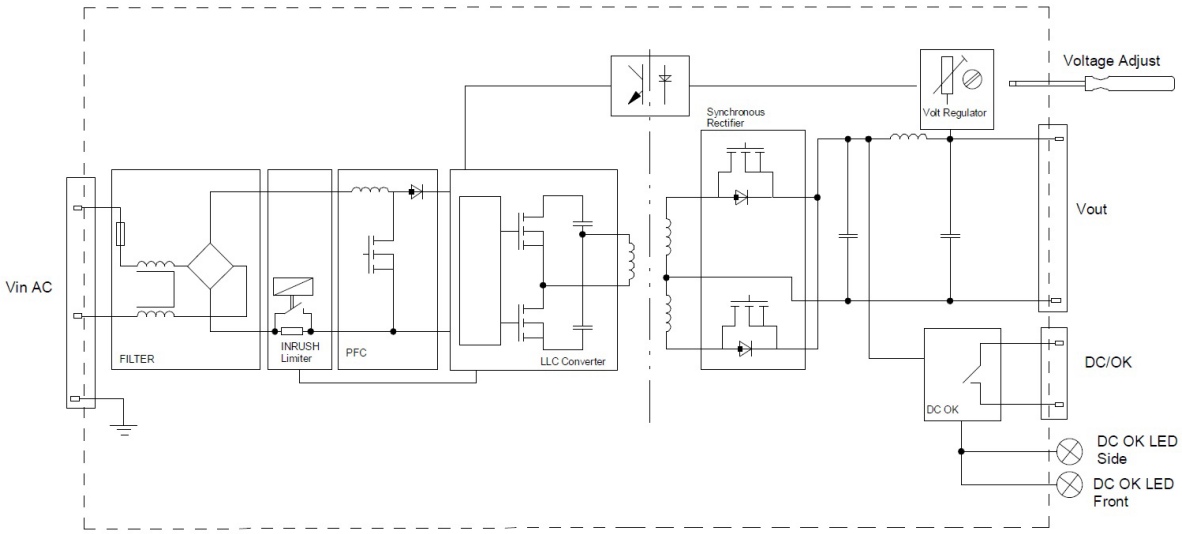
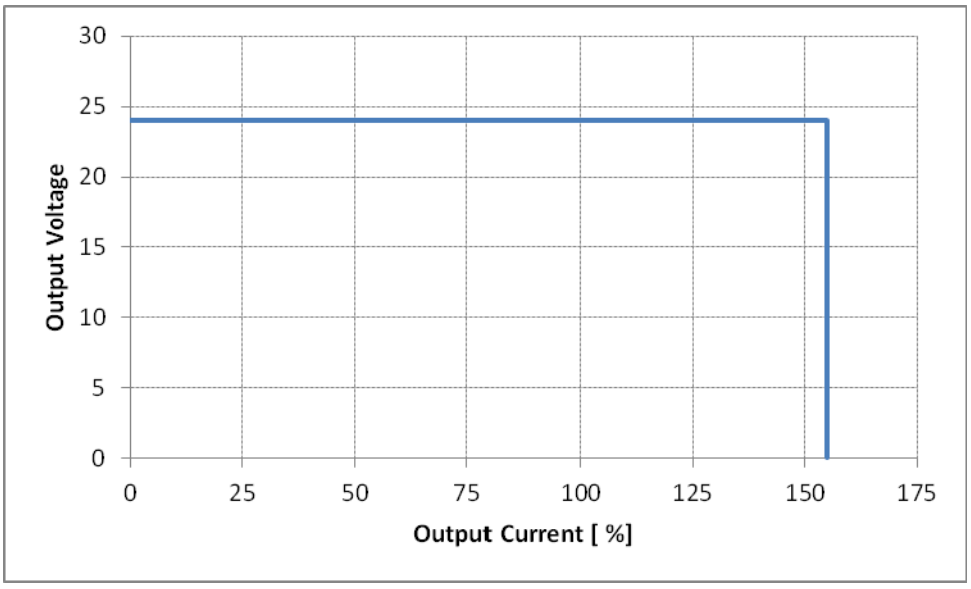
General Specifications

Operating temperature range		–40°C to +70°C max.		
Derating		2 %/K above +60°C		
Cooling		convection cooling, no internal fan		
Overtemperature protection		switch off at overtemperature		
Humidity (non condensing)		5–95 % rel. H max.		
Altitude during operation		2000 m max.		
Isolation Voltage	– Input/Ouput	4250 VDC		
	– Input/Chassis	1500 VDC		
	– Ouput/Chassis	750 VDC		
Creapage Clearance	– Input/Ouput	8 mm		
	– Input/Chassis	4 mm		
	– Output/Chassis	1.5 mm		
MTBF (acc. to IEC 61709 at 25°C)		> 1'300'000 h		
Safety standards	– Information technology equipment	IEC/EN 60950-1, UL 60950-1		
		CSA 22.2 No 60950-1-03		
	– Safety low voltage switchgear and controlgear	UL 508		
	– ATEX for hazardous location (EX models only)	EN 60079-0, EN 60079-7, EN 60079-15		
		(EX II3G Ex ec nC IIC GC)		
	– UL HazLoc (EX models only)	Class I, Division 2		
	– Certification documents	www.tracopower.com/overview/tib		
Electromagnetic compatibility (EMC), Emissions		EN 61000-6-3, EN 61204-3		
	– Conducted emission input	EN 55032, EN 55011 class B		
	– Radiated RI emission	EN 55032, EN 55011 class B		
Electromagnetic compatibility (EMC), Immunity		EN 61000-6-2, EN 61204-3		
	– Railway applications signalling apparatus	EN 50121-4		
	– Railway applications rolling stock apparatus	EN 50121-3-2		
	– Electrostatic discharge (ESD)	IEC/EN 61000-4-2	4 kV/8 kV	criteria A
	– Radiated RF field immunity	IEC/EN 61000-4-3	10 V/m	criteria A
	– Electrical fast transient / burst immunity	IEC/EN 61000-4-4	2 kV	criteria B
	– Surge immunity	IEC/EN 61000-4-5	1 kV/2 kV	criteria B
	– Immunity to conducted RF disturbances	IEC/EN 61000-4-6	10 V	criteria A
	– Power frequency field immunity	IEC/EN 61000-4-8	30 A/m	criteria A
	– Mains voltage dips and interruptions	IEC/EN 61000-4-11		criteria B/C
	– Voltage sag immunity	SEMI F47 (230 VAC)		criteria A
Environment	– Railway applications shock and vibration	according EN 61373		
	– Vibration acc. IEC 60068-2-6-3	3 axis, 2 g sine sweep, 10–55 Hz, 11 okt/min		
	– Shock acc. IEC 60068-2-27	3 axis, 25 g half sine, 11 ms		
Enclosure material	– Chassis	aluminium		
	– Cover	stainless steel		
Mounting	– DIN-rail mounting	for DIN-rails as per EN 50022-35×15/7.5		
Environmental compliance	– Reach	www.tracopower.com/info/reach-declaration.pdf		
	– RoHS	RoHS directive 2011/65/EU		
Connection		screw terminals		

Function Specification



Output Characteristic



Characteristic: Output voltage vs output current for overload conditions until switch off after 4 s at nominal input voltages