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:

<table>
<thead>
<tr>
<th>100A main breaker</th>
<th>200A main breaker</th>
<th>10-60A branch breakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>#12 - #2/0 AWG</td>
<td>#4 AWG - 350 MCM</td>
<td>#18 - #4 AWG</td>
</tr>
</tbody>
</table>

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