

50 WATT AC-DC CONVERTER ERB-FWB SERIES

Specifications<AC/DC>	Model							
	ERB**FWB 50W ATTS /20 OUTPUTS							
	ERB21FWB-B	ERB22FWB-B	ERB23FWB	ERB24FWB-B	ERB21FWB-B	ERB22FWB-B	ERB23FWB	ERB24FWB-B
Input Voltage	AC200V(DC260V)							
Input Range	AC170-264V(DC220-350V)							
Input Frequency	50/60Hz							
Input Frequency Range	47-440Hz							
Phase	Single							
Inrush Current *1	30A(maximum)at AC200V							
Efficiency [%] (typical) *2	77	77	77	78	77	77	77	78
Output Characteristic								
Output Voltage [V]	24	5	12	12	15	15	24	5
Output Current [A]	0.2-1.7(Peak2)	1.8	0.4-3.0(Peak3,5)	1.2	0.3-1.8	1.5	0.4-3.4(Peak4)	1.8
Voltage Adjust Range	V1: +3%/-0% of Rated Output Voltage(at no load within the input range) V2: fixed with tolerance of +/-3.5% (at no load within the input range)							
Ripple and Noise [mVp-p](maximum) *3	290	100	170	170	200	200	290	100
Regulation								
a. Statistic Line Regulation [mV](maximum)	120	25	60	60	75	75	120	25
b. Statistic Load Regulation [mV](maximum)	240	50	120	120	150	150	240	50
c. Temperature Coefficient *4	0.03%/°C							
d. Drift[mV](maximum) *5	135	40	75	75	90	90	135	40
e. Dynamic Load Regulation [mV](typical) *6	not specified							
f. Recovery Time *6	not specified							
Rise up time	200mS(maximum) at 25°C and rated input/output							
Hold up time	20mS(minimum) at 25°C and rated input/output							
Functions								
Overcurrent Protection ≥ 105% of Rated Output Current[A]	Current Limiting with automatic recovery V2: by the regulator I.C's character ≥ Peak - ≥ Peak - 1.89 - ≥ Peak -							
Overvoltage Protection ≥ 112% of Rated Output Voltage[V]	V1: output shutdown(to reset,leave 30seconds after shut-off) V2: not available 26.9 - 13.4 - 16.8 - 26.9 -							
Remote Sense	not available							
Remote On/Off	not available							
Environmental								
Operating Temperature	-50°C [enclosed type:-5 to 50°C at vertical mount/-5 to 40°C at horizontal m							
Operating Humidity	85% RH(non-condensing)							
Storage Temperature	-20 to +85°C							
Storage Humidity	85% RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC2,500V for 1minute Primary-Frame Ground AC2,500V 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	1mA(maximum) at 25°C ,rated input/output and rated input frequency							
? Line conducted noise	Built to meet FCC Part15-B Class B							
? Safety								
? Weight (typical)	400g/enclosed type:450g							
? MTBF [H]	520,000							
? Switching Frequency[kHz](typical) *7	30	30	40	40	40	40	40	40

Conditions:

*1 at cold start

*2 at DC260V input and rated output

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

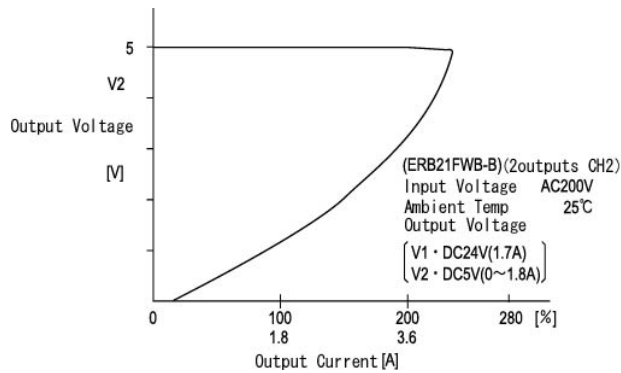
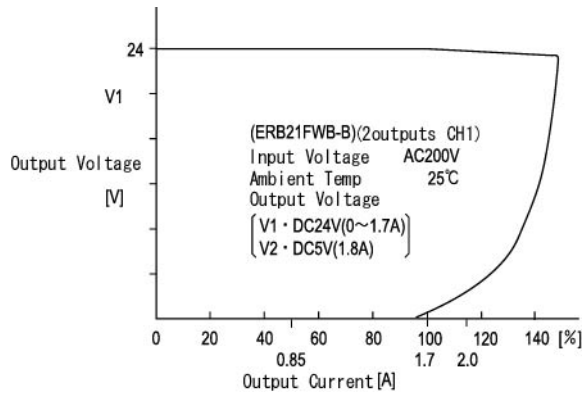
*4 at -5 to +50°C /enclosed type: at -5 to +40°C

*5 for 7hour period after 1hour warm-up at 25°C and rated input/output

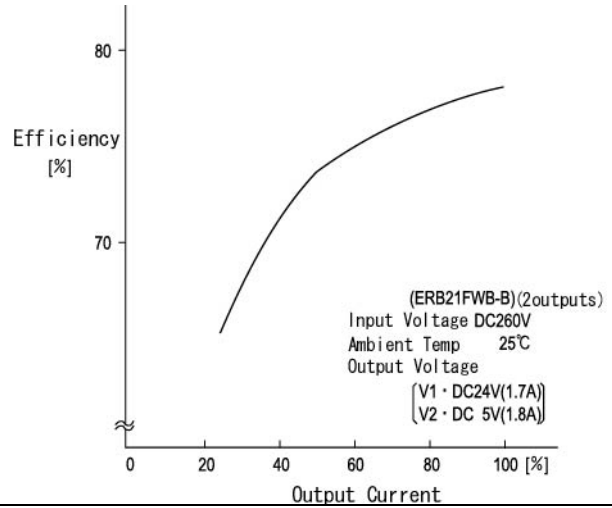
*6 when output current changed from 25% to 75% of rated output current rapidly at AC200V input

*7 variable on input voltage and load conditions

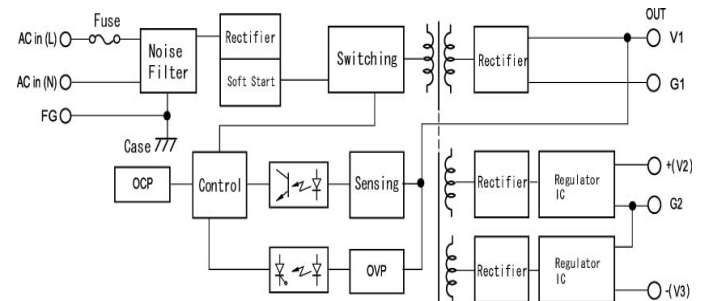
OCP Curve



Efficiency Curve



Block Diagram



Dimension Diagram

