

## Series AM1D-Z

### 1 Watt | DC-DC Converter



#### FEATURES:

- RoHS compliant
- High efficiency up to 86%
- Low profile plastic package
- 7 pin SIP package
- Operating temperature -40°C to + 85°C
- Short circuit protection
- Pin compatible with multiple manufacturers
- Input / Output Isolation 1000, 3000, 4000, 5200 & 6000 VDC

#### Models Single output



| Model          | Input Voltage (V) | Output Voltage (V) | Output Current Max (mA) | Isolation (VDC) | Input Current Full Load   No Load (mA) |    | Max Capacitive Load(uF) | Efficiency % |
|----------------|-------------------|--------------------|-------------------------|-----------------|----------------------------------------|----|-------------------------|--------------|
| AM1D-0303SZ    | 2.97-3.63         | 3.3                | 303                     | 1000            | 399                                    | 28 | 220                     | 76           |
| AM1D-0305SZ    | 2.97-3.63         | 5                  | 200                     | 1000            | 389                                    | 22 | 220                     | 78           |
| AM1D-0307SZ    | 2.97-3.63         | 7.2                | 139                     | 1000            | 379                                    | 22 | 220                     | 78           |
| AM1D-0309SZ    | 2.97-3.63         | 9                  | 111                     | 1000            | 379                                    | 35 | 220                     | 80           |
| AM1D-0312SZ    | 2.97-3.63         | 12                 | 83                      | 1000            | 389                                    | 30 | 220                     | 77           |
| AM1D-0315SZ    | 2.97-3.63         | 15                 | 67                      | 1000            | 389                                    | 30 | 220                     | 78           |
| AM1D-0318SZ    | 2.97-3.63         | 18                 | 56                      | 1000            | 415                                    | 30 | 220                     | 73           |
| AM1D-0324SZ    | 2.97-3.63         | 24                 | 42                      | 1000            | 415                                    | 30 | 220                     | 73           |
| AM1D-0503SZ    | 4.5-5.5           | 3.3                | 303                     | 1000            | 256                                    | 15 | 220                     | 78           |
| AM1D-0505SZ    | 4.5-5.5           | 5                  | 200                     | 1000            | 247                                    | 17 | 220                     | 81           |
| AM1D-0507SZ    | 4.5-5.5           | 7.2                | 139                     | 1000            | 247                                    | 16 | 220                     | 81           |
| AM1D-0509SZ    | 4.5-5.5           | 9                  | 111                     | 1000            | 244                                    | 15 | 220                     | 82           |
| AM1D-0512SZ    | 4.5-5.5           | 12                 | 83                      | 1000            | 253                                    | 17 | 220                     | 79           |
| AM1D-0515SZ    | 4.5-5.5           | 15                 | 67                      | 1000            | 233                                    | 17 | 220                     | 86           |
| AM1D-0518SZ    | 4.5-5.5           | 18                 | 56                      | 1000            | 241                                    | 16 | 220                     | 83           |
| AM1D-0524SZ    | 4.5-5.5           | 24                 | 42                      | 1000            | 244                                    | 20 | 220                     | 82           |
| AM1D-1203SZ    | 10.8-13.2         | 3.3                | 303                     | 1000            | 111                                    | 12 | 220                     | 75           |
| AM1D-1205SZ    | 10.8-13.2         | 5                  | 200                     | 1000            | 105                                    | 14 | 220                     | 79           |
| AM1D-1207SZ    | 10.8-13.2         | 7.2                | 139                     | 1000            | 111                                    | 14 | 220                     | 75           |
| AM1D-1209SZ    | 10.8-13.2         | 9                  | 111                     | 1000            | 104                                    | 9  | 220                     | 80           |
| AM1D-1212SZ    | 10.8-13.2         | 12                 | 83                      | 1000            | 105                                    | 13 | 220                     | 79           |
| AM1D-1215SZ    | 10.8-13.2         | 15                 | 67                      | 1000            | 102                                    | 10 | 220                     | 82           |
| AM1D-1218SZ    | 10.8-13.2         | 18                 | 56                      | 1000            | 103                                    | 11 | 220                     | 81           |
| AM1D-1224SZ    | 10.8-13.2         | 24                 | 42                      | 1000            | 110                                    | 20 | 220                     | 76           |
| AM1D-1503SZ    | 13.5-16.5         | 3.3                | 303                     | 1000            | 83                                     | 10 | 220                     | 80           |
| AM1D-1505SZ    | 13.5-16.5         | 5                  | 200                     | 1000            | 82                                     | 7  | 220                     | 81           |
| AM1D-1507SZ    | 13.5-16.5         | 7.2                | 139                     | 1000            | 85                                     | 10 | 220                     | 78           |
| AM1D-1509SZ    | 13.5-16.5         | 9                  | 111                     | 1000            | 85                                     | 10 | 220                     | 78           |
| AM1D-1512SZ    | 13.5-16.5         | 12                 | 83                      | 1000            | 83                                     | 8  | 220                     | 80           |
| AM1D-1515SZ    | 13.5-16.5         | 15                 | 67                      | 1000            | 84                                     | 12 | 220                     | 79           |
| AM1D-1518SZ    | 13.5-16.5         | 18                 | 56                      | 1000            | 83                                     | 10 | 220                     | 80           |
| AM1D-1524SZ    | 13.5-16.5         | 24                 | 42                      | 1000            | 80                                     | 5  | 220                     | 83           |
| AM1D-2403SZ    | 21.6-26.4         | 3.3                | 303                     | 1000            | 56                                     | 8  | 220                     | 74           |
| AM1D-2405SZ    | 21.6-26.4         | 5                  | 200                     | 1000            | 54                                     | 6  | 220                     | 77           |
| AM1D-2407SZ    | 21.6-26.4         | 7.2                | 139                     | 1000            | 57                                     | 6  | 220                     | 73           |
| AM1D-2409SZ    | 21.6-26.4         | 9                  | 111                     | 1000            | 55                                     | 6  | 220                     | 76           |
| AM1D-2412SZ    | 21.6-26.4         | 12                 | 83                      | 1000            | 53                                     | 6  | 220                     | 78           |
| AM1D-2415SZ    | 21.6-26.4         | 15                 | 67                      | 1000            | 52                                     | 5  | 220                     | 80           |
| AM1D-2418SZ    | 21.6-26.4         | 18                 | 56                      | 1000            | 51                                     | 5  | 220                     | 82           |
| AM1D-2424SZ    | 21.6-26.4         | 24                 | 42                      | 1000            | 52                                     | 8  | 220                     | 80           |
| AM1D-0303SH30Z | 2.97-3.63         | 3.3                | 303                     | 3000            | 399                                    | 28 | 220                     | 76           |
| AM1D-0305SH30Z | 2.97-3.63         | 5                  | 200                     | 3000            | 389                                    | 22 | 220                     | 78           |
| AM1D-0307SH30Z | 2.97-3.63         | 7.2                | 139                     | 3000            | 379                                    | 22 | 220                     | 78           |
| AM1D-0309SH30Z | 2.97-3.63         | 9                  | 111                     | 3000            | 379                                    | 35 | 220                     | 80           |
| AM1D-0312SH30Z | 2.97-3.63         | 12                 | 83                      | 3000            | 389                                    | 30 | 220                     | 77           |
| AM1D-0315SH30Z | 2.97-3.63         | 15                 | 67                      | 3000            | 389                                    | 30 | 220                     | 78           |
| AM1D-0318SH30Z | 2.97-3.63         | 18                 | 56                      | 3000            | 415                                    | 30 | 220                     | 73           |
| AM1D-0324SH30Z | 2.97-3.63         | 24                 | 42                      | 3000            | 415                                    | 30 | 220                     | 73           |

