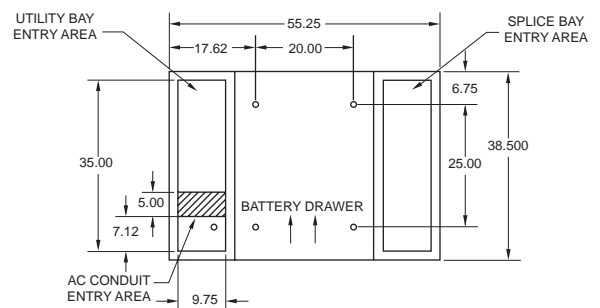
TCMC 100 BATT. CHAMBER FRONT VIEW DWG.



TCMC COMMON END VIEW DWG.  
NOTE: 50 RACK UNITS OF USEABLE SPACE



TCMC COMMON UTILITY CHAMBER VIEW DWG.



MOUNTING PATTERN

## APPLICATION-NEMA 3R AND 4X

APX Technologies, Inc. TCMC SERIES 200 is a user configurable communication enclosure for use in applications such as CATV, Telephony and Cellular. They provide protection from wind-driven rain, sleet, snow, dripping water and corrosion, as well as vandalism.

## INDUSTRY STANDARD:

U.L.Type 3R, 4X, Bellcore TA-NWT-000487

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction.
2. The enclosures are equipped with four adjustable 19" and 24" rack rails, providing versatile positioning of equipment and ease of service. Optional panels or shelves may be added.
3. The door frame opening is flanged on all four sides. These flanges increase the strength of the door opening and prevent dust and liquids from dropping into the enclosure when the door is opened. Each side has a removable center post between the doors.
4. All exterior seams are sealed weathertight with silicone sealant.
5. (3R Areas) End chambers house electrical components, air conditioning, fiber and cable entry. Custom entry holes and boots can be provided. Air conditioning systems are thermostatically controlled.

### B. DOOR:

1. Equipped with three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is flush mount style, with Bellcore approved lock and provisions for a padlock.
3. (3R only) The standard side door latches are flush mount style with Bellcore locks and provisions for pad locking.
4. (3R only) A louvered air vent with screening is provided. Fiber side door is solid with no ventilation.
5. The main doors are sealed with closed-cell neoprene gasket.
6. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

### C. ELECTRICAL:

1. All electrical accessories are housed in the electrical end chamber unless otherwise specified.
2. Electrical accessories include: a 100 amp load center, a 60 amp main disconnect, and an A/C receptacle.
3. The main chamber contains four duplex ground fault



receptacles.

4. The main chamber is equipped with a UL approved light fixture that operates automatically when the door is opened.
5. All chambers are grounded. All doors shall be equipped with ground straps.
6. All components are UL approved.

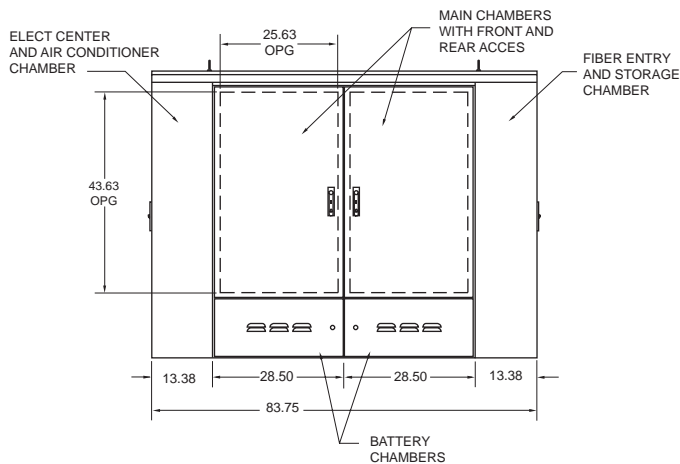
### D. BATTERY COMPARTMENT:

The battery compartment is designed to hold 12 batteries 13. 51" long, 6. 76" wide and 8. 51" high. Tray extends 25" and will support up to 1,400 lbs. Optional battery heaters are available.

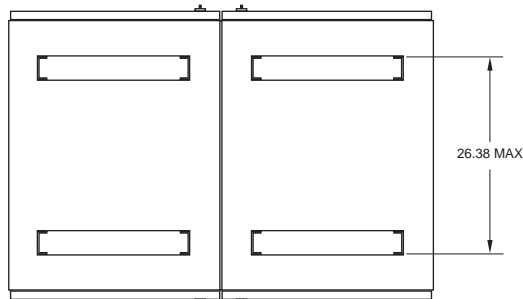
### E. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.

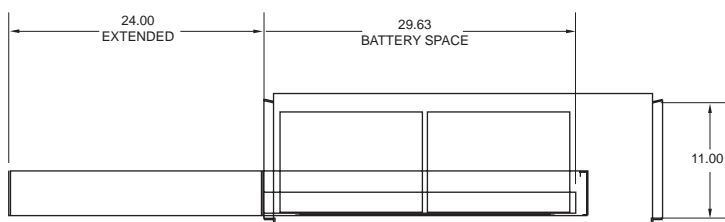
The APX Technologies, Inc. TCMC Enclosure series provides cost effective-vandal, corrosion and environmental protection for electronic integration.



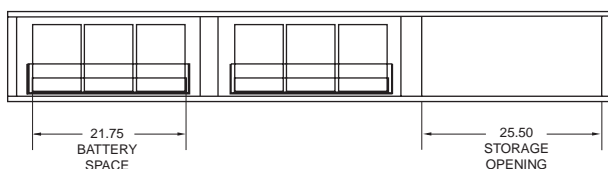
TCMC 200 FRONT VIEW DRW.



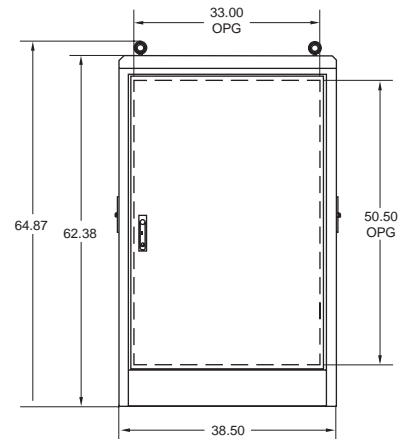
TCMC 200 MAIN CHAMBER TOP VIEW DRW.



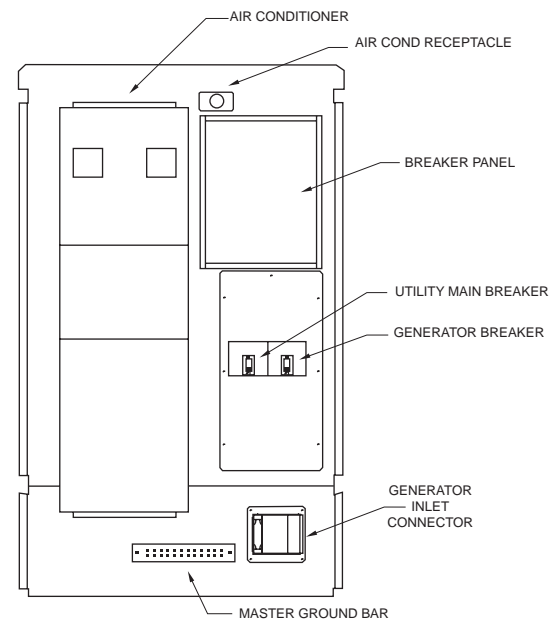
TCMC COMMON BATT. CHAMBER SIDE VIEW DRW.



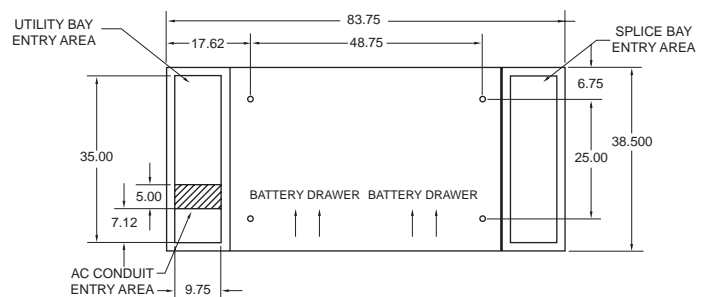
TCMC 200 BATT. CHAMBER FRONT VIEW DRW.



TCMC COMMON END VIEW DRW.  
NOTE: 96 RACK UNITS OF USEABLE SPACE



TCMC COMMON UTILITY CHAMBER VIEW DRW.  
ELECTRICAL CENTER AND AIR  
CONDITIONING CHAMBER LAYOUT



MOUNTING PATTERN

## APPLICATION-NEMA 3R AND 4X

APX Technologies, Inc. TCMC SERIES 300 is a user configurable communication enclosure for use in applications such as CATV, Telephony and Cellular, They provide protection from wind-driven rain, sleet, snow, dripping water and corrosion, as all as vandalism.

## INDUSTRY STANDARD:

U.L.Type 3R, 4X, Bellcore TA-NWT-000487

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction.
2. The enclosures are equipped with six adjustable 19" and 24" rack rails, providing versatile positioning of equipment service. Optional panels or shelves may be added.
3. The door frame opening is flanged on all four sides. These flanges increase the strength of the door opening and prevent dust and liquids from dropping into the enclosure when the door is opened. A removable center post is located on each side of the double door section.
4. All exterior seams are sealed watertight with silicone sealant.
5. (3R Areas) End chambers house electrical components, air conditioning, fiber and cable entry. Custom entry holes and boots can be provided. Air conditioning systems are thermostatically controlled.

### B. DOOR:

1. Equipped with three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is flush mount style, with Bellcore approved lock and provisions for a padlock.
3. (3R only) The standard side door latches are flush mount style with Bellcore locks and provisions for pad locking.
4. (3R only) A louvered air vent with screening is provided. Fiber side door is solid with no ventilation.
5. The main doors are sealed with closed-cell neoprene gasket.
6. The continuous door hinge is .075" thick stainless steel with a .25 stainless hinge pin.

### C. ELECTRICAL:

1. All electrical accessories are housed in the electrical end chamber unless otherwise specified.
2. Electrical accessories include: a 100 amp load center, a 60 amp main disconnect, and an A/C receptacle.



3. The main chamber contains four duplex ground fault receptacles.
4. The main chamber is equipped with a UL approved light fixture that operates automatically when the door is opened.
5. All chambers are grounded. All doors shall be equipped with ground straps.
6. All components are UL approved.

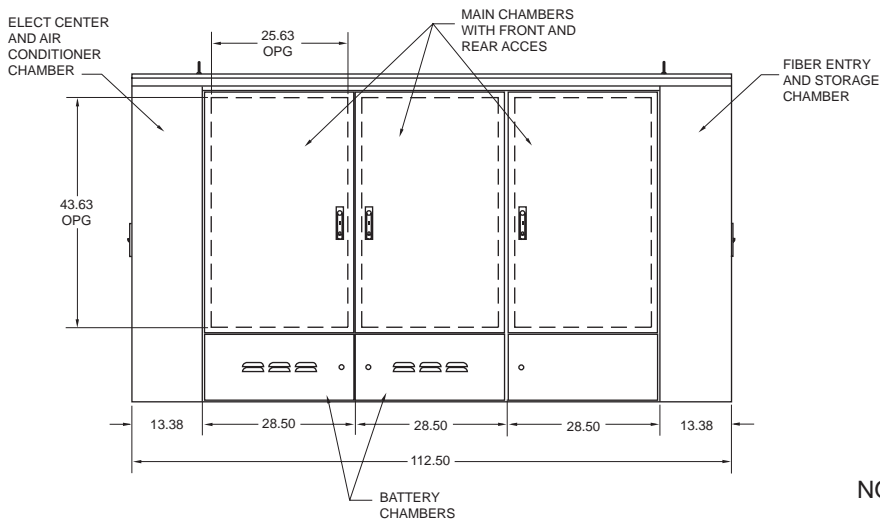
### D. BATTERY COMPARTMENT:

The battery compartment is designed to hold 12 batteries 13.51" long, 6.76" wide and 8.51" high. Tray extends 25" and will support up to 1,400 lbs. Optional battery heaters are available.

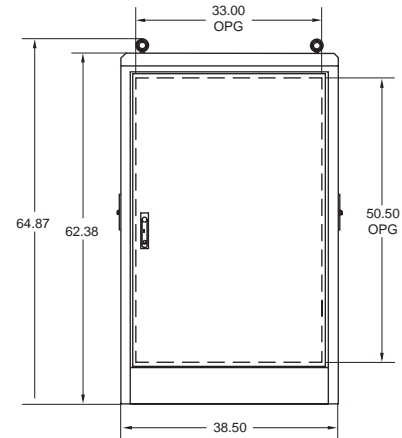
### E. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.

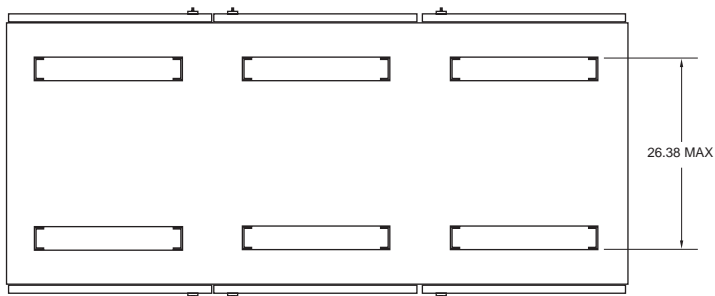




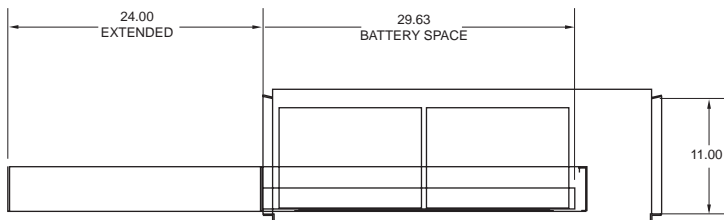
TCMC 300 FRONT VIEW DWG.



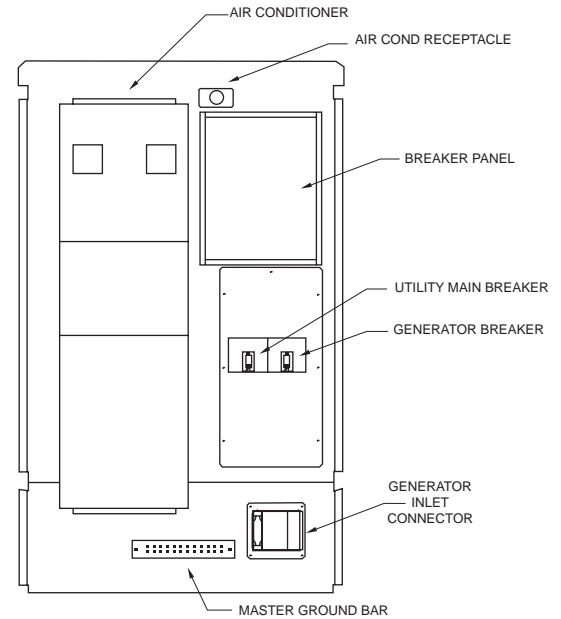
TCMC COMMON END VIEW DWG.  
NOTE: 144 RACK UNITS OF USEABLE SPACE



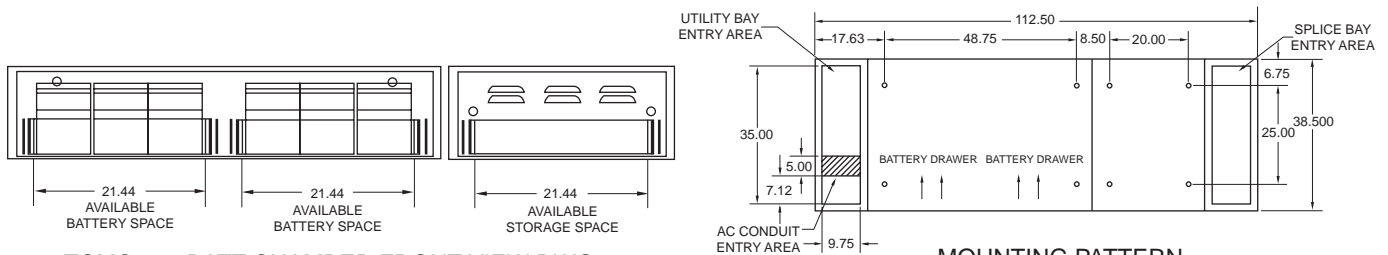
TCMC 300 MAIN CHAMBER TOP VIEW DWG.



TCMC COMMON BATT. CHAMBER SIDE VIEW DWG.



TCMC COMMON UTILITY CHAMBER VIEW DWG.  
ELECTRICAL CENTER AND AIR  
CONDITIONING CHAMBER LAYOUT



TCMC 300 BATT CHAMBER FRONT VIEW DWG.

## APPLICATION-NEMA 3R AND 4X

APX Technologies, Inc. TCMC Series is a user configurable communication enclosure series that is designed for easy installation and expansion for applications such as CATV, Telephony, and Wireless communications. Each module provides protection from wind-driven rain, sleet, snow, dripping water and corrosion, as well as vandalism.

## INDUSTRY STANDARD:

U.L. Type 3R, 4X, Bellcore TA-NWT-000487

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H-32 to provide strong and rigid construction.
2. Both equipment and battery drawer modules are equipped with 19" or 24" rack rails, providing versatile positioning of equipment and ease of service. Optional panels or shelves may be added.
3. The door frame opening are flanged on all four sides. These flanges increase the strength of the door openings and prevent dust and liquids from dropping into the enclosure when the doors are opened.
4. All exterior seams are sealed watertight with silicone sealant.
5. Fiber/Utility Module houses electrical components and fiber/cable entry. Custom entry holes and boots can be provided.

### B. DOOR:

1. All doors are equipped with three point latching mechanisms with nylon rollers at top and bottom.
2. Door handle is flush mount style, with Bellcore approved lock and provisions for a padlock.
3. All door are sealed with closed-cell neoprene gasket.
4. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

### C. ELECTRICAL:

1. All electrical service entrance and power distribution are housed in the Utility module unless otherwise specified.
2. Standard electrical system includes a 100 amp center with 100 amp main disconnect. Generator kits may be installed as an option.
3. Each module contains two (2) duplex ground fault receptacles and one (1) 220 VAC twist lock receptacle for air conditioner.
4. Each module is equipped with UL approved light fixtures that operate automatically when the door is opened.
5. All modules are grounded. All doors are equipped



with ground straps.

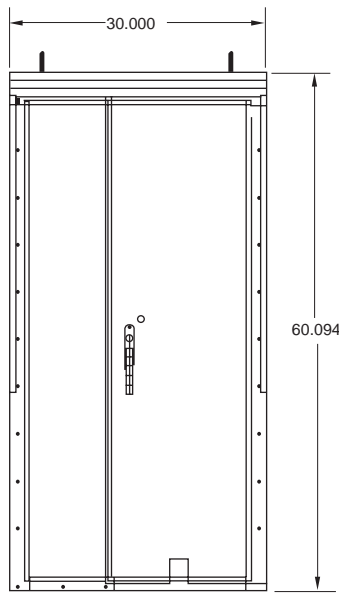
6. All components are UL approved.

### D. BATTERY DRAWER:

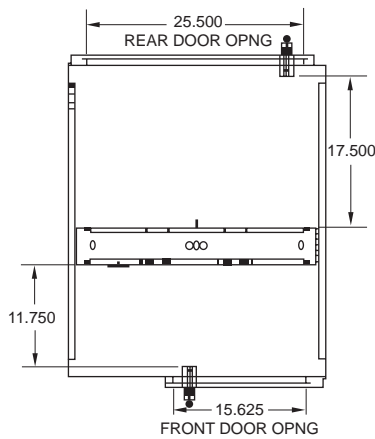
1. The battery drawer, if required, is designed to hold six (6) batteries 13.51" long, 6.76" wide and 8.51" high. Tray extends 25" and will support up to 700 lbs. Optional battery heaters blankets are available.

### E. FINISH:

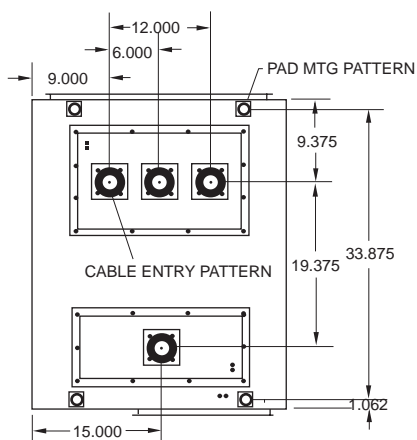
1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.



