Critical Power from GE

Power Express

Class 2 Distribution

Overview

GE Critical Power has developed the Power Express Combiner to provide safe and effective remote powering for loads that exceed 100VA capabilities of a single Class 2 circuit. The Power Express Combiner provides an interface for up to 8 Class 2 power circuits fed from the upstream location and provides safe (NEC compliant) aggregation to deliver a bulk -48V power source for remote devices. The Power Express Combiner gives customers the peace of mind to guarantee that Class 2 deployments powering larger loads meet NEC requirements by not connecting power circuits in parallel without galvanic isolation.

System

The GE Power Express Class 2 Distribution is a 1RU shelf that provides 32 100VA limited circuits for safe powering of remote loads. NEC Class 2 rating allows for power cabling to be deployed in data cable raceway instead of conduit thus reducing labor time and increasing speed to market.

Modules

The GE Power Express Class 2 Distribution incorporates 4 replaceable modules that generate 8 100VA circuits each. Each circuit is internally fused within the module eliminating the possibility of users plugging an incorrect rated fuse. This guarantees that each circuit maintains compliance to the tested Class 2 safety rating under UL.

Alarm and Control

Each shelf is designed to support an alarm card for stand-alone deployment and can be uplinked over the RS-485 data bus through the RJ-45 connections on the rear of the shelf. This uplink allows each shelf to interface a GE Pulsar Plus controller (commonly used in our Infinity Power Systems) allowing local access, alarming and control of each circuit in every shelf as well as remote interface over the controller LAN connection.

Advantages

- Compact 1RU design
- Safe cost effective remote powering
- Extended reach capabilities with -57V boost
- Quick and reliable wiring connectivity
- Operate on individual circuits for maintenance
- Access to advance controller features

Power Express System

Specification

INPUT	
Voltage Range	-42Vdc to -60Vdc
Input Current	20A max per module (80A max per shelf)
Input Fuse	25A per module

OUTPUT CIRCUITS	
Automatic Power Limit	100VA per circuit (98VA minimum tolerance)
Voltage Range	-42Vdc to -60Vdc
Max Current	2.38 Max at -42Vdc

MECHANICAL	Shelf	Module
Length (inch/mm)	11.25" (286mm)	7.625" (194mm)
Width (inch/mm)	17.5" (445mm) (19" Rack Mount)	3.44" (88mm)
Height (inch/mm)	1.75" (44.5mm) (1RU)	1.72" (44mm)
Weight (lb/Kg)	6.5 lbs (2.95kg)	0.8 lbs (.363kg)

CONNECTIONS	
Input	2-hole ¼" on 5/8 centers (Up to 2 AWG Cable)
Output	32 pairs of terminal strip for 24AWG to 8AWG wires
Data	Two RJ-45 connections for uplink to Pulsar Plus controller
Alarm	Three terminal alarm wire (NO, Common, NC)

ENVIRONMENTAL	
Operating Temperature	-40°C to +65°C
Storage Temperature	-40°C to +85°C
Humidity	< 95% non-condensing
Altitude	4000M max
Heat Dissipation	57 BTU per module (227 BTU Max per shelf)

CONTROL AND MONITORING	
Visual Status Indicators	OK, Alarm on Alarm Card OK and Circuit Status on 8 port Module
Serial Interface	Half duplex RS485 (GP Protocol)

PHOTO

Power Express Compliance

SAFETY AND STANDARDS COMPLIANCE	
Safety	UL 60950-1, Recognized CSA C22.2 No. 60950-1-03 Certified
RoHS	Compliant to RoHS EU Directive 2002/95/EC
EMC	FCC-CFR, Part 15, sub-part B Class B with shelf; GR1089 Class A
ESD	EN61000-4-2, Level 4

Power Express Extended Reach System

Specification

INPUT	
Voltage Range	-42Vdc to -60Vdc
Input Current	20A max per module (80A max per shelf)
Input Fuse	30A per module

OUTPUT CIRCUITS	
Automatic Power Limit	100VA per circuit (98VA minimum tolerance)
Voltage Range	-57Vdc to -59V
Max Current	1.72A at -57V

MECHANICAL		
	Shelf	Module
Length (inch/mm)	18.15" (461mm)	12.69" (322.3mm)
Width (inch/mm)	17.5" (445mm) (19" Rack Mount)	3.44" (88mm)
Height (inch/mm)	1.75" (44.5mm) (1RU)	1.72" (44mm)
Weight (lb/Kg)	11.5 lbs (5.2kg)	2.5 lbs (1.2kg)