|                |           |     |     |      |     |    |     |    |
|----------------|-----------|-----|-----|------|-----|----|-----|----|
| AM1D-0503SH30Z | 4.5-5.5   | 3.3 | 303 | 3000 | 256 | 15 | 220 | 78 |
| AM1D-0505SH30Z | 4.5-5.5   | 5   | 200 | 3000 | 247 | 17 | 220 | 81 |
| AM1D-0507SH30Z | 4.5-5.5   | 7.2 | 139 | 3000 | 247 | 16 | 220 | 81 |
| AM1D-0509SH30Z | 4.5-5.5   | 9   | 111 | 3000 | 244 | 15 | 220 | 82 |
| AM1D-0512SH30Z | 4.5-5.5   | 12  | 83  | 3000 | 253 | 17 | 220 | 79 |
| AM1D-0515SH30Z | 4.5-5.5   | 15  | 67  | 3000 | 233 | 17 | 220 | 86 |
| AM1D-0518SH30Z | 4.5-5.5   | 18  | 56  | 3000 | 241 | 16 | 220 | 83 |
| AM1D-0524SH30Z | 4.5-5.5   | 24  | 42  | 3000 | 244 | 20 | 220 | 82 |
| AM1D-1203SH30Z | 10.8-13.2 | 3.3 | 303 | 3000 | 111 | 12 | 220 | 75 |
| AM1D-1205SH30Z | 10.8-13.2 | 5   | 200 | 3000 | 105 | 14 | 220 | 79 |
| AM1D-1207SH30Z | 10.8-13.2 | 7.2 | 139 | 3000 | 111 | 14 | 220 | 75 |
| AM1D-1209SH30Z | 10.8-13.2 | 9   | 111 | 3000 | 104 | 9  | 220 | 80 |
| AM1D-1212SH30Z | 10.8-13.2 | 12  | 83  | 3000 | 105 | 13 | 220 | 79 |
| AM1D-1215SH30Z | 10.8-13.2 | 15  | 67  | 3000 | 102 | 10 | 220 | 82 |
| AM1D-1218SH30Z | 10.8-13.2 | 18  | 56  | 3000 | 103 | 11 | 220 | 81 |
| AM1D-1224SH30Z | 10.8-13.2 | 24  | 42  | 3000 | 110 | 20 | 220 | 76 |
| AM1D-1503SH30Z | 13.5-16.5 | 3.3 | 303 | 3000 | 83  | 10 | 220 | 80 |
| AM1D-1505SH30Z | 13.5-16.5 | 5   | 200 | 3000 | 82  | 7  | 220 | 81 |
| AM1D-1507SH30Z | 13.5-16.5 | 7.2 | 139 | 3000 | 85  | 10 | 220 | 78 |
| AM1D-1509SH30Z | 13.5-16.5 | 9   | 111 | 3000 | 85  | 10 | 220 | 78 |
| AM1D-1512SH30Z | 13.5-16.5 | 12  | 83  | 3000 | 83  | 8  | 220 | 80 |
| AM1D-1515SH30Z | 13.5-16.5 | 15  | 67  | 3000 | 84  | 12 | 220 | 79 |
| AM1D-1518SH30Z | 13.5-16.5 | 18  | 56  | 3000 | 83  | 10 | 220 | 80 |
| AM1D-1524SH30Z | 13.5-16.5 | 24  | 42  | 3000 | 80  | 5  | 220 | 83 |
| AM1D-2403SH30Z | 21.6-26.4 | 3.3 | 303 | 3000 | 56  | 8  | 220 | 74 |
| AM1D-2405SH30Z | 21.6-26.4 | 5   | 200 | 3000 | 54  | 6  | 220 | 77 |
| AM1D-2407SH30Z | 21.6-26.4 | 7.2 | 139 | 3000 | 57  | 6  | 220 | 73 |
| AM1D-2409SH30Z | 21.6-26.4 | 9   | 111 | 3000 | 55  | 6  | 220 | 76 |
| AM1D-2412SH30Z | 21.6-26.4 | 12  | 83  | 3000 | 53  | 6  | 220 | 78 |
| AM1D-2415SH30Z | 21.6-26.4 | 15  | 67  | 3000 | 52  | 5  | 220 | 80 |
| AM1D-2418SH30Z | 21.6-26.4 | 18  | 56  | 3000 | 51  | 5  | 220 | 82 |
| AM1D-2424SH30Z | 21.6-26.4 | 24  | 42  | 3000 | 52  | 8  | 220 | 80 |
| AM1D-0303SH40Z | 2.97-3.63 | 3.3 | 303 | 4000 | 399 | 28 | 220 | 76 |
| AM1D-0305SH40Z | 2.97-3.63 | 5   | 200 | 4000 | 389 | 22 | 220 | 78 |
| AM1D-0307SH40Z | 2.97-3.63 | 7.2 | 139 | 4000 | 379 | 22 | 220 | 78 |
| AM1D-0309SH40Z | 2.97-3.63 | 9   | 111 | 4000 | 379 | 35 | 220 | 80 |
| AM1D-0312SH40Z | 2.97-3.63 | 12  | 83  | 4000 | 389 | 30 | 220 | 77 |
| AM1D-0315SH40Z | 2.97-3.63 | 15  | 67  | 4000 | 389 | 30 | 220 | 78 |
| AM1D-0318SH40Z | 2.97-3.63 | 18  | 56  | 4000 | 415 | 30 | 220 | 73 |
| AM1D-0324SH40Z | 2.97-3.63 | 24  | 42  | 4000 | 415 | 30 | 220 | 73 |
| AM1D-0503SH40Z | 4.5-5.5   | 3.3 | 303 | 4000 | 256 | 15 | 220 | 78 |
| AM1D-0505SH40Z | 4.5-5.5   | 5   | 200 | 4000 | 247 | 17 | 220 | 81 |
| AM1D-0507SH40Z | 4.5-5.5   | 7.2 | 139 | 4000 | 247 | 16 | 220 | 81 |
| AM1D-0509SH40Z | 4.5-5.5   | 9   | 111 | 4000 | 244 | 15 | 220 | 82 |
| AM1D-0512SH40Z | 4.5-5.5   | 12  | 83  | 4000 | 253 | 17 | 220 | 79 |
| AM1D-0515SH40Z | 4.5-5.5   | 15  | 67  | 4000 | 233 | 17 | 220 | 86 |
| AM1D-0518SH40Z | 4.5-5.5   | 18  | 56  | 4000 | 241 | 16 | 220 | 83 |
| AM1D-0524SH40Z | 4.5-5.5   | 24  | 42  | 4000 | 244 | 20 | 220 | 82 |
| AM1D-1203SH40Z | 10.8-13.2 | 3.3 | 303 | 4000 | 111 | 12 | 220 | 75 |
| AM1D-1205SH40Z | 10.8-13.2 | 5   | 200 | 4000 | 105 | 14 | 220 | 79 |
| AM1D-1207SH40Z | 10.8-13.2 | 7.2 | 139 | 4000 | 111 | 14 | 220 | 75 |
| AM1D-1209SH40Z | 10.8-13.2 | 9   | 111 | 4000 | 104 | 9  | 220 | 80 |
| AM1D-1212SH40Z | 10.8-13.2 | 12  | 83  | 4000 | 105 | 13 | 220 | 79 |
| AM1D-1215SH40Z | 10.8-13.2 | 15  | 67  | 4000 | 102 | 10 | 220 | 82 |
| AM1D-1218SH40Z | 10.8-13.2 | 18  | 56  | 4000 | 103 | 11 | 220 | 81 |
| AM1D-1224SH40Z | 10.8-13.2 | 24  | 42  | 4000 | 110 | 20 | 220 | 76 |
| AM1D-1503SH40Z | 13.5-16.5 | 3.3 | 303 | 4000 | 83  | 10 | 220 | 80 |
| AM1D-1505SH40Z | 13.5-16.5 | 5   | 200 | 4000 | 82  | 7  | 220 | 81 |
| AM1D-1507SH40Z | 13.5-16.5 | 7.2 | 139 | 4000 | 85  | 10 | 220 | 78 |
| AM1D-1509SH40Z | 13.5-16.5 | 9   | 111 | 4000 | 85  | 10 | 220 | 78 |