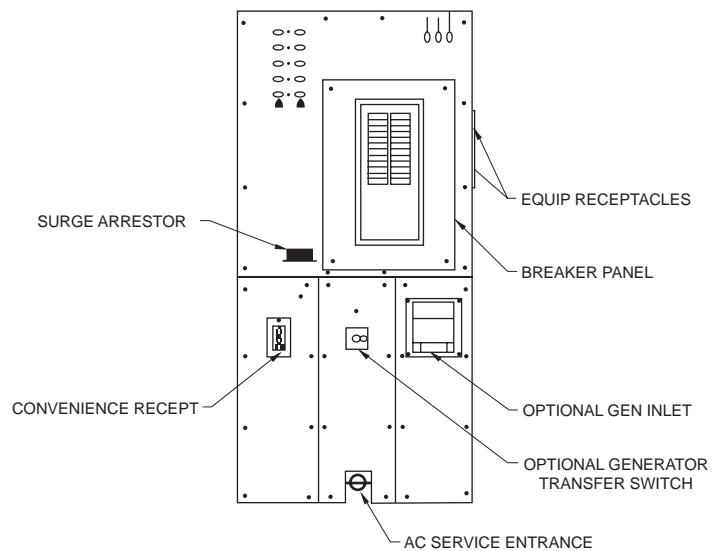
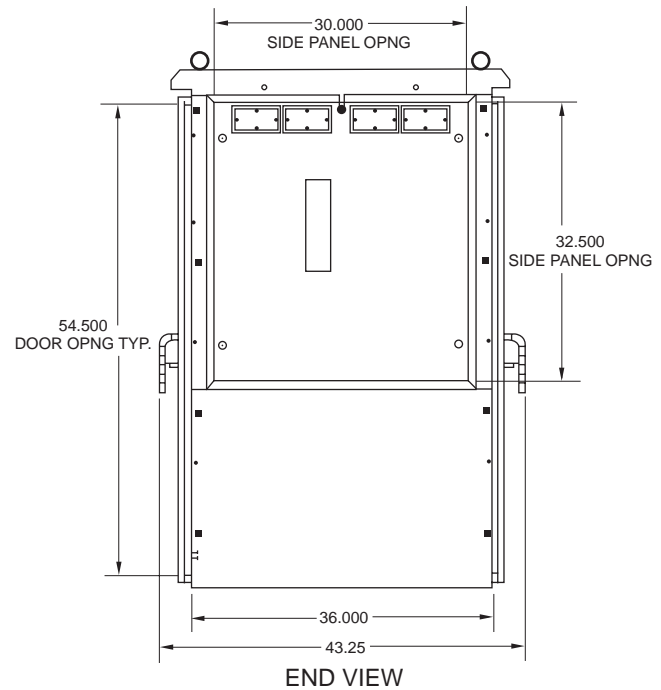
FRONT VIEW



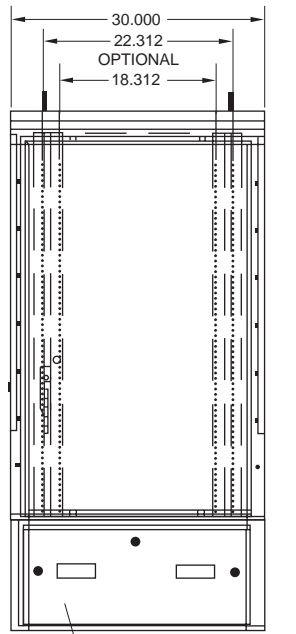
TOP VIEW



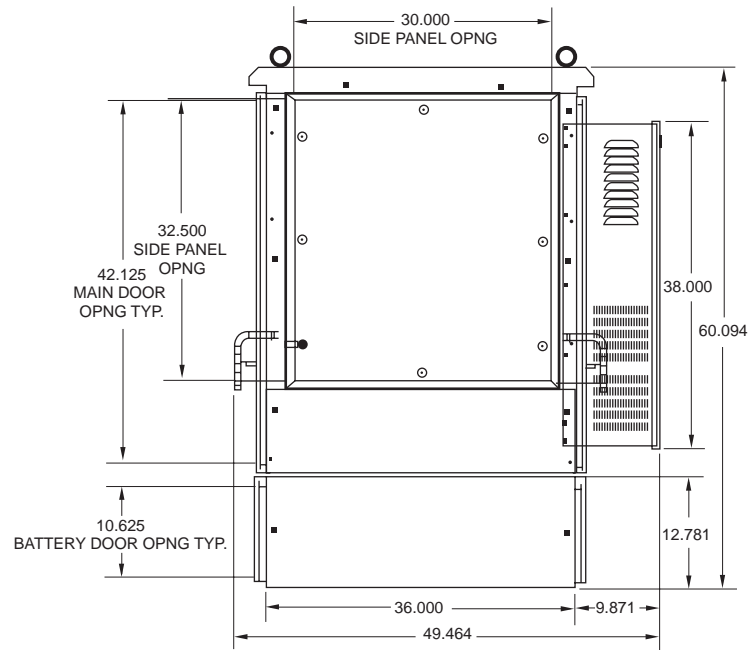
PAD MOUNTING PATTERN



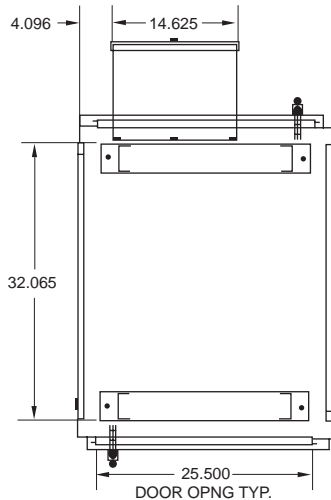
POWER PANEL



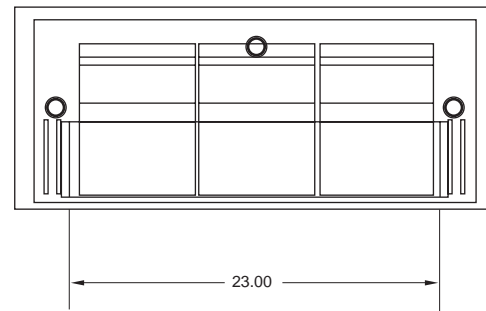
FRONT VIEW



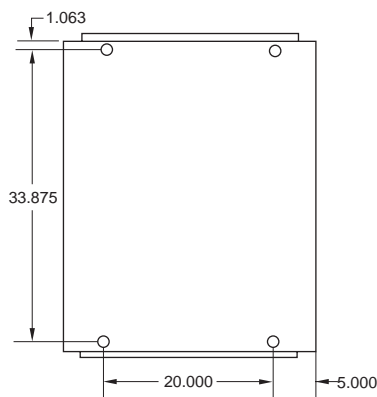
END VIEW



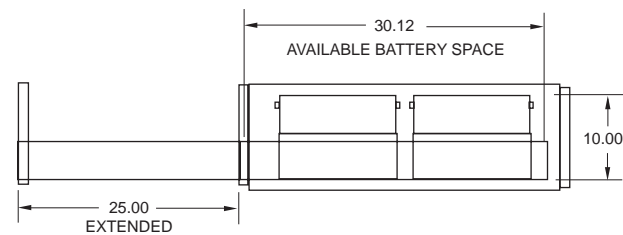
TOP VIEW



AVAILABLE  
BATTERY SPACE  
BATTERY CHAMBER FRONT VIEW

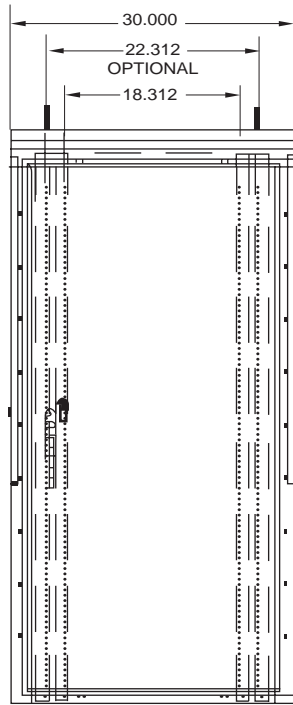


PAD MOUNTING PATTERN

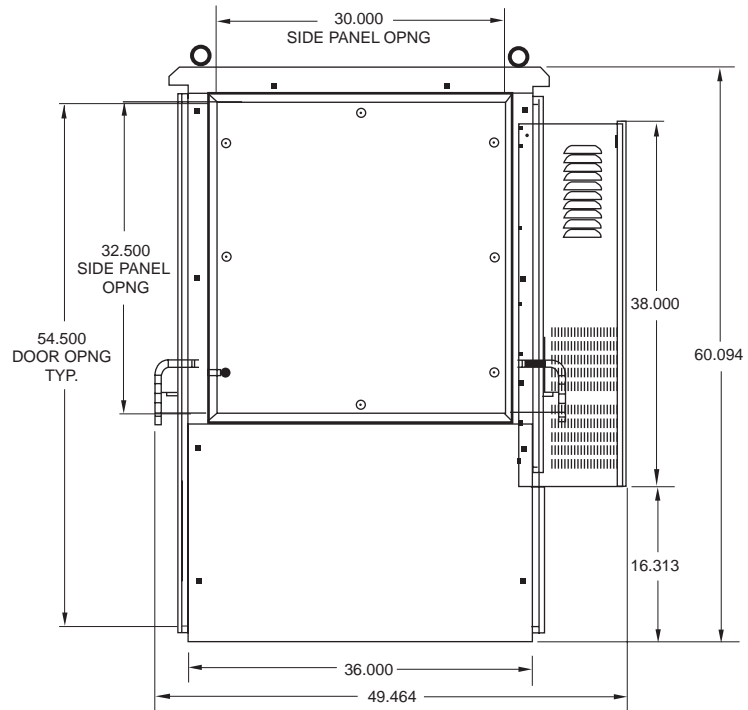


BATTERY CHMBER SIDE VIEW  
NOTE: 23 RACK UNITS OF USEABLE SPACE

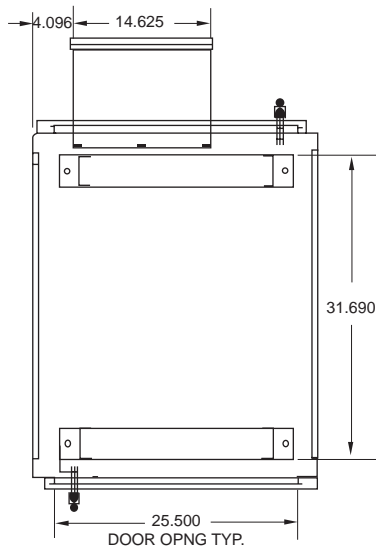




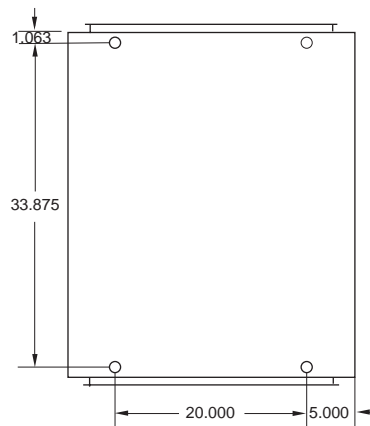
FRONT VIEW



SIDE VIEW



TOP VIEW



PAD MOUNTING PATTERN

NOTE: 30 RACK UNITS OF USEABLE SPACE

## APPLICATION-NEMA 3R

APX Technologies, Inc. Battery Cabinet is designed to house a variety of batteries and provide protection from wind driven rain, sleet, snow and dripping water, as well as from vandalism and environment.

## INDUSTRY STANDARD:

U.L. Type 3R, Bellcore TA-NWT-000487

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H-32 to provide strong and rigid construction.
2. Enclosure is equipped with battery module stacks providing adequate mounting for various battery sizes.
3. The door frame openings are flanged on all four sides. These flanges increase the strength of the door openings and prevent dust and liquids from dropping into the enclosure when doors are opened.
4. All exterior seams are sealed weathertight with silicone sealant.
5. All hardware is either stainless steel or aluminum.

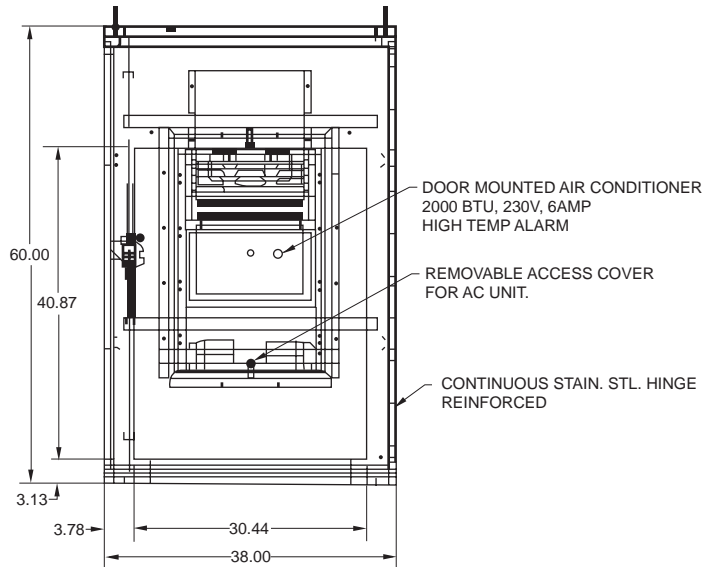
### B. DOOR:

1. All doors are equipped with three point latching mechanisms with nylon rollers at top and bottom.
2. Door handle is flush mount style, with Bellcore approved lock and provisions for pad locking.
3. All doors are sealed with closed-cell neoprene gasket.
4. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

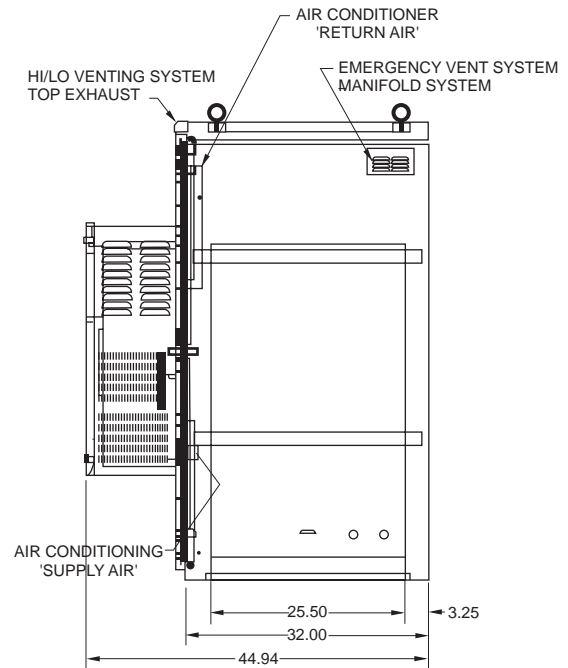


### C. FINISH:

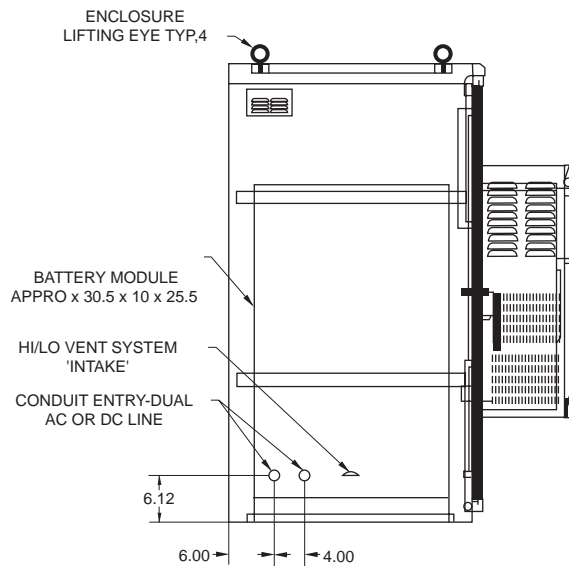
1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.



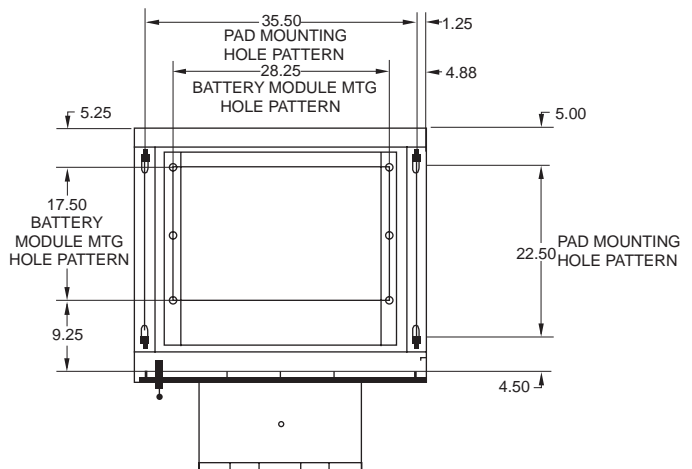
FRONT VIEW



RIGHT SIDE VIEW



LEFT SIDE VIEW



TOP VIEW  
SHOWN WITHOUT TOP

## APPLICATION-NEMA 3R AND 4X

APX Technologies, Inc. TCMC Cabinet is a user configurable communications enclosure series that is designed for applications such as CATV, Telephony, and Wireless communications that require a small amount of rack space in a climate controlled environment. This cabinet provides protection from wind-driven rain, sleet, snow, dripping water and corrosion, as vandalism and can be pad or pole mounted.

## INDUSTRY STANDARD:

U.L.Type 3R, 4X, Bellcore TA-NWT-000487

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H-32 to provide strong and rigid construction.
2. Enclosure is equipped with 19" rack rails, providing versatile positioning of equipment and ease of service. Optional panels or shelves may be added.
3. The door frame opening are flanged on all four sides. These flanges increase the strength of the door openings and prevent dust and liquids from dropping into the enclosure when the doors are opened.
4. All exterior seams are sealed weathertight with silicone sealant.
5. Load center is mounted to outside of cabinet in a weathertight box.

### B. DOOR:

1. All doors are equipped with three point latching mechanisms with nylon rollers at top and bottom.
2. Door handle is flush mount style, with Bellcore approved lock and provisions for a padlock.
3. All doors are sealed with closed-cell neoprene gasket.
4. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

### C. ELECTRICAL:

1. Standard electrical system includes a 100 amp load center with 40 amp main disconnect. Generator kits may be installed as an option.
2. Enclosure includes completely installed air conditioner and heater.
3. Each module contains two (2) duplex equipment receptacles and one (1) GFCI convenience receptacle located inside of front door.
4. Each enclosure is equipped two (2) UL approved light fixture that operates automatically when a door is opened.
5. Enclosure is completely grounded. All doors are equipped with ground straps.
6. All components are UL approved.



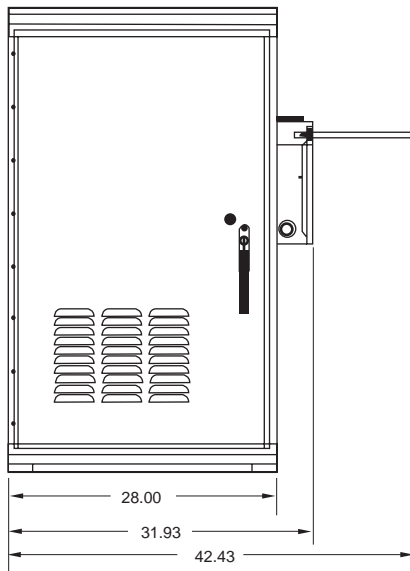
### D. BATTERY DRAWER (Optional)

1. The battery drawer, if required, is designed to hold four (4) batteries 13.51" long, 6.76" wide and 8.51" high. Tray extends 25" and will support up to 700 lbs. Optional battery heater blankets are available.

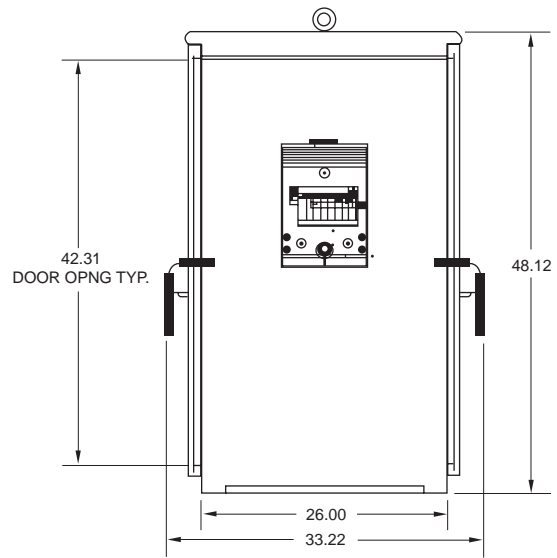
### E. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.

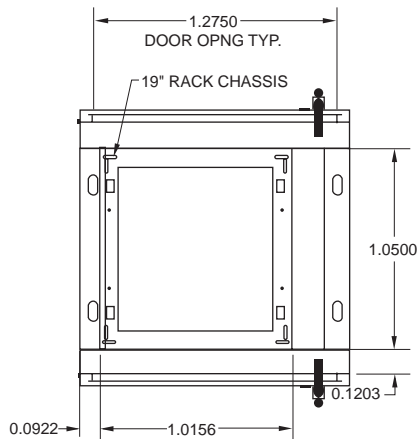




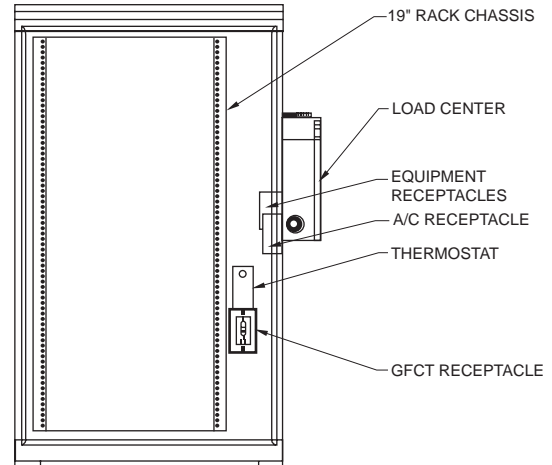
FRONT VIEW



END VIEW

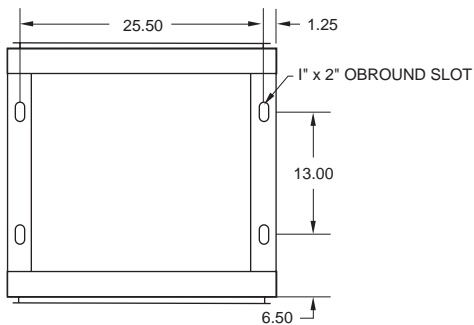


TOP VIEW  
SHOWN WITHOUT TOP



FRONT VIEW

NOTE: 14 RACK UNITS OF USEABLE SPACE  
WITH AIR CONDITIONER AND 22 RACK  
UNITS OF USEABLE SPACE WITHOUT  
AIR CONDITIONER.



PAD MOUNTING PATTERN

## APPLICATION - NEMA 3R

APX Technologies, Inc. 3R 19" rack mount enclosures are designed to house electronic controls, terminals, and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, while providing ventilation.

## INDUSTRY STANDARD:

U.L. Type 3R, 4X

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H-32 to provide a strong and rigid construction. Alternative material is 14 gauge type 304 stainless steel. (Specifier must choose the material to be used.)
2. The enclosure are equipped with bracket provisions for rigid mounting of an optional EIA 19" rack frame assembly for mounting components. (See page C8 for E.I.A. rack specifications and catalog numbers.)
3. The door frame opening is double flanged on all four sides. These flanges increase the strength of the door opening and help prevent dust and liquids from dropping into the enclosure when the door is opened.
4. All exterior seams are ground smooth or sealed weathertight with silicone sealant.
5. All hardware is either stainless steel or aluminum.
6. (3R only) Enclosures have provisions for mounting a forced air fan system that can be thermostatically controlled, and air is exhausted through a screened vent system in the enclosure top.

### B. DOOR: (Front-hinge on \_\_, rear-hinge on \_\_)

1. Equipped with three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is .75" stainless steel round bar and has provisions for a padlock.
3. (3R only) The standard main door lock is Corbin #1548-1 or equal.
4. (3R only) A louvered air vent with reusable metal filter and retaining brackets is provided.
5. The main door is sealed with closed-cell neoprene gasket.
6. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

### C. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.

## APPLICATION - NEMA 4X

APX Technologies, Inc. 4X 19" rack mount enclosures are designed to house electronic controls, terminals, and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing water, oil or coolant seepage.

## NEMA 3R SHOWN

Optional rack frame shown installed

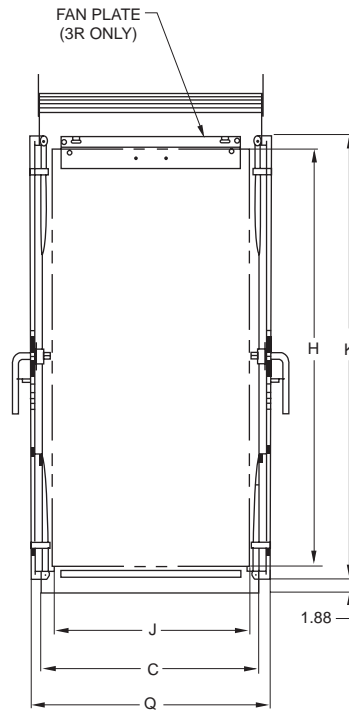
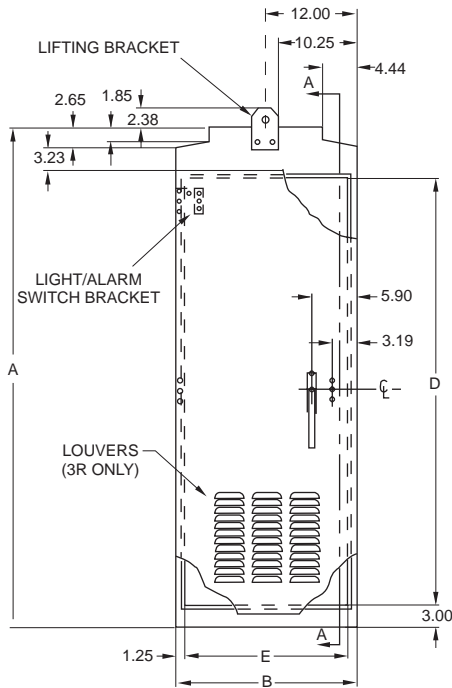


2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.

