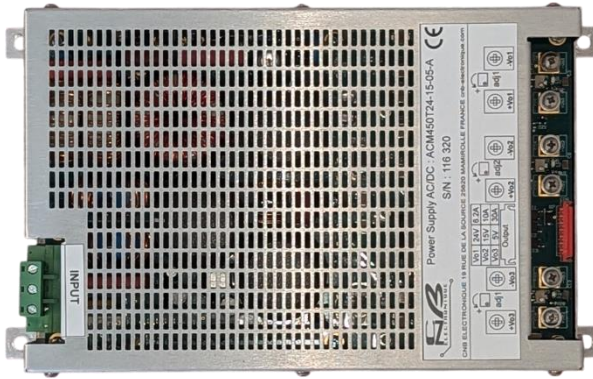


Baseplate Power Supply 3 Outputs 450W



SPECIFICATIONS

- AC Input voltage range : 85 à 265 VAC
- DC Input voltage range : 120 à 370 VDC
- Outputs power: 450W
- Outputs: 3 outputs
- Floating output relative to earth
- Operating temperature: from -40°C to +71°C
- Size (W x H x D): 136 x 42 x 230mm
- Conductive cooling
- Weight: 1400gr typ
- Area of application: military, industrial

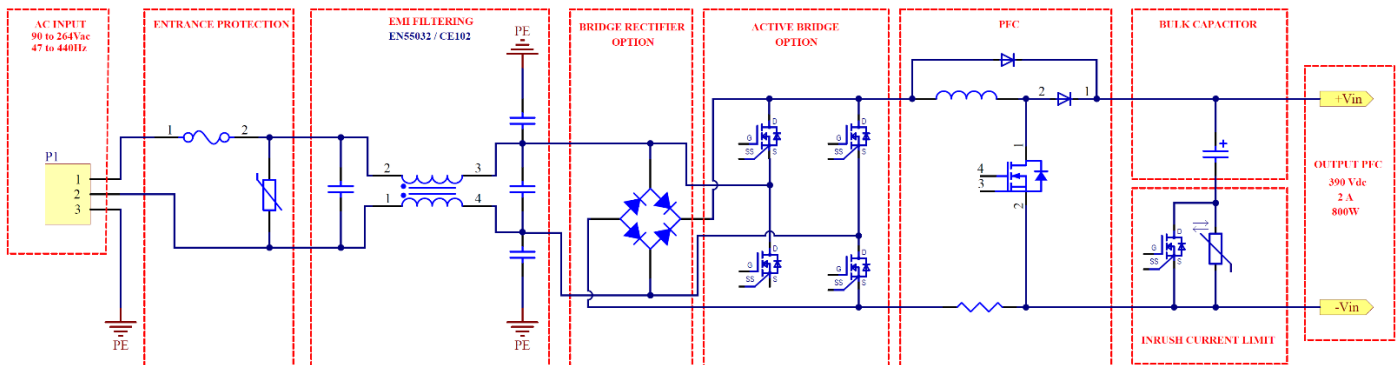


ACM series a powerful baseplate cooling power supply for defense applications. The design to meet MIL-STD makes it be solution from off-the-shelf products. A product that is suitable for wide application areas in Defense and industrial and others. Ruggedized construction makes it ideal for harsh environmental applications. Fully protected against input under-voltage-lock-out (UVLO), output over-current, output over-voltage, overtemperature and continuous short circuit conditions.

1. INPUT

PARAMETER	CHARACTERISTIC	
AC Operating Voltage Range	85 - 265 VAC	
DC Operating Voltage Range	120 - 370 VDC	
Input Frequency Range	47 - 440 Hz	
Maximum Input Current	6.4A at Vin 85 VAC	2.4A at Vin 230 VAC
Power Factor	0.99 typical at Vin 115 VAC	0.95 typical at Vin 230 VAC
Efficiency	≥ 83% at Vin 85 VAC	≥ 85% at Vin 230 VAC
Power dissipated at 750W	93 W	83 W
Inrush Current	< 20 A at 25°C	< 20 A at 25°C
Leakage Current	< 3mA in 230VAC	
Hold up time	20ms (230VAC, Full load)	
Input connector	Removable screw terminal block	
Dielectric strength Input Earth	2000 V RMS	
Dielectric strength Input Output	3000 V RMS	

