



# Instant Emcor® Catalog

www.crenlo.com/emcor | 507-287-3535





#### Our Commitment

Crenlo's objective is to define our customer's quality requirements, and to produce products and services that meet or exceed those expectations. Crenlo is committed to continuous improvement through education, process advancements and problem prevention.



#### Here is how it works:

We have selected our top selling componentes from two of our best selling product lines. Choose the components you need. We will paint it the color\* you want, and then we will assemble it for you. The best part is that it ships in just 3 days. Instant Emcor is the most flexible quick ship program in the industry.





## ESQ Product Line Pages 3-38

#### Frame Sizes Available

	-	
1 Widths	21.062" (	19" EIA Rack Width)
2 Depths	25.500" (2	25)
	30.750" (	30)
6 Heights	29.500" (	12U Usable Rack Space)
	36.500" (	16U Usable Rack Space)
	59.625" (3	30U Usable Rack Space)
	68.375" (3	35U Usable Rack Space)
	77.125" (4	40U Usable Rack Space)
	85.875" (4	45U Usable Rack Space)

\*Choose from one of Emcor's nine proprietary colors.

## 10 Series Product Line Pages 39-74

#### Frame Sizes Available

	1 Widths	22.562" (19" EIA Rack Width)
	3 Depths	26.312" (26)
		31.562" (31)
		36.875" (36)
	5 Heights	29.875" (15U Usable Rack Space)
		52.625" (28U Usable Rack Space)
		64.875" (35U Usable Rack Space)
		73.625" (40U Usable Rack Space)
~		82.375" (45U Usable Rack Space)

\*Choose from one of Emcor's nine proprietary colors.

### Overview

#### **Paint/Finish**

Our products are finished in textured powder paint. Powder coating provides a durable high-quality finish. Select from one of nine proprietary color options. Sample kits are available upon request.

#### Part Numbers

Color		
Antique White	TX-AWP	
Neutral	TX-NUP	Ÿ
Graystone	TX-GSP	
Caribbean Blue	TX-CRBP	
Fawn	TX-FNP	
Steel	TX-STP	
Putty	TX-PTP	
Black	ТХ-ВКР	
Hi-Tech Gray	TX-HTGP	

#### **Touch Up or Refinishing Paint**

We offer our proprietary paint colors, in a liquid air dry finish, in the following sizes: Pen,12oz. Aerosol Spray, Quart, Gallon.

art Numbers				
Color	Paint Pen	12oz. Aerosol Spray Can	Quart	Gallon
Antique White	PEN-AW	LAS-AW	LA-AW-Q	LA-AW-G
Neutral	PEN-NU	LAS-NU	LA-NU-Q	LA-NU-G
Graystone	PEN-GS	LAS-GS	LA-GS-Q	LA-GS-G
Caribbean Blue	PEN-CRB	LAS-CRB	LA-CRB-Q	LA-CRB-G
Fawn	PEN-FN	LAS-FN	LA-FN-Q	LA-FN-G
Steel	PEN-ST	LAS-ST	LA-ST-Q	LA-ST-G
Putty	PEN-PT	LAS-PT	LA-PT-Q	LA-PT-G
Black	PEN-BK	LAS-BK	LA-BK-Q	LA-BK-G
Hi-Tech Gray	PEN-HTG	LAS-HTG	LA-HTG-Q	LA-HTG-G

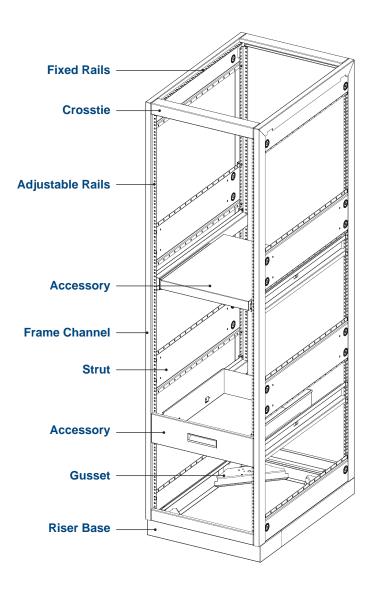
#### **Part Numbers**

## **ESQ Product Line**

#### 800 lb. Static Load Capacity

ESQ frames are fully welded and can handle 800 lbs. of equipment evenly distributed in the frame.

- 14-gauge steel Crosstie
- 14-gauge steel Frame Channel
- 14-gauge steel Riser Base (Pontoon Base)
- 11-gauge steel Mounting Rails
- 16-gauge steel Other Components



#### **All ESQ Frames Include**

- Hardware kit
- Riser Base (Pontoon Base)
- 2 pair EIA thru-hole adjustable mounting rails

#### Hardware Kit Components

Frame Joining Hardware



### Extra Panel Mounting Hardware Quantities vary by Frame type.



Additional hardware may be purchased by contacting the factory.

#### **Engineering Drawings**

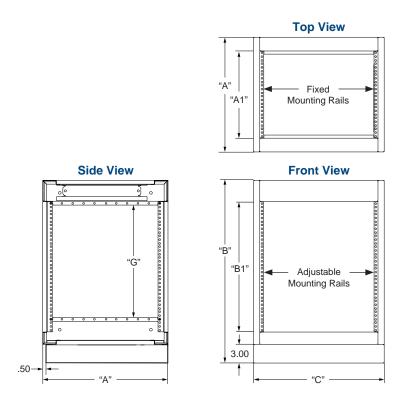
The dimensional drawings that are shown on the following pages are for reference only. Detailed engineering drawings are available upon request.

#### **12U Vertical Frames**

These vertical frames allow for mounting of standard EIA electronic components. They can be used as a stand alone frame or joined together in a row (joining hardware included). The 3" riser base is included and comes bolted to the frame. Accessories such as shelves, drawers, power, and cable managers can be added per application requirements.

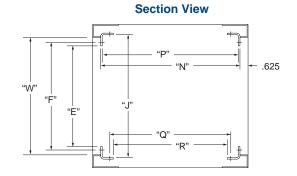
#### Part Numbers

19" EIA Rack Width									
	"C"	"A" "A1"			"B"	"B1"			
	Overall	Overall	Top/Bottom		Overall	Usable		Struts	"G"
	Width	Depth	Opening		Height	Height			
ICSFR-105A	21.062	25.500	21.000	12U	29.500	21.000	12U	2	18.156



#### **Section View Dimensions**

	"W"	"F"	"E"	"J"	"P"	"N"	"Q'	"R"
25.50" Overall Depth					24.010	24.250	22.836	22.286
19" EIA Width	19.062	18.310	17.760	19.484				

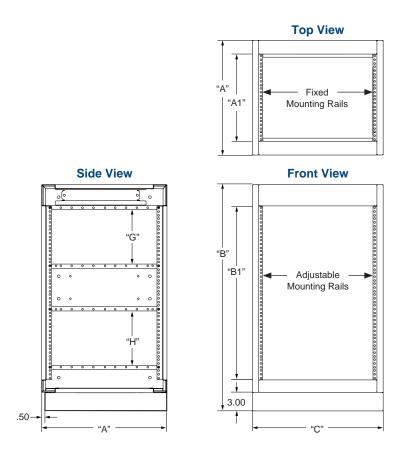


#### **16U Vertical Frames**

These vertical frames allow for mounting of standard EIA electronic components. They can be used as a stand alone frame or joined together in a row (joining hardware included). The 3" riser base is included and comes bolted to the frame. Accessories such as shelves, drawers, power, and cable managers can be added per application requirements.

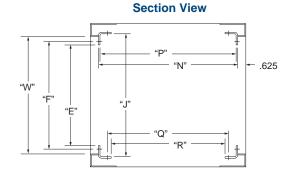
#### Part Numbers

19" EIA Rack Width										
	"C"		"A1"		"B"	"B1"				
	Overall Width	Overall Depth	Top/Bottom Opening		Overall Height	Usable Height		Struts	"G"	"H"
ICSFR-115A	21.062	25.500	21.000	12U	36.500	28.000	16U	3	8.188	8.781



#### **Section View Dimensions**

	"W"	"F"	"E"	"J"	"P"	"N"	"Q'	"R"
25.50" Overall Depth					24.010	24.250	22.836	22.286
19" EIA Width	19.062	18.310	17.760	19.484				



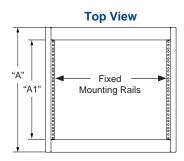
#### **30U Vertical Frames**

These vertical frames allow for mounting of standard EIA electronic components. They can be used as a stand alone frame or joined together in a row (joining hardware included). The 3" riser base is included and comes bolted to the frame. Accessories such as shelves, drawers, power, cable managers, or even a work surface can be added per application requirements.

.50

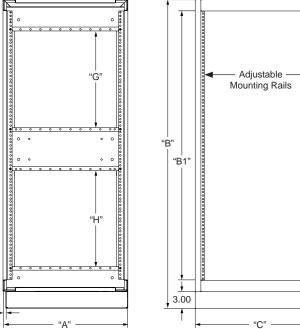
#### **Part Numbers**

19" EIA Rack Width										
	"C"		"A1"		"B"	"B1"				
	Overall	Overall	Top/Bottom		Overall	Usable		Struts	"G"	"H"
	Width	Depth	Openi	Opening		Height				
ICSFR-725A	21.062	30.750	26.250	15U	59.625	52.500	30U	3	18.688	20.438

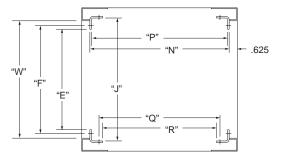








#### **Section View**



#### **Section View Dimensions**

	"W"	"F"	"E"	"J"	"P"	"N"	"Q'	"R"
30.75" Overall Depth					29.260	29.500	28.086	27.536
19" EIA Width	19.062	18.310	17.760	19.484				

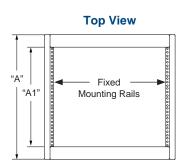
#### 35U, 40U, 45U Vertical Frames

These vertical frames allow for mounting of standard EIA electronic components. They can be used as a stand alone frame or joined together in a row (joining hardware included). The 3" riser base is included and comes bolted to the frame. Accessories such as shelves, drawers, power, cable managers, or even a work surface can be added per application requirements.

#### **Part Numbers**

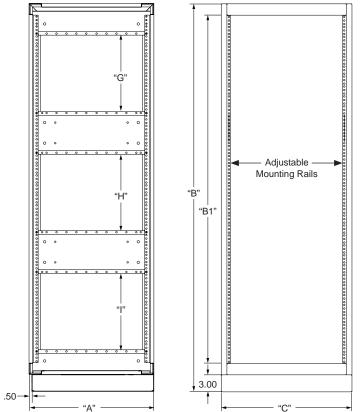
19"	EIA	Rack	Width	
-----	-----	------	-------	--

	"C" Overall Width	"A" Overall Depth	"A1' Top/Bot Openi	ttom	"B" Overall Height	"B1" Usable Height		Struts	"G"	"H"	"["
ICSFR-726A	21.062	30.750	26.250	15U	68.375	61.250	35U	4	13.438	13.438	13.438
ICSFR-727A	21.062	30.750	26.250	15U	77.125	70.000	40U	4	16.938	15.188	16.938
ICSFR-728A	21.062	30.750	26.250	15U	85.875	78.750	45U	4	18.688	20.438	16.685



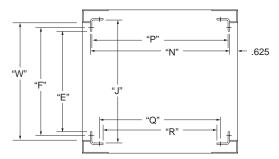
Side View





**Section View** 

Section View Dimensions										
	"W"	"F"	"E"	"J"	"P"	"N"	"Q'	"R"		
30.75" Overall Depth					29.260	29.500	28.086	27.536		
19" EIA Width	19.062	18.310	17.760	19.484						

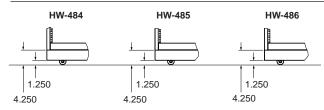


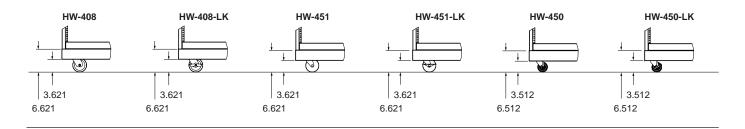
#### Casters

A variety of casters with different weight load capacities are available. All casters must be used in conjunction with the riser base.

		Swivel Style	Rigid Style	Locking	Non-Locking	Single Wheel	Dual Wheel			
	Load Rating			Caste	r Style			Description	Sold As	Where Used
Part Number HW-484	75 lbs. per caster	x			x	x		2" Soft Rubber	Set (4)	Directly on Riser Base (pontoon base) Only
Part Number	75 lbs. per caster	x			x	x		2" Polypropylene	Set (4)	Directly on Riser Base (pontoon base) Only
Part Number	180 lbs. per caster	x			x		x	2" Hard Rubber	Set (4)	Directly on Riser Base (pontoon base) Only
Part Number HW-408	200 lbs. per caster	x			x	x		4" Soft Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-408-LK	200 lbs. per caster	x		x		x		4" Soft Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-451	375 lbs. per caster	x			x	x		4" Hard Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-451-LK	375 lbs. per caster	x		x		x		4" Hard Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number	350 lbs. per caster	x			x	x		3" Polypropylene	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-450-LK	350 lbs. per caster	x		x		x		3" Polypropylene	Each (1)	Directly on Riser Base (pontoon base) Only

#### Height added when mounted to the Riser Base.





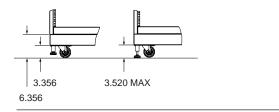
#### **Caster/Leveler Combination Kits**

Caster/Leveler Combination kits **must be** used in conjunction with the riser base. The kits include the levelers. The casters are sold separately, choose from locking or non-locking casters.

Leveler Kits - Caster Combo		Description							Sold As	Where Used
Part Number       UPLK-01	Leveler Kit - Casters Optional Includes Leveling Legs: HW-405 Casters Sold Separately: HW-450 or HW-450-LK						Set (4)	Directly on Riser Base (pontoon base) Only		
<b>Optional Casters</b>	Load Rating	Load Rating Caster Style Description					Sold As	Where Used		
Part Number HW-450	350 lbs. per caster	x			x	x		3" Polypropylene	Each (1)	In Conjunction with UPLK-01 Leveler Kit
Part Number HW-450-LK	350 lbs. per caster	x		x		x		3" Polypropylene	Each (1)	In Conjunction with UPLK-01 Leveler Kit
		Swivel Style	Rigid Style	Locking	Non-Locking	Single Wheel	Dual Wheel		·	

#### Height added when mounted to the Riser Base.

UPLK-01 (shown w/ caster)



#### Leveler Kit - Levelers Only

Leveling legs help stabilize an enclosrue. Leveler kits **must be** used conjunction with the riser base. The kits inlcude the levelling leg and all mounting hardware.

