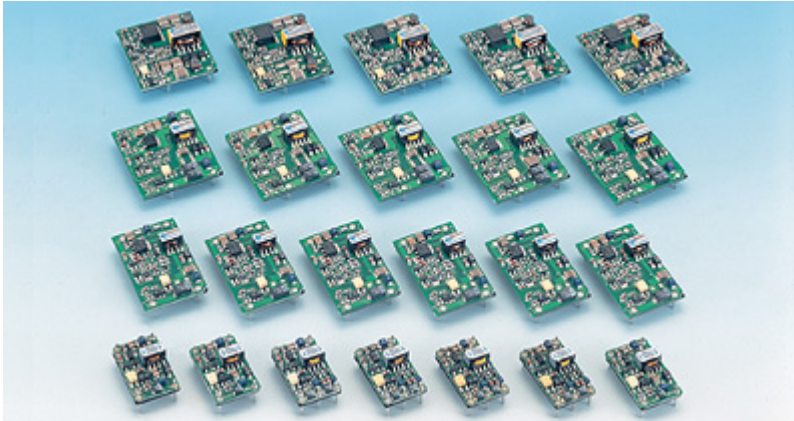


6 WATT DC-DC CONVERTER

OER- SC / WC SINGLE/ DUAL CHANNEL



Features

1. Compatibility type of PIN in the power supply unit market
2. Realized wide range input (Ultra wide input)

SC/WC0512

Specifications OER**SC/WC0512 6WATTS/SINGLE/2 OUTPUT	Model													
	OER05SC0512		OER12SC0512		OER15SC0512		OER24SC0512		OER22WC0512		OER23WC0512			
Input Characteristic														
Input Voltage DC[V]	5	12	5	12	5	12	5	12	5	12	5	12	5	12
Input Range DC[V]	4.5-16													
Inrush Current [A]	Not specified													
Input Range														
at no load [mA](typical)	65	65	67	72	75	75	95	85	105	90	102	87		
at full load[mA](typical)	1345	575	1576	666	1558	657	1590	660	1664	680	1571	640		
Line Back Noise [mVp-p](typical)	300	150	300	150	300	150	300	150	300	150	300	150		
Efficiency [%] (typical) *1	74	72	76	75	77	76	78	78	75	76	76	77		

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SC/WC0512 Output Specifications

Specifications OER**SC/WC0512 6WATTS/SINGLE/2 OUTPUT	Model							
	OER05SC0512	OER12SC0512	OER15SC0512	OEQ24SC0512	OER22WC0512		OER23WC0512	
Output Voltage [V]	5	12	15	24	+12	-12	+15	-15
Output Current [A]	1	0.50	0.40	0.26	0.026-0.26		0.020-0.20	
Voltage Tolerance +/-[mV](maximum) *2	100	240	300	480	240	240	300	300
Ripple and Noise [mVp-p](maximum) *3	100							
Regulation								
a.Static Line Regulation [mV](maximum)	25	60	75	120	60	60	75	75
b.Dynamic Line Regulation +/-[mV](maximum) *4	200	480	600	960	480	480	600	600
c.Static Load Regulation +/-[mV](maximum) *5	25	60	75	120	1200	1200	1500	1500
+/-[mV](maximum) *6					480	480	600	600
+/-[mV](maximum) *7					60	60	75	75
d.Temperature Coefficient *8	0.03%/°C(maximum)							
e.Drift[mV](maximum) *9	40	75	90	135	75	75	90	90
f.Dynamic Load Regulation [mV](maximum) *10	200	480	600	960	480	480	600	600
g.Recovery Time *4,*9	20mS(typical)							
Rise up time	10ms(typical) at rated input/output							
Hold up time	Not specified							
Functions								
Overcurrent Protection	Current Limiting with automatic recovery at discontinuous short circuit conditions							
>=110% of Rated Output Current [A]	1.1	0.55	0.44	0.286	0.286	0.286	0.22	0.22
Overvoltage Protection	Not available							
Remote Sence	Not available							
Trimming of output voltage[mV]	Not available							
Input Fuse	Installed							
Environmental								
Operating Temperature	-20 to 71°C							
(derating)	3.5%/°C (50°C to 71°C) (out of warranty >=71°C)							
Operating Humidity	20-90%/RH(non-condensing)							
Storage Temperature	-20 to +85°C							
Storage Humidity	20 to 90%/RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC500V for 1minute							
Isolation Resistance	Primary-Secondary 50MW(minimum) by DC500V insulation tester							
Capacitance(input-output) [pF](typical)	2200							
Vibration	5-10Hz:10mm double amplitude,10-55Hz:2G,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)							
Shock	30G							
Cooling	Convection							
Weight (typical)	open board type:10g							