CONNECTIONS	
Input	2-hole ¼" on 5/8 centers (Up to 2 AWG Cable)
Output	32 pairs of terminal strip for 24AWG to 8AWG wires
Data	Two RJ-45 connections for uplink to Pulsar Plus controller
Alarm	Three terminal alarm wire (NO, Common, NC)

ENVIRONMENTAL	
Operating Temperature	-40°C to +65°C
Storage Temperature	-40°C to +85°C
Humidity	< 95% non-condensing
Altitude	4000M max
Heat Dissipation	57 BTU per module (227 BTU Max per shelf)

CONTROL AND MONITORING	
Visual Status Indicators	OK, Alarm on Alarm Card OK and Circuit Status on 8 port Module
Serial Interface	Half duplex RS485 (GP Protocol)

PHOTO

Power Express Compliance

SAFETY AND STANDARDS COMPLIANCE	
Safety	UL 60950-1, Recognized CSA C22.2 No. 60950-1-03 Certified
RoHS	Compliant to RoHS EU Directive 2002/95/EC
EMC	FCC-CFR, Part 15, sub-part B Class A with shelf; GR1089 Class A
ESD	EN61000-4-2, Level 4

Power Express Class 2 Remote Circuit Combiner

Specification

INPUT	
Voltage Range	-42Vdc to -60Vdc
Input Current	1.7A max per circuit
Input Fuse	2A per circuit

CONNECTIONS	
Input	8 circuits up to 12 AWG Screw Terminal
Output	2 Output Pairs up to 8 AWG Screw Terminal
Alarm	Two alarm relay outputs (NO, Common, NC)

OUTPUT CIRCUITS	
Voltage Range	-40Vdc to -54.5Vdc
Max Current	12 Amps (at -54.5Vdc)

CONTROL AND MONITORING	
Visual Status Indicators	Status LED on DC output Individual Circuit Status on 8 input circuits

ENVIRONMENTAL	
Operating Temperature	-40°C to +65°C
Storage Temperature	-40°C to +85°C
Humidity	< 95% non-condensing
Altitude	4000M max
Combiner Heat Dissipation	395 BTU Max per shelf (116 Watts)

PHOTO

MECHANICAL	
Length (inch/mm)	9.5" (241 mm)
Width (inch/mm)	12" (305 mm)
Height (inch/mm)	1.75" (44.5mm) (1RU)
Weight (lb/Kg)	6 lbs (2.72 kg)

Ordering Information

ORDERING CODE	DESCRIPTION
150031971	Power Express Starter Shelf Kit (Shelf and Alarm Module)
150027362	Power Express 8 port Module
150034606	Slot Filler
150028529	Power Express Class 2 Shelf
150027361	Power Express Alarm Module
150048091	Power Express Extended Reach Shelf Starter Kit (Shelf and Alarm Module)
150037261	Power Express 8 Port Extended Reach Module
150036912	Power Express Extended Reach Shelf
150037734	Power Express Extended Reach Alarm Module
150041934	Power Express Combiner 8-Circuit

Notes

Notes

Class 2 Remote Powering

- Conduit free power delivery
- Inherently Safe powering
- Delivered with Hybrid Fiber cable

High Density Shelf Solution

- 1 Rack Unit (1.75”) height
- 32 Power Circuits per shelf

Advanced Controller Features

- Up-link to Pulsar Plus Power System Controller
- Remote access to every circuit
- Group Circuits by remote location

On Time Delivery

- Standard building blocks
- 4 - 6 week availability
- 24/7 technical support

Management Visibility

Galaxy Manager* software is the centralized visibility and control component of a comprehensive power management system designed to meet engineering, operations and maintenance needs. The Galaxy Manager client-server architecture enables remote access to system controllers across the power network.

- Dashboard display with one-click access to management information database
- Trend analysis
- Scheduled or on demand reports
- Fault, configuration, asset, and performance management

Training

GE offers on-site and classroom training options based on certification curriculum. Technical training can be tailored to individual customer needs. Training enables customers and partners to more effectively manage and support the power infrastructure. We have built our training program on practical learning objectives that are relevant to specific technologies or infrastructure design objectives.

Service & Support

GE field service and support personnel are trusted advisors to our customers – always available to answer questions and help with any project, large or small. Our certified professional services team consists of experts in every aspect of power conversion with the resources and experience to handle large turnkey projects along with custom approaches to complex challenges. Proven systems engineering and installation best practices are designed to safely deliver results that exceed our customers’ expectations.

Warranty

GE is committed to providing quality products and solutions. We have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or replaced as soon as possible.

For full warranty terms and conditions please go to www.gecriticalpower.com.

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