Leveler Kits - Leveler Only	Description	Sold As	Where Used
Part Number     Image: ALDX-XXX-180019	Leveler Kit - Levelers Only Includes Leveling Legs: HW-405	Set (4)	Directly on Riser Base (pontoon base) Only

#### Height added when mounted to the Riser Base.

ALDX-XXX-180019



1.000 MAX

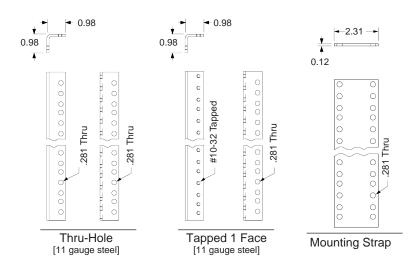
#### **Mounting Rails**

All ESQ<sup>®</sup> frames include 2 pair (4 total) of thru-hole EIA compliant mounting rails with rack unit markings. The rails are processed to specification ASTM-B633 which calls for electrodeposited zinc plating with a clear chromate conversion coating. Optional tapped rails with .281" diameter thru holes on one leg of the mounting rail, and .159" diameter tapped holes (10-32 NF2) on the other leg are available.

#### **Mounting Straps**

Mounting straps are used when there is a mix of differnt depth accessories in a frame. Straps allow full depth items that require a rear attach point to pass by the strap and attach to the rail behid it. The straps are processed to specification ASTM-B633 which calls for electrodeposited zinc plating with a clear chromate conversion coating and include rack unit markings. Only accessories that are side mount style can be mounted to a strap.

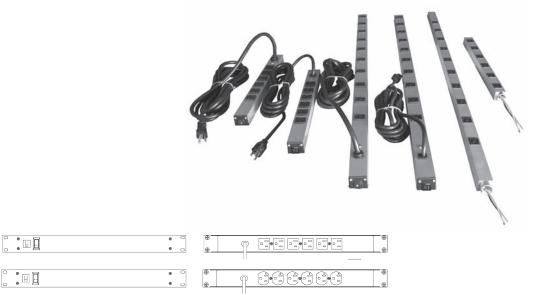
#### **Part Numbers** Use in Frames Thru-Hole Tapped 1 Mounting Strap with this Usable Height For use in Vertical Frames. PMA-21A PMA-21A-1032-1 **MS-21** 12U 21.000 PMA-28A 16U PMA-28A-1032-1 MS-28 28.000 PMA-52A PMA-52A-1032-1 **MS-52** 52.500 30U PMA-61A PMA-61A-1032-1 **MS-61** 61.250 35U PMA-70A PMA-70A-1032-1 **MS-70** 70.000 40U PMA-78A PMA-78A-1032-1 **MS-78** 78.750 45U Additional heights available. PMA-19A PMA-19A-1032-1 **MS-19** 19.250 11U PMA-24A PMA-24A-1032-1 **MS-24** 24.500 14U PMA-35A PMA-35A-1032-1 N/A 20U 35.000 PMA-40A N/A N/A 40.250 23U PMA-42A N/A **MS-42** 24U 42.000 PMA-43A PMA-43A-1032-1 MS-43 43.750 25U PMA-45A N/A N/A 45.500 26U N/A N/A PMA-49A 49.000 28U



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### ESQ Power

Available in a range of power capacities and configurations, basic PDUs provide reliable power distribution. They are the best value for simple power distribution in server cabinets and data centers.

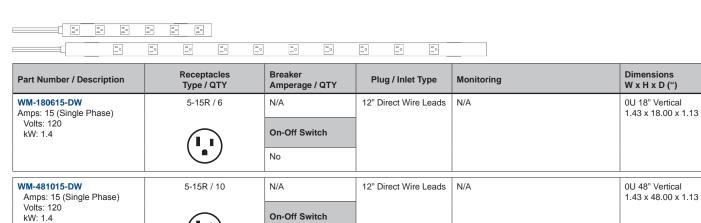


Front View

Rear View

Part Number / Description	Receptacles Type / QTY	Breaker Amperage / QTY	Plug / Inlet Type	Monitoring	Dimensions W x H x D (")
PDU-615R-PC Amps: 15 (Single Phase) Volts: 120 kW: 1.4	5-15R / 6 (on rear)	15 / 1 On-Off Switch Yes	5-15P Straight-Blade 15' Cord	N/A	1U 19" Horizontal 19.00 x 1.75 x 2.57
PDU-620R-PC Amps: 20 (Single Phase) Volts: 120 kW: 1.4	5-20R / 6 (on rear)	20 / 1 On-Off Switch Yes	5-20P Straight Blade 15' Cord	N/A	1U 19" Horizontal 19.00 x 1.75 x 2.57

Includes mounting hardware.



Includes Spring Clips and mounting hardware.

•

No

Part Number / Description	Receptacles Type / QTY	Breaker Amperage / QTY	Plug / Inlet Type	Monitoring	Dimensions W x H x D (")
WM-180615-PC Amps: 15 (Single Phase) Volts: 120 kW: 1.4	5-15R / 6	15 / 1 On-Off Switch No	5-15P Straight-Blade 15' Cord	N/A	0U 18" Vertical 1.62 x 18.00 x 1.21
WM-180620-PC Amps: 20 (Single Phase) Volts: 120 kW: 1.4	5-20R / 6	20 / 1 On-Off Switch No	5-20P Straight Blade 15' Cord	N/A	0U 18" Vertical 1.62 x 18.00 x 1.21

Includes Spring Clips and mounting hardware.

Ω°		<b>1</b> 0	<b>.</b> a	20		<b>1</b> 0		<b>_</b> 0	<b>.</b>	
	-	-0	-		<b>-</b>	<b>1</b>	- 0	<b>-</b>		
	2	r	2 <sup>°</sup>	7	2°	<b>P</b> °	<b>P</b> <sup>2</sup>	r'	<u>r</u> °	<u> </u>

Part Number / Description	Receptacles Type / QTY	Breaker Amperage / QTY	Plug / Inlet Type	Monitoring	Dimensions W x H x D (")
WM-481015-PC Amps: 15 (Single Phase) Volts: 120 kW: 1.4	5-15R / 10	15 / 1 On-Off Switch	5-15P Straight-Blade 15' Cord	N/A	0U 48" Vertical 1.62 x 48.00 x 1.21
WM-481020-PC Amps: 20 (Single Phase)	5-20R / 10	20 / 1	5-20P Straight Blade 15' Cord	N/A	0U 48" Vertical 1.62 x 48.00 x 1.21
Volts: 120 kW: 1.4		On-Off Switch			
WM-482430-PC Amps: 30 (Single Phase) Volts: 120	5-20R / 24	15/2	L5-30P Locking 12' Cord	N/A	0U 48" Vertical 1.50 x 48.00 x 2.87
kW: 1.4		On-Off Switch			

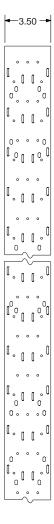
Includes Spring Clips and mounting hardware.

#### 3.5" Wide Vertical Lacing Panel

Material: Aluminum

Accepts accessory style B. Slots allow Velcro or other cable straps to neatly

organize cable bundles.



Part Numbers	i				
	with th	Use in frames with this usable height			
WMP-21	21.000	12U			
WMP-28	28.000	16U			
WMP-52	52.500	30U			
WMP-61	61.250	35U			
WMP-70	70.000	40U			
WMP-78	78.750	45U			

#### Cable Management Accessories Style B: Screws in with self tapping screws

The following accessories are for use in conjunction with the overhead, vertical and horizontal cable management products.

Cable Ring
Part Number
DCR-2375

QTY: 1







Velcro Cable Ties w/ Bracket

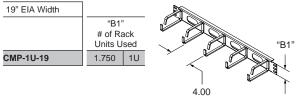
Part Number DVS-11 QTY: 10



#### Cable Organizer with 5 D Rings

A simple and convenient method of organizing cabling.

#### Part Number

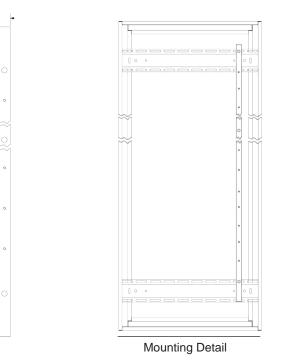


#### **Bus Bars**

Insulated copper bus bars which attach to the top flange of the upper and lower frame struts. The bus bar is supplied with #10-32 tapped holes on 3.5" centers. **Only full height bus bars will mount to frames. Short height bus bars will not align with frame mounting struts.** 

1.00

Part Numbers									
	with th	Use in Frames with this Usable Height							
BB-21	21.000	12U							
BB-28	28.000	16U							
BB-52	52.500	30U							
BB-61	61.250	35U							
BB-70	70.000	40U							
BB-78	78.750	45U							

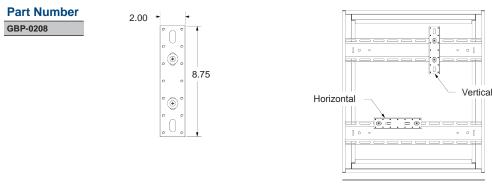


#### Note

When equipment support items such as shelving or drawers are being mounted in the same frame as a bus bar, the items must be ordered short depth.

#### **Ground Bus Plate**

Ground bus plates provide equipment grounding capabilities that are unique when compared to the full length bus bars. The copper ground bus plate provides fourteen (14) #10-32 tapped grounding points and mounts directly to the frame strut in a vertical or horizontal position. The designed-in mounting flexibility allows for attachment of the ground bus plate in locations that are much less likely to interfere with full depth internal frame equipment and accessories such as mounting brackets, equipment shelves, chassis guides and others.



Mounting Detail

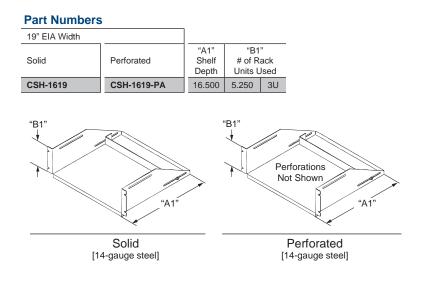
#### **Light Duty Shelf**

Light Duty shelves provide an easy method of storing non-rack mount style equipment in a frame. The shelf attaches to the front flange of the mounting rails and require no rear attachment point. An adjustable backstop is provided for alignment.

• Load capacity: 50-lbs. evenly distributed.

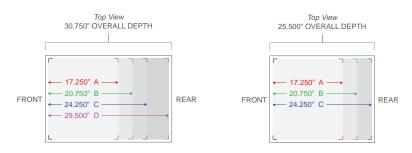
#### Note

The bottom flange of this shelf intrudes .750" on the rack space below. Items that take up internal space cannot be mounted directly below this shelf.



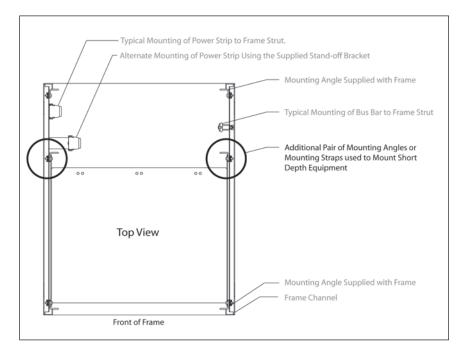
#### **Rail to Rail Settings**

The rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used. The following images indicate standard rail loctions that will allow Emcor components to be properly positioned based on frame depth.



#### **Short Depth Equipment**

When using full height items that mount to the rear mounting rails with other internal components such as fixed equipment shelves, chassis guides, work surface drawers, pull out shelves, and work surface hardware, these items must be ordered in a shorter depth so as not to interfere with the full height item. In most cases an extra pair of mounting rails or straps will need to be ordered to facilitate mounting of the shorter depth items. Refer to the example below.



#### Example

A customer requests a frame that has a 19" panel width, a depth of 30.75" and 40U of usable rack space. (ICSFR-727A) The customer requires a power strip and a bus bar, as well as a pull out shelf in the enclosure. What do you do?

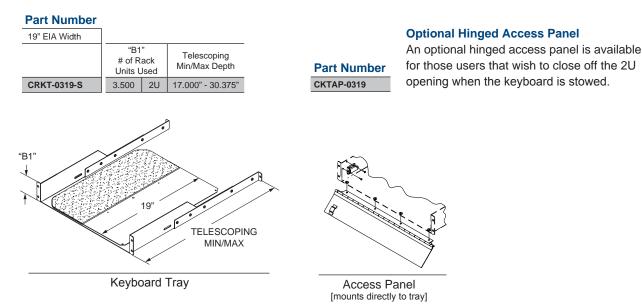
Simply order a shorter depth shelf and an extra pair of mounting rails or straps.

In this case you would order:

- CCSA-25C solid pull out shelf
- MS-70 extra pair of mounting straps

#### **Retractable Keyboard Tray**

Retractable keyboard trays provide the flexibility to incorporate a full size keyboard within a 19" EIA width frame. The keyboard tray is housed within the enclosure in a "front-to-rear" orientation. To access the keyboard, simply pull the tray outward until it locks into the open position. The keyboard tray can then be rotated 90° and affixed into position for operator use. A low profile mouse pad is incorporated onto the front of the tray across its entire width. In order to stow the keyboard back into the enclosure, rotate the tray 90°, unlatch the locking slide, and retract the tray back into the frame.



#### Rail to Rail Settings (mounts to rails only)

This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be to double check that the telescoping Max/Min depth is within the constraints of your rail settings.



#### **Chassis Guides**

Chassis guides (sold as pairs) are used to support heavy equipment by means of angular steel support members, leaving the bottom of the mounted equipment exposed for cooling or servicing. Chassis guides are mounted flange side down, unless otherwise specified.

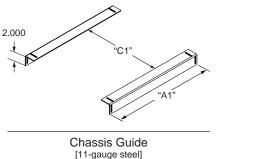
· Load capacity: 200-lbs. evenly distributed.

#### Note

Due to the thickness of the material, chassis guides interefere .125" on both the rack space above and below where this item is mounted. Items that take up internal space cannot be mounted directly above or below chassis guides.

#### **Part Numbers**

	"A1" Chassis Guide Depth	# of Ra Units U		Fits w/ this Rail to Rail Setting	"C1" 19" EIA Width
CCGS-22A	20.062	1.750	1U	B 20.750"	15.406
CCGS-25A	23.562	1.750	1U	C 24.250"	15.406
CCGS-31A	28.812	1.750	1U	D 29.500"	15.406



"C1" Distance Between Chassis Guides

#### Rail to Rail Settings (mounts to rails or straps - not square hole rails)

This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be sure to select the proper part number based on the rail settings. The following image indicates standard rail loctions that will allow this item to be properly positioned.



