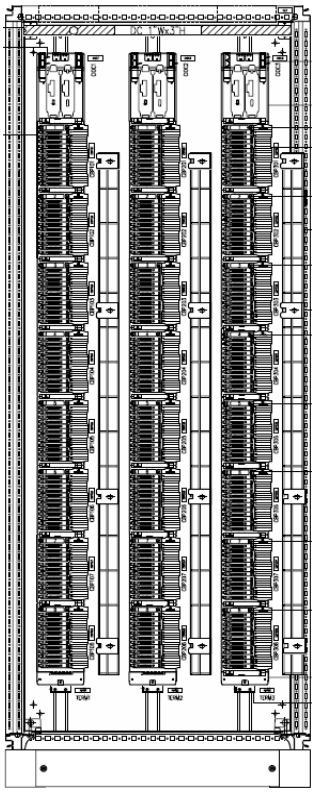
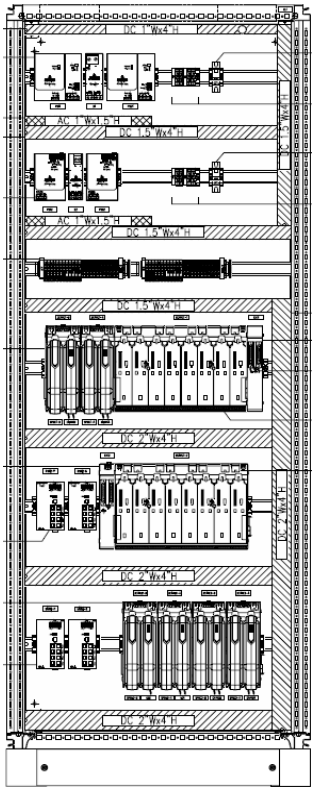
CTO Cabinets





- Delivers “Electronic Marshalling” enabled by CHARMs technology or controller cabinet for CHARM system.
- Fast delivery.
- Reduced system footprint.
- Significantly reduce cabinet design engineering.
- Fully documented package.

Introduction

The DeltaV™ Configure To Order (CTO) Cabinets provide a predesigned solution for DeltaV CHARM I/O system, assembled in industry standard cabinets, ready to be installed on-site and connected to the field I/O.

These cabinets are designed to meet CSA and CE personal safety requirements to help facilitate site installation and inspection. They seamlessly integrate into the overall hardware solution of your DeltaV project.

DeltaV

EMERSON™
Process Management

Benefits

Standardized cabinet designs. The CTO cabinets deliver the full benefits of electronic marshalling. These cabinets meet recommended installation practices of the DeltaV system and each is tested before shipping. The flexibility of DeltaV CHARM I/O allows for 100% utilization of channels, regardless of the I/O signal mix. Late changes are easily accommodated with minimal re-engineering and no rewiring.

Fast delivery. Standard cabinets are available with short lead times when ordered for direct shipment to site.

Reduced system footprint. Equipment room footprint is reduced by eliminating the traditional marshalling cabinets with cross wiring to traditional I/O cards.

Significantly reduce cabinet design engineering. The CHARM I/O cabinets use DkkeltaV Electronic Marshalling, which allows any channel to be assigned to any one of four controllers. This eliminates the task of rationalizing I/O to specific controllers and preserves I/O flexibility to handle late changes to the system.

Fully documented package. Each cabinet is supplied with full documentation showing internal lay-out, bill of materials and internal wiring. Drawings can be incorporated into the project drawing package.

Description

The CTO CHARM Cabinets offering comprises a range of pre-engineered solutions based on industry accepted cabinet enclosures, preinstalled with CHARM I/O or DeltaV controllers and related equipment, ready to be installed in an equipment room and connected to process field instrumentation or CHARM I/O.

The cabinets are typical, free standing enclosures intended for floor mounting in equipment room areas, where temperature and humidity are controlled within the requirements for computer/electronic equipment. They come ready to receive incoming 24 VDC power or available plant AC power. All internal wiring to power distribution components and grounding conductors has been tested at the factory.

Before delivery, each cabinet undergoes a full in-house inspection, to assure that it is fully operational before shipping directly to site. Electronic Marshalling eliminates the need for any internal cross wiring and I/O rationalization there is typically no need for FAT at a staging facility.

The CTO controller cabinets are designed to house your controllers, device net, vim, serial and fieldbus I/O.

The CTO CHARM cabinets support all available low voltage CHARM I/O types with 24 VDC bussed field power. The standard cabinets are designed for easy bottom cable entry.

The CTO cabinets are ordered by selecting a base enclosure model, on top of which one or more predefined options are configured to meet specific project needs.

Base enclosure models are available:

- For different cabinet sizes / entry (Front Access or Front and Rear access).
- For different power distribution needs: DC powered or AC powered
- For different world area design standards and regulations: EUR (Europe) and NA (US/Canada)

Configurable options examples: type of CHARMs (I.S. or non I.S.), type of controllers, type of I/O cards, side panels, cabinet light, nameplate engraving and injected power.

All cabinets come with following equipment installed:

- Primary and secondary 24VDC power distribution for CHARM I/O Cards and field instrumentation.
- Wire ducts or wire basket
- Grounding bars
- Wiring plan pocket
- Emerson Name Plate Holder and blank name plate insert.
- DeltaV equipment based on your configuration (and priced separately): including CHARM I/O carriers, base plates, standard terminal block, address plugs and terminals.

  The CHARM I/O cards and CHARMs are not included and are to be ordered separately.

  The required number of (redundant) CHARM I/O cards and CHARM modules depends on the actual number and types of I/O that will be wired into the cabinet.

The following sections provide a more detailed specification for the CTO CHARM Cabinets and available options.

Overview of CIOC/Controller Cabinets – Base Models for EUROPE World Area

Base Model Number	Description	# CHARM IO	Incoming Power Requirements (Prim and Sec)	Permitted Location / World Area
EUR-CAB-800F-252IO-AC-CIOC	AC Powered Electronic Marshalling Cabinet for 252 CHARM I/O; 800mm W x 600mm D; Front Access; Europe Design Standards and Regulations.	252	120/230 VAC	Safe Area EUR
EUR-CAB-800FR-504IO-AC-CIOC	AC Powered Electronic Marshalling Cabinet for 504 CHARM I/O; 800mm W x 800mm D; Front and Rear Access; Europe Design Standards and Regulations.	504	120/230 VAC	Safe Area EUR
EUR-CAB-800F-288IO-DC-CIOC	DC Powered Electronic Marshalling Cabinet for 288 CHARM I/O; 800mm W x 600mm D; Front Access; Europe Design Standards and Regulations.	288	24 VDC	Safe Area EUR
EUR-CAB-800FR-576IO-DC-CIOC	DC Powered Electronic Marshalling Cabinet for 576 CHARM I/O; 800mm W x 800mm D; Front and Rear Access; Europe Design Standards and Regulations.	576	24 VDC	Safe Area EUR
EUR-CAB-800FR-AC-CNTR-288IO	AC Powered Controller and Electronic Marshalling Cabinet for 288 CHARM I/O; 800mm W x 800mm D; Front and Rear Access; Europe Design Standards and Regulations.	288	120/230 VAC	Safe Area EUR
EUR-CAB-800F-AC-CNTR	AC Powered Controller Cabinet; 800mm W x 600mm D; Front Access; Europe Design Standards and Regulations.	N/A	120/230 VAC	Safe Area EUR
EUR-CAB-800FR-AC-CNTR	AC Powered Controller Cabinet; 800mm W x 800mm D; Front and Rear Access; Europe Design Standards and Regulations.	N/A	120/230 VAC	Safe Area EUR

Overview of CIOC/Controller Cabinets.

The CTO base model reference for cabinets uses the following naming convention:
"EUR or NA-CAB-XXXYY-ZZZIO-IP-DDDD", where

- EUR: Europe Design Standards and Regulations / NA: US/Canada Design Standards and Regulations.
- XXX = cabinet width (mm), e.g. "800", "1200".
- YY = "F" for Front only access (600 mm deep), "FR" for Front and Rear access (800 mm deep).
- ZZZ = maximum I/O's count in this CTO.
- IP = Incoming Power, DC = 24VDC or AC = 120/230VAC.
- DDDD = short description of content and purpose.

Overview of CIOC/Controller Cabinets – Base Models for US/CANADA World Area

Base Model Number	Description	# CHARM IO	Incoming Power Requirements (Prim and Sec)	Permitted Location / World Area
NA-CAB-800F-252IO-AC-CIOC	AC Powered Electronic Marshalling Cabinet for 252 CHARM I/O; 800mm W x 600mm D; Front Access ; Europe Design Standards and Regulations.	252	120/230 VAC	Safe Area US/ CANADA
NA-CAB-800FR-504IO-AC-CIOC	AC Powered Electronic Marshalling Cabinet for 504 CHARM I/O; 800mm W x 800mm D; Front and Rear Access ; Europe Design Standards and Regulations.	504	120/230 VAC	Safe Area US/ CANADA
NA-CAB-800F-288IO-DC-CIOC	DC Powered Electronic Marshalling Cabinet for 288 CHARM I/O; 800mm W x 600mm D; Front Access ; Europe Design Standards and Regulations.	288	24 VDC	Safe Area US/ CANADA
NA-CAB-800FR-576IO-DC-CIOC	DC Powered Electronic Marshalling Cabinet for 576 CHARM I/O; 800mm W x 800mm D; Front and Rear Access; Europe Design Standards and Regulations.	576	24 VDC	Safe Area US/ CANADA
NA-CAB-800FR-AC-CNTR-288IO	AC Powered Controller and Electronic Marshalling Cabinet for 288 CHARM I/O; 800mm W x 800mm D; Front and Rear Access ; Europe Design Standards and Regulations.	288	120/230 VAC	Safe Area US/ CANADA
NA-CAB-800F-AC-CNTR	AC Powered Controller Cabinet; 800mm W x 600mm D; Front Access; Europe Design Standards and Regulations.	N/A	120/230 VAC	Safe Area US/ CANADA
NA-CAB-800FR-AC-CNTR	AC Powered Controller Cabinet; 800mm W x 800mm D; Front and Rear Access; Europe Design Standards and Regulations.	N/A	120/230 VAC	Safe Area US/ CANADA

Overview of CIOC/Controller Cabinets.