Conditions:

*1 at 25°Cand rated input/output

*2 OER**WC0512 satisfies the above-mentioned specifications at the same load conditions on both outputs

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

*4 when input voltage changed from 4.5V to 16V rapidly at rated output

*5 when output current changed from 0mA to rated current keeping the current of other output

below minimum rated current at rated input

*6 when output current changed from minimum rated current to rated current keeping the current of the other output

above minimum rated current at rated input

*7 when output current of both outputs changed from 0mA to rated current identically at rated input

*8 at -20 to +71°C

*9 for 7hours from 1hour after switch-on at 25°Cand rated input/output

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

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SC/WC1224 Input Specifications

Specifications OER**SC/WC1224 6WATTS/SINGLE/2 OUTPUT	Model											
	OER05SC1224	OER12SC1224	OER15SC1224	OER24SC1224	OER22WC1224	OER23WC1224						
Input Characteristic												
Input Voltage DC[V]	12	24	12	24	12	24	12	24	12	24	12	24
Input Range DC[V]	8-32											
Inrush Current [A]	Not specified											
Input Range												
at no load [mA](typical)	25	29	30	34	32	34	33	37	38	40	40	43
at full load[mA](typical)	520	270	609	315	598	310	619	315	638	325	606	312
Line Back Noise [mVp-p](typical)	400	200	400	200	400	200	400	200	400	200	400	200
Efficiency [%] (typical) *1	80	77	82	79	83	80	85	82	81	80	82	80

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SC/WC1224 Output Specifications

Specifications OER**SC/WC1224 6WATTS/SINGLE/2 OUTPUT	Model							
	OER05SC1224	OER12SC1224	OER15SC1224	OER24SC1224	OER22WC1224	OER23WC1224	OER23WC1224	OER23WC1224
Output Voltage [V]	5	12	15	24	+12	-12	+15	-15
Output Current [A]	1	0.50	0.40	0.26	0.026-0.26		0.020-0.20	
Voltage Tolerance +/-[mV](maximum) *2	100	240	300	480	240	240	300	300
Ripple and Noise [mVp-p](maximum) *3	100							
Regulation								
a.Static Line Regulation [mV](maximum)	25	60	75	120	60	60	75	75
b.Dynamic Line Regulation +/-[mV](maximum) *4	200	480	600	960	480	480	600	600
c.Static Load Regulation +/-[mV](maximum) *5	25	60	75	120	1200	1200	1500	1500
+/-[mV](maximum) *6					480	480	600	600
+/-[mV](maximum) *7					60	60	75	75
d.Temperature Coefficient *8	0.03%/°C (Maximum)							
e.Drift[mV](maximum) *9	40	75	90	135	75	75	90	90
f.Dynamic Load Regulation [mV](maximum) *10	200	480	600	960	480	480	600	600
g.Recovery Time *4,*10	20mS(typical)							
Rise up time	10ms(typical) at rated input/output							
Hold up time	Not specified							
Functions								
Overcurrent Protection	Current Limiting with automatic recovery at discontinuous short circuit conditions							
>=110% of Rated Output Current [A]	1.1	0.55	0.44	0.286	0.286	0.29	0.22	0.22
Overvoltage Protection	Not available							
Remote Sence	Not available							
Trimming of output voltage[mV]	Not available							
Input Fuse	Installed							
Environmental								
Operating Temperature	-20 to 71°C							
(derating)	3.5%/°C (50°C-71°C) (out of Warranty> 71°C)							
Operating Humidity	20-90%/RH(non-condensing)							
Storage Temperature								
Storage Humidity	20 to 90%/RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC500V for 1minute							
Isolation Resistance	Primary-Secondary 50MW(minimum) by DC500V insulation tester							
Capacitance(input-output) [pF](typical)	2200							
Vibration	5-10Hz:10mm double amplitude,10-55Hz:2G,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)							
Shock	3 0G							
Cooling	Convection							
Weight (typical)	open board type:10g							

Conditions:

*1 at 25°C and rated input/output

*2 OER**WC1224 satisfies the above-mentioned specifications at the same load conditions on both outputs

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

*4 when input voltage changed from 18V to 32V rapidly at rated output

*5 when output current changed from 0mA to rated current keeping the current of other output

below minimum rated current at rated input

*6 when output current changed from minimum rated current to rated current keeping the current of the other output

above minimum rated current at rated input

*7 when output current of both outputs changed from 0mA to rated current identically at rated input

*8 at -20 to +71°C

*9 for 7hours from 1hour after switch-on at 25°C and rated input/output

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

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SC/WC2448 Input Specifications

