

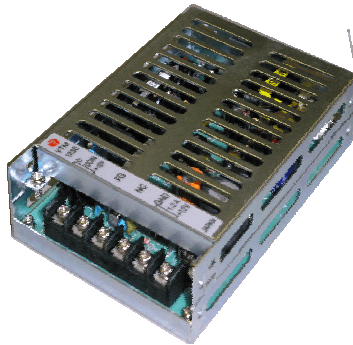


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HIGH QUALITY SWITCHING POWER SUPPLIES

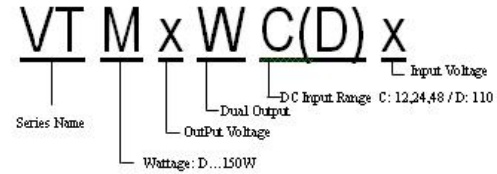
DC/DC SWITCHING POWER SUPPLY
DC INPUT 12,24,48, 110
DUAL OUTPUT
15WATTS

VTM-WCx/VTM-WD SERIES



Dimension: 80W × 118L × 25H

General Description



Features

1. Variety of Models
2. Chassis mount type
3. Compact and High Efficiency

DC INPUT: 12V

Input Characteristics	Unit	VTM22WC12	VTM23WC12	VTM24WC12
Input Voltage	Vdc	DC 12V		
Input Voltage Range	Vdc	DC 9.2V-16V		
Inrush Current	A	Not Specified		
Efficiency (typical) *1	%	70		
MTBF	H	600'000		
Switching Frequency	kHz	43 Fix	43 Fix	43 Fix

DC INPUT: 24V

Input Characteristics	Unit	VTM22WC24	VTM23WC24	VTM24WC24
Input Voltage	Vdc	DC 24V		
Input Voltage Range	Vdc	DC 19-32V		
Inrush Current	A	Not Specified		
Efficiency (typical) *1	%	70		
MTBF	H	600'000		
Switching Frequency	kHz	43 Fix.	43 Fix.	43 Fix.

DC INPUT: 48V

Input Characteristics	Unit	VTM22WC48	VTM23WC48	VTM24WC48
Input Voltage	Vdc	DC 48V		
Input Voltage Range	Vdc	DC 38-63V		
Inrush Current	A	Not Specified		
Efficiency (typical) *1	%	70		
MTBF	H	580'000		
Switching Frequency	kHz	43 Fix.	43 Fix.	43 Fix.

DC INPUT: 110V

Input Characteristics	Unit	VTM22WD	VTM23WD	VTM24WD
Input Voltage	Vdc	DC 110V		
Input Voltage Range	Vdc	DC 85-140V		
Inrush Current	A	20A (maximum) at rated input/output		
Efficiency (typical) *1	%	70	70	70
MTBF	H	580'000		
Switching Frequency	kHz	43 Fix.	43 Fix.	43 Fix.



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HIGH QUALITY SWITCHING POWER SUPPLIES

VTM-WC / VTM-WD

Output Characteristic	Unit	Models					
		VTM22WCx / WD		VTM23WCx / WD		VTM24WCx / WD	
Output Voltage	V	+12	-12	+15	-15	+12	-5
Output Current	A	0.75	0.5	0.5	0.5	0.8	0.8
Voltage Adjust Range	V	+/-5% of Rated Output Voltage(at no load within input range)					
Ripple Noise(max)*2	mVpp	170	170	200	200	170	(Vin=12,24 170) (Vin=48,110 100)
Rise up time	mS	200mS(maximum) at 25°C and rated input/output					
Hold up time	mS	Not specified (Vin=110 6mS)					
Regulation							
a. Line Regulation (max)	mV	96	96	120	120	96	40
b. Load Regulation (max)	mV	108	108	135	135	108	45
c. Temperature Coefficient *3	°C	0.03%/°C					
d. Drift(maximum) *4	mV	75	75	90	90	75	40
e. Dynamic Load Regulation (typ.) *5	mV	360	360	450	450	360	150
f. Recovery Time *5	mS	Not specified					

Conditions:

*1 at rated input/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°C and rated input/output

*5 when output current changed between 25% and 75% of rated output current rapidly at rated input

Environmental Specification	
Operating Temperature	0 to +50°C
Operating Humidity	85%RH(non-condensing)
Storage Temperature	-20 to +85°C
Storage Humidity	-
Withstanding Voltage	Primary-Secondary AC1,500Vfor 1minute (Vin=110 2000) Primary-Frame Ground AC1,500V for 1minute (Vin=110 2000) 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
Functions	
Over current Protection	Current Limiting with automatic recovery
Over voltage Protection	zener diode clamping
Remote Sense	not available
Remote On/Off	not available
Reverse Voltage Protection	by internal fuse (Vin=110 by internal bridge diode)
Line Conduction Noise	Not specified
Weight [g](typical)	250 G
Dimension [mm]	80W × 118L × 25H