The CTO base model reference for cabinets uses the following naming convention:
"EUR or NA-CAB-XXXYY-ZZZIO-IP-DDDD", where

- EUR : Europe Design Standards and Regulations / NA : US/Canada Design Standards and Regulations.
- XXX = cabinet width (mm), e.g. "800", "1200".
- YY = "F" for Front only access (600 mm deep), "FR" for Front and Rear access (800 mm deep).
- ZZZ= maximum I/O's count in this CTO.
- IP= Incoming Power, DC=24VDC or AC=120/230VAC.
- DDDD= short description of content and purpose.

Overview of CIOC/Controller Cabinets Options for EUROPE World Area

				Base Model	EUR-CAB-800F-252IO-AC-CIOC	EUR-CAB-800FR-504IO-AC-CIOC	EUR-CAB-800F-288IO-DC-CIOC	EUR-CAB-800FR-576IO-DC-CIOC	EUR-CAB-800FR-AC-CNTR-288IO	EUR-CAB-800F-AC-CNTR	EUR-CAB-800FR-AC-CNTR
				World Area	EUR	EUR	EUR	EUR	EUR	EUR	EUR
				Power Input (DC : 24VDC, AC :120/230VAC)	AC	AC	DC	DC	AC	AC	AC
				Enclosure Access (F : Front, FR : Front-Rear)	F	F/R	F	FR	FR	F	F/R
				# CHARM I/O	252	504	288	576	288		
Enclosure Options											
Nameplate Engraving	G		0	No	o	o	o	o	o	o	o
			1	Yes	•	•	•	•	•	•	•
Type of CHARMS *(to be specified for each row of CHARMS)*	C		1	Non I.S.	•	•	•	•	•		
			2	I.S.	o	o	o	o	o		
Cabinet Light	L		1	No	o	o	o	o	o	o	o
			2	Yes	•	•	•	•	•	•	•
Temperature Monitoring	T		0	No			•	•			
			1	Thermostat	•	•	o	o	•	•	•
Door Fans	F		1	Continuous Run	•	•			•	•	•
			2	Thermostat Controlled	o	o			o	o	o
Plinth	D		1	100mm	•	•	•	•	•	•	•
			2	200mm	o	o	o	o	o	o	o
Side Panels	S		0	No	o	o	o	o	o	o	o
			1	Yes	•	•	•	•	•	•	•
Door Hing	H		1	Left Hinged	o	o	o	o	o	o	o
			2	Right Hinged	•	•	•	•	•	•	•
Baying Kit	B		0	No	•	•	•	•	•	•	•
			1	Yes	o	o	o	o	o	o	o
Cable Clamp Rail	R		0	No	•	•	•	•	•	•	•
			1	Yes	o	o	o	o	o	o	o
Power Supply Rating	P		1	20 A	•					•	
			2	40 A	o					o	
			3	20 A + 20 A		•			•		•
			4	20 A + 40 A		o			o		o
			5	40 A + 20 A					o		o
			6	40 A + 40 A					o		o
			7	20 A + 20 A with SPD							o
			8	40 A + 20 A with SPD							o
Utility Socket Selection	U		0	No	•	•	•	•	•	•	•
			1	Yes	o	o	o	o	o	o	o
Copper to FO Media Converter	E		0	No	•	•	•	•			
			1	Yes	o	o	o	o			
AC Interposing Relays	A		0	No			•	•			
			1	12 Relays			o	o			
			2	24 Relays			o	o			
			3	48 Relays			o	o			
24VDC for Injected Power	V		0	No	•	•	•	•	•		
			1	6 Circuits	o	o	o	o	o		
			2	12 Circuits	o	o	o	o	o		
			3	18 Circuits							
			4	24 Circuits	o	o	o	o	o		
Fieldpower for DeltaV S-series	W		0	No					•	•	•
			1	6 Circuits					o	o	o[1]
			2	12 Circuits					o	o	o[1]
Certification	Z		0	No	o	o	o	o	o	o	o
			1	CE	•	•	•	•	•	•	•
			2	CSA							

• : Default option setting

o : Configure To Order option setting, different from default

blank : option setting not possible for the base enclosure

o[1] : Options available for both front and rear side of the cabinet if rear side is configured as a NON DeltaV SIS side

: Intentionally left blank to fill in your configuration choices

Following more detailed options can be specified upon order (if applicable) :

- Disconnect switches for DC power feeds can be configured separately for CIOC power and for injected power inputs.
- Type of utility socket: German-Russia / France-Poland / Switzerland / UK-Ireland / USA-Canada / Italy.
- Power supply configuration: Power for CIOC and/or injected power (with diode), Front and Rear position in cabinet.
- 24VDC for injected power: optionally prewired (according specification to be provided).
- Wiring color scheme different from default: US (L- Black, N- White) / EUR (L- Brown, N- Blue).
- Input Voltage different from default: US (120VAC) / EUR (230VAC).

Overview of CIOC/Controller Cabinets Options for US/CANADA World Area

				Base Model	NA-CAB-800F-252IO-AC-CIOC	NA-CAB-800FR-504IO-AC-CIOC	NA-CAB-800F-288IO-DC-CIOC	NA-CAB-800FR-576IO-DC-CIOC	NA-CAB-800FR-AC-CNTR-288IO	NA-CAB-800F-AC-CNTR	NA-CAB-800FR-AC-CNTR
				World Area	US/CAN	US/CAN	US/CAN	US/CAN	US/CAN	US/CAN	US/CAN
				Power Input (DC: 24VDC, AC:120/230VAC)	AC	AC	DC	DC	AC	AC	AC
				Enclosure Access (F: Front, FR: Front-Rear)	F	F/R	F	FR	FR	F	F/R
				# CHARM I/O	252	504	288	576	288		
Enclosure Options											
Nameplate Engraving	G		0	No	o	o	o	o	o	o	o
			1	Yes	•	•	•	•	•	•	•
Type of CHARMS *(to be specified for each row of CHARMS)*	C		1	Non I.S.	•	•	•	•	•		
			2	I.S.	o	o	o	o	o		
Cabinet Light	L		1	No	•	o	•	•	o	o	o
			2	Yes	o	•	o	o	•	•	o
Temperature Monitoring	T		0	No			•	•			
			1	Thermostat	•	•	o	o	•	•	•
Door Fans	F		1	Continuous Run	•	•			•	•	•
			2	Thermostat Controlled	o	o			o	o	o
Plinth	D		1	100mm							
			2	200mm							
Side Panels	S		0	No	o	o	o	o	o	o	o
			1	Yes	•	•	•	•	•	•	•
Baying Kit	B		0	No	•	•	•	•	•	•	•
			1	Yes	o	o	o	o	o	o	o
Cable Clamps Rail	R		0	No	•	•	•	•	•	•	•
			1	Yes	o	o	o	o	o	o	o
Power Supply Rating	P		1	20 A	•					•	
			2	40 A	o					o	
			3	20 A + 20 A		•			•		•
			4	20 A + 40 A		o			o		o
			5	40 A + 20 A					o		o
			6	40 A + 40 A					o		o
			7	20 A + 20 A with SPD							o
			8	40 A + 20 A with SPD							o
Utility Socket Selection	U		0	No	•	•	•	•	•	•	•
			1	Yes	o	o	o	o	o	o	o
Copper to FO Media Converter	E		0	No	•	•	•	•			
			1	Yes	o	o	o	o			
AC Interposing Relays	A		0	No			o	o	•	•	•
			1	12 Relays			•	•			
			2	24 Relays			o	o			
			3	48 Relays			o	o			
24VDC for Injected Power	V		0	No	•	•	•	•	•		
			1	6 Circuits	o	o	o	o	o		
			2	12 Circuits	o	o	o	o	o		
			3	18 Circuits							
			4	24 Circuits	o	o	o	o	o		
Fieldpower for DeltaV S-series	W		0	No					•	•	•
			1	6 Circuits					o	o	o[1]
			2	12 Circuits					o	o	o[1]
Certification	Z		0	No	•	•	•	•	•	•	•
			1	CE							
			2	CSA	o	o	o	o	o	o	o

• : Default option setting

o : Configure To Order option setting, different from default

blank : option setting not possible for the base enclosure

o[1] : Options available for both front and rear side of the cabinet if rear side is configured as a NON DeltaV SIS side

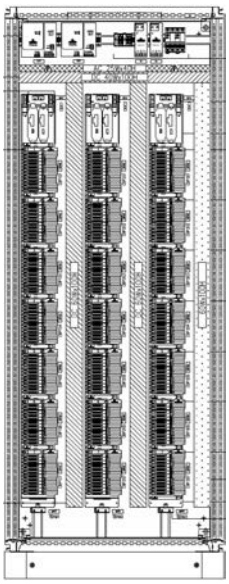
: Intentionally left blank to fill in your configuration choices

Following more detailed options can be specified upon order (if applicable):

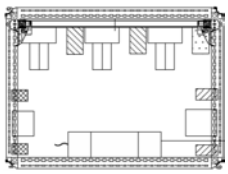
- Disconnect switches for DC power feeds can be configured separately for CIOC power and for injected power inputs.
- Power supply configuration: Power for CIOC and/or injected power (with diode), Front and Rear position in cabinet.
- 24VDC for injected power: optionally prewired (according specification to be provided).
- Wiring color scheme different from default: US (L- Black, N- White) / EUR (L- Brown, N- Blue).
- Input Voltage different from default: US (120VAC) / EUR (230VAC).