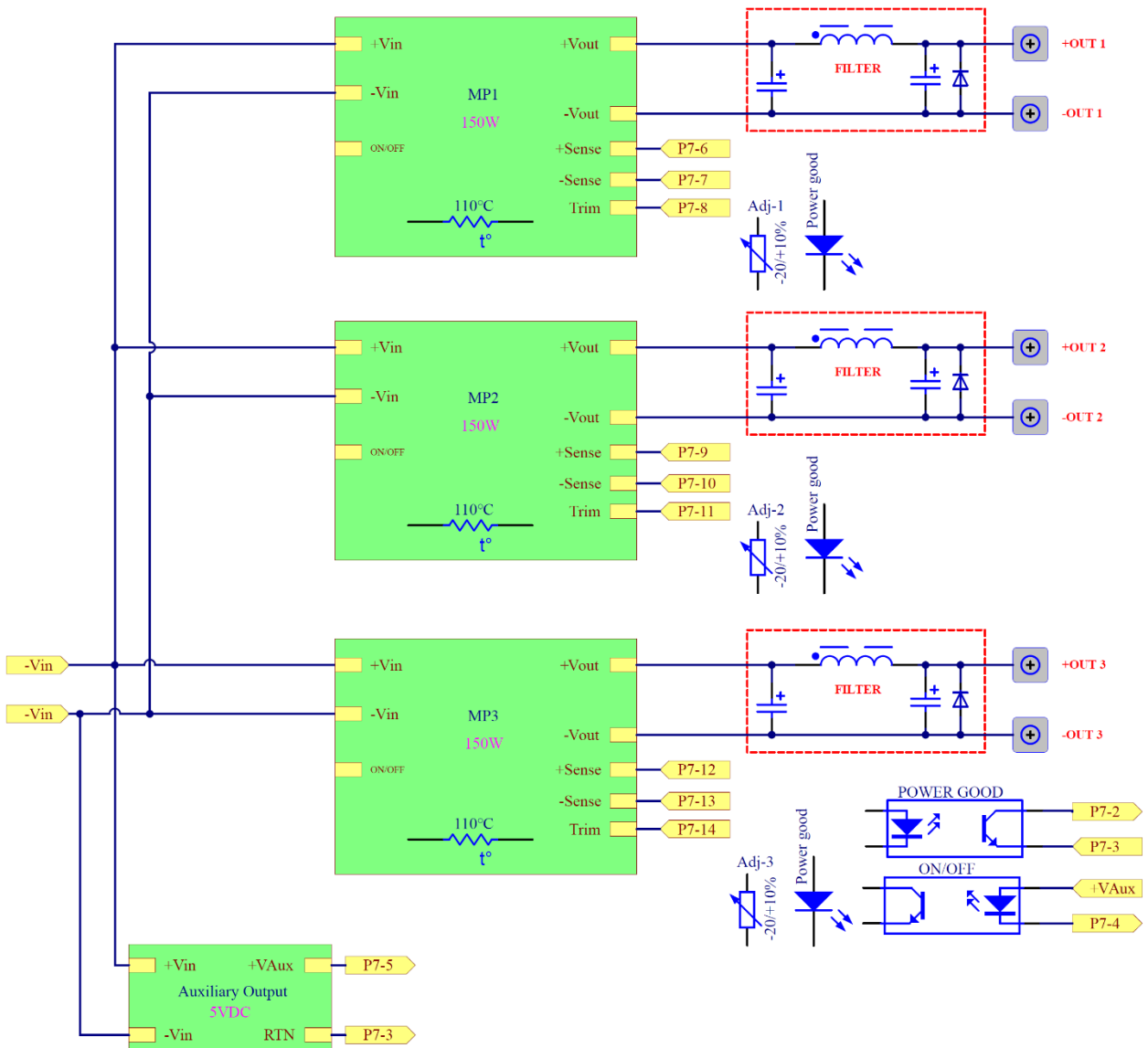
PRIMARY



2. TRIPLE OUTPUT ACM450 POWER MAX 450W

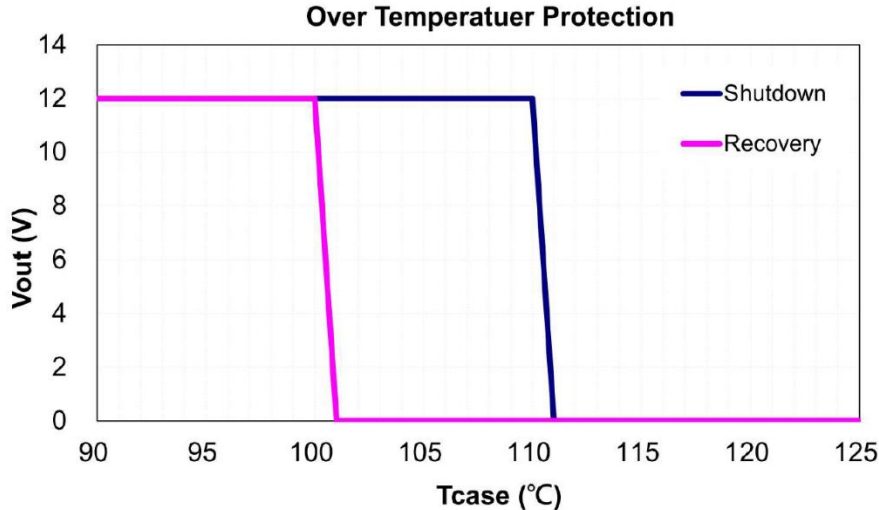
PARAMETER	CHARACTERISTIC					
Output voltage	5 VDC	12 VDC	15 VDC	24 VDC	28 VDC	48 VDC
Output current	30 A	12.5 A	10 A	6.25 A	5.4 A	3.2 A
Output power	150 W	150 W	150 W	150 W	150 W	150 W
PSU Efficiency at Vin 230 VAC	≥ 82%	≥ 83%	≥ 84%	≥ 84%	≥ 84%	≥ 84.5%
Ripple & noise (20MHz BW)	60 mV	100 mV	100 mV	150 mV	150 mV	200 mV
Output Voltage Trim Range	4 to 5.5V	9.6 to 13.2V	12 to 16.5V	19.2 to 26.4V	22.4 to 30.8V	38.4 to 52.8V
Switching Frequency	360 kHz typical					
Load regulation	+/- 0.2%					
Line regulation	+/- 0.02%					
Temp. coefficient	+/- 0.02 %°C					
Output peak power	110% to 160% I output					
Establishment Time	< 1s					
Fully Protected	OTP/OCP/OVP/UVLO					
Over Temperature Protection	110°C					
Connectors	Studs/M3 Screw					
Dielectric strength Output Earth	500 V RMS					

SECONDARY TRIPLE OUTPUT



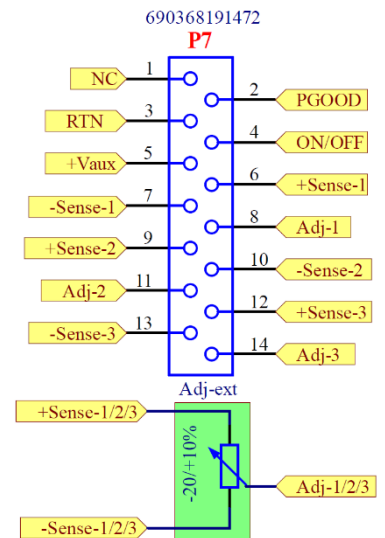
▪ **Over Temperature Protection**

These modules have an over temperature protection circuit to safeguard against thermal damage. Shutdown occurs with the maximum case reference temperature is exceeded. The module will restart when the case temperature falls below over temperature recovery threshold. Please measure case temperature of the center part of aluminum baseplate.



