RAILWAY PRODUCT SELECTION GUIDE

TRACO POWER

General							Input				Single output									Dual out.				Key standards						Features											Thermal performance						Isolation				Measurements (mm)			Measurements (in)		
Series	Footprint	Fully encapsulated	Enclosed	Open frame	Connection	Nominal power* (W)	9 – 75 VDC	14 – 160 VDC	9 – 36 VDC	18 – 75 VDC	43 – 160 VDC	3.3 Vout	5 Vout	5.1 Vout	9 Vout	12 Vout	15 Vout	24 Vout	28 Vout	48 Vout	53 Vout	±5 Vout	±12 Vout	±15 Vout	±24 Vout	EN 55032 EMI filter	EN 50155 railway certified	EN 62368-1 industrial & IT certified	EN 45545-2 flammability declarations	EN 61373 shock & vibration certified	EN 61000-4-4 & EN 61000-4-5 surge & burst	SCP (short-circuit protection)	OCL (output current limitation)	OVP (overvoltage protection)	OTP (overtemperature protection)	UVLO (undervoltage lockout)	Adjustable UVLO	Holdup capacitor connection ("BUS pin")	Output voltage adjustable ("TRIM pin")*	Improved output accuracy ("SENSE Pin")	Remote control on/off ("REMOTE pin")	CCCV (constant current constant voltage)	Active load sharing	Heatsink	Natural convection cooling	Baseplate cooling	Lowest operating temperature (°C)	Highest temperature w/o derating* (°C)	Highest temperature with derating (°C)	I/O Isolation test voltage* 60s (VDC)	I/O Isolation test voltage* 60s (VAC)	Max. operating altitude* (m)	Isolation type*	Length (mm)	Width (mm)	Height (mm)	Length (in)	Width (in)	Height (in)
PCB mounting with ultra-wide input voltage range (12:1)																																																											
THN 10UIR	1"×1"	●			THT	10	●	●				●	T	●		●	●	●				○	●	●			●	●	●	●	E	C	●	●	●	●	○	●	●		●			●		–40	70	105	3000		5000	Functional	25.4	× 25.4	× 9.9	1.00	× 1.00	× 0.39
THN 15UIR	1"×1"	●			THT	15	●	●					T	●		●	●	●				○	●	●			●	●	●	●	E	C	●	●	●	●	○	●	●		●			●		–40	70	105	3000		5000	Functional	25.4	× 25.4	× 9.9	1.00	× 1.00	× 0.39
THN 20UIR	1"×1"	●			THT	20	●	●					T	●		●	●	●				○	●	●			●	●	●	●	E	C	●	●	●	●	○	●	●		●		S	●		–40	70	105	3000		5000	Functional	25.4	× 25.4	× 9.9	1.00	× 1.00	× 0.39
TEN 30UIR	2"×1"	●			THT	30	●	●					T	●		●	●	●					●	●			●	●	●	●	E	C	●	●	●	●	○	●	●		●			●		–40	70	105	3000		5000	Functional	50.8	× 25.4	× 10.2	2.00	× 1.00	× 0.40
TEN 40UIR	2"×1"	●			THT	40	●	●					T	●		●	●	●					●	●			●	●	●	●	E	C	●	●	●	●	○	●	●		●		S	●		–40	70	105	3000		5000	Functional	50.8	× 25.4	× 10.2	2.00	× 1.00	× 0.40
TEP 40UIR	Quarter-Brick	●			THT	40	●	●					●	T		●	●	●	○	●	○					E	●	●	●	●	E	C	●	●	●	●	●	●	●	●	●		R		●	–40	105	105	2250	3000	5000	Reinforced	57.9	× 36.8	× 12.7	2.28	× 1.45	× 0.50
TEP 60UIR	Quarter-Brick	●			THT	60	●	●					●	T		●	●	●	○	●	○					E	●	●	●	●	E	C	●	●	●	●	●	●	●	●	●		R		●	–40	105	105	2250	3000	5000	Reinforced	57.9	× 36.8	× 12.7	2.28	× 1.45	× 0.50
TEP 100UIR	Quarter-Brick	●			THT	100	●	●					●	T		●	●	●	○	●	○					E	●	●	●	●	E	C	●	●	●	●	●	●	●	●	●		R		●	–40	105	105	2250	3000	5000	Reinforced	57.9	× 36.8	× 12.7	2.28	× 1.45	× 0.50
