

PG-PED2 - High Pulse Discharge

-40°C +70°C



| Capacitors Diameter (mm) | 50 | 63 | 76 | 90 |
|------------------------------|----|----|----|----|
| Terminal Style - Round | ○ | ○ | ○ | ○ |
| Terminal Style - Across Flat | ○ | ○ | ○ | ○ |

For details see pages 3, 4, 5

Specifications

- **Voltage range :** 350 VDC to 450 VDC
- **Can sizes :** Up to 50φ x 105 mm to 90φ x 220mm
- **Operating temperature range :** - 40°C to +70°C
- **Capacitance :** 680MFD to 6800 MFD
- **Tolerance :** -10% to +20%
- **Feature :** This design of Capacitors can withstand up-to a reverse voltage of 35VDC.
- **Notes :**
 1. Can is negative, However, it is isolated with a PVC insulating sleeve and polypropylene end-disc.
 2. The base stud is also negative and can be insulated with a nylon nut. Please see the page regarding mounting accessories for details.

Applications

PG-PED2 range is designed for large Instant Energy Discharge application like Laser, X-Ray, Welding, Accelerator, magnetisers and other pulse discharge applications.

Capacitor mounting

Capacitors are available in screw terminals in three mounting styles


- AEST** - Screw terminals with plain insulated base. *see page 3, 4*
- AEST-D** - Screw terminals with stud mounting. *see page 3, 4*
- AEST-AL** - Capacitor with aluminium bottom disc. *see page 5*

Capacitor Terminal Style

Capacitors are available in two different terminal style, round and across flat. Below table summarizes the available terminal styles in different capacitors diameter

Marking on capacitors

Each capacitor will have the following information printed on it, sequentially :

- The Company's symbol  followed by the words ALCON ELECTROLYTIC
- The capacitor grade viz. PG-PED2
- The capacitance value __ MFD, rated voltage __ VDC
- The surge voltage
- Capacity tolerance
- Climatic category
- Part number on non-standard capacitors
- CE marking

Useful life for Charge and Discharge

Test Conditions

| | |
|--|----------|
| 1. Discharges | 1000000 |
| 2. Pulse repetition period | 2 sec. |
| 3. Number of pulses with minimum repetition period | 200 |
| 4. Pause after case 3 | 60 mins. |
| 5. Average pulse sequence with pauses | 20 sec. |
| 6. Pulses per week | 5000 |
| 7. Charge resistance | 10 Ω |
| 8. Discharge resistance | 0.5 Ω |

Manufacturing Date Code Chart

The manufacturing code shall consists of four digits (alphanumeric). The first two shall denote the date (numeric). The third stands for the month (alpha-numeric). The fourth stands for the year (alphabet)

| First two spaces DATE | Third space MONTH | Fourth space YEAR |
|--------------------------|----------------------|----------------------|
| 01 | 1 = JANUARY | A = 2012 |
| 02 | 2 = FEBRUARY | B = 2013 |
| 03 | 3 = MARCH | C = 2014 |
| . | 4 = APRIL | D = 2015 |
| . | 5 = MAY | E = 2016 |
| . | 6 = JUNE | F = 2017 |
| 10 | 7 = JULY | G = 2018 |
| 11 | 8 = AUGUST | H = 2019 |
| . | 9 = SEPTEMBER | J = 2020 |
| . | X = OCTOBER | K = 2021 |
| . | Y = NOVEMBER | L = 2022 |
| 31 | Z = DECEMBER | M = 2023 |

For example :