▪ **Connector Pin Allocation Wurth 690368191472 Female 2*7 pins**

Pin Number	Signals	Signals description
BR7-1	NC	Not connected
BR7-2	PGOOD	Power Good
BR7-3	RTN	isolated reference mass
BR7-4	ON/OFF	Remote Control ON/OFF
BR7-5	+Vaux	Auxiliary power supply, referred to RTN
BR7-6	+ Sense 1	Remote Sensing 1
BR7-7	- Sense 1	Remote Sensing 1
BR7-8	Adj-1	External adjustment of output 1 voltage
BR7-9	+ Sense 2	Remote Sensing 2
BR7-10	- Sense 2	Remote Sensing 2
BR7-11	Adj-2	External adjustment of output 2 voltage
BR7-12	+ Sense 3	Remote Sensing 3
BR7-13	- Sense 3	Remote Sensing 3
BR7-14	Adj-3	External adjustment of output 3 voltage



▪ **SIGNALS**

- **PGOOD:** Collector isolated optocoupled signal referred to RTN, closed when all output voltages are OK. Led is also available for each output
- **ON/OFF:** Connect to RTN for disabling the output. Other combinations, consult factory.
- **-Sense, +Sense:** Remote Sense, max 0,5V per line compensation (If local sense, connect locally S+ to OUT+ and S- to OUT- of the corresponding output).
- **+Vaux:** 5Vdc auxiliary supply limited to 100mA. Referred to RTN.
- **Adj:** Output can be adjusted -20/+10% Vout. with the potentiometer 47K Ohms Referred to +/-Sense..