1.5" x 8.0"

#### **Heavy Duty Shelves**

Heavy duty shelves are designed to fit anywhere within the usable rack space of an enclosure to house non-rack mounted equipment.

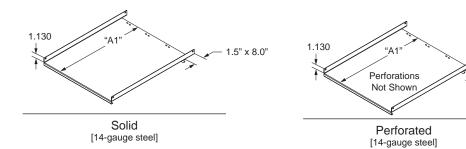
- Solid style load capacity: 350-lbs. evenly distributed.
- · Perforated style load capacity: 200-lbs. evenly distributed.

#### Note

Part Numbers

The bottom flange of this shelf intrudes .613" on the rack space below. Items that take up internal space cannot be mounted directly below this shelf.

19" EIA Width						
Solid	Perforated	"A1" Shelf Depth	# of Rack Units Used		Fits w/ this Rail to Rail Setting	
CSH-22A	CSH-22A-PA	18.375	1.750	1U	B 20.750"	
CSH-25A	CSH-25A-PA	21.875	1.750	1U	C 24.250"	
CSH-31A	CSH-31A-PA	27.125	1.750	1U	D 29.500"	





This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be sure to select the proper part number based on the rail settings. The following image indicates standard rail loctions that will allow this item to be properly positioned.



#### **2U Sliding Shelves**

Sliding, or Pull-out shelves make it possible to slide equipment in and out of the enclosure for fast, easy accessibility. Heavy-duty ball bearing slides allow for ease of movement and have a quick disconnect feature. Upon request, the shelf can be flipped over and used as a tray if desired (1.625" thick)

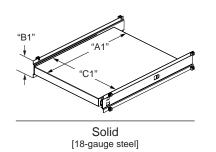
- Load capacity: 90-lbs. evenly distributed.
- Shelf extension: 17" from front of the enclosure.

#### Part Numbers

CCSXQ-31

19" EIA Width						
	"A1"	"C1"	"B1"		Fits w/ this	
Solid	Shelf	Shelf	# of Rack		Rail to Rail	
	Depth	Width	Units Used		Setting	
CCSXQ-22	20.250	16.320	3.500	2U	B 20.750"	
CCSXQ-25	20.250	16.320	3.500	2U	C 24.250"	

20.250 16.320 3.500 2U



#### Rail to Rail Settings (mounts to rails or straps - not square hole rails)

D 29.500"

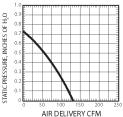
This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be sure to select the proper part number based on the rail settings. The following image indicates standard rail loctions that will allow this item to be properly positioned.



#### **Packaged Blowers**

Packaged blowers have been designed to effectively cool critical electronic components within an enclosure by means of clean positive air pressure.

- 115 Volt AC power.
- · Permanent washable filter which can be serviced without removing the blower from the rack.
- Operating temperature range: 20°F to 250°F.
- · Fan Motors are UL component recognized; CSA certified.
- · Motor: Shaded-pole, rust resistant shaft, double shielded ball bearings and permanently lubricated.
- · Supplied with a 72" power cord with a NEMA 5-15P plug.



STATIC PRESSURE, INCHES OF H<sub>3</sub>O

STATIC PRESSURE, INCHES OF H<sub>5</sub>O

0

**Part Number** 

Part Number

BL-290EG

BL-125EG									
CFM	RPM	AM	AMPS		NC**	"A" Blower	"B1" # of Rack		
		RUN	L.R.*	WATTS	NC."	Depth	Units U		
125	3000	0.9	1.2	70	50	9.031	5.250	3U	
Deplecement filter part number <b>FLOE40</b>									

WATTS

125

NC\*\*

60

AMPS

L.R.\*

2.5

RUN

1.8

Replacement filter part number FI-0519



"B1"

# of Rack

Units Used

5.250 3U

J

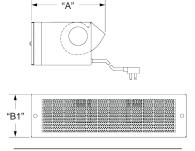
"A"

Blower

Depth

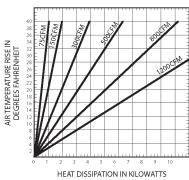
9.031

Weight 14.25 lbs.



Blower Detail





BL-300E	BL-300EG										
CFM	RPM	AM	IPS	WATTO	NC**	"A" Blower	"B1' # of Ra				
		RUN	L.R.*	WATTS		Depth	Units U				
300	1550	1.2	1.6	95	50	10.188	7.000	4U			

Replacement filter part number FI-0719

Weight 18.00 lbs.

### Part Number

	BL-350E	G							
	CFM	RPM	AMPS		WATTE	NC**	"A"	"B1"	
			RUN	L.R.*	WATTS	NC**	Blower Depth	# of Rack Units Used	
	350	3100	1.8	4	200	65	10.219	7.000	4U
	Replacement filter part number FI-0719 Weight 18.50 lbs								

Replacement filter part number FI-0719



BL-500EG											
CFM	RPM	AM	PS	WATTS	NC**	"A"	"B1" # of Rack Units Used				
		RUN	L.R.*	WAIIS		Blower Depth					
500	1700	1.6	3.5	140	55	11.563	8.750	5U			
Replacement filter part number FI-0819 Weight 24.50 lbs.											

AIR DELIVERY CFM

\* Locked Rotor \*\*Noise Criteria Air delivery based on operating at 115 volts, 60 HZ, single phase power.

### CFM RPM 290 3050 Replacement filter part number FI-0519 AIR DELIVERY CFM Part Number





AIR DELIVERY CFM

### ESQ Fan Trays

#### Fan Trays

Fan trays mount to the front flange of the mounting rails and are primarily used for spot cooling within a frame.

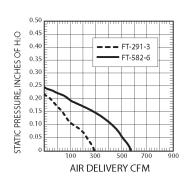
- 115 Volt AC power.
- Fan Motors are UL component recognized; CSA certified.
- Exhaust guards on the top and bottom.
- Field adjustable filler strips to prevent the recirculation of air.
- Rear support brackets.
- Supplied with a 72" power cord with a NEMA 5-15P plug.

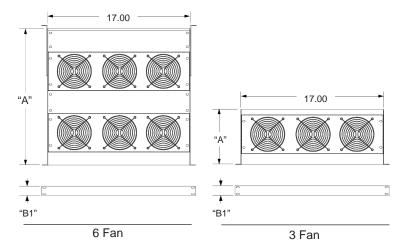
#### **Part Numbers**

19" EIA Width

	# of	CFM	Speed	Am	nps	Volts	Watts	dBA	"A" Fan Trav	"B1' # of Ra		Rear Support Bracket	
	Fans	CFIVI	Speed	RUN	L.R.*	VOIIS	Walls	UDA	Depth	Units Used		Max Depth	
FT-291-3	3	291	3225	0.48	0.72	115	39.9	58	8.000	1.75	1U	-	
FT-582-6	6	582	3225	0.96	1.44	115	79.8	60	18.750	1.75	1U	26.00"	
FT-873-9	Nine (9) fan, 873 CFM fan tray units are available. Contact the factory for pricing and availability.												

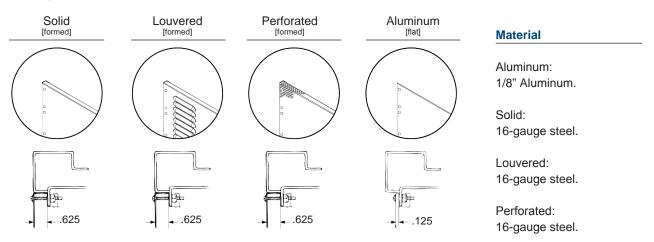
\*Locked Rotor Air delivery based on operating at 115 volts, 60 HZ, single phase power.





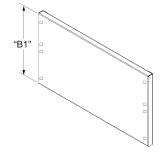
#### **Filler Panels**

Available in 4 different styles, filler panels are designed to close off all, or portions of, the top, bottom, front, rear, and slope opening areas of the frame.



#### **Part Numbers**

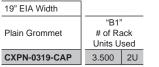
Solid	Louvered	Perforated	Aluminum	"B1" # of Rack Units Used	
CXPN-0119	N/A	N/A	CXPN-0119-A	1.750	1U
CXPN-0319	N/A	N/A	CXPN-0319-A	3.500	2U
CXPN-0519	CXPN-0519-LV	N/A	CXPN-0519-A	5.250	3U
CXPN-0719	CXPN-0719-LV	N/A	CXPN-0719-A	7.000	4U
CXPN-0819	CXPN-0819-LV	N/A	CXPN-0819-A	8.750	5U
CXPN-1019	CXPN-1019-LV	N/A	CXPN-1019-A	10.500	6U
CXPN-1219	CXPN-1219-LV	N/A	CXPN-1219-A	12.250	7U
CXPN-1419	CXPN-1419-LV	CXPN-1419-PA	CXPN-1419-A	14.000	8U
CXPN-1519	CXPN-1519-LV	N/A	CXPN-1519-A	15.750	9U
CXPN-1719	CXPN-1719-LV	N/A	CXPN-1719-A	17.500	10U
CXPN-1919	CXPN-1919-LV	N/A	CXPN-1919-A	19.250	11U
CXPN-2119	CXPN-2119-LV	CXPN-2119-PA	CXPN-2119-A	21.000	12U
CXPN-2219	CXPN-2219-LV	CXPN-2219-PA	CXPN-2219-A	22.750	13U
CXPN-2419	CXPN-2419-LV	N/A	N/A	24.500	14U
CXPN-2619	CXPN-2619-LV	CXPN-2619-PA	N/A	26.250	15U
CXPN-2819	CXPN-2819-LV	CXPN-2819-PA	N/A	28.000	16U
CXPN-3319	CXPN-3319-LV	CXPN-3319-PA	N/A	33.250	19U

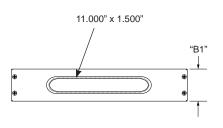


#### **Cable Pass Through Panels**

Cable pass throughs can be mounted in the front, rear, top, or bottom opening of a frame allowing cables to enter and exit the cabinet in an organized fashion.

#### **Part Numbers**





Plain grommet material is available. Sold by the foot.

Part Number

GMT-0012

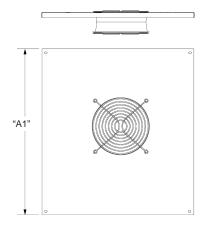
2U Plain Grommet



#### Single Fan Panel

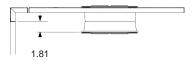
Single Fan Panels are designed to mount in the top panel opening of a frame. The life expectancy of the fan @  $104^{\circ}$ F is 60,000 hours.

- 550 CFM, 60 HZ, 55 dBA.
- 115 Volt AC power, 35 Watts.
- Fan Motors are UL component recognized; CSA certified.
- 10" diameter fan size with 2 finger guards.
- Operating temperature range: -22°F to +140°F.
- The fan has a Feathered Edge<sup>™</sup> blade for better noise control.
- Supplied with a 72" 18/3 SJ power cord with a NEMA 5-15P plug.



Dort	Num	hore
raii	NUIII	Del 2

19" EIA Width			
	"A1" Panel Depth		
CXPN-2119-FP	21.000	12U	
CXPN-2219-FP	22.750	13U	
CXPN-2619-FP	26.250	15U	
CXPN-2819-FP	28.000	16U	
CXPN-3319-FP	33.250	19U	



**Note**: When mounted as a top panel, the fan housing assembly extends into the frame opening by 1.81".

### **Dual Fan Panel**

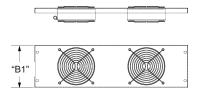
Dual Fan Panels are designed to mount in the front or rear panel openings and are primarily used for spot cooling.

- 102 CFM per fan (204 total), 20 watts per fan, 50/60 HZ, 43 dBA.
- 115 Volt AC power.
- Fan Motors are UL component recognized; CSA certified.
- Fan size: 4.625" square x 1.5" deep.
- Operating temperature range: -4°F to +158°F.
- Supplied with a 72" 18/3 SJT power cord with a NEMA 5-15P plug.

#### **Part Numbers**

#### 19" EIA Width

	# of R	"B1" # of Rack Units Used		
CXPN-0519-FP-2E	5.250	3U	Exhaust	
CXPN-0519-FP-2I	5.250	3U	Intake	



#### Vent Grille

Aluminum vent grilles provide an effective means to fulfill your venting requirements.

### Part Numbers

19" EIA Width			
	"B1" # of Ra Units U	ack	% Opening
AVGX-XXX-000319	3.500	2U	45.0
AVGX-XXX-000519	5.250	3U	50.0
AVGX-XXX-000719	7.000	4U	52.5
AVGX-XXX-000819	8.750	5U	54.0

"B1"	0		0	

#### Vent Panel

Steel vent panels provide an effective means to fulfill your venting requirements.

#### Part Numbers

19" EIA Width			
	"B1' # of Ra Units U	ack	% Opening
CXPN-0319-VP	3.500	2U	33.8

"B1"
------

#### Filter

These filters mount behind aluminum vent grilles, providing protection of airborne particles. Filters are washable and permanent.

#### Part Numbers

19" EIA Width			
	"B1" # of Rack Units Used		% Opening
ARFA-XXX-000319	3.500	2U	47.2
ARFA-XXX-000519	5.250	3U	52.5
ARFA-XXX-000719	7.000	4U	55.1
ARFA-XXX-000819	8.750	5U	56.6

	<sup>-π</sup> τ	<sup>®</sup>
1	• \////////////////////////////////////	•
"B1"		
+	• <i>Siddiddiddiddid</i>	



#### Flush Mount Doors

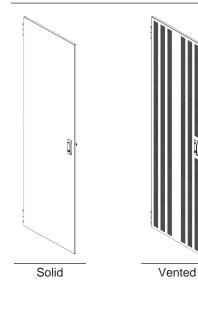
Flush mount doors fit into the vertical panel opening of the frame. The doors utilize the mounting rails for an attachment point. Lift-off hinges, in a stylish black finish, allow for quick removal. The low-profile single point lockable handle provides the security your system may need.

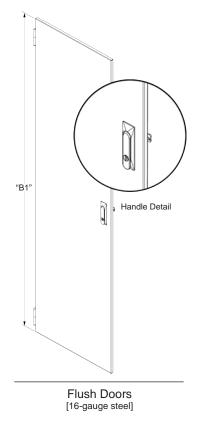
**Note** Flush doors mount to the front flange of the mounting rails and can fill all or portions of the usable space in the front or rear of a frame. Be aware of possible intereference if other rack mount equipment that utilizes the front flage of the rail is used in conjuction with flush mount doors.