Cabinet Specifications

EUR-CAB-800F-252IO-AC-CIOC	
Dimensions	800mm (W) x 600mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front Access – single door, right/left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~200 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Configurable as 2 X 20A or 2 X 40A
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).



Front View



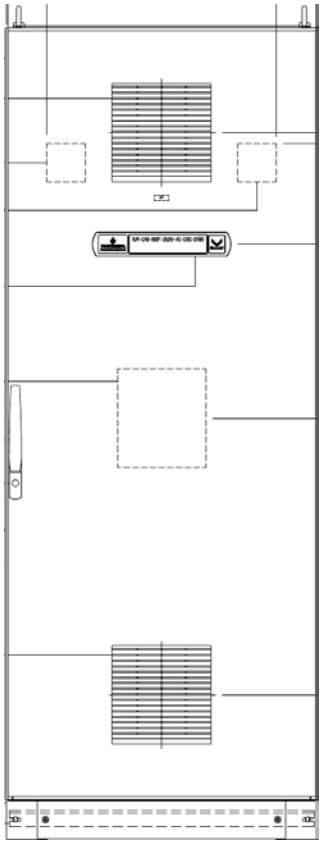
Top View

3 CHARM IO rails, for total of 252 I/O, each rail containing:

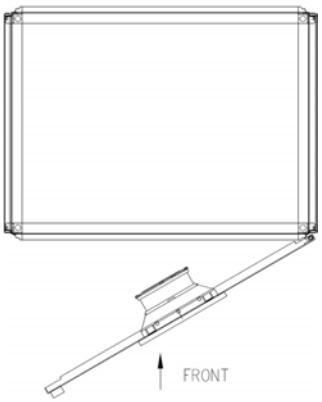
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 7 x CHARM Base Plate.
- 7 x CHARM Address Plug.
- 84 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

EUR-CAB-800F-252IO-AC-CIOC



Front View

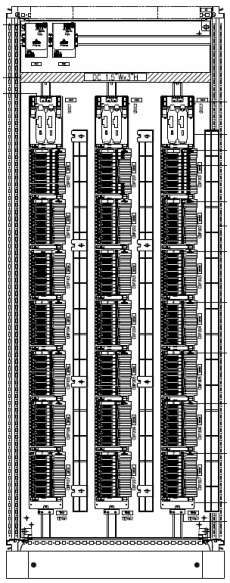


Top View

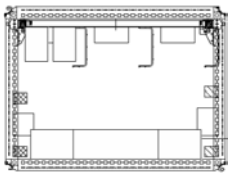
External Layout Drawing for EUR-CAB-800F-252IO-AC-CIOC: Front and Top View.

NA-CAB-800F-252IO-AC-CIOC	
Dimensions	800mm (W) x 600mm (D) x 2000mm (H) + 100mm Plinth
Access	Front Access – single door, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~200 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Input Power	Primary and Secondary 120 VAC
Power Supply Rating	Configurable as 2 X 20A or 2 X 40A
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



Top View

Size of Wire Baskets:
150mm H x 54mm D

Example BOM:

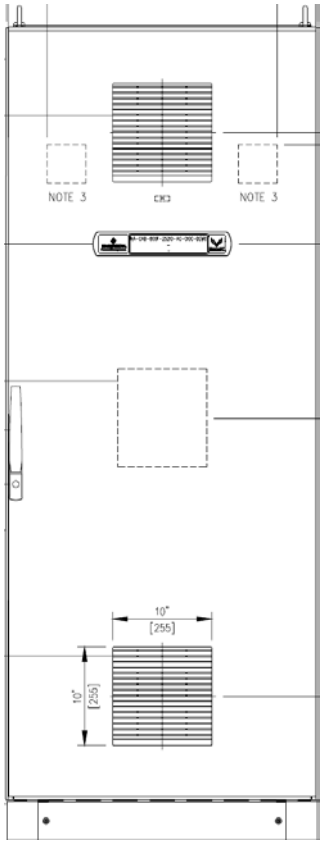
- Power Supply subassembly.

3 CHARM IO rails, for total of 252 I/O, each rail containing:

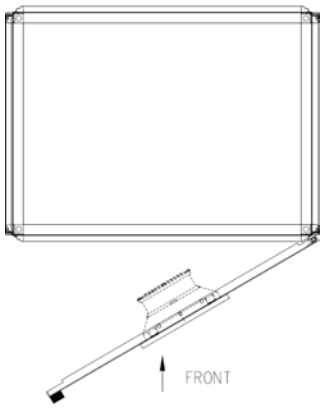
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 7 x CHARM Base Plate.
- 7 x CHARM Address Plug.
- 84 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

NA-CAB-800F-252IO-AC-CIOC



Front View

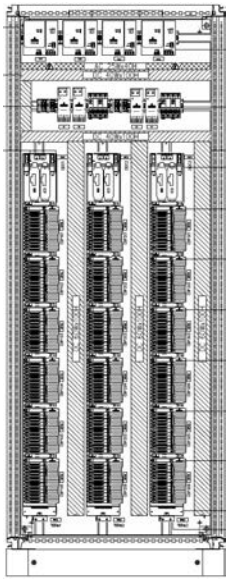


Top View

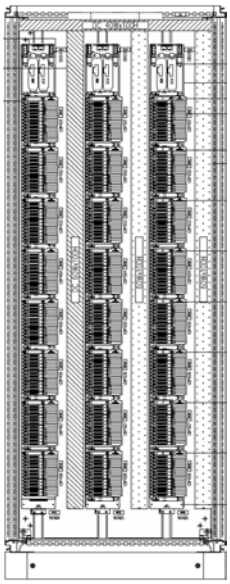
External Layout Drawing for NA-CAB-800F-252IO-AC-CIOC: Front and Top View.

EUR-CAB-800FR-504IO-AC-CIOC	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front and Rear Access, single doors, Right/Left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



Rear View

Example BOM:

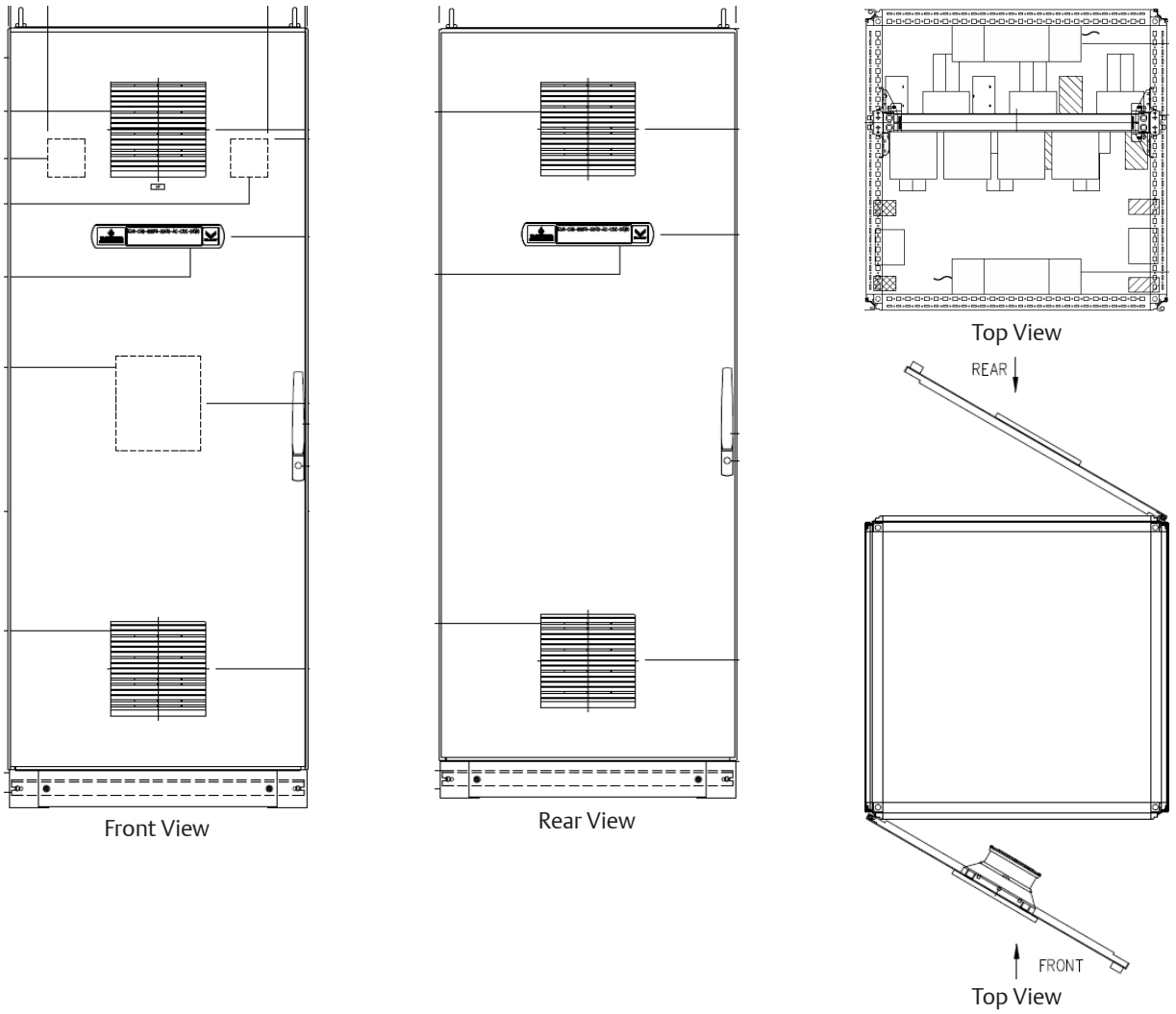
- Power Supply subassembly.