TEP 150UIR	Half-Brick	●			THT	150	●	●					●	T		●	●	●	○	●	○					E	●	●	●	●	E	C	●	●	●	●	●	●	●	●	●		R		●	–40	105	105		3000	5000	Reinforced	57.9	× 61.0	× 13.0	2.28	× 2.40	× 0.51
TEP 200UIR	Half-Brick	●			THT	200	●	●					●	T		●	●	●	○	●	○					E	●	●	●	●	E	C	●	●	●	●	●	●	●	●	●		R		●	–40	105	105		3000	5000	Reinforced	57.9	× 61.0	× 13.0	2.28	× 2.40	× 0.51
PCB mounting with wide input voltage range (4:1)																																																											
TMR 3WIR	SIP-8	●			THT	3		●	●	●		●	●		●	●	●	●				●	●	●		E	●	●	●	●	E	C	●												●		–40	78	90	3000		5000	Functional	21.8	× 9.6	× 11.2	0.86	× 0.38	× 0.44
TMR 6WIR	SIP-8	●			THT	6		●	●	●		●	●		●	●	●	●				●	●	●		E	●	●	●	●	E	C	●												●		–40	74	100	3000		5000	Functional	21.8	× 9.6	× 11.2	0.86	× 0.38	× 0.44
THN 10WIR	1"×1"	●			THT	10		●	●	●		●	●	T		●	●	●	T			●	●	●	●	A	●	●	●	●	E	C	●	●		●		●		●					●		–40	82	105	3000		5000	Functional	25.4	× 25.4	× 10.2	1.00	× 1.00	× 0.40
THN 15WIR	1"×1"	●			THT	15		●	●	●		●	●	T		●	●	●	T			●	●	●	●	A	●	●	●	●	E	C	●	●		●		●		●					●		–40	81	105	3000		5000	Functional	25.4	× 25.4	× 10.2	1.00	× 1.00	× 0.40
THN 20WIR	1"×1"	●			THT	20		●	●	●		●	○	●		●	●	●	T				●	●	●	A	●	●	●	●	E	C	●	●	●	●		●		●					●		–40	75	105	3000		2000	Functional	25.4	× 25.4	× 10.2	1.00	× 1.00	× 0.40
THN 30WIR	1"×1"	●			THT	30		●	●	●		●	○	●		●	●	●	T				●	●	●	E	●	●	●	●	E	C	●	●	●	●		●		●					●		–40	67	105	3000		2000	Functional	25.4	× 25.4	× 10.2	1.00	× 1.00	× 0.40
TEN 20WIR	2"×1"	●			THT	20		●	●	●		●	●	T		●	●						●	●		B	●	●	●	●	E	C	●	●		●		●		●					●		–40	73	105	2250		5000	Functional	50.8	× 25.4	× 10.2	2.00	× 1.00	× 0.40
TEN 40WIR	2"×1"	●			THT	10		●	●	●		●	●	T		●	●	●	T				●	●	●	E	●	●	●	●	E	C	●	●		●		●		●					●		–40	74	105	3000		5000	Functional	50.8	× 25.4	× 10.2	2.00	× 1.00	× 0.40
TEN 60WIR	2"×1"	●			THT	60		●	●	●			●	T		●	●	●	T	●			●	●	●	E	●	●	●	●	E	C	●	●	●	●		●		●			D	●		–40	83	105	3000		5000	Functional	50.8	× 40.6	× 25.4	2.00	× 1.60	× 1.00
TEP 75WI	Half-Brick	●			THT	75		●	●	●		○	●	T		●	●	●	●	●						E	●	●	●	●	E	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	2000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 100WIR	Half-Brick	●			THT	100		●	●	●		○	○	T		●	○	●	●	●						E	●	●	●	●	E	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 160WIR	Half-Brick	●			THT	180		●	●	●		○	○	T		●	●	●	●	●						E	●	●	●	●	E	C	●	●	●	●		●	●	●			R		●	–40	105	105	2250	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 200WIR	Half-Brick	●			THT	240		●	●	●		○	○	T		●	●	●	●	●	○					E	●	●	●	●	E	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 300WIR*	Half-Brick	●			THT	300		●	●	●			○	T		●	○	●	○	●	○					E	●	●	●	●	E	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
Chassis mounting with wide input voltage range (4:1)																																																											
TEQ 20WIR			●		Clamp	20		●	●	●			●			●	●	●					●	●		B	●	●	●	●	I	C	●	●	●	●									●		–40	90	105	2250		2000	Functional	103.1	× 57.2	× 26.2	4.06	× 2.25	× 1.03
TEQ 40WIR			●		Clamp	40		○	●	●			●			●	●	●					●	●	●	B	●	●	●	●	I	C	●	●	●	●							I	●		–40	87	105	3000		2000	Functional	103.1	× 57.2	× 26.2	4.06	× 2.25	× 1.03