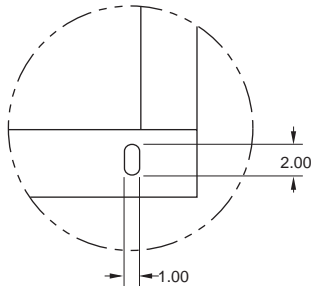
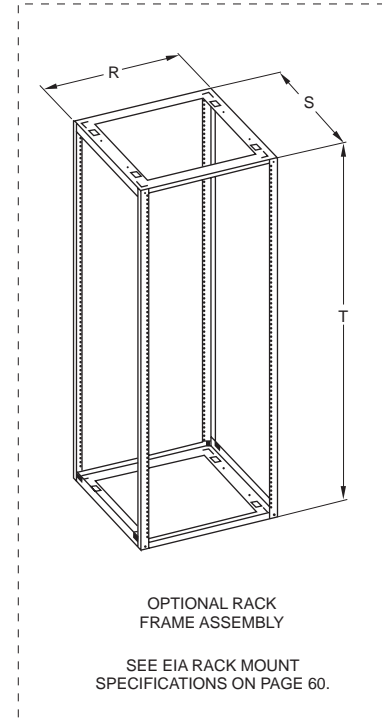
### FOR NEMA TYPE 4X RATING:

**DELETE** all vents and main door lock (Corbin #1548-1), and switch compartment assembly.

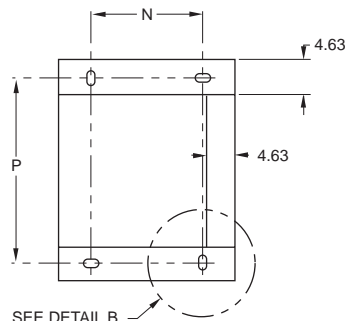
**ADD** all through holes are sealed.



SECTION A-A



DETAIL B



PAD MOUNTING PATTERN

## OPTIONS:

- Locks: Keying, Other Than Standard
- Rack Frame Assembly
- Switch Compartment
- Custom Equipment Mounting
- Climate Control
  - Air Conditioner
  - Sunshields
  - Insulation
  - Heater
- Forced Air Ventilation-Fan (3R only)

CATALOG NUMBER	SUGGESTED MOUNTING OPTIONS			CABINET			DOOR OPENING		SWITCH COMPARTMENT LOCATION		AVAILABLE SPACE		DOOR HEIGHT	PANEL		PAD MTG. PATTERN		GENERAL INFORMATION			
	PED	POLE	PED	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
RM392420	YES	YES	YES	39.00	24.00	20.25	9.00	21.50	OPTIONAL		25.75	16.50	31.25	N/A	N/A	15.00	15.00	22.75	20.00	15.75	27.25
RM462420	NO	YES	YES	46.00	24.00	20.25	36.00	21.50	OPTIONAL		32.75	16.50	38.25	N/A	N/A	15.00	15.00	22.75	20.00	15.75	34.25
RM463026	NO	YES	YES	46.00	30.00	26.25	36.00	27.50	OPTIONAL		32.75	22.25	38.25	N/A	N/A	21.00	21.00	28.50	20.00	20.75	34.25
RM553026	NO	YES	YES	55.00	30.00	26.25	44.00	27.50	OPTIONAL		41.75	22.25	47.25	N/A	N/A	21.00	21.00	28.50	20.00	20.75	43.25
RM672430	NO	NO	YES	67.00	24.00	30.00	57.00	21.50	OPTIONAL		53.75	26.25	59.25	N/A	N/A	15.00	25.00	32.50	20.00	20.75	55.25
RM672438	NO	NO	YES	67.00	24.00	38.00	57.00	21.50	OPTIONAL		53.75	34.25	59.25	N/A	N/A	15.00	33.00	40.50	20.00	29.25	55.25

## APPLICATION-NEMA 4X

APX Technologies, Inc. Econo-Line enclosures are designed to house electronic equipment for a variety of industries and provide protection from wind driven rain, sleet, snow and dripping water. as well as from vandalism.

## INDUSTRY STANDARD:

U.L. Type 3R, 4X

## STANDARD CONSTRUCTION:

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide strong and rigid construction.
2. Enclosure is equipped with 19" rack rails, providing versatile positioning of equipment and ease of service. Optional panels or shelves may be added.
3. The door frame openings are flanged on all four sides. These flanges increase the strength of the door openings and prevent dust and liquids from dropping into the enclosure when the doors are opened.
4. All exterior seams are sealed weathertight with silicone sealant.
5. All hardware is either stainless steel or aluminum.

### B. DOOR:

1. All doors are equipped with three point latching mechanisms with nylon rollers at top and bottom.
2. Door handles are .75" stainless steel round bar and has provisions for a padlock.
3. All doors are sealed with closed-cell neoprene gasket.
4. The continuous door hinge is .075" thick stainless steel with a .25" stainless hinge pin.

### C. FINISH:

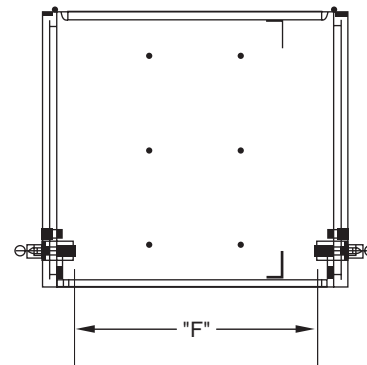
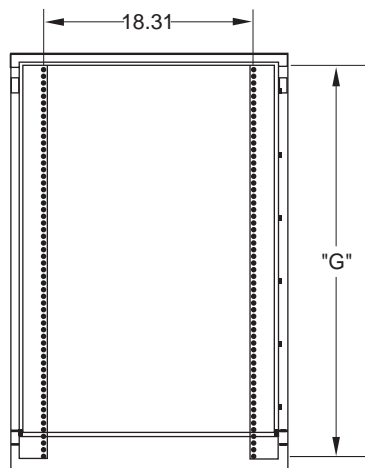
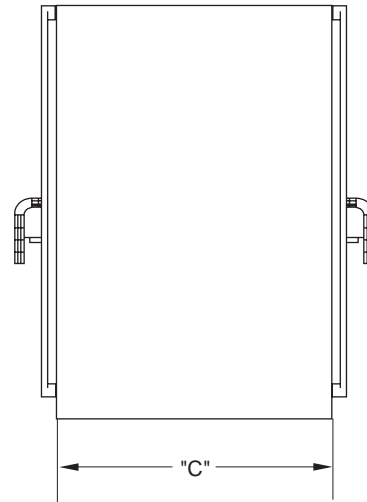
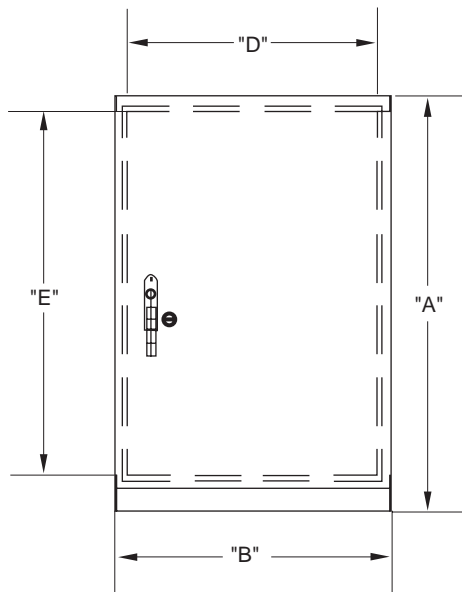
1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat. The standard finish coat is baked polyester powder.



### D. MOUNTING CONFIGURATIONS:

1. Enclosures can be either pad or pole mounted. Pole mounted applications require the use of a heavy duty pole mounting kit. (See hardware accessories for details.)





NOTE: 17 RACK UNITS OF USEABLE SPACE

STANDARD WITH 3-POINT LATCHING  
QUARTER - TURN OPTION AVAILABLE

CATALOG NUMBER	CABINET			OPENING		AVAILABLE SPACE	
	A	B	C	D	E	F	E
EL362424	36.00	24.00	24.00	21.50	31.50	21.00	34.00



Large Single Door  
Traffic Application

Large Single Door  
Water Application



Custom Enclosure  
Utility Application

## APPLICATION - NEMA 3R

APX Technologies, Inc. 3R large single door enclosures are designed to house electronic controls, terminals, and instruments, and to **provide protection from rain, sleet, snow, dripping water and corrosion, while providing ventilation.**

## INDUSTRY STANDARD:

U.L. Type 3R, 4X

## STANDARD CONSTRUCTION:

(For details see specification sheets.)

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction. Alternative material is 14 gauge type 304 stainless steel. (Specifier must choose the material to be used.)
2. The enclosures are equipped with two adjustable "C" mounting channels on both side walls, and back wall, providing versatile positioning of shelves, or optional panels or rack mounting angles.
3. The door frame opening is double flanged on all four sides. These flanges increase the strength of door opening and help prevent dust and liquids from dropping into the enclosure when the door is opened.
4. All exterior seams are ground smooth or sealed weathertight with silicone sealant.
5. Pole or wall mounted enclosures have welded stiffener plates to reinforce the top and bottom of rear wall. Welded bottom plates are standard on pole mounted enclosures. A removable bolt-on bottom plate is available as an option.
6. (3R only) Enclosures have provisions for mounting a forced air fan system that can be thermostatically controlled, and air is exhausted through a slotted vent system in the roof overhang.

### B. DOOR:

1. Equipped with three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is .75" stainless steel round bar and has provisions for a padlock.
3. (3R only) The standard main door lock is Corbin #1548-1 or equal.
4. (3R only) A louvered air vent with filter retaining brackets and a disposable paper filter element is provided.
5. The main door is sealed with closed-cell neoprene gasket.
6. The continuous door hinge is .075" thick stainless

## APPLICATION - NEMA 4X

APX Technologies, Inc. 4X large single door enclosures are designed to house electronic controls, terminals, and instruments, and to **provide protection from rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing water, oil or coolant seepage.**

NEMA 3R SHOWN



- steel with a .25" stainless steel hinge pin.
7. The switch compartment with removable back panel is standard, and also made from .125" thick aluminum alloy type 5052-H32. This back can optionally be replaced with a clear lexan window to provide for limited access inspection of operating components or instrumentation.
  8. The switch compartment door hinge is 14 gauge stainless steel with a .120 stainless steel hinge pin.

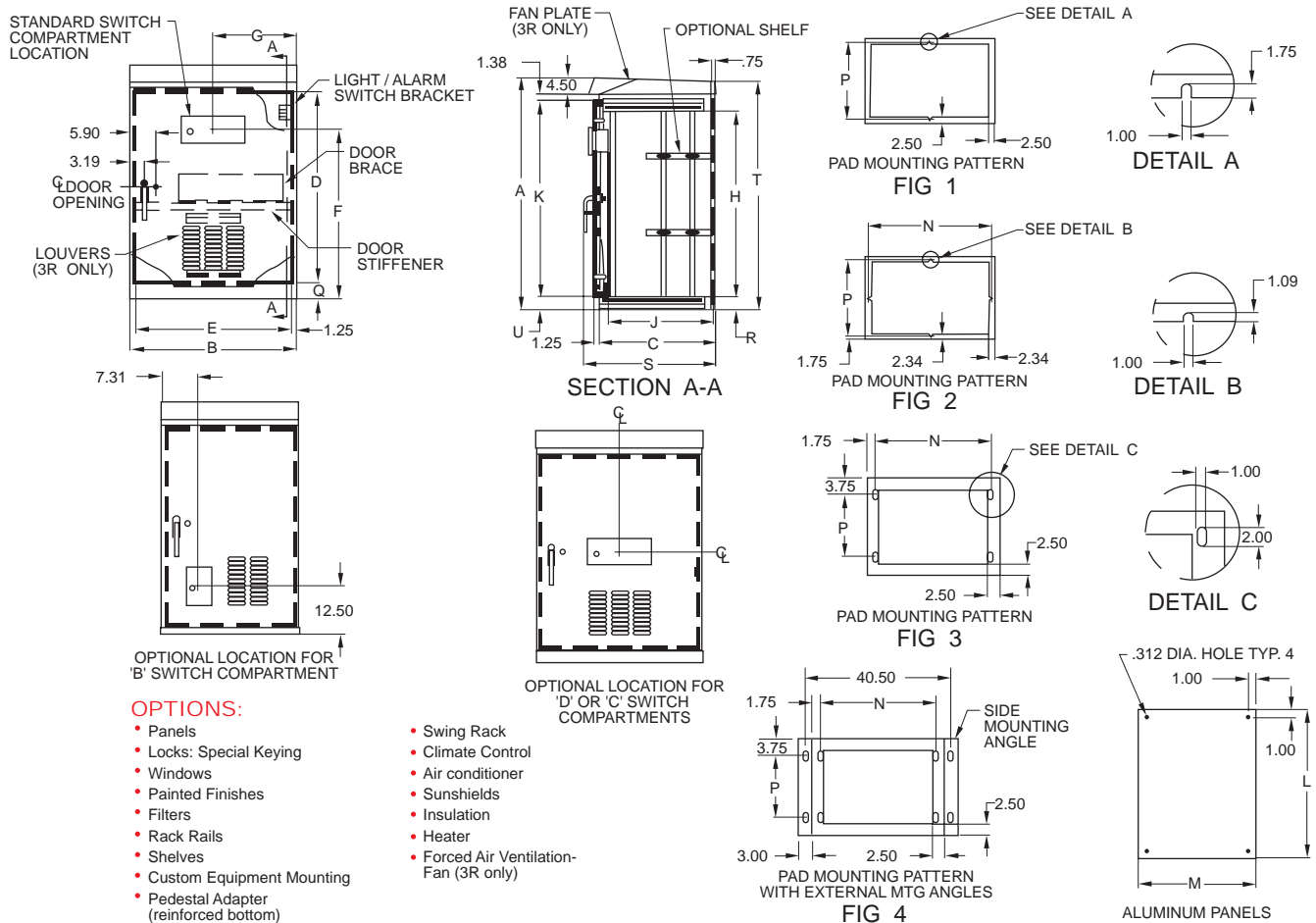
### C. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat.

### FOR NEMA TYPE 4X RATING:

**DELETE** all vents and main door lock (Corbin #1548-1), and Corbin R357SGS switch compartment lock.

**ADD** Chicago #1703-100-G switch compartment lock. All through holes are sealed.



## DIMENSIONS (inches)

CATALOG NUMBER	MOUNTING OPTIONS			OVERALL ENCLOSURE			DOOR OPENING		SWITCH COMPARTMENT LOCATION		AVAILABLE EQUIPMENT SPACE		DOOR HEIGHT	PANEL SIZE		PAD MTG. PATTERN		MISCELLANEOUS DIMENSIONS					
	PED	POLE	PAD	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	
FIG.1																							
TC301815	YES	YES	YES	30.00	18.00	15.00	21.00	15.50	16.81	8.00	19.00	11.31	23.25	22.63	15.00	N/A	12.50	2.00	3.00	18.62	28.50	.88	
TC362015	YES	YES	YES	36.00	20.00	15.00	27.00	17.50	23.25	10.00	25.00	11.31	29.25	28.63	17.00	N/A	12.50	2.00	3.00	18.62	34.50	.88	
TC412516	YES	YES	YES	41.00	25.00	16.00	32.00	22.50	28.25	12.50	30.00	12.31	34.25	33.63	22.00	N/A	13.50	2.00	3.00	19.62	39.50	.88	
TC512516	YES	YES	YES	51.00	25.00	16.00	42.00	22.50	34.25	12.50	40.00	12.31	44.25	43.63	22.00	N/A	13.50	2.00	3.00	19.62	49.50	.88	
FIG.2																							
TC503017	NO	YES	YES	50.00	30.00	17.00	39.00	27.50	37.25	15.00	39.00	13.31	41.25	42.63	27.00	26.50	13.50	4.00	3.00	20.62	48.50	2.88	
TC503617	NO	NO	YES	50.00	36.00	17.00	39.00	33.50	37.25	18.00	39.00	13.31	41.25	42.63	33.00	32.50	13.50	4.00	3.00	20.62	48.50	2.88	
TC583017	NO	NO	YES	58.00	30.00	17.00	47.00	27.50	45.25	15.00	47.00	13.31	49.25	50.63	27.00	26.50	13.50	4.00	3.00	20.62	56.50	2.88	
TC763017	NO	NO	YES	76.00	30.00	17.00	65.00	27.50	63.25	15.00	65.00	13.31	67.25	68.63	27.00	26.50	13.50	4.00	3.00	20.62	74.50	2.88	
FIG.3																							
TC363624	NO	NO	YES	36.00	36.00	24.00	25.00	33.50	23.25	18.00	25.00	20.31	27.25	28.63	33.00	32.50	18.50	4.00	3.00	27.62	34.50	2.88	
TC443624	NO	NO	YES	44.00	36.00	24.00	33.00	33.50	31.25	18.00	33.00	20.31	35.25	36.63	33.00	32.50	18.50	4.00	3.00	27.62	42.50	2.88	
TC553826	NO	NO	YES	55.00	38.00	26.00	44.00	35.50	39.37	19.00	44.00	22.31	46.25	48.25	35.00	34.50	18.50	4.00	3.00	29.62	53.50	2.88	
TC554426	NO	NO	YES	55.00	44.00	26.00	44.00	41.50	39.37	22.00	44.00	22.31	46.25	48.25	41.00	40.50	18.50	4.00	3.00	29.62	53.50	2.88	
TC723618	NO	NO	YES	72.00	36.00	18.00	61.00	33.50	45.00	18.00	61.00	14.31	63.25	65.25	45.00	32.50	13.50	4.00	3.00	21.62	70.50	2.88	
TC773826	NO	NO	YES	77.00	38.00	26.00	66.00	35.50	50.00	19.00	66.00	22.31	68.25	70.25	35.00	34.50	18.50	4.00	3.00	29.62	75.50	2.88	
TC774426	NO	NO	YES	77.00	44.00	26.00	66.00	41.50	50.00	22.00	66.00	22.31	68.25	70.25	41.00	40.50	18.50	4.00	3.00	29.62	75.50	2.88	

## APX NEMA 3R

### FRONT & REAR DOOR ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, while providing ventilation.

### STANDARD CONSTRUCTION:

(For details see specification sheets)

### INDUSTRY STANDARD:

U.L. Type 3R, 4X

#### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction. Alternative material is 14 gauge type 304 stainless steel. (Specifier must choose the material to be used.)
2. The enclosures are equipped with two adjustable "C" mounting channels on both side walls, providing versatile positioning of shelves, or optional panels or rack mounting angles.
3. The door frame opening is double flanged on all four sides. These flanges increase the strength of the door opening and help prevent dust and liquids from dropping into the enclosure when the door is opened.
4. All exterior seams are ground smooth or sealed weathertight with silicone sealant.
5. (3R only) Enclosures have provisions for mounting forced air fan systems that can be thermostatically controlled, and air is exhausted through a slotted vent system in the roof overhangs.

#### B. DOOR:

1. Equipped with three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is .75" stainless steel round bar and has provisions for a padlock.
3. (3R only) The standard main door locks are Corbin #1548-1 or equal.
4. (3R only) A louvered air vent with filter retaining brackets and a disposable paper filter element is provided.
5. The main doors are sealed with closed-cell neoprene gasket.

## APX NEMA 4X

### FRONT & REAR DOOR ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing water and oil or coolant seepage.



6. The continuous door hinges are .075" thick stainless steel with a .25" stainless steel hinge pin.

#### C. FINISH:

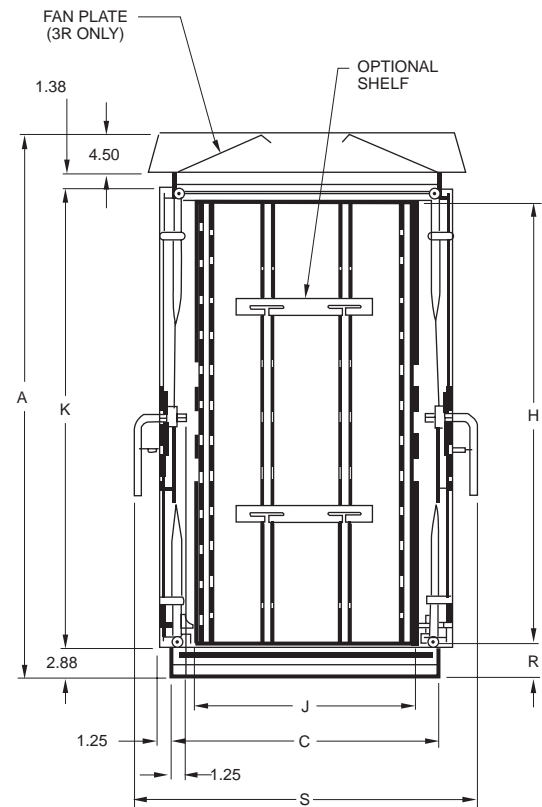
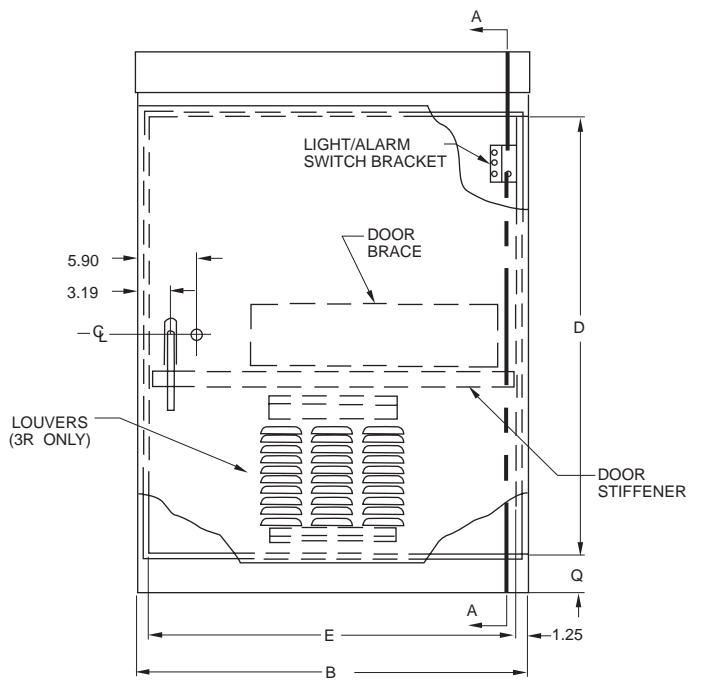
1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat.

#### FOR NEMA TYPE 4X RATING

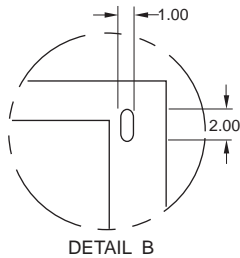
**DELETE** main door locks.