6 CHARM IO rails, for total of 504 I/O, each rail containing:

- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 7 x CHARM Base Plate.
- 7 x CHARM Address Plug.
- 84 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.
- Rear: same configuration as front.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

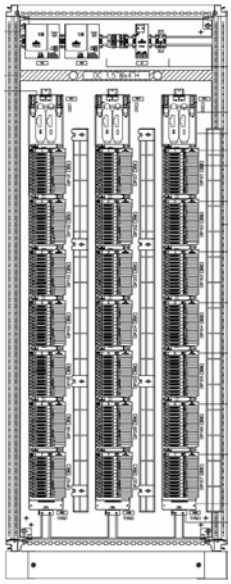
EUR-CAB-800FR-504IO-AC-CIOC



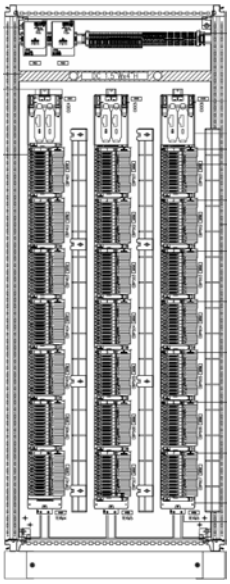
External Layout Drawing for EUR-CAB-800FR-504IO-AC-CIOC: Front, Rear, and Top View.

NA-CAB-800FR-504IO-AC-CIOC	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm Plinth
Access	Front and Rear Access, single doors, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Input Power	Primary and Secondary 120 VAC
Power Supply Rating	Individually configurable as 2 X 20A or 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



Rear View

Example BOM:

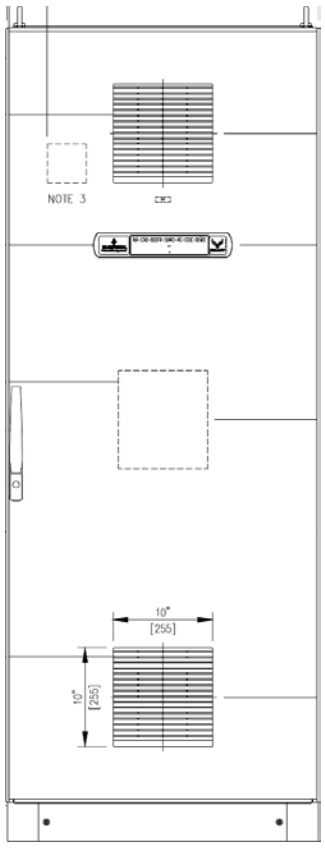
- Power Supply subassembly.

6 CHARM IO rails, for total of 504 I/O, each rail containing:

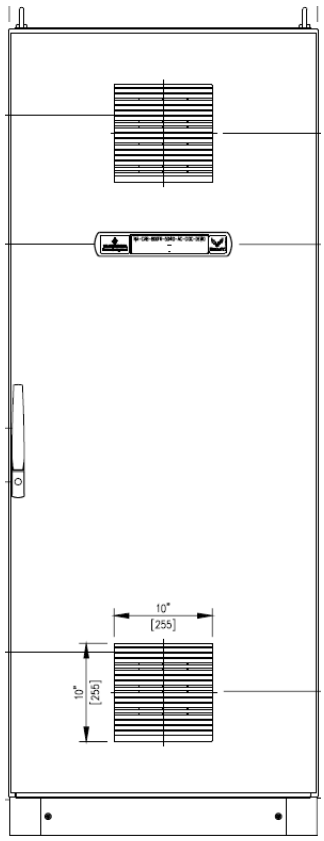
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 7 x CHARM Base Plate.
- 7 x CHARM Address Plug.
- 84 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.
- Rear: same configuration as front.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

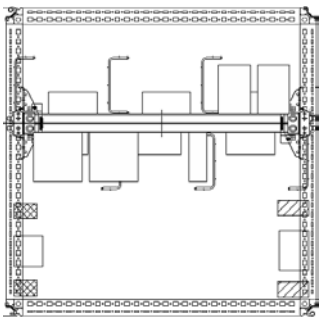
NA-CAB-800FR-504IO-AC-CIOC



Front View

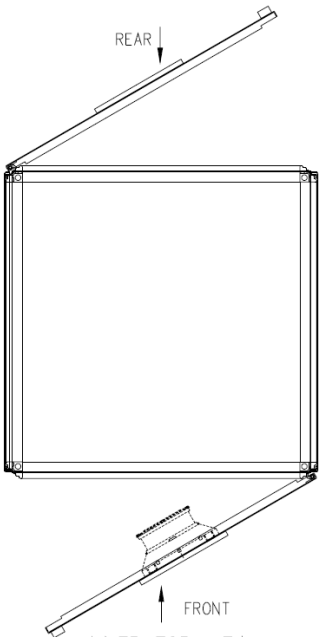


Rear View



Top View

Size of Wire Baskets:
150mm H x 54mm D

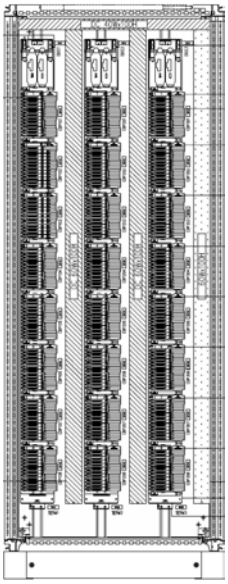


Top View

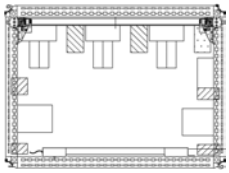
External Layout Drawing for NA-CAB-800FR-504IO-AC-CIOC: Front, Rear, and Top View.

EUR-CAB-800F-288IO-DC-CIOC	
Dimensions	800mm (W) x 600mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front Access – single door, right/left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~200 kg
Color	Cabinet RALl7035, Plinth RAL7022
Temperature Monitoring	Not included, Configurable option: Thermostat.
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Power Requirements – Internal Power Distribution	Primary and secondary 24VDC power to be supplied from outside the cabinet (e.g. from adjacent cabinet or dedicated Power Supply Cabinet). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in left side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



Top View

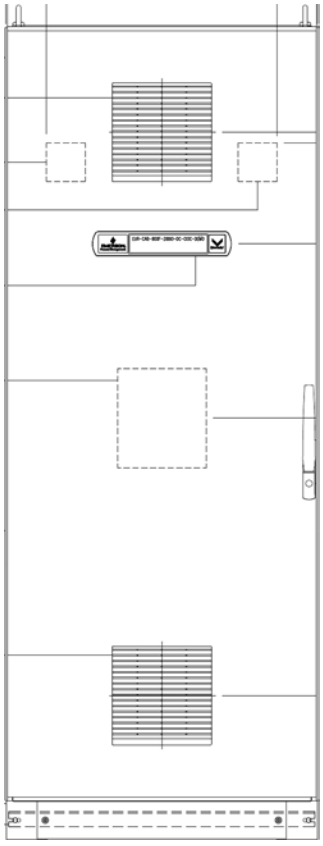
Example BOM:

3 CHARM IO rails, for total of 288 I/O, each rail containing:

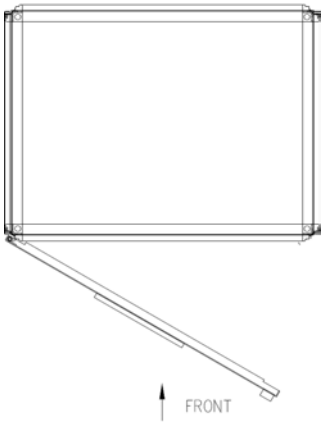
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 8 x CHARM Base Plate.
- 8 x CHARM Address Plug.
- 96 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

EUR-CAB-800F-288IO-DC-CIOC



Front View

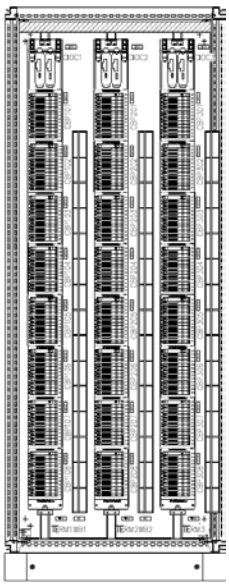


Top View

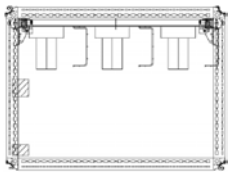
External Layout Drawing for EUR-CAB-800F-288IO-DC-CIOC: Front and Top View.