|                |           |     |     |      |     |    |     |    |
|----------------|-----------|-----|-----|------|-----|----|-----|----|
| AM1D-1512SH40Z | 13.5-16.5 | 12  | 83  | 4000 | 83  | 8  | 220 | 80 |
| AM1D-1515SH40Z | 13.5-16.5 | 15  | 67  | 4000 | 84  | 12 | 220 | 79 |
| AM1D-1518SH40Z | 13.5-16.5 | 18  | 56  | 4000 | 83  | 10 | 220 | 80 |
| AM1D-1524SH40Z | 13.5-16.5 | 24  | 42  | 4000 | 80  | 5  | 220 | 83 |
| AM1D-2403SH40Z | 21.6-26.4 | 3.3 | 303 | 4000 | 56  | 8  | 220 | 74 |
| AM1D-2405SH40Z | 21.6-26.4 | 5   | 200 | 4000 | 54  | 6  | 220 | 77 |
| AM1D-2407SH40Z | 21.6-26.4 | 7.2 | 139 | 4000 | 57  | 6  | 220 | 73 |
| AM1D-2409SH40Z | 21.6-26.4 | 9   | 111 | 4000 | 55  | 6  | 220 | 76 |
| AM1D-2412SH40Z | 21.6-26.4 | 12  | 83  | 4000 | 53  | 6  | 220 | 78 |
| AM1D-2415SH40Z | 21.6-26.4 | 15  | 67  | 4000 | 52  | 5  | 220 | 80 |
| AM1D-2418SH40Z | 21.6-26.4 | 18  | 56  | 4000 | 51  | 5  | 220 | 82 |
| AM1D-2424SH40Z | 21.6-26.4 | 24  | 42  | 4000 | 52  | 8  | 220 | 80 |
| AM1D-0303SH52Z | 2.97-3.63 | 3.3 | 303 | 5200 | 399 | 28 | 220 | 76 |
| AM1D-0305SH52Z | 2.97-3.63 | 5   | 200 | 5200 | 389 | 22 | 220 | 78 |
| AM1D-0307SH52Z | 2.97-3.63 | 7.2 | 139 | 5200 | 379 | 22 | 220 | 78 |
| AM1D-0309SH52Z | 2.97-3.63 | 9   | 111 | 5200 | 379 | 35 | 220 | 80 |
| AM1D-0312SH52Z | 2.97-3.63 | 12  | 83  | 5200 | 389 | 30 | 220 | 77 |
| AM1D-0315SH52Z | 2.97-3.63 | 15  | 67  | 5200 | 389 | 30 | 220 | 78 |
| AM1D-0318SH52Z | 2.97-3.63 | 18  | 56  | 5200 | 415 | 30 | 220 | 73 |
| AM1D-0324SH52Z | 2.97-3.63 | 24  | 42  | 5200 | 415 | 30 | 220 | 73 |
| AM1D-0503SH52Z | 4.5-5.5   | 3.3 | 303 | 5200 | 256 | 15 | 220 | 78 |
| AM1D-0505SH52Z | 4.5-5.5   | 5   | 200 | 5200 | 247 | 17 | 220 | 81 |
| AM1D-0507SH52Z | 4.5-5.5   | 7.2 | 139 | 5200 | 247 | 16 | 220 | 81 |
| AM1D-0509SH52Z | 4.5-5.5   | 9   | 111 | 5200 | 244 | 15 | 220 | 82 |
| AM1D-0512SH52Z | 4.5-5.5   | 12  | 83  | 5200 | 253 | 17 | 220 | 79 |
| AM1D-0515SH52Z | 4.5-5.5   | 15  | 67  | 5200 | 233 | 17 | 220 | 86 |
| AM1D-0518SH52Z | 4.5-5.5   | 18  | 56  | 5200 | 241 | 16 | 220 | 83 |
| AM1D-0524SH52Z | 4.5-5.5   | 24  | 42  | 5200 | 244 | 20 | 220 | 82 |
| AM1D-1203SH52Z | 10.8-13.2 | 3.3 | 303 | 5200 | 111 | 12 | 220 | 75 |
| AM1D-1205SH52Z | 10.8-13.2 | 5   | 200 | 5200 | 105 | 14 | 220 | 79 |
| AM1D-1207SH52Z | 10.8-13.2 | 7.2 | 139 | 5200 | 111 | 14 | 220 | 75 |
| AM1D-1209SH52Z | 10.8-13.2 | 9   | 111 | 5200 | 104 | 9  | 220 | 80 |
| AM1D-1212SH52Z | 10.8-13.2 | 12  | 83  | 5200 | 105 | 13 | 220 | 79 |
| AM1D-1215SH52Z | 10.8-13.2 | 15  | 67  | 5200 | 102 | 10 | 220 | 82 |
| AM1D-1218SH52Z | 10.8-13.2 | 18  | 56  | 5200 | 103 | 11 | 220 | 81 |
| AM1D-1224SH52Z | 10.8-13.2 | 24  | 42  | 5200 | 110 | 20 | 220 | 76 |
| AM1D-1503SH52Z | 13.5-16.5 | 3.3 | 303 | 5200 | 83  | 10 | 220 | 80 |
| AM1D-1505SH52Z | 13.5-16.5 | 5   | 200 | 5200 | 82  | 7  | 220 | 81 |
| AM1D-1507SH52Z | 13.5-16.5 | 7.2 | 139 | 5200 | 85  | 10 | 220 | 78 |
| AM1D-1509SH52Z | 13.5-16.5 | 9   | 111 | 5200 | 85  | 10 | 220 | 78 |
| AM1D-1512SH52Z | 13.5-16.5 | 12  | 83  | 5200 | 83  | 8  | 220 | 80 |
| AM1D-1515SH52Z | 13.5-16.5 | 15  | 67  | 5200 | 84  | 12 | 220 | 79 |
| AM1D-1518SH52Z | 13.5-16.5 | 18  | 56  | 5200 | 83  | 10 | 220 | 80 |
| AM1D-1524SH52Z | 13.5-16.5 | 24  | 42  | 5200 | 80  | 5  | 220 | 83 |
| AM1D-2403SH52Z | 21.6-26.4 | 3.3 | 303 | 5200 | 56  | 8  | 220 | 74 |
| AM1D-2405SH52Z | 21.6-26.4 | 5   | 200 | 5200 | 54  | 6  | 220 | 77 |
| AM1D-2407SH52Z | 21.6-26.4 | 7.2 | 139 | 5200 | 57  | 6  | 220 | 73 |
| AM1D-2409SH52Z | 21.6-26.4 | 9   | 111 | 5200 | 55  | 6  | 220 | 76 |
| AM1D-2412SH52Z | 21.6-26.4 | 12  | 83  | 5200 | 53  | 6  | 220 | 78 |
| AM1D-2415SH52Z | 21.6-26.4 | 15  | 67  | 5200 | 52  | 5  | 220 | 80 |
| AM1D-2418SH52Z | 21.6-26.4 | 18  | 56  | 5200 | 51  | 5  | 220 | 82 |
| AM1D-2424SH52Z | 21.6-26.4 | 24  | 42  | 5200 | 52  | 8  | 220 | 80 |
| AM1D-0303SH60Z | 2.97-3.63 | 3.3 | 303 | 6000 | 399 | 28 | 220 | 76 |
| AM1D-0305SH60Z | 2.97-3.63 | 5   | 200 | 6000 | 389 | 22 | 220 | 78 |
| AM1D-0307SH60Z | 2.97-3.63 | 7.2 | 139 | 6000 | 379 | 22 | 220 | 78 |
| AM1D-0309SH60Z | 2.97-3.63 | 9   | 111 | 6000 | 379 | 35 | 220 | 80 |
| AM1D-0312SH60Z | 2.97-3.63 | 12  | 83  | 6000 | 389 | 30 | 220 | 77 |
| AM1D-0315SH60Z | 2.97-3.63 | 15  | 67  | 6000 | 389 | 30 | 220 | 78 |
| AM1D-0318SH60Z | 2.97-3.63 | 18  | 56  | 6000 | 415 | 30 | 220 | 73 |

|                |           |     |     |      |     |    |     |    |
|----------------|-----------|-----|-----|------|-----|----|-----|----|
| AM1D-0324SH60Z | 2.97-3.63 | 24  | 42  | 6000 | 415 | 30 | 220 | 73 |
| AM1D-0503SH60Z | 4.5-5.5   | 3.3 | 303 | 6000 | 256 | 15 | 220 | 78 |
| AM1D-0505SH60Z | 4.5-5.5   | 5   | 200 | 6000 | 247 | 17 | 220 | 81 |
| AM1D-0507SH60Z | 4.5-5.5   | 7.2 | 139 | 6000 | 247 | 16 | 220 | 81 |
| AM1D-0509SH60Z | 4.5-5.5   | 9   | 111 | 6000 | 244 | 15 | 220 | 82 |
| AM1D-0512SH60Z | 4.5-5.5   | 12  | 83  | 6000 | 253 | 17 | 220 | 79 |
| AM1D-0515SH60Z | 4.5-5.5   | 15  | 67  | 6000 | 233 | 17 | 220 | 86 |
| AM1D-0518SH60Z | 4.5-5.5   | 18  | 56  | 6000 | 241 | 16 | 220 | 83 |
| AM1D-0524SH60Z | 4.5-5.5   | 24  | 42  | 6000 | 244 | 20 | 220 | 82 |
| AM1D-1203SH60Z | 10.8-13.2 | 3.3 | 303 | 6000 | 111 | 12 | 220 | 75 |
| AM1D-1205SH60Z | 10.8-13.2 | 5   | 200 | 6000 | 105 | 14 | 220 | 79 |
| AM1D-1207SH60Z | 10.8-13.2 | 7.2 | 139 | 6000 | 111 | 14 | 220 | 75 |
| AM1D-1209SH60Z | 10.8-13.2 | 9   | 111 | 6000 | 104 | 9  | 220 | 80 |
| AM1D-1212SH60Z | 10.8-13.2 | 12  | 83  | 6000 | 105 | 13 | 220 | 79 |
| AM1D-1215SH60Z | 10.8-13.2 | 15  | 67  | 6000 | 102 | 10 | 220 | 82 |
| AM1D-1218SH60Z | 10.8-13.2 | 18  | 56  | 6000 | 103 | 11 | 220 | 81 |
| AM1D-1224SH60Z | 10.8-13.2 | 24  | 42  | 6000 | 110 | 20 | 220 | 76 |
| AM1D-1503SH60Z | 13.5-16.5 | 3.3 | 303 | 6000 | 83  | 10 | 220 | 80 |
| AM1D-1505SH60Z | 13.5-16.5 | 5   | 200 | 6000 | 82  | 7  | 220 | 81 |
| AM1D-1507SH60Z | 13.5-16.5 | 7.2 | 139 | 6000 | 85  | 10 | 220 | 78 |
| AM1D-1509SH60Z | 13.5-16.5 | 9   | 111 | 6000 | 85  | 10 | 220 | 78 |
| AM1D-1512SH60Z | 13.5-16.5 | 12  | 83  | 6000 | 83  | 8  | 220 | 80 |
| AM1D-1515SH60Z | 13.5-16.5 | 15  | 67  | 6000 | 84  | 12 | 220 | 79 |
| AM1D-1518SH60Z | 13.5-16.5 | 18  | 56  | 6000 | 83  | 10 | 220 | 80 |
| AM1D-1524SH60Z | 13.5-16.5 | 24  | 42  | 6000 | 80  | 5  | 220 | 83 |
| AM1D-2403SH60Z | 21.6-26.4 | 3.3 | 303 | 6000 | 56  | 8  | 220 | 74 |
| AM1D-2405SH60Z | 21.6-26.4 | 5   | 200 | 6000 | 54  | 6  | 220 | 77 |
| AM1D-2407SH60Z | 21.6-26.4 | 7.2 | 139 | 6000 | 57  | 6  | 220 | 73 |
| AM1D-2409SH60Z | 21.6-26.4 | 9   | 111 | 6000 | 55  | 6  | 220 | 76 |
| AM1D-2412SH60Z | 21.6-26.4 | 12  | 83  | 6000 | 53  | 6  | 220 | 78 |
| AM1D-2415SH60Z | 21.6-26.4 | 15  | 67  | 6000 | 52  | 5  | 220 | 80 |
| AM1D-2418SH60Z | 21.6-26.4 | 18  | 56  | 6000 | 51  | 5  | 220 | 82 |
| AM1D-2424SH60Z | 21.6-26.4 | 24  | 42  | 6000 | 52  | 8  | 220 | 80 |

