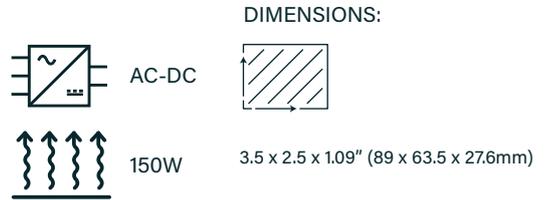


AMCV150 SERIES



OVC III

-40 TO 85°C
OPERATION

4300 VAC ISOLATION

Part numbers

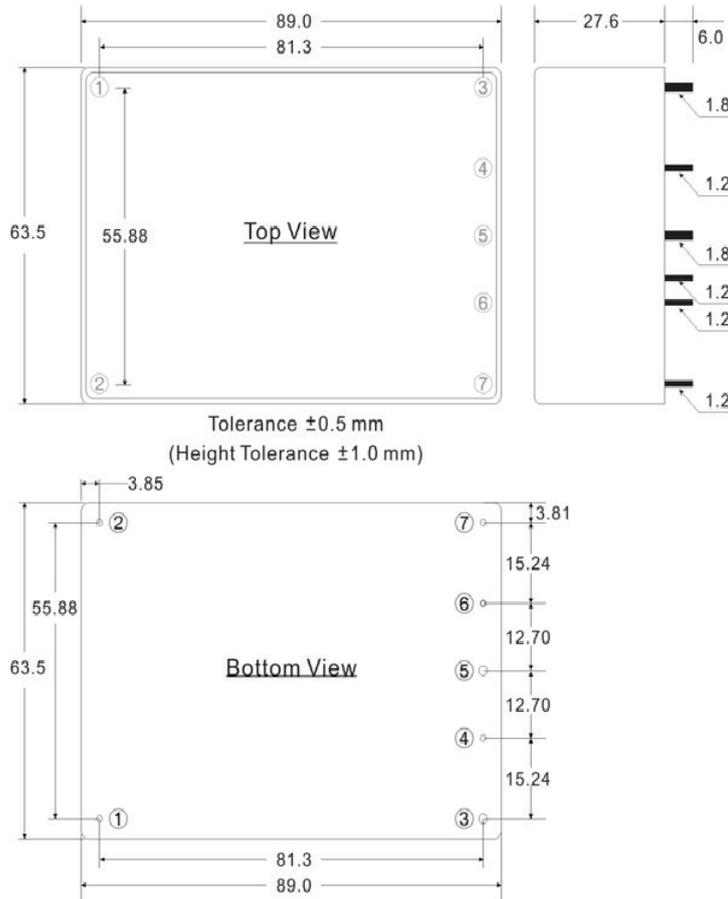
AMCV	150	12
Series	Power	Output voltage
		12 = 12VDC 24 = 24VDC 48 = 48VDC

Key specifications

Input range	Safety certification	Efficiency	Features
90 - 264VAC	UL /EN /ICE 62368-1 Designed to meet IEC /EN 61558-1, IEC /EN 61558-2-16, IEC /EN 60335-1	<93.5%	Remote ON/OFF Output trim

AMCV150 SERIES

Mechanical



Pin	Function
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	TRIM
5	-DC OUT
6	NO PIN
7	ON / OFF (external 5V required)

Notes

1. All dimensions shown in mm
2. Pin diameter tolerance ± 0.1 mm
3. General tolerance ± 0.5 mm

Weight

320g

AMCV150 SERIES

Models & Ratings

Model Number	Output Power	Output Voltage	Output current	Efficiency (1)	Max Capacitive Load
AMCV15012	150W	12V	12.5A	93%	6000uF
AMCV15024	150W	24V	6.25A	93.5%	3000uF
AMCV15048	150W	48V	3.125A	93.5%	2000uF

1. Efficiency at 230VAC

2. Unless stated, figures are at 25°C and nominal line after warm up

Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	90		264	VAC	127-370 VDC slow blow fuse required. See page 5 for derating curve
Input frequency	47		63	Hz	
Power factor	0.9				Full load. EN61000-3-2 class A
Input current	1A		2A	A rms	2A 115VAC / 1A at 230VAC
Inrush current	45		90	A	45A at 115VAC and 90A at 230VAC.
No load input power			0.3	W	

Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	12		48	VDC	See Models & Ratings table
Set point accuracy		±2		%	
Line regulation		±0.5		%	High line to low line
Load regulation		±1		%	0 to 100% load
Minimum load	0			%	
Ripple and noise	120	200	240	mV pk-pk	All models measured with 47uF and 0.1uF capacitor. 20 MHz bandwidth
Hold up		10		mS	

AMCV150 SERIES

Protections

Parameter	Notes/Conditions
Overload	Trip and restart. Automatic recovery
Short circuit	Trip and restart. Automatic recovery
Over voltage	Trip and restart. Automatic recovery

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	IEC/EN/UL62368-1				Designed to meet IEC/EN60335 & IEC/EN61558-2-16
Isolation: Input to output	4300			VAC	

EMC: Immunity

	Standard	Test level	Criteria	Notes/Conditions
ESD	EN61000-4-2	2	A	2kV contact, 4kV air
Radiated	EN61000-4-3	2	A	3V/m
EFT	EN61000-4-4	2	A	1kV Line to Neutral
Surges	EN61000-4-5	3	A	1kV Line to Neutral
Conducted (CS)	EN61000-4-6	2	A	3V rms
PFMF	EN61000-4-8	1	A	1A/m
Voltage dips and interruptions	EN61000-4-11	<5% 0.5 periods, 70% 25 periods and <5% 250 periods A,A,B for low line and high		

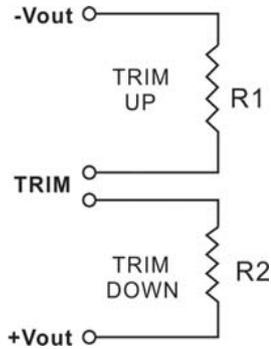
EMC: Emissions

	Standard	Test level	Criteria	Notes/Conditions
Conducted	EN55032	B		
Radiated	EN55032	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

AMCV150 SERIES

Application Notes

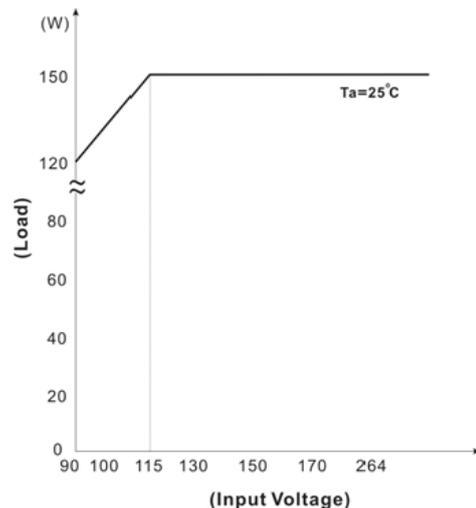
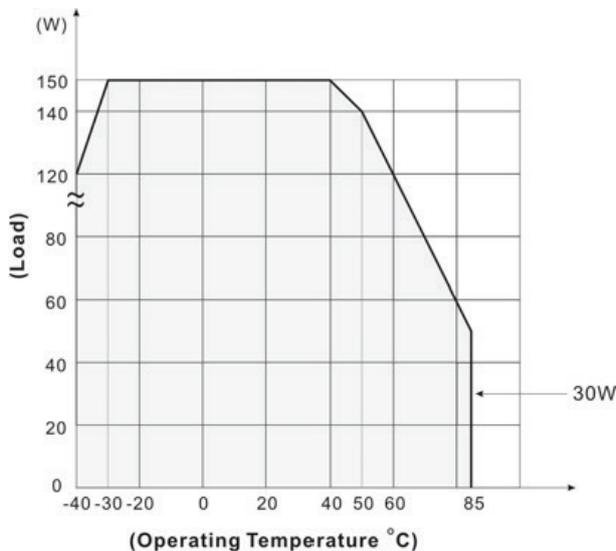
TRIM



	R1	R2
12V	+5% to 1% 0 to 150K	-5% to -1% 75K to 680K
24V	+5% to 1% 0 to 680K	-5% to -1% 820K to 6.8M
48V	+5% to 1% 0 to 330K	-5% to -1% 1M to 7.5M

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	-40		85	°C	See derating curve
Storage temperature	-40		85	°C	
Altitude			5000	m	
Temperature coefficient			±0.05	%/°C	
Storage Humidity	0		95	% RH	
MBTF	>250,000			MHrs	As per MIL-HDBK-217F, 25°C GB



5th January 2024