**ADD** all through holes are sealed.

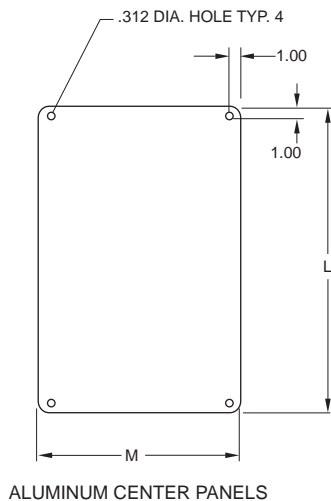




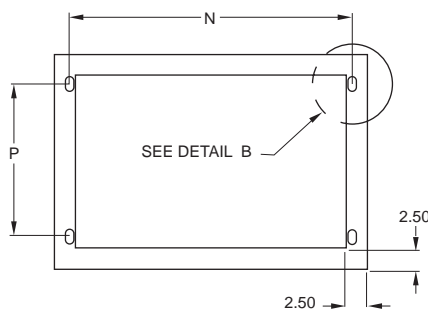
SECTION A-A



DETAIL B



ALUMINUM CENTER PANELS



PAD MOUNTING PATTERN

## OPTIONS:

- Panels
- Lock: Keying, Other Than Standard
- Windows
- Switch Compartments
- Painted Finishes
- Filters (3R only)
- Rack Mounting
- Shelves
- Panels, Center
- Custom Equipment Mounting
- Pedestal Adapter (reinforced bottom)
- Swing Rack
- Climate Control
- Air Conditioner
- Sunshields
- Insulation
- Heater
- Forced Air Ventilation-Fan (3R only)

## DIMENSIONS (inches)

CATALOG NUMBER	SUGGESTED MOUNTING OPTIONS			CABINET			DOOR OPENING		SWITCH COMPARTMENT LOCATION		AVAILABLE SPACE		DOOR HEIGHT	PANEL		PAD MTG. PATTERN		GENERAL INFORMATION		
	PED	POLE	PAD	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
FR363624	NO	YES	YES	36.00	36.00	24.00	25.00	33.50	OPTIONAL		25.00	20.31	27.25	31.25	33.25	32.50	18.50	4.00	3.00	31.25
FR443624	NO	YES	YES	44.00	36.00	24.00	33.00	33.50	OPTIONAL		33.00	20.31	35.25	38.25	33.25	32.50	18.50	4.00	3.00	31.25
FR773826	NO	NO	YES	77.00	38.00	26.00	66.50	35.50	OPTIONAL		66.50	22.31	68.25	71.25	35.25	34.50	18.50	4.00	3.00	33.25
FR774426	NO	NO	YES	77.00	44.00	26.00	66.50	41.50	OPTIONAL		66.50	22.31	68.25	71.25	41.25	40.50	18.50	4.00	3.00	38.25

## APX NEMA 3R DOUBLE DOOR ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, while providing ventilation.

### STANDARD CONSTRUCTION: (For details see specification sheets)

### INDUSTRY STANDARD: U.L. Type 3R, 4X

#### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction. Alternative material is 14 gauge type 304 stainless steel. (Specifier must choose the material to be used.)
2. The enclosures are equipped with two adjustable "C" mounting channels on both side walls, and back wall, (enclosures wider than 60" are equipped with four adjustable "C" mounting channels) providing versatile positioning of shelves, or optional panels or rack mounting angles.
3. The door frame opening is double flanged on all four sides. These flanges increase the strength of the door opening and help prevent dust and liquids from dropping into the enclosure when the door is opened.
4. A removable center post is an integral part of the three point latching system and provides increased security and environmental protection.
5. All exterior seams are ground smooth or sealed weathertight with silicone sealant.
6. Pole or wall mounted enclosures have welded stiffener plates to reinforce the top and bottom of the rear wall. Removable bolt-on bottom plates are standard on pole mounted enclosures.
7. (3R only) Enclosures have provisions for mounting a forced air fan system that can be thermostatically controlled, and air is exhausted through a slotted vent system in the roof overhang.

#### B. DOOR:

1. Utilizes an overlapping design and is equipped with a three point latching mechanism with nylon rollers at the top and bottom.
2. Door handle is .75" stainless steel round bar and has provisions for a padlock.
3. (3R only) the standard main door lock is corbin #15484-1 or equal.

## APX NEMA 4X DOUBLE DOOR ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing water and oil or coolant seepage.



4. (3R only) A louvered air vent with filter retaining brackets and a disposable paper filter element is provided.
5. The main door is sealed with closed-cell neoprene gasket.
6. The continuous door hinges are .075" thick stainless steel with a .25" stainless steel hinge pin.

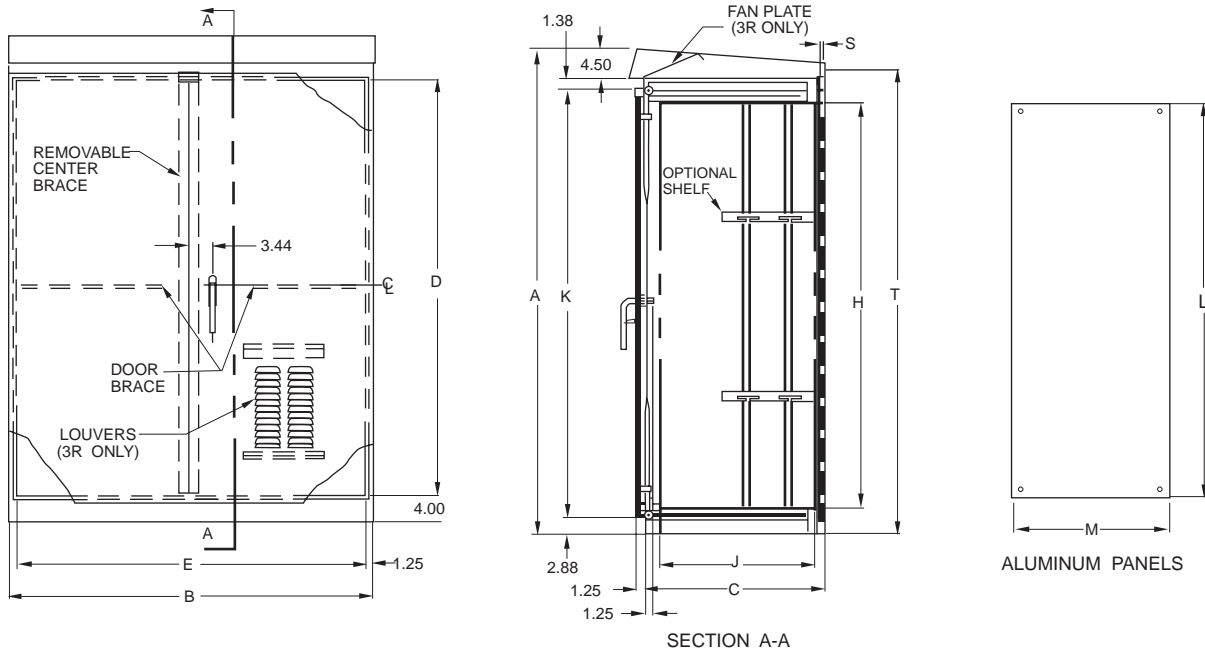
#### C. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat.

#### FOR NEMA TYPE 4X RATING

**DELETE** all vents.

**ADD** all through holes are sealed.



## OPTIONS:

- Lock, Keying, Other Than Standard
- Windows
- Switch Compartments
- Windows
- Shelves
- Panels
- Painted Finishes
- Custom Equipment Mounting
- Climate Control
  - Air Conditioner
  - Fan
  - Sunshields
  - Insulation
  - Heater
  - Forced Air Ventilation-Fan (3R only)

## DIMENSIONS (inches)

CATALOG NUMBER	SUGGESTED MOUNTING OPTIONS			CABINET			DOOR OPENING		SWITCH COMPARTMENT LOCATION		AVAILABLE SPACE		DOOR HEIGHT	PANEL		PAD MTG. PATTERN		GENERAL INFORMATION			
	PED	POLE	PAD	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
TCDD363213	YES	YES	YES	36.00	32.00	13.00	25.00	29.50	OPTIONAL		25.75	10.50	27.25	25.75	29.00	27.00	8.00	N/A	N/A	.75	34.50
TCDD483615	NO	YES	YES	48.00	36.00	15.00	37.00	33.50	OPTIONAL		37.75	12.50	39.25	37.75	33.00	31.00	10.00	N/A	N/A	.75	46.50
TCDD604415	NO	NO	YES	60.00	44.00	15.00	49.00	41.50	OPTIONAL		49.75	12.50	51.25	49.75	41.00	39.00	10.00	N/A	N/A	.75	58.50
TCDD604830	NO	NO	YES	60.00	48.00	30.00	49.00	45.50	OPTIONAL		49.75	27.50	51.25	49.75	45.00	43.00	24.50	N/A	N/A	.75	58.50
TCDD666015	NO	NO	YES	66.00	60.00	15.00	55.00	57.50	OPTIONAL		55.75	12.50	57.25	55.75	57.00	55.00	10.00	30.50	30.50	.75	64.50
TCDD724818	NO	NO	YES	72.00	48.00	18.00	61.00	45.50	OPTIONAL		61.75	15.50	63.25	61.75	45.00	43.00	10.00	N/A	N/A	.75	70.50
TCDD724824	NO	NO	YES	72.00	48.00	24.00	61.00	45.50	OPTIONAL		61.75	21.50	63.25	61.75	45.00	43.00	18.50	N/A	N/A	.75	70.50
TCDD727215	NO	NO	YES	72.00	72.00	15.00	61.00	69.50	OPTIONAL		61.75	12.50	63.25	64.63	33.00	67.00	10.00	11.25	33.50	.75	70.50
TCDD727224	NO	NO	YES	72.00	72.00	24.00	61.00	69.50	OPTIONAL		61.75	21.50	63.25	64.63	33.00	67.00	18.50	20.25	33.50	.75	70.50
TCDD727236	NO	NO	YES	72.00	72.00	36.00	61.00	69.50	OPTIONAL		61.75	33.50	63.25	64.63	33.00	67.00	30.00	32.25	33.50	.75	70.50
TCDD907224	NO	NO	YES	91.00	72.00	24.00	80.00	69.50	OPTIONAL		80.75	21.50	82.25	80.75	33.00	67.00	18.50	20.25	42.50	.75	88.50

## APX NEMA 3R QUAD DOOR ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, while providing ventilation.

### STANDARD CONSTRUCTION:

(For details see specification sheets)

### INDUSTRY STANDARD:

U.L. Type 3R, 4X

#### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction. Alternative material is 14 gauge type 304 stainless steel. (Specifier must choose the material to be used.)
2. The enclosures are equipped with two adjustable "C" mounting channels on both side walls, providing versatile position of shelves, or optional panels or rack mounting angles.
3. The door frame openings are double flanged on all four sides. The flanges increase the strength of the door opening and help prevent dust and liquids from dropping into the enclosure when the doors are opened.
4. Removable center posts are an integral part of three point latching system and provides increased security and environmental protection.
5. All exterior seams are ground smooth or sealed weathertight with silicone sealant.
6. (3R only) Enclosures have provisions for mounting a forced air fan system that can be thermostatically controlled, and air is exhausted through a slotted vent system in the roof overhang.

#### B. DOOR:

1. Utilizes an overlapping design and are equipped with a three point latching mechanism with nylon rollers at the top and bottom.
2. Door handles are .75" stainless steel round bar and have provisions for a padlock.
3. (3R only) the standard main door lock is corbin #15484 or equal.
4. (3R only) Louvered air vents with filter retaining brackets and disposable paper filter elements are provided.
5. The main door are sealed with closed-cell neoprene gasket.

## APX NEMA 4X QUAD DOOR ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from vandals, rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing water, oil coolant seepage.



6. The continuous door hinges are .075" thick stainless steel with a .25" stainless steel hinge pin.

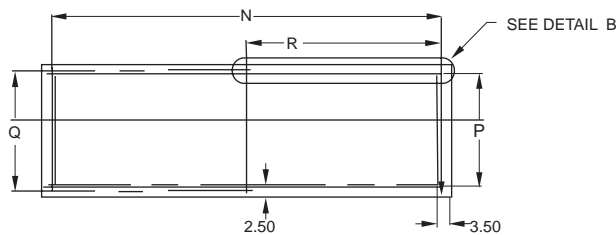
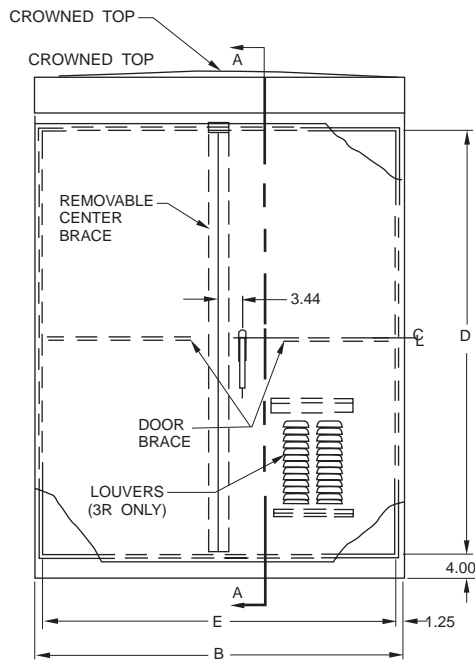
#### C. FINISH:

1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat.

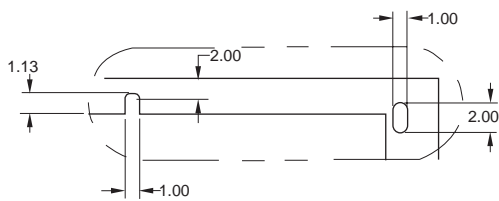
#### FOR NEMA TYPE 4X RATING:

**DELETE** all vents.

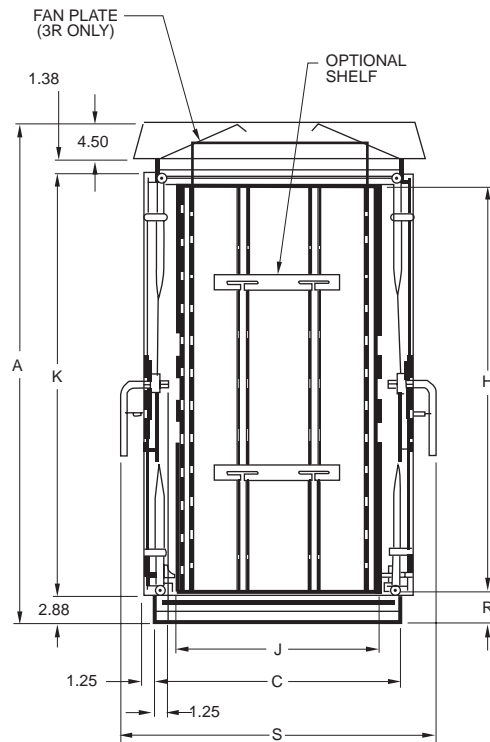
**ADD** all through holes are sealed.



PAD MOUNTING PATTERN



DETAIL B



SECTION A-A

## OPTIONS:

- Lock, Keying, Other Than Standard
- Windows
- Switch Compartments
- Windows
- Rack Frame Assembly
- Shelves
- Painted Finishes
- Custom Equipment Mounting
- Climate Control
  - Air Conditioner
  - Sunshields
  - Insulation
  - Heater
  - Forced Air Ventilation-Fan (3R only)

## DIMENSIONS (inches)

CATALOG NUMBER	SUGGESTED MOUNTING OPTIONS			CABINET			DOOR OPENING		SWITCH COMPARTMENT LOCATION		AVAILABLE SPACE		DOOR HEIGHT	PANEL		GENERAL INFORMATION			
	PED	POLE	PED	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
TCQD484836	NO	NO	YES	48.00	48.00	36.00	37.00	45.50	OPTIONAL		38.38	33.00	40.00	39.00	45.00	44.50	31.00		
TCQD587430	NO	NO	YES	58.00	74.00	30.00	47.00	71.50	OPTIONAL		48.38	27.00	50.00	49.00	71.00	70.50	25.00		
TCQD605036	NO	NO	YES	60.00	50.00	36.00	49.00	47.50	OPTIONAL		50.38	33.00	52.00	51.00	35.25	46.50	31.00		
TCQD605636	NO	NO	YES	60.00	56.00	36.00	49.00	53.50	OPTIONAL		50.38	33.00	52.00	51.00	41.25	52.50	31.00		
TCQD727224	NO	NO	YES	72.00	72.00	24.00	61.00	69.50	OPTIONAL		62.38	21.00	64.00	63.00	69.00	68.50	19.00		
TCQD727236	NO	NO	YES	72.00	72.00	36.00	61.00	69.50	OPTIONAL		62.38	33.00	64.00	63.00	69.25	68.50	31.00		
TCQD774826	NO	NO	YES	77.00	48.00	36.00	66.00	45.50	OPTIONAL		67.38	23.00	69.00	68.00	45.00	44.50	18.50	22.00	22.25

## APPLICATION - NEMA 3R

APX Technologies, Inc. 3R small single door enclosures are designed to house electronic controls, terminals, and instruments, and to **provide protection from rain, sleet, snow, dripping water**

## APPLICATION - NEMA 4X

APX Technologies, Inc. 4X small single door enclosures are designed to house electronic controls, terminals, and instruments, and to **provide protection from rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing**

## INDUSTRY STANDARD:

U.L. Type 3R, 4X

NEMA 3R SHOWN

## STANDARD CONSTRUCTION:

(For details see specification sheet.)

### A. ENCLOSURE:

1. The complete enclosure is made from .125" thick aluminum alloy type 5052-H32 to provide a strong and rigid construction. Alternative material is 14 gauge type 304 stainless steel. (Specifier must choose the material to be used.)
2. Equipment mounting:
  - (a) .125" aluminum back panel mounted on standoffs is standard on all models.
  - (b) Enclosure models TCSM201715 and TCSM261715 are provided with adjustable "C" channels on the side walls allow versatile positioning of shelves, panels or equipment.
3. The door frame opening is double flanged on all four sides. These flanges increase the strength of the door opening and help prevent dust and liquids from dropping into the enclosure when the door is opened.
4. All exterior seams are continuously welded.

### B. DOOR:

1. (3R only) the standard door lock is Corbin #357SGS or equal and has a pivoting keyhole cover.
2. The continuous door hinges is .075" thick stainless steel with a .25" stainless steel pin. The hinge is attached with stainless steel carriage bolts.
3. The main door is sealed with closed-cell neoprene gasket.



PANEL INCLUDED

### C. FINISH:

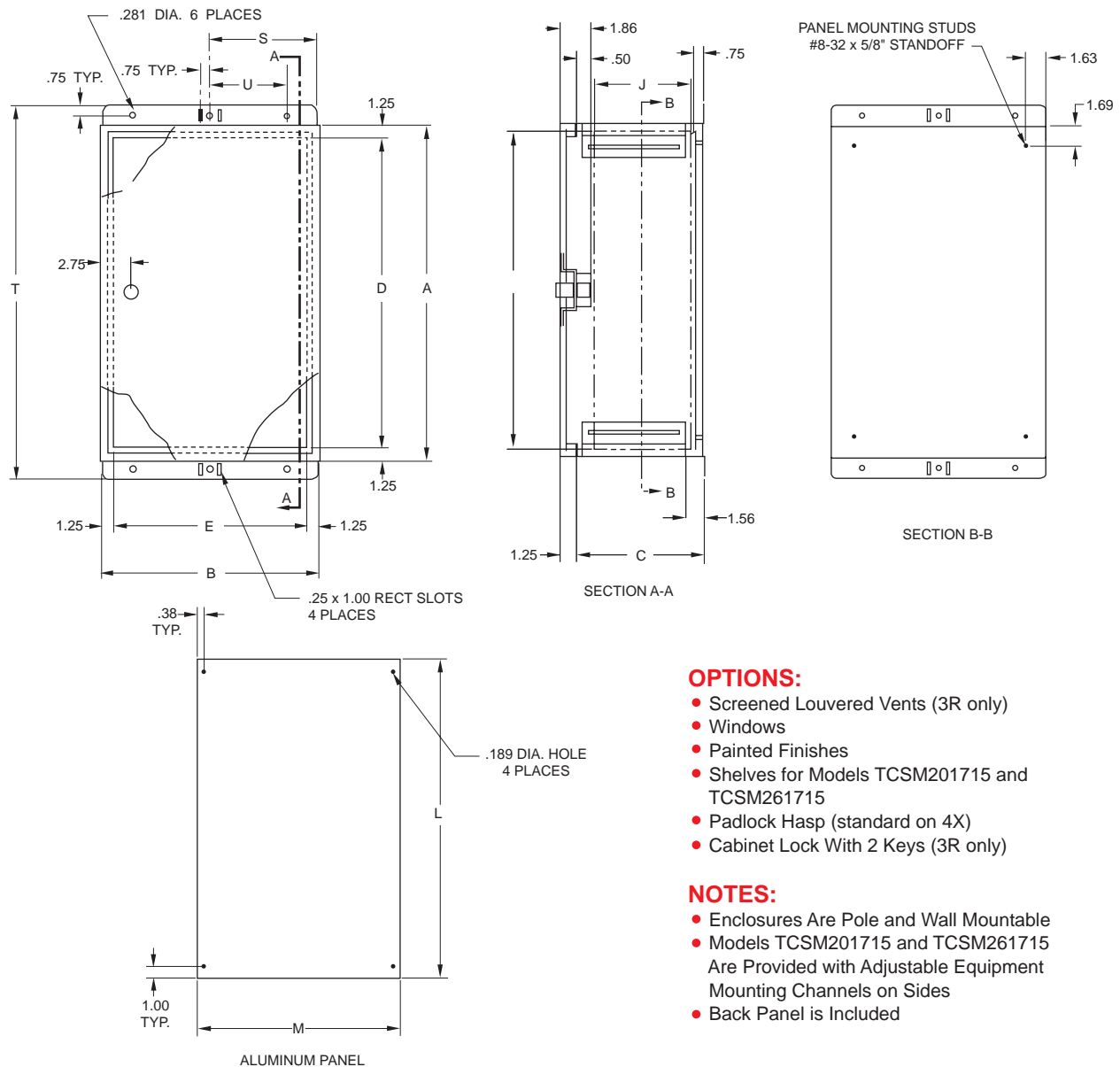
1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat.

### FOR 4X RATING:

**DELETE** Corbin main door lock #R357SGS.

**ADD** (2) quarter turn latches and padlock hasp.





## OPTIONS:

- Screened Louvered Vents (3R only)
- Windows
- Painted Finishes
- Shelves for Models TCSM201715 and TCSM261715
- Padlock Hasp (standard on 4X)
- Cabinet Lock With 2 Keys (3R only)

## NOTES:

- Enclosures Are Pole and Wall Mountable
- Models TCSM201715 and TCSM261715 Are Provided with Adjustable Equipment Mounting Channels on Sides
- Back Panel is Included

## DIMENSIONS (inches)

CATALOG NUMBER	OVERALL ENCLOSURE DIM.			DOOR OPENING		AVAILABLE EQUIP. SPACE		PANEL SIZE		MISCELLANEOUS DIMENSIONS		
	A	B	C	D	E	H	J	L	M	S	T	U
TCSM141007	14.38	10.38	7.00	11.88	7.88	13.00	5.63	13.00	7.75	5.00	17.38	2.50
TCSM141111	14.38	11.38	11.00	11.88	8.88	13.00	9.63	13.00	9.63	5.50	17.38	2.50
TCSM141407	14.38	14.38	7.00	11.88	11.88	13.00	5.63	13.00	5.63	7.00	17.38	2.50
TCSM161208	16.38	12.38	8.00	13.88	9.88	15.00	6.63	15.00	9.75	NA	19.38	2.50
TCSM161412	16.38	14.38	12.00	13.88	11.88	15.00	10.63	15.00	10.63	7.00	19.38	2.50
TCSM221507	22.38	15.38	7.00	19.88	12.88	21.00	5.63	21.00	12.75	7.56	25.38	2.50
TCSM201715	20.38	17.38	15.00	17.88	14.88	19.00	13.63	19.00	14.75	8.56	23.38	6.00
TCSM242408	24.38	24.38	8.00	21.88	21.88	23.00	6.88	21.75	21.75	12.06	27.38	4.00
TCSM261715	26.38	17.38	15.00	23.88	14.88	25.00	13.63	25.00	14.75	8.56	29.38	6.00

## APPLICATION - NEMA 3R ONLY

APX Technologies, Inc. 3R pedestal enclosures are designed to house electronic controls, terminals, and instruments, and to **provide protection from rain, sleet, snow, dripping water and corrosion, while providing**

## INDUSTRY STANDARD:

U.L. Type 3R

## STANDARD CONSTRUCTION;

(For details see specification sheet.)

### A. ENCLOSURE:

1. Enclosure and door are made from .125" thick aluminum.
2. Top of enclosure is made of .250" thick type 5052- H32 aluminum and is continuously welded weathertight around the periphery of top.
3. Top of enclosure is prepunched with 2-1/2" diameter hole and four 5/8" diameter holes of 4" diameter bolt circle on 45 °angle from center line.
4. A cover plate made of .125" thick aluminum with closed cell gasket secured with two 1/4-20 stainless steel carriage bolts and stainless steel nylock nuts is supplied.
5. Enclosure base is made of 1/2" thick type 5052-H32 aluminum plate with ample cutouts for electrical cable clearance. Base is designed for exterior anchor bolt (4) mounting, centers 11-1/2" wide x 13-1/2" deep .
6. A plywood panel, 3/4 thick x 12" x 34" is secured to back wall of cabinet with four stainless steel 5/16" - 18" x 1-1/2" threaded studs, flat washers and lock nuts.