■ **DESIGNED FOR A MILITARY ENVIRONMENT**

PARAMETER	NOTES & CONDITIONS		
High temperature	MIL-STD-810 Proc. 501.4, 5 cycles		
Low temperature	MIL-STD-810 Proc. 502.4, 5 cycles		
Humidity	MIL-STD-810 Proc. 507.4, 5 cycles		
Conducted Emissions, Power Leads	MIL STD 461F	CE102	
Conducted Susceptibility	MIL STD 461F	CS101/CS114/CS115/CS116	
Radiated Emissions	MIL STD 461F	RE101/RE102	
Radiated Susceptibility,	MIL STD 461F	RS101/RS102	
AC Input Power	MIL STD 1399	300A	
	Air 2021E	AC	
Vibrations	MIL-STD-810F Proc.514-5	4-80Hz (2.8m/s ²) ² /Hz, non operating	
		160-500Hz (0.175m/s ²) ² /Hz, non operating	
Shock	MIL-STD-810F Proc.516-3	20g / 18ms half size	
		5g / 30ms+	
Damp Heat	MIL-STD-810F Proc.507-2	Humidity 93%, 40°C, 56 days	

■ **CE CIVIL ENVIRONMENT**

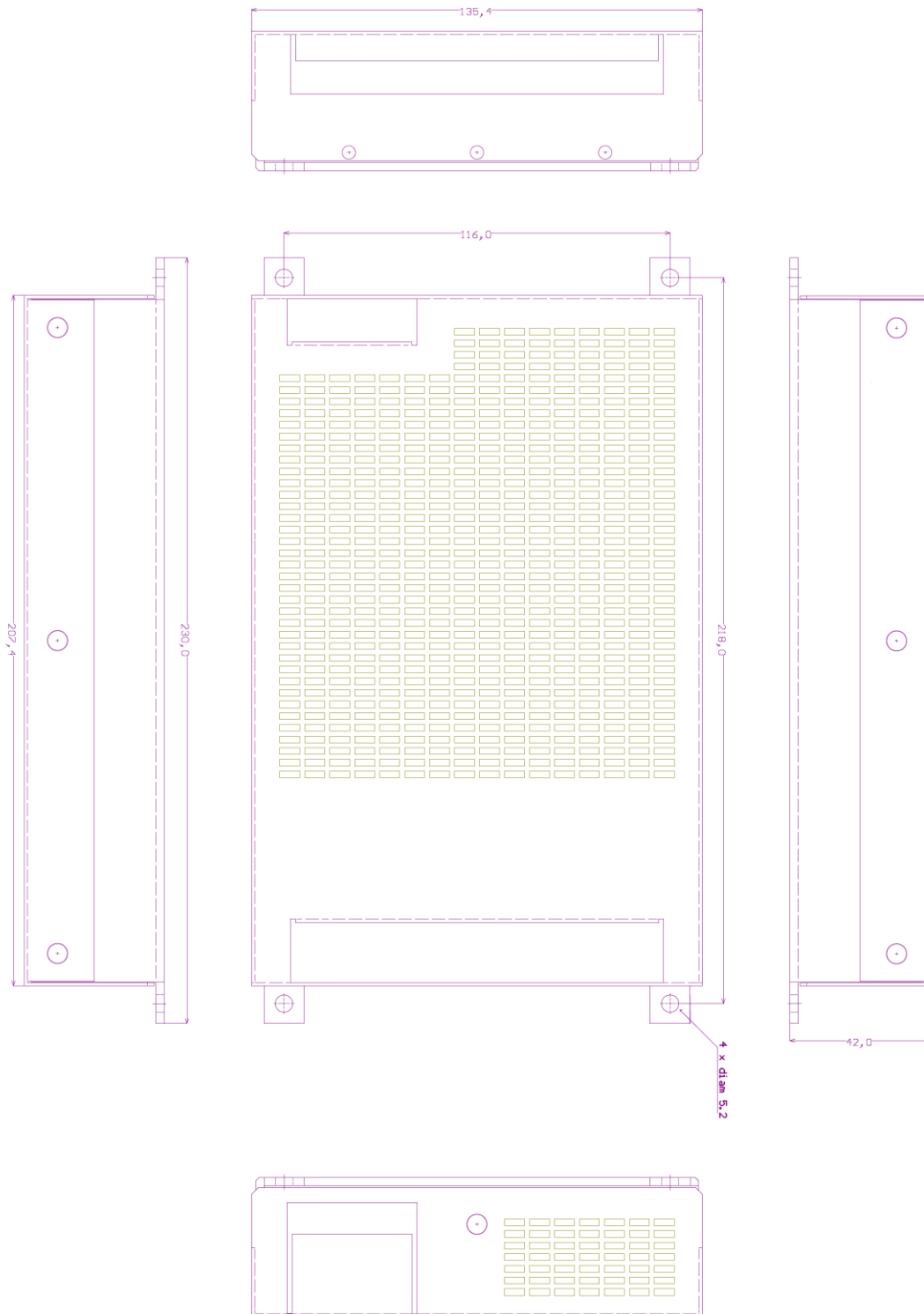
PARAMETER	NOTES & CONDITIONS		
Conducted Disturbance	EN55032 (CISPR32)	Class B	
Radiated Disturbance	EN55032 (CISPR32)	Class B	
Electrostatic Air Discharge (ESD)	EN61000-4-2	Level 3	8KV
Electrostatic Contact Discharge (ESD)	EN61000-4-2	Level 2	4KV
Radio-Frequency, Continuous Radiated Disturbance	EN61000-4-3	Level 3	10V/m
Electrical Fast Transient (EFT)	EN61000-4-4	Level 3	2KV/5KHz
		Level 3	1KV/Line-Line
Surge	EN61000-4-5	Level 3	2KV/Line-Earth
		Level 3	10V
Conducted Disturbances, Induced by RF Fields	EN61000-4-6	Level 3	10V
Power Frequency Magnetic Field	EN61000-4-8	Level 4	30A/m
Voltage Dips, Interruptions	EN61000-4-11		
Harmonic attenuator	EN61000-3-2 Class A		
Flicker	EN61000-3-3		
Safety	Class I, IEC/EN62368-1		

