

Certificate Number: 121319X3-A6030

Date: 2023-06-21

UL CONDITIONS OF ACCEPTABILITY

Company Name: TRACO ELECTRONIC AG

File-CCN: QQJQ2, QQJQ8

Product Description: POWER SUPPLIES FOR USE WITH AUDIO/VIDEO, INFORMATION AND COMMUNICATION TECHNOLOGY EQUIPMENT – COMPONENT

Models: TMR 9-1210Wlaaaaa, TMR 9-1211Wlaaaaa, TMR 9-1212Wlaaaaa, TMR 9-1213Wlaaaaa, TMR 9-1215Wlaaaaa, TMR 9-1221Wlaaaaa, TMR 9-1222Wlaaaaa, TMR 9-1223Wlaaaaa, TMR 9-2410Wlaaaaa, TMR 9-2411Wlaaaaa, TMR 9-2412Wlaaaaa, TMR 9-2413Wlaaaaa, TMR 9-2415Wlaaaaa, TMR 9-2421Wlaaaaa, TMR 9-2422Wlaaaaa, TMR 9-2423Wlaaaaa, TMR 9-4810Wlaaaaa, TMR 9-4811Wlaaaaa, TMR 9-4812Wlaaaaa, TMR 9-4813Wlaaaaa, TMR 9-4815Wlaaaaa, TMR 9-4821Wlaaaaa, TMR 9-4822Wlaaaaa, TMR 9-4823Wlaaaaa

Conditions Of Acceptability: For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The following output circuits are at ES1 energy levels : Output
- The following output circuits are at PS2 energy levels : Output
- The investigated Pollution Degree is : 2
- Proper bonding to the end-product main protective earthing termination is : Not required
- The following end-product enclosures are required : Electrical, Fire, Mechanical
- The terminals of the DC-DC Converter are only suitable for factory wiring only.
- The need for suitable electrical enclosure (for ES safeguard), fire enclosure (for PS safeguard), mechanical enclosure (for MS safeguard) and safeguard for thermal burn injury (for TS safeguard) is to be evaluated and provided (if necessary) in the end-product.
- The DC-DC Converter was evaluated for Functional Insulation and is intended to be installed in an isolated (non-mains) ES2 circuit which is separated from a.c. mains circuit by Double or Reinforced Insulation.
- The DC-DC Converters were tested with an external, overcurrent protective device manufactured by Littelfuse type 215 series: 6.3 A for TMR 9-12XXWlaaaaa series; 4 A for TMR 9-24XXWlaaaaa series; 2 A for TMR 9-48XXWlaaaaa series. Tests should be repeated when it's employed in the end-use equipment with a differently rated overcurrent protective device.
- Prospective touch voltage has been considered on converter output pins, touch voltage with respect to earth may be considered in the end product.

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Ratings: • All models are similar except for model designation, input/output rating, transformer (T1), schematic, and PWB layout. See Enclosure Id. 07-01 for details.

Model Number	Input Voltage	Input Current	Output Voltage	Output Current	Output Power	LAYOUT / SCH	T1
TMR 9-1210Wlaaaaa	4.5V ~ 18V	2.529A	3.3V	3000mA	9.9W	A	1
TMR 9-1211Wlaaaaa	4.5V ~ 18V	3.073A	5.1V	2400mA	12.2W	A	2
TMR 9-1212Wlaaaaa	4.5V ~ 18V	2.996A	12.0V	1000mA	12.0W	B	4
TMR 9-1213Wlaaaaa	4.5V ~ 18V	2.996A	15.0V	800mA	12.0W	B	5
TMR 9-1215Wlaaaaa	4.5V ~ 18V	2.963A	24.0V	500mA	12.0W	B	6
TMR 9-1221Wlaaaaa	4.5V ~ 18V	3.119A	±5.0V	±1200mA	12.0W	C	7
TMR 9-1222Wlaaaaa	4.5V ~ 18V	2.996A	±12.0V	±500mA	12.0W	C	4
TMR 9-1223Wlaaaaa	4.5V ~ 18V	2.996A	±15.0V	±400mA	12.0W	C	5
TMR 9-2410Wlaaaaa	9V ~ 36V	1.264A	3.3V	3000mA	9.9W	D	8
TMR 9-2411Wlaaaaa	9V ~ 36V	1.528A	5.1V	2400mA	12.2W	D	9
TMR 9-2412Wlaaaaa	9V ~ 36V	1.498A	12.0V	1000mA	12.0W	E	11
TMR 9-2413Wlaaaaa	9V ~ 36V	1.498A	15.0V	800mA	12.0W	E	12
TMR 9-2415Wlaaaaa	9V ~ 36V	1.481A	24.0V	500mA	12.0W	E	13
TMR 9-2421Wlaaaaa	9V ~ 36V	1.550A	±5.0V	±1200mA	12.0W	F	14
TMR 9-2422Wlaaaaa	9V ~ 36V	1.498A	±12.0V	±500mA	12.0W	F	11
TMR 9-2423Wlaaaaa	9V ~ 36V	1.498A	±15.0V	±400mA	12.0W	F	12
TMR 9-4810Wlaaaaa	18V ~ 75V	0.632A	3.3V	3000mA	9.9W	D	15
TMR 9-4811Wlaaaaa	18V ~ 75V	0.764A	5.1V	2400mA	12.2W	D	16
TMR 9-4812Wlaaaaa	18V ~ 75V	0.749A	12.0V	1000mA	12.0W	E	18
TMR 9-4813Wlaaaaa	18V ~ 75V	0.749A	15.0V	800mA	12.0W	E	19
TMR 9-4815Wlaaaaa	18V ~ 75V	0.741A	24.0V	500mA	12.0W	E	20
TMR 9-4821Wlaaaaa	18V ~ 75V	0.775A	±5.0V	±1200mA	12.0W	F	21
TMR 9-4822Wlaaaaa	18V ~ 75V	0.745A	±12.0V	±500mA	12.0W	F	18
TMR 9-4823Wlaaaaa	18V ~ 75V	0.749A	±15.0V	±400mA	12.0W	F	19

Nomenclature: N/A