

LOW-PROFILE SECONDARY POWER DISTRIBUTION



Low-Profile DC SPDUs

FEATURES:

- Cabin / amenity power distribution for business jet and helicopter applications
- Detachable personality module allows easy customization
- No active cooling required
- RS-485 data bus control and monitoring of all outputs
- Monitor load voltage, current, trip status
- DO-178B, level A software
- Qualified for use in non-environmentally controlled areas of the aircraft

BENEFITS:

- Freed up space typically occupied by circuit breakers
- Reduces quantity of part numbers and components
- Remote mounting simplifies aircraft design
- Reduces aircraft wiring and overall weight
- Protects wiring from arcs and over-current
- Power to load is interrupted in case of fault
- Incorporates patented "Fail-Open" technology - will not fail short
- Provides data to facilitate prognostics and preventative maintenance analysis
- Digitally communicates, voltage, current, and trip status
- Thin and flat for mounting anywhere on the aircraft
- Programmable over-current and arc-fault trip settings
- COTS availability

AMETEK's low-profile solid-state Secondary Power Distribution Units (SPDU) replace centralized circuit breaker and relay panels to provide a more advanced, smaller, and lighter weight solution of power management. The SPDUs are designed to be remotely located throughout the aircraft and managed using a robust digital data bus. The result is significant system and harness weight savings and the ability to easily accommodate customizations that are commonplace in interior and VIP aircraft designs. Along with superior circuit protection, our solid-state SPDUs provide enhanced integration and maintenance benefits, including automated load control capability and electrical system health monitoring consolidated into a single, lightweight box.

Our low-profile SPDUs are a thin, flat packaged array of AC or DC thermally mounted solid-state power controllers on a carrier board, offering a RS-485 control bus. Each SPDUs has provisions for master reset and each individual SSPC can be addressed and each output status can be displayed. Each SPDUs connects to a field adjustable personality module that customizes each output on the SPDUs to a specific current rating.



LOW PROFILE

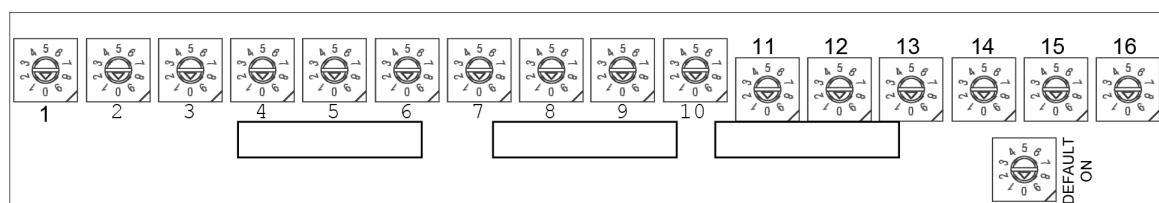
SECONDARY POWER DISTRIBUTION

SPECIFICATIONS:

Specification	DC	AC
Nominal Voltage	28VDC	115VAC, 3-phase, 400Hz
Number of Output Circuits	6 @ 15A maximum 10 @ 7.5A maximum	3 @ 15A maximum 9 @ 7.5A maximum
Frequency Range	-	40 - 600Hz
Selectable Current Ratings	See chart below	See chart below
3 Phase Capability	No	Yes
Passive Cooling	Yes	Yes
Software	DO-178B, Level A	DO-178B, Level A
Dimensions (excluding connectors)	8.0" x 9.0" x 1.3" (203 x 229 x 33mm)	9.0" x 9.5" x 1.5" (229 x 241 x 38mm)
Weight	2.8lbs (1.27kg)	4.5lbs (2.02kg)

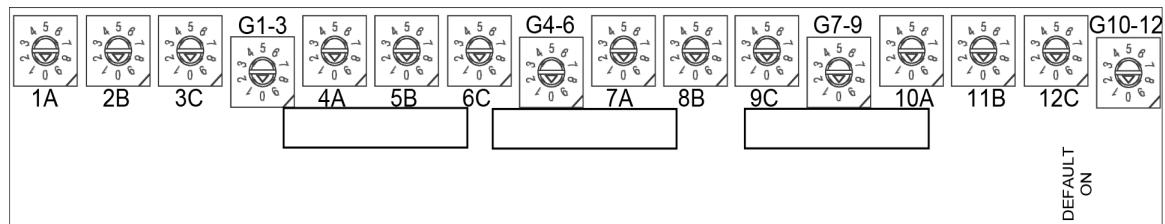
PERSONALITY MODULE TRIP VALUE SWITCH SETTINGS:

DC



Switch Setting	7.5A Circuit Breaker Rating	7.5A Module Trip Point (CPDs 1 - 10)	15A Circuit Breaker Rating	15A Module Trip Point (CPDs 11 - 16)
0	0	OFF	0	OFF
2	2.5	2.74	5.0	5.48
3	3.75	4.15	7.5	8.29
5	5.0	5.63	10.0	11.26
9	7.5	8.31	15.0	16.61

AC



Switch Setting	7.5A Circuit Breaker Rating	7.5A Module Trip Point (CPDs 1 - 9)	15A Circuit Breaker Rating	15A Module Trip Point (CPDs 10 - 12)
0 - 3, 8 - 9	0	OFF	0	OFF
4	2.5	2.85	5.0	5.70
5	3.75	4.16	7.5	8.32
6	5.0	5.54	10.0	11.08
7	7.5	8.28	15.0	16.55

Custom Designs Available Upon Request

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