

G-Series Enclosures Overview



G-SERIES ENCLOSURES FOR I/A SERIES SYSTEMS



G-SERIES ENCLOSURES FOR TRICON SYSTEMS
(SYSTEM ENCLOSURES SHOWN)

The G-Series enclosures provide a range of equipment mounting options to meet system packaging requirements. Innovative design of the enclosures provides pre-engineered packaging solutions that minimize engineering and customization.

FEATURES

G-Series enclosures provide packaging solutions for both I/A Series® and Triconex™ equipment. A broad set of standard enclosures and options allow selection of sealed and vented enclosures to meet plant installation and equipment requirements. Depending on the enclosure type, these enclosures may include the following:

- ▶ Top or bottom cable entry
- ▶ Front-only or both front and rear enclosure access
- ▶ Support for system equipment, such as DIN rail mounted subsystem equipment (200 Series Fieldbus Modules (FBMs), Field Control Processors (FCPs), Fieldbus Communications Modules (FCMs) and Fieldbus Expansion Modules (FEMs)) or Triconex equipment, such as the Triconex Tricon chassis or Trident I/O baseplates
- ▶ Support for termination equipment, such as I/A Series termination assemblies or Triconex termination devices and/or additional customer-supplied terminal blocks for marshalling

- ## G-SERIES ENCLOSURE SELECTION

Table 1. G-Series Enclosure Selection - Equipment and Dimensions

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Table 2. G-Series Enclosure Selection - Enclosure Door Configuration

Enclosure Door Configuration	G-Series Enclosures Available																
	G06	G10	G11	G12	G15	G16	G17	G20	G21	G22	G40	G45	G50	G60	G61	G62	G66
Front and Rear Access		X	X	X				X	X	X	X		X	X	X	X	
Front Access Only	X				X	X	X					X		X			X

Table 3. G-Series Enclosure Selection - Equipment Environmental Ratings

Environmental Rating	G-Series Enclosures Available																
	G06	G10	G11	G12	G15	G16	G17	G20	G21	G22	G40	G45	G50	G60	G61	G62	G66
Not IP Rated (NEMA 1)													X				
IP 43 to EN 60 529/10.9191 (NEMA 12)		X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
IP 55 to EN 60 529 (NEMA 12)	X	X	X	X	X	X	X	X	X	X	X	X			X		X
IP 66 to EN 60 529 (NEMA 4)	X	X	X	X	X	X	X	X	X	X	X	X			X		X

Table 4. G-Series Enclosure Selection - Features

Features (Included with Enclosure)	G-Series Enclosures Available																			
	G06	G10	G11	G12	G15	G16	G17	G20	G21	G22	G40	G45	G50	G60	G61	G62	G66	G72	G80	G85
UL and UL-C Approved (Empty Enclosure) ^(a)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cable Base on Enclosure Plinth		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lifting Eyebolts		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Earth (Ground) Studs		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Earth (Ground) Rail(s)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Enclosure Finish																				
Frame - Dipcoat-primed, RAL 7044 Smooth		X	X	X	X	X	X	X	X	X	X	X	X	X (b)	X (b)	X (b)	X (b)	X (b)	X	X
Roof/Sidewalls/Doors - Dipcoat- primed, Powder-coated, RAL 7035 (Light Gray) Textured	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X (c)	X	X (b)	X (b) (c)	X (b)	X (b) (c)	X (b)	X (c)	X (c)
Base/Plinth - RAL 7022 (Umbra Gray) Smooth, Plastic Cover Caps RAL 9005 (jet black)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
316 Stainless Steel	X (d)																			

(a) Enclosures meet all applicable European Union directives and are CE compliant. Final installed enclosures populated with your equipment should be inspected by your local UL/CSA committee, or other local safety governing organization if required. A complete listing of certifications is available from enclosure vendor.

(b) With EMC Compliance option, interior finish is aluminum zinc coating.

(c) IP 55 (NEMA 4) version only. Powder-coating finish on all external surfaces is applied to entire enclosure - frame, roof, sidewalls, and door.