NA-CAB-800F-288IO-DC-CIOC	
Dimensions	800mm (W) x 600mm (D) x 2000mm (H) + 100mm Plinth
Access	Front Access – single door, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~200 kg
Color	Cabinet RAL7035, Plinth RAL7022
Temperature Monitoring	Not included, Configurable option: Thermostat.
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Power Requirements – Internal Power Distribution	Primary and secondary 24VDC power to be supplied from outside the cabinet (e.g. from adjacent cabinet or dedicated Power Supply Cabinet). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in left side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



Top View

Size of Wire Baskets:
150mm H x 54mm D

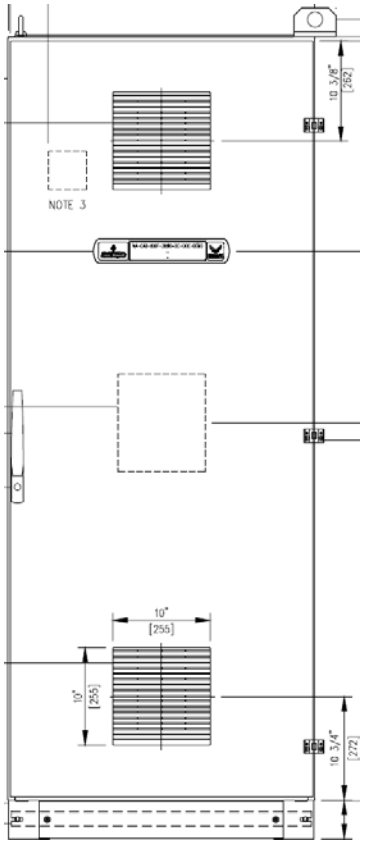
Example BOM:

3 CHARM IO rails, for total of 288 I/O, each rail containing:

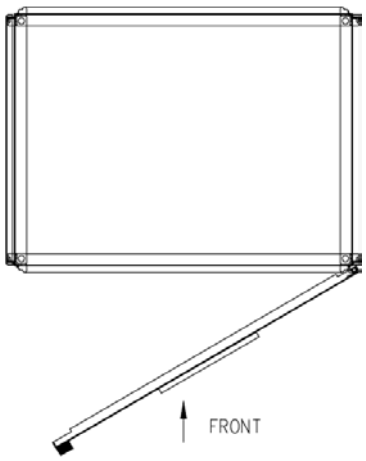
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 8 x CHARM Base Plate.
- 8 x CHARM Address Plug.
- 96 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

NA-CAB-800F-288IO-DC-CIOC



Front View

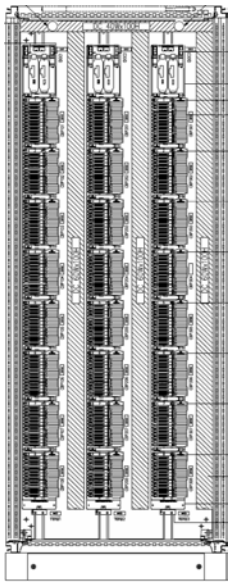


Top View

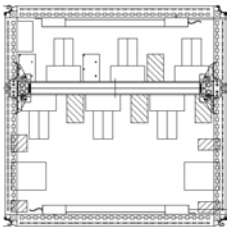
External Layout Drawing for NA-CAB-800F-288IO-DC-CIOC: Front and Top View.

EUR-CAB-800FR-576IO-DC-CIOC	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front and Rear Access, single doors, right/left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Temperature Monitoring	Not included, Configurable option: Thermostat.
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Power Requirements – Internal Power Distribution	Primary and secondary 24VDC power to be supplied from outside the cabinet (e.g. from adjacent cabinet or dedicated Power Supply Cabinet) Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in sides).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained Primary and secondary control network between all 6 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front/Rear View



Top View

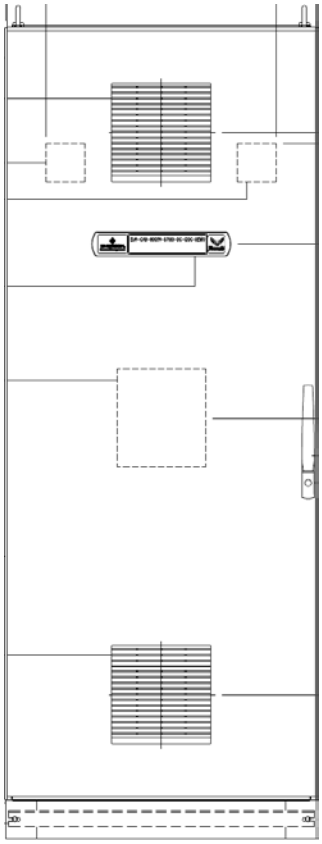
Example BOM:

6 CHARM IO rails, for total of 576 I/O, each rail containing:

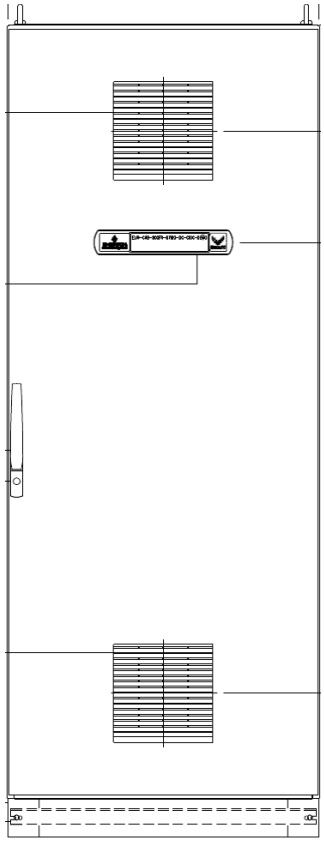
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 8 x CHARM Base Plate.
- 8 x CHARM Address Plug.
- 96 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

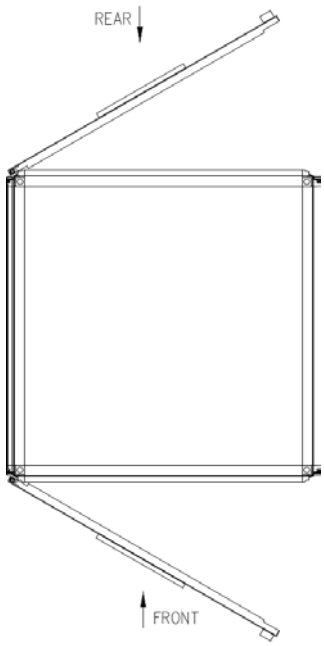
EUR-CAB-800FR-576IO-DC-CIOC



Front View



Rear View

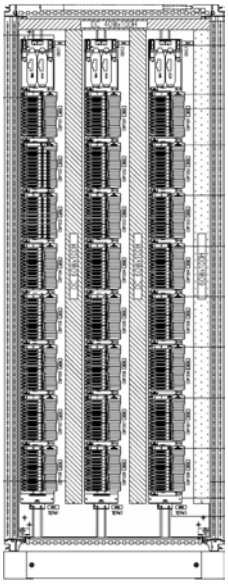


Top View

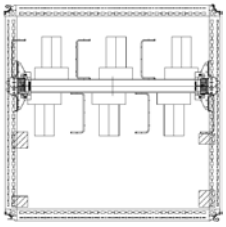
External Layout Drawing for EUR-CAB-800FR-576IO-DC-CIOC: Front, Rear, and Top View.

NA-CAB-800FR-576IO-DC-CIOC	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm Plinth
Access	Front and Rear Access, single doors, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Temperature Monitoring	Not included, Configurable option: Thermostat.
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Power Requirements – Internal Power Distribution	Primary and secondary 24VDC power to be supplied from outside the cabinet (e.g. from adjacent cabinet or dedicated Power Supply Cabinet) Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in sides).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained Primary and secondary control network between all 6 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front/Rear View



Top View

Size of Wire Baskets:
150mm H x 54mm D

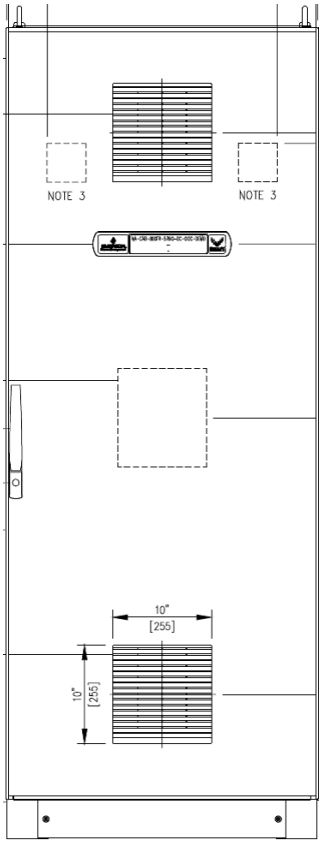
Example BOM:

6 CHARM IO rails, for total of 576 I/O, each rail containing:

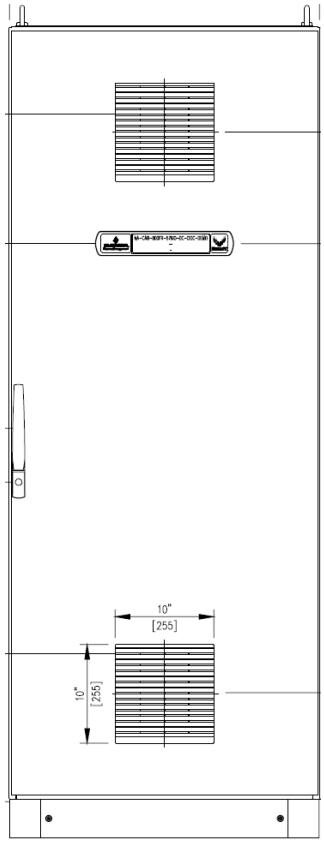
- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 8 x CHARM Base Plate.
- 8 x CHARM Address Plug.
- 96 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

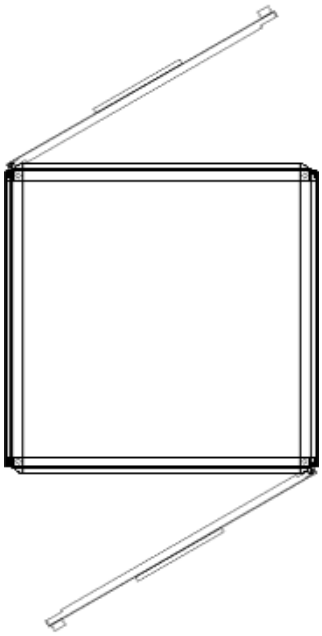
NA-CAB-800FR-576IO-DC-CIOC



Front View



Rear View

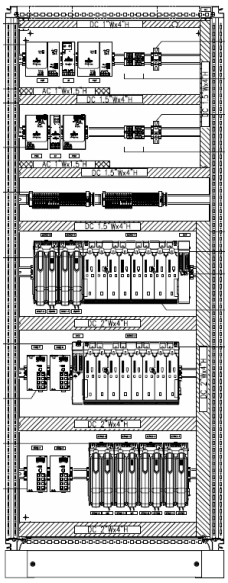


Top View

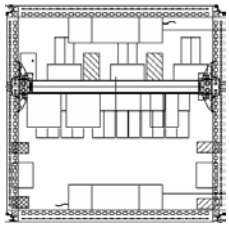
External Layout Drawing for NA-CAB-800FR-576IO-DC-CIOC: Front, Rear, and Top View.

