



Certificate of Compliance

Certificate: 2661826

Master Contract: 226037

Project: 2661826

Date Issued: September 23, 2013

Issued to: **TRACO Electronic AG**
Sihlbruggstrasse 111
Baar, Zurich 6340
Switzerland

Attention: Mr. Michael Bruderer

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only



Issued by:  Jupiter Huang

PRODUCTS

CLASS 5311 11 – POWER SUPPLIES - Component Type (For Canadian Certification)
CLASS 5311 91 – POWER SUPPLIES - Component Type (For US Certification)

Component type DC/DC Converter, Models TEN 6N Series, TEN 6WIN Series and TRA 3 Series. Ratings as follow:

For TRA 3 Series					
Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (Vdc)	Output Current (mA)
TRA 3-0511	OB-MA03-05S05-T1	Normal: 5.0 Vdc,	723	5.0	600
TRA 3-0519	OB-MA03-05S09-T1	Range: 4.5-5.5 Vdc	689	9.0	333
TRA 3-0512	OB-MA03-05S12-T1	Input Fuse: 2000 mA	701	12.0	250
TRA 3-0513	OB-MA03-05S15-T1		686	15.0	200
TRA 3-1211	OB-MA03-	Normal: 12.0	298	5.0	600



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	12S05-T1	Vdc, Range: 10.8- 13.2 Vdc Input Fuse: 1000 mA			
TRA 3-1219	OB-MA03- 12S09-T1		285	9.0	333
TRA 3-1212	OB-MA03- 12S12-T1		284	12.0	250
TRA 3-1213	OB-MA03- 12S15-T1		281	15.0	200
TRA 3-2411	OB-MA03- 24S05-T1	Normal: 24.0 Vdc, Range: 21.6- 26.4 Vdc Input Fuse: 500 mA	152	5.0	600
TRA 3-2419	OB-MA03- 24S09-T1		147	9.0	333
TRA 3-2412	OB-MA03- 24S12-T1		146	12.0	250
TRA 3-2413	OB-MA03- 24S15-T1		147	15.0	200

For TEN 6N Series

Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (Vdc)	Output Current (mA)
TEN 6-1210N-x	OB-MIW06- 12S033y-T1	Normal: 12.0 Vdc, Range: 9.0-18.0 Vdc Input Fuse: 1500 mA	440	3.3	1200
TEN 6-1211N-x	OB-MIW06- 12S05y-T1		641	5.0	1200
TEN 6-1212N-x	OB-MIW06- 12S12y-T1		609	12.0	500
TEN 6-1213N-x	OB-MIW06- 12S15y-T1		609	15.0	400
TEN 6-1215N-x	OB-MIW06- 12S24y-T1		595	24.0	250
TEN 6-1221N-x	OB-MIW06- 12D05y-T1		534	±5.0	±500
TEN 6-1222N-x	OB-MIW06- 12D12y-T1		609	±12.0	±250
TEN 6-1223N-x	OB-MIW06- 12D15y-T1		609	±15.0	±200
TEN 6-2410N-x	OB-MIW06- 24S033y-T1	Normal: 24.0 Vdc, Range: 18.0- 36.0 Vdc Input Fuse: 700 mA	214	3.3	1200
TEN 6-2411N-x	OB-MIW06- 24S05y-T1		313	5.0	1200
TEN 6-2412N-x	OB-MIW06- 24S12y-T1		298	12.0	500
TEN 6-2413N-x	OB-MIW06- 24S15y-T1		298	15.0	400
TEN 6-2415N-x	OB-MIW06- 24S24y-T1		298	24.0	250