### B. DOOR:

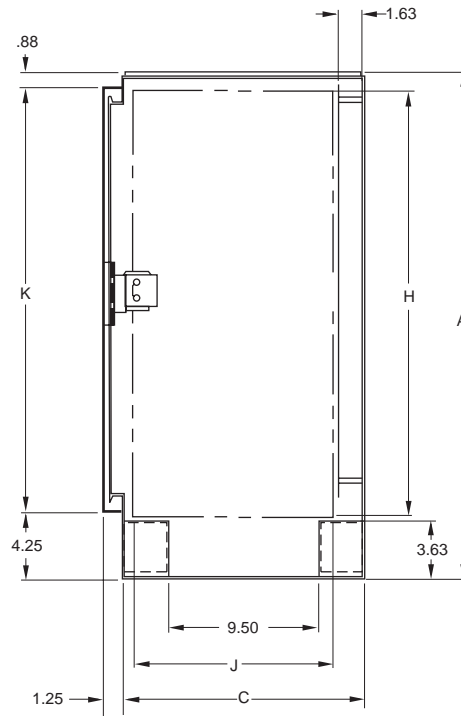
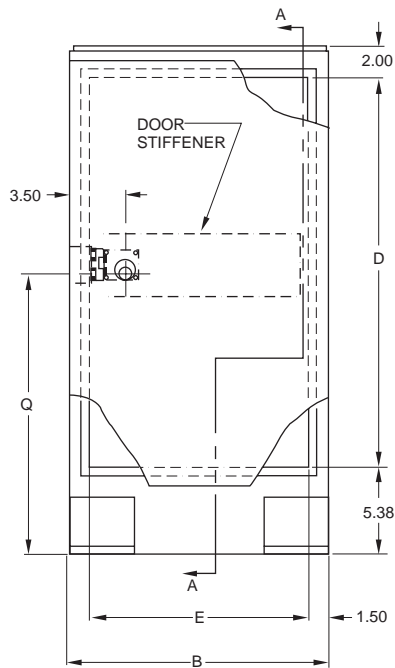
1. Main door is made from .125" thick type 5052-H32 aluminum.
2. Main door lock is Corbin #R357SGS series or equal and has a keyhole cover.
3. Door is hinged to enclosure with two heavy gauge stainless steel butt hinged with 1/4" diameter stainless steel pins. Hinges are secured to door and enclosure with 1/4-20 stainless steel carriage bolts and stainless steel nylock nuts.
4. Main door is sealed with closed-cell neoprene gasket.

## NEMA 3R SHOWN

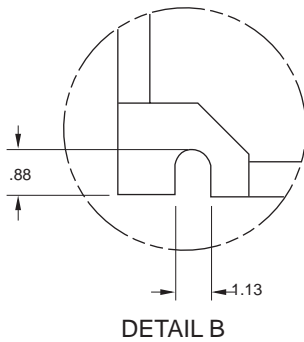


### C. FINISH:

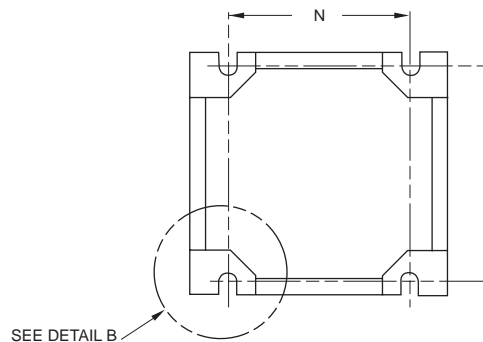
1. Natural aluminum enclosures are mill finish, per federal specification QQA-250/8. Painted enclosures are treated with a three (3) stage iron phosphate coating and dried by radiant heat. Standard finish coat is a Polyester Powder Coating. (See Standard Color Chart.)



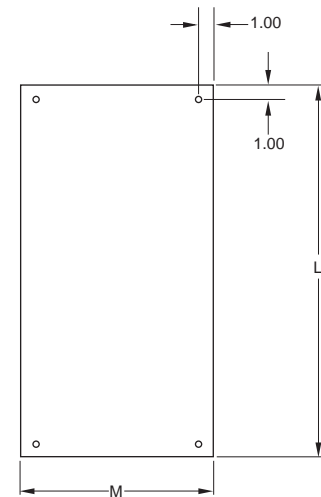
SECTION A-A



DETAIL B



MOUNTING PATTERN



PANEL

## OPTIONS:

- Windows
- Painted Finishes
- Aluminum Panel
- "B" Size Switch Compartment

## DIMENSIONS (inches)

CATALOG NUMBER	MOUNTING OPTIONS	OVERALL ENCLOSURE			DOOR OPENING		SWITCH COMPARTMENT LOCATION		AVAILABLE SPACE		DOOR HEIGHT	PANEL		PAD MTG. PATTERN		GENERAL INFORMATION
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
TCPE401615	PAD ONLY	39.88	16.25	15.19	32.50	13.25	OPTIONAL		34.50	12.00	34.75	35.00	13.50	11.50	13.50	21.63

## FEATURES:

Seams are continuously welded and ground smooth, oil tight quarter turn latches hold door securely closed, **latches are opened or closed** with a screw driver, oil resistant door gasket, three point latch when height equals 36" or more, double flanged door opening for increased strength while excluding liquids and contaminants, door and body stiffeners provided in large enclosures, removable print pocket, panel screws are stainless steel, No holes or Knockouts, and hasp for pad locking.

## INDUSTRY STANDARD:

U.L. Type 4X

## STANDARD CONSTRUCTION:

(For details see specification sheets)

### A. ENCLOSURE:

1. Aluminum enclosures less than 36 inches in height are made from .080 inch thick aluminum alloy type 5052-H32 to provide a strong, rigid construction. Aluminum enclosures equal to or greater than 36 inches in height are made from the same alloy type with a thickness of .125 inches.
2. The door frame opening is double flanged on all four sides. These flanges increase the strength of the door opening and help prevent dust and liquids from dropping into the enclosure when the door is opened.
3. All exterior seams are ground smooth or sealed weathertight with silicone sealant.
4. No holes or knockouts.
5. A padlock hasp is provided.
6. Aluminum enclosures have tapped mounting pads for mounting of optional equipment panels. Stainless steel enclosures use collar studs for this purpose.
7. Optional back panel is aluminum.

### B. DOOR:

1. Screwdriver operated, oil-resistant quarter-turn latches hold door securely closed. Enclosures >35" in height are equipped with a three point latching mechanism with nylon rollers at the top and bottom using a door handle that is fabricated from .75" stainless steel round bar and has provision for a padlock.
2. The door is sealed with closed-cell oil resistant neoprene gasket.
3. A removable 6x6" print pocket is provided on the

## APX NEMA 4X SPECLINE ENCLOSURES

are designed to house electronic controls, terminals and instruments, and to provide protection from rain, sleet, snow, dripping water and corrosion, as well as hosedown, splashing water and oil or coolant seepage.

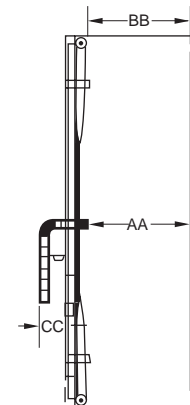
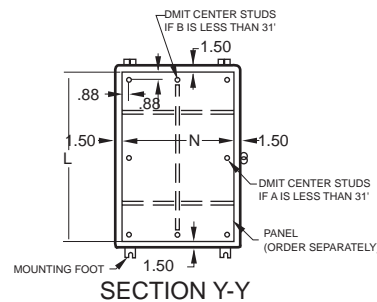
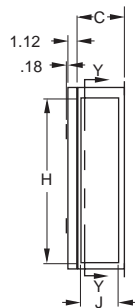
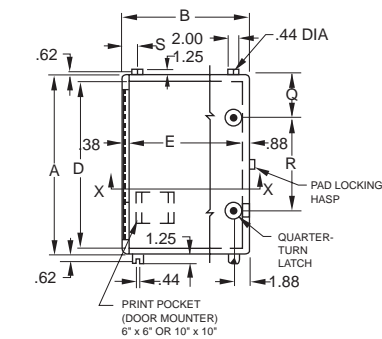


welded to both door and cabinet. Enclosures equal to or larger than 36 inches in height shall have hinges spot-welded to the cabinet and bolted to the door.

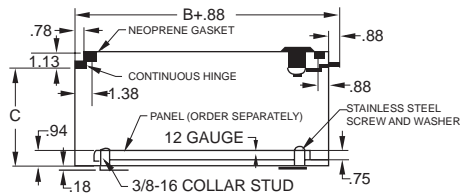
- A. Enclosures made from .080 aluminum will use hinges made from like material and use .187 inch hinge pins made from stainless steel.
- B. Enclosures less than 36 inches in height and made from .075 stainless steel use hinges made from like material and use .187 inch hinge pins made from stainless steel.
- C. Stainless steel enclosures equal to or greater than 36 inches in height use hinges made from .075 inch stainless steel with a .250 inch stainless steel hinge pin.
- D. Aluminum enclosures equal to or greater than 36 inches in height use hinges made from .090 inch thick aluminum with a .250 inch stainless steel hinge pin.

### C. FINISH

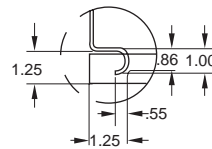
1. Natural aluminum enclosures are mill finish per federal specification QQA-250/8. Stainless steel enclosures are # 3 polish finish.
2. Painted enclosures are treated with an iron phosphate coating and dried by radiant heat.



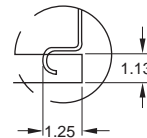
### 3-POINT LATCH MODELS (STD WHEN A IS 36" OR MORE)



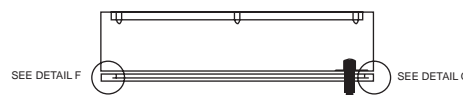
SECTION X-X



## DETAIL



### DETAIL G



## TOP VIEW 3-POINT LATCH MODELS

**OPTIONS:**

- Windows
- Drip Shields
- Keyed Locks, Quarter Turn
- Corbin Cabinet lock (3R only)
- Floor Stands
- Painted Finishes
- Screened louvered Vents
- Panel, Painted Steel

## DIMENSIONS (inches)

Catalog Number	Cabinet			Opening		Available Equipment Space		Door Height	Panel		General Information			3-Point Latch		
	A	B	C	D	E	H	J	K	L	M	Q	R	S	AA	BB	CC
TCSL161206	16.00	12.00	6.00	14.25	9.75	14.25	4.66	16.00	13.00	9.00	8.00		1.25			
TCSL161208	16.00	12.00	8.00	14.25	9.75	14.25	6.66	16.00	13.00	9.00	8.00		1.25			
TCSL161606	16.00	16.00	6.00	14.25	13.75	14.25	4.66	16.00	13.00	13.00	8.00		3.00			
TCSL161608	16.00	16.00	8.00	14.25	13.75	14.25	6.66	16.00	13.00	13.00	8.00		3.00			
TCSL201606	20.00	16.00	6.00	18.25	13.75	18.25	4.66	20.00	17.00	13.00	10.00		3.00			
TCSL201610	20.00	16.00	10.00	18.25	13.75	18.25	8.66	20.00	17.00	13.00	10.00		3.00			
TCSL202006	20.00	20.00	6.00	18.25	17.75	18.25	4.66	20.00	17.00	17.00	10.00		3.00			
TCSL242006	24.00	20.00	6.00	22.25	17.75	22.25	4.66	24.00	21.00	17.00	4.00	16.00	3.00			
TCSL242008	24.00	20.00	8.00	22.25	17.75	22.25	6.66	24.00	21.00	17.00	4.00	16.00	3.00			
TCSL242010	24.00	20.00	10.00	22.25	17.75	22.25	8.66	24.00	21.00	17.00	4.00	16.00	3.00			
TCSL242408	24.00	24.00	8.00	22.25	21.75	22.25	6.66	24.00	21.00	21.00	4.00	16.00	3.00			
TCSL243008	24.00	30.00	8.00	22.25	27.75	22.25	6.66	24.00	21.00	27.00	4.00	16.00	3.00			
TCSL302408	30.00	24.00	8.00	28.25	21.75	28.25	6.66	30.00	27.00	21.00	4.00	22.00	3.00			
TCSL302412	30.00	24.00	12.00	28.25	21.75	28.25	10.66	30.00	27.00	21.00	4.00	22.00	3.00			
TCSL303008	30.00	30.00	8.00	28.25	27.75	28.25	6.66	30.00	27.00	27.00	4.00	22.00	3.00			
TCSL362408	36.00	24.00	8.00	33.50	21.50	34.25	6.66	36.00	33.00	21.00			3.00	5.80	5.85	2.35
TCSL363008	36.00	30.00	8.00	33.50	27.50	34.25	6.66	36.00	33.00	27.00			3.00	5.80	5.85	2.35
TCSL363012	36.00	30.00	12.00	33.50	27.50	34.25	10.66	36.00	33.00	27.00			3.00	9.80	9.85	2.35
TCSL423608	42.00	36.00	8.00	39.50	33.50	40.25	6.66	42.00	39.00	33.00			3.00	5.80	5.85	2.35
TCSL483608	48.00	36.00	8.00	45.50	33.50	46.25	6.66	48.00	45.00	33.00			3.00	5.80	5.85	2.35
TCSL483612	48.00	36.00	12.00	45.50	33.50	46.25	10.66	48.00	45.00	33.00			3.00	9.80	9.85	2.35
TCSL603612	60.00	36.00	12.00	57.50	33.50	58.25	10.66	60.00	57.00	33.00			3.00	9.80	9.85	2.35

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes. Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA \_\_\_ rating (Specify either 3R or 4X) **and shall be U.L listed.**

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door(s) shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. Alternate material is type 304 stainless steel, minimum thickness 14 gauge.

**(Specifier must choose either aluminum or stainless steel construction.)**

External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.

- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.

- 3.1.3** The cabinet shall be designed with a sloped top to prevent the accumulation of water on its top surface.

- 3.1.4** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.

- 3.1.5** A door restraint shall be provided to prevent door movement in windy conditions.

### 3.2 DOOR/HARDWARE

- 3.2.1** The cabinet door will be a minimum of 80% of the front surface area and shall be hinged on the right side when facing the cabinet.

- A.** The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door.

- 3.2.2** The hinges shall be continuous and



bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.

- A.** The hinge will be made of .075 inch thick stainless steel and shall have .250 inch diameter stainless steel hinge pin.

- B.** The hinge pin shall be capped top and bottom by weld to render it tamperproof.

- C.** Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude.  
Note: On NEMA Type 4X enclosures, all bolt holes shall be gasketed.

- 3.2.3** The latching mechanism shall be a 3-point draw roller type.

- A.** Pushrods will be turned edgewise at the outwards supports and shall be .250 inch by .750 inch aluminum, minimum.

- B.** Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 aluminum, minimum.

- 3.2.4** An operating handle shall be furnished.

- A.** the handle will be stainless steel with a 3/4 inch diameter shank.

- B.** The latching handle shall have a provision for padlocking in the closed position.



- C.** (3R only) The lock shall be keyed dead bolt Corbin Lock or equivalent. Two (2) keys will be furnished with each lock.

Note: On NEMA Type 4X enclosures, the specified Corbin Lock is deleted. These are available only with padlocking on the latching handle.

- 3.2.5** A light/alarm switch bracket shall be provided.

### 3.3 SWITCH COMPARTMENT

- 3.3.1** A switch compartment, with removable back panel, is supplied on the enclosure main door.

- 3.3.2** The switch compartment door opening shall be double flanged on all four (4) sides for strength and to prevent liquids or dirt from dropping into the compartment when the door is open.

- A.** The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 Table 21.1 and will form a weathertight seal between the cabinet and door.

- 3.3.3** (3R only) The switch compartment door lock is a keyed slam latch or equal, and has a keyhole cover.

Note: On NEMA Type 4X enclosures, the specified Corbin Lock is replaced with a weathertight key lock.

- 3.3.4** The switch compartment door hinge is .063 inch stainless steel with a .120 diameter stainless steel hinge pin (hidden hinges.)

## 4.0 CABINET VENTILATION

### (NEMA 3R Only)

- 4.1** A cabinet requiring ventilation shall be provided with louvered vents in the front door with a removable air filter.

- 4.1.1** Louvers shall satisfy the NEMA rod entry test for 3R ventilated enclosures.

- 4.1.2** The filter will cover the vents and shall be held firmly in place with bottom and top brackets and springloaded clamps.

- 4.1.3** Exhaust air will be vented out between the top of the cabinet and door.

- A.** The exhaust area shall be a series of .120 x 1.0 inch rectangular holes.

- 4.1.4** The ventilation plenum area shall be equipped with a removable plate with provisions for mounting an optional fan assembly.

Note: On NEMA Type 4X enclosures, all louver air intake vents on the door and air exhaust in the roof overhang are deleted.

- 4.2** The ventilation system will be designed to handle a minimum of 100 cubic feet of air per minute.

## 5.0 EQUIPMENT MOUNTING

### (Specify as required)

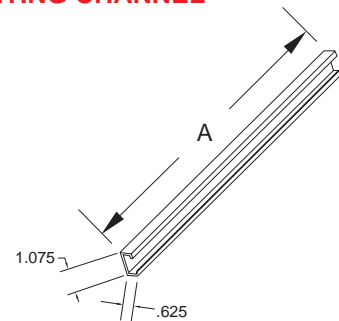
#### 5.1 ADJUSTABLE CHANNELS

- 5.1.1** The enclosure shall be equipped with two (2) adjustable "C" mounting channels on both side walls and back wall of the enclosure, allowing versatile positioning of shelves or panels.

- 5.1.2** The mounting channels shall provide infinite vertical and horizontal adjustment and not limit the positioning of shelves or panels. All mounting hardware will be furnished (See mounting channel detail).

#### MOUNTING CHANNEL

Length "A" varies by model.



#### 5.2 SHELVES

- 5.2.1** If equipment is to be shelf mounted, the enclosure shall be provided with shelves fabricated from 5052-H32 aluminum having a thickness of .125 inch.

- 5.2.2** The shelf depth shall be a minimum of 10.500 inches. The enclosure will have provision for positioning shelves or panels to within four (4) inches of the bottom and to within eight (8) inches of the top of the enclosure.

#### 5.3 ALUMINUM BACK PANEL

- 5.3.1** If the equipment is to be panel mounted, the enclosure shall be provided with a 5052-H32 aluminum back panel having a thickness of .125 inch.

## 6.0 CABINET FINISH

- 6.1** Unless otherwise specified, the outside of the cabinet shall have a smooth, uniform, natural aluminum finish.

- 6.2** If painted, the following steps shall be taken as a minimum requirement.

- 6.2.1** The cabinet doors and any other parts

to be painted will be treated with an iron phosphate conversion technique.

**6.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

**6.2.3** The finish coat of a Polyester Powder will be baked ten (10) minutes at 400- 450 degrees F.

**6.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

## 7.0 CABINET MOUNTING

(Specify as required)

### 7.1 POLE OR WALL MOUNTED ENCLOSURE

**7.1.1** Enclosures intended for pole or wall mounting shall be provided with stiffener plates with a thickness of .125 inch aluminum welded to top and bottom of rear wall for added strength and rigidity.  
Note: On NEMA Type 4X enclosures, all mounting holes must be gasketed.

### 7.2 PEDESTAL MOUNTED ENCLOSURE

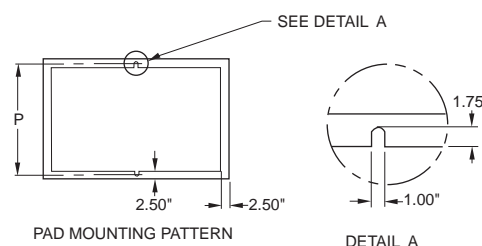
**7.2.1** Enclosures intended for pedestal mounting shall be provided with a reinforced base plate. If the enclosure is fabricated from .125 inch thick aluminum, the base plate will be a thickness of .250 inch aluminum.

Note: On NEMA Type 4X enclosures, all mounting holes must be gasketed.

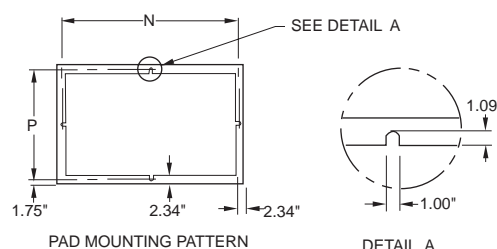
### 7.3 PAD MOUNTED ENCLOSURE

**7.3.1** Enclosures intended for pad mounting shall be constructed with the following patterns:

**FIGURE 1 (for enclosures 18 to 36 inches wide)**



**FIGURE 2 (for enclosures 38 to 44 inches wide)**



Note: for NEMA Type 4X ratings, a solid plate will be in place on the bottom of the enclosure to provide a weathertight seal.

## 8.0 APPROVED MANUFACTURER

**8.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L. listed equivalent.

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes. Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA\_\_ rating (Specify either 3R or 4X) **and shall be U.L. listed.**

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door(s) shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. Alternate material is type 304 stainless steel, minimum thickness 14 gauge. **(Specifier must choose either aluminum or stainless steel construction.)** External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.
- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.
- 3.1.3** The cabinet shall be designed with a crowned top to prevent the accumulation of water on its top surface.
- 3.1.4** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.
- 3.1.5** A door restraint shall be provided to prevent door movement in windy conditions.

### 3.2 DOOR/HARDWARE

- 3.2.1** The cabinet door(s) will be a minimum of 80% of the front surface area and shall be hinged on the right side when facing the cabinet.
- A.** The door(s) shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door.



- B.** The closed door(s) will be flush with the side(s) of the enclosure.
- 3.2.2** The hinges shall be continuous and bolted to the cabinet and door(s) utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.
- A.** The hinges will be made of .075 inch thick stainless steel with a .25 inch stainless steel hinge pin.
- B.** The hinge pin shall be capped top and bottom by weld to render it tamperproof.
- C.** Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude.  
Note: On NEMA type 4X enclosures, all bolt holes shall be gasketed.
- 3.2.3** The latching mechanism shall be a 3-point draw roller type.
- A.** Pushrods will be turned edgewise at the outward supports and shall be .250 inch by .750 inch aluminum, minimum.
- B.** Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 inch aluminum, minimum.
- 3.2.4** An operating handle shall be furnished.
- A.** The handle will be stainless steel with a 3/4 inch diameter shank.
- B.** The latching handle shall have a provision for padlocking in the closed position.
- C.** (3R only) The lock shall be keyed dead bolt #200725 or equivalent. Two (2) keys will be furnished with each lock.  
Note: On NEMA Type 4X enclosures, the specified Corbin Lock is deleted. These are available only with padlocking on the latching handle.

**3.2.5** A light/alarm switch bracket shall be provided.

## 4.0 CABINET VENTILATION (NEMA 3R ONLY)

**4.1** A cabinet requiring ventilation shall be provided with louvered vents in the front door with a removable air filter.

**4.1.1** Louvers shall satisfy the NEMA rod entry test for 3R ventilated enclosures.

**4.1.2** The filter will cover the vents and shall be held firmly in place with bottom and top brackets and a springloaded upper clamp.

**4.1.3** Exhaust air will be vented out between the top of the cabinet and door.

**A.** The exhaust area shall be screened with a material having a maximum hole diameter of .125 inch.

**4.1.4** The ventilation plenum area shall be equipped with a removable plate with provisions for mounting an optional fan assembly.

Note: On NEMA Type 4X enclosures, all louver air intake vents on the door and air exhaust vents in the roof overhang are deleted.