## Models

### Dual output

| Model       | Input Voltage (V) | Output Voltage (V) | Output Current Max (mA) | Isolation (VDC) | Input Current Full Load   No Load (mA) | Max Capacitive Load (uF) | Efficiency (%) |
|-------------|-------------------|--------------------|-------------------------|-----------------|----------------------------------------|--------------------------|----------------|
| AM1D-0303DZ | 2.97-3.63         | ±3.3               | ±152                    | 1000            | 459 30                                 | ±100                     | 66             |
| AM1D-0305DZ | 2.97-3.63         | ±5                 | ±100                    | 1000            | 433 30                                 | ±100                     | 70             |
| AM1D-0307DZ | 2.97-3.63         | ±7.2               | ±69                     | 1000            | 421 30                                 | ±100                     | 72             |
| AM1D-0309DZ | 2.97-3.63         | ±9                 | ±56                     | 1000            | 404 26                                 | ±100                     | 75             |
| AM1D-0312DZ | 2.97-3.63         | ±12                | ±42                     | 1000            | 394 30                                 | ±100                     | 77             |
| AM1D-0315DZ | 2.97-3.63         | ±15                | ±33                     | 1000            | 389 30                                 | ±100                     | 78             |
| AM1D-0318DZ | 2.97-3.63         | ±18                | ±28                     | 1000            | 404 25                                 | ±100                     | 75             |
| AM1D-0324DZ | 2.97-3.63         | ±24                | ±21                     | 1000            | 404 25                                 | ±100                     | 75             |
| AM1D-0503DZ | 4.5-5.5           | ±3.3               | ±152                    | 1000            | 299 20                                 | ±100                     | 67             |
| AM1D-0505DZ | 4.5-5.5           | ±5                 | ±100                    | 1000            | 270 20                                 | ±100                     | 74             |
| AM1D-0507DZ | 4.5-5.5           | ±7.2               | ±69                     | 1000            | 253 15                                 | ±100                     | 79             |
| AM1D-0509DZ | 4.5-5.5           | ±9                 | ±56                     | 1000            | 247 15                                 | ±100                     | 81             |
| AM1D-0512DZ | 4.5-5.5           | ±12                | ±42                     | 1000            | 250 20                                 | ±100                     | 80             |
| AM1D-0515DZ | 4.5-5.5           | ±15                | ±33                     | 1000            | 244 20                                 | ±100                     | 82             |
| AM1D-0518DZ | 4.5-5.5           | ±18                | ±27                     | 1000            | 247 22                                 | ±100                     | 81             |
| AM1D-0524DZ | 4.5-5.5           | ±24                | ±21                     | 1000            | 247 22                                 | ±100                     | 81             |
| AM1D-1203DZ | 10.8-13.2         | ±3.3               | ±152                    | 1000            | 123 13                                 | ±100                     | 68             |
| AM1D-1205DZ | 10.8-13.2         | ±5                 | ±100                    | 1000            | 123 10                                 | ±100                     | 74             |
| AM1D-1207DZ | 10.8-13.2         | ±7.2               | ±69                     | 1000            | 110 10                                 | ±100                     | 76             |
| AM1D-1209DZ | 10.8-13.2         | ±9                 | ±56                     | 1000            | 110 13                                 | ±100                     | 78             |
| AM1D-1212DZ | 10.8-13.2         | ±12                | ±42                     | 1000            | 102 10                                 | ±100                     | 82             |

|                |           |      |      |      |     |    |      |    |
|----------------|-----------|------|------|------|-----|----|------|----|
| AM1D-1215DZ    | 10.8-13.2 | ±15  | ±33  | 1000 | 102 | 10 | ±100 | 82 |
| AM1D-1218DZ    | 10.8-13.2 | ±18  | ±28  | 1000 | 102 | 10 | ±100 | 82 |
| AM1D-1224DZ    | 10.8-13.2 | ±24  | ±21  | 1000 | 111 | 20 | ±100 | 75 |
| AM1D-1503DZ    | 13.5-16.5 | ±3.3 | ±152 | 1000 | 89  | 20 | ±100 | 75 |
| AM1D-1505DZ    | 13.5-16.5 | ±5   | ±100 | 1000 | 89  | 20 | ±100 | 75 |
| AM1D-1507DZ    | 13.5-16.5 | ±7.2 | ±69  | 1000 | 89  | 18 | ±100 | 75 |
| AM1D-1509DZ    | 13.5-16.5 | ±9   | ±56  | 1000 | 87  | 18 | ±100 | 77 |
| AM1D-1512DZ    | 13.5-16.5 | ±12  | ±42  | 1000 | 87  | 20 | ±100 | 77 |
| AM1D-1515DZ    | 13.5-16.5 | ±15  | ±33  | 1000 | 87  | 20 | ±100 | 77 |
| AM1D-1518DZ    | 13.5-16.5 | ±18  | ±28  | 1000 | 89  | 15 | ±100 | 75 |
| AM1D-1524DZ    | 13.5-16.5 | ±24  | ±21  | 1000 | 89  | 15 | ±100 | 75 |
| AM1D-2403DZ    | 21.6-26.4 | ±3.3 | ±152 | 1000 | 62  | 7  | ±100 | 67 |
| AM1D-2405DZ    | 21.6-26.4 | ±5   | ±100 | 1000 | 56  | 6  | ±100 | 74 |
| AM1D-2407DZ    | 21.6-26.4 | ±7.2 | ±69  | 1000 | 56  | 7  | ±100 | 78 |
| AM1D-2409DZ    | 21.6-26.4 | ±9   | ±56  | 1000 | 56  | 7  | ±100 | 78 |
| AM1D-2412DZ    | 21.6-26.4 | ±12  | ±42  | 1000 | 52  | 6  | ±100 | 80 |
| AM1D-2415DZ    | 21.6-26.4 | ±15  | ±33  | 1000 | 52  | 8  | ±100 | 80 |
| AM1D-2418DZ    | 21.6-26.4 | ±18  | ±28  | 1000 | 51  | 6  | ±100 | 81 |
| AM1D-2424DZ    | 21.6-26.4 | ±24  | ±21  | 1000 | 51  | 8  | ±100 | 82 |
| AM1D-0303DH30Z | 2.97-3.63 | ±3.3 | ±152 | 3000 | 459 | 30 | ±100 | 66 |
| AM1D-0305DH30Z | 2.97-3.63 | ±5   | ±100 | 3000 | 433 | 30 | ±100 | 70 |
| AM1D-0307DH30Z | 2.97-3.63 | ±7.2 | ±69  | 3000 | 421 | 30 | ±100 | 72 |
| AM1D-0309DH30Z | 2.97-3.63 | ±9   | ±56  | 3000 | 404 | 26 | ±100 | 75 |
| AM1D-0312DH30Z | 2.97-3.63 | ±12  | ±42  | 3000 | 394 | 30 | ±100 | 77 |
| AM1D-0315DH30Z | 2.97-3.63 | ±15  | ±33  | 3000 | 389 | 30 | ±100 | 78 |
| AM1D-0318DH30Z | 2.97-3.63 | ±18  | ±28  | 3000 | 404 | 25 | ±100 | 75 |
| AM1D-0324DH30Z | 2.97-3.63 | ±24  | ±21  | 3000 | 404 | 25 | ±100 | 75 |
| AM1D-0503DH30Z | 4.5-5.5   | ±3.3 | ±152 | 3000 | 299 | 20 | ±100 | 67 |
| AM1D-0505DH30Z | 4.5-5.5   | ±5   | ±100 | 3000 | 270 | 20 | ±100 | 74 |
| AM1D-0507DH30Z | 4.5-5.5   | ±7.2 | ±69  | 3000 | 253 | 15 | ±100 | 79 |
| AM1D-0509DH30Z | 4.5-5.5   | ±9   | ±56  | 3000 | 247 | 15 | ±100 | 81 |
| AM1D-0512DH30Z | 4.5-5.5   | ±12  | ±42  | 3000 | 250 | 20 | ±100 | 80 |
| AM1D-0515DH30Z | 4.5-5.5   | ±15  | ±33  | 3000 | 244 | 20 | ±100 | 82 |
| AM1D-0518DH30Z | 4.5-5.5   | ±18  | ±27  | 3000 | 247 | 22 | ±100 | 81 |
| AM1D-0524DH30Z | 4.5-5.5   | ±24  | ±21  | 3000 | 247 | 22 | ±100 | 81 |
| AM1D-1203DH30Z | 10.8-13.2 | ±3.3 | ±152 | 3000 | 123 | 13 | ±100 | 68 |
| AM1D-1205DH30Z | 10.8-13.2 | ±5   | ±100 | 3000 | 123 | 10 | ±100 | 74 |
| AM1D-1207DH30Z | 10.8-13.2 | ±7.2 | ±69  | 3000 | 110 | 10 | ±100 | 76 |
| AM1D-1209DH30Z | 10.8-13.2 | ±9   | ±56  | 3000 | 110 | 13 | ±100 | 78 |
| AM1D-1212DH30Z | 10.8-13.2 | ±12  | ±42  | 3000 | 102 | 10 | ±100 | 82 |
| AM1D-1215DH30Z | 10.8-13.2 | ±15  | ±33  | 3000 | 102 | 10 | ±100 | 82 |
| AM1D-1218DH30Z | 10.8-13.2 | ±18  | ±28  | 3000 | 102 | 10 | ±100 | 82 |
| AM1D-1224DH30Z | 10.8-13.2 | ±24  | ±21  | 3000 | 111 | 20 | ±100 | 75 |
| AM1D-1503DH30Z | 13.5-16.5 | ±3.3 | ±152 | 3000 | 89  | 20 | ±100 | 75 |
| AM1D-1505DH30Z | 13.5-16.5 | ±5   | ±100 | 3000 | 89  | 20 | ±100 | 75 |
| AM1D-1507DH30Z | 13.5-16.5 | ±7.2 | ±69  | 3000 | 89  | 18 | ±100 | 75 |
| AM1D-1509DH30Z | 13.5-16.5 | ±9   | ±56  | 3000 | 87  | 18 | ±100 | 77 |
| AM1D-1512DH30Z | 13.5-16.5 | ±12  | ±42  | 3000 | 87  | 20 | ±100 | 77 |
| AM1D-1515DH30Z | 13.5-16.5 | ±15  | ±33  | 3000 | 87  | 20 | ±100 | 77 |
| AM1D-1518DH30Z | 13.5-16.5 | ±18  | ±28  | 3000 | 89  | 15 | ±100 | 75 |
| AM1D-1524DH30Z | 13.5-16.5 | ±24  | ±21  | 3000 | 89  | 15 | ±100 | 75 |
| AM1D-2403DH30Z | 21.6-26.4 | ±3.3 | ±152 | 3000 | 62  | 7  | ±100 | 67 |
| AM1D-2405DH30Z | 21.6-26.4 | ±5   | ±100 | 3000 | 56  | 6  | ±100 | 74 |
| AM1D-2407DH30Z | 21.6-26.4 | ±7.2 | ±69  | 3000 | 56  | 7  | ±100 | 78 |
| AM1D-2409DH30Z | 21.6-26.4 | ±9   | ±56  | 3000 | 56  | 7  | ±100 | 78 |
| AM1D-2412DH30Z | 21.6-26.4 | ±12  | ±42  | 3000 | 52  | 6  | ±100 | 80 |
| AM1D-2415DH30Z | 21.6-26.4 | ±15  | ±33  | 3000 | 52  | 8  | ±100 | 80 |
| AM1D-2418DH30Z | 21.6-26.4 | ±18  | ±28  | 3000 | 51  | 6  | ±100 | 81 |
| AM1D-2424DH30Z | 21.6-26.4 | ±24  | ±21  | 3000 | 51  | 8  | ±100 | 82 |