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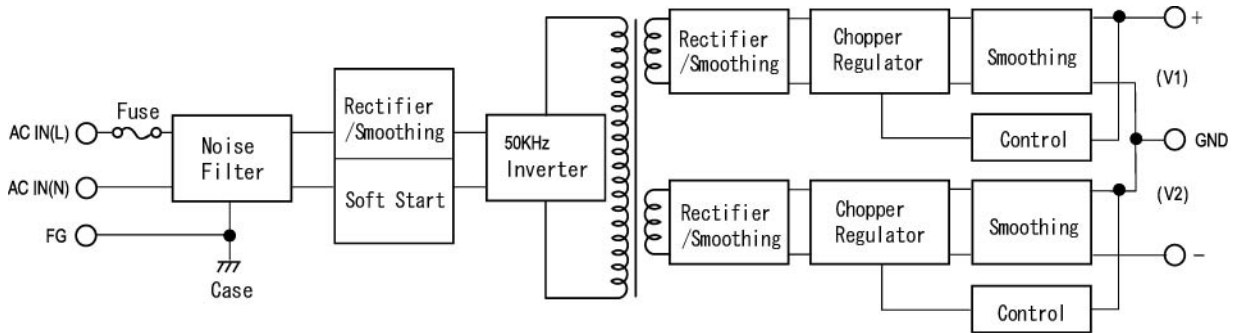
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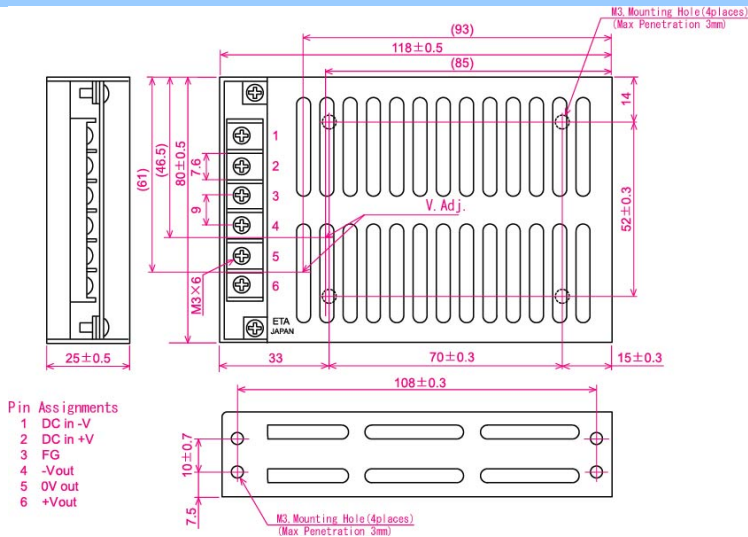
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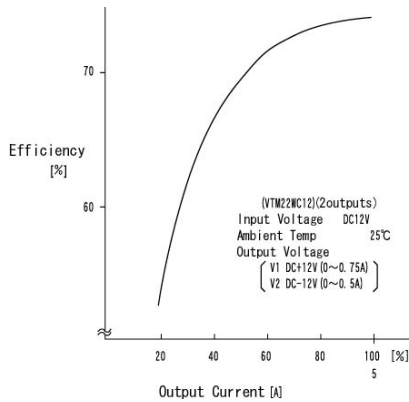
BLOCK DIAGRAM



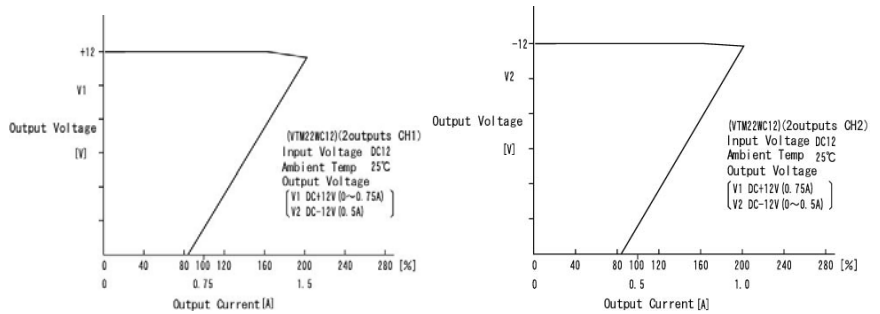
DIMENSION DIAGRAM (mm)



EFFICIENCY CURVE



OCP CURVE



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