

15 WATT AC-DC CONVERTER

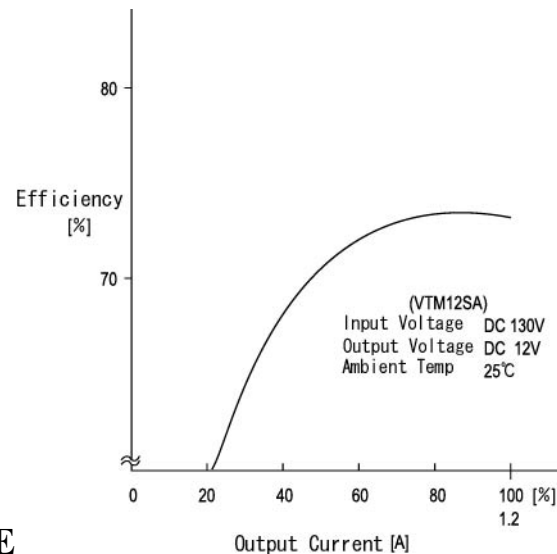


Features

- Compact
- Isolated outputs
- High Performance and Reliability
- Excellent for equipment/din rail applications

VTM-SA Series

Specifications<AC/DC>	Model			
VTM**SA 15WATTS/SINGLE OUTPUT	VTM05SA	VTM12SA	VTM15SA	VTM24SA
Input Characteristic				
Input Voltage	AC100V(DC130V)			
Input Range	AC90-132V(DC110-175V)			
Input Frequency	50/60Hz			
Input Frequency Range	47 -440Hz			
Phase	Single			
Inrush Current	20A(maximum) at rated input/output			
Efficiency [%] (typical) *1	71	71	71	71



EFFICIENCY CURVE

Specifications<AC/DC>	Model			
	VTM**SA 15WATTS/SINGLE OUTPUT	VTM05SA	VTM12SA	VTM15SA
Output Characteristic				
Output Voltage [V]	5	12	15	24
Output Current [A]	3.0	1.2	1.0	0.62
Voltage Adjust Range	+/-5% of Rated Output Voltage(at no load within input range)			
Ripple and Noise [mVp-p](maximum) *2	75	110	125	170
Regulation				
a.Statistic Line Regulation [mV](maximum)	40	96	120	192
b.Statistic Load Regulation [mV](maximum)	45	108	135	216
c.Temperature Coefficient *3	0.03%/°C			
d.Drift[mV](maximum) *4	40	75	90	135
e.Dynamic Load Regulation [mV](typical) *5	150	360	450	720
f.Recovery Time *5	0.5mS(typical)			
Rise up time	200mS(maximum) at 25°Cand rated input/output			
Hold up time	20mS(typical) at 25°Cand rated input/output			
Functions				
Overcurrent Protection	Current Limiting with automatic recovery			
Overvoltage Protection	Zener diode clamping			
Remote Sense	not available			
Remote On/Off	not available			
Environmental				
Operating Temperature	0 to +50°C			
Operating Humidity	85%RH(non-condensing)			
Storage Temperature	-20 to +85°C			
Storage Humidity	30 to 85%RH(non-condensing)			
Withstanding Voltage	Primary-Secondary AC1,500Vfor 1minute			
	Primary-Frame Ground AC1,500V for 1minute			
	Secondary-Frame Ground AC500V for 1minute			
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester			
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)			
Shock	294m/s ²			
Cooling	Convection			
Leakage Current	0.25mA(maximum)			
Line Conduction Noise	Not specified			
Safety	-			
Weight (typical)	250g			
MTBF [H]	850,000			
Switching Frequency[kHz](typical)	43			

Conditions:

*1 at DC130V and rated output

*2 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth

*3 at 0 to +50°C

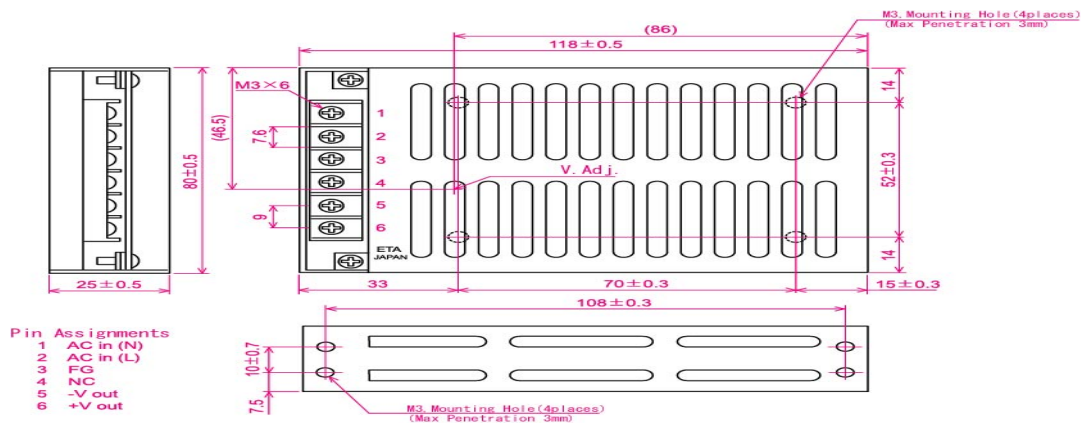
*4 for 7hour period after 1hour warm-up at 25°Cand rated input/output

*5 when output current changed from 25% to 75% of rated output current rapidly at AC100V input


ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

DIMENSION DIAGRAM



VTM12SA/20

OCP CURVE