|                |           |      |      |      |     |    |      |    |
|----------------|-----------|------|------|------|-----|----|------|----|
| AM1D-0303DH40Z | 2.97-3.63 | ±3.3 | ±152 | 4000 | 459 | 30 | ±100 | 66 |
| AM1D-0305DH40Z | 2.97-3.63 | ±5   | ±100 | 4000 | 433 | 30 | ±100 | 70 |
| AM1D-0307DH40Z | 2.97-3.63 | ±7.2 | ±69  | 4000 | 421 | 30 | ±100 | 72 |
| AM1D-0309DH40Z | 2.97-3.63 | ±9   | ±56  | 4000 | 404 | 26 | ±100 | 75 |
| AM1D-0312DH40Z | 2.97-3.63 | ±12  | ±42  | 4000 | 394 | 30 | ±100 | 77 |
| AM1D-0315DH40Z | 2.97-3.63 | ±15  | ±33  | 4000 | 389 | 30 | ±100 | 78 |
| AM1D-0318DH40Z | 2.97-3.63 | ±18  | ±28  | 4000 | 404 | 25 | ±100 | 75 |
| AM1D-0324DH40Z | 2.97-3.63 | ±24  | ±21  | 4000 | 404 | 25 | ±100 | 75 |
| AM1D-0503DH40Z | 4.5-5.5   | ±3.3 | ±152 | 4000 | 299 | 20 | ±100 | 67 |
| AM1D-0505DH40Z | 4.5-5.5   | ±5   | ±100 | 4000 | 270 | 20 | ±100 | 74 |
| AM1D-0507DH40Z | 4.5-5.5   | ±7.2 | ±69  | 4000 | 253 | 15 | ±100 | 79 |
| AM1D-0509DH40Z | 4.5-5.5   | ±9   | ±56  | 4000 | 247 | 15 | ±100 | 81 |
| AM1D-0512DH40Z | 4.5-5.5   | ±12  | ±42  | 4000 | 250 | 20 | ±100 | 80 |
| AM1D-0515DH40Z | 4.5-5.5   | ±15  | ±33  | 4000 | 244 | 20 | ±100 | 82 |
| AM1D-0518DH40Z | 4.5-5.5   | ±18  | ±27  | 4000 | 247 | 22 | ±100 | 81 |
| AM1D-0524DH40Z | 4.5-5.5   | ±24  | ±21  | 4000 | 247 | 22 | ±100 | 81 |
| AM1D-1203DH40Z | 10.8-13.2 | ±3.3 | ±152 | 4000 | 123 | 13 | ±100 | 68 |
| AM1D-1205DH40Z | 10.8-13.2 | ±5   | ±100 | 4000 | 123 | 10 | ±100 | 74 |
| AM1D-1207DH40Z | 10.8-13.2 | ±7.2 | ±69  | 4000 | 110 | 10 | ±100 | 76 |
| AM1D-1209DH40Z | 10.8-13.2 | ±9   | ±56  | 4000 | 110 | 13 | ±100 | 78 |
| AM1D-1212DH40Z | 10.8-13.2 | ±12  | ±42  | 4000 | 102 | 10 | ±100 | 82 |
| AM1D-1215DH40Z | 10.8-13.2 | ±15  | ±33  | 4000 | 102 | 10 | ±100 | 82 |
| AM1D-1218DH40Z | 10.8-13.2 | ±18  | ±28  | 4000 | 102 | 10 | ±100 | 82 |
| AM1D-1224DH40Z | 10.8-13.2 | ±24  | ±21  | 4000 | 111 | 20 | ±100 | 75 |
| AM1D-1503DH40Z | 13.5-16.5 | ±3.3 | ±152 | 4000 | 89  | 20 | ±100 | 75 |
| AM1D-1505DH40Z | 13.5-16.5 | ±5   | ±100 | 4000 | 89  | 20 | ±100 | 75 |
| AM1D-1507DH40Z | 13.5-16.5 | ±7.2 | ±69  | 4000 | 89  | 18 | ±100 | 75 |
| AM1D-1509DH40Z | 13.5-16.5 | ±9   | ±56  | 4000 | 87  | 18 | ±100 | 77 |
| AM1D-1512DH40Z | 13.5-16.5 | ±12  | ±42  | 4000 | 87  | 20 | ±100 | 77 |
| AM1D-1515DH40Z | 13.5-16.5 | ±15  | ±33  | 4000 | 87  | 20 | ±100 | 77 |
| AM1D-1518DH40Z | 13.5-16.5 | ±18  | ±28  | 4000 | 89  | 15 | ±100 | 75 |
| AM1D-1524DH40Z | 13.5-16.5 | ±24  | ±21  | 4000 | 89  | 15 | ±100 | 75 |
| AM1D-2403DH40Z | 21.6-26.4 | ±3.3 | ±152 | 4000 | 62  | 7  | ±100 | 67 |
| AM1D-2405DH40Z | 21.6-26.4 | ±5   | ±100 | 4000 | 56  | 6  | ±100 | 74 |
| AM1D-2407DH40Z | 21.6-26.4 | ±7.2 | ±69  | 4000 | 56  | 7  | ±100 | 78 |
| AM1D-2409DH40Z | 21.6-26.4 | ±9   | ±56  | 4000 | 56  | 7  | ±100 | 78 |
| AM1D-2412DH40Z | 21.6-26.4 | ±12  | ±42  | 4000 | 52  | 6  | ±100 | 80 |
| AM1D-2415DH40Z | 21.6-26.4 | ±15  | ±33  | 4000 | 52  | 8  | ±100 | 80 |
| AM1D-2418DH40Z | 21.6-26.4 | ±18  | ±28  | 4000 | 51  | 6  | ±100 | 81 |
| AM1D-2424DH40Z | 21.6-26.4 | ±24  | ±21  | 4000 | 51  | 8  | ±100 | 82 |
| AM1D-0303DH52Z | 2.97-3.63 | ±3.3 | ±152 | 5200 | 459 | 30 | ±100 | 66 |
| AM1D-0305DH52Z | 2.97-3.63 | ±5   | ±100 | 5200 | 433 | 30 | ±100 | 70 |
| AM1D-0307DH52Z | 2.97-3.63 | ±7.2 | ±69  | 5200 | 421 | 30 | ±100 | 72 |
| AM1D-0309DH52Z | 2.97-3.63 | ±9   | ±56  | 5200 | 404 | 26 | ±100 | 75 |
| AM1D-0312DH52Z | 2.97-3.63 | ±12  | ±42  | 5200 | 394 | 30 | ±100 | 77 |
| AM1D-0315DH52Z | 2.97-3.63 | ±15  | ±33  | 5200 | 389 | 30 | ±100 | 78 |
| AM1D-0318DH52Z | 2.97-3.63 | ±18  | ±28  | 5200 | 404 | 25 | ±100 | 75 |
| AM1D-0324DH52Z | 2.97-3.63 | ±24  | ±21  | 5200 | 404 | 25 | ±100 | 75 |
| AM1D-0503DH52Z | 4.5-5.5   | ±3.3 | ±152 | 5200 | 299 | 20 | ±100 | 67 |
| AM1D-0505DH52Z | 4.5-5.5   | ±5   | ±100 | 5200 | 270 | 20 | ±100 | 74 |
| AM1D-0507DH52Z | 4.5-5.5   | ±7.2 | ±69  | 5200 | 253 | 15 | ±100 | 79 |
| AM1D-0509DH52Z | 4.5-5.5   | ±9   | ±56  | 5200 | 247 | 15 | ±100 | 81 |
| AM1D-0512DH52Z | 4.5-5.5   | ±12  | ±42  | 5200 | 250 | 20 | ±100 | 80 |
| AM1D-0515DH52Z | 4.5-5.5   | ±15  | ±33  | 5200 | 244 | 20 | ±100 | 82 |
| AM1D-0518DH52Z | 4.5-5.5   | ±18  | ±27  | 5200 | 247 | 22 | ±100 | 81 |
| AM1D-0524DH52Z | 4.5-5.5   | ±24  | ±21  | 5200 | 247 | 22 | ±100 | 81 |
| AM1D-1203DH52Z | 10.8-13.2 | ±3.3 | ±152 | 5200 | 123 | 13 | ±100 | 68 |
| AM1D-1205DH52Z | 10.8-13.2 | ±5   | ±100 | 5200 | 123 | 10 | ±100 | 74 |
| AM1D-1207DH52Z | 10.8-13.2 | ±7.2 | ±69  | 5200 | 110 | 10 | ±100 | 76 |
| AM1D-1209DH52Z | 10.8-13.2 | ±9   | ±56  | 5200 | 110 | 13 | ±100 | 78 |