Specifications OER**SC/WC2448 6WATTS/SINGLE/2 OUTPUT	Model											
	OER05SC2448	OER12SC2448	OER15SC2448	OER24SC2448	OER22WC2448	OER23WC2448						
Input Characteristic												
Input Voltage DC[V]	24	48	24	48	24	48	24	48	24	48	24	48
Input Range DC[V]	18-72											
Inrush Current [A]	Not specified											
Input Range												
at no load [mA](typical)	11	13	14	16	14	16	16	17	17	18	18	18
at full load[mA](typical)	261	133	306	155	302	153	309	154	323	161	303	153
Line Back Noise [mVp-p](typical)	500	300	500	300	500	300	500	300	500	300	500	300
Efficiency [%] (typical) *1	79	78	81	80	82	81	84	83	80	80	82	82

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SC/WC2448 Output Specifications

Specifications OER**SC/WC2448 6WATTS/SINGLE/2 OUTPUT	Model							
	OER05SC2448	OER12SC2448	OER15SC2448	OER24SC2448	OER22WC2448	OER23WC2448	OER23WC2448	OER23WC2448
Output Voltage [V]	5	12	15	24	+12	-12	+15	-15
Output Current [A]	1	0.50	0.40	0.26	0.026-0.26		0.020-0.20	
Voltage Tolerance +/-[mV](maximum) *2	100	240	300	480	240	240	300	300
Ripple and Noise [mVp-p](maximum) *3	100							
Regulation								
a.Static Line Regulation [mV](maximum)	25	60	75	120	60	60	75	75
b.Dynamic Line Regulation +/-[mV](maximum) *4	200	480	600	960	480	480	600	600
c.Static Load Regulation +/-[mV](maximum) *5	25	60	75	120	1200	1200	1500	1500
+/-[mV](maximum) *6					480	480	600	600
+/-[mV](maximum) *7					60	60	75	75
d.Temperature Coefficient *8	0.03% °C (maximum)							
e.Drift[mV](maximum) *9	40	75	90	135	75	75	90	90
f.Dynamic Load Regulation +/- [mV](maximum) *10	200	480	600	960	480	480	600	600
g.Recovery Time *4,*10	20mS(typical)							
Rise up time	10ms(maximum) at rated input/output							
Hold up time	Not specified							
Functions								
Overcurrent Protection	Current Limiting with automatic recovery at discontinuous short circuit conditions							
>=110% of Rated Output Current [A]	1.1	0.55	0.44	0.286	0.286	0.286	0.22	0.22
Overvoltage Protection	Not available							
Remote Sense	Not available							
Trimming of output voltage[mV]	Not available							
Input Fuse	Installed							
Environmental								
Operating Temperature (derating)	3.5°C (50°C to 71°C) (out of warranty > 71°C)							
Operating Humidity	20-90%/RH(non-condensing)							
Storage Temperature								
Storage Humidity	20 to 90%/RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC500V for 1minute							
Isolation Resistance	Primary-Secondary 50MW(minimum) by DC500V insulation tester							
Capacitance(input-output) [pF](typical)	2200							
Vibration	5-10Hz:10mm double amplitude,10-55Hz:2G,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)							
Shock	30G							
Cooling	Convection							
Weight (typical)	open board type:7g							

Conditions:

*1 at 25°Cand rated input/output

*2 OER**WC2448 satisfies the above-mentioned specifications at the same load conditions on both outputs

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

*4 when input voltage changed from 18V to 72V rapidly at rated output

*5 when output current changed from 0mA to rated current keeping the current of other output

below minimum rated current at rated input

*6 when output current changed from minimum rated current to rated current keeping the current of the other output

above minimum rated current at rated input

*7 when output current of both outputs changed from 0mA to rated current identically at rated input

*8 at -20 to +71°C

*9 for 7hours from 1hour after switch-on at 25°Cand rated input/output

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

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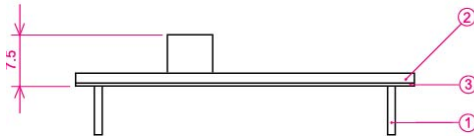
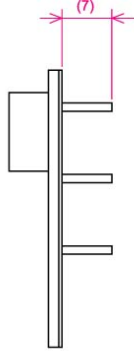
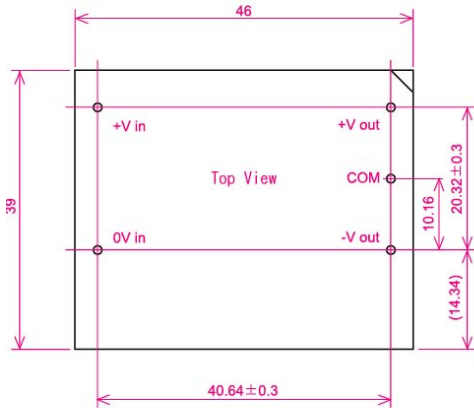
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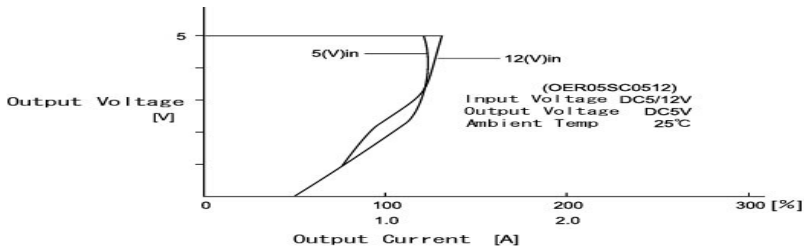
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Dimension Diagram



