

Plug-In Distribution Modules for use within the CPS4000 System



The unique, hot-insertion CPS4000 Plug-In Distribution Modules provide load distribution with integrated protection for CPS4000 Cabinet Power System output loads.

The CPS4000 Plug-In Distribution Modules are designed to be integrated with the low-maintenance, outside-plant CPS4000 Cabinet Power System to provide fuse and/or circuit breaker protection for output loads.

Maximum Design Efficiency

Built using the same compact, modular design and hot plug-in features inherent in the CPS4000 Cabinet Power System, the distribution units provide protected distribution for either primary or secondary voltage outputs, depending on the module selected.

Application-Specific

Four distribution modules are available. Three of them—the ES610, ES611, and ES613—are engineered to operate with the 48 V CPS4048 (J85500R-1); the fourth one, the ES612, is used with the 24 V CPS4024 (J85500N1).

In addition, each module is intended for a specific application.

For use with the CPS4048:

- The ES610 provides fuse-only protection for the primary 48 V battery plant voltage.
- The ES611 provides fuse and circuit breaker protection for the primary 48 V battery plant voltage.
- The ES613 provides fuse-only protection for the (100 V/20 Hz) secondary ringing plant voltage.

For use with the CPS4024:

- The ES612 provides fuse and circuit breaker protection for the secondary 48 V converter plant voltage.

Benefits

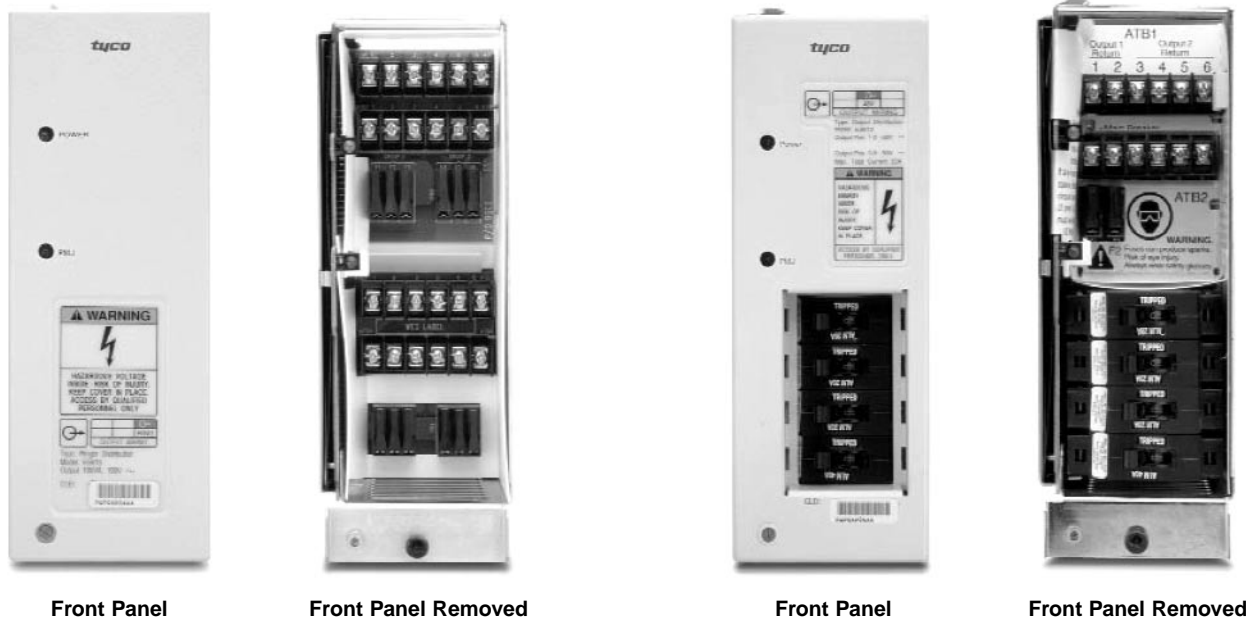
- **Cost Efficiency**
 - Each distribution module fits conveniently into a single power position in the shelf, thereby saving costly cabinet space by eliminating the need for separate distribution panels.
 - Plug-in modules significantly accelerate installation time and minimize labor costs.
 - Convenient, front-accessible modules and system architecture reduce field service time.
- **Continuous Operation**
 - Plug-in distribution modules can be easily added to the system without interrupting service.
- **Enhanced Reliability**
 - The CPS4000 plug-in distribution modules have been designed by Tyco Electronics using the latest technology, strictly controlled manufacturing processes, and the highest quality standards to ensure that the plant will provide excellent performance, superior reliability, and an extended service life.
- **Simplified Growth and Enhancement**
 - Designed for modular growth, the plug-in distribution modules and the CPS4000 Power System can accommodate increases in capacity quickly and easily. As demand increases, the modules enable incremental system expansion and efficient management.
- **Harsh-Environment Operation**
 - Temperature-hardened electronics can withstand extreme temperature fluctuations.
- **Demonstrated Safety**
 - The CPS4000 plug-in distribution modules are designed to meet all applicable **UL*** standards.