**4.2** The ventilation system will be designed to handle a minimum of 100 cubic feet of air per minute.

## 5.0 EQUIPMENT MOUNTING (Specify as required)

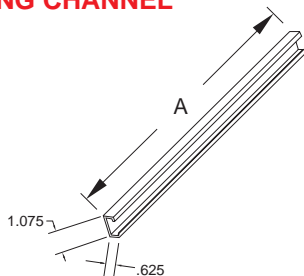
### 5.1 ADJUSTABLE CHANNELS

**5.1.1** The enclosure shall be equipped with two (2) adjustable "C" mounting channels on both side walls of the enclosure, allowing versatile positioning of shelves or panels.

**5.1.2** The channel assembly shall provide infinite vertical and horizontal adjustment and not limit the positioning of shelves or panels. All mounting hardware will be furnished (See mounting channel detail).

### MOUNTING CHANNEL

Length "A" varies by model.



### 5.2 SHELVES

**5.2.1** If equipment is to be shelf mounted, the enclosure shall be provided with shelves fabricated from 5052-H32 aluminum,

having a thickness of .125 inch.

**5.2.2** The shelf depth shall be a minimum of 10.500 inches. The enclosure will have provision for positioning shelves or panels to within four (4) inches of the bottom and to within eight (8) inches of the top of the enclosure.

**5.2.3** Shelf mounting flanges shall be a minimum of 1.5 inches.

**5.2.4** The front shelf edge will be 1.375 inches to increase available shelf space and will be double flanged to increase shelf strength.

## 6.0 CABINET FINISH

**6.1** Unless otherwise specified, the outside surface of the cabinet shall have a smooth, uniform, natural aluminum finish.

**6.2** If painted, the following steps shall be taken as a minimum requirement.

**6.2.1** The cabinet door and any other parts to be painted will be treated with an iron phosphate coating conversion technique.

**6.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

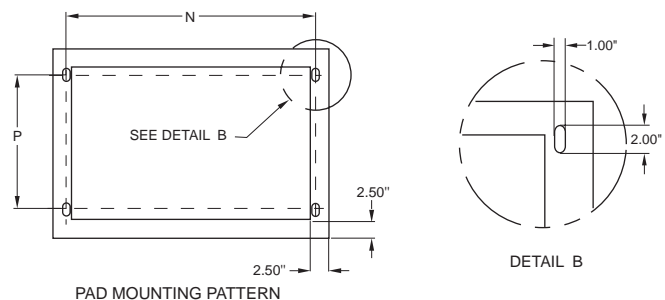
**6.2.3** The finish coat of a Polyester Powder will be baked at 400-450 degrees F for (10) minutes.

**6.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

## 7.0 CABINET MOUNTING

### 7.1 PAD MOUNTED ENCLOSURE

**7.1.1** Enclosures intended for pad mounting shall be constructed with the following pattern:



## 8.0 APPROVED MANUFACTURER

**8.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L. listed equivalent.

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes. Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA \_\_\_ rating (Specify either 3R, 4, 4X or 12) and shall be U.L. listed.

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. Alternate material is type 304 stainless steel, minimum thickness 14 gauge. (Specifier must choose either aluminum or stainless steel construction.) External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.
- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.
- 3.1.3** The cabinet shall be designed with a sloped top to prevent the accumulation of water on its top surface.
- 3.1.4** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.
- 3.1.5** A door restraint shall be provided to prevent door movement in windy conditions.

### 3.2 DOOR/HARDWARE

- 3.2.1** The door opening will be a minimum of 80% of the front surface area. Double doors will overlap and utilize a removable center post.
  - A.** The doors shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door.
- 3.2.2** The hinges shall be continuous and bolted



to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.

- A.** The hinges will be made of .075 inch thick stainless steel with a .25 inch stainless steel hinge pin.
  - B.** The hinge pin shall be capped top and bottom by weld to render it tamperproof.
  - C.** Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude.  
Note: On NEMA Type 4X enclosures, all bolt holes shall be gasketed.
- 3.2.3** The latching mechanism shall be a 3-point draw roller type.
- A.** Pushrods will be turned edgewise at the outward supports and shall be .250 inch by .750 inch aluminum, minimum.
  - B.** Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 inch aluminum, minimum.
- 3.2.4** An operating handle shall be furnished.
- A.** The handle will be stainless steel with a 3/4 inch diameter shank.
  - B.** The latching handle shall have a provision for padlocking in the closed position.
- 3.2.5** A light/alarm switch bracket shall be provided.



## 4.0 CABINET VENTILATION (Nema 3R ONLY)

**4.1** A cabinet requiring ventilation shall be provided with louvered vents in the front door with a removable air filter.

**4.1.1** Louvers shall satisfy the NEMA rod entry test for 3R ventilated enclosures.

**4.1.2** The filter will cover the vents and shall be held firmly in place with bottom and side brackets and springloaded clamps.

**4.1.3** Exhaust air will be vented out between the top of the cabinet and door.

**A.** The exhaust area shall be a series of .120 x 1.0 inch rectangular slots.

**4.1.4** The ventilation plenum area shall removable plate with provisions for mounting an optional fan assembly.

Note: On NEMA Type 4, 4X and 12 enclosures, all louver air intake vents on the door and air exhaust vents in the roof overhang are deleted.

**4.2** The ventilation system will be designed to handle a minimum of 100 cubic feet of air per minute.

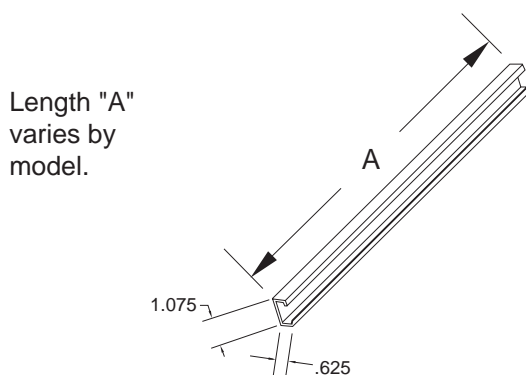
## 5.0 EQUIPMENT MOUNTING (Specify as required)

### 5.1 ADJUSTABLE CHANNELS

**5.1.1** The enclosure shall be equipped with two adjustable "C" mounting channels on both side walls and back wall of the enclosure, allowing versatile positioning of shelves or panels.

**5.1.2** The channel assembly shall provide infinite vertical and horizontal adjustment and not limit the positioning of shelves or panels. All mounting hardware will be furnished. (See mounting channel detail).

### MOUNTING CHANNEL



### 5.2 SHELVES

**5.2.1** If equipment is to be shelf mounted, the enclosure shall be provided with shelves fabricated from 5052-H32 aluminum, having a thickness of .125 inch.

**5.2.2** The shelf depth shall be a minimum of 10.500 inches. The enclosure will have provision for positioning shelves or panels to within four (4) inches of the bottom and to within eight (8) inches of the top of the enclosure.

### 5.3 ALUMINUM BACK PANEL

**5.3.1** If equipment is to be panel mounted, the enclosure shall be provided with a 5052-H32 aluminum back panel having a thickness of .125 inch.

Note: Cabinets wider than 48 inches will utilize two (2) panels side by side vertically.

**5.3.2** The panel shall be natural finish. All mounting hardware will be furnished.

## 6.0 CABINET FINISH

**6.1** Unless otherwise specified, the outside surface of the cabinet shall have a smooth, uniform, natural aluminum finish.

**6.2** If painted, the following steps shall be taken as a minimum requirement.

**6.2.1** The cabinet door and any other parts to be painted will be treated with an iron phosphate coating conversion technique.

**6.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

**6.2.3** The finish coat of a Polyester Powder will be baked at 400-450 degrees F for (10) minutes.

**6.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

## 7.0 CABINET MOUNTING (Specify as required)

### 7.1 POLE OR WALL MOUNTED ENCLOSURE

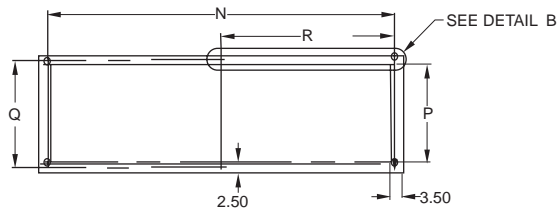
**7.1.1** Enclosures intended for pole or wall mounting shall be provided with stiffener plates with a thickness of .125 inch aluminum welded to top and bottom of rear wall for added strength and rigidity.

Note: On NEMA Type 4, 4X and 12 enclosures, a mounting holes must be gasketed.

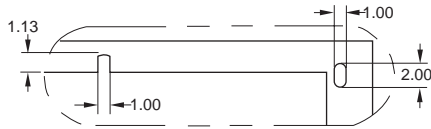
### 7.2 PAD MOUNTED ENCLOSURE

**7.2.1** Enclosures intended for pad mounting shall be constructed, with the following pattern:





PAD MOUNTING PATTERN



DETAIL B

## 8.0 APPROVED MANUFACTURER

- 8.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L, listed equivalent.

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes. Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA\_\_ rating (Specify either 3R or 4X) and shall be U.L. listed.

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door(s) shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. Alternate material is type 304 stainless steel, minimum thickness 14 gauge. **(Specifier**

**must**

**choose either aluminum or stainless steel construction.)** External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.

**NOTE: There shall be 2 doors**

**front**

**and back.**

- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.
- 3.1.3** The cabinet shall be designed with a crowned top to prevent the accumulation of water on its top surface.
- 3.1.4** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.
- 3.1.5** A door restraint shall be provided to prevent door movement in windy conditions.
- 3.2 DOOR/HARDWARE**
  - 3.2.1** The door opening will be a minimum of 80% of the front surface area. Double doors will overlap and utilize a removable center post.
    - A.** The doors shall be furnished with a gasket that satisfies the physical properties as found in UL508 table



- B.** The closed door(s) be flush with the side(s) of the enclosure.

- 3.2.2** The hinges shall be continuous and bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.

- A.** The hinges will be made of .075 inch thick stainless steel with a .25 inch stainless steel hinge pin.

- B.** The hinge pin shall be capped top and bottom by weld to render it tamperproof.

- C.** Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude.

Note: On NEMA type 4X enclosures, all bolt holes shall be gasketed.

- 3.2.3** The latching mechanism shall be a 3-point draw roller type using an overlapping door design.

- A.** Pushrods will be turned edgewise at the outward supports and shall be .250 inch by .750 inch aluminum, minimum.

- B.** Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 aluminum, minimum.

- 3.2.4** An operating handle shall be furnished.

- A.** The handle will be stainless steel with a 3/4 inch diameter shank.

- B.** The latching handle shall have a provision for padlocking in the closed position.

- 3.2.5** A light/alarm switch bracket shall be provided.

## 4.0 CABINET VENTILATION (NEMA 3R ONLY)

**4.1** A cabinet requiring ventilation shall be provided with louvered vents in the front door with a removable air filter.

**4.1.1** Louvers shall satisfy the NEMA rod entry test for 3R ventilated enclosures.

**4.1.2** The filter will cover the vents and shall be held firmly in place with bottom and side brackets and a springloaded upper clamp.

**4.1.3** Exhaust air will be vented out between the top of the cabinet and door.

**A.** The exhaust area shall be a series of .120 x 1.0 inch rectangular holes.

**4.1.4** The ventilation plenum area shall be equipped with a removable plate with provisions for mounting an optional fan assembly.

**4.1.5** Note: On NEMA Type 4, 4X and 12 enclosures, all louver air intake vents on the door and air exhaust vents in the roof overhang are deleted.

**4.2** The ventilation system will be designed to handle a minimum of 100 cubic feet of air per minute.

## 5.0 EQUIPMENT MOUNTING (Specify as required)

### 5.1 ADJUSTABLE CHANNELS

**5.1.1** The enclosure shall be equipped with two adjustable "C" mounting channels on each side wall of the enclosure, allowing versatile positioning of shelves or panels.

**5.1.2** The channel assembly shall provide infinite vertical and horizontal adjustment and not limit the positioning of shelves or panels. All mounting hardware will be furnished (See mounting channel detail).

### 5.2 SHELVES

**5.2.1** If equipment is to be shelf mounted, the enclosure shall be provided with shelves fabricated from 5052-H32 aluminum, having a thickness of .125 inch.

**5.2.2** The shelf depth shall be a minimum of 10.500 inches. The enclosure will have provision for positioning shelves or panels to within four (4) inches of the bottom and to within eight (8) inches of the top of the enclosure.

**5.2.3** Shelf mounting flanges shall be a minimum of 1.5 inches.

**5.2.4** The front shelf edge will be 1.375 inches to increase available shelf space and

will be double flanged to increase shelf strength.

## 6.0 CABINET FINISH

**6.1** Unless otherwise specified, the outside surface of the cabinet shall have a smooth, uniform, natural aluminum finish.

**6.2** If painted, the following steps shall be taken as a minimum requirement.

**6.2.1** The cabinet door and any other parts to be painted will be treated with an iron phosphate coating conversion technique.

**6.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

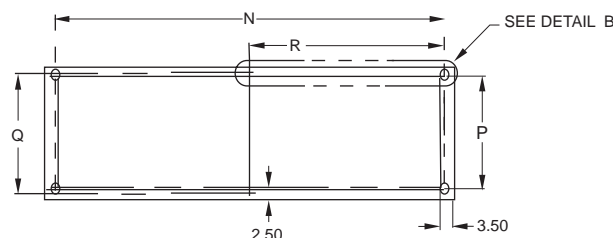
**6.2.3** The finish coat of a Polyester Powder will be baked at 400-450 degrees F for (10) minutes.

**6.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

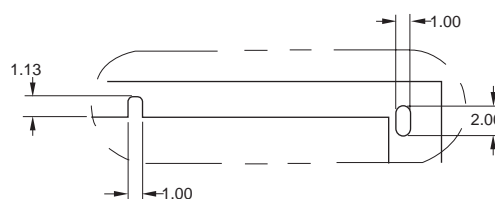
## 7.0 CABINET MOUNTING (Specify as required)

### 7.1 PAD MOUNTED ENCLOSURE

**7.1.1** Enclosures intended for pad mounting shall be constructed with the following pattern:



PAD MOUNTING PATTERN



DETAIL B

## 8.0 APPROVED MANUFACTURER

**8.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L. listed equivalent.

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes, Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA \_\_\_\_ rating (Specify either 3R or 4X) **and shall be U.L. listed.**

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door shall be constructed from 5052-H32, sheet aluminum alloy which has a thickness of .125 inch. Alternate material is type 304 stainless steel, minimum thickness 14 gauge. **(Specifier must choose either aluminum or stainless steel construction.)** External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.

- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.

- 3.1.3** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.

### 3.2 DOOR/HARDWARE

- 3.2.1** The cabinet door will be a minimum of 80% of the front surface area and shall be hinged on the right side when facing the cabinet.

- A.** The door shall be furnished with a gasket that satisfies the physical properties as found in UL 508 table 21.1 and shall form a weathertight seal between the cabinet and door.

- 3.2.2** The hinges shall be continuous and

NEMA 3R SHOWN



PANEL INCLUDED



bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.

- A.** The hinges will be made of .075 inch thick stainless steel with a .25 inch stainless steel hinge pin.

- B.** The hinge pin shall be capped by weld to render it tamperproof.

- C.** Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude.

Note: On NEMA Type 4X enclosures, all bolt holes shall be gasketed.

- 3.2.3** The latching mechanism shall be a slam type.

- A.** (3R only) The lock will be a keyed Corbin slam latch, or equal, and has a keyhole cover (3R).

Note: On NEMA Type 4X enclosures, the specified Corbin Lock is deleted and replaced with weathertight 1/4 turn latches.

## 4.0 EQUIPMENT MOUNTING

### 4.1 ALUMINUM BACK PANEL

- 4.1.1** The enclosure shall be provided with a natural finish 5050-H32 aluminum back panel having a thickness of .125 inch.

- 4.1.2** The panel shall be natural finish. All mounting hardware will be furnished.

- 4.1.3** Panels are to be mounted on standoffs pressed through the back wall of the

enclosure.

**4.2 SHELVES** (Optional on enclosures 15" or more in depth).

## 5.0 CABINET FINISH

**5.1** Unless otherwise specified, the outside surface of the cabinet will have a smooth, uniform, natural mill finish.

**5.2** If painted, the following steps shall be taken as a minimum requirement.

**5.2.1** The cabinet, doors and any other parts will be treated with an iron phosphate conversion technique.

**5.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

**5.2.3** The finish coat of a Polyester Powder will be baked ten (10) minutes at 400-450 degrees F.

**5.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

## 6.0 CABINET MOUNTING

### 6.1 POLE OR WALL MOUNTED ENCLOSURE

**6.1.1** Enclosures shall have mounting plates top and bottom of rear wall.

**6.1.2** Mounting plates will have holes for wall mounting and vertical slots for pole mounting using banding.

## 7.0 APPROVED MANUFACTURER

**7.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L. listed equivalent.

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes. Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a **NEMA 3R rating and shall be U.L. listed.**

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The wrapper and door shall be constructed from type 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. The top shall be made of .250 inch thick 5052-H32 aluminum. The enclosure bottom shall be made of .500 inch thick 5052-H32 aluminum. External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.

- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.

- 3.1.3** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.

### 3.2 DOOR/HARDWARE

- 3.2.1** The cabinet door will be a minimum of 80% of the front surface area and shall be hinged on the right side when facing the cabinet.

- A.** The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door.

- 3.2.2** The hinges shall be bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.

- A.** The hinges will be made of .075 inch stainless steel with a .250 diameter stainless steel hinge pin.

## NEMA 3R SHOWN



- B.** The hinge pin shall be capped top and bottom by weld to render it tamperproof.

- 3.2.3** The latching mechanism shall be slam latch type.

- A.** Door lock is keyed slam latch or equal and has a keyhole cover.

## 4.0 EQUIPMENT MOUNTING (Specify as required)

### 4.1 PLYWOOD BACK PANEL

- 4.1.1** If the equipment is to be panel mounted, the enclosure shall be provided with a plywood back panel having a thickness of .750 inch.

- 4.1.2** The panel shall be treated. All mounting hardware will be furnished.

## 5.0 CABINET FINISH

- 5.1** Unless otherwise specified, the outside surface of the cabinet shall have a smooth, uniform, natural aluminum finish.

- 5.2** If painted, the following steps shall be taken as a minimum requirement.

- 5.2.1** The cabinet, doors and any other parts to be painted will be treated with an Iron Phosphate conversion technique.

- 5.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

- 5.2.3** The finish coat of a Polyester Powder will be baked ten (10) minutes at 400-450 degrees F.

- 5.2.4** The finish shall be commercially smooth,



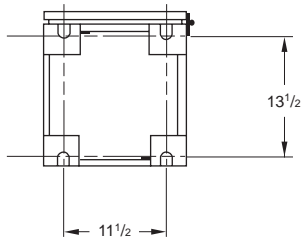
substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

## 6.0 PAD MOUNTED ENCLOSURE

**6.1** Enclosures intended for pad mounting shall be constructed with the following patterns:

## 7.0 APPROVED MANUFACTURER

**7.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L. listed



**MOUNTING PATTERN**

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes. Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA 4X rating **and shall be U.L. listed.**

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door shall be constructed of 5052-H32 aluminum alloy. The thickness of the alloy shall be .080 for all enclosures less than 36" in height. Alloy with a thickness of .125" shall be used when the enclosure equals or exceeds 36" in height. Alternate material is type 304 stainless steel; minimum thickness is .075 (14 gauge). External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.
- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.
- 3.1.3** All exterior welds and seams will be continuously welded and ground smooth.
- 3.1.4** The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.

### 3.2 DOOR/HARDWARE

- 3.2.1** The cabinet door will be a minimum of 80% of the front surface area and shall be hinged on the left side when facing the cabinet.
  - A.** The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a watertight seal between the cabinet and door.
- 3.2.2** Hinges shall be continuous. Enclosures less than 36 inches tall shall have the hinges spot-welded to both door and



cabinet. Enclosures equal to or larger than 36 inches in height shall have hinges spot-welded to the cabinet and bolted to the door.

- A.** Enclosures made from .080 aluminum will use hinges made from like material and use .187 inch hinge pins made from stainless steel.
  - B.** Enclosures less than 36 inches in height and made from .075 stainless steel use hinges made from like material and use .187 inch hinge pins made from stainless steel.
  - C.** Stainless steel enclosures equal to or greater than 36 inches in height use hinges made from .075 inch stainless steel with a .250 inch stainless steel hinge pin.
  - D.** Aluminum enclosures equal to or greater than 36 inches in height use hinges made from .090 inch thick aluminum with a .250 inch stainless steel hinge pin.
- 3.2.3** Latching will be quarter turn, screwdriver operated, on enclosures smaller than 36 inches in height. Locking will be by padlock hasp. On enclosures 36 inches or larger, the latching mechanism shall be a 3-point draw roller type.
- A.** Pushrods will be turned edgewise at the outward supports and shall be .250 inch by .750 inch aluminum, minimum.
  - B.** Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 inch aluminum, minimum.
- 3.2.4** An operating handle shall be furnished (3-point latch models only).

- A.** The handle will be stainless steel with a 3/4 inch diameter shank.
- B.** The latching handle shall have a provision for padlocking in the closed position.

#### 4.0 EQUIPMENT MOUNTING

- A.** Collar studs will be provided on the rear wall for mounting of optional equipment panels.

#### 5.0 CABINET FINISH

- 5.1** Unless otherwise specified, the outside surface of the cabinet will have a smooth, uniform, natural mill finish.
- 5.2** If painted, the following steps shall be taken as a minimum requirement.
  - 5.2.1** The cabinet door and any other parts to be painted will be treated with an iron phosphate coating conversion technique.
  - 5.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

- 5.2.3** The finish coat of an Alkyd Bake Enamel will be baked for ten (10) minutes at 300-325 degrees F.

- 5.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

#### 6.0 CABINET MOUNTING

##### 6.1 WALL MOUNTED ENCLOSURE

- 6.1.1** Enclosures shall have mounting feet welded to top and bottom of rear wall (exterior).

#### 7.0 APPROVED MANUFACTURER

- 7.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L., listed equivalent.

## 1.0 GENERAL

- 1.1** The purpose of this specification is to provide details of an enclosure that protects internal equipment from rain, dust, vandalism and other conditions found in an outdoor or otherwise harsh environment.
- 1.2** The manufacturer must be able, upon request, to produce part numbers on all components for repair purposes, Certificates of compliance may be requested on each cabinet or on any component or part thereof.

## 2.0 PERFORMANCE

- 2.1** The enclosure(s) will meet or exceed the requirements of a NEMA\_\_ rating (Specify either 3R or 4X) and shall be U.L. listed.

## 3.0 CABINET CONSTRUCTION

### 3.1 GENERAL

- 3.1.1** The cabinet and door(s) shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. Alternate material is type 304 stainless steel, minimum thickness 14 gauge. (Specifier must choose either aluminum or stainless steel construction.) External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities.
- 3.1.2** All inside and outside edges of the cabinet shall be free of burrs.
- 3.1.3** The cabinet shall be designed with a crowned top to prevent the accumulation of water on its top surface.
- 3.1.4** The door opening(s) shall be double flanged on all(4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened.
- 3.1.5** Door restraint(s) shall be provided to prevent door movement in windy conditions.

### 3.2 DOOR/HARDWARE

- 3.2.1** The cabinet door(s) will be a minimum of 80% of the front surface area and shall be hinged on the same side when facing the cabinet.
  - A.** The door(s) shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door.



- B.** The closed door(s) will be flush with the side(s) of the enclosure.
- 3.2.2** The hinges shall be bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts.
  - A.** The hinges will be made of .075 inch stainless steel with a .250 inch diameter stainless steel hinge pin.
  - B.** The hinge pin shall be capped top and bottom by weld to render it tamperproof. Note: On NEMA type 4X enclosures, all bolt holes shall be gasketed.
- 3.2.3** The latching mechanism shall be a 3-point draw roller type.
  - A.** Pushrods will be turned edgewise at the outward supports and shall be .250 inch by .750 inch aluminum, minimum.
  - B.** Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 aluminum, minimum.
- 3.2.4** An operating handle shall be furnished.
  - A.** The handle will be stainless steel with a 3/4 inch diameter shank.
  - B.** The latching handles shall have a provision for padlocking in the closed position.
  - C.** (3R only) The lock shall be keyed dead bolt #200725 or equivalent. Two (2) keys will be furnished with each lock.