#### How to configure the door part number. Example: ICDF-HSL-7024

PREFIX	STYLE	HINGE SIDE	HEIGHT (FILLS THE OPENING)	WIDTH (EIA SPACING)
ICDF-H	S (Solid)	L (Left Hinge)	<b>— 78</b> (45U)	19
	V (Vented)	R (Right Hinge)	<b>—70</b> (40U)	
			<b>-61</b> (35U)	
			<b>-52</b> (30U)	
			<b>49</b> (28U)	
			<b>—28</b> (16U)	
			<b>—26</b> (15U)	
			<b>—–24</b> (14U)	

#### **Door Styles Available**





#### Part Numbers

19" EIA Width		
[1] Block Indicate: [S] = Solid		
[V] = Vented	"B1 # of R	
[2] Block Indicate:	Units	
[R] = Right Hinge [L] = Left Hinge		
Fills the entire opening on Vertical Frames.		
ICDF-H[1][2]-2119	21.000	12U
ICDF-H[1][2]-2819	28.000	16U
ICDF-H[1][2]-5219	52.500	30U
ICDF-H[1][2]-6119	61.250	35U
ICDF-H[1][2]-7019	70.000	40U
ICDF-H[1][2]-7819	78.750	45U
Additional heights available to fill portions of	the opening on Vertical Frame	s.
	26.250	4.51

5			
ICDF-H[1][2]-2619		26.250	15U
ICDF-H[1][2]-4919		49.000	28U



#### Surface Mount Doors

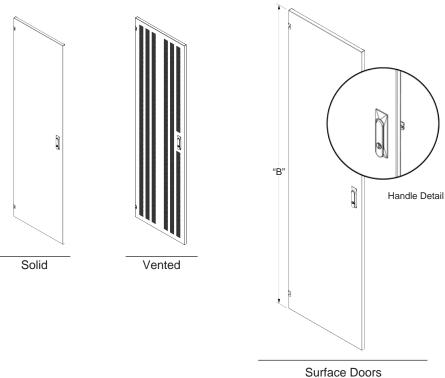
Surface mount doors cover the panel opening of the frame providing the space necessary to mount equipment and accessories behind the door panel. Available in four styles, the doors feature a low-profile lockable single point latch handle and stylized black hinges that allow for 120° of rotation. When mounted, these doors add 1.00" to the overall depth.

**Note** The frame must be drilled to accept surface doors, therefore door mounting location must be supplied at the time of order placement.

#### How to configure the door part number. Example: ICDS-XPR-6119

PREFIX	STYLE	HINGE SIDE	HEIGHT (COVERS THE OPENING)	WIDTH (EIA SPACING)
ICDS-E	S (Solid)	L (Left Hinge)	<b>—78</b> (45U)	19
	V (Vented)	R (Right Hinge)	<b>—70</b> (40U)	
			<b>—61</b> (35U)	
			<b>-52</b> (30U)	
			<b>—28</b> (16U)	
			<b>1</b> (12U)	

**Door Styles Available** 



[16-gauge steel]

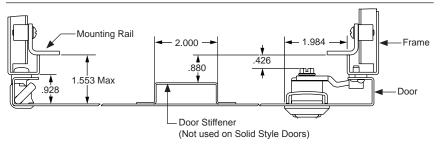
#### Part Numbers

19" EIA Width		
<ul> <li>[1] Block Indicate:</li> <li>[S] = Solid</li> <li>[V] = Vented</li> <li>[2] Block Indicate:</li> <li>[R] = Right Hinge</li> <li>[L] = Left Hinge</li> </ul>	"B" Overall Height	Covers opening in frames w/ this usable height

Covers the entire	opening on	Vertical Frames	5.

ICDS-E[1][2]-2119	23.469	covers	12U
ICDS-E[1][2]-2819	30.496	covers	16U
ICDS-E[1][2]-5219	55.875	covers	30U
ICDS-E[1][2]-6119	64.625	covers	35U
ICDS-E[1][2]-7019	73.375	covers	40U
ICDS-E[1][2]-7819	82.125	covers	45U

#### **Section View**

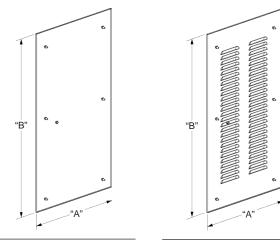


#### Side Panels

**Formed Inside Removable** These side panels are for those applications where side access is limited and permanent fastening is needed. Choose from solid or louvered styles.

#### **Vertical Frame Part Numbers**

Formed Inside Removable Solid	Formed Inside Removable Louvered	"A" Overall Depth	"B" Overall Height	Use w/ Frames w/ this Overall Depth	Use w/ Frames w/ this Usable Height	
ICSSP-105A	ICSSP-105A-LV	25.125	26.375	25.500	21.000	12U
ICSSP-115A	ICSSP-115A-LV	25.125	33.375	25.500	28.000	16U
ICSSP-725A	ICSSP-725A-LV	30.375	56.437	30.750	52.500	30U
ICSSP-726A	ICSSP-726A-LV	30.375	65.187	30.750	61.250	35U
ICSSP-727A	ICSSP-727A-LV	30.375	73.937	30.750	70.000	40U
ICSSP-728A	ICSSP-728A-LV	30.375	82.687	30.750	78.750	45U



Formed Inside Removable Solid [Adds .375" per side to width]



[Adds .375" per side to width]

		Part Number	Description	Where Used
	1	HW-092 (AHWX-092-003219)	#10-32 Clip Nut	Use when mounting 5/8" or 1/8" thick filler/closure panels or other rack-mountable equip- ment/electronics to thru hole mounting rails. Use with HW-103, HW-104, HW-303 or HW-304 panel screws.
quipment	C.	HW-104	#10-32 x .500" Panel Screw	Used when mounting 1/8" thick filer/closure panels or other rack-mountable equipment/elec- tronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
nd Other E		HW-304	#10-32 x .500" Panel Screw - Black	Used when mounting 1/8" thick filer/closure panels or other rack-mountable equipment/elec- tronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
tronics ar		HW-103	#10-32 x 1.125" Panel Screw	Used for mounting 5/8" formed filler/closure panels or other rack-mountable equipment/ electronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
Mounting Panels, Electronics and Other Equipment	G	HW-303	#10-32 x 1.125" Panel Screw - Black	Used for mounting 5/8" formed filler/closure panels or other rack-mountable equipment/ electronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
Mounting	HW-110 #10 se "A" thre		#10 self-tapping screw "A" threads.	Used for mounting laminated filler/closure panels.
		HW-1032	#10-32 Panel Stand-off	Used for mounting 1/8" thick filler/closure panels to bring them flush with front of frame. Use with HW-154 keps nut and HW-104 or HW-304 panel screws.
		HW-161	5/16-18 x 3/4" Hex Head Screw	Used for joining vertical and slope front frames together side by side. Use with HW-162 flat washer and HW-163 keps nut.
		HW-150	1/4-20 x 3/4" Hex Head Screw	Used for joining turret frames together side by side. Use with HW-152 flat washer and AHWX-102-002025 keps nut.
	O	HW-162	5/16 Flat Washer	Used for joining vertical and slope front frames together side by side. Use with HW-161 hex head screw and HW-163 keps nut.
Joining Frames		HW-152	1/4 Flat Washer	Used for joining turret frames together side by side. Use with HW-150 hex head screw and AHWX-102-002025 keps nut.
Joining		HW-163	5/16-18 Keps Nut	Used for joining vertical and slope front frames together side by side. Use with HW-161 hex head screw and HW-162 flat washer.
	Ø	AHWX-102-002025	1/4-20 Keps Nut	Used for joining turret frames together side by side. Use with HW-150 hex head screw and HW-152 flat washer.
		HW-154	#10-32 Keps Nut	Used for mounting 1/8" thick filler/closure panels to bring them flush with front of frame. Use with HW-1032 panel stand-off and HW-104 or HW-304 panel screws.
		AJCX-HDX-000100	Joining Kit	Sold in pairs. Used to bolt turret frames to a vertical or slope front frames. Kit consists of Joining Clip, Clip Nut and Screw.
	8	AHWX-272-161637	3/8-16 Lift Eye	Part of the lift kit assembly. Use with AHWX-510-000037 lock washer and AHWX-022-201637 hex head screw.
Lift Kits	P	AHWX-510-000037	3/8 Lock Washer	Part of the lift kit assembly. Use with AHWX-272-161637 lift eye nut and AHWX-022-0201637 hex head screw.
	C summer	AHWX-022-201637	3/8-16 x 1-1/4" Hex Head Screw	Part of the lift kit assembly. Use with AHWX-272-161637 lift eye nut and AHWX-510-000037 lock washer.

# ESQ Ordering Guide

Frame Options	Full Height Door Options					
	Flush Doors	Surface Doors				
	[1] Block Indicate: [S] = Solid [V] = Vented	[1] Block Indicate: [S] = Solid [V] = Vented				
	<b>[2] Block Indicate:</b> [R] = Right Hinge [L] = Left Hinge	[2] Block Indicate: [R] = Right Hinge [L] = Left Hinge				
Vertical Frames 12U 16U 30U 35U 40U 45U	Front or Rear	Front or Rear				
ICSFR-105A	ICDF-H[1][2]-2119	ICDS-E[1][2]-2119				
ICSFR-115A	ICDF-H[1][2]-2819	ICDS-E[1][2]-2819				
ICSFR-725A	ICDF-H[1][2]-5219	ICDS-E[1][2]-5219				
ICSFR-726A	ICDF-H[1][2]-6119	ICDS-E[1][2]-6119				
ICSFR-727A	ICDF-H[1][2]-7019	ICDS-E[1][2]-7019				

# Frame Options

ICSFR-728A

# Side Panel Options

ICDF-H[1][2]-7819

ICDS-E[1][2]-7819

## **Panels**

[1] Block Indicate: [Blank] = Formed Inside Removable Solid [-LV] = Formed Inside Removable Louvered

Vertical Frames 12U 16U 30U 35U 40U 45U	Left or Right
ICSFR-105A	ICSSP-105A [1]
ICSFR-115A	ICSSP-115A [1]
ICSFR-725A	ICSSP-725A [1]
ICSFR-726A	ICSSP-726A [1]
ICSFR-727A	ICSSP-727A [1]
ICSFR-728A	ICSSP-728A [1]

# ESQ Ordering Guide

Frame Options	Full Depth To	Full Depth Top Panel Options				
	Panels	Fan Panels				
	[1] Block Indicate: [blank] = Solid [-PA] = Perforated [-LV] = Louvered					
Vertical Frames 12U 16U 30U 35U 40U 45U ICSFR-105A		contract factory				
	CXPN-1419[1]	contact factory				
ICSFR-115A	CXPN-1719[1]	CXPN-1719-FP				
ICSFR-725A	CXPN-2119[1]	CXPN-2119-FP				
ICSFR-726A	CXPN-2619[1]	CXPN-2619-FP				
ICSFR-727A	CXPN-1419[1]	contact factory				
ICSFR-728A	CXPN-1719[1]	CXPN-1719-FP				

Frame Options	Bottom Options

Panels

[1] Block Indicate: [blank] = Solid [-PA] = Perforated

CXPN-1419[1]
CXPN-1719[1]
CXPN-2119[1]
CXPN-2619[1]
CXPN-1419[1]
CXPN-1719[1]

# ESQ Ordering Guide

ICSFR-727A

ICSFR-728A

ICSFR-726A

ICSFR-727A

ICSFR-728A

Frame Options	Full Height Mour	Full Height Mounting Rail Options					
	Thru-Hole/Tapped Rails	Mounting Straps					
	Thru Hole rails are supplied with the frame. Only select this option if you would like a tapped version or need extra rails. [1] Block Indicate: [blank] = Thru Hole (supplied with frame) [-1032-1] = Tapped 1 Face Note: Mounting rails are sold as pairs.	Note: Mounting straps are sold as pairs.					
Vertical Frames 12U 16U 30U 35U 40U 45U	Front or Rear	Intermediate					
ICSFR-105A	PMA-21A[1]	MS-21					
ICSFR-115A	PMA-28A[1]	MS-28					
ICSFR-725A	PMA-52A[1]	MS-52					
ICSFR-726A	PMA-61A[1]	MS-61					

PMA-70A[1]

PMA-78A[1]

CCGS-[R]A

CCGS-[R]A

CCGS-[R]A

Frame Options	Shelves							
	Chassis Guides	Fixed Shelves	Pull Out Shelves					
	[R] Block Indicate: [22] = 20.750" B Rail to Rail Setting [25] = 24.250" C Rail to Rail Setting [31] = 29.500" D Rail to Rail Setting	[ <b>R</b> ] Block Indicate: [22] = 20.750" B Rail to Rail Setting [25] = 24.250" C Rail to Rail Setting [31] = 29.500" D Rail to Rail Setting [1] Block Indicate: [blank] = Solid [-PA] = Perforated	[ <b>R] Block Indicate:</b> [22] = 20.750" B Rail to Rail Setting [25] = 24.250" C Rail to Rail Setting [30] = 29.500" D Rail to Rail Setting					
Vertical Frames 12U 16U 30U 35U 40U 45U								
ICSFR-105A	CCGS-[R]A	CSH-[R]A[1]	CCSXQ-[R]C					
ICSFR-115A	CCGS-[R]A	CSH-[R]A[1]	CCSXQ-[R]C					
ICSFR-725A	CCGS-[R]A	CSH-[R]A[1]	CCSXQ-[R]C					

MS-70

MS-78

CSH-[R]A[1]

CSH-[R]A[1]

CSH-[R]A[1]

CCSXQ-[R]C

CCSXQ-[R]C

CCSXQ-[R]C

# **10 Series Product Line**

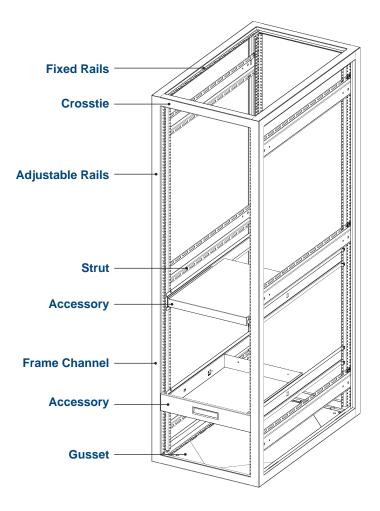
## 3500 lb. Static Load Capacity

10 Series frames are fully welded and can handle 3,500 lbs. of equipment evenly distributed in the frame.

- 14-gauge steel Crosstie
- 14-gauge steel Frame Channel
- 11-gauge steel Gussets
- 14-gauge steel Mounting Rails
- 16-gauge steel Other Components

## All 10 Series Frames Include:

- Hardware kit
- 2 pair EIA pattern thru hole mounting rails



#### Hardware Kit Components Frame Joining Hardware



Extra Panel Mounting Hardware Quantities vary by Frame type.



Additional hardware may be purchased by contacting the factory.