(d) IP 66 (NEMA 4X) version only. Entire enclosure is stainless steel.

Table 5. G-Series Enclosure Selection - Options

Enclosure Options	G-Series Enclosures Available																			
	G06	G10	G11	G12	G15	G16	G17	G20	G21	G22	G40	G45	G50	G60	G61	G62	G66	G72	G80	G85
Vented Enclosure		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sealed Enclosure ^(a)	X	X	X	X	X	X	X	X	X	X	X	X			X		X		X	X
Top Cable Entry ^(b)	X	X	X	X	X	X	X	X	X	X	X	X	X		(c)		(c)		X	X
Bottom Cable Entry ^(b)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Door-Mounted Fans		X	X	X	X	X	X	X	X	X	X	X			X		X		X	X
Roof-Mounted Fans ^(d)		X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X
Metal (Sheet Steel) Doors	X	X	X	X	X	X	X	X	X	X	X	X	X ^(e)	X	X	X	X	X	X	X
Glass Front Door														X		X				
Universal Mounting for Left and Right-hand Door Swing		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Comfort Door Handle with Push-button/Keylock		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Door Intrusion Monitoring Switch														X	X	X	X	X		
Sidewalls		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EMC Compliance														X	X ^(f)	X	X ^(f)	X		
Universal Enclosure Light		X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Dual Temperature Thermostat		X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Fan Failure Monitoring ^(g)																				X

(a) No fans with sealed enclosures.

(b) With both top and bottom cable entry allowed, can be customer configured for simultaneous top and bottom cable entry.

(c) Due to the placement of field power supplies, top entry is not recommended for this enclosure.

(d) Top cable entry not recommended for roof-mounted fans.

(e) Front and rear doors are perforated to allow free air flow.

(f) With vented option only.

(g) For roof-mounted fans only.

G-SERIES ENCLOSURES FOR I/A SERIES SYSTEM EQUIPMENT**G06 Enclosure**

The G06 enclosure is a wall-mounted unit with the features discussed in Table 6.

Table 6. G06 Enclosure Features

Feature	Availability
Enclosure Type	Field enclosure
Equipment Supported	Up to four vertically mounted baseplates for mounting up to sixteen 200 Series Fieldbus Modules (FBMs), Field Communication Modules (FCMs), or Field Control Processors (FCP270s) Optional baseplate for mounting up to two 200 Series Field Communication Modules (FCMs) or Field Control Processors (FCP270s) Up to eighteen modules total supported, as listed above - sixteen FBMs/FCMs/FCP270s + two FCMs/FCP270s
Enclosure Access	Front access only
Available Environmental Protection	IP 55 (NEMA 4) Version – a painted steel enclosure with NEMA ratings of 1, 3R, 4, 12, 13, and IP 55 (G3, harsh) - OR - IP 66 (NEMA 4X) Version – a stainless steel enclosure with NEMA ratings of 1, 4, 4X, 12, and IP 66 (GX, severe).
Product Specification Sheet	<i>G06 Enclosure</i> (PSS 21H-2X7 B4)

G-Series 800x800 Front and Rear Access Enclosures

The G-series 800x800 front and rear access enclosures are free-standing, floor mounted units. They include the G10 system enclosure (Table 7), the G11 termination enclosure (Table 8) and the G12 system and termination enclosure (Table 9).

Table 7. G10 System Enclosure Features

Feature	Availability
Enclosure Type	System Only
Equipment Supported	Vented (IP 43/55) - Up to 96 200 Series FBMs, up to six FCMs/FCP270s Sealed (IP 55/66) - Up to 32 200 Series FBMs and up to two FCMs/FCP270s Option for a four-position Expansion Baseplate that supports two FEM100/FCP270 pairs
Enclosure Access	Front and rear access
PSS	<i>G10 System Enclosure</i> (PSS 21H-2X8 B4)

