



Certificate of Compliance

Certificate: 2758839

Master Contract: 226037

Project: 2779228

Date Issued: December 05, 2014

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: 
Hades Lee

PRODUCTS

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

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

DC to DC Converter, Models TEN 3N Series, TEN 3WIN Series, THD 10WIN Series, THL 25WI Series, THL 25WI-HS Series. Ratings as follow:

For TEN 3N Series					
Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (V dc)	Output Current (mA)
TEN 3-0510N-X	0B-MIW03-05S033-T1	Nominal: 5Vdc Range: 4.5-9Vdc	643	3.3	750
TEN 3-0511N-X	0B-MIW03-05S05-T1		750	5.0	600
TEN 3-0512N-X	0B-MIW03-05S12-T1		732	12.0	250
TEN 3-0513N-X	0B-MIW03-05S15-T1		732	15.0	200
TEN 3-0515N-	0B-MIW03-		741	24.0	125



Certificate: 2758839
Project: 2779228

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X	05S24-T1					
TEN 3-0521N-X	0B-MIW03-05D05-T1		625	±5.0	±250	
TEN 3-0522N-X	0B-MIW03-05D12-T1		732	±12.0	±125	
TEN 3-0523N-X	0B-MIW03-05D15-T1		732	±15.0	±100	
TEN 3-1210N-X	0B-MIW03-12S033-T1	Nominal: 12Vdc Range: 9-18Vdc	261	3.3	750	
TEN 3-1211N-X	0B-MIW03-12S05-T1		309	5.0	600	
TEN 3-1212N-X	0B-MIW03-12S12-T1		294	12.0	250	
TEN 3-1213N-X	0B-MIW03-12S15-T1		294	15.0	200	
TEN 3-1215N-X	0B-MIW03-12S24-T1		298	24.0	125	
TEN 3-1221N-X	0B-MIW03-12D05-T1		260	±5.0	±250	
TEN 3-1222N-X	0B-MIW03-12D12-T1		298	±12.0	±125	
TEN 3-1223N-X	0B-MIW03-12D15-T1		298	±15.0	±100	
TEN 3-2410N-X	0B-MIW03-24S033-T1		Nominal: 24Vdc Range: 18-36Vdc	131	3.3	750
TEN 3-2411N-X	0B-MIW03-24S05-T1			154	5.0	600
TEN 3-2412N-X	0B-MIW03-24S12-T1			147	12.0	250
TEN 3-2413N-X	0B-MIW03-24S15-T1	147		15.0	200	
TEN 3-2415N-X	0B-MIW03-24S24-T1	149		24.0	125	
TEN 3-2421N-X	0B-MIW03-24D05-T1	130		±5.0	±250	
TEN 3-2422N-X	0B-MIW03-24D12-T1	149		±12.0	±125	
TEN 3-2423N-X	0B-MIW03-24D15-T1	149		±15.0	±100	
TEN 3-4810N-X	0B-MIW03-48S033-T1	Nominal: 48Vdc Range: 36-75Vdc		65	3.3	750
TEN 3-4811N-X	0B-MIW03-48S05-T1		77	5.0	600	
TEN 3-4812N-X	0B-MIW03-48S12-T1		74	12.0	250	



Certificate: 2758839

Master Contract: 226037

Project: 2779228

Date Issued: December 05, 2014

TEN 3-4813N-X	0B-MIW03-48S15-T1		74	15.0	200
TEN 3-4815N-X	0B-MIW03-48S24-T1		74	24.0	125
TEN 3-4821N-X	0B-MIW03-48D05-T1		65	±5.0	±250
TEN 3-4822N-X	0B-MIW03-48D12-T1		74	±12.0	±125
TEN 3-4823N-X	0B-MIW03-48D15-T1		74	±15.0	±100

Note: X can be "HI" or blank for marketing purpose.

For TEN 3WIN Series

Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (V dc)	Output Current (mA)
TEN 3-2410WIN-X	0B-MIWI03-24S033-T1	Nominal: 24Vdc Range: 9-36Vdc	134	3.3	750
TEN 3-2411WIN-X	0B-MIWI03-24S05-T1		158	5.0	600
TEN 3-2412WIN-X	0B-MIWI03-24S12-T1		152	12.0	250
TEN 3-2413WIN-X	0B-MIWI03-24S15-T1		151	15.0	200
TEN 3-2415WIN-X	0B-MIWI03-24S24-T1		154	24.0	125
TEN 3-2421WIN-X	0B-MIWI03-24D05-T1		130	±5.0	±250
TEN 3-2422WIN-X	0B-MIWI03-24D12-T1		152	±12.0	±125
TEN 3-2423WIN-X	0B-MIWI03-24D15-T1		152	±15.0	±100
TEN 3-4810WIN-X	0B-MIWI03-48S033-T1		Nominal: 48Vdc Range: 18-75Vdc	67	3.3
TEN 3-4811WIN-X	0B-MIWI03-48S05-T1	78		5.0	600
TEN 3-4812WIN-X	0B-MIWI03-48S12-T1	75		12.0	250
TEN 3-4813WIN-X	0B-MIWI03-48S15-T1	74		15.0	200
TEN 3-4815WIN-X	0B-MIWI03-48S24-T1	76		24.0	125
TEN 3-4821WIN-X	0B-MIWI03-48D05-T1	65		±5.0	±250
TEN 3-	0B-MIWI03-	76		±12.0	±125



Certificate: 2758839
Project: 2779228

Master Contract: 226037
Date Issued: December 05, 2014

4822WIN-X	48D12-T1			
TEN 3-4823WIN-X	0B-MIWI03-48D15-T1		76	±15.0 ±100

Note: X can be "HI" or blank for marketing purpose.