Features

- Modular, prepackaged construction
- Temperature hardened for harsh environments
- Hot swappable/installable
- Plug-in fuses and circuit breakers

* **UL** is a registered trademark of Underwriters Laboratories, Inc.

Plug-In Distribution Modules



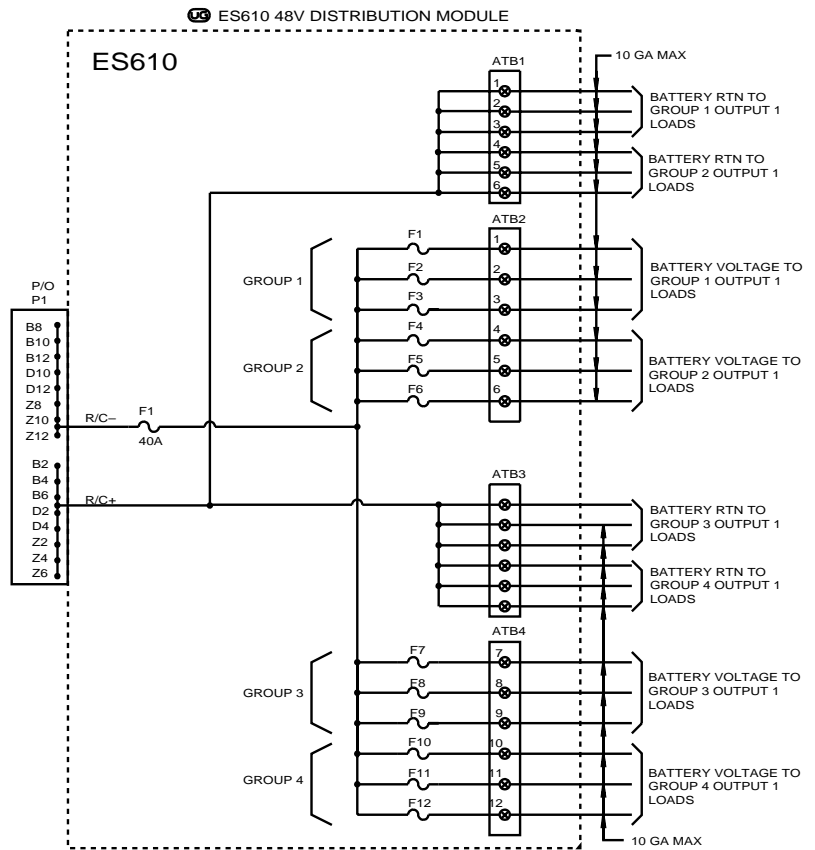
ES610 and ES613

ES611 and ES612

Plug-In Distribution Modules (continued)

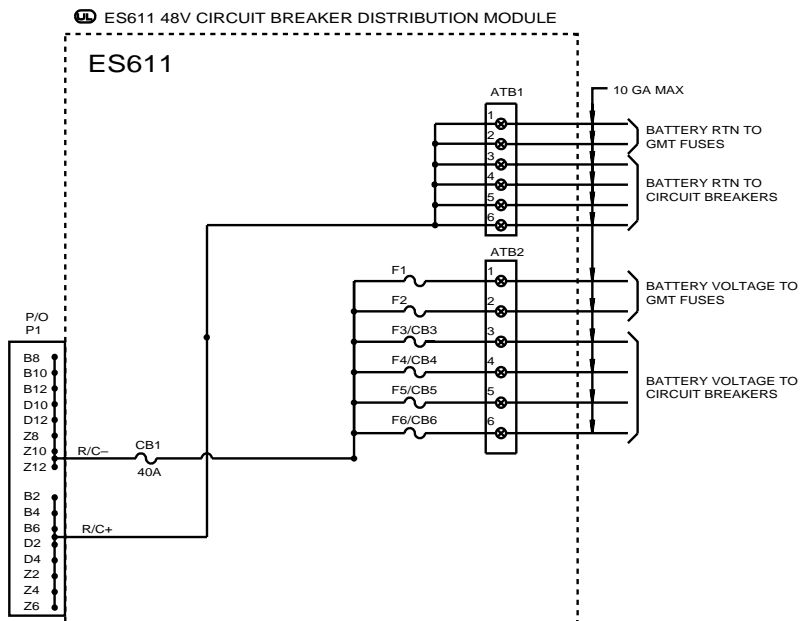
ES610—48 V Primary Battery Plant Output Plug-In Module

The ES610 module provides 12 GMT-type fuse-protected outputs. All outputs are primary 48 Vdc protected outputs (for use with the CPS4048 - J85500R-1) from the battery plant and are fully front-accessible via terminal block connections. The maximum output current that can be delivered from the module is 30 A. The GMT-type protected outputs can be configured with fuses from 0.25 A up to 10 A.



