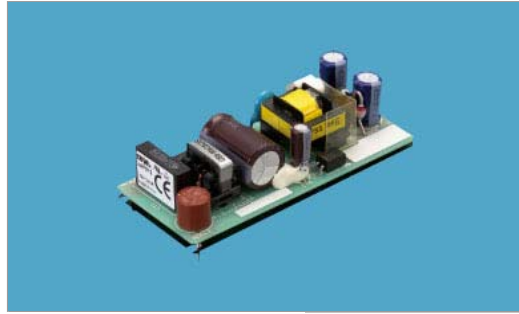


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VAF5



Features

- Small and compact size
- Built-in Inrush Current Protection
- P.C. board mount AC/DC converter
- Built-in Over Voltage Protection
- RoHS Compliant

Safety Agency Approvals

- Complies with DEN-AN
- UL1950, C-UL recognized, TUV approved

EMI Compliance

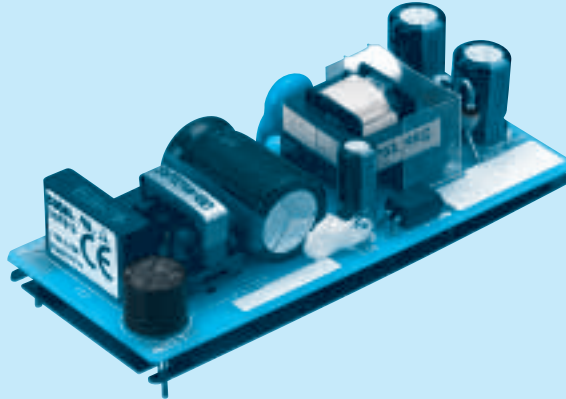
- FCC-B
- CISPR22-B
- EN55022-B
- VCCI-B

EMC Compliance

- EN61000-4-2
- EN61000-4-3
- EN61000-4-4
- EN61000-4-5
- EN61000-4-6
- EN61000-4-8
- EN61000-4-11
- EN55022-B

3 year warranty(refer to Instruction Manual)

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
VAF503	DC 110 - 370 AC 85 - 264	3.3	3.3V 1A (peak 1.2A)
VAF505	DC 110 - 370 AC 85 - 264	5	5V 1A (peak 1.2A)
VAF512	DC 110 - 370 AC 85 - 264	5.4	12V 0.45A (peak 0.54A)
VAF524	DC 110 - 370 AC 85 - 264	5.28	24V 0.22A (peak 0.27A)



MODEL	VAF503	VAF505	VAF512	VAF515	VAF524	
MAX OUTPUT WATTAGE[W]	3.3	5.0	5.4	5.25	5.28	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	24
	CURRENT[A]	1.0 (Peak 1.2)	1.0 (Peak 1.2)	0.45 (Peak 0.54)	0.35 (Peak 0.42)	0.22 (Peak 0.27)

