



elf-m PSU 30W_45W_65W_100W_130W Metal Chassis

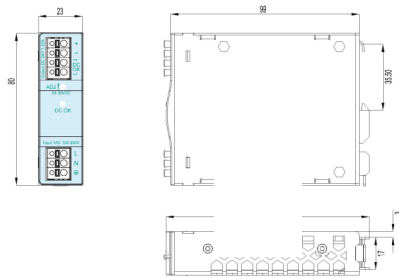


Power supply for DIN rail mounting

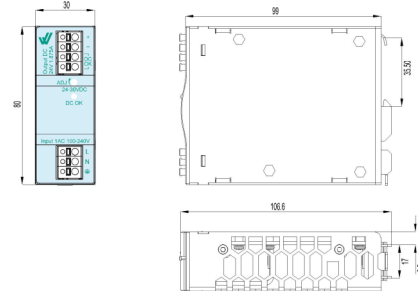
Features

- Wide range AC input for various supply systems
- Over-voltage Shutdown
- Over-current protection (Auto- recovery)
- Reinforced Insulation
- Over-temperature Shutdown
- High efficiency

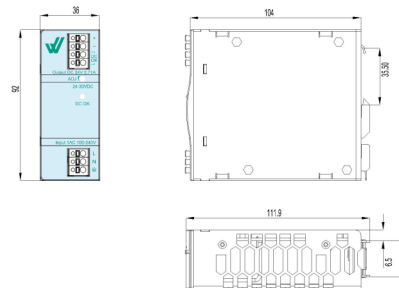
WAT-2120-00



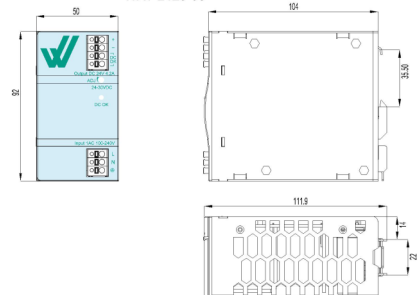
WAT-2120-01



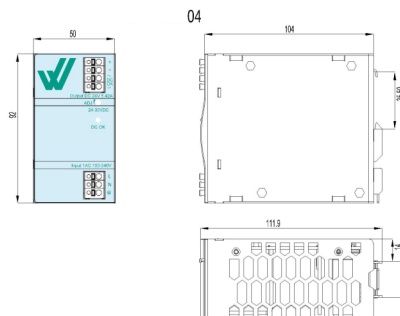
WAT-2120-02



WAT-2120-03



WAT-2120-04





Technical Data

Power supply for DIN rail mounting

Parameter	Condition	Model	WAT-2120-00	WAT-2120-01	WAT-2120-02	WAT-2120-03	WAT-2120-04	
Input	Nominal Input Voltage		AC 100 V ... 240 V					
	Extended Input Voltage Range		AC 90 V ... 264V					
	Brown-out / Recovery	Start decreasing at 88Vc	No Damage to PSU					
	Frequency Range		47 Hz ... 63 Hz					
	Max Input Current	90V	< 0.6 A	< 1 A	< 1.3 A	< 2 A	< 3 A	
	Efficiency	120Vac 230Vac	>88 % typ. >89 % typ.	>88.5 % typ. >90 % typ.	>88.5 % typ. >90 % typ.	>88.5 % typ. >90 % typ.	>89 % typ. >91 % typ.	
	Stand-by Losses		<0.5W					
	Leakage Current	Input voltage=240Vac	<3.5mA					
	Peak Inrush Current	cold start @25°C	<45A					
	Hold-up Time	120Vac 230Vac	>20ms >85ms					
Output	Nominal Output Voltage	All Input Voltages	DC 24 V, SELV					
	Extended Output Voltage Range	All Input Voltages	DC 24-30V Adjustable					
	Output Power (I _A)	All Input Voltages in normal operation temperature	30W max	45W max	65W max	100W max	130W max	
	Output Current (I _A)	All Input Voltages @ 24V	1.25 A	1.875 A	2.71 A	4.2 A	5.42 A	
	Output Regulation Tolerance	24-30Vdc	<1%					
	Ripple	20MHz bandwidth, measured with a 1uF MLCC and a 100uF E-Cap	<70mVpp typ					
	Dynamic Load Response	0.6 slew rate A/us 100Hz or 1k; 50% duty	<2%					
	Line Regulation		<0.1%					
	Load Regulation		<1%					
	Turn-on Delay		<2s at 115Vac, <1s at 230Vac					
	Start-up capability with capacitive load		< 1200uF	< 1800uF	< 2500uF	< 4000uF		
	Signals Power On	LED 1x green	LED 1x green					
	DC OK signal	floating contact	30 V AC/DC 100 mA max.					
	Protection Function	Over Current Protection (OCP)	Hiccup	105%-140% Full load typical				
		Over Voltage Protection	Latched	<35V Typ				
Short Circuit Protection (SCP)		Hiccup	No Damage					
Short Circuit current to trip MCB		120Vac for 70ms 230Vac for 70ms	>5A >7A	>7A >9A	>11A >16A	>12A >20A	>15A	
Over Temperature Protection (OTP)		Hiccup	No Damage					
Environmental	Ambient temperature		-25 °C ... +70 °C; Start @-25°C					
	Temperature derating		-2.5% / K (> 60 °C)					
	Storage temperature		-25 °C ... +70 °C					
	Humidity		95% non-condensing					
	Pollution degree		2 (gem. EN50178)					
	Climate class		3K3 (EN60721)					
	Height over sea level		< 2000m			2000m OV Cat II		
Safety	Safety class		I					
	Protection class		IP20					
	Over voltage category	II 2000m	II 2000m					
EMC	Immunity	ESD	EN61000-4-2 air ±8KV , Contact ±6KV		Criteria A			
		Electromagnetic HF field	EN61000-4-3, 80MHz-1GHz, 10V/m, 2GHz-3GHz 10V/m		Criteria A			
		Fast transient (Burst)	EN61000-4-4 1kV		Criteria B			
		Surge	EN61000-4-5 2kV com; 1 kV/diff		Criteria B			
	Emission	Conducted interference	EN61000-4-6 (150kHz-80MHz), 10V		Criteria A			
		Mains variation	EN61000-4-11 voltage dip		Dip 70% 0.5cycle, Crit B Dip 40%, 5 cycle, Crit C Dip <5%, 250cycles 50Hz, Crit C			
		Conducted EMI	EN55032 (CISPR32) 150kHz-30MHz, FCC		Class B			
		Radiated EMI	EN55032 (CISPR32) 30M-1GHz, FCC		Class B			
Harmonic current	EN61000-3-2 harmonic current		Class A					
Connectors	AC	Conductor cross section (26~16AWG, 0.2~1.5mm ²), strip length 8mm		L/N/Earth				
	DC	Conductor cross section (26~16AWG, 0.2~1.5mm ²), strip length 8mm		24V output terminal+/- ; DC OK signal +/- (isolated)				
Other	Material	Plastic cover Aluminum chassis						
	MTBF	500.000h (gem. SN29500)	500k hrs					
	Max Sizes (mm) D X W X H		103x23x80	103x30x80	110x36x92	110x50x92	110x50x92	
	Weight		185g	215g	270g	390g	400g	