- ① 1.0DIA PIN Material :BsB 2700 1/2H
Copper Plating 1~3 μ m
Solder Plating 3~8 μ m
 - ② Double-sided PCB FR4t=1.0
 - ③ t=0.5 Insulator V0
- *Tolerance ± 0.5

OCP Curve



OCP Curve/OER05SC05

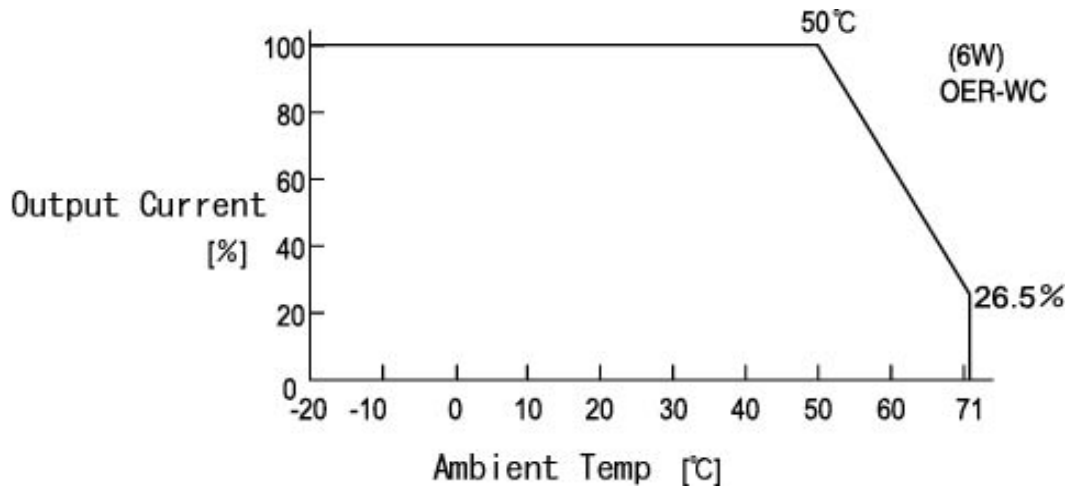
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Derating Diagram



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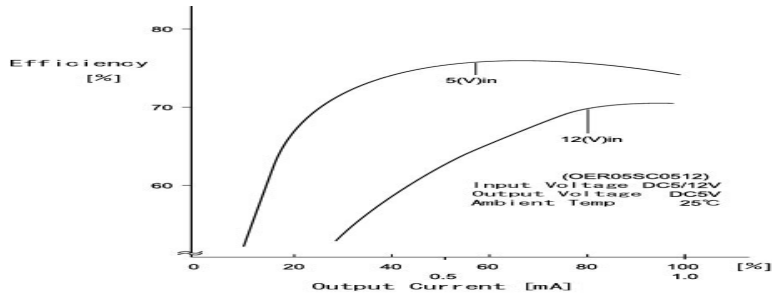
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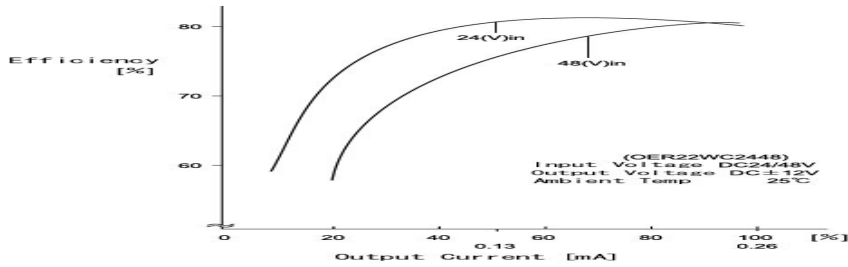
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HIGH QUALITY SWITCHING POWER SUPPLIES

Efficiency Curve



Efficiency Curve/OER05SC0512



Efficiency Curve/OER22WC2448

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