

Anderson Power Products' family of Euro Battery Connectors (EBC) exceeds all the requirements of DIN 43589-1 and EN 1175-1. The connector design incorporates an innovative, cost effective contact carrier for ease of assembly.

The connectors have a Degree of Protection of IP23 per IEC 60529. The acid resistance and temperature range of the PBT-PC housing exceeds the requirements of EN 1175-1. Contacts are pure copper with silver plate for maximum conductivity.

All materials meet RoHS requirements and are selected to ensure years of reliable service under adverse battery environments.

### Features

- **Sturdy advanced polymer housings**

*PBT-PC alloy housings provides superior resistance to acids and temperature extremes*

- **DIN 43589-1 voltage keying**

*Dry-cell, wet-cell & universal keying plugs coded for 24 / 36 / 48 / 72 / 80 & 96 volts DC*

- **Mating compatibility with connectors of other manufacturers**

*APP "E" series connectors offer dimensional compatibility for air tube and auxiliary contacts over and above the DIN 43589-1 compatibility of housings and main contacts*



- **Silver plated pure copper contacts**  
*For lowest voltage drop and superior performance*

## SPECIFICATIONS

| Electrical                                    |                        |  | Mechanical                                    |                            |
|-----------------------------------------------|------------------------|--|-----------------------------------------------|----------------------------|
| Current Rating (Amperes) *                    |                        |  | Life                                          |                            |
| UL                                            | 160                    |  | a. No Load (mating cycles)                    | >5000                      |
| EN1175-1:1998                                 | 140                    |  | b. Under Load (Hot Plug 5 mating cycles @96V) | 200A                       |
| CSA                                           | 120                    |  |                                               |                            |
| Voltage Rating                                |                        |  | Average Mating / Unmating Force (lbf)         | 12                         |
| UL / CSA                                      | 600                    |  | (N)                                           | 53                         |
| EN1175-1:1998                                 | 150                    |  | Degree of Protection                          | IP23                       |
| Wire Range                                    |                        |  | Acid Resistance                               | 1.38g / cm <sup>3</sup>    |
| - Power Contacts - AWG (mm <sup>2</sup> )     | #8 to #2 (10 / 35)     |  | Contact Retention - minimum (lbf)             | 100                        |
| - Auxiliary Contacts - AWG (mm <sup>2</sup> ) | #18 to #14 (1.5 / 2.5) |  | (N)                                           | 445                        |
| Dielectric Withstanding Voltage (AC)          | 2,200                  |  | Air Tube Rating                               | 2 bar                      |
| Average Contact Resistance (micro-ohms)       | 65                     |  |                                               |                            |
| Operating Temperature (°C)                    | -25° to 105°           |  |                                               |                            |
| (°F)                                          | -13° to 221°           |  |                                               |                            |
|                                               |                        |  | <b>Materials</b>                              |                            |
|                                               |                        |  | Housing                                       | PBT/PC blend, glass filled |
|                                               |                        |  | Contacts                                      | Copper alloy, silver plate |
|                                               |                        |  | Hardware                                      | Steel, zinc chromate plate |

\* Current derating curves must be observed as current capacity will vary dependent on wire cross section and ambient temperature. Maximum current carrying capacity is measured at 40°C / 104°F using the maximum wire cross section permissible, crimped to contacts using APP recommended tooling.

## ORDERING INFORMATION

### Connector Part Number Selection

| Series | Gender                  | Main Contact | Handle | Coding Key | Auxiliary Contacts & Air Tubes | Packaging                      |                                         |
|--------|-------------------------|--------------|--------|------------|--------------------------------|--------------------------------|-----------------------------------------|
| E80    | 5                       | 25           | -      | 1          | 0                              | 2                              | 9                                       |
| 5      | Socket                  |              |        |            |                                |                                | 9 Individual                            |
| 00     | None - Order Separately |              |        |            | 0                              | None                           | 8 Bulk                                  |
| 10     | 10 mm² / #8 AWG         |              |        |            | 1                              | (2) Lower Auxiliary Contacts   |                                         |
| 16     | 16 mm² / #6 AWG         |              |        |            | 2                              | (2) Upper Auxiliary Contacts   |                                         |
| 25     | 25 mm² / #4 AWG         |              |        |            | 4                              | (2) Lower Auxiliary Contacts & |                                         |
| 35     | 35 mm² / #2 AWG         |              |        |            |                                | (2) Upper Auxiliary Contacts   |                                         |
| 0      | No                      |              |        | 0          | Grey, Wet Cell                 |                                |                                         |
| 1      | Black                   |              |        | 2          | Green, Dry Cel                 | 5                              | Air Tube                                |
| 2      | Red                     |              |        | 3          | Yellow, Universal              | 6                              | Air Tube & (2) Upper Auxiliary Contacts |

### Accessories

| Part Number | Description   |
|-------------|---------------|
| E80-21      | Twin air tube |
| E80-89      | Handle kit    |

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[www.andersonpower.com](http://www.andersonpower.com)

## ORDERING INFORMATION

### Tooling

Part

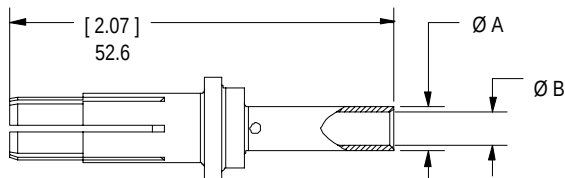
| Number  | Description                       |
|---------|-----------------------------------|
| 1387G3  | Hydraulic tool for power contacts |
| E160-36 | Extraction tool                   |

Note: For tooling die information, see tooling chart on website.

