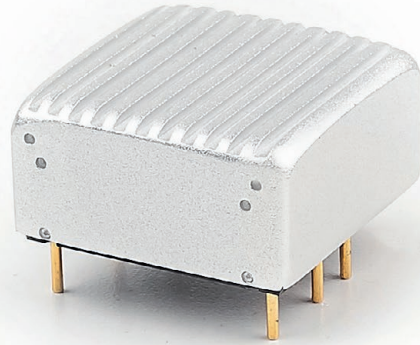


# BDC-12-12-VT

## 12 Watt

- ✓ DC/DC converter module
- ✓ 10:1 ultra wide input voltage range
- ✓ Compact fully encapsulated module in metal case
- ✓ High efficiency up to 85 %
- ✓ Extended temperature range -45...+115 °C
- ✓ Insulation voltage 1600 VDC



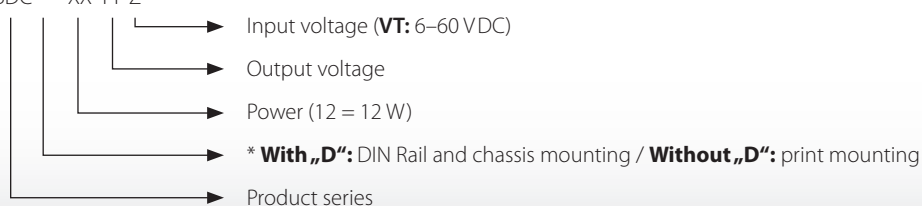
| Technical data           |   |                        |       |                          |                |                     |       |
|--------------------------|---|------------------------|-------|--------------------------|----------------|---------------------|-------|
| Input range              | 6–60 VDC (30 VDC nom)   |                        |       |                          |                |                     |       |
| Input current            | 5 mA typ  |                        |       |                          |                |                     |       |
| Starting time            | 20 ms typ   |                        |       |                          |                |                     |       |
| Output voltage accuracy  | ±1.5 % typ (50 % load)  |                        |       |                          |                |                     |       |
| Load regulation          | ±0.5 % (typ)  |                        |       |                          |                |                     |       |
| Ripple & Noise*          | 1.5 % $V_{pk-pk}$   |                        |       |                          |                |                     |       |
| Protection               | <table border="0"> <tr> <td>Overvoltage protection</td> <td>120 %</td> </tr> <tr> <td>Short circuit protection</td> <td>Yes, on output</td> </tr> <tr> <td>Overload protection</td> <td>120 %</td> </tr> </table> | Overvoltage protection | 120 % | Short circuit protection | Yes, on output | Overload protection | 120 % |
| Overvoltage protection   | 120 %   |                        |       |                          |                |                     |       |
| Short circuit protection | Yes, on output  |                        |       |                          |                |                     |       |
| Overload protection      | 120 %   |                        |       |                          |                |                     |       |
| Insulation voltage       | Input-Output: 1600 VDC  |                        |       |                          |                |                     |       |
| Insulation resistance    | Input-Output: 100 MΩ (at 500 VDC) min.  |                        |       |                          |                |                     |       |
| Insulation capacity      | Input-Output: 1500 pF typ.  |                        |       |                          |                |                     |       |
| Switching frequency      | 260 KHz, typ.   |                        |       |                          |                |                     |       |
| Chassis material         | Aluminium + FR4   |                        |       |                          |                |                     |       |
| Temperature              | Operating: -45...+115 °C / Storage: -55...+125 °C   |                        |       |                          |                |                     |       |
| Humidity                 | Operating: 10...95 % RH, non-condensing / Storage: 10...95 % RH, non-condensing   |                        |       |                          |                |                     |       |
| Dimensions (W x D x H)   | Print: 25.4 x 25.4 x 12.7 mm  |                        |       |                          |                |                     |       |
| Weight (net)             | Print: 18 g   |                        |       |                          |                |                     |       |

\* Ripple & Noise was measured at bandwidth 20 MHz and with 1 µF MLCC output capacitor. All data was measured at +25 °C and nominal input voltage. As a power component this modul is for assembly purposes only and it must not be operated in unassembled condition.