SPECIFICATIONS

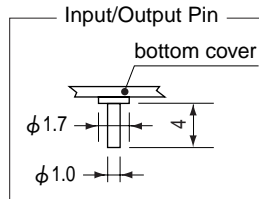
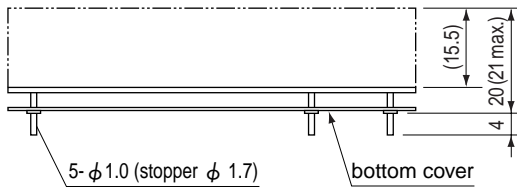
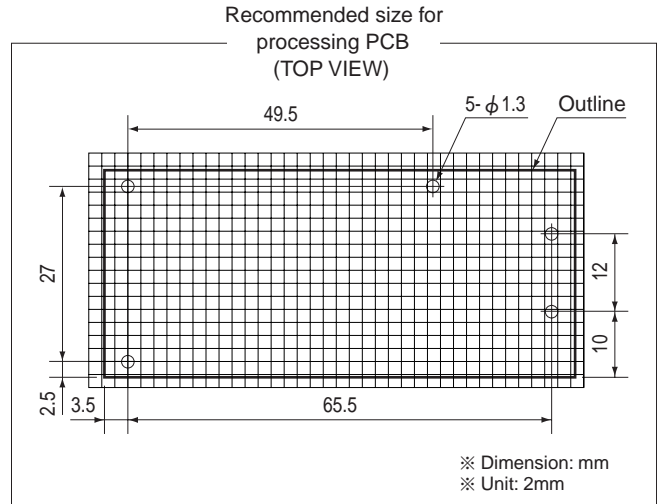
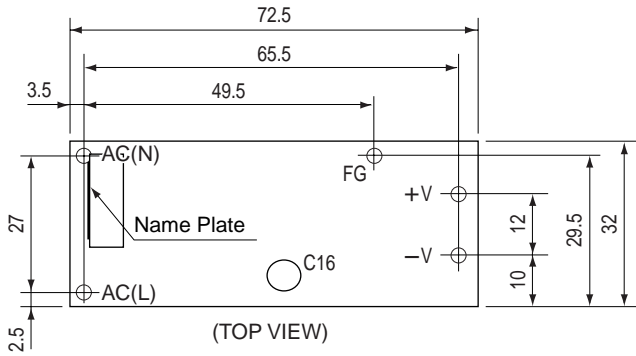
	MODEL	VAF503	VAF505	VAF512	VAF515	VAF524	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC110 - 370					
	CURRENT[A]	ACIN 100V	0.15typ (Io=100%)				
		ACIN 200V	0.10typ (Io=100%)				
	FREQUENCY[Hz]	47 - 440 or DC					
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%)				
		ACIN 200V	30typ (Io=100%)				
LEAKAGE CURRENT[mA]	0.5max (60Hz, According to IEC60950 and DEN-AN)						
EFFICIENCY[%]		68typ	77typ	78typ	78typ	81typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	15	24	
	CURRENT[A]	*1 1.0 (Peak 1.2)	1.0 (Peak 1.2)	0.45 (Peak 0.54)	0.35 (Peak 0.42)	0.22 (Peak 0.27)	
	LINE REGULATION[mV]	20max	20max	48max	60max	96max	
	LOAD REGULATION[mV]	40max	40max	100max	120max	150max	
	RIPPLE[mVp-p]	0 to +55°C *2	80max	80max	120max	120max	150max
		-10 - 0°C *2	140max	140max	160max	160max	200max
		Io=100 - 120% *2	180max	180max	200max	200max	240max
	RIPPLE NOISE[mVp-p]	0 to +55°C *2	120max	120max	150max	150max	200max
		-10 - 0°C *2	160max	160max	180max	180max	230max
		Io=100 - 120% *2	200max	200max	220max	220max	260max
	TEMPERATURE COEFFICIENT[mV]	-10 to +55°C	100max	50max	120max	150max	300max
	DRIFT[mV]	*3	20max	20max	48max	60max	96max
	OUTPUT VOLTAGE SETTING[V]		3.19 - 3.47	4.90 - 5.30	11.40 - 12.60	14.25 - 15.75	23.0 - 25.0
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed				
START-UP TIME[ms]		700max (ACIN 85V, Io=100%)					
HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%), 20typ (ACIN 100V, Io=100%)					
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 125% of rating and recovers automatically					
	OVERVOLTAGE PROTECTION	Works over 115% of rating (By zener diode clamping)					
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)					
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)					
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)					
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +71°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max					
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max					
	VIBRATION	19.6m/s ² 10 - 55Hz, 3minutes period, 60minutes each along X, Y and Z axis (Non operating)					
	IMPACT	196.1m/s ² 11ms, once each X, Y and Z axis (Non operating)					
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL, EN60950-1, EN50178 Complies with DEN-AN and IEC60950-1					
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR22-B, EN55022-B					
OTHERS	CASE SIZE/WEIGHT	32×20×72.5mm (W×H×D) / 30g max					
	COOLING METHOD	Convection					

*1 Peak load for 10sec. or less in acceptable if the total wattage is less than the rated wattage.

*2 This is the value that measured on measuring board with capacitor of 22 μF. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM101).