Table 8. G11 Termination Enclosure Features

Feature	Availability
Enclosure Type	Termination Only
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to eight vertical DIN rails for mounting of termination assemblies and terminal blocks for marshalling
Enclosure Access	Front and rear access
PSS	<i>G11 Termination Enclosure</i> (PSS 21H-2X9 B4)

Table 9. G12 System and Termination Enclosure Features

Feature	Availability
Enclosure Type	System and Termination
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to 32 200 Series FBMs and up to two FCMs/FCP270s - Option for a four-position Expansion Baseplate that supports two FEM100/FCP270 pairs Up to four vertical DIN rails for mounting of termination assemblies and terminal blocks for marshalling
Enclosure Access	Front and rear access
PSS	<i>G12 System and Termination Enclosure</i> (PSS 21H-2X10 B4)

G-Series 800x600 Front and Rear Access Enclosures

The G-series 800x600 front and rear access enclosures are free-standing, floor mounted units. They include the G20 system enclosure (Table 10), the G21 termination enclosure (Table 11) and the G22 system and termination enclosure (Table 12).

Table 10. G20 System Enclosure Features

Feature	Availability
Enclosure Type	System Only
Equipment Supported	Vented (IP 43/55) - Up to 96 200 Series FBMs and up to six FCMs/FCP270s Sealed (IP 55/66) - Up to 32 200 Series FBMs and up to two FCMs/FCP270s Option for a four-position Expansion Baseplate that supports two FEM100/FCP270 pairs
Enclosure Access	Front and rear access
PSS	<i>G20 System Enclosure</i> (PSS 21H-2X12 B4)

Table 11. G21 Termination Enclosure Features

Feature	Availability
Enclosure Type	Termination Only
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to four vertical DIN rails for mounting of termination assemblies and terminal blocks for marshalling
Enclosure Access	Front and rear access
PSS	<i>G21 Termination Enclosure</i> (PSS 21H-2X13 B4)

Table 12. G22 System and Termination Enclosure Features

Feature	Availability
Enclosure Type	System and Termination
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to 32 200 Series FBMs and up to two FCMs/FCP270s - Option for a four-position Expansion Baseplate that supports two FEM100/FCP270 pairs Up to two vertical DIN rails for mounting of termination assemblies and terminal blocks for marshalling
Enclosure Access	Front and rear access
PSS	<i>G22 System and Termination Enclosure</i> (PSS 21H-2X14 B4)

G-Series 800x800 Front-Only Access Enclosures

The G-series 800x800 front-only access enclosures are free-standing, floor mounted units. They include the G15 system enclosure (Table 13), the G16 termination enclosure (Table 14) and the G17 system and termination enclosure (Table 15).

Table 13. G15 System Enclosure Features

Feature	Availability
Enclosure Type	System Only
Equipment Supported	Vented (IP 43/55) - Up to 96 200 Series FBMs and up to six FCMs/FCP270s Sealed (IP 55/66) - Up to 32 200 Series FBMs and up to two FCMs/FCP270s Option for a four-position Expansion Baseplate that supports two FEM100/FCP270 pairs
Enclosure Access	Front access only
PSS	<i>G15 System Enclosure</i> (PSS 21H-2X15 B4)

Table 14. G16 Termination Enclosure Features

Feature	Availability
Enclosure Type	Termination Only
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to six vertical DIN rails for mounting of termination assemblies and terminal blocks for marshalling
Enclosure Access	Front access only
PSS	<i>G16 Termination Enclosure</i> (PSS 21H-2X16 B4)

Table 15. G17 System and Termination Enclosure Features

Feature	Availability
Enclosure Type	System and Termination
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to 32 200 Series FBMs and up to two FCMs/FCP270s - Option for a four-position Expansion Baseplate that supports two FEM100/FCP270 pairs Up to four vertical DIN rails for mounting of termination assemblies and terminal blocks for marshalling
Enclosure Access	Front access only
PSS	<i>G17 System and Termination Enclosure</i> (PSS 21H-2X17 B4)

G-Series 800x800 19-Inch Rack Enclosures

The G-series 800x800 19-inch rack enclosures are free-standing, floor mounted units with four vertical system rails. They include the G40 19-inch rack enclosure (Table 16), and the G45 19-inch rack enclosure (Table 17).