## **Engineering Drawings**

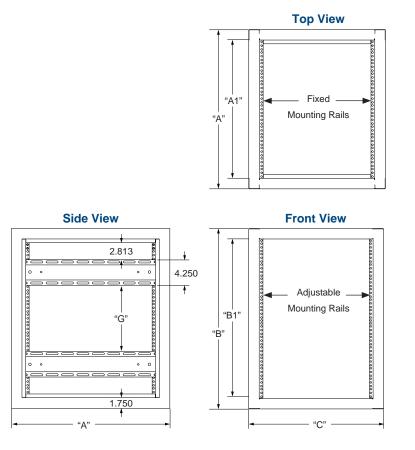
The dimensional drawings that are shown on the following pages are for reference only. Detailed engineering drawings are available upon request.

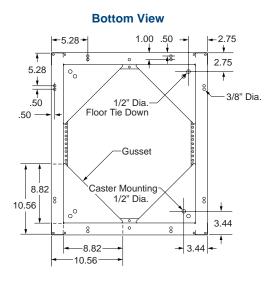
# **15U Vertical Frames**

These vertical frames allow for mounting of standard EIA electronic components. They can be used as a stand alone frame or joined together in a row (joining hardware included). Accessories such as shelves, drawers, power, and cable managers can be added per application requirements.

# Part Numbers

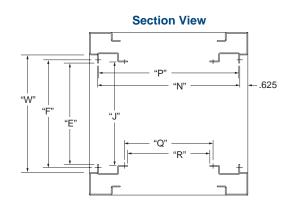
19" EIA Rack Width									
"C"		"A" "A1"		"B"	"B" "B1"				
	Overall	Overall	Overall Top Panel		Overall	Usable		Struts	"G"
	Width	Depth	Opening		Height	Heigl	ht		
ICXFR-262619	22.562	26.312	22.750	13U	29.875	26.250	15U	2	11.000





# **Section View Dimensions**

	"W"	"F"	"E"	"J"	"P"	"N"	"Q'	"R"
26.312" Overall Depth					24.912	25.062	20.936	20.436
31.562" Overall Depth					30.162	30.312	26.186	25.686
36.875" Overall Depth					35.475	35.625	31.499	30.999
19" EIA Width	19.062	18.310	17.810	17.984				
24" EIA Width	24.062	23.310	22.810	22.984				



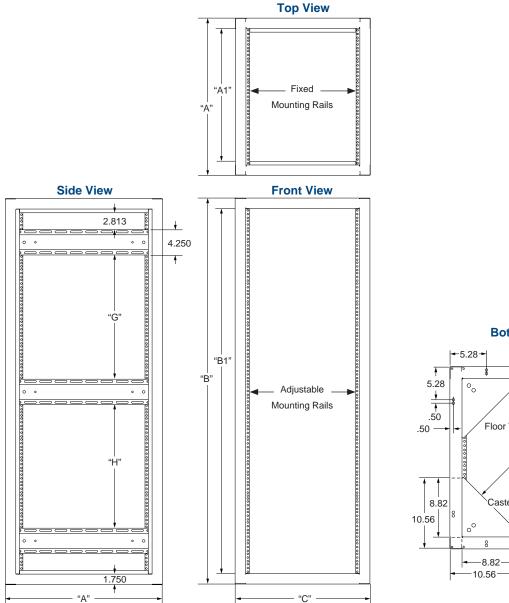
### 28U, 35U, 40U, 45U Vertical Frames

These vertical frames allow for mounting of standard EIA electronic components. They can be used as a stand alone frame or joined together in a row (joining hardware included). Accessories such as shelves, drawers, power, and cable managers can be added per application requirements.

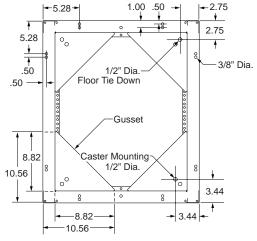
#### **Part Numbers**

19" EIA Rack Width

	"C" "A" "A1" "B" "B1"		,							
	Overall	Overall			Overall	Usable		Struts	"G"	"H"
	Width	Depth	Openi	ng	Height	Height				
ICXFR-314919	22.562	31.562	28.000	16U	52.625	49.000	28U	3	15.000	14.500
ICXFR-316119	22.562	31.562	28.000	16U	64.875	61.250	35U	3	20.875	20.875
ICXFR-317019	22.562	31.562	28.000	16U	73.625	70.000	40U	3	25.500	25.000
ICXFR-367019	22.562	36.875	33.250	19U	73.625	70.000	40U	3	25.500	25.000
ICXFR-317819	22.562	31.562	28.000	16U	82.375	78.750	45U	3	29.625	29.625



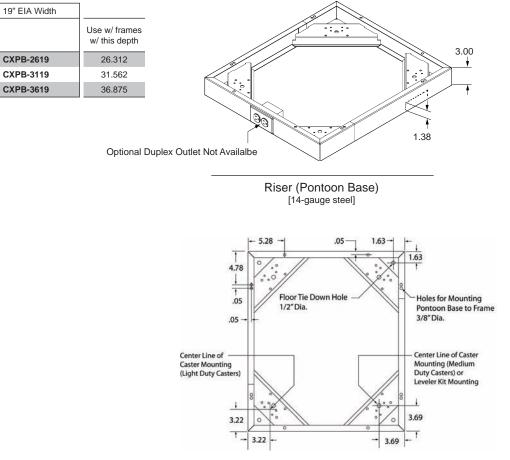




# **Riser Base (Pontoon Base)**

A Riser is a versatile base that can be used in many ways including: as a toe kick, as storage space for extra bundles of cables, to mount casters, or flipped over and used for floor tie down applications. It is recessed .50" at the front of the frame. Risers are mounted at the factory.

# Part Numbers



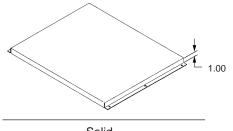
**Riser Bottom View Detail** 

# **Bottom Panels**

Bottom panels are designed to mount in the bottom of the frame.

# Part Numbers

19" EIA Width	
Solid	Used in frames with this depth
CXBP-2619	26.312
CXBP-3119	31.562
CXBP-3619	36.875



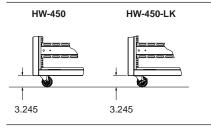
Solid [14-gauge steel]

# Casters

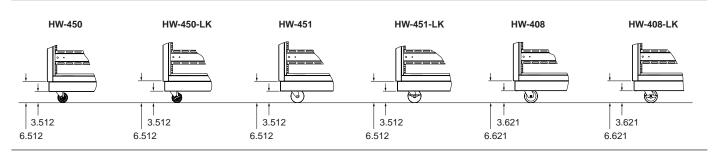
A variety of casters are available for use directly on the Frame or in conjunction with a Riser Base. Select from the options below.

		Swivel Style	Rigid Style	Locking	Non-Locking	Single Wheel	Dual Wheel			
	Load Rating			Caste	r Style			Description	Sold As	Where Used
Part Number HW-450	350 lbs. per caster	x			x	x		3" Polypropylene	Each (1)	Directly on Frame Directly on Riser Base (pontoon base)
Part Number HW-450-LK	350 lbs. per caster	x		x		x		3" Polypropylene	Each (1)	Directly on Frame Directly on Riser Base (pontoon base)
Part Number HW-408	200 lbs. per caster	x			x	x		4" Soft Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-408-LK	200 lbs. per caster	x		x		x		4" Soft Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-451	375 lbs. per caster	x			x	x		4" Hard Rubber	Each (1)	Directly on Riser Base (pontoon base) Only
Part Number HW-451-LK	375 lbs. per caster	x		x		x		4" Hard Rubber	Each (1)	Directly on Riser Base (pontoon base) Only

# Height added when mounted to the Frame.



# Height added when mounted to the Riser Base.



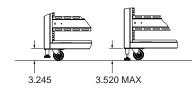
# **Caster/Leveler Combination Kits**

Caster/Leveler Combination kits can be used directly on the Frame or in conjunction with a Riser Base. The kits include the levelers. The casters are sold separately, choose from locking or non-locking casters.

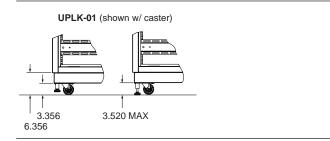
Leveler Kits - Caster Combo				Des	criptio	n			Sold As	Where Used
Part Number     Signature       XLK-01     Signature	Leveler Kit - Casters Optional Includes Leveling Legs: HW-405 Casters sold separately: HW-450 or HW-450					, gs: HV	V-405	450-LK	Set (4)	Directly on Frame Only
Part Number	Cas	Leveler Kit - Casters Optional Includes Leveling Legs: HW-405 Casters Sold Separately: HW-450 or HW-450-LK						Set (4)	Directly on Riser Base (pontoon base) Only	
Optional Casters	Load Rating Caster Style D					Description	Sold As	Where Used		
Part Number HW-450	350 lbs. per caster	x			x	x		3" Polypropylene	Each (1)	In Conjunction with XLK-01 Leveler Kit In Conjunction with UPLK-01 Leveler Kit
Part Number HW-450-LK	350 lbs. per caster	x		x		x		3" Polypropylene	Each (1)	In Conjunction with XLK-01 Leveler Kit In Conjunction with UPLK-01 Leveler Kit
		Swivel Style	Rigid Style	Locking	Non-Locking	Single Wheel	Dual Wheel			

#### Height added when mounted to the Frame.

XLK-01 (shown w/ caster)



### Height added when mounted to the Riser Base.



# Leveler Kit - Levelers Only

Leveling legs help stabilize an enclosrue. Select the proper kit for where it is being used; on the Frame or Riser Base. The kits inlcude the levelling leg and all mounting hardware.

Leveler Kits - Leveler Only	Description	Sold As	Where Used
Part Number	Leveler Kit - Levelers Only Includes Leveling Legs: HW-405	Set (4)	Directly on Frame Only
Part Number     ALDX-XXX-180019	Leveler Kit - Levelers Only Includes Leveling Legs: HW-405	Set (4)	Directly on Riser Base (pontoon base) Only

#### Height added when mounted to the Frame.





# Height added when mounted to the Riser Base.

ALDX-XXX-180019



#### **Mounting Rails**

All 10 Series<sup>®</sup> frames include 2 pair (4 total) of thru-hole EIA compliant mounting rails with rack unit markings. Optional tapped rails are available. Choose from .281" diameter thru holes on one leg of the mounting rail, and .159" diameter tapped holes (10-32 NF2) on the other leg, or .159" diameter tapped holes (10-32 NF2) on both legs of the mounting rail. The rails are processed to specification ASTM-B633 which calls for electrodeposited zinc plating with a clear chromate conversion coating.

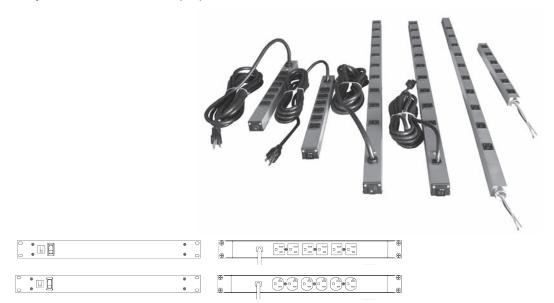
## **Mounting Straps**

Mounting straps are used when there is a mix of differnt depth accessories in a frame. Straps allow full depth items that require a rear attach point to pass by the strap and attach to the rail behid it. The straps are processed to specification ASTM-B633 which calls for electrodeposited zinc plating with a clear chromate conversion coating and include rack unit markings. Only accessories that are side mount style can be mounted to a strap.

#### Use in frames Thru-Hole Tapped 1 Mounting Strap with this usable height For use in Vertical Frames. XMA-26 XMA-26-T XMS-26 26.250 15U XMA-49 XMA-49-T XMS-49 49.000 28U XMA-61 XMA-61-T XMS-61 61.250 35U XMA-70 XMA-70-T 40U XMS-70 70.000 XMA-78 XMA-78-T XMS-78 78.750 45U Additional heights available. XMA-24 XMA-24-T XMS-24 24.500 14U 1 53 2.39 2.39 0.79 1.63 1.63 2.16 0.79 0.79 0 0 00 0 Thru #10-32 Tapped Thru 0 281 Thru 281 Thru 281 281 $\sim$ 0 0 0 0 00 0 Thru-Hole Tapped 1 Face Straps [14-gauge steel] [12-gauge steel] [14-gauge steel]

#### Part Numbers

Available in a range of power capacities and configurations, basic PDUs provide reliable power distribution. They are the best value for simple power distribution in server cabinets and data centers.



Front View

Rear View

Part Number / Description	Receptacles Type / QTY	Breaker Amperage / QTY	Plug / Inlet Type	Monitoring	Dimensions W x H x D (")
PDU-615R-PC Amps: 15 (Single Phase) Volts: 120 kW: 1.4	5-15R / 6 (on rear)	15 / 1 On-Off Switch Yes	5-15P Straight-Blade 15' Cord	N/A	1U 19" Horizontal 19.00 x 1.75 x 2.57
PDU-620R-PC Amps: 20 (Single Phase) Volts: 120 kW: 1.4	5-20R / 6 (on rear)	20 / 1 On-Off Switch Yes	5-20P Straight Blade 15' Cord	N/A	1U 19" Horizontal 19.00 x 1.75 x 2.57

Includes mounting hardware.

Includes Spring Clips and mounting hardware.

# 

Part Number / Description	Receptacles Type / QTY	Breaker Amperage / QTY	Plug / Inlet Type	Monitoring	Dimensions W x H x D (")
WM-180615-PC Amps: 15 (Single Phase) Volts: 120 kW: 1.4	5-15R / 6	15 / 1 On-Off Switch No	5-15P Straight-Blade 15' Cord	N/A	0U 18" Vertical 1.62 x 18.00 x 1.21
WM-180620-PC Amps: 20 (Single Phase) Volts: 120 kW: 1.4	5-20R / 6	20 / 1 On-Off Switch No	5-20P Straight Blade 15' Cord	N/A	0U 18" Vertical 1.62 x 18.00 x 1.21

Includes Spring Clips and mounting hardware.

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φο	 - 0 T	a a	- 0 7	- o	- 0 P	a a	- a	9 a	

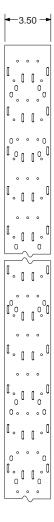
Part Number / Description	Receptacles Type / QTY	Breaker Amperage / QTY	Plug / Inlet Type	Monitoring	Dimensions W x H x D (")
WM-481015-PC Amps: 15 (Single Phase) Volts: 120	5-15R / 10	15 / 1	5-15P Straight-Blade 15' Cord	N/A	0U 48" Vertical 1.62 x 48.00 x 1.21
kW: 1.4		On-Off Switch			
WM-481020-PC Amps: 20 (Single Phase)	5-20R / 10	20 / 1	5-20P Straight Blade 15' Cord	N/A	0U 48" Vertical 1.62 x 48.00 x 1.21
Volts: 120 kW: 1.4		On-Off Switch			
WM-482430-PC Amps: 30 (Single Phase)	5-20R / 24	15 / 2	L5-30P Locking 12' Cord	N/A	0U 48" Vertical 1.50 x 48.00 x 2.87
Volts: 120 kW: 1.4		On-Off Switch			

Includes Spring Clips and mounting hardware.