*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

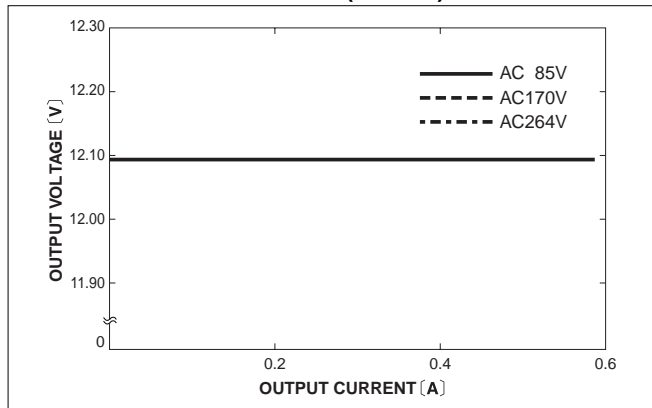
External view



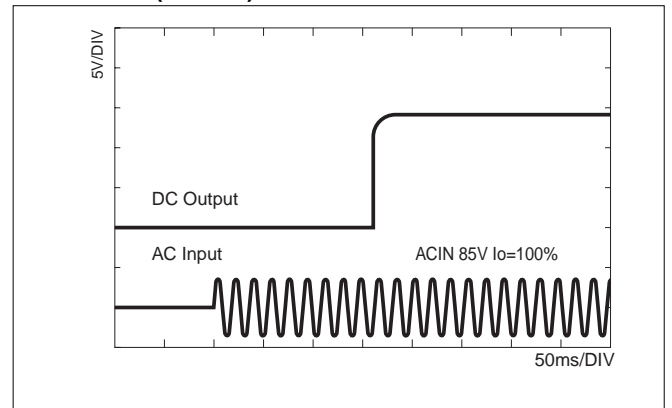
- ※ Dimension: mm
- ※ Unit: 2mm
- ※ Weight: 30g or Less
- ※ Tolerance: ±0.5
- ※ PCB material: CEM-3
- ※ PCB thickness: t=1.0
- ※ Pin material: CPW with solder plated
- ※ Bottom cover material: Bake PL 1256 (Black)
- ※ Recommended hole dia. to PCB: φ 1.3

Performance data

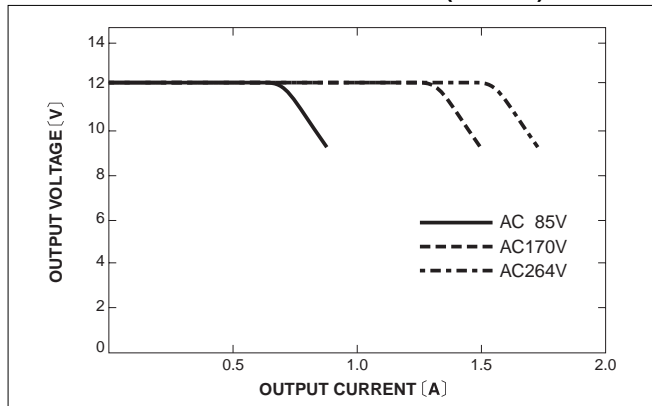
■ STATIC CHARACTERISTICS (VAF512)



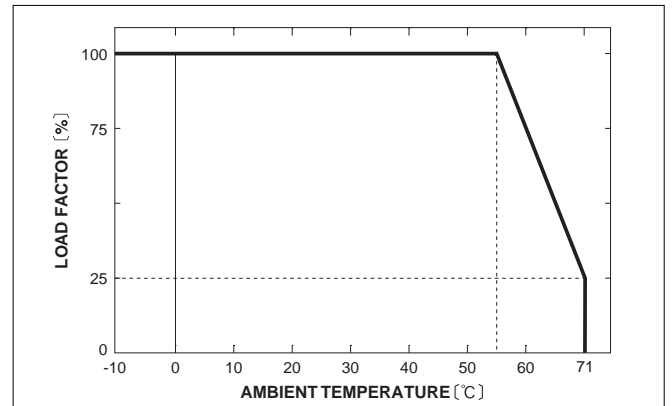
■ RISE TIME (VAF512)



■ OVERCURRENT CHARACTERISTICS (VAF512)



■ DERATING CURVE



VAF