ES611—48 V Primary Battery Plant Output Plug-In Module

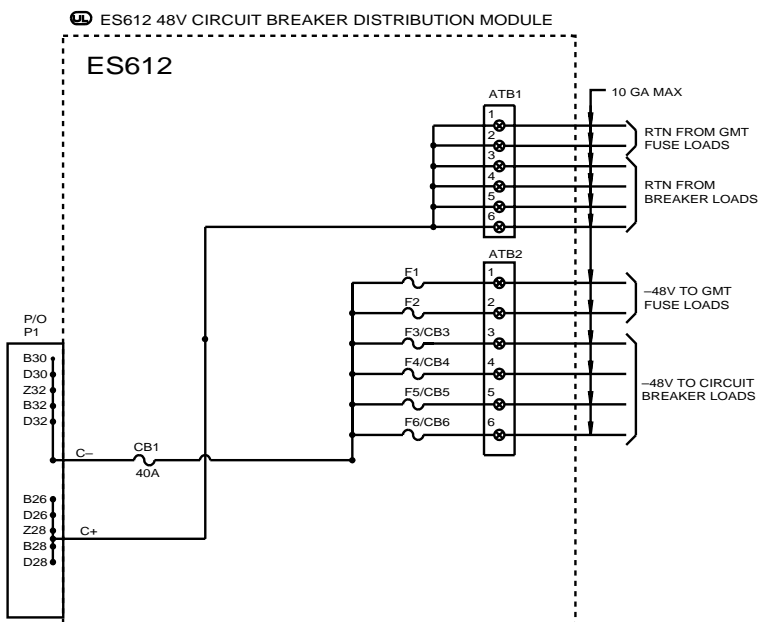
The ES611 module provides four plug-in circuit breakers and two GMT-type fuse-protected outputs. All outputs are primary 48 Vdc protected outputs (for use with the CPS4048 - J85500R-1) from the battery plant and are fully front-accessible via terminal block connections. The maximum output current that can be delivered from the module is 30 A. The GMT-type outputs can be configured with fuses from 0.25 A up to 10 A. The circuit breaker outputs can be configured with circuit breakers from 3 A to 30 A.



Plug-In Distribution Modules (continued)

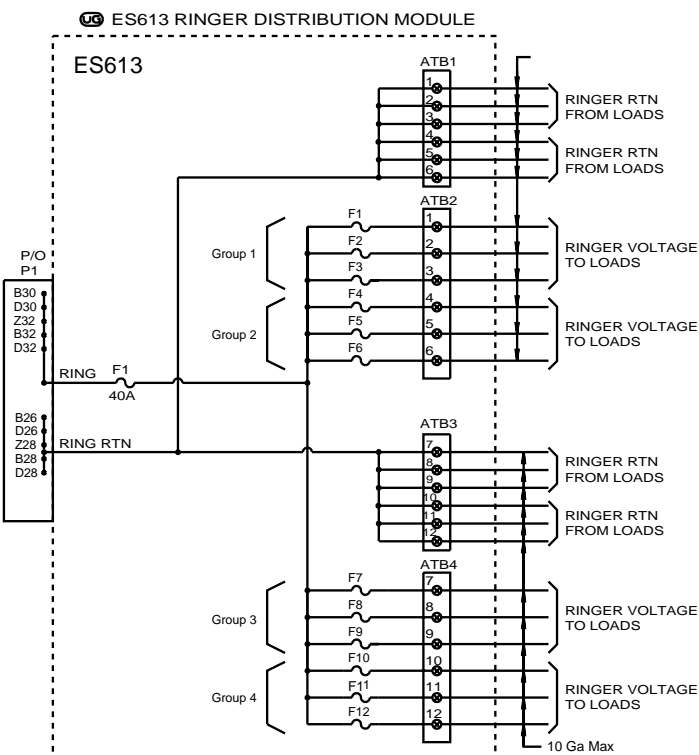
ES612—48 V Secondary Converter Output Plug-In Module

The ES612 module provides four plug-in circuit breakers and two GMT-type fuse-protected outputs. All outputs are secondary 48 Vdc protected outputs (for use with the CPS4024 - J85500N-1) from the converters installed in the battery plant and are fully front-accessible via terminal block connections. The maximum output current that can be delivered from the module is 30 A. The GMT-type outputs can be configured with fuses from 0.25A up to 10A. The circuit breaker outputs can be configured with circuit breakers from 3 A to 30 A.