# 3.5" Wide Vertical Lacing Panel

Material: Aluminum

Accepts accessory style B. Slots allow Velcro or other cable straps to neatly organize cable bundles.



Part Numbers					
	Use in frames with this usable height				
WMP-26	26.250	15U			
WMP-49	49.000	28U			
WMP-61	61.250	35U			
WMP-70	70.000	40U			
WMP-78	78.750	45U			

## Cable Management Accessories Style B: Screws in with self tapping screws

The following accessories are for use in conjunction with the overhead, vertical and horizontal cable management products.

Cable Ring
Part Number
DCR-2375

QTY: 1







Velcro Cable Ties w/ Bracket

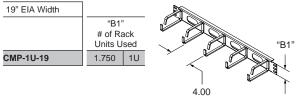
Part Number DVS-11 QTY: 10



# Cable Organizer with 5 D Rings

A simple and convenient method of organizing cabling.

#### Part Number

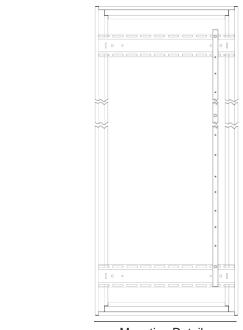


# **Bus Bars**

Insulated copper bus bars attach to the top flange of the upper and lower frame struts. The bus bar is supplied with #10-32 tapped holes on 3.5" centers. Only full height bus bars will mount to frames. Short height bus bars will not align with frame mounting struts.

1.00

Part Numbers						
	Use in frames with this usable height					
XBB-26	26.250	15U				
XBB-49	49.000	28U				
XBB-61	61.250	35U				
XBB-70	70.000	40U				
XBB-78	78.750	45U				



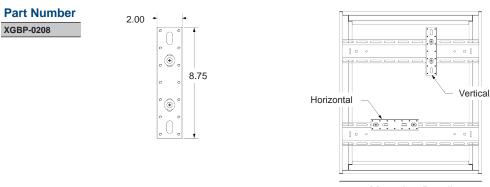


#### Note

When equipment support items such as shelving or drawers are being mounted in the same frame as a bus bar, the items must be ordered short depth.

## **Ground Bus Plate**

Ground bus plates provide equipment grounding capabilities that are unique when compared to the full length bus bars. The copper ground bus plate provides fourteen (14) #10-32 tapped grounding points and mounts directly to the frame strut in a vertical or horizontal position. The designed-in mounting flexibility allows for attachment of the ground bus plate in locations that are much less likely to interfere with full depth internal frame equipment and accessories such as mounting brackets, equipment shelves, chassis guides and others.



Mounting Detail

# **Light Duty Shelf**

Light Duty shelves provide an easy method of storing non-rack mount style equipment in a frame. The shelf attaches to the front flange of the mounting rails and require no rear attachment point. An adjustable backstop is provided for alignment.

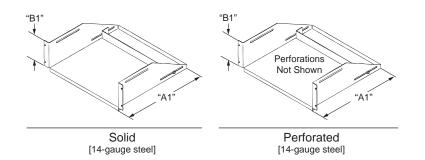
• Load capacity: 50-lbs. evenly distributed.

#### Note

The bottom flange of this shelf intrudes .750" on the rack space below. Items that take up internal space cannot be mounted directly below this shelf.

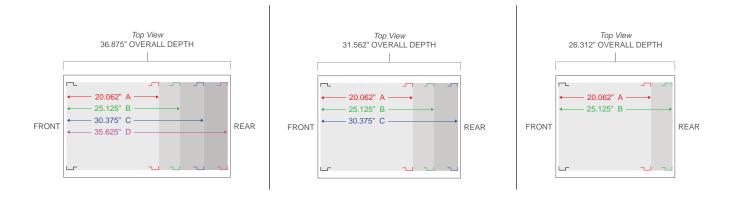
#### **Part Numbers**

19" EIA Width				
Solid		"A1" "B1"		
	Perforated	Shelf	# of R	ack
		Depth	Units L	Jsed
CXES-1619	CXES-1619-PA	16.500	5.250	3U



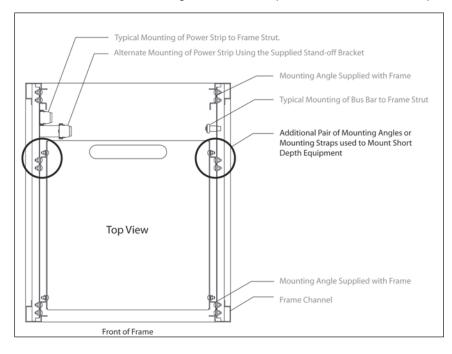
# **Rail to Rail Settings**

The rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used. The following images indicate standard rail loctions that will allow Emcor components to be properly positioned based on frame depth.



#### **Short Depth Equipment**

When using full height items that mount to the rear mounting rails with other internal components such as fixed equipment shelves, chassis guides, work surface drawers, pull out shelves, and work surface hardware, these items must be ordered in a shorter depth so as not to interfere with the full height item. In most cases an extra pair of mounting rails or straps will need to be ordered to facilitate mounting of the shorter depth items. Refer to the example below.



#### Example

A customer requests a frame that has a 19" panel width, a depth of 31.562" and 40U of usable rack space. (ICXFR-317019)

The customer requires a power strip and a bus bar, as well as a pull out shelf in the enclosure. What do you do?

Simply order a shorter depth shelf and an extra pair of mounting rails or straps.

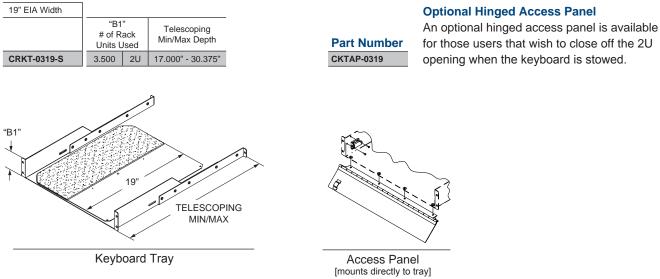
In this case you would order:

- CXCSQ-2619 solid pull out shelf
- XMS-70 extra pair mounting straps

#### **Retractable Keyboard Tray**

Retractable keyboard trays provide the flexibility to incorporate a full size keyboard within a 19" EIA width frame. The keyboard tray is housed within the enclosure in a "front-to-rear" orientation. To access the keyboard, simply pull the tray outward until it locks into the open position. The keyboard tray can then be rotated 90° and affixed into position for operator use. A low profile mouse pad is incorporated onto the front of the tray across its entire width. In order to stow the keyboard back into the enclosure, rotate the tray 90°, unlatch the locking slide, and retract the tray back into the frame.

#### Part Number



#### Rail to Rail Settings (mounts to rails only)

This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be to double check that the telescoping Max/Min depth is within the constraints of your rail settings.



# 10 Series Chassis Guides

# **Chassis Guides**

Chassis guides (sold as pairs) are used to support heavy equipment by means of angular steel support members, leaving the bottom of the mounted equipment exposed for cooling or servicing. Chassis guides are mounted flange side down, unless otherwise specified.

• Load capacity: 200-lbs. evenly distributed.

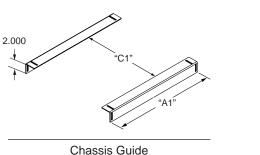
#### Note

Due to the thickness of the material, chassis guides interefere .125" on both the rack space above and below where this item is mounted. Items that take up internal space cannot be mounted directly above or below chassis guides.

"C1" Distance Between Chassis Guides

#### **Part Numbers**

	"A1" Chassis Guide Depth	# of Ra Units U		Fits w/ this Rail to Rail Setting	"C1" 19" EIA Width
CXCG-20	16.688	1.750	1U	A 20.062"	14.016
CXCG-26	21.688	1.750	1U	B 25.125"	14.016
CXCG-31	26.938	1.750	1U	C 30.375"	14.016
CXCG-36	32.250	1.750	1U	D 35.625"	14.016



[11-gauge steel]

#### Rail to Rail Settings (mounts to rails or straps - not square hole rails)

This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be sure to select the proper part number based on the rail settings. The following image indicates standard rail loctions that will allow this item to be properly positioned.



### **Heavy Duty Shelves**

Heavy duty shelves are designed to fit anywhere within the usable rack space of an enclosure to house non-rack mounted equipment.

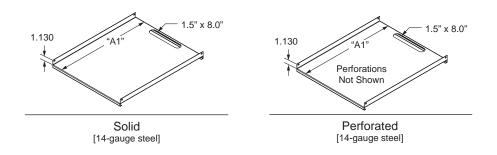
- Solid style load capacity: 350-lbs. evenly distributed.
- Perforated style load capacity: 200-lbs. evenly distributed.

#### Note

The bottom flange of this shelf intrudes .613" on the rack space below. Items that take up internal space cannot be mounted directly below this shelf.

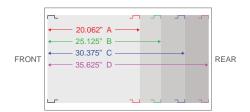
Part	Numbers	
	Training of 0	

19" EIA Width					
Solid	Perforated	"A1" Shelf Depth	# of Ra Units U		Fits w/ this Rail to Rail Setting
CXES-2019	CXES-2019-PA	18.632	1.750	1U	A 20.062"
CXES-2619	CXES-2619-PA	23.624	1.750	1U	B 25.125"
CXES-3119	CXES-3119-PA	28.874	1.750	1U	C 30.375"
CXES-3619	CXES-3619-PA	34.187	1.750	1U	D 35.625"



#### Rail to Rail Settings (mounts to rails or straps - not square hole rails)

This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be sure to select the proper part number based on the rail settings. The following image indicates standard rail loctions that will allow this item to be properly positioned.



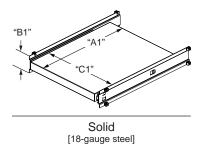
# **2U Sliding Shelves**

Sliding, or Pull-out shelves make it possible to slide equipment in and out of the enclosure for fast, easy accessibility. Heavy-duty ball bearing slides allow for ease of movement and have a quick disconnect feature. Upon request, the shelf can be flipped over and used as a tray if desired (1.625" thick)

- Load capacity: 90-lbs. evenly distributed.
- Shelf extension: 17" from front of the enclosure.

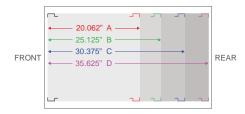
# **Part Numbers**

19" EIA Width						
Solid	"A1" Shelf Depth	"C1" Shelf Width	"B1" # of Rack Units Used		Fits w/ this Rail to Rail Setting	
CXCSQ-2019	20.250	16.320	3.500	2U	A 20.062"	
CXCSQ-2619	20.250	16.320	3.500	2U	B 25.125"	
CXCSQ-3119	20.250	16.320	3.500	2U	C 30.375"	
CXCSQ-3619	20.250	16.320	3.500	2U	D 35.625"	



# Rail to Rail Settings (mounts to rails or straps - not square hole rails)

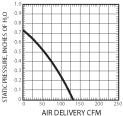
This item requires both a front and rear attach point. Since the rear rails inside of a frame can be positioned in multiple locations, or multiple sets of rails may be used, be sure to select the proper part number based on the rail settings. The following image indicates standard rail loctions that will allow this item to be properly positioned.



# **Packaged Blowers**

Packaged blowers have been designed to effectively cool critical electronic components within an enclosure by means of clean positive air pressure.

- 115 Volt AC power.
- · Permanent washable filter which can be serviced without removing the blower from the rack.
- Operating temperature range: 20°F to 250°F.
- · Fan Motors are UL component recognized; CSA certified.
- · Motor: Shaded-pole, rust resistant shaft, double shielded ball bearings and permanently lubricated.
- · Supplied with a 72" power cord with a NEMA 5-15P plug.



AIR DELIVERY CFM

STATIC PRESSURE, INCHES OF H<sub>3</sub>O

STATIC PRESSURE, INCHES OF H<sub>3</sub>O

STATIC PRESSURE, INCHES OF H<sub>5</sub>O

0

**Part Number** 

Part Number

BL-290EG

CFM

290

BL-125EG								
CFM	CFM RPM		AMPS		NC**	"A" Blower	"B1" # of Rack	
CEIVI	REINI	RUN	L.R.*	WATTS	NC	Depth	Units U	
125	3000	0.9	1.2	70	50	9.031	5.250	3U
Penlagement filter part number El 0E10								

Replacement filter part number FI-0519

RPM

3050

Replacement filter part number FI-0519

AMPS

L.R.\*

2.5

RUN

1.8



"B1"

# of Rack

Units Used

5.250 3U

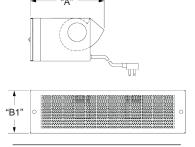
"A"

Blower

Depth

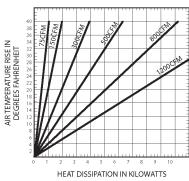
9.031

Weight 14.25 lbs.



Blower Detail





# **Part Number**

BL-300E	BL-300EG								
CFM RPM	DDM	AMPS		WATTS	NC**	"A"	"B1" # of Rack		
CFIVI	RPIVI	RUN	L.R.*	WAIIS	NC	Blower Depth	Units U		
300	1550	1.2	1.6	95	50	10.188	7.000	4U	

WATTS

125

NC\*\*

60

Replacement filter part number FI-0719

Weight 18.00 lbs.

# Part Number

BL-350E	"A" "B1" Blower # of Rac							
CFM	RPM	RUN	L.R.*	WATTS	NC**	Blower Depth	# of Rack Units Used	
350	3100	1.8	4	200	65	10.219 7.000 4U		
Replacement filter part number FI-0719 Weight 18.50 lbs								

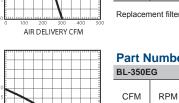
Replacement filter part number FI-0719



BL-500EG									
OFM	RPM	AM	PS	WATTO	NC**	"A" "E			
CFM	RPIN	PM RUN L.R.* WATTS		NC.	Blower Depth	# of Rack Units Used			
500	1700	1.6	3.5	140	55	55 11.563 8.750 5U			
Replacement filter part number FI-0819 Weight 24.50 lbs.									

AIR DELIVERY CFM

\* Locked Rotor \*\*Noise Criteria Air delivery based on operating at 115 volts, 60 HZ, single phase power.





# Fan Trays

Fan trays mount to the front flange of the mounting rails and are primarily used for spot cooling within a frame.

