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BCS SERIES

CRPS 550W-1300W



BCSE550AP-12

BCSE1300AP-12

BCSE800AP-12

BCSE1300AT-12

BCSE800AD-12

Server brochure



80+Platinum



80+Titanium

MODEL	BCSE550AP-12	BCSE800AP-12	BCSE800AD-12	BCSE1300AP-12	BCSE1300AT-12
Power	550W (HL/LL)	800W (HL/LL)	800W	1300W (HL) 1000W (LL)	1300W (HL) 1000W (LL)

Input

Nominal	100-240Vac / 240Vdc		48-60Vdc	100-240Vac / 240Vdc	
Complete range	90-264Vac / 192-310Vdc		36-72Vdc	90-264Vac / 192-310Vdc	
Frequency(AC)	50/60HZ		N.A	50/60HZ	
Max input current	8Arms	10Arms	25Arms	12Arms	12Arms
Inlet socket	IEC C14		Bizlink	IEC C14	
Efficiency	Platinum	Platinum	Peak 94%	Platinum+	Titanium
Hold up @100% load	12ms	13ms	1ms	13ms	13ms
Vsb hold up @100% load	70ms	70ms	70ms	70ms	70ms

Main Output

Output Power	12V/550W	12V/800W	12.2V/800W	12.2V/1300W	12.2V/1300W
Regulation	±3%	±3%	±5%	±3%	±3%
Ripple	120mVp-p				
Dynamic regulation	±5%	±5%	±5%	±5%	±5%
Current sharing	< 5% @ 20%-100% load				

Standby Output

Vout/lout	12V/2.1A	12V/3A	12V/2.5A	12V/3A	12V/2.5A
Ripple	120mVp-p				

EMC

CE&RE	Class B	Class B	Class A	Class A	Class A
Surge	DM2kv/CM2kv		DM0.5kv/CM1kv	DM2kv/CM2kv	

Environmental Requirement

Operating	-5°C to 55°C	-5°C to 55°C	0°C to 50°C	-5°C to 55°C	-5°C to 55°C
Optional	Up to 70°C	Up to 70°C	-	-	-
MTBF	300k hours		200k hours	300k hours	

Airflow

Exhaust	√	√	√	√	√
Intake		√	√	√	√

Dimension

185 mmx 73.5mm x 40mm

BCS SERIES

CRPS 1600W-3200W



BCSE1600AD-12

BCSE2700AP-12

BCSE1600AP-12

BCSE3200AT-12

BCSE2000AP-12

Server brochure



Smart control



PMbus

MODEL	BCSE1600AD-12	BCSE1600AP-12	BCSE2000AP-12	BCSE2700AP-12	BCSE3200AT-12
Power	1600W	1600W (HL) 1000W (LL)	2000W (HL) 1000W (LL)	2700W (HL) 1350W (LL)	3200W (HL) 1600W (LL)

Input

Nominal	48-60Vdc	100-240Vac / 240Vdc			
Complete range	36-72Vdc	90-264Vac / 192-310Vdc			
Frequency(AC)	N.A	50/60HZ			
Max input current	50Arms	12Arms	12Arms	16Arms	16Arms
Inlet socket	Bizlink	IEC C14	IEC C14 *Optional IEC C20	IEC C20	IEC C20
Efficiency	Peak 94%	Platinum	Platinum	Platinum	Titanium
Hold up @100% load	1ms	12ms	12ms	12ms	10ms
Vsb hold up @100% load	70ms	70ms	70ms	70ms	70ms

Main Output

Output Power	12.2V/1600W	12.2V/1600W	12.2V/2000W	12.2V/2700W	12.2V/3200W
Regulation	±5%	±3%	±3%	±3%	±3%
Ripple	120mVp-p				
Dynamic regulation	±5%	±5%	±5%	±5%	±5%
Current sharing	< 5% @ 20%-100% load				