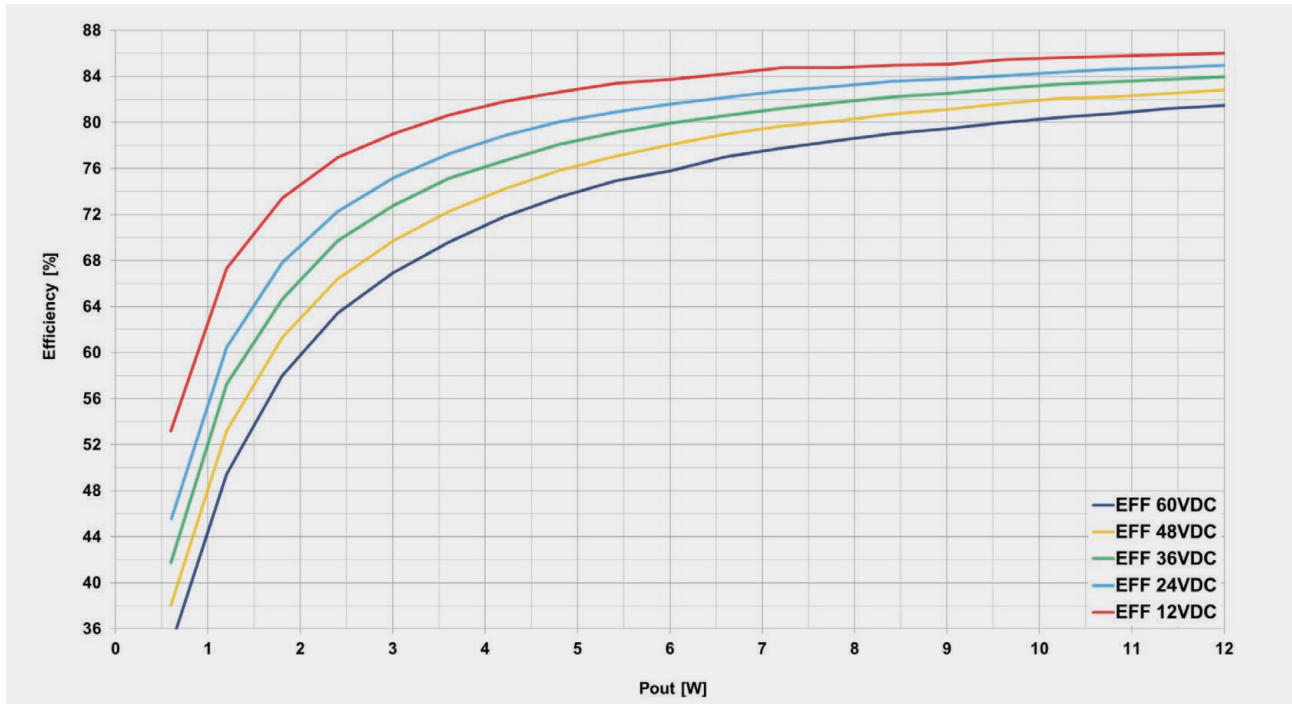
| Article No.  | Output power | Input voltage     | Output voltage | Output current |     | Efficiency (typ) |
|--------------|--------------|-------------------|----------------|----------------|-----|------------------|
|              |              |                   |                | min            | max |                  |
| BDC-12-12-VT | 12 W         | 6–60 VDC (30 nom) | +12 V          | 0 mA           | 1 A | 85 %             |

