



JF5033-10

Standard Specification NRTL-Approved DC Distribution Panel

1. General

- 1.1.** The DC Distribution Panel is an assembly designed to connect battery chargers and industrial-sized batteries to the user-connected dc loads. The DC Distribution Panel shall provide multiple branch circuits rated for 130 Vdc or less. A main breaker may be provided if required.
- 1.2.** Site Installation Configurations:
- 1.2.1. The main circuit breaker can serve as a disconnect for all branched dc loads.
 - 1.2.2. The main circuit breaker can also be used as a battery disconnect, when one (1) of the branch breakers is *specially-wired* as a backfeed input for the battery charger.
 - 1.2.3. The panel can be supplied *without* a main circuit breaker, replaced with direct dc bus copper-aluminum compression lugs. This configuration can also utilize one (1) of the branch breakers, if it is specially-wired as a backfeed input for the battery charger.

2. Applicable Codes

- 2.1.** The DC Distribution Panel is certified and listed to **UL 508A** and **CSA C22.2 No. 14-23** by National Recognized Testing Laboratory (**ETL**), and labeled as such.

3. Electrical

- 3.1.** The DC Distribution Panel shall be equipped with one (1) two-pole main circuit breaker. The main breaker shall be rated 100A or 200A, as specified by purchaser and required by the installation.
- 3.2.** The DC Distribution Panel shall have a capacity of up to fifteen (15) two-pole 130V branch dc distribution circuit breakers, or thirty-two (32) single-pole 48V branch breakers. The quantity and current trip ratings shall be selected at point of sale, specified by purchaser, and as required by the installation.
- 3.3.** The distribution circuit breakers shall be UL-listed components, rated as dc branch circuit breakers (**UL 489**). Branch breakers shall be available in current trip ratings of 10, 15, 20, 30, 40, 50, and 60A, as specified by the purchaser and required by the installation's dc loads.
- 3.4.** All breakers shall be electrically rated for 10 kAIC.
- 3.5.** All circuit breakers shall feature solderless compression screw terminals, accepting the following wire sizes:

100A main breaker	200A main breaker	10-60A branch breakers
#12 - #2/0 AWG	#4 AWG - 350 MCM	#18 - #4 AWG

- 3.6.** One (1) copper-aluminum compression lug shall be supplied for user grounding. An optional ground bus bar shall also be available.



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4. Construction

- 4.1.** The DC Distribution Panel enclosure shall be designed for wall, or optional rack mounting.
- 4.2.** Enclosure dimensions are 31.8in (809.6mm) H x 20.0in (507.8mm) W x 5.20in (132.1mm) D.
- 4.3.** The DC Distribution Panel enclosure shall be a NEMA Type 1 assembly, designed for indoor use.
- 4.4.** The DC Distribution Panel enclosure shall be constructed of 16 GA steel. External finish shall be ANSI 61 gray epoxy powder coat paint.
- 4.5.** The DC Distribution Panel shall feature pre-punched, easy-to-remove, 1.00in/25.4mm knock-outs on all four (4) sides for access into the enclosure. The main dc circuit breaker cabling is entered through the top of the enclosure.
- 4.6.** Distribution circuit breakers shall be clip-mounted for ease of replacement, and/or future expansion.