EUR-CAB-800FR-AC-CNTR-288IO	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front and Rear Access, single doors, right/left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Switch or thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 20A or 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



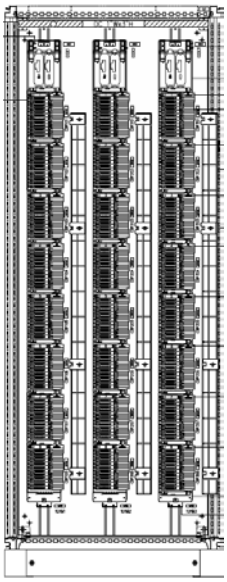
Top View

Example BOM front:

- 2 x Power Supply subassembly.
- 24 VDC Power Distribution.
- 2 x S-series 2-Wide controller carrier.
- 2 x S-series 8-Wide carrier.
- DeltaV Network switch Pri & Sec.
- VIM Network switch Pri & Sec.
- 4 x S-series 2-Wide Carrier for VIM I/O modules.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

EUR-CAB-800FR-AC-CNTR-288IO



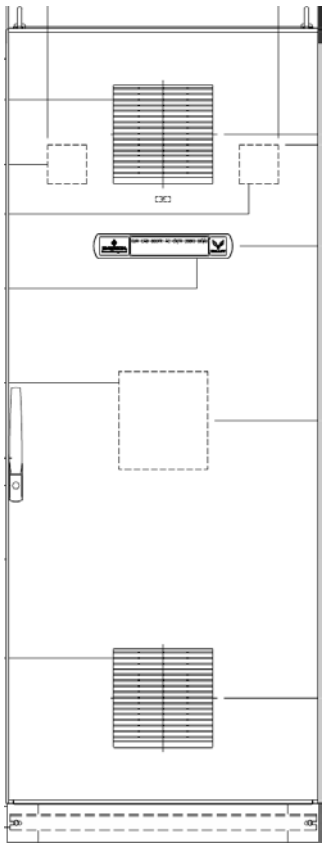
Rear View

Example BOM Rear:

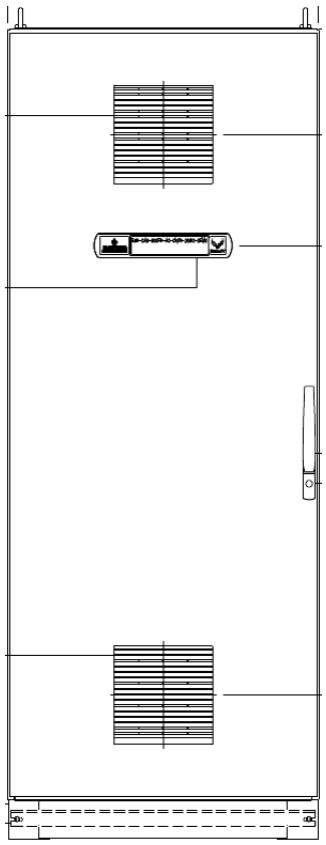
3 CHARM IO rails, for total of 288 I/O, each rail containing:

- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 8 x CHARM Base Plate.
- 8 x CHARM Address Plug.
- 96 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

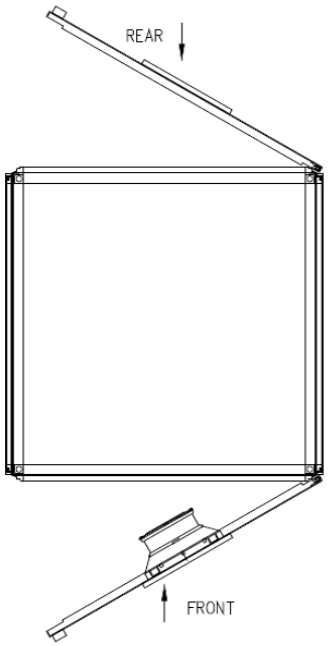
No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.



Front View



Rear View

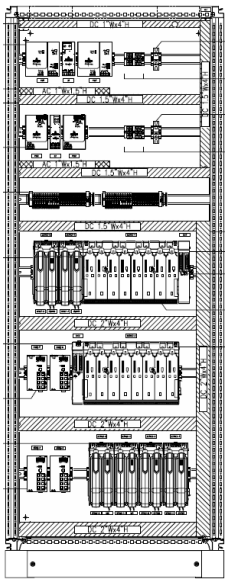


Top View

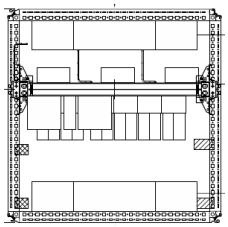
External Layout Drawing for EUR-CAB-800FR-AC-CNTR-288IO: Front, Rear, and Top View.

NA-CAB-800FR-AC-CNTR-288IO	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm Plinth
Access	Front and Rear Access, single doors, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Switch or thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



Top View

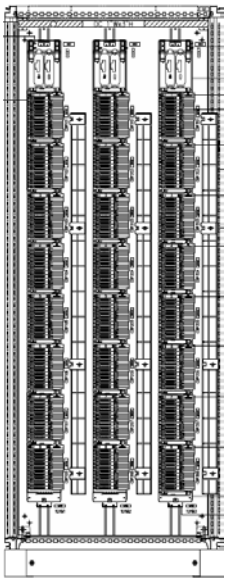
Size of Wire Baskets:
150mm H x 54mm D

Example BOM front:

- 2 x Power Supply subassembly.
- 24 VDC Power Distribution.
- 2 x S-series 2-Wide controller carrier.
- 2 x S-series 8-Wide carrier.
- DeltaV Network switch Pri & Sec.
- VIM Network switch Pri & Sec.
- 4 x S-series 2-Wide Carrier for VIM I/O modules.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

NA-CAB-800FR-AC-CNTR-288IO



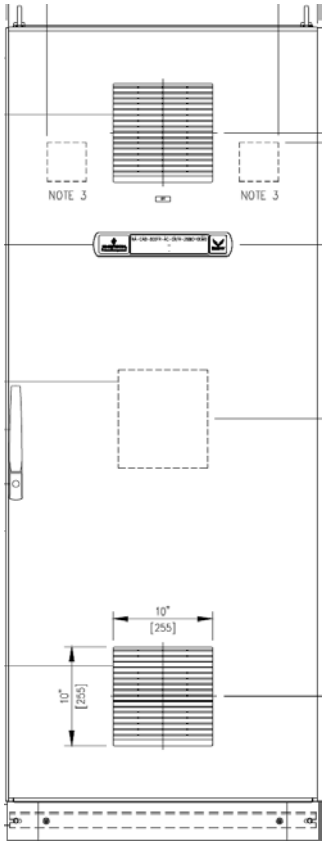
Rear View

Example BOM Rear:

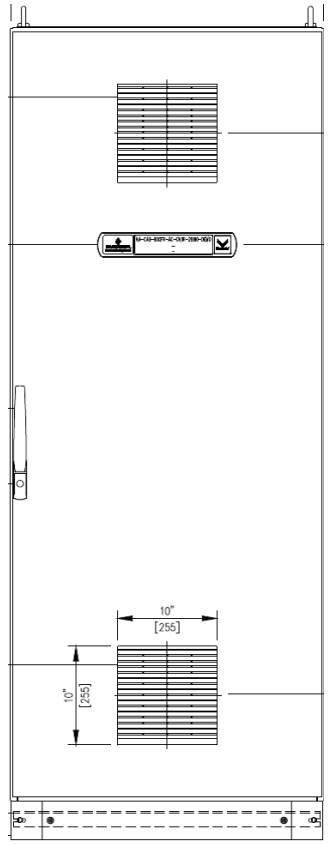
3 CHARM IO rails, for total of 288 I/O, each rail containing:

- 1 x CHARM I/O Carrier with redundant Copper Ethernet connectors.
- 8 x CHARM Base Plate.
- 8 x CHARM Address Plug.
- 96 x CHARM terminal blocks - Screw type.
- 1 x CHARM I/O bus termination.
- Base Plate and Channel Identifier Labels.