Table 16. G40 19-Inch Rack Enclosure Features

Feature	Availability
Enclosure Type	System
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Upper and lower enclosure halves accommodate each one of the following: (1) Up to three shelves to support equipment such as the Windows® or Solaris™-based workstations - OR - (2) Up to two 1x8 Mounting Structures - OR - (3) Equipment secured directly to the EIA 19-inch rails, such as The MESH control network switches
Enclosure Access	Front and rear access
PSS	<i>G40 19-Inch Rack Enclosure</i> (PSS 21H-2X40 B4)

Table 17. G45 19-Inch Rack Enclosure Features

Feature	Availability
Enclosure Type	System
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Upper and lower enclosure halves accommodate each one of the following: (1) Up to three shelves to support equipment such as the Windows® or Solaris™-based workstations - OR - (2) Up to two 1x8 Mounting Structures (Maximum of three in enclosure) - OR - (3) Equipment secured directly to the EIA 19-inch rails, such as The MESH control network switches
Enclosure Access	Front access only
PSS	<i>G45 19-Inch Rack Enclosure</i> (PSS 21H-2X45 B4)

G-Series 600x1000 19-Inch Server Enclosure

The G-series 600x1000 19-inch server enclosure is a free-standing, vented, floor mounted general purpose unit designed for housing compatible servers, workstation, switches and related equipment on shelves or on its 19-inch racks (Table 18).

Table 18. G50 Server Enclosure Features

Feature	Availability
Enclosure Type	System
Equipment Supported	Vented, indoor (Not IP rated/NEMA 1) - Enclosure can accommodate: ▶ Up to two sliding shelves; shelves can support the Windows® or Solaris™-based tower workstations and servers, such as the Model H90 and P90 servers, Model H91 and P91 servers, or the Model H92 and P92 workstations, depending on the size and ventilation requirements of the equipment. ▶ Rack-mounted equipment secured directly to the 19-inch rails (42 U of available vertical mounting space), such as The MESH control network switches, depending on sizing, power, cabling and ventilation requirements of the equipment
Enclosure Access	Front and rear access
PSS	<i>G50 Server Enclosure</i> (PSS 21H-2X50 B4)

G-SERIES ENCLOSURES FOR TRICONEX SYSTEM EQUIPMENT

G-Series 800x800 Tricon System Enclosures

The G-series 800x800 Tricon system enclosures are free-standing, floor mounted units designed to house Triconex™ Tricon system chassis, modules and appropriate support equipment. They include the G60 Tricon system enclosure (Table 19), and the G62 and G72 system and termination enclosures (Table 20).

Table 19. G60 Tricon System Enclosure Features

Feature	Availability
Enclosure Type	System Only
Equipment Supported	Vented (IP 43/55) - Up to three Triconex™ Tricon chassis
Enclosure Access	Front and rear access - OR - Front access only (Optional front glass door)
PSS	<i>G60 Tricon System Enclosure</i> (PSS 21H-2X60 B4)

Table 20. G62 and G72 System and Termination Enclosures Features

Feature	Availability
Enclosure Type	System and Termination
Enclosure Size	G62 Enclosure - 800mm x 800mm x 2000mm G72 Enclosure - 800mm x 800mm x 2200mm
Equipment Supported	Vented (IP 43/55) - Up to two Triconex™ Tricon chassis Two vertical DIN rails for mounting of Triconex termination devices and terminal blocks for marshalling
Enclosure Access	Front and rear access (Optional front glass door)
PSS	<i>G62 and G72 Tricon System and Termination Enclosures</i> (PSS 21H-2X62 B4)

G-Series 800x800 Tricon Termination Enclosures

The G-series 800x800 Tricon termination enclosures are free-standing, floor mounted units designed for housing Triconex termination devices and additional customer-supplied terminal blocks for marshalling. They may accommodate the termination of Tricon modules which are housed in a G60 Tricon system enclosure or G62/G72 Tricon system and termination enclosure.