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TEN 6-2421N-x	OB-MIW06-24D05y-T1		260	±5.0	±500
TEN 6-2422N-x	OB-MIW06-24D12y-T1		298	±12.0	±250
TEN 6-2423N-x	OB-MIW06-24D15y-T1		298	±15.0	±200
TEN 6-4810N-x	OB-MIW06-48S033y-T1	Normal: 48.0 Vdc, Range: 36.0-75.0 Vdc Input Fuse: 350 mA	107	3.3	1200
TEN 6-4811N-x	OB-MIW06-48S05y-T1		156	5.0	1200
TEN 6-4812N-x	OB-MIW06-48S12y-T1		149	12.0	500
TEN 6-4813N-x	OB-MIW06-48S15y-T1		149	15.0	400
TEN 6-4815N-x	OB-MIW06-48S24y-T1		149	24.0	250
TEN 6-4821N-x	OB-MIW06-48D05y-T1		130	±5.0	±500
TEN 6-4822N-x	OB-MIW06-48D12y-T1		149	±12.0	±250
TEN 6-4823N-x	OB-MIW06-48D15y-T1		149	±15.0	±200

Note:

For EUT model number, the x can be “HI” or blank for marketing purpose.

For transformer number, the y can be “H” or blank for marketing purpose.

For TEN 6WIN Series

Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (Vdc)	Output Current (mA)
TEN 6-2410WIN-x	OB-MIWI06-24S033y-T1	Normal: 24.0 Vdc, Range: 9.0-36.0 Vdc Input Fuse: 1500 mA	214	3.3	1200
TEN 6-2411WIN-x	OB-MIWI06-24S05y-T1		313	5.0	1200
TEN 6-2412WIN-x	OB-MIWI06-24S12y-T1		298	12.0	500
TEN 6-2413WIN-x	OB-MIWI06-24S15y-T1		298	15.0	400
TEN 6-2415WIN-x	OB-MIWI06-24S24y-T1		298	24.0	250
TEN 6-2421WIN-x	OB-MIWI06-24D05y-T1		260	±5.0	±500
TEN 6-2422WIN-x	OB-MIWI06-24D12y-T1		298	±12.0	±250
TEN 6-2423WIN-x	OB-MIWI06-24D15y-T1		298	±15.0	±200



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TEN 6-4810WIN-x	OB-MIWI06-48S033y-T1	Normal: 48.0 Vdc, Range: 18.0-75.0 Vdc Input Fuse: 800 mA	107	3.3	1200
TEN 6-4811WIN-x	OB-MIWI06-48S05y-T1		156	5.0	1200
TEN 6-4812WIN-x	OB-MIWI06-48S12y-T1		149	12.0	500
TEN 6-4813WIN-x	OB-MIWI06-48S15y-T1		149	15.0	400
TEN 6-4815WIN-x	OB-MIWI06-48S24y-T1		149	24.0	250
TEN 6-4821WIN-x	OB-MIWI06-48D05y-T1		130	±5.0	±500
TEN 6-4822WIN-x	OB-MIWI06-48D12y-T1		149	±12.0	±250
TEN 6-4823WIN-x	OB-MIWI06-48D15y-T1		149	±15.0	±200

Note:

For EUT model number, the x can be "HI" or blank for marketing purpose.
For transformer number, the y can be "H" or blank for marketing purpose.

Note:

- (1) The above models are intended for use with Information Technology Equipment, where the suitability of the combination is determined by CSA Group.
- (2) Maximum operating ambient:

For TEN 6N Series and TEN 6WIN Series:

Power Derating Curve 100%, full load:

Maximum ambient (Tma) for 3.3 & 5V output models: +60°C

Maximum ambient (Tma) for other output models: +70°C

Power Derating Curve 50%, full load:

Maximum ambient (Tma) for 3.3 & 5V output models: +80°C

Maximum ambient (Tma) for other output models: +85°C

For TRA 3 Series:

Maximum ambient (Tma): +85°C (Power Derating Curve 100%, full load)

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No 60950-1-07 - Information Technology Equipment - Safety - Part 1: General
Incl. AM1 (2011) Requirements

ANSI/UL Std No 60950-1, 2nd - Information Technology Equipment - Safety - Part 1: General
Ed. Incl. AM1 (2011) Requirements



Supplement to Certificate of Compliance

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*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
2661826	September 23, 2013	Original Certification.