For THD 10WIN Series

Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (V dc)	Output Current (mA)
THD 10-2410WIN	0B-MIWI10-24S033-T1	Nominal: 24Vdc Range: 9-36Vdc	432	3.3	2700
THD 10-2411WIN	0B-MIWI10-24S051-T1		500	5.1	2000
THD 10-2412WIN	0B-MIWI10-24S15-T1		479	12.0	833
THD 10-2413WIN	0B-MIWI10-24S24-T1		478	15.0	666
THD 10-2415WIN	0B-MIWI10-24D05-T1		478	24.0	416
THD 10-2422WIN	0B-MIWI10-24D12-T1		478	±12.0	±416
THD 10-2423WIN	0B-MIWI10-24D15-T1		478	±15.0	±333
THD 10-4810WIN	0B-MIWI10-48S033-T1		Nominal: 48Vdc Range: 18-75Vdc	216	3.3
THD 10-4811WIN	0B-MIWI10-48S05-T1	250		5.1	2000
THD 10-4812WIN	0B-MIWI10-48S12-T1	259		12.0	833
THD 10-4813WIN	0B-MIWI10-48S15-T1	236		15.0	666
THD 10-4815WIN	0B-MIWI10-48S24-T1	244		24.0	416
THD 10-4822WIN	0B-MIWI10-48D12-T1	244		±12.0	±416
THD 10-4823WIN	0B-MIWI10-48D15-T1	244		±15.0	±333

For THL 25WI Series and THL 25WI-HS Series

Model Number	Transformer Number	Input Voltage Range	Rated Input Current (mA)	Output Voltage (V dc)	Output Current (mA)
THL 25-2410WI THL-25-	MJWI25-24S033 (PWB type)	Nominal: 24Vdc Range: 9-36Vdc	950	3.3	6000



Certificate: 2758839
Project: 2779228

Master Contract: 226037
Date Issued: December 05, 2014

2410WI-HS					
THL 25-2411WI THL-25-2411WI-HS	MJWI25-24S05 (PWB type)		1170	5.0	5000
THL 25-2412WI THL-25-2412WI-HS	MJWI25-24S12 (PWB type)		1175	12.0	2090
THL 25-2413WI THL-25-2413WI-HS	MJWI25-24S15 (PWB type)		1160	15.0	1670
THL 25-2422WI THL-25-2422WI-HS	MJWI25-24D12 (PWB type)		1170	±12.0	±1040
THL 25-2423WI THL-25-2423WI-HS	MJWI25-24D15 (PWB type)		1180	±15.0	±840
THL 25-4810WI THL-25-4810WI-HS	MJWI25-48S033 (PWB type)	Nominal: 48Vdc Range: 18-75Vdc	470	3.3	6000
THL 25-4811WI THL-25-4811WI-HS	MJWI25-48S05 (PWB type)		580	5.0	5000
THL 25-4812WI THL-25-4812WI-HS	MJWI25-48S12 (PWB type)		580	12.0	2090
THL 25-4813WI THL-25-4813WI-HS	MJWI25-48S15 (PWB type)		580	15.0	1670
THL 25-4822WI THL-25-4822WI-HS	MJWI25-48D12 (PWB type)		585	±12.0	±1040
THL 25-4823WI THL-25-4823WI-HS	MJWI25-48D15 (PWB type)		590	±15.0	±840



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Note: The suffix “-HS” meaning is the converter with heat-sink

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 3N Series, TEN 3WIN Series, THD 10WIN Series:
Maximum ambient (Tma): +85°C (Power Derating Curve 100%, full load)

For THL 25WI Series:
Power Derating Curve 100%, full load:
Maximum ambient (Tma) for THL 25-2410WI: +53°C
Maximum ambient (Tma) for THL 25-4810WI: +57°C
Maximum ambient (Tma) for THL 25-2413WI, THL 25-4811WI, THL 25-4812WI, THL 25-4813WI: +56°C
Maximum ambient (Tma) for THL 25-2411WI, THL 25-2412WI, THL 25-2422WI, THL 25-2423WI, THL 25-4822WI, THL 25-4823WI: +50°C

For THL 25WI-HS Series:
Power Derating Curve 100%, full load:
Maximum ambient (Tma) for THL 25-2410WI-HS: +61°C
Maximum ambient (Tma) for THL 25-4810WI-HS: +65°C
Maximum ambient (Tma) for HL 25-2413WI-HS, THL 25-4811WI-HS, THL 25-4812WI-HS, THL 25-4813WI-HS: +64°C
Maximum ambient (Tma) for THL 25-2411WI-HS, THL 25-2412WI-HS, THL 25-2422WI-HS, THL 25-2423WI-HS, THL 25-4822WI-HS, THL 25-4823WI-HS: +59°C

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
2779228	December 05, 2014	Update report to revise models of TEN 3N Series, TEN 3WIN Series.
2758839	October 24, 2014	Original Certification.