### How to read the Article No.

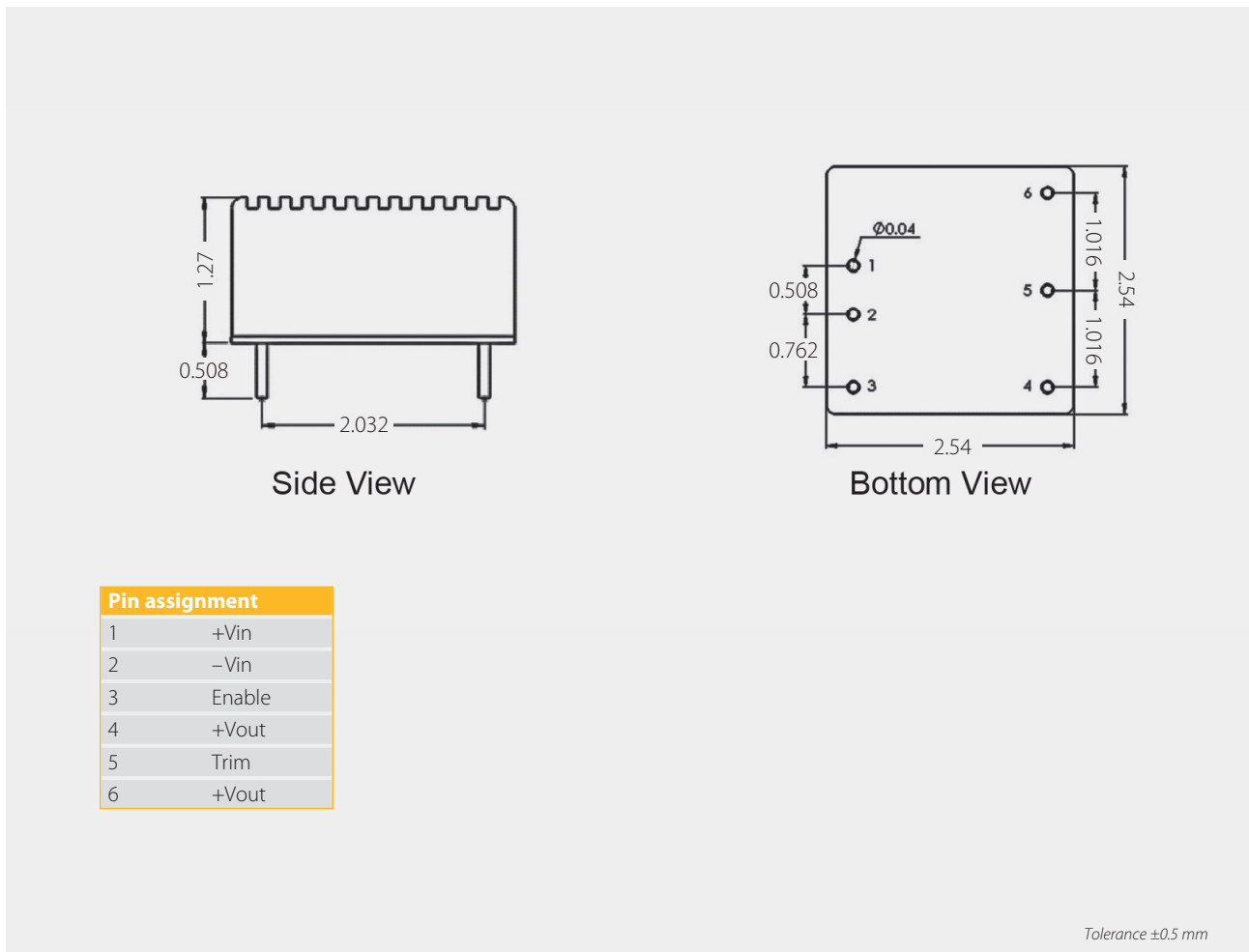
BDC \* - XX YY Z



## Efficiency Curve



## Drawing



Specification is subject to change without notice. Errors excepted. Status as at: 24.08.2020