Note: On NEMA Type 4X enclosures, the specified Corbin Lock is deleted. These are available only with padlocking on the latching handle.

**3.2.5** A light/alarm switch bracket shall be provided.

### 3.3 SWITCH COMPARTMENT (Optional-3R only)

**3.3.1** A switch compartment, with removable back panel is supplied on the enclosure.

**A.** The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and will form a weathertight seal between cabinet and door.

**3.3.2** The switch compartment door lock is a keyed slam latch #200698, or equal, and has a keyhole cover.

Note: On NEMA Type 4X enclosures, the switch compartment is deleted.

**3.3.3** The switch compartment door hinge is .063 inch stainless steel with a .120 diameter stainless steel hinge pin.

### 4.0 CABINET VENTILATION (NEMA 3R ONLY)

**4.1** A cabinet requiring ventilation shall be provided with louvered vents in the front door with a removable air filter.

**4.1.1** Louvers shall satisfy the NEMA rod entry test for 3R ventilated enclosures.

**4.1.2** The filter will cover the vents and shall be held firmly in place with bottom and top brackets and a springloaded upper clamp.

**4.1.3** Exhaust air will be vented out the top of the cabinet and door.

**A.** The exhaust area shall be screened with a material having a maximum hole diameter of .125 inch.

**4.1.4** The ventilation plenum area shall be equipped with a removable plate with provisions for mounting an optional fan assembly.

Note: On NEMA Type 4, 4X and 12 enclosures, all louver air intake vents on the door and air exhaust vents in the roof are deleted.

**4.2** The ventilation system will be designed to handle a minimum of 100 cubic feet of air per minute.

### 5.0 EQUIPMENT MOUNTING

**5.1** The enclosures shall be equipped with mounting brackets that accommodate the mounting of

a 19" rack frame assembly.

### 6.0 CABINET FINISH

**6.1** Unless otherwise specified, the outside surface of the cabinet shall have a smooth, uniform, natural aluminum finish.

**6.2** If painted, the following steps shall be taken as a minimum requirement.

**6.2.1** The cabinet door and any other parts to be painted will be treated with an iron phosphate coating conversion technique.

**6.2.2** After phosphatizing, the parts shall be baked to eliminate any moisture in seams.

**6.2.3** The finish coat of a Polyester Powder will be baked at 400-450 degrees F for (10) minutes.

**6.2.4** The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance.

### 7.0 CABINET MOUNTING

#### 7.1 POLE MOUNTED ENCLOSURE

**7.1.1** Enclosures intended for pole mounting shall be provided with .125 inch thick aluminum stiffener plates, welded to top and bottom of side wall for added strength and rigidity.

Note: On NEMA Type 4, 4X and 12 enclosures, all mounting holes are gasketed.

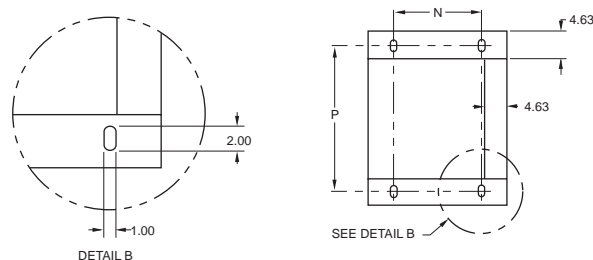
#### 7.2 PEDESTAL MOUNTED ENCLOSURE

**7.2.1** Enclosures intended for pedestal mounting shall provided with a reinforced base plate.

Note: On NEMA Type 4, 4X and 12 enclosures mounting holes are gasketed.

#### 7.3 PAD MOUNTED ENCLOSURE

**7.3.1** Enclosures intended for pad mounting shall be construe with the following pattern:



### 8.0 APPROVED MANUFACTURER

**8.1** Cabinet is to be manufactured by APX Technologies, Inc. or an approved U.L. listed equivalent.

APX Technologies, Inc. manufacturer, warrants to the original purchaser of the product that the product is free from defects in workmanship and material.

Warranty is not applicable to product which has been repaired, altered, or subject to accident, negligence, abuse or misuse.

To activate Warranty, defective product must be rejected in writing to APX within thirty (30) days of receipt by original purchaser and must be returned to APX, freight prepaid by original purchaser. It is APX Technologies, Inc. sole liability either to repair or replace, at APX Technologies, Inc. option, the defective product. There are no other warranties, expressed or implied.

Any defective product returned to APX under the terms of this Warranty must be accompanied by a return authorization number assigned by APX and information indicating when and by whom the defect was first discovered, nature of the defect, and location of product at the time defect was discovered.

After warranted repair or replacement, product will be returned to original purchaser, freight prepaid by APX.



## AIR CONDITIONERS

## HEAT EXCHANGERS

## HEATERS

## REMOTE MONITORING

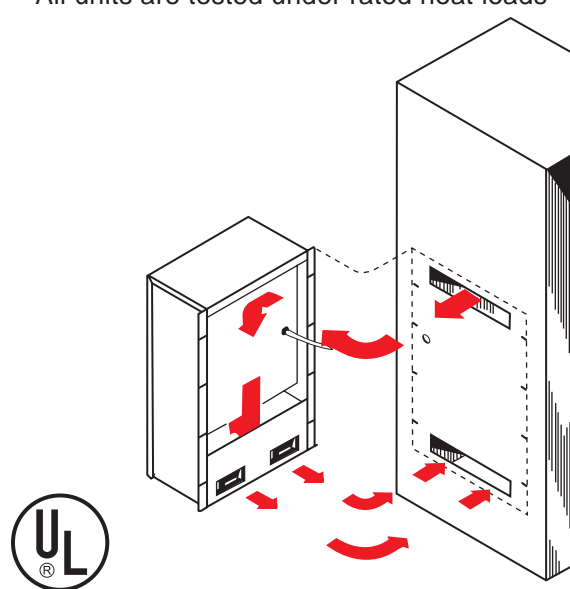
## FAN KITS



### FEATURES:

- Closed-loop cooling. Hostile ambient air remains outside the enclosure.
- A complete line of air-cooled models ranging in capacity from 800 to 12,000 BTU/HR.
- Models for mounting to enclosure door, side, top or rack rails. Gaskets included to seal the package airtight to the enclosure.
- Units available in multiple voltages at 50HZ and 60HZ, single phase.
- UL listed available on selected models.
- High quality, heavy-duty construction provides years of continuous operation in a wide range of hostile environments.
- Enclosure air is dehumidified. Most models have hot gas by-pass valve to regulate the cooling of the air conditioner, as well as eliminate evaporator coil freezing during periods of low heat load and low ambient air temperature. Thermostatic control available on all units as an additional cost option.
- Most units incorporate dual centrifugal blowers placed at the air outlets to provide optimum air circulation within the enclosure.
- Large-surface air filters reduce cleaning frequency. Most refrigeration and electrical components are accessible for service by simply removing air filter. Cabinets are constructed of cold rolled steel, phosphatized and finished in baked enamel. Special materials/colors/finishes available as an additional cost option.
- Special coatings for coils and copper lines available

- Super clean manufacture. Refrigeration systems never left open during assembly; always charged with nitrogen (until refrigerant is introduced) to prevent air and moisture from entering the system.
- Mounting drawings and instructions furnished with every unit.
- All units are tested under rated heat loads



### SIDE MOUNT TO ENCLOSURE

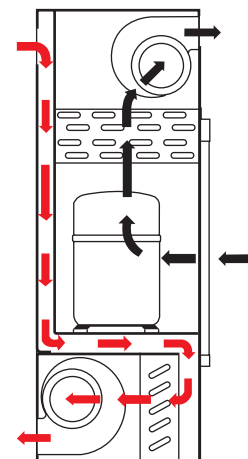
For NEMA type 12 enclosure, interfacing air-out and air-in openings are required in the enclosure wall. Generally, the Series 17 is most effective on enclosures up to 40 cu. ft., unless the application is only for spot cooling in a larger enclosure.



## AIR CONDITIONING SIZING PROCEDURE

How much climate control do you need? Call or fax us the following information and our engineering staff will calculate the BTU/HR requirements.

- Desired enclosure height ..... \_\_\_\_\_
- Desired enclosure width ..... \_\_\_\_\_
- Desired enclosure depth ..... \_\_\_\_\_
- Any surfaces which will be blocked from heat transfer ..... \_\_\_\_\_
- Maximum anticipated outside temperature in degrees Fahrenheit ..... \_\_\_\_\_
- Maximum allowable interior temperature in degrees Fahrenheit ..... \_\_\_\_\_
- Minimum anticipated outside temperature in degrees Fahrenheit ..... \_\_\_\_\_
- Minimum allowable interior temperature in degrees Fahrenheit ..... \_\_\_\_\_
- Desired color or natural finish ..... \_\_\_\_\_
- Internal heat load in watts ..... \_\_\_\_\_



- Ambient airflow
- Clean enclosure airflow

## CLOSED-LOOP COOLING

Within air conditioner, the recirculated clean enclosure air is kept separate from the ambient airflow system. This protects the electronic controls and prevents shutdowns caused by heat, humidity, dust or other contaminants.

## FAN KIT:

Fan kits consist of fan (AC or DC), thermostat, guard, lead assembly and mounting screws. Standard fan kit is 110 VAC and can be factory installed or shipped separately.

P/N \_\_\_\_\_



## HEATER KIT:

Heater kits consist of strip heater, guards and thermostat and are available in 150, 300 or 500 watts (110 VAC). Heater kits can be factory installed or shipped separately.

P/N \_\_\_\_\_



## BATTERY HEATER BLANKETS:

Flexible and lightweight silicone rubber heaters providing 600 watts of heat and is thermostat controlled. Blanket heaters operate on 110 VAC and a factory installed option.

P/N \_\_\_\_\_



## INSULATION:

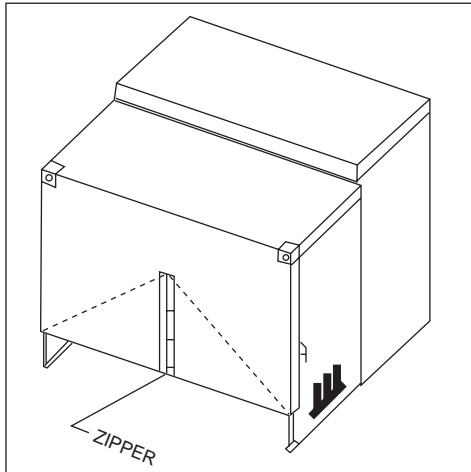
Reflects 95% of incoming radiant radiant heat rays. Resists conductive heat transmission. Lighter and less bulky than fiberglass insulation of same R-value. Factory installed option.

P/N \_\_\_\_\_



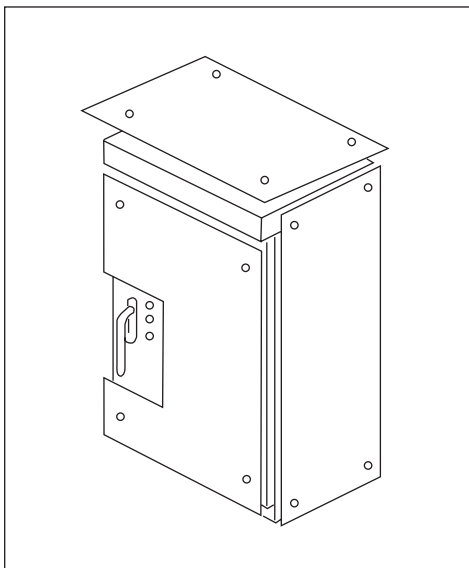
## AWNING KIT

Provides shelter for technicians who are working in enclosures during inclement weather. Available as a custom order option.



## SUNSHIELDS

Aluminum panels custom designed and mounted on standoffs on selected sides of the enclosure, minimizing exposure of the enclosure to direct sunlight. Available as a custom factory installed option only.



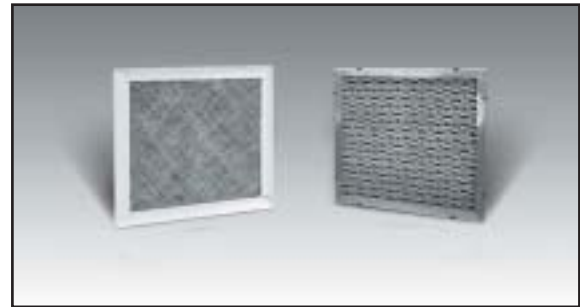
## FILTERS

### DISPOSABLE

28" x 45" x 3/4	14 x 25 x 1
10 x 10 x 1	16 x 20 x 1
6 x 16 x 1	16 x 25 x 1
14 x 4 x 1	16 x 30 x 1
10 x 16 x 1	24 x 12 x 1
12 x 12 x 1	5-3/8 x 10-1/8 x 1
12 x 16 x 1	5 x 8 x 1/2
14 x 20 x 1	12 x 12 x 1

### METAL E-Z CLEAN

6 X 16 X 1
8 X 15 X 1
1/2 X 14 X 25
12 X 12 X 1
12 X 16 X 1
5.375 X 12.3 X 1
10 X 20 X 1
10 X 10 X 1



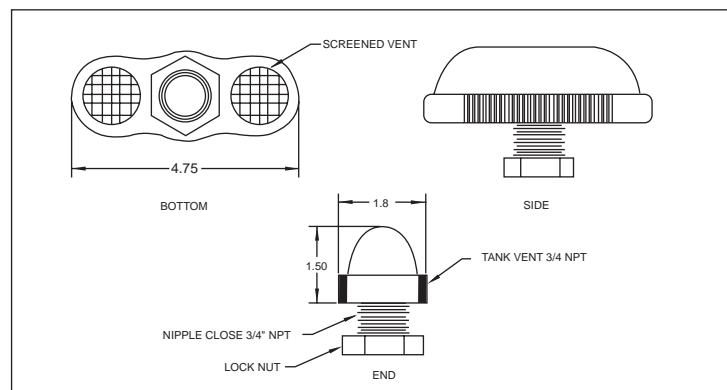
## PROTECTIVE HOOD KITS

Aluminum hood kits designed to protect externally mounted air conditioners and heat exchangers from extreme weather and vandalism.

## GAS VENT KIT

The gas vent kit provides a means to vent small enclosures. It is available as a factory installed option or may be field installed by drilling a 1.125" hole in enclosure top.

P/N \_\_\_\_\_



## STANDBY GENERATOR KIT

Factory installed option offered on our communications style enclosures. Standard kit includes a 60 AMP Hubbell Inlet Connector and DTI transfer switching system, all completely wired.



## OVERHEAD LIGHTING

15 Watt fluorescent light with cover. Can be wired to be door activated. May be shipped separately or factory installed.



## DOOR ALARM/LIGHT SWITCH

Available with either contacts opening or closing when doors open, enabling alarms, lights, etc. Switches are U.L. approved and CSA certified. Shipped separately or factory installed.



## GROUND BARS

Standard ground bar is 1/4" thick copper and will accept up to twelve (12) two hole lugs with 5/8" center to center spacing.



## GROUND LUGS

Solid extruded aluminum ground lugs are available as a factory installed or shipped separately.

4/0 - # 6  
1/0 - # 8

2/0 - # 6  
1/0 - # 14



## SINGLE RECEPTACLE

Provides two (2) 110 VAC outlets for use with installed or test equipment. Shipped separately or factory installed.

**P/N - 15 AMP  
- 20 AMP**



## DUAL RECEPTACLE

Provides four (4) 110 VAC outlets for use with installed or test equipment. Shipped separately or factory installed.

**P/N - 20 AMP**



## GFI RECEPTACLE

Provides two (2) 110 VAC GFI outlets for use with test equipment or as convenience outlets for technicians. Shipped separately or factory installed.

**P/N - 15 AMP**



## 220 VAC TWIST - LOCK RECEPTACLE:

Standard 220 VAC twist-lock receptacle is available in either 20 AMPS or 30 AMP.

**NEMA L6 - 20R  
NEMA L6 - 30R**



## POWER STRIP

110 VAC six (6) outlet power strip with built-in 15 AMP circuit breaker.





## 1/4 TURN LATCHES

APX designs enclosures with and offers various styles of 1/4 turn latches. These latches are designed for vandal resistance, as well as provide for the highest degree of weather resistance.



## T - HANDLE 1/4 TOOL

Available for use with our standard 5/8" deep socket 1/4 turn. Allows the technician to easily open and secure the enclosure.



## DEADBOLT LOCK

APX standard main door lock. Door locks automatically when main door handle is turned completely closed. Master and special keying available on special order. Standard on large Single Door 3R and as option on Front & Rear Door and Double Door Enclosures.

**RIGHT HAND  
LEFT HAND**



## "POLICE" TYPE SLAM LATCH

Standard lock on APX switch compartment doors and Small Single Door enclosures. 3R only.



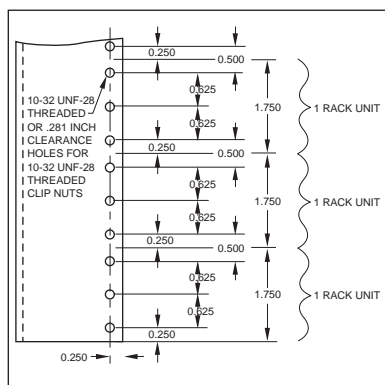
## BEST DEADBOLT LOCKS

ALL parts are made of solid brass with phosphor bronze springs. Uses the Best interchangeable core and may be keyed alike, master keyed or grand-master keyed with any other Best locks of any type.



## E.I.A. STANDARD SPACING

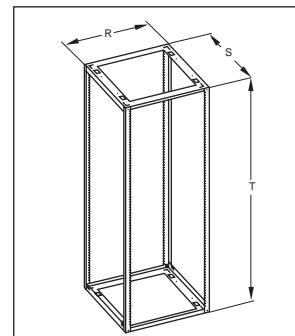
APX standard rack rails are punched to E.I.A. spacing. This chart shows this spacing in detail. Custom spacing can be provided on custom engineered enclosures.



## RACK FRAME ASSEMBLIES

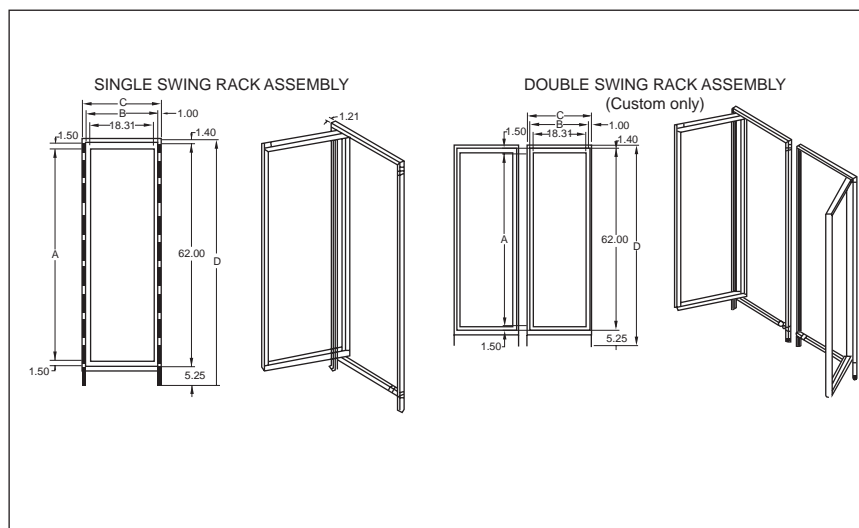
Designed for our standard Rack Mount style enclosures. Standard 19" or 24" equipment.

	R	S	T
RM392420	20.0	15.75	27.75
RM462420	20.0	15.75	34.25
RM672430	20.0	20.75	55.25
RM672438	20.0	29.25	55.25



## SWING RACKS

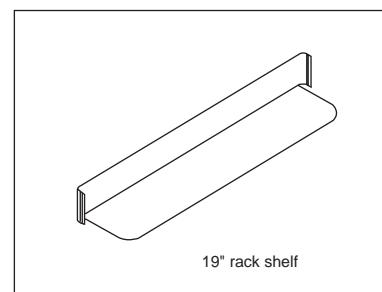
Provides for mounting of standard 19" or 24" rack equipment and allows for easy access and servicing behind the equipment. Available for use in all Communications Enclosure styles.



## STATIONARY RACK SHELF

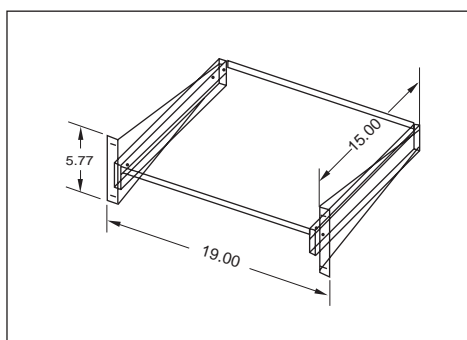
19" or 24" stationary rack shelf designed for use when mounting heavier rack equipment.

P/N -19" shelf



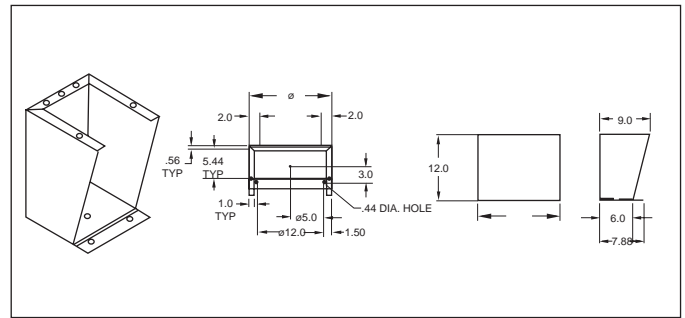
## SLIDE-OUT SHELF

19" or 24" slide-out rack shelf allows access to a particular piece of equipment mounted in the rack. Use is ideal for test equipment and portable



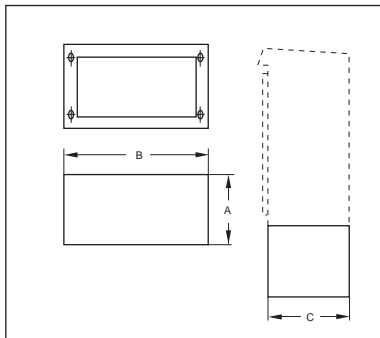
## FLOOR STAND KITS

The floor stand elevates the enclosures while providing open access to the pad mounting system. Floor stands can be used on any enclosure with a solid bottom. Order by enclosure size.



## ENCLOSURE BASE KITS

Base adapter is used to elevate enclosures in high water areas or applications where additional conduit space is required. Order by enclosure size.

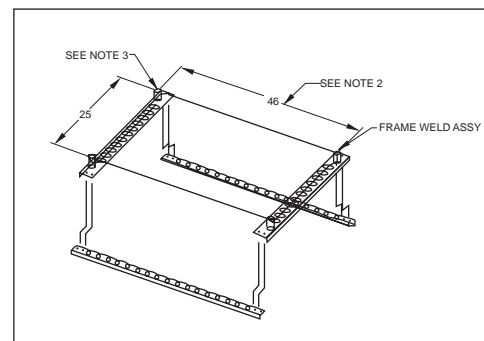


**DIMENSIONS (inches)**

Part #	A	B	C	Part #	A	B	C
	15	18	15		15	36	17
	15	25	16		15	38	26
	24	25	16		15	44	15
	15	30	17		15	44	26
	18	30	17		15	60	15
	24	30	17		15	72	15
	15	32	15				

## TCMC PAD MOUNTING KIT

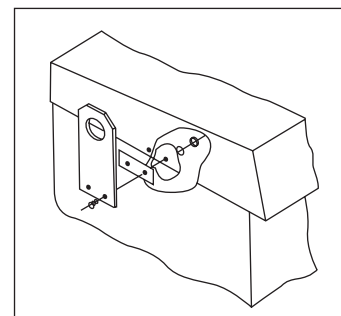
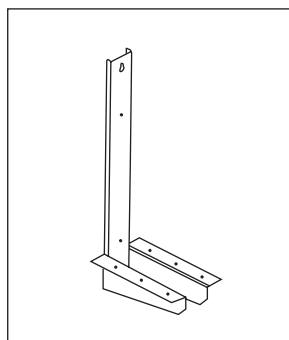
Stainless steel frame available with each of our TCMC cabinets. Each kit includes drawing and instructions. Frames are set in concrete pad and TCMC cabinet bolts directly to it, making installation much easier. (TCMC 100 Kit shown.)