They include the G61 Tricon termination enclosure (Table 21), and the G66 Tricon termination enclosure (Table 22).

Table 21. G61 Tricon Termination Enclosure Features

Feature	Availability
Enclosure Type	Termination Only
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to eight vertical DIN rails for mounting of Triconex termination devices and additional customer-supplied terminal blocks for marshalling
Enclosure Access	Front and rear access
PSS	<i>G61 Tricon Termination Enclosure</i> (PSS 21H-2X61 B4)

Table 22. G66 Tricon Termination Enclosure Features

Feature	Availability
Enclosure Type	Termination Only
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to six vertical DIN rails for mounting of Triconex termination devices and additional customer-supplied terminal blocks for marshalling.
Enclosure Access	Front access only
PSS	<i>G66 Tricon Termination Enclosure</i> (PSS 21H-2X66 B4)

G-Series 800x800 Trident System Enclosures

The G-series 800x800 Trident system enclosures are free-standing, floor mounted units designed to house Triconex™ Trident controllers on I/O baseplates, as well as one Main Processor (MP) baseplate, one Communication Module (CM) baseplate and appropriate support equipment. They include the G80 Trident system enclosure (Table 23), and the G85 Trident system enclosure (Table 24).

Table 23. G80 Trident System Enclosure Features

Feature	Availability
Enclosure Type	System Only (No terminations required for Trident controllers)
Equipment Supported	Vented (IP 43/55) - Up to twenty Triconex™ Trident I/O baseplates Sealed (IP 55/66) - Up to ten Triconex™ Trident I/O baseplates Both enclosure types accommodate one Main Processor (MP) baseplate, and one Communication Module (CM) baseplate
Enclosure Access	Front and rear access
PSS	<i>G80 Trident System Enclosure</i> (PSS 21H-2X80 B4)

Table 24. G85 Trident System Enclosures Features

Feature	Availability
Enclosure Type	System Only (No terminations required for Trident controllers)
Equipment Supported	Vented (IP 43/55) or Sealed (IP 55/66) - Up to ten Triconex™ Trident I/O baseplates, plus one Main Processor (MP) baseplate, and one Communication Module (CM) baseplate
Enclosure Access	Front access only
PSS	<i>G85 Trident System Enclosure</i> (PSS 21H-2X85 B4)

RELATED PRODUCT SPECIFICATION SHEETS

PSS Number	Title
PSS 21H-2W1 B3	DIN Rail Mounted Subsystem Overview
PSS 21H-2W1 B4	100 Series Fieldbus Module Migration Subsystem Overview
PSS 21H-2X7 B4	G06 Enclosure
PSS 21H-2X8 B4	G10 System Enclosure
PSS 21H-2X9 B4	G11 Termination Enclosure
PSS 21H-2X10 B4	G12 System and Termination Enclosure
PSS 21H-2X12 B4	G20 System Enclosure
PSS 21H-2X13 B4	G21 Termination Enclosure
PSS 21H-2X14 B4	G22 System and Termination Enclosure
PSS 21H-2X15 B4	G15 System Enclosure
PSS 21H-2X16 B4	G16 Termination Enclosure
PSS 21H-2X17 B4	G17 System and Termination Enclosure
PSS 21H-2X40 B4	G40 19-Inch Rack Enclosure
PSS 21H-2X45 B4	G45 19-Inch Rack Enclosure
PSS 21H-2X50 B4	G50 Server Enclosure
PSS 21H-2X60 B4	G60 Tricon System Enclosure
PSS 21H-2X61 B4	G61 Tricon Termination Enclosure
PSS 21H-2X62 B4	G62 and G72 Tricon System and Termination Enclosures
PSS 21H-2X66 B4	G66 Tricon Termination Enclosure
PSS 21H-2X80 B4	G80 Trident System Enclosure
PSS 21H-2X85 B4	G85 Trident System Enclosure
PSS 21H-2Y14 B4	FEM100 Fieldbus Expansion Module