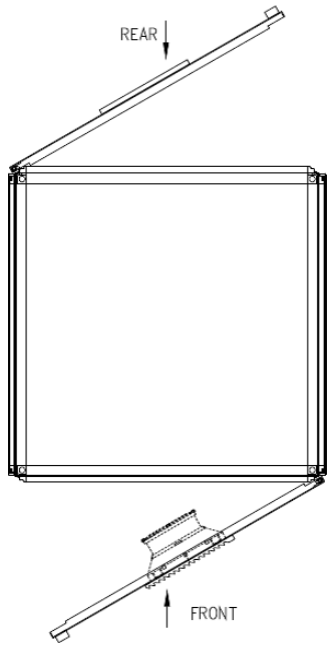
No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.



Front View



Rear View

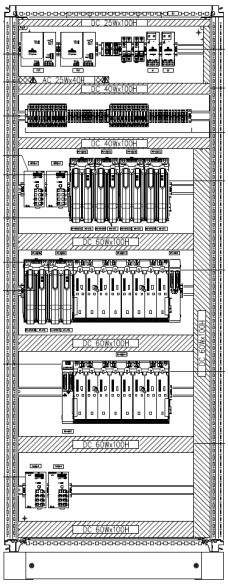


Top View

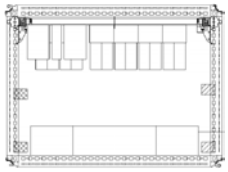
External Layout Drawing for NA-CAB-800FR-AC-CNTR-288IO: Front, Rear, and Top View.

EUR-CAB-800F-AC-CNTR	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front Access, single door, right/left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Switch or thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 20A or 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors.

Example Layout and Installed Equipment:



Front View



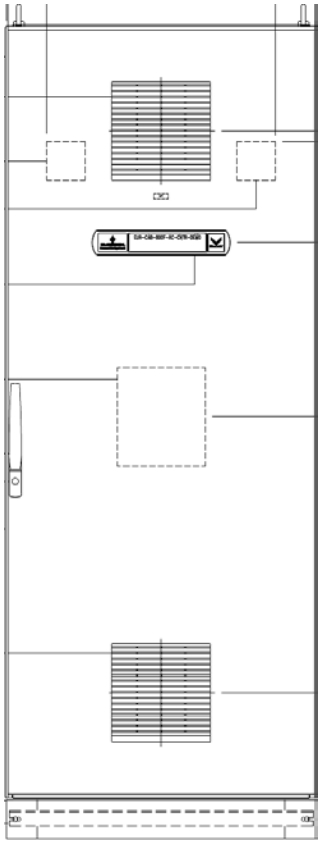
Top View

Example BOM front:

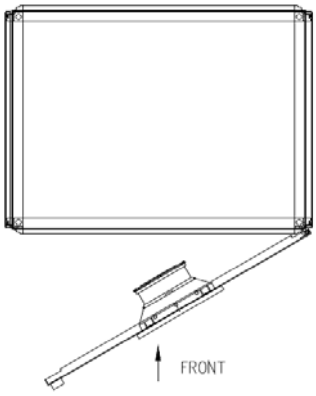
- Power Supply subassembly.
- 24 VDC Power Distribution.
- VIM Network switch Pri & Sec.
- 4 x S-series 2-Wide Carrier for VIM I/O modules.
- 2 x S-series 2-Wide controller carrier.
- 2 x S-series 8-Wide carrier.
- DeltaV Network switch Pri & Sec.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

EUR-CAB-800F-AC-CNTR



Front View

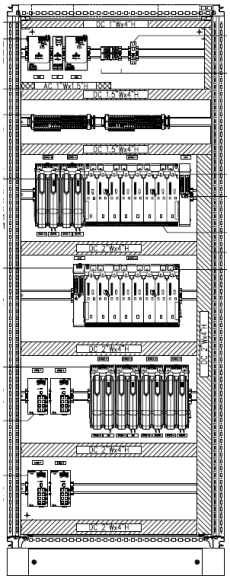


Top View

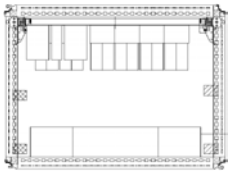
External Layout Drawing for EUR-CAB-800F-AC-CNTR: Front and Top View.

NA-CAB-800F-AC-CNTR	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm Plinth
Access	Front Access, single door, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Switch or thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 20A or 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors.

Example Layout and Installed Equipment:



Front View



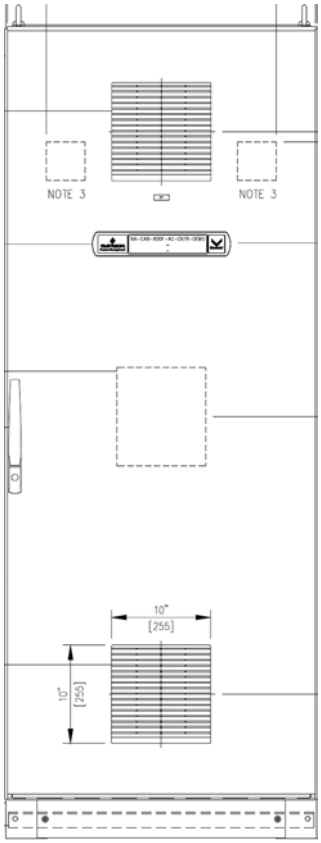
Top View

Example BOM front:

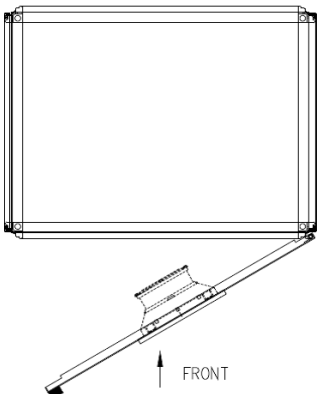
- Power Supply subassembly.
- 24 VDC Power Distribution.
- VIM Network switch Pri & Sec.
- 4 x S-series 2-Wide Carrier for VIM I/O modules.
- 2 x S-series 2-Wide controller carrier.
- 2 x S-series 8-Wide carrier.
- DeltaV Network switch Pri & Sec.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

NA-CAB-800F-AC-CNTR



Front View

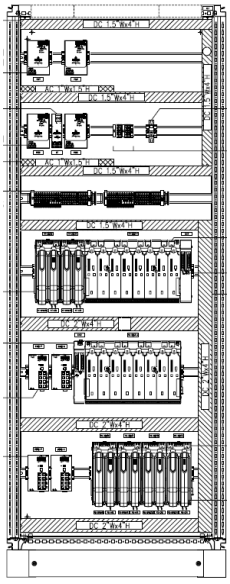


Top View

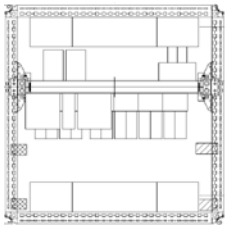
External Layout Drawing for NA-CAB-800F-AC-CNTR: Front and Top View.

EUR-CAB-800FR-AC-CNTR	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm/200mm Plinth configurable
Access	Front and Rear Access, single doors, right/left hand hinged configurable, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Switch or thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations; Default Certification: CE (Europe); Optional: None
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 20A or 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



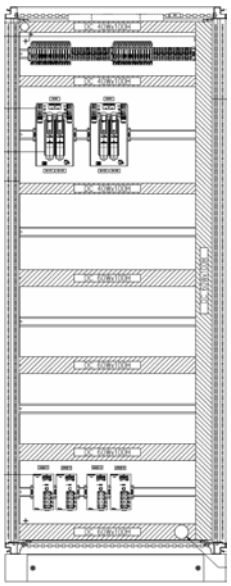
Top View

Example BOM Front:

- 2 x Power Supply subassembly.
- 24 VDC Power Distribution.
- 2 x S series 2-Wide controller carrier.
- 2 x S series 8-Wides carrier.
- DeltaV Network switch Pri & Sec.
- VIM switch Pri & Sec.
- 4 x S-series 2-Wide Carrier for VIM I/O modules.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

EUR-CAB-800FR-AC-CNTR

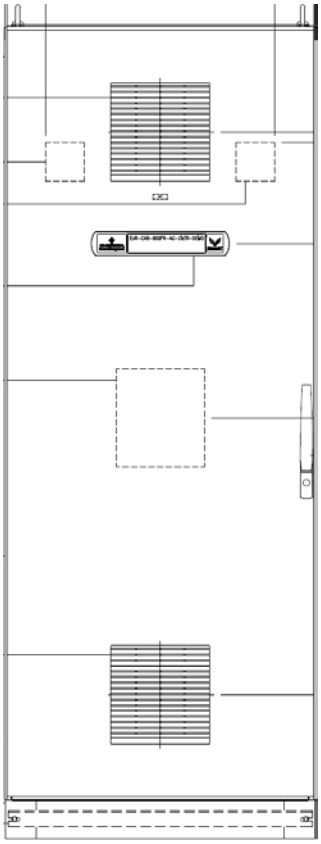


Rear View

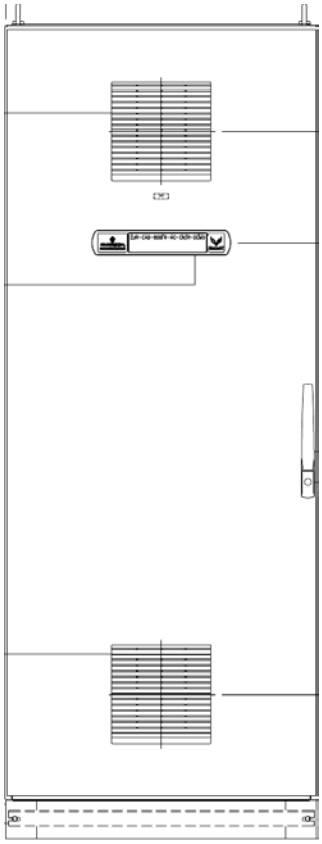
Example BOM Rear:

- 24 VDC Power Distribution.
- 2 x SZ Controller Carrier with redundant Copper Ethernet connectors.
- LSN Switch Pri & Sec.