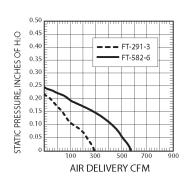
- 115 Volt AC power.
- Fan Motors are UL component recognized; CSA certified.
- Exhaust guards on the top and bottom.
- Field adjustable filler strips to prevent the recirculation of air.
- Rear support brackets.
- Supplied with a 72" power cord with a NEMA 5-15P plug.

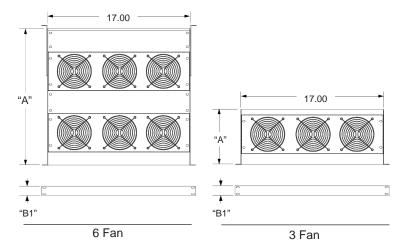
#### **Part Numbers**

19" EIA Width

	# of	CFM	Speed	Amps		Amps		Valta	Volts Watts d		Watts dBA		Volts Watts		"A" Fan Trav	"B1' # of Ra		Rear Support Bracket
	Fans	CFIVI	Speed	RUN	L.R.*	VOIIS	walls	UDA	Depth	Units U		Max Depth						
FT-291-3	3	291	3225	0.48	0.72	115	39.9	58	8.000	1.75	1U	-						
FT-582-6	6	582	3225	0.96	1.44	115	79.8	60	18.750	1.75	1U	26.00"						
FT-873-9	Nine (9)	Nine (9) fan, 873 CFM fan tray units are available. Contact the factory for pricing and availability.																

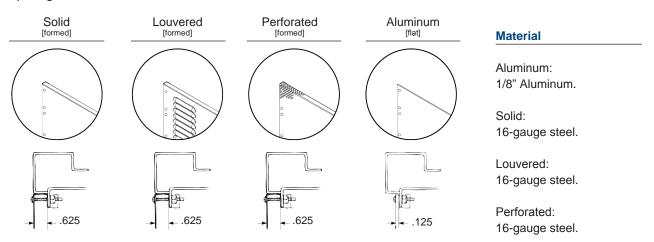
\*Locked Rotor Air delivery based on operating at 115 volts, 60 HZ, single phase power.





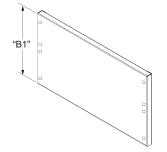
# **Filler Panels**

Available in 4 different styles, filler panels are designed to close off all, or portions of, the top, bottom, front, rear, and slope opening areas of the frame.



### **Part Numbers**

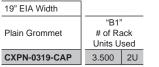
Solid	Louvered	Perforated	Aluminum	"B1" # of Ra Units U	ack
CXPN-0119	N/A	N/A	CXPN-0119-A	1.750	1U
CXPN-0319	N/A	N/A	CXPN-0319-A	3.500	2U
CXPN-0519	CXPN-0519-LV	N/A	CXPN-0519-A	5.250	3U
CXPN-0719	CXPN-0719-LV	N/A	CXPN-0719-A	7.000	4U
CXPN-0819	CXPN-0819-LV	N/A	CXPN-0819-A	8.750	5U
CXPN-1019	CXPN-1019-LV	N/A	CXPN-1019-A	10.500	6U
CXPN-1219	CXPN-1219-LV	N/A	CXPN-1219-A	12.250	7U
CXPN-1419	CXPN-1419-LV	CXPN-1419-PA	CXPN-1419-A	14.000	8U
CXPN-1519	CXPN-1519-LV	N/A	CXPN-1519-A	15.750	9U
CXPN-1719	CXPN-1719-LV	N/A	CXPN-1719-A	17.500	10U
CXPN-1919	CXPN-1919-LV	N/A	CXPN-1919-A	19.250	11U
CXPN-2119	CXPN-2119-LV	CXPN-2119-PA	CXPN-2119-A	21.000	12U
CXPN-2219	CXPN-2219-LV	CXPN-2219-PA	CXPN-2219-A	22.750	13U
CXPN-2419	CXPN-2419-LV	N/A	N/A	24.500	14U
CXPN-2619	CXPN-2619-LV	CXPN-2619-PA	N/A	26.250	15U
CXPN-2819	CXPN-2819-LV	CXPN-2819-PA	N/A	28.000	16U
CXPN-3319	CXPN-3319-LV	CXPN-3319-PA	N/A	33.250	19U

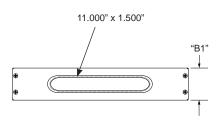


# **Cable Pass Through Panels**

Cable pass throughs can be mounted in the front, rear, top, or bottom opening of a frame allowing cables to enter and exit the cabinet in an organized fashion.

# **Part Numbers**





Plain grommet material is available. Sold by the foot.

2U Plain Grommet

# Part Number

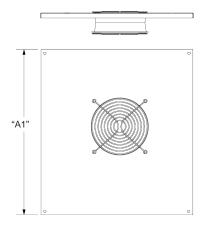
GMT-0012



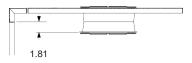
# Single Fan Panel

Single Fan Panels are designed to mount in the top panel opening of a frame. The life expectancy of the fan @  $104^{\circ}$ F is 60,000 hours.

- 550 CFM, 60 HZ, 55 dBA.
- 115 Volt AC power, 35 Watts.
- Fan Motors are UL component recognized; CSA certified.
- 10" diameter fan size with 2 finger guards.
- Operating temperature range: -22°F to +140°F.
- The fan has a Feathered Edge<sup>™</sup> blade for better noise control.
- Supplied with a 72" 18/3 SJ power cord with a NEMA 5-15P plug.



19" EIA Width		
	"A1 Panel D	
CXPN-2119-FP	21.000	12U
CXPN-2219-FP	22.750	13U
CXPN-2619-FP	26.250	15U
CXPN-2819-FP	28.000	16U
CXPN-3319-FP	33.250	19U



**Note**: When mounted as a top panel, the fan housing assembly extends into the frame opening by 1.81".

# **Dual Fan Panel**

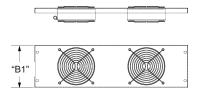
Dual Fan Panels are designed to mount in the front or rear panel openings and are primarily used for spot cooling.

- 102 CFM per fan (204 total), 20 watts per fan, 50/60 HZ, 43 dBA.
- 115 Volt AC power.
- Fan Motors are UL component recognized; CSA certified.
- Fan size: 4.625" square x 1.5" deep.
- Operating temperature range: -4°F to +158°F.
- Supplied with a 72" 18/3 SJT power cord with a NEMA 5-15P plug.

# **Part Numbers**

# 19" EIA Width

	# of R	"B1" # of Rack Units Used		
CXPN-0519-FP-2E	5.250	3U	Exhaust	
CXPN-0519-FP-2I	5.250	5.250 3U		



# Vent Grille

Aluminum vent grilles provide an effective means to fulfill your venting requirements.

# Part Numbers

19" EIA Width			
	"B1" # of Ra Units U	ack	% Opening
AVGX-XXX-000319	3.500	2U	45.0
AVGX-XXX-000519	5.250	3U	50.0
AVGX-XXX-000719	7.000	4U	52.5
AVGX-XXX-000819	8.750	5U	54.0

"B1"	0		0	
				E

# Vent Panel

Steel vent panels provide an effective means to fulfill your venting requirements.

# Part Numbers

19" EIA Width			
	"B1' # of Ra Units U	ack	% Opening
CXPN-0319-VP	3.500	2U	33.8

"B1"
------

# Filter

These filters mount behind aluminum vent grilles, providing protection of airborne particles. Filters are washable and permanent.

# Part Numbers

19" EIA Width			
	"B1" # of Rack Units Used		% Opening
ARFA-XXX-000319	3.500	2U	47.2
ARFA-XXX-000519	5.250	3U	52.5
ARFA-XXX-000719	7.000	4U	55.1
ARFA-XXX-000819	8.750	5U	56.6

		J"
4	•	
'B1"		•
↓ I		

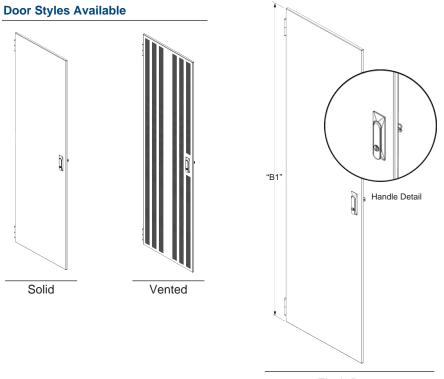


# Flush Mount Doors

Flush mount doors fit into the vertical panel opening of the frame. The doors utilize the mounting rails for an attachment point. Lift-off hinges, in a stylish black finish, allow for quick removal. The low-profile single point lockable handle provides the security your system may need.

**Note** Flush doors mount to the front flange of the mounting rails and can fill all or portions of the usable space in the front or rear of a frame. Be aware of possible intereference if other rack mount equipment that utilizes the front flage of the rail is used in conjuction with flush mount doors.

PREFIX	STYLE	HINGE SIDE	HEIGHT (FILLS THE OPENING)	WIDTH (EIA SPACING)
ICDF-H	S (Solid)	L (Left Hinge)	<b>—78</b> (45U)	19
	V (Vented)	R (Right Hinge)	<b>—70</b> (40U)	
			<b>61</b> (35U)	
			<b></b> -52 (30U)	
			<b>45</b> (26U)	
			<b>—28</b> (16U)	
			<b>26</b> (15U)	
			<b>-21</b> (12U)	



Flush Doors [16-gauge steel]

# Part Numbers

19" EIA Width		
<ul> <li>[1] Block Indicate:</li> <li>[S] = Solid</li> <li>[V] = Vented</li> <li>[2] Block Indicate:</li> <li>[R] = Right Hinge</li> <li>[L] = Left Hinge</li> </ul>	"B1 # of R Units U	ack
Fills the entire opening on Vertical Frames.		
ICDF-H[1][2]-2619	26.250	15U
ICDF-H[1][2]-4919	49.000	28U
ICDF-H[1][2]-6119	61.250	35U
ICDF-H[1][2]-7019	70.000	40U
ICDF-H[1][2]-7819	78.750	45U
Additional heights available to fill portions of the opening on Ver	tical Fram	ies.
ICDF-H[1][2]-2119	21.000	12U
ICDF-H[1][2]-2819	28.000	16U
ICDF-H[1][2]-5219	52.500	30U



# Surface Mount Doors

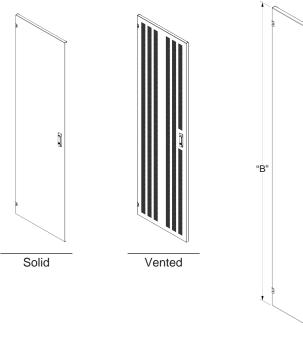
Surface mount doors cover the panel opening of the frame providing the space necessary to mount equipment and accessories behind the door panel. Available in four styles, the doors feature a low-profile lockable single point latch handle and stylized black hinges that allow for 120° of rotation. When mounted, these doors add 1.00" to the overall depth.

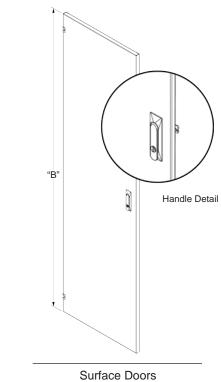
**Note** The frame must be drilled to accept surface doors, therefore door mounting location must be supplied at the time of order placement.

# How to configure the door part number. Example: ICDS-XPR-6119

PREFIX	STYLE	HINGE SIDE	HEIGHT (COVERS THE OPENING)	WIDTH (EIA SPACING)
ICDS-X	S (Solid)	L (Left Hinge)	<b>—78</b> (45U)	19
	V (Vented)	R (Right Hinge)	<b>—70</b> (40U)	
			<b>—61</b> (35U)	
			<b>-49</b> (28U)	
			<b>26</b> (15U)	

### **Door Styles Available**





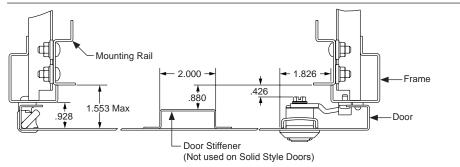
[16-gauge steel]

# Part Numbers

19" EIA Width		
<ul> <li>[1] Block Indicate:</li> <li>[S] = Solid</li> <li>[V] = Vented</li> <li>[2] Block Indicate:</li> <li>[R] = Right Hinge</li> <li>[L] = Left Hinge</li> </ul>	"B" Overa Heigh	
Covers the entire opening on Vertical fr	ames	
ICDS_X[1][2]_2610	20 12	5 covers 1511

ICDS-X[1][2]-2619	29.125	covers	150
ICDS-X[1][2]-4919	51.875	covers	28U
ICDS-X[1][2]-6119	64.125	covers	35U
ICDS-X[1][2]-7019	72.875	covers	40U
ICDS-X[1][2]-7819	81.625	covers	45U

# **Section View**

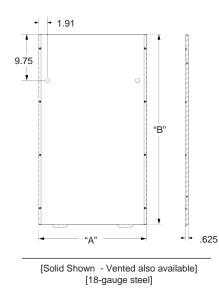


# Side Panels

Outside removable side panels make secure access easy. Two formed tabs lock the side panel into the bottom of the frame while two external latches near the top secure the panel in place. Select from one of three fastener choices, sold separately.

#### **Part Numbers**

Solid	Vented	"A" Overall Depth	"B" Overall Height	Use w/ frames w/ this overall depth	Use w/ frames w/ this usable height	
ICXSP-2626-S	ICXSP-2626-V	22.750	26.281	26.312	26.250	15U
ICXSP-3149-S	ICXSP-3149-V	28.000	49.031	31.562	49.000	28U
ICXSP-3161-S	ICXSP-3161-V	28.000	61.281	31.562	61.250	35U
ICXSP-3661-S	ICXSP-3661-V	33.250	61.281	36.875	61.250	35U
ICXSP-3170-S	ICXSP-3170-V	28.000	70.031	31.562	70.000	40U
ICXSP-3670-S	ICXSP-3670-V	33.250	70.031	36.875	70.000	40U



# **Fastener Options**

Identify the fastener function that best meets your requirement. The fastener will be assembled prior to shipment.