## LIFTING EYE KITS

Available in stainless steel or aluminum for most APX enclosures. May be factory installed or field installed.

## STAINLESS STEEL ALUMINUM



## SLIP-FITTER - 4" PEDESTAL ADAPTER

### APPLICATION:

Aluminum pedestal adapter is designed for post top mounting of enclosures. When adapter is used, enclosure bottom shall be reinforced. Stainless steel hardware is supplied.

### DIMENSIONS (inches)

PART #	SIZE
	4

## ENCLOSURE POLE MOUNTING BRACKET

### APPLICATION:

Aluminum bracket is designed for side of pole mounting. Enclosures greater than 26" in height shall have stiffener plates on both top and bottom of rear wall for mounting of brackets. Stainless steel hardware for mounting pole bracket to enclosure is

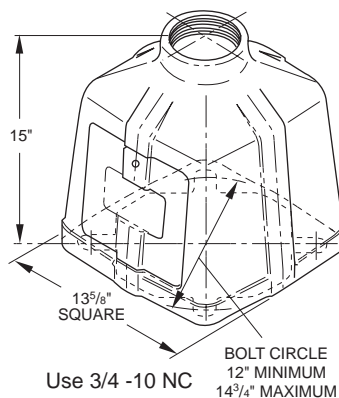
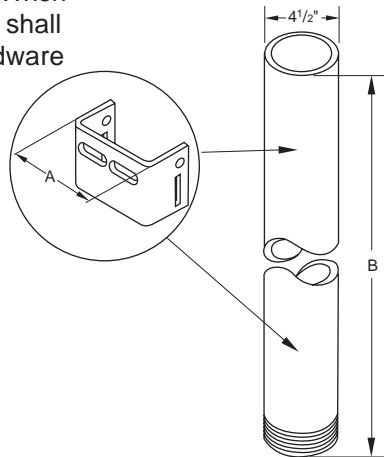
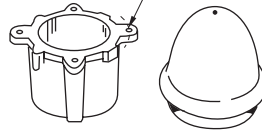
### DIMENSIONS (inches)

PART #	SIZE	A	POLE DIA.
	Large	6-3/4	8 min.
	Small	3-3/4	4 min.

Pedestal Mount Components

Pole Mount Components

6 1/2" BOLT CIRCLE



Use 3/4 -10 NC Anchor Bolts

## POST CAP

### APPLICATION:

Post cap is used to seal the top of the pole in applications where the enclosure is bracket mounted.

### DIMENSIONS (inches)

PART #	SIZE
	4

## POLE

### CONSTRUCTION:

Pole is 4-1/2" O.D. x .237 wall (Schedule 40) 6063- T6 aluminum,

### DIMENSIONS (inches)

PART #	SIZE
	4
	84

## PEDESTAL BASE

### CONSTRUCTION:

Pedestal base is constructed of 356-T6 (Heat treated) cast aluminum.

### DIMENSIONS (inches)

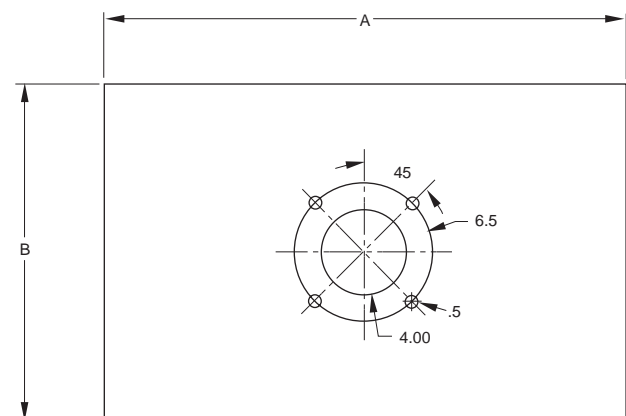
PART #	SIZE
	4

## PEDESTAL PLATES

Constructed of 5052-H32 0.250 inch aluminum. These plates provide a means of mounting the enclosure sizes listed using the pedestal components illustrated above.

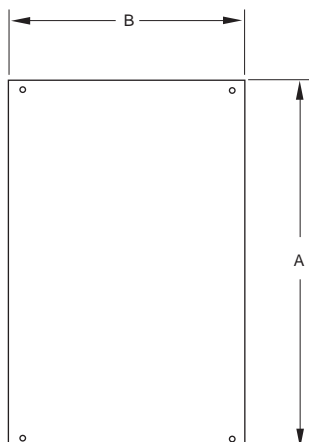
NOTE: All dimensions are in inches.

1/4" PEDESTAL PLATE CHART				
ENCLOSURE SIZE	PART NUMBER	A	B	HOLE PATTERN
301815		17.75	14.75	STANDARD HOLE PATTERN
362015		19.75	14.75	STANDARD HOLE PATTERN
412516		24.75	14.75	STANDARD HOLE PATTERN
512516		24.75	14.75	STANDARD HOLE PATTERN
412516		24.75	14.75	NO HOLES
512516		24.75	14.75	NO HOLES
503017		29.75	16.75	STANDARD HOLE PATTERN



## PANEL KITS:

Panels not shown in the chart below are available on special order.



ENCL. STYLE	ENCL. SIZE H W D	ALUMINUM					COLD ROLLED STEEL					PLYWOOD				
		PANEL KIT NO.	"A" DIM.	"B" DIM.	FLNG. OR THICK.	MTL.	PANEL KIT NO.	"A" DIM.	"B" DIM.	FLNG. OR THICK.	MTL.	PANEL KIT NO.	"A" DIM.	"B" DIM.	FLNG. OR THICK.	MTL.
SM	141007		13.00	7.75	0.125	AL										
SM	141111		13.00	8.75	0.125	AL										
SM	141407		13.00	11.75	0.125	AL										
SM	161412		15.00	11.75	0.125	AL										
SM	201715		19.00	14.75	0.125	AL							19.00	14.75	0.750	PLYD PNL KT
SM	221507		21.00	12.75	0.125	AL							21.00	12.75	0.750	PLYD PNL KT
SM	261715		25.00	14.75	0.125	AL							25.00	15.00	0.750	PLYD PNL KT
LS	301815		22.00	15.00	0.125	AL							21.44	15.00	0.750	PLYD PNL KT
LS	362015		28.00	17.00	0.125	AL							27.44	17.00	0.750	PLYD PNL KT
DD	363213		27.00	29.00	0.125	AL										
LS	363624		30.25	33.25	0.125	AL										
FR	363624		30.25	33.25	0.125	AL										
LS	412516		35.00	21.00	0.125	AL							33.88	21.00	0.750	PLYD PNL KT
LS	443624		38.13	33.25	0.250	AL							38.13	33.25	0.750	PLYD PNL KT
FR	443624		38.25	33.25	0.125	AL							38.13	33.25	0.750	PLYD PNL KT
LS	443624		38.25	33.25	0.125	AL										
DD	483615		39.00	33.00	0.125	AL							39.00	33.25	0.750	PLYD PNL KT
LS	503017		42.00	27.00	0.125	AL							39.00	27.25	0.750	PLYD PNL KT
LS	503617		42.00	33.00	0.125	AL							42.60	33.25	0.750	PLYD PNL KT
LS	512516		45.00	21.00	0.125	AL							43.88	21.00	0.750	PLYD PNL KT
LS	553826		46.00	35.00	0.125	AL							45.19	35.00	0.750	PLYD PNL KT
LS	554426		46.00	41.00	0.125	AL		45.19	41.00	0.104	12 GASTL PNTD WHT		45.19	41.00	0.750	PLYD PNL KT
LS	583017		50.00	27.00	0.125	AL							50.47	27.25	0.750	PLYD PNL KT
DD	604415		51.00	41.00	0.125	AL		50.50	40.00	0.104	12 GASTL PNTD WHT		51.00	41.25	0.750	PLYD PNL KT
DD	727215		63.00	34.00	0.125	AL		63.00	32.88	0.104	12 GASTL PNTD WHT					
LS	763017		68.63	27.00	0.125	AL							68.47	27.25	0.750	PLYD PNL KT
LS	773826		69.00	35.00	0.125	AL										
LS	774426		69.00	41.00	0.125	AL							70.38	41.25	0.750	PLYD PNL KT

## SHELF KITS

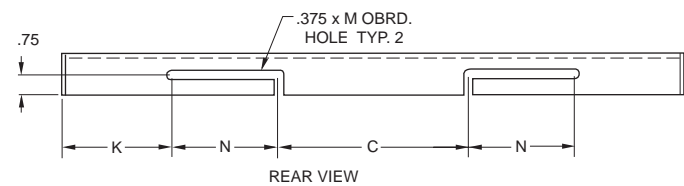
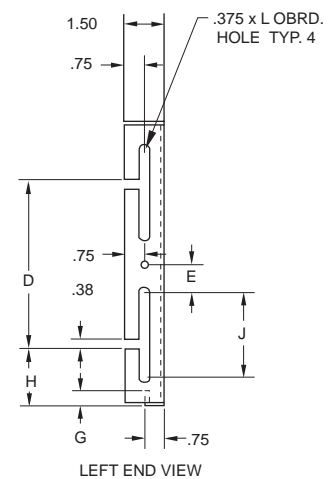
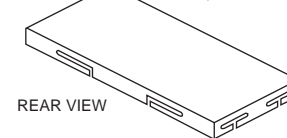
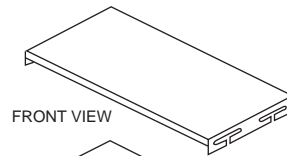
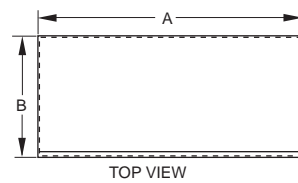
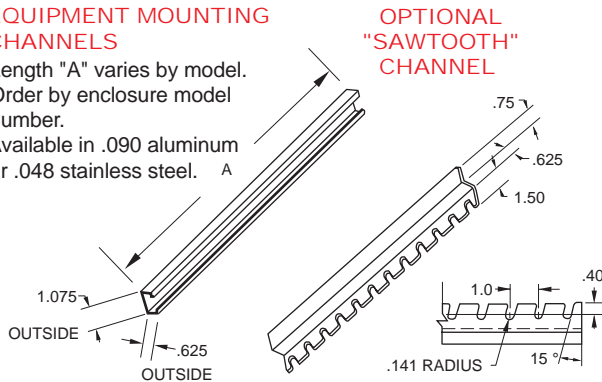
APX Technologies Equipment Shelves are designed to provide versatile mounting options for user equipment. Easily mounted using standard equipment channels, they provide a sturdy surface for mounting of customer equipment.

Constructed of .125" thick 5052-H32 grade aluminum alloy.

Shelves whose width equals 38" or greater are center reinforced on the underside with 1" formed aluminum angle.

### EQUIPMENT MOUNTING CHANNELS

- Length "A" varies by model. Order by enclosure model number.
- Available in .090 aluminum or .048 stainless steel.

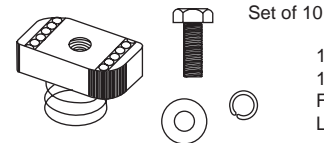


### EQUIPMENT MOUNTING HARDWARE

Fast and easy installation of panels and equipment to mounting channels using these spring nuts and standard 1/4" x 20 bolts. Simply insert the spring nuts to the desired channel position, and one quarter turn positions them to your requirements.

Panels or equipment clamp the spring nut to the channels providing secure mounting where you need it.

### SHELF HARDWARE KIT



Set of 10

1/4 X20 SPRING NUT  
1/4 X20 BOLT  
FLAT WASHERS  
LOCK WASHERS

PART #

## SHELF DIMENSIONS

ENCLOSURE SIZE	KIT NO.	A	B	C	D	E	G	H	J	K	L	M	N
SM201715		15.44	10.63	7.13	6.38	1.06	.55	2.12	3.19	4.13	3.56	3.38	3.00
SM261715		15.44	10.63	7.13	6.38	1.06	.55	2.12	3.19	4.13	3.56	3.38	3.00
LS301815		16.44	10.63	7.13	6.38	1.06	.55	2.12	3.19	4.13	3.56	3.38	4.00
LS362015		18.44	10.63	7.13	6.38	1.06	.55	2.12	3.19	4.13	3.56	3.38	4.00
LS412516		23.44	10.63	7.13	6.38	1.06	.55	2.12	3.19	4.13	3.56	3.38	4.00
LS363624		34.44	10.63	15.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
LS443624		34.44	10.63	15.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
LS512516		25.38	10.63	7.13	6.38	1.06	.55	2.12	3.19	4.13	3.56	3.38	4.00
LS503017		28.44	10.63	12.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
LS503617		34.44	10.63	15.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
LS583017		28.44	10.63	12.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
LS763017		28.44	10.63	12.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
LS553826		36.44	10.63	N/A	5.94	1.32	.53	2.34	2.94	N/A	3.31	N/A	4.00
LS554426		42.44	10.63	N/A	5.94	1.32	.53	2.34	2.94	N/A	3.31	N/A	4.00
LS773826		36.44	10.63	N/A	5.94	1.32	.53	2.34	2.94	N/A	3.31	N/A	4.00
LS774426		42.44	10.63	N/A	5.94	1.32	.53	2.34	2.94	N/A	3.31	N/A	4.00
DD363213		30.44	10.63	N/A	5.94	1.32	.53	2.34	2.94	N/A	3.31	N/A	4.00
DD483615		34.44	10.63	15.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
DD604415		42.44	10.63	N/A	5.94	1.32	.53	2.34	2.94	N/A	3.31	N/A	4.00
FR363624		34.44	10.63	15.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00
FR443624		34.44	10.63	15.00	5.94	1.32	.53	2.34	2.94	4.22	3.31	4.38	4.00



## Aluminum Fabrication Is Our Specialty

### Why Choose Aluminum?

APX Technologies, Inc. specializes in enclosures fabricated from aluminum. As the leading manufacturer and supplier of outdoor enclosures to the traffic signal industry, we have noticed a trend toward the almost exclusive use of aluminum enclosures. Seventy-five percent of all enclosures supplied by APX are aluminum with sixty percent of those being natural or unpainted.

Some Important Reasons Why You Should Choose Aluminum For Your

Next Enclosure Needs:

Low Cost	Modern Appearance
Lightweight	Non-Sparking
Non-Magnetic	Reflectivity
Corrosive Resistance	Strength
Thermal Conductivity	Chemical Resistance
Non-Toxic	Durable



### Virtually Maintenance Free

In addition to these immediately recognized advantages of aluminum, long-term maintenance costs are virtually eliminated because of the durability and corrosive resistance of aluminum. The alloy of aluminum we use is 5052-H32. This alloy was originally developed for building ship hulls. Therefore, it is very resistant to corrosion. The resistance to corrosion of aluminum alloys depends on the presence of a very thin film of aluminum oxide that protects the metal surface. This inert film forms immediately upon the metal when it is in contact with air. The extremely thin protective film effectively halts further atmospheric oxidation of aluminum and prevents or slows down chemical reaction between aluminum and the chemicals found in marine and industrial environments.

### Economical and Attractive

Aluminum offers an economical, attractive, natural finish that is forever free of destructive rust. The surface can be changed materially by mechanical finishing and embossing, etching and electroplating. Anodizing increases corrosion resistance and permits iridescent finishes in a wide range of colors.

### Lightweight

Aluminum weighs only one-third as much as most other product metals, making it the logical material for products that must be lifted, mounted or transported. Aluminum has higher conductivity per pound than any other metal. The heat transfer efficiency of aluminum is particularly important in applications for the process industries.

### Converting from Steel to Aluminum

To help determine aluminum requirements for your next project, use the conversion table below. This table shows theoretical aluminum gauge substitutions for given steel gauges. The data is calculated for flat panels and is based on equal strength, equal stiffness, or equal dent resistance. As with any substitution, we strongly urge that tests be conducted to verify a material selection. Since it is difficult to accommodate all of the design details in a calculation, these numbers are approximations.

Steel		Aluminum Equivalent			
Gauge	Thickness(in.)	Strength Thickness(in.)	Stiffness Thickness(in.)	Dent Resist Thickness(in.)	Recommended Equivalent Gauge
18	0.050	0.065	0.071	0.065	12
17	0.056	0.074	0.080	0.074	12
16	0.062	0.082	0.089	0.082	11
15	0.070	0.092	0.100	0.092	10
14	0.078	0.103	0.111	0.103	1/8"
13	0.093	0.123	0.134	0.123	3/16"
12	0.109	0.144	0.156	0.144	3/16"

### Aluminum Gauges and Thicknesses

Gauge	Thickness(in.)	Gauge	Thickness(in.)	Gauge	Thickness(in.)
24	= 0.020	16	= 0.050	10	= 0.100
22	= 0.025	14	= 0.063	1/8"	= 0.100
20	= 0.032	12	= 0.080	3/16"	= 0.100
18	= 0.040	11	= 0.090		



PEDESTAL MOUNT



WALL MOUNT



PAD MOUNT



POLE MOUNT

# Color Selection Chart

## STANDARD FINISH

This chart highlights our standard colors using a polyester powder. Baked enamel is available on most colors, and we can provide special paints and finishes upon request.

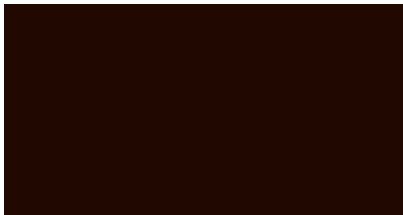
**When ordering, specify description and number.**

In preparation for painting, all parts are submerged in each tank of a three stage iron phosphate conversion technique. After phosphatizing, the parts are passed thru an infrared oven to eliminate any moisture.

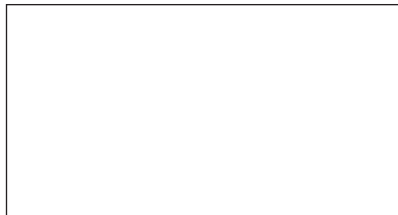
**NOTE:** Air dry paint may be required if enclosure is too large for our oven.

## SPECIAL COLORS

Custom colors can be matched by providing a paint chip or the Fed. Std. 595



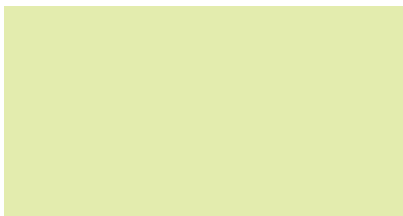
SEMI-GLOSS BLACK  
T - 42



WHITE  
T - 92



FLAT BLACK  
T - 43



SEAFOAM GREEN  
T - 16



HUNTER GREEN  
T - 10



FOREST GREEN  
T - 15



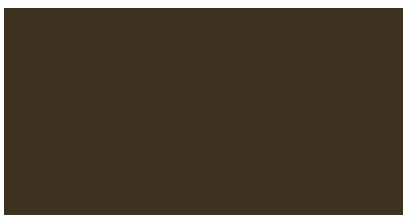
SILVER  
T - 91



ASA61 GRAY  
T - 24



FEDERAL YELLOW  
T - 31



BRONZE  
T - 71



ASA70 GRAY  
T - 23

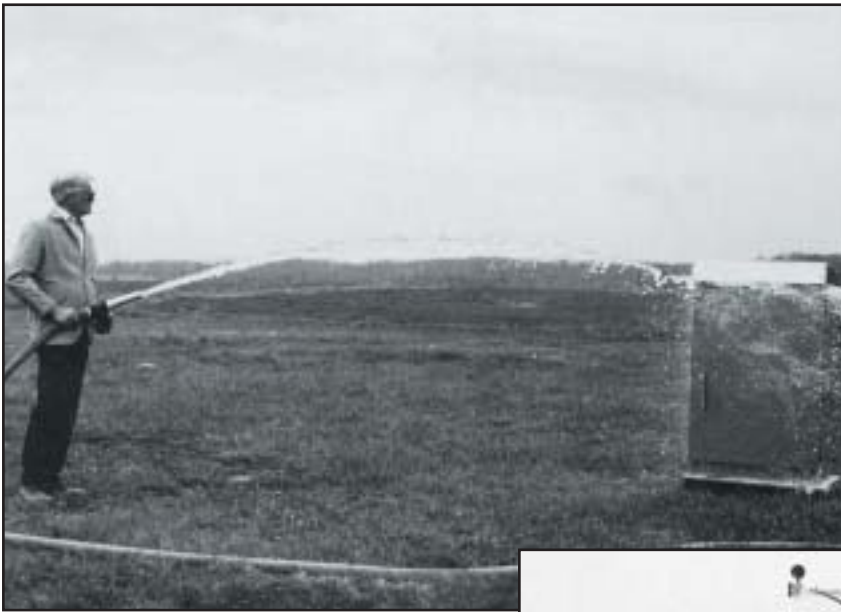


BELLCORE BEIGE  
T - 09

APX Technologies, Inc. standard enclosures are designed to meet or exceed U.L. listed NEMA 3R or 4X.

**NEMA 3R** - APX NEMA 3R enclosures far exceed industry standard 3R requirements. We start with an enclosure designed to meet NEMA 4X and add venting. Outdoor or harsh environments necessitate the use of aluminum and stainless steel to provide corrosion resistance. Corrosion resistant material, combined with the structural requirements of 4X, allow APX 3R enclosures to protect your equipment from severe weather, vandals and other conditions the 3R rating doesn't address. Example: U.L. doesn't require door gasketing on NEMA 3R. For many of the applications we encounter, gasketing is a must.

**NEMA 4X** - APX NEMA 4X enclosures break the old notion that screw clamps are required along three (3) sides of the enclosure to meet 4X. Our heavy duty three (3) point latch easily meets 4X U.L. requirements. For field service personnel and food industry requirements, the ease of access and minimal exposed parts offered by APX, three (3) point latching is desirable. Also, when closing the enclosure, simply rotating the handle assures 4X seal unlike fooling with eight (8) or more screw clamps. All APX three (3) point latching with handles are pad lockable for security. Since our 4X rating exceeds NEMA 4 and 12, we list NEMA 4 and NEMA 12 on some of our enclosure styles.



**U.L. NEMA 4X -  
Hose Down Test**



**U.L. NEMA 3R -  
Rain Test**

## 3-Point Latching

Constructed with extra thick aluminum and nylon rollers on the locking bar, this mechanism:

- eliminates screw clamps on NEMA 4, 4X enclosures
- provides maximum security and environmental protection
- provides smooth, easy operation



## 3/4" Solid Stainless Steel Padlockable Door Handle

- provides maximum strength and security
- resists corrosion
- provides NEMA 3R or 4X protection

## Double Flanged Door Openings

- prevents water and dirt entry
- protects against vandalism
- provides strength and rigidity
- maintains structural integrity of enclosure



## Door Restraint Bar

- prevents door swing while working or during high winds
- automatically engages on larger enclosures



## Switch Compartment With Removable Back Plate

Backplate can be replaced with clear lexan panel to allow viewing of internal equipment.

- allows limited access to and control of internal equipment



## Light/Alarm Switch Bracket (Removable)

- provides mounting for internal light, alarm or other device to be activated when

- Heavy Duty Continuous Hinge**  
Attached with 1/4" stainless steel captivated pin and stainless steel carriage bolts
- prevents door sagging
  - provides maximum security and corrosion resistance