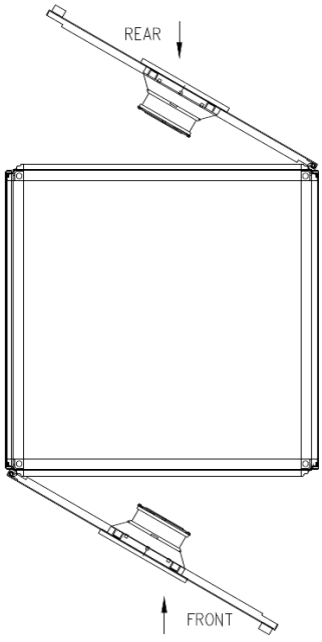
No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.



Front View



Rear View

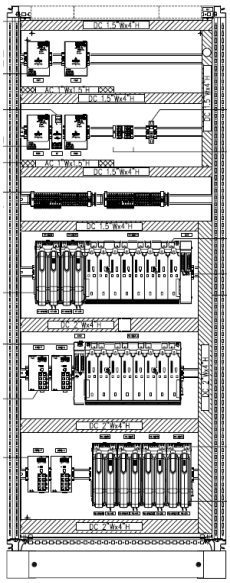


Top View

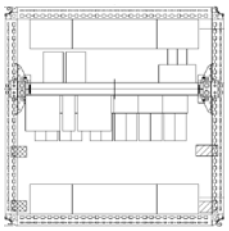
External Layout Drawing for EUR-CAB-800FR-AC-CNTR: Front, Rear, and Top View.

NA-CAB-800FR-AC-CNTR	
Dimensions	800mm (W) x 800mm (D) x 2000mm (H) + 100mm Plinth
Access	Front and Rear Access, single doors, right hand hinged, latch type lock and 2 sets of keys (key N°3524E)
Protection Category	IP54 – NEMA 12
Approximate Weight	~300 kg
Color	Cabinet RAL7035, Plinth RAL7022
Door Fans	Configurable: Continuous run or with thermostat control
Temperature Monitoring	Configurable: Switch or thermostat
Other	Louvered doors with filter, mounting plate, grounding bars, wiring plan pocket, lifting eye bolts on top, bottom cable entry, removable gland plate
Environmental Specifications	Equipment/rack room installation (HVAC controlled), 30°C Max.
Certifications	Installation in Safe Area locations ; Default Certification: None; Optional: CSA (US/Canada)
Input Power	Primary and Secondary 230 VAC
Power Supply Rating	Individually configurable as 2 X 20A or 2 X 40A for Front and Rear
Internal Power Distribution	AC Distribution subassembly (mounted in left side). Fully redundant 24VDC distribution for CHARM I/O cards and bussed field power through switches and fused terminals (mounted in right side).
Control Network	Redundant 100BASE-FX, RJ45 connectors, to be connected to first CIOC carrier. Daisy chained primary and secondary control network between all 3 CIOC carriers is included (can be changed if required).

Example Layout and Installed Equipment:



Front View



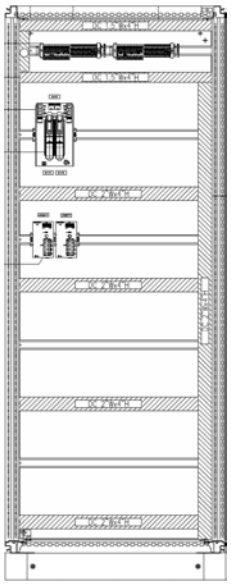
Top View

Example BOM Front:

- 2 x Power Supply subassembly.
- 24 VDC Power Distribution.
- 2 x S series 2-Wide controller carrier.
- 2 x S series 8-Wides carrier.
- DeltaV Network switch Pri & Sec.
- VIM switch Pri & Sec.
- 4 x S-series 2-Wide Carrier for VIM I/O modules.

No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.

NA-CAB-800FR-AC-CNTR

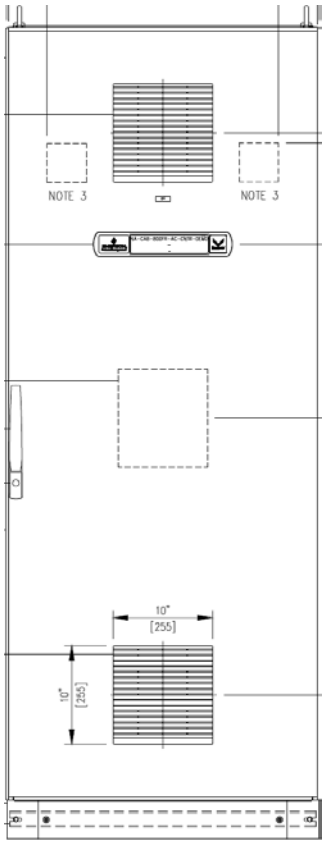


Rear View

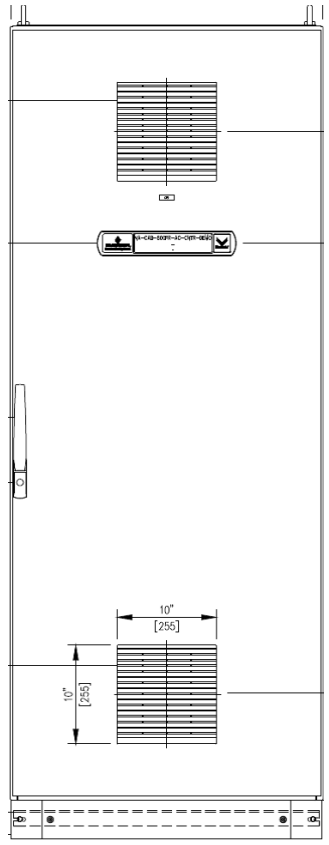
Example BOM Rear:

- 24 VDC Power Distribution.
- 1 x SZ Controller Carrier with redundant Copper Ethernet connectors.
- LSN Switch Pri & Sec.

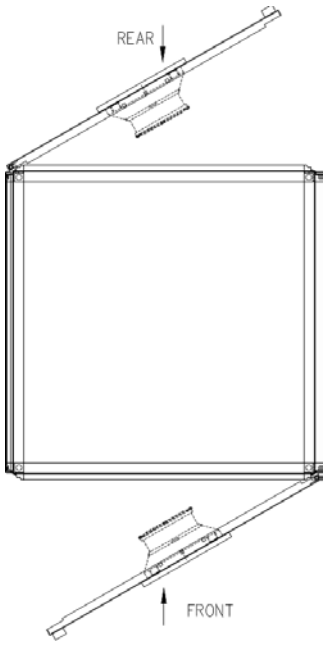
No DeltaV equipment is included in the base model. All DeltaV equipment is to be configured separately through the Emerson quoting tools.



Front View



Rear View



Top View

External Layout Drawing for NA-CAB-800FR-AC-CNTR: Front, Rear, and Top View.

How to order a CTO Cabinet?

Configure To Order CHARM Cabinets are pre-engineered solutions developed by Emerson's Project Management Office (PMO) and made available from Emerson Supply Chain. Basically, the following steps are followed to obtain a CHARM Cabinet:

1. Specify the CHARM Cabinet by selecting the base model and the options required for the project.

   Specifying tools are available to aid in the selection of the right combination of optioned CTOs.

2. Based on the specification, you will then receive:

   - A quotation for the fully assembled Cabinet.
   - The detailed specification (drawing package) matching your configuration, including the Bill of Materials.

3. Approve the drawing package for construction.

4. Order the CHARM Cabinet as per provided quotation and approved drawings.

5. The CHARM Cabinet is assembled, factory tested and delivered to site. The delivery includes the as-built drawing package (AutoCAD).

For questions related to specific project quotations or order processing, please contact your local Emerson Sales office or your regional Emerson assembly center:

For US/Canada St. Louis iCenter:

(**iCenterSTL.Quotes@Emerson.com**)

For Europe Cluj iCenter:

(**Cabinets.Quotes@Emerson.com**)

For Asia Pacific Singapore iCenter:

(**Lisa.Yoong@Emerson.com**)

Project Customizations

"...What if a CTO CHARM Cabinet is 90% what I need, but I really need my Cabinet to have..."

Minor customizations as a variation or addition to the standard CTO offering can often be developed in such a way that the additional effort is incremental.

In case your project would require a customer witnessed Factory Acceptance Test, this can also be accommodated.

Please work with your local Emerson Sales office or regional Emerson assembly center to evaluate any impacts of requested customizations to cost, delivery time and certifications.

System Compatibility

CHARM Cabinets are compatible with DeltaV version 11.3.1 and above

CHARM I/O cards require S-series Controllers

Certifications

The CTO CHARMs Cabinet designs are designed to meet CE and CSA personal safety and EMC requirements. The designs have been submitted for the following certifications:

- Conformity to the relevant European directives, including EMC (CE Marking)
- CSA Mark for US and Canada

For Europe Design Standards and Regulations, the cabinet default comes with CE Certification. Optionally, no certification can be specified.

For US/Canada Design Standards and Regulations, the cabinet default does not come with certification. The CSA Certification is optional.

Refer to the **DeltaV S-series Electronic Marshalling** or to the **DeltaV S-series IS Electronic Marshalling** Product Data Sheet for certification information on the DeltaV system components.

Related Products

- CHARM I/O Cards must be ordered separately
- CHARMs must be ordered separately
- CHARMS requiring other terminal blocks than the standard terminal block should be ordered with the non-standard terminal block.

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