TEP 75WICM				●	Screw	75		●	●	●		○	●	T		●	●	●	●	●						E	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	2000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 75WICMF				●	Screw	75		●	●	●		○	●	T		●	●	●	●	●						A	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	2000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 100WIRCM				●	Screw	100		●	●	●		○	○	T		●	○	●	●	●						E	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 100WIRCMF				●	Screw	100		●	●	●		○	○	T		●	○	●	●	●						A	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEQ 100WIR			●		Clamp	100		○	●	●						●		●	●	●						A	●	●	●	●	I	C	●	●	●	●			●	●			I	●	○	–40	85	105	2250		2000	Reinforced	103.1	× 88.9	× 87.6	4.06	× 3.50	× 3.45
TEP 150WI			●		Clamp	150		○	●	●						●		●	●	●						A	●	●	●	●	I	C	●	●	●	●		●		●	●	○	I	●	○	–40	65	100	3000		5000	Functional	98.0	× 65.0	× 40.6	3.86	× 2.56	× 1.60
TEP 150WI-F			●		Clamp	160		○	●	●						●		●	●	●						B	●	●	●	●	I	C	●	●	●	●		●		●	●	○	I	●	○	–40	65	100	3000		5000	Functional	160.5	× 65.0	× 40.6	6.32	× 2.56	× 1.60
TEP 160WIRCM				●	Screw	180		●	●	●		○	○	T		●	●	●	●	●						E	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	2250	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 160WIRCMF				●	Screw	180		●	●	●		○	○	T		●	●	●	●	●						A	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	2250	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEQ 160WIR			●		Clamp	160			○	●						●		●	●	●						A	●	●	●	●	I	C	●	●	●	●		●	●	●			I	●	○	–40	75	105	2250		2000	Reinforced	103.2	× 88.9	× 87.6	4.06	× 3.50	× 3.45
TEQ 200WIR			●		Clamp	200			○	●						●		●	●	●						A	●	●	●	●	I	C	●	●	●	●		●	●	●			I	●	○	–40	55	105	2250		2000	Reinforced	103.2	× 88.9	× 87.6	4.06	× 3.50	× 3.45
TEP 200WIRCM				●	Screw	240		●	●	●		○	○	T		●	●	●	●	●	○					E	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 200WIRCMF				●	Screw	240		●	●	●		○	○	T		●	●	●	●	●	○					A	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 300WIRCM*				●	Screw	300		●	●	●			○	T		●	○	●	○	●	○					E	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEP 300WIRCMF*				●	Screw	300		●	●	●			○	T		●	○	●	○	●	○					A	●	●	●	●	I	C	●	●	●	●		●	●	●			R		●	–40	105	105	3000	3000	5000	Reinforced	57.9	× 61.0	× 12.7	2.28	× 2.40	× 0.50
TEQ 300WIR			●		Clamp	300			●	●						●	●	●	●							A	●	●	●	●	I	C	●	●	●	●		●	●	●	●	●	I	●	○	–40	69	105		3000	5000	Reinforced	101.6	× 152.4	× 38.6	4.00	× 6.00	× 1.52

● = Specification fully applies
○ = Specification does not fully apply and/or applies to optional/on-demand products

A = Integrated Class A EMI filter
B = Integrated Class B EMI Filter

C = Continuous short circuit protection with automatic recovery
D = Unit comes with mounted heatsink as default option

E = Using external components
I = Integrated

R = External heatsink recommended
T = When using output voltage adjustment ("trimming")

S = Standard (base model comes with a heatsink equipped)
* For best model