1. Manufacturing code 023A will mean 2nd March, 2012
2. Manufacturing code 10XA will mean 10th October, 2012

PG-PED2 - High Pulse Discharge

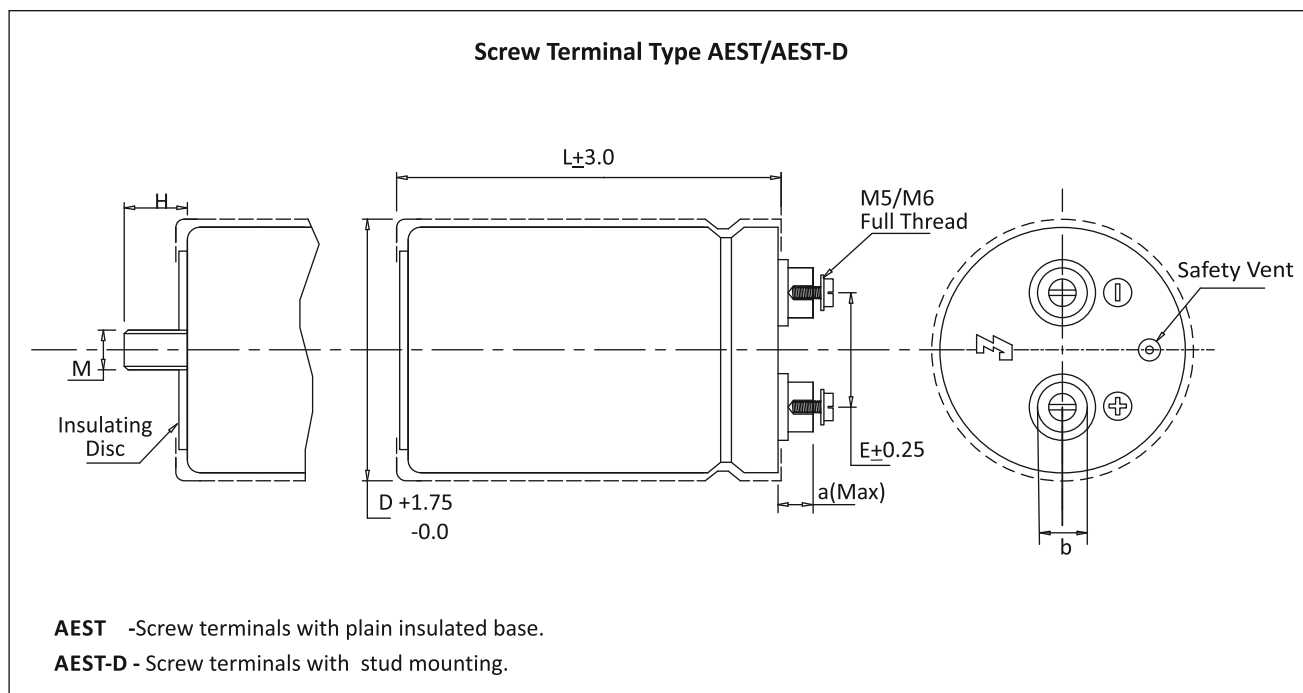
-40°C +70°C

Standard Capacitor Values

| Rated Voltage (VDC) | Surge Voltage (VDC) | Capacitance Nominal (MFD) | Max. Tan Delta at 100Hz, 25°C | Max. Leakage Current at rated voltage and 25°C (micro-amp) | Can size Nominal D x L mm | Case Code | Ordering code |
|---------------------|---------------------|---------------------------|-------------------------------|--|---------------------------|-----------|-----------------------------|
| 350 | 385 | 680 | 0.1 | 1428 | 50X105 | 022 | SA006800350PD022_ _ _ _ M01 |
| | | 1000 | 0.1 | 2100 | 63X105 | 026 | SA010000350PD026_ _ _ _ M01 |
| | | 1200 | 0.1 | 2520 | 63X120 | 039 | SA012000350PD039_ _ _ _ M01 |
| | | 1500 | 0.1 | 3150 | 76X105 | 028 | SA015000350PD028_ _ _ _ M01 |
| | | 2200 | 0.1 | 4620 | 76X145 | 081 | SA022000350PD081_ _ _ _ M01 |
| | | 3300 | 0.1 | 6930 | 76X175 | 090 | SA033000350PD090_ _ _ _ M01 |
| | | 4700 | 0.1 | 9870 | 90X145 | 095 | SA047000350PD095_ _ _ _ M01 |
| | | 5600 | 0.1 | 11760 | 90X175 | 096 | SA056000350PD096_ _ _ _ M01 |
| 400 | 440 | 680 | 0.1 | 1632 | 50X105 | 022 | SA006800400PD022_ _ _ _ M01 |
| | | 1000 | 0.1 | 2400 | 63X105 | 026 | SA010000400PD026_ _ _ _ M01 |
| | | 1200 | 0.1 | 2880 | 63X120 | 039 | SA012000400PD039_ _ _ _ M01 |
| | | 1500 | 0.1 | 3600 | 76X105 | 028 | SA015000400PD028_ _ _ _ M01 |
| | | 2200 | 0.1 | 5280 | 76X145 | 081 | SA022000400PD081_ _ _ _ M01 |
| | | 3300 | 0.1 | 7920 | 90X145 | 095 | SA033000400PD095_ _ _ _ M01 |
| | | 4700 | 0.1 | 11280 | 90X175 | 096 | SA047000400PD096_ _ _ _ M01 |
| | | 5600 | 0.1 | 13440 | 90X220 | 094 | SA056000400PD094_ _ _ _ M01 |
| 450 | 495 | 680 | 0.1 | 1836 | 50X105 | 022 | SA006800450PD022_ _ _ _ M01 |
| | | 1000 | 0.1 | 2700 | 63X105 | 026 | SA010000450PD026_ _ _ _ M01 |
| | | 1200 | 0.1 | 3240 | 63X120 | 039 | SA012000450PD039_ _ _ _ M01 |
| | | 1500 | 0.1 | 4050 | 76X105 | 028 | SA015000450PD028_ _ _ _ M01 |
| | | 2200 | 0.1 | 5940 | 76X145 | 081 | SA022000450PD081_ _ _ _ M01 |
| | | 3300 | 0.1 | 8910 | 90X145 | 095 | SA033000450PD095_ _ _ _ M01 |
| | | 4700 | 0.1 | 12690 | 90X175 | 096 | SA047000450PD096_ _ _ _ M01 |
| | | 5600 | 0.1 | 15120 | 90X220 | 094 | SA056000450PD094_ _ _ _ M01 |