**Part Number** 

LATCH/KEYED



Part Number

LATCH/SLOTTED



Part Number

		Part Number	Description	Where Used
		HW-092 (AHWX-092-003219)	#10-32 Clip Nut	Use when mounting 5/8" or 1/8" thick filler/closure panels or other rack-mountable equip- ment/electronics to thru hole mounting rails. Use with HW-103, HW-104, HW-303 or HW-304 panel screws.
quipment	a contraction of the second se	HW-104	#10-32 x .500" Panel Screw	Used when mounting 1/8" thick filer/closure panels or other rack-mountable equipment/elec- tronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
d Other Ed		HW-304	#10-32 x .500" Panel Screw - Black	Used when mounting 1/8" thick filer/closure panels or other rack-mountable equipment/elec- tronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
ctronics ar		HW-103	#10-32 x 1.125" Panel Screw	Used for mounting 5/8" formed filler/closure panels or other rack-mountable equipment/ electronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
Mounting Panels, Electronics and Other Equipment	J.	HW-303	#10-32 x 1.125" Panel Screw - Black	Used for mounting 5/8" formed filler/closure panels or other rack-mountable equipment/ electronics to tapped mounting rails or in conjunction with clip nut HW-092 on thru-hole rails. Comes with polyethylene washer.
Mounting	S. Community	HW-110	#10 self-tapping screw "A" threads.	Used for mounting laminated filler/closure panels.
		HW-1032	#10-32 Panel Stand-off	Used for mounting 1/8" thick filler/closure panels to bring them flush with front of frame. Use with HW-154 keps nut and HW-104 or HW-304 panel screws.
Joining Frames		XJCX-F10-000000	Joining Kit	Sold in pairs. Used to join vertical or slope front frames side by side. Kit consists of Joining Clip, Clip Nut and Screw.
Joining		AJCX-HDX-000100	Joining Kit	Sold in pairs. Used to bolt turret frames to a vertical or slope front frames. Kit consists of Joining Clip, Clip Nut and Screw.
	8	AHWX-272-161637	3/8-16 Lift Eye	Part of the lift kit assembly. Use with AHWX-510-000037 lock washer and AHWX-022-201637 hex head screw.
Lift Kits		AHWX-510-000037	3/8 Lock Washer	Part of the lift kit assembly. Use with AHWX-272-161637 lift eye nut and AHWX-022-0201637 hex head screw.
	C summer	AHWX-022-201637	3/8-16 x 1-1/4" Hex Head Screw	Part of the lift kit assembly. Use with AHWX-272-161637 lift eye nut and AHWX-510-000037 lock washer.
		AHWX-110-220016	Floor Tie Down Spacer	This spacer is used when bolting a frame to the floor. The spacer is placed between the frame or corner gusset plate and the floor before the tie down bolt is applied.
Other	E)	AHWX-192-002025	1/4-20 Clip Nut	Used for mounting plinth (pontoon) bases to frames with AHWX-722-102025 screw.
	(C) Marine	AHWX-722-102025	1/4-20 x 5/8" Screw	Used for mounting plinth (pontoon) bases to frames with AHWX-192-002025 clip nut.

# 10 Series Ordering Guide

Frame Options	Side	Side Panel Options				
	Panels	Latches				
	[1] Block Indicate: [-\$] = Solid [-V] = Vented	[1] Block Indicate: [/WING] = Wing Style [/SLOTTED] = Slotted Style [/KEYED] = Keyed Style Note: Order 2 per side panel.				
Vertical Frames 15U 28U 35U 40U 45U	Left/Right					
ICXFR-262619	ICXSP-2626[1]	LATCH[1]				
ICXFR-314919	ICXSP-3149[1]	LATCH[1]				
ICXFR-316119	ICXSP-3161[1]	LATCH[1]				
ICXFR-317019	ICXSP-3170[1]	LATCH[1]				
ICXFR-367019	ICXSP-3670[1]	LATCH[1]				
ICXFR-317819	ICXSP-3178[1]	LATCH[1]				

Frame Options	Full Heig	Full Height Door Options			
	Flush Doors	Surface Doors			
	[1] Block Indicate: [S] = Solid [V] = Vented	[1] Block Indicate: [S] = Solid [V] = Vented			
	[2] Block Indicate: [R] = Right Hinge [L] = Left Hinge	[2] Block Indicate: [R] = Right Hinge [L] = Left Hinge			
Vertical Frames 15U 28U 35U 40U 45U	Front/Rear	Front/Rear			
ICXFR-262619	ICDF-H[1][2]-2619	ICDS-X[1][2]-2619			
ICXFR-314919	ICDF-H[1][2]-4919	ICDS-X[1][2]-4919			
ICXFR-316119	ICDF-H[1][2]-6119	ICDS-X[1][2]-6119			

ICDF-H[1][2]-7019

ICDF-H[1][2]-7019

ICDF-H[1][2]-7819

ICDS-X[1][2]-7019

ICDS-X[1][2]-7019

ICDS-X[1][2]-7819

ICXFR-317019

ICXFR-367019

ICXFR-317819

# 10 Series Ordering Guide

Frame Options	Full Depth Top	Panel Options
	Panels	Fan Panels
	[1] Block Indicate: [blank] = Solid [-PA] = Perforated [-LV] = Louvered	
Vertical Frames 15U 28U 35U 40U 45U		
ICXFR-262619	CXPN-2219[1]	CXPN-2219-FP
ICXFR-314919	CXPN-2819[1]	CXPN-2819-FP
ICXFR-316119	CXPN-3819[1]	CXPN-2819-FP
ICXFR-317019	CXPN-2819[1]	CXPN-2819-FP
ICXFR-367019	CXPN-3319[1]	CXPN-3319-FP
ICXFR-317819	CXPN-2819[1]	CXPN-2819-FP

Frame Options	Botto	Bottom/Base Options			
	Panels	Bases			
	[1] Block Indicate: [blank] = Solid [-PA] = Perforated	Note: Casters sold separately			
Vertical Frames 15U 28U 35U 40U 45U					
ICXFR-262619	CXBP-2619[1]	CXPB-2619			
ICXFR-314919	CXBP-3119[1]	CXPB-3119			
ICXFR-316119	CXBP-3119[1]	CXPB-3119			
ICXFR-317019	CXBP-3119[1]	CXPB-3119			
ICXFR-367019	CXBP-3619[1]	CXPB-3619			
ICXFR-317819	CXBP-3119[1]	CXPB-3119			

# 10 Series Ordering Guide

ICXFR-367019 ICXFR-317819

Frame Options	Full Height Mour	Full Height Mounting Rail Options				
	Thru-Hole/Tapped Rails	Mounting Straps				
	Thru Hole rails are supplied with the frame. Only select this option if you would like a tapped version or need extra rails. [1] Block Indicate: [blank] = Thru Hole (Supplied with Frame) [-T] = Tapped 1 Face	Note: Mounting straps are sold as pairs.				
	Note: Mounting rails are sold as pairs.					
Vertical Frames 15U 28U 35U 40U 45U	Front/Rear	Intermediate				
ICXFR-262619	XMA-26[1]	XMS-26				
ICXFR-314919	XMA-49[1]	XMS-49				
ICXFR-316119	XMA-61[1]	XMS-61				
ICXFR-317019	XMA-70[1]	XMS-70				

XMA-70[1]

XMA-78[1]

rame Options		Shelves						
	Chassis Guides	Fixed Shelf	Pull Out Shelves					
	[R] Block Indicate: [20] = 20.062" A Rail to Rail Setting [26] = 25.125" B Rail to Rail Setting [31] = 30.375" C Rail to Rail Setting [36] = 35.625" D Rail to Rail Setting	[R] Block Indicate:         [20] = 20.062" A Rail to Rail Setting         [26] = 25.125" B Rail to Rail Setting         [31] = 30.375" C Rail to Rail Setting         [36] = 35.625" D Rail to Rail Setting         [1] Block Indicate:         [blank] = Solid         [-PA] = Perforated	[ <b>R</b> ] Block Indicate: [20] = A - 20.062" Rail Setting [26] = B - 25.125" Rail Setting [31] = C - 30.375" Rail Setting [36] = D - 35.625" Rail Setting					

XMS-70

XMS-78

ICXFR-262619	CXCG-[R]	CXES-[R]19[1]	CXCSQ-[R]19
ICXFR-314919	CXCG-[R]	CXES-[R]19[1]	CXCSQ-[R]19
ICXFR-316119	CXCG-[R]	CXES-[R]19[1]	CXCSQ-[R]19
ICXFR-317019	CXCG-[R]	CXES-[R]19[1]	CXCSQ-[R]19
ICXFR-367019	CXCG-[R]	CXES-[R]19[1]	CXCSQ-[R]19
ICXFR-317819	CXCG-[R]	CXES-[R]19[1]	CXCSQ-[R]19

#### How to Order

Crenlo's enclosure products are configure to order meaning each component of the enclosure is ordered separately. This process allows the most versatility in the final appearance and function of the enclosure or console. Simply follow the steps listed below.



## DETERMINE THE FRAME PART NUMBER

Because the basic building block is the frame it will be your first selection.



# **REVIEW THE ORDERING GUIDE**

Once you have selected a frame part number, locate it in the ordering guide. Note that the ordering guide is organized so that compatible accessories are listed to the right of the frame part numbers. If you cannot find the item desired, contact your local sales representative or Crenlo directly.

# ISSUE ORDERS TO

All correspondence and PO's should be addressed to:

Crenlo		Crenlo
1600 4th Avenue N.W.	-Or-	C/O your local representative
Rochester, MN 55901		

				Customer Name		F	P.O		
				Order Entered By			Date		
Crenlo				Order Taken By			Date		
Emcor Order	Entry Form								
Buyer Name	,				How did you hear about us?				
Buyer Phone					Existing Customer Intern	et 🗌 Advertise	ment	Referral	
Email 1					Sales Representative				
- Email 2									
- Customer Code					Market	Product Ty	pe	Com	missions
- Sales Order					Air Traffic Control	Standard			
- Project Number					Broadcast	Modified Custom		%	
Sales Hold Code					Education/Research	L Custom			
					Energy	OrderType	е	Rep	
Bill To					Food and Beverage GSA	Standard		%	
					HVAC	Instant Em	ncor		
-					Kiosk     Machine Tool	Special Ne	w	Rep	
-					Material Handling/Packaging	Special Re	issue	%	
					Medical/Healthcare Military (Defense/Aerospace)	Tax Status			
Ship To					Reseller	For Resale			
-					Securi ty	Not Taxab	le		
-					Simulator/Training	Exempt			
-					Test/Measurement				
Ship Via	PPD Collect	COD	3rd Party Bill	PPL PPL	Special Instructions				
Quoted Ship Date									
Credit Card #			Ei						
Credit Card # 			Expires CCV#						
-			UUV#						
Address on CC									

# **ESQ Product Line**

ES	Q Product Line
•	Frames 3-7
	Vertical Frames
•	Casters 8-10
	Single Wheel Casters
	Dual Wheel Casters
•	Mounting Rails 11
	Thru-hole (.281 diameter) on both faces
	Tapped (#10-32) on one face &Thru-hole on the other
	Mounting Straps
•	Power 12-13
	Basic
•	Cable Management 14-15
	Vertical Lacing Panels
	Vertical Cable Organizer with Finger Duct
	Cable Ties / Velcro
•	Grounding16
	Bus Bar (entire vertical opening)
	Bus Plate (specific locations)
•	Shelves 17-22
	Monitor Shelf
	2U Sliding Shelf
	Retractable Keyboard Tray
	Chassis Guides
	Heavy Duty Shelf
•	Airflow Management 23-24
	Blowers
	Fan Trays
	Vent Grill
	Vent Panel
	Filters and Other Accessories
•	Panels 25-29
	Top Panels
	Bottom Panels
	Dual Fan Panels
	Cable Pass Through Panels
	Formed Steel Filler Panels
	Flat Aluminum Filler Panels
•	Doors
	Flush Mount
	Surface Mount
•	Side Panels 34
	Inside Removable Solid
	Inside Removable Louvered
•	Hardware
•	Ordering Guide

# **10 Series Product Line**

•	Frames Vertical Frames	39-41
_		10 10
•	Casters	42-40
	Dual Wheel Casters	
_		47
•	Mounting Rails Thru-hole (.281 diameter) on both faces	47
	Tapped (#10-32) on one face &Thru-hole on the	othor
	Mounting Straps	other
	Power	10 10
•	Basic	40-49
_	Cable Management	E0 E4
•	Vertical Lacing Panels	<b>30-3</b> I
	Vertical Lacing Fahlers Vertical Cable Organizer with Finger Duct	
	Cable Ties / Velcro	
	Grounding	50
•	Bus Bar (entire vertical opening)	52
	Bus Plate (specific locations)	
	Shelves	53-58
•	Monitor Shelf	55-50
	2U Sliding Shelf	
	Retractable Keyboard Tray	
	Chassis Guides	
	Heavy Duty Shelf	
	Airflow Management	59-60
•	Blowers	00-00
	Fan Trays	
	Vent Grill	
	Vent Panel	
	Filters and Other Accessories	
•	Panels	61-65
	Top Panels	
	Bottom Panels	
	Dual Fan Panels	
	Cable Pass Through Panels	
	Formed Steel Filler Panels	
	Flat Aluminum Filler Panels	
•	Doors	66-69
	Flush Mount	
	Surface Mount	
•	Side Panels	70
	Inside Removable Solid	
	Inside Removable Louvered	
•	Hardware	71
•	Ordering Guide	

Rack Units	Inches
49 U	85.75"
46 U	80.50"
45 U	78.75"
44 U	77.00"
43 U	75.25"
42 U	73.50"
41 U	71.75"
40 U	70.00"
39 U	68.25"
38 U	66.50"
37 U	64.75"
36 U	63.00"
35 U	61.25"
34 U	59.50"
33 U	57.75"
32 U	56.00"
31 U	54.25"
30 U	52.50"
29 U	50.75"
28 U	49.00"
27 U	47.25"
26 U	45.50"
25 U	43.75"
24 U	42.00"
23 U	40.25"
22 U	38.50"
21 U	36.75"
20 U	35.00"
19 U	33.25"
18 U	31.50"
17 U	29.75"
16 U	28.00"
15 U	26.25"
14 U	24.50"
13 U	22.75"
12 U	21.00"
11 U	19.25"
10 U	17.50"
9 U	15.75"
8 U	14.00"
7 U	12.25"
6 U	10.50"
5 U	8.75"
4 U	7.00"
3 U	5.25"
2 U	3.50"
1 U	1.75"

# Rack Units (U) / Inches Conversion Table



# **Emcor Product Portfolio**

#### **Emcor® Enclosures**

This standard product lineup includes a range of vertical racks and cabinets, which can be configured or modified with numerous accessories and sizes to meet your diverse needs



Emcor<sup>®</sup> Consoles This standard product lineup includes a range of monitoring and control consoles, which can be configured and modified in countless modular configurations.



# Custom ProductsFor those needs that fall outside of Crenlo's standard Emcor products, we<br/>can build completely custom solutions to meet the needs of any customer.Image: Standard Emcor products, we<br/>can build completely custom solutions to meet the needs of any customer.Image: Standard Emcor products, we<br/>can build completely custom solutions to meet the needs of any customer.Image: Standard Emcor products, we<br/>can build completely custom solutions to meet the needs of any customer.Image: Standard Emcor products, we<br/>customer products, we<br/>c



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