|                |           |      |      |      |     |    |      |    |
|----------------|-----------|------|------|------|-----|----|------|----|
| AM1D-1212DH52Z | 10.8-13.2 | ±12  | ±42  | 5200 | 102 | 10 | ±100 | 82 |
| AM1D-1215DH52Z | 10.8-13.2 | ±15  | ±33  | 5200 | 102 | 10 | ±100 | 82 |
| AM1D-1218DH52Z | 10.8-13.2 | ±18  | ±28  | 5200 | 102 | 10 | ±100 | 82 |
| AM1D-1224DH52Z | 10.8-13.2 | ±24  | ±21  | 5200 | 111 | 20 | ±100 | 75 |
| AM1D-1503DH52Z | 13.5-16.5 | ±3.3 | ±152 | 5200 | 89  | 20 | ±100 | 75 |
| AM1D-1505DH52Z | 13.5-16.5 | ±5   | ±100 | 5200 | 89  | 20 | ±100 | 75 |
| AM1D-1507DH52Z | 13.5-16.5 | ±7.2 | ±69  | 5200 | 89  | 18 | ±100 | 75 |
| AM1D-1509DH52Z | 13.5-16.5 | ±9   | ±56  | 5200 | 87  | 18 | ±100 | 77 |
| AM1D-1512DH52Z | 13.5-16.5 | ±12  | ±42  | 5200 | 87  | 20 | ±100 | 77 |
| AM1D-1515DH52Z | 13.5-16.5 | ±15  | ±33  | 5200 | 87  | 20 | ±100 | 77 |
| AM1D-1518DH52Z | 13.5-16.5 | ±18  | ±28  | 5200 | 89  | 15 | ±100 | 75 |
| AM1D-1524DH52Z | 13.5-16.5 | ±24  | ±21  | 5200 | 89  | 15 | ±100 | 75 |
| AM1D-2403DH52Z | 21.6-26.4 | ±3.3 | ±152 | 5200 | 62  | 7  | ±100 | 67 |
| AM1D-2405DH52Z | 21.6-26.4 | ±5   | ±100 | 5200 | 56  | 6  | ±100 | 74 |
| AM1D-2407DH52Z | 21.6-26.4 | ±7.2 | ±69  | 5200 | 56  | 7  | ±100 | 78 |
| AM1D-2409DH52Z | 21.6-26.4 | ±9   | ±56  | 5200 | 56  | 7  | ±100 | 78 |
| AM1D-2412DH52Z | 21.6-26.4 | ±12  | ±42  | 5200 | 52  | 6  | ±100 | 80 |
| AM1D-2415DH52Z | 21.6-26.4 | ±15  | ±33  | 5200 | 52  | 8  | ±100 | 80 |
| AM1D-2418DH52Z | 21.6-26.4 | ±18  | ±28  | 5200 | 51  | 6  | ±100 | 81 |
| AM1D-2424DH52Z | 21.6-26.4 | ±24  | ±21  | 5200 | 51  | 8  | ±100 | 82 |
| AM1D-0303DH60Z | 2.97-3.63 | ±3.3 | ±152 | 6000 | 459 | 30 | ±100 | 66 |
| AM1D-0305DH60Z | 2.97-3.63 | ±5   | ±100 | 6000 | 433 | 30 | ±100 | 70 |
| AM1D-0307DH60Z | 2.97-3.63 | ±7.2 | ±69  | 6000 | 421 | 30 | ±100 | 72 |
| AM1D-0309DH60Z | 2.97-3.63 | ±9   | ±56  | 6000 | 404 | 26 | ±100 | 75 |
| AM1D-0312DH60Z | 2.97-3.63 | ±12  | ±42  | 6000 | 394 | 30 | ±100 | 77 |
| AM1D-0315DH60Z | 2.97-3.63 | ±15  | ±33  | 6000 | 389 | 30 | ±100 | 78 |
| AM1D-0318DH60Z | 2.97-3.63 | ±18  | ±28  | 6000 | 404 | 25 | ±100 | 75 |
| AM1D-0324DH60Z | 2.97-3.63 | ±24  | ±21  | 6000 | 404 | 25 | ±100 | 75 |
| AM1D-0503DH60Z | 4.5-5.5   | ±3.3 | ±152 | 6000 | 299 | 20 | ±100 | 67 |
| AM1D-0505DH60Z | 4.5-5.5   | ±5   | ±100 | 6000 | 270 | 20 | ±100 | 74 |
| AM1D-0507DH60Z | 4.5-5.5   | ±7.2 | ±69  | 6000 | 253 | 15 | ±100 | 79 |
| AM1D-0509DH60Z | 4.5-5.5   | ±9   | ±56  | 6000 | 247 | 15 | ±100 | 81 |
| AM1D-0512DH60Z | 4.5-5.5   | ±12  | ±42  | 6000 | 250 | 20 | ±100 | 80 |
| AM1D-0515DH60Z | 4.5-5.5   | ±15  | ±33  | 6000 | 244 | 20 | ±100 | 82 |
| AM1D-0518DH60Z | 4.5-5.5   | ±18  | ±27  | 6000 | 247 | 22 | ±100 | 81 |
| AM1D-0524DH60Z | 4.5-5.5   | ±24  | ±21  | 6000 | 247 | 22 | ±100 | 81 |
| AM1D-1203DH60Z | 10.8-13.2 | ±3.3 | ±152 | 6000 | 123 | 13 | ±100 | 68 |
| AM1D-1205DH60Z | 10.8-13.2 | ±5   | ±100 | 6000 | 123 | 10 | ±100 | 74 |
| AM1D-1207DH60Z | 10.8-13.2 | ±7.2 | ±69  | 6000 | 110 | 10 | ±100 | 76 |
| AM1D-1209DH60Z | 10.8-13.2 | ±9   | ±56  | 6000 | 110 | 13 | ±100 | 78 |
| AM1D-1212DH60Z | 10.8-13.2 | ±12  | ±42  | 6000 | 102 | 10 | ±100 | 82 |
| AM1D-1215DH60Z | 10.8-13.2 | ±15  | ±33  | 6000 | 102 | 10 | ±100 | 82 |
| AM1D-1218DH60Z | 10.8-13.2 | ±18  | ±28  | 6000 | 102 | 10 | ±100 | 82 |
| AM1D-1224DH60Z | 10.8-13.2 | ±24  | ±21  | 6000 | 111 | 20 | ±100 | 75 |
| AM1D-1503DH60Z | 13.5-16.5 | ±3.3 | ±152 | 6000 | 89  | 20 | ±100 | 75 |
| AM1D-1505DH60Z | 13.5-16.5 | ±5   | ±100 | 6000 | 89  | 20 | ±100 | 75 |
| AM1D-1507DH60Z | 13.5-16.5 | ±7.2 | ±69  | 6000 | 89  | 18 | ±100 | 75 |
| AM1D-1509DH60Z | 13.5-16.5 | ±9   | ±56  | 6000 | 87  | 18 | ±100 | 77 |
| AM1D-1512DH60Z | 13.5-16.5 | ±12  | ±42  | 6000 | 87  | 20 | ±100 | 77 |
| AM1D-1515DH60Z | 13.5-16.5 | ±15  | ±33  | 6000 | 87  | 20 | ±100 | 77 |
| AM1D-1518DH60Z | 13.5-16.5 | ±18  | ±28  | 6000 | 89  | 15 | ±100 | 75 |
| AM1D-1524DH60Z | 13.5-16.5 | ±24  | ±21  | 6000 | 89  | 15 | ±100 | 75 |
| AM1D-2403DH60Z | 21.6-26.4 | ±3.3 | ±152 | 6000 | 62  | 7  | ±100 | 67 |
| AM1D-2405DH60Z | 21.6-26.4 | ±5   | ±100 | 6000 | 56  | 6  | ±100 | 74 |
| AM1D-2407DH60Z | 21.6-26.4 | ±7.2 | ±69  | 6000 | 56  | 7  | ±100 | 78 |
| AM1D-2409DH60Z | 21.6-26.4 | ±9   | ±56  | 6000 | 56  | 7  | ±100 | 78 |
| AM1D-2412DH60Z | 21.6-26.4 | ±12  | ±42  | 6000 | 52  | 6  | ±100 | 80 |
| AM1D-2415DH60Z | 21.6-26.4 | ±15  | ±33  | 6000 | 52  | 8  | ±100 | 80 |
| AM1D-2418DH60Z | 21.6-26.4 | ±18  | ±28  | 6000 | 51  | 6  | ±100 | 81 |
| AM1D-2424DH60Z | 21.6-26.4 | ±24  | ±21  | 6000 | 51  | 8  | ±100 | 82 |

