

January 11, 2019

All Customers who are currently using the UWE-12/10-Q12xxx-C DC-DC converter

To whom it may concern:

Product Change Notification:

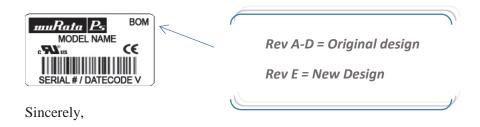
Murata Power Solutions (MPS) serves 1,000's of customers with standard product sold through distribution channels without issue including the UWE-12/10-Q12xxx-C. MPS reserves the right to make product changes to "standard product" without effecting Form-Fit-Function and these changes are documented and controlled through and ECO system for implementation and tracking. The reasons for implementing changes may vary and include but are not limited to the following: *Component substitutions, EOL components, improvements in performance, manufacturing efficiencies (continuous improvement)*, etc. MPS has effective and verifiable internal processes to handle and implement these changes by mitigating any potential risks through a pro-active approach.

Murata Power Solutions quality policy is based on our company policy of being an ethical and professional company and will always communicate to our customer base any product change that is considered a major change. i.e. some performance parameters may have changed.

In the case of the UWE-12/10-Q12xxx-C the change is considered a major change because the IC used to control the power conversion process is now EOL. In order to ensure a continuous supply of parts to our customers the MPS design team has qualified a new PWM IC which will also improve many of the general performance parameters of the product i.e. efficiency, $V_{\rm in}$ operating range, thermal performance, etc. The newly designed product has passed Murata rigorous product development/qualification process testing without any issues. At MPS quality & reliability always comes first.

We believe our customers will experience performance improvements (efficiency #1, low V_{in} operating range, thermal performance) in any application. In order to ensure product traceability and to clearly identify the original design vs. the new design please refer to the product revision.

Parts that are Rev A-D are the original design, Rev E is the new-redesigned version (as shown in product label details below;) In the upper right hand corner of the product label (BOM) is the current revision of the Bill Of Materials. This will identify the new design vs. the original design. We have also included a table that will highlight some of the major specifications/improvements of the converter. Please, refer to attached comparison table.