■ **ENVIRONMENTAL**

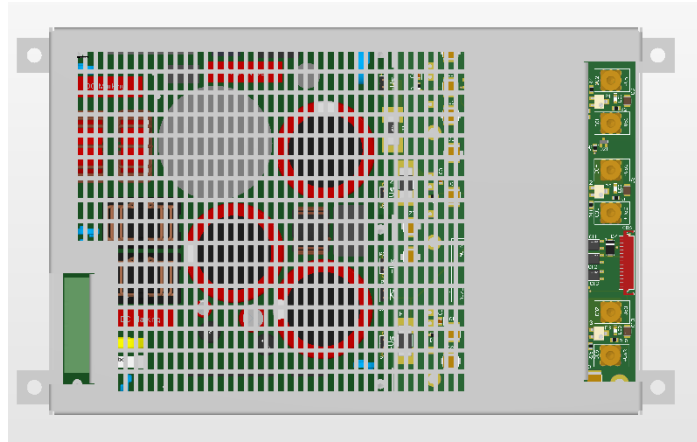
PARAMETER	NOTES and CONDITIONS		
Operating temperature without derating*	-40°C to +71°C		
Baseplate temperature	1 Output 750W		
	-40°C to +90°C		
Storage temperature	-40°C to +85°C		
Storage humidity	20-95%RH (Non condensing)		
Convection	Natural convection (Baseplate and heatsink)		
Rca Case	1°C/W		
Model	1 Output 750W		
Power to dissipate	160 W		
Ambient temperature	30°C	50°C	71°C
*Rca Baseplate and heatsink	0.7°C/W	0.40°C/W	0.18°C/W

■ **MECANICAL**

PARAMETER	NOTES
Size (W x H x D)	136 x 42 x 230mm (without heatsink)
Weight	< 1300gr
Case material	Aluminum sheet 2.5mm thick
Case treatment	SURTEC 650



▪ **PART NUMBER ACM450T**



Serie	Number of Outputs	Nominal Output Voltage	Option
ACM450T	S: Single D: Dual T: Triple	05: 5VDC	C: conformal coating. A: Active Bridge. HL: Heatsink longitudinal fins. HT: Heatsink transversal fins. IP: IP65 & MIL Connectors.
		12: 12VDC	
		15: 15VDC	
		24: 24VDC	
		28: 28VDC	
		48: 48VDC	

Example:

ACM450T05-12-12: power supply Triple output, (output 1) 5V 150W, (output 2) 12V 150W, (output 3) 12V 150W

▪ **Options** (contact factory)

- C:** Conformal Coating (standard AVR80).
- A:** Active Bridge.
- HL:** Heatsink longitudinal fins.
- HT:** Heatsink transversal fins.
- IP:** IP65 & MIL Connectors (contact factory).