### Models

#### Dual separated output

| Model         | Input Voltage (V) | Output Voltage (V) | Output Current max (mA) | Isolation (VDC) | Input Current Full Load   No Load (mA) |    | Max Capacitive Load (uF) | Efficiency (%) |
|---------------|-------------------|--------------------|-------------------------|-----------------|----------------------------------------|----|--------------------------|----------------|
| AM1D-050303DZ | 4.5-5.5           | 3.3/3.3            | 151/151                 | 1000            | 256                                    | 15 | 100                      | 75             |
| AM1D-050505DZ | 4.5-5.5           | 5/5                | 100/100                 | 1000            | 247                                    | 17 | 100                      | 75             |
| AM1D-050707DZ | 4.5-5.5           | 7.2/7.2            | 69/69                   | 1000            | 247                                    | 16 | 100                      | 77             |
| AM1D-050909DZ | 4.5-5.5           | 9/9                | 56/56                   | 1000            | 244                                    | 15 | 100                      | 79             |
| AM1D-051212DZ | 4.5-5.5           | 12/12              | 42/42                   | 1000            | 253                                    | 17 | 100                      | 80             |
| AM1D-051515DZ | 4.5-5.5           | 15/15              | 33 /33                  | 1000            | 233                                    | 17 | 100                      | 82             |
| AM1D-051818DZ | 4.5-5.5           | 18/18              | 27/27                   | 1000            | 241                                    | 16 | 100                      | 79             |
| AM1D-052424DZ | 4.5-5.5           | 24/24              | 20/20                   | 1000            | 244                                    | 20 | 100                      | 77             |
| AM1D-120303DZ | 10.8-13.2         | 3.3/3.3            | 151/151                 | 1000            | 111                                    | 12 | 100                      | 65             |
| AM1D-120505DZ | 10.8-13.2         | 5/5                | 100/100                 | 1000            | 105                                    | 14 | 100                      | 75             |
| AM1D-120707DZ | 10.8-13.2         | 7.2/7.2            | 69/69                   | 1000            | 111                                    | 14 | 100                      | 77             |
| AM1D-120909DZ | 10.8-13.2         | 9/9                | 56/56                   | 1000            | 104                                    | 9  | 100                      | 77             |
| AM1D-121212DZ | 10.8-13.2         | 12/12              | 42/42                   | 1000            | 105                                    | 13 | 100                      | 80             |
| AM1D-121515DZ | 10.8-13.2         | 15/15              | 33 /33                  | 1000            | 102                                    | 10 | 100                      | 81             |
| AM1D-121818DZ | 10.8-13.2         | 18/18              | 27/27                   | 1000            | 103                                    | 11 | 100                      | 75             |
| AM1D-122424DZ | 10.8-13.2         | 24/24              | 20/20                   | 1000            | 110                                    | 20 | 100                      | 74             |
| AM1D-240303DZ | 21.6-26.4         | 3.3/3.3            | 151/151                 | 1000            | 56                                     | 8  | 100                      | 66             |
| AM1D-240505DZ | 21.6-26.4         | 5/5                | 100/100                 | 1000            | 54                                     | 6  | 100                      | 75             |
| AM1D-240707DZ | 21.6-26.4         | 7.2/7.2            | 69/69                   | 1000            | 57                                     | 6  | 100                      | 77             |
| AM1D-240909DZ | 21.6-26.4         | 9/9                | 56/56                   | 1000            | 55                                     | 6  | 100                      | 79             |
| AM1D-241212DZ | 21.6-26.4         | 12/12              | 42/42                   | 1000            | 53                                     | 6  | 100                      | 82             |
| AM1D-241515DZ | 21.6-26.4         | 15/15              | 33 /33                  | 1000            | 52                                     | 5  | 100                      | 82             |
| AM1D-241818DZ | 21.6-26.4         | 18/18              | 27/27                   | 1000            | 51                                     | 5  | 100                      | 78             |
| AM1D-242424DZ | 21.6-26.4         | 24/24              | 20/20                   | 1000            | 52                                     | 8  | 100                      | 76             |

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

### Input Specifications

| Parameters                     | Nominal   | Typical   | Maximum | Units  |
|--------------------------------|-----------|-----------|---------|--------|
| Voltage range                  | 3.3       | 2.97-3.63 |         | VDC    |
|                                | 5         | 4.5-5.5   |         |        |
|                                | 12        | 10.8-13.2 |         |        |
|                                | 15        | 13.5-16.5 |         |        |
|                                | 24        | 21.6-26.4 |         |        |
| Filter                         | Capacitor |           |         |        |
| Input reflected input current* |           | 20        |         | mA p-p |
| Absolute Maximum Rating        | 3.3 Vin   | 0-6       |         | VDC    |
|                                | 5 Vin     | 0-7       |         |        |
|                                | 12 Vin    | 0-15      |         |        |
|                                | 15 Vin    | 0-20      |         |        |
|                                | 24 Vin    | 0-28      |         |        |
| Peak Input Voltage time        |           | 100       |         | ms     |

\*Measured with 12μH source inductance and 47μF (ESR<1Ω at 100KHz) source capacitor.

NOTE: For front end protection, a slow blow fuse should be added: 800mA for 3.3V input models, 500mA for 5V input models and 300mA for all others.

### Isolation Specifications

| Parameters         | Conditions | Typical | Rated                         | Units |
|--------------------|------------|---------|-------------------------------|-------|
| Tested I/O voltage | 60 sec     |         | 1000, 3000, 4000, 5200 & 6000 | VDC   |
| Resistance         |            | > 1000  |                               | MOhm  |
| Capacitance        |            | 60      |                               | pF    |



### Output Specifications

| Parameters              | Conditions                                       | Typical | Maximum | Units  |
|-------------------------|--------------------------------------------------|---------|---------|--------|
| Voltage accuracy        | Dual separated output models                     | ±3      |         | %      |
| Voltage accuracy        | Other models                                     |         | ±3      | %      |
| Line voltage regulation | For 1.0% of Vin                                  | ±1.2    |         | %      |
| Load voltage regulation | Dual separated output models, load 20~100%       | ±10     |         | %      |
| Load voltage regulation | Dual separated 3.3V output models, load 20~100%  | ±20     |         | %      |
| Load voltage regulation | Other models, load 20~100%                       |         | ±10     | %      |
| Load voltage regulation | Other 3.3V output models, load 20~100%           |         | ±20     | %      |
| Temperature coefficient |                                                  | ±0.02   |         | %/°C   |
| Ripple & Noise          | Dual separated output models, At 20MHz Bandwidth | 75      |         | mV p-p |
| Ripple & Noise          | Other models, At 20MHz Bandwidth                 |         | 75      | mV p-p |

### General Specifications

| Parameters             | Conditions                                              | Typical     | Maximum | Units |
|------------------------|---------------------------------------------------------|-------------|---------|-------|
| Switching frequency    | 100% load, variable                                     | 80          |         | KHz   |
| Operating temperature  | Full Load without Derating                              | -40 to +85  |         | °C    |
| Storage temperature    |                                                         | -40 to +125 |         | °C    |
| Max Case temperature   |                                                         |             | +100    | °C    |
| Cooling                | Free air convection                                     |             |         |       |
| Humidity               |                                                         |             | 95      | %     |
| Altitude               |                                                         |             | 3000    | m     |
| Case material          | Non-conductive black plastic UL 94 V-0                  |             |         |       |
| Weight                 |                                                         | 2.3         |         | g     |
| Dimensions (L x W x H) | 0.76 x 0.24 x 0.39 inch 19.50 x 6.00 x 10.00 mm         |             |         |       |
| MTBF                   | >1 121 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) |             |         |       |

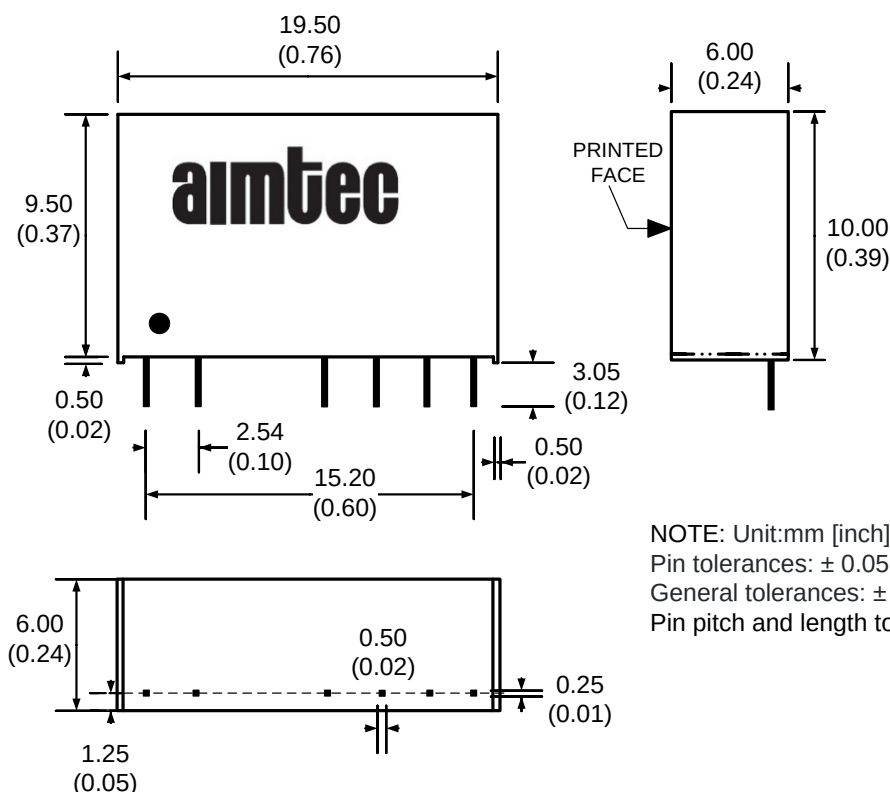
### Safety Specifications

| Standards        |                                                                                              |
|------------------|----------------------------------------------------------------------------------------------|
| Agency approvals | cULus & CE (with exception of dual separated models)                                         |
| Safety           | EN/UL 60950-1, 62368-1                                                                       |
|                  | EN55032, class B, with the recommended EMI circuit (with exception of dual separated models) |
|                  | EN55024 (Noise Immunity)                                                                     |
|                  | IEC61000-4-2(ESD) Criteria A                                                                 |
|                  | IEC61000-4-3(Radiated immunity) Criteria A                                                   |
|                  | IEC61000-4-4(EFT) Criteria A, with the recommended EFT/Surge external circuit                |
|                  | IEC61000-4-5(Surge) Criteria A, with the recommended EFT/Surge external circuit              |
|                  | IEC61000-4-6(CS) Criteria A                                                                  |
|                  | IEC61000-4-8(PFME) Criteria A                                                                |

