



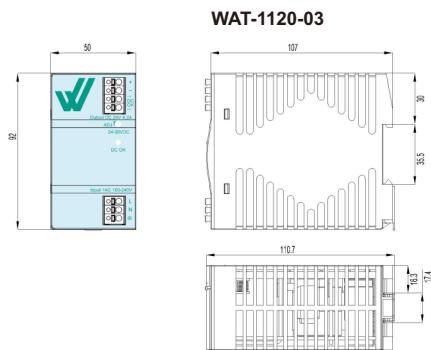
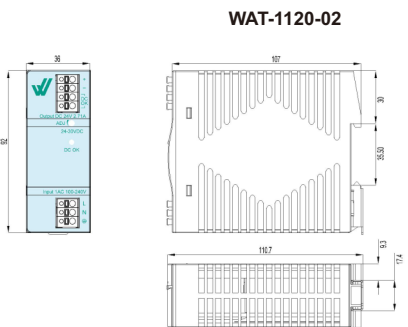
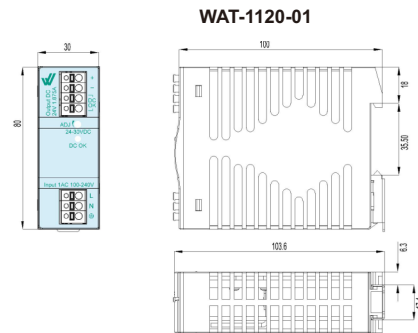
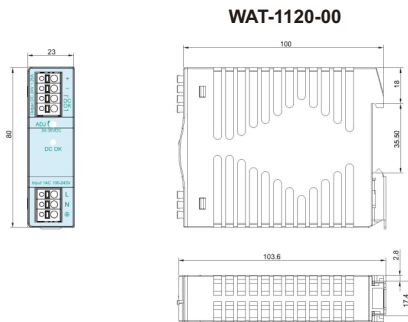
**elf-p PSU 30W\_45W\_65W\_100W\_130W Plastic Chassis**



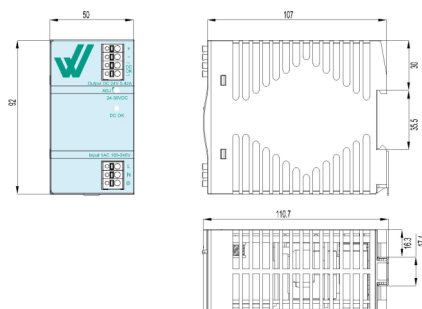
**Power supply for DIN rail mounting**

**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-1120-04**





## Technical Data

Power supply for DIN rail mounting

Parameter		Condition	Model	WAT-1120-00	WAT-1120-01	WAT-1120-02	WAT-1120-03	WAT-1120-04	
Input	Nominal Input Voltage	All		AC 100 V ... 240 V					
	Extended Input Voltage Range	All		AC 90 V ... 264V					
	Brown-out / Recovery	Start decreasing at 88Vc		No Damage to PSU					
	Frequency Range	All		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	All		<0.5W					
	Leakage Current	Input voltage=240Vac		<1mA					
	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 <sub>A</sub> )	All Input Voltages in normal operation temperature		30W max	45W max	65W max	100W max	130W max	
	Output Current (I <sub>A</sub> )	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	1		I			IP20		
	Protection class			II 2000m			II 2000m		
	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				
Connectors	Harmonic current	EN61000-3-2 harmonic current		Class A					
	AC	Conductor cross section (26~16AWG, 0.2~1.5mm <sup>2</sup> ), strip length 8mm		L/N/Earth					
Other	DC	Conductor cross section (26~16AWG, 0.2~1.5mm <sup>2</sup> ), strip length 8mm		24V output terminal+/- ; DC OK signal +/- (isolated)					
	Material			Plastic cover					
	MTBF	500.000h (gem. SN29500)		500k hrs					
	Max Sizes (mm) D X W X H			103x23x80	103x30x80	110x36x92	110x50x92	110x50x92	
Weight			135g	190g	255g	370g	380g		