## DIMENSIONS

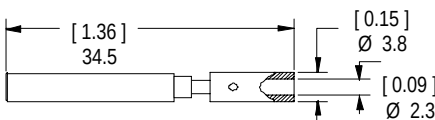
### Socket Contact

| Part Number | - Wire -<br>mm <sup>2</sup> AWG | - ØA -<br>mm in. | - ØB -<br>mm in. |
|-------------|---------------------------------|------------------|------------------|
| 80-1110     | 10 #8                           | 6.1 0.24         | 4.6 0.18         |
| 80-1116     | 16 #6                           | 8.4 0.33         | 6.1 0.24         |
| 80-1125     | 25 #4                           | 10.9 0.43        | 7.9 0.31         |
| 80-1135     | 35 #2                           | 12.4 0.49        | 8.9 0.35         |



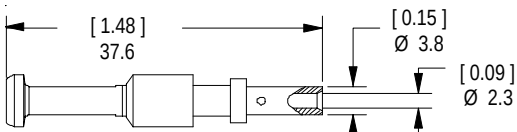
### Upper Auxiliary Contact

E80-33 upper auxiliary contact for 1.5 mm<sup>2</sup> / 2.5 mm<sup>2</sup> (#18 / #14 AWG)

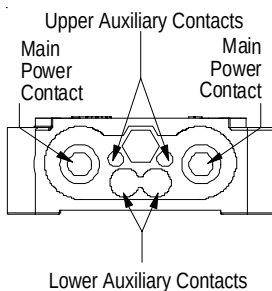


### Lower Auxiliary Contact

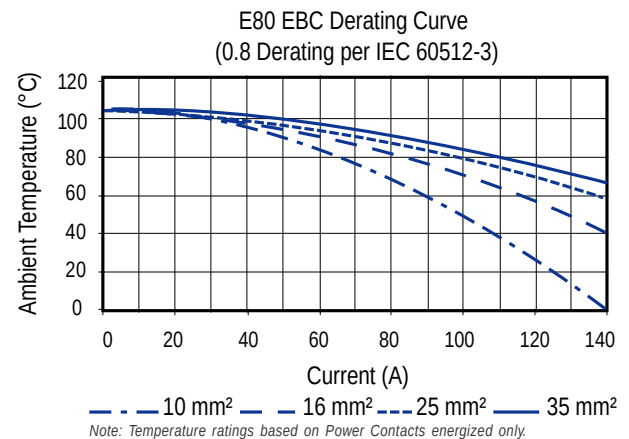
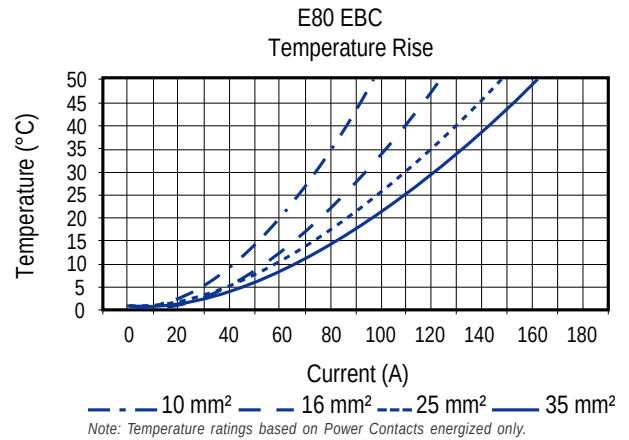
E80-31 lower auxiliary contact for 1.5 mm<sup>2</sup> / 2.5 mm<sup>2</sup> (#18 / #14 AWG)



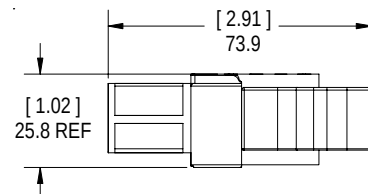
### Housing Front View



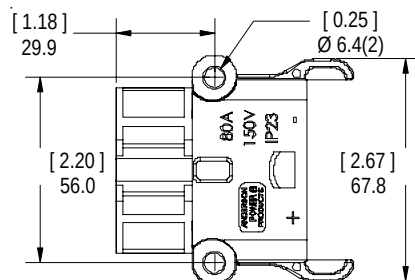
## TEMPERATURE CHARTS



### Housing Side View



### Housing Top View



File No. E26226 All Data Subject To Change Without Notice

DS-E80EBCF REV07

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