Custom designed capacitors available

Terminal Style And Dimension With Round Insert

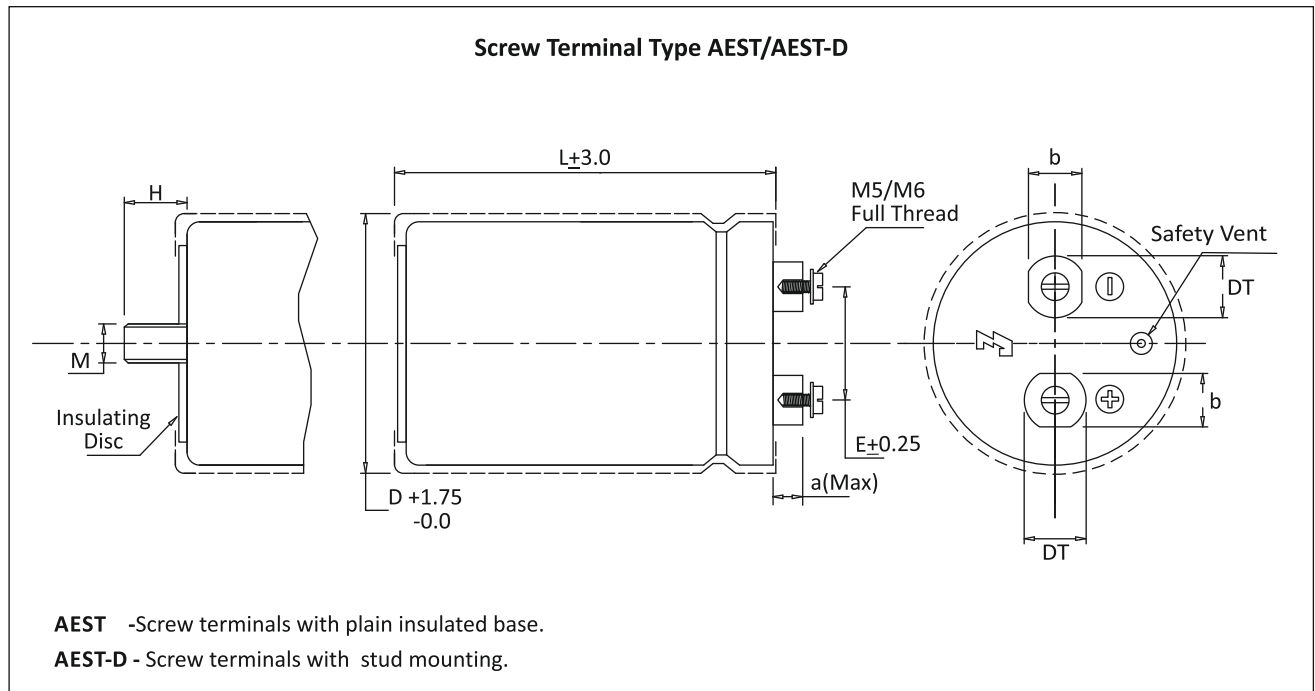


Dimension in mm.