William Smith

Murata Power Solutions Director – Product Line Management, BMP & DPM



| | | | | | | | | murat | a row | er S | Murata Power Solutions | | | | | |
|--|---|---|---------|----------------------------|-----------------|----------|--|-------------|-----------------------|-------|------------------------|------|--|--|--|--|
| | | Original | | | NEW | | | | | | | | | | | |
| INPUT: | MIN. | TYP | MAX. | MIN. | TYP | MAX. | UNITS | | | | | | | | | |
| Start up Voltage: | 9.50 | 10.00 | 10.50 | 8.10 | 8.50 | 8.95 | Vdc | | | | | | | | | |
| Undervoltage Shutdown: | 7.50 | 8.00 | 8.90 | 7.80 | 8.40 | 8.80 | Vdc | | | | | | | | | |
| Turn-On/Turn-Off Hysteresis | 1.00 | 2.00 | | | 0.4 | 1 | Vdc | | | | | | | | | |
| GENERAL & SAFETY: | MIN. | TYP | MAX. | MIN. | TYP | MAX. | UNITS | | | | | | | | | |
| FFICIENCY: @Vin = 12V, Full Load | 89.5 | 91.3 | | 90.0 | 92.0 | | % | | | | | | | | | |
| Efficiency: @ Vin = Min | 89.0 | 90.5 | | 90.0 | 92.0 | | % | | | | | | | | | |
| Efficiency: @ 24Vin, Full Load | 89.5 | 91.4 | | 88.0 | 92.0 | | % | | | | | | | | | |
| URN ON TIME: | 07.0 | 71.1 | | 00.0 | 72.0 | | /* | | | | | | | | | |
| Vin On to Vout Regulated | | 25 | 40 | | 30 | 60 | mS | | | | | | | | | |
| | | 25 | 40 | | 30 | 60 | mS | | | | | | | | | |
| Remote On to Vout Regulated SOLATION: | | 23 | 40 | | 30 | 00 | IIIS | | | | | | | | | |
| | 750 | | | 1500 | | | 371. | | | | | | | | | |
| Baseplate to Output | 750 | | | 1500 | | | Vdc | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| FEATURES & OPTIONS : | MIN. | TYP | MAX. | MIN. | TYP | MAX. | UNITS | | | | | | | | | |
| N / OFF CONTROL : | | | | | | | | | | | | | | | | |
| egative Logic ("N" Suffix) | | | | | | | | | | | | | | | | |
| Unit OFF: On / Off Pin open or | 3.5 | | 15 | 2.5 | | 15 | Vdc | | | | | | | | | |
| Unit ON: On / Off Pin | 0 | | 1 | -0.1 | | 0.8 | Vdc | | | | | | | | | |
| MECHANICAL: | MIN. | TYP | MAX. | MIN. | TYP | MAX. | UNITS | | | | | | | | | |
| mensions : Open Frame | | .30 x 0.9 x 0.3 | | | 2.3 x 0.9 x 0.3 | | Inches | | | | | | | | | |
| | | 42 x 22.86 x | | 1 | | | | | | | | | | | | |
| Height includes standoffs) | | | | | 42 x 22.86 x 9 | | mm | | | | - | | | | | |
| imensions : With Baseplate | | .30 x 0.9 x 0.5 | | | 2.3 x 0.9 x 0.5 | | Inches | | | | | | | | | |
| (Height includes standoffs) | 58. | 42 x 22.86 x | 12.7 | 58 | .42 x 22.86 x | 13.2 | mm | | | - | - | | | | | |
| eight : Open Frame | | 0.7 | | | 0.88 | | Ounces | | | 1 | | | | | | |
| | | 20 | | | 25 | | Grams | | | | | | | | | |
| eight : With Baseplate | | 1.29 | | | 1.30499 | | Ounces | | | | | | | | | |
| | | 36.5 | | | 37 | | Grams | | | | | | | | | |
| aseplate Screws | 4 x M2 x | .10" PENET | RATION | 4 x M3 x | .11" PENET | RATION | | | | | | | | | | |
| • | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| ENVIRONMENTAL: | MIN. | TYP | MAX. | MIN. | TYP | MAX. | UNITS | | | | | | | | | |
| 11,1110,11111,11111 | 1122110 | | 172.2.2 | 1722 17 | | 112.2121 | 0.1120 | | | | | | | | | |
| Original Design | 10 Outbut Content (Amps) | 0.33 m/s (65 LF 0.5 m/s (100 LF 1.0 m/s (200 LF 1.5 m/s (300 LF 2.0 m/s (400 LF | 45 50 | 55 60 E t Temperature (*C) | 5 70 75 | 80 85 | 0 Orders (see) 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 35 40 45 50 | | 65 70 | 75 8 | 5 5 | | | | |
| | ARTHUR SOURCESTON | | | | | | | | Ambient Temperature (| U) | | | | | | |
| NEW Design | Maximum Current Temperature Derating (Open Frame) (Vin = 12V airflow is from Vin- to Vin+) | | | | | | Maximum Current Temperature Derating (With Baseplate) (Vin = 12V airflow is from Vin- to Vin+) | | | | | | | | | |
| | 0utput Load Current (Amps) | | 100 | | 0.70 | | 0utput Load Current (Amps) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | 00 | 65 70 | 75 80 |) 85 | | | | |
| | 30 35 40 45 50 55 60 65 70 75 80 85 Ambient Temperature in Degree Celsius Ambient Temperature in Degree Celsius | | | | | | | | | | | | | | | |
| | | | | | _g. 55 001010C | | | | | + | | | | | | |
| | | | | | | | | | | | | | | | | |