

# **Ceiling Grid Power**

# Low Voltage DC Interconnects

Innovative grid system interconnects distribute safe, low-voltage direct current (DC) power from power server modules to lighting fixtures, sensors, and other devices in the ceiling. Configuration flexibility meets the changing needs of spaces – enabling fast and easy reconfigurations without rewiring. The plug-and-play modularity allows for endless design options that can enhance and change with the functionality of your interiors.





## **BENEFITS**

- Safe, low-voltage DC power distribution system
- Plug and play standard for integrated management and control of energy efficient devices
- Eliminates device level AC to DC electrical power conversion
- Easier integration of on-site alternative energy sources such as solar, wind, fuel cell and batteries
- Re-purpose and reconfigure your application without rewiring

# **APPLICATIONS**

- Office
- Higher Education
- Government
- Military
- Data Centers

#### **ELECTRICAL**

- Operating current: up to 4.1 Amps
- Operating voltage: 24 Volts DC (nominal)

#### **MECHANICAL**

- Environmental operating temperature: -55° to 85° C
- Internal Bus Bar (fixture or device) connector: 50 cycles min.
- External Bus Bar (fixture or device) connector: 50 cycles min.
- Device Cable Assembly: 50 cycles min.
- Power Feed Cable Assembly: 10 cycles min.
- Main Beam to Main Beam Cable Assembly: 10 cycles min.

#### STANDARDS AND SPECIFICATIONS

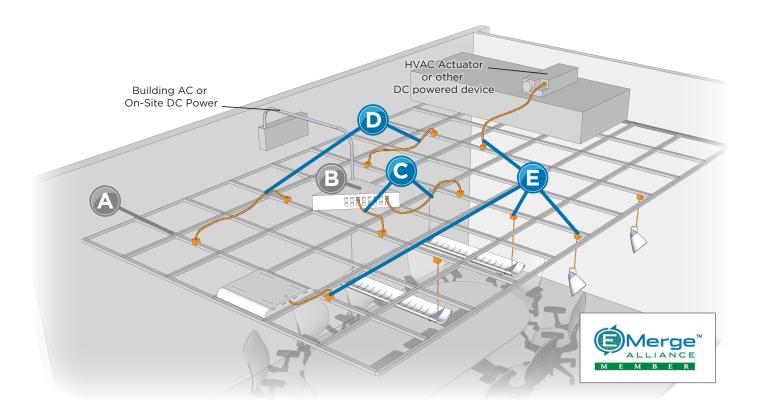
- EMerge Alliance® Registered
- UL2577
- ANSI/NFPA 70



Photo courtesy of Armstrong Worldwide Industries



# **Design Your Ceiling Grid Power System**



- **Step 1:** Select your ceiling system
  - A DC Flexzone Grid by Armstrong Worldwide Industries, Inc.
- **Step 2:** Power your DC ceiling system
  - B Power Server Module by Nextek Power Systems
  - Connects a power server module to the low voltage bus bar on a DC ceiling grid main beam (up to 16 cable assemblies per power server)
  - TE Main Beam to Main Beam Cable Assembly

    Connects power from a low voltage bus bar in a main beam to another low voltage bus bar
- **Step 3:** Power and Connect your Lighting Fixtures & Devices
  - TE Device Connectors and Cable Assemblies

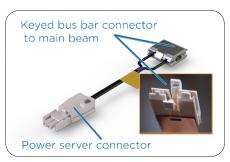
    Connects lighting fixtures & other electrical devices to low voltage bus bar in a main beam



#### **POWER YOUR DC CEILING SYSTEM**



Power Server Module



Power feed cable assemblies are keyed for polarization to the main beam



Low voltage bus bar on a DC ceiling grid main beam

#### **POWER FEED CABLE ASSEMBLIES**

Connects a power server module to the low voltage bus bar on a DC ceiling grid main beam (up to 16 cable assemblies per power server)

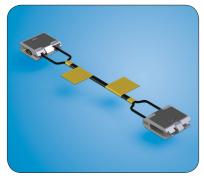


Part number	Length ft.
2106725-1 (12 AWG)	5
2106725-2 (12 AWG)	10
2106725-3 (12 AWG)	15
2106725-4 (12 AWG)	20
2106725-5 (12 AWG)	25 NEW
2106725-6 (12 AWG)	30 NEW

Power feed cable assemblies are keyed for connection to power-in key slots on the DC ceiling grid main beam.

#### MAIN BEAM TO MAIN BEAM CABLE ASSEMBLIES

Connects power from a low voltage bus bar in a main beam to another low voltage bus bar



Part number	Wire gauge	Length ft.
2106728-1	18 AWG	3
2106728-2	18 AWG	6
2085828-1	12 AWG	4 NEW
2085828-2	12 AWG	8 NEW

Main beam cable assemblies are keyed for connection to power-in key slots on the DC ceiling grid main beam.



## POWER AND CONNECT YOUR LIGHTING FIXTURES AND DEVICES



Connection to bus bar on top of main beam



Connects directly to a fixture and to a main beam



Connection to bus bar on bottom of main beam

#### **DEVICE CONNECTORS AND CABLE ASSEMBLIES**

Connects lighting fixtures and other electrical devices to the top of a main beam (no keying)



Part Number	Length ft.
2106718-1 (18 AWG)	5
2106718-2 (18 AWG)	10

Connects lighting fixtures and other electrical devices to the bottom of a main beam (no keying)



Part Number	Length ft.
2106710-1	connector only
2085817-1	5
2085817-2	10

## **FIXTURE CONNECTOR**

Connects a light fixture or other device to a top rail attach ceiling system



Part Number	
2106739-1	connector only



## FOR MORE INFORMATION

#### te.com/lighting

#### **TE Technical Support Center**

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UK: +44 (0) 800-267666
France: +33 (0) 1-3420-8686
Netherlands: +31 (0) 73-6246-999
China: +86 (0) 400-820-6015

Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise \*as defined www.te.com/leadfree

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LC DJT16E21-11AA MS27467T21B11JA DJT16E21-11JA MS27467T21B11JA-LC