| Terminal | D | E | L | a (Max) | b±0.1 | M | H±1.0 |
|----------|----|------|-----|---------|-------|------|-------|
| M5 | 35 | 12.6 | 62 | 7.8 | 9.5 | --- | --- |
| M5 | 35 | 12.6 | 80 | 7.8 | 9.5 | --- | --- |
| M5 | 35 | 12.6 | 105 | 7.8 | 9.5 | --- | --- |
| M5 | 50 | 22.1 | 80 | 7.8 | 9.5 | M 12 | 17.0 |
| M5 | 50 | 22.1 | 105 | 7.8 | 9.5 | M 12 | 17.0 |
| M5 | 50 | 22.1 | 120 | 7.8 | 9.5 | M 12 | 17.0 |
| M5 | 63 | 28.5 | 105 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 63 | 28.5 | 120 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 63 | 28.5 | 146 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 76 | 31.6 | 105 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 76 | 31.6 | 120 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 76 | 31.6 | 146 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 76 | 31.6 | 175 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 76 | 31.6 | 220 | 7.8 | 12.0 | M 12 | 17.0 |
| M5 | 76 | 31.6 | 240 | 7.8 | 12.0 | M 12 | 17.0 |
| M6 | 76 | 31.6 | 105 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 76 | 31.6 | 120 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 76 | 31.6 | 146 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 76 | 31.6 | 175 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 76 | 31.6 | 220 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 76 | 31.6 | 240 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 90 | 32 | 105 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 90 | 32 | 146 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 90 | 32 | 175 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 90 | 32 | 220 | 5.3* | 16.0 | M 12 | 17.0 |
| M6 | 90 | 32 | 240 | 5.3* | 16.0 | M 12 | 17.0 |

* Low Post Design

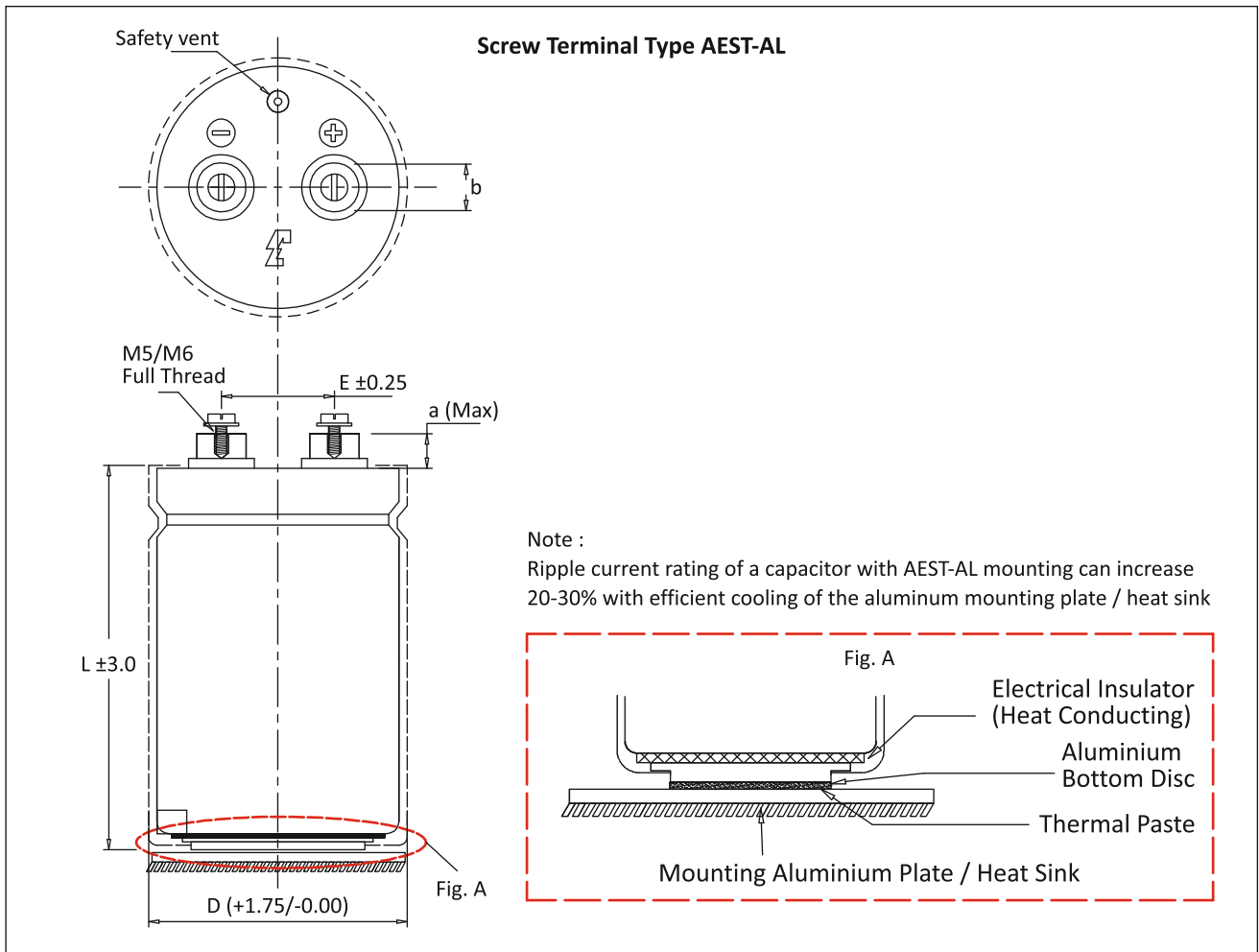
Terminal Style And Dimension With Across Flat Insert