ES613—100 V/20 Hz Secondary Ringer Output Plug-In Module

The ES613 module provides 12 GMT-type fuse-protected outputs. All outputs are secondary (100 V/20 Hz) protected outputs (for use with the CPS4048 - J85500R-1) from the ringing generators and are fully front-accessible via terminal block connections. The GMT-type outputs can be configured with fuses that are 0.25 A or 0.5 A.



Specifications

Physical

Height	8.81 in. (223.8 mm)
Width	3.17 in. (80.5 mm)
Depth	10.73 in. (272.5 mm)

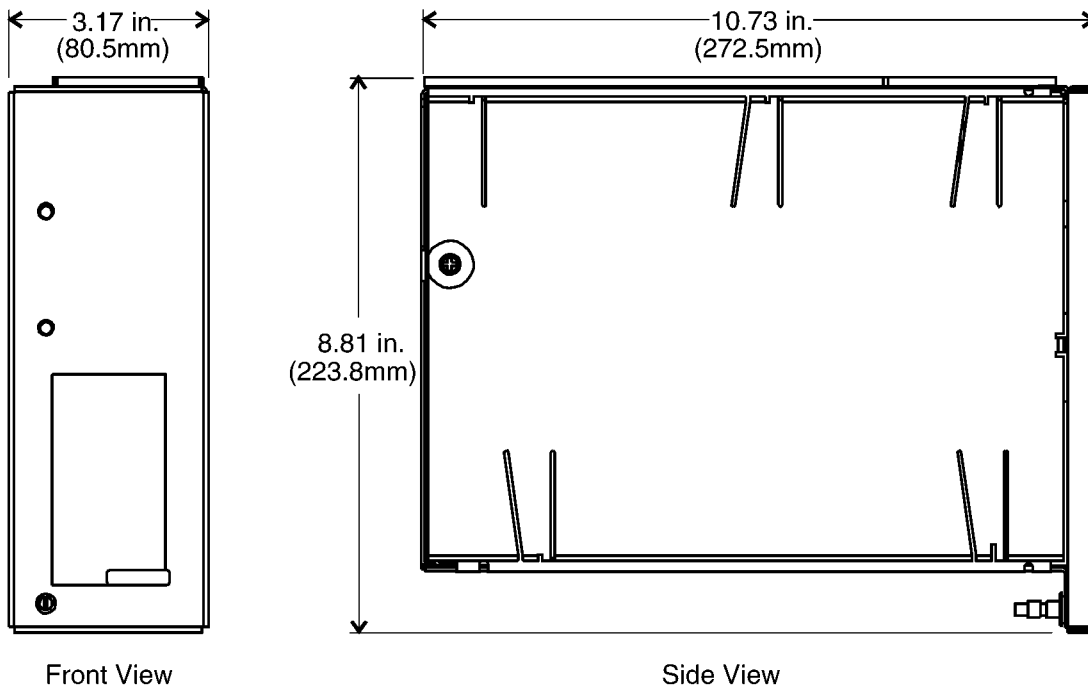
Environmental

Operating Temperature Range	-40 °F (-40° C) to 167 °F (75° C)
Altitude	-200 to +13,000 ft. (-61 to +3962 m)
Humidity	10% to 95% non-condensing

Safety/Standards Compliance

Evaluated to **UL** 1801 "DC Power/Distribution for Communications Equipment" for use with the applicable CPS4000 Power Shelf (J85500R-1 or J85500N-1).

Outline Drawing



Ordering Information

Distribution Modules

Description	Comcode
ES610 Distribution Module	107266397
ES611 Distribution Module	107502825
ES612 Distribution Module	107826760
ES613 Distribution Module	107966616
Wiring harness connecting major fuse alarms from two modules	848702668

Fuses and Circuit Breakers

Description	Comcode
AX1 1/4 AMP GMT-type fuse	405006222
AX1 1/2 AMP GMT-type fuse	406976894
AX1 1 AMP GMT-type fuse	405673146
AX1 2 AMP GMT-type fuse	405181983
AX1 3 AMP GMT-type fuse	406976985
AX1 5 AMP GMT-type fuse	406159061
AX1 7.5 AMP GMT-type fuse	405725433
AX1 10 AMP GMT-type fuse	406159236
Fuse Shield	405584335
KS23616 List 31 circuit breaker (3 A)	407098417
KS23616 List 32 circuit breaker (5 A)	407098425
KS23616 List 33 circuit breaker (10 A)	407098433
KS23616 List 34 circuit breaker (15 A)	407098458
KS23616 List 36 circuit breaker (20 A)	407098474
KS23616 List 37 circuit breaker (25 A)	407098482
KS23616 List 38 circuit breaker (30 A)	407098490

Related Product Documentation

Document Title	Document Number
CPS4024 24 V Cabinet Power System	DS03-037
CPS4048 48 V Cabinet Power System	DS03-038



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