### Pin Out Specifications

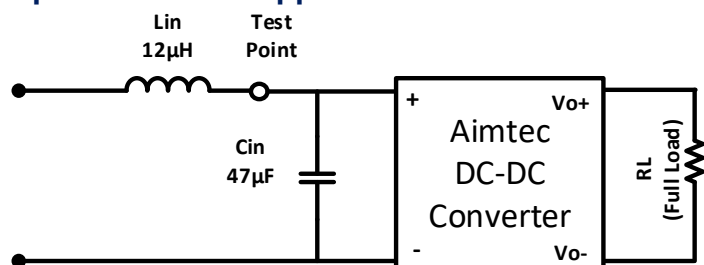
| Pin | Single<br>1000 VDC | Dual<br>1000 VDC | Dual Separated<br>1000 VDC | Single<br>3000, 4000, 5200 &<br>6000 VDC | Dual<br>3000, 4000, 5200 &<br>6000 VDC |
|-----|--------------------|------------------|----------------------------|------------------------------------------|----------------------------------------|
| 1   | + V Input          | + V Input        | +V Input                   | + V Input                                | + V Input                              |
| 2   | - V Input          | - V Input        | -V Input                   | - V Input                                | - V Input                              |
| 4   | - V Output         | - V Output       | +V1 Output                 | No pin                                   | No pin                                 |
| 5   | No pin             | Common           | -V1 Output                 | - V Output                               | - V Output                             |
| 6   | + V Output         | + V Output       | +V2 Output                 | No pin                                   | Common                                 |
| 7   | No pin             | No pin           | -V2 Output                 | + V Output                               | + V Output                             |

## Dimensions:



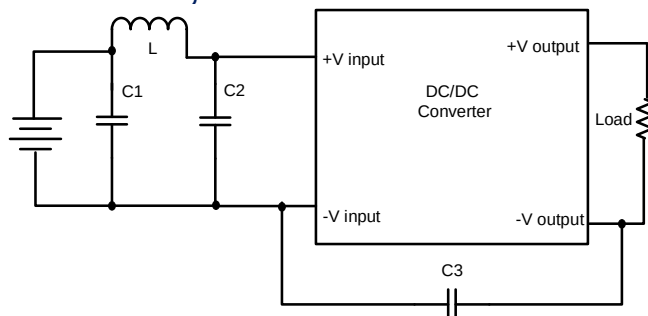
NOTE: Unit:mm [inch]  
Pin tolerances:  $\pm 0.05\text{mm}$  [ $\pm 0.002\text{inch}$ ]  
General tolerances:  $\pm 0.5\text{mm}$  [ $\pm 0.02\text{inch}$ ]  
Pin pitch and length tolerance:  $\pm 0.35$  ( $\pm 0.014$ )

## Input Reflected Ripple Test Circuit



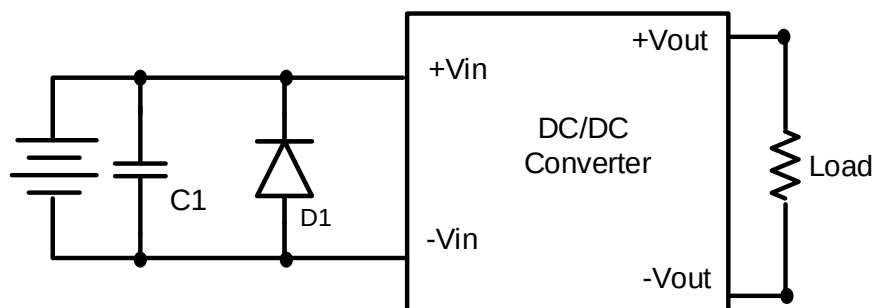
\* Tested at full load, and nominal input

## Class B EMI, external filter



| Vin                | C1         | C2         | L    | C3        |
|--------------------|------------|------------|------|-----------|
| 3.3, 5, 12, 15 VDC | 2.2μF/100V | -          | 18μH | -         |
| 24VDC              |            | 2.2μF/100V |      | 470pF/2KV |

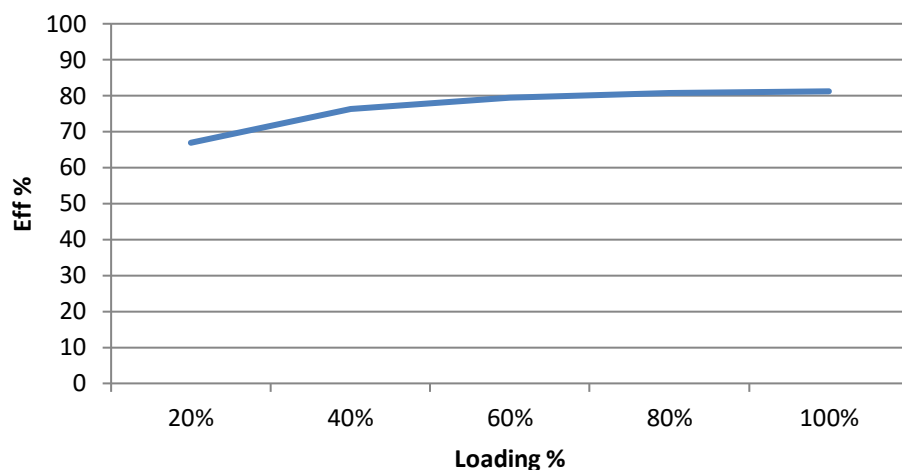
### EFT/Surge Application circuit



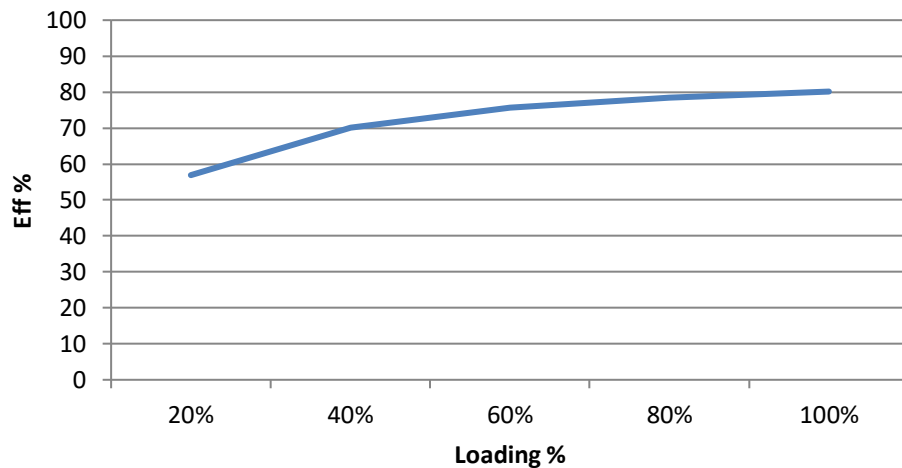
| Vin    | C1          | D1        |
|--------|-------------|-----------|
| 3.3VDC | 2200μF/100V | TVS, 5V   |
| 5VDC   |             | TVS, 6.5V |
| 12VDC  |             | TVS, 14V  |
| 15VDC  |             | TVS, 18V  |
| 24VDC  |             | TVS, 26V  |

### Typical Efficiency Chart Examples

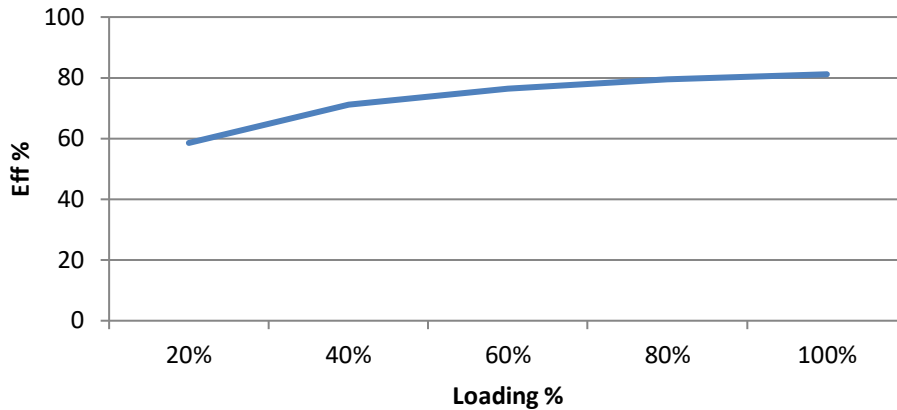
**AM1D-0505SZ Efficiency vs. Loading**



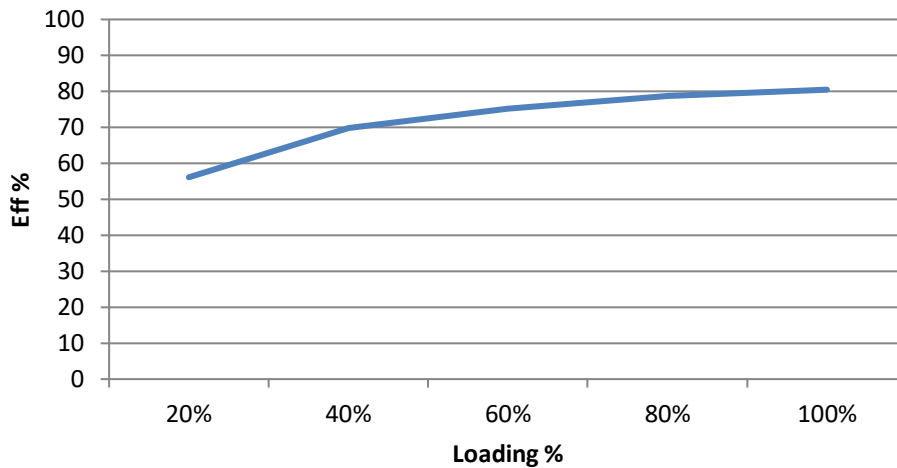
**AM1D-1212SZ Efficiency vs. Loading**



**AM1D-1512SZ Efficiency vs. Loading**



**AM1D-2412SZ Efficiency vs. Loading**



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