Dimension in mm.

| Terminal | D | E | L | a (Max) | b | DT | M | H±1.0 |
|----------|-----|-------|-----|---------|----|----|----|-------|
| M5 | 50 | 22.1 | 80 | 5.5 | 10 | 13 | 12 | 17 |
| M5 | 50 | 22.1 | 105 | 5.5 | 10 | 13 | 12 | 17 |
| M5 | 50 | 22.1 | 120 | 5.5 | 10 | 13 | 12 | 17 |
| M6 | 63 | 28.5 | 105 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 63 | 28.5 | 120 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 63 | 28.5 | 146 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 76 | 31.6 | 105 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 76 | 31.6 | 120 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 76 | 31.6 | 146 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 76 | 31.6 | 175 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 76 | 31.6 | 220 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 76 | 31.6 | 240 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 90 | 32 | 105 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 90 | 32 | 120 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 90 | 32 | 146 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 90 | 32 | 175 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 90 | 32 | 220 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 90 | 32 | 240 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 100 | 32 | 105 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 100 | 32 | 120 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 100 | 32 | 146 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 100 | 32 | 175 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 100 | 32 | 220 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 100 | 32 | 240 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 120 | 41.50 | 105 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 120 | 41.50 | 120 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 120 | 41.50 | 146 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 120 | 41.50 | 175 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 120 | 41.50 | 220 | 6.5 | 13 | 15 | 12 | 17 |
| M6 | 120 | 41.50 | 240 | 6.5 | 13 | 15 | 12 | 17 |

Terminal Style And Dimension



Dimension in mm.

| Terminal | D | E | L | a (Max) | b±0.1 |
|----------|----|------|-----|---------|-------|
| M5 | 63 | 28.5 | 105 | 7.8 | 12 |
| M5 | 63 | 28.5 | 120 | 7.8 | 12 |
| M5 | 63 | 28.5 | 146 | 7.8 | 12 |
| M5 | 76 | 31.6 | 105 | 7.8 | 12 |
| M5 | 76 | 31.6 | 120 | 7.8 | 12 |
| M5 | 76 | 31.6 | 146 | 7.8 | 12 |
| M5 | 76 | 31.6 | 175 | 7.8 | 12 |
| M5 | 76 | 31.6 | 220 | 7.8 | 12 |
| M5 | 76 | 31.6 | 240 | 7.8 | 12 |
| M6 | 76 | 31.6 | 105 | 5.3 * | 16 |
| M6 | 76 | 31.6 | 120 | 5.3 * | 16 |
| M6 | 76 | 31.6 | 146 | 5.3 * | 16 |
| M6 | 76 | 31.6 | 175 | 5.3 * | 16 |
| M6 | 76 | 31.6 | 220 | 5.3 * | 16 |
| M6 | 76 | 31.6 | 240 | 5.3 * | 16 |
| M6 | 90 | 32 | 105 | 5.3 * | 16 |
| M6 | 90 | 32 | 146 | 5.3 * | 16 |
| M6 | 90 | 32 | 175 | 5.3 * | 16 |
| M6 | 90 | 32 | 220 | 5.3 * | 16 |
| M6 | 90 | 32 | 240 | 5.3 * | 16 |

* Low Post Design

Mounting Accessories

▪ Insulating Nylon Nut and Washers for Cans with Bottom Stud

Type : AL-01

Type : AL-02

Type : AL-03

Type : AL-04

Type : AL-05

▪ Vertical Mounting Clamps

| CAN | A | B | C | D | E |
|-----|----|----|----|----|----|
| 35 | 63 | 15 | 54 | 20 | 10 |

| CAN DIA | A | B | C | D |
|---------|-----|------|----|------|
| 50 | 76 | 33 | 30 | 40 |
| 63 | 89 | 39.5 | 30 | 46.5 |
| 76 | 102 | 46 | 30 | 53 |
| 90 | 116 | 53 | 30 | 60 |

Dimension in mm.

Catalogue No. AEPL PG-PED2-JANUARY-2020 (Rev 01)

The specification shown herein (page 1 to 6) pertain to the current manufacturing range of the Company. The Company reserves the right to change and /or modify any part of or whole of the specifications as a result of research and development and as may be necessary, without prior notice.