Standby Output

Vout/Iout	12V/2.5A	12V/3A	12V/3A	12V/2.5A	12V/2.5A
Ripple	120mVp-p				

EMC

CE&RE	Class A	Class A	Class A	Class A	Class A
Surge	DM0.5kV/CM1kV	DM2kV/CM2kV			

Environmental Requirement

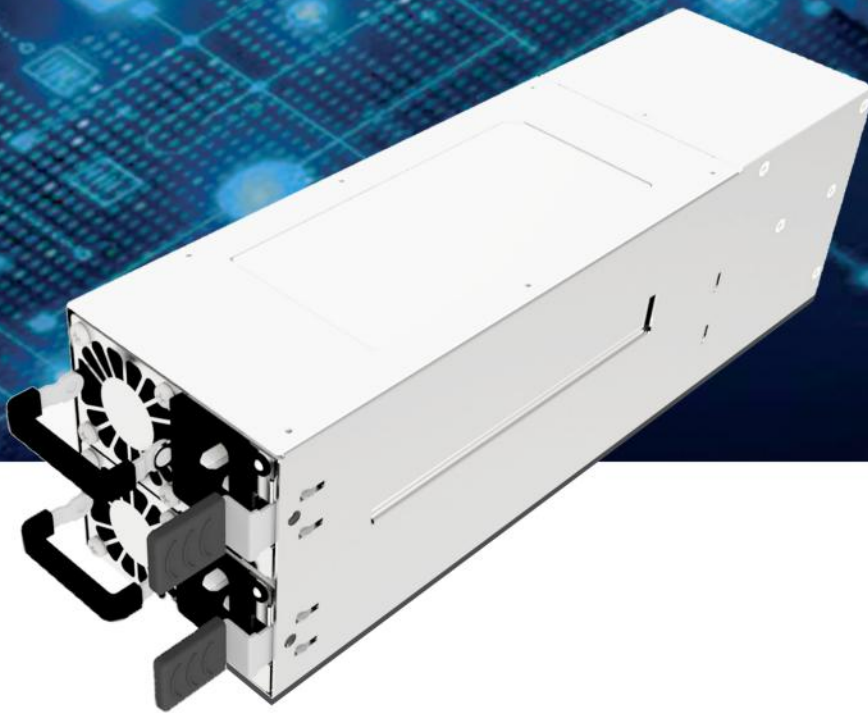
Operating	0°C to 50°C	-5°C to 55°C	-5°C to 55°C	-5°C to 55°C	-5°C to 55°C
MTBF	200k hours	300k hours			

Airflow

Exhaust	√	√	√	√	√
Intake	√	√	√		

Dimension	185mm x 73.5mm x 40mm				
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BCS SERIES BPR800



Power Backplane

The PSU backplane works with the BCS series PSUs to greatly expand the application scenarios of power supplies. The backplane converts 12V output of the BCS power supply into multiple outputs of +12V, +5V, +3.3V, and -12V, which meet different application scenarios.

MODEL		BPR800					
Output Voltage	Outputs	Min.	Nom.	Max.	Tol.		
	+3.3V	3.14V	3.3V	3.47V	±5%		
	+5V	4.75V	5.0V	5.25V	±5%		
	+12V1	11.4V	12.0V	12.6V	±5%		
	+12V2	11.4V	12.0V	12.6V	±5%		
	-12V	-10.8V	-12.0V	-13.2V	±10%		
	+5Vsb	4.75V	5.0V	5.25V	±5%		
	Notes: When the output provides peak current, the regulation will be ±10%						
Output Current	Outputs	Min.	Nom.	Max.	Peak		
	+3.3V	0.8	/	24.0	30		
	+5V	0.5	/	38.0	40		
	+12V1	1.0	/	45.0	58.5		
	+12V2	1.0	/	45.0	58.5		
	-12V	0	/	0.5	/		
	+5Vsb	0.1	/	3.0	5.2		
	Notes: The total power of +5V and +3.3V not exceeds 250W						
Output Ripple		+3.3V	+5V	+12V1	+12V2	-12V	+5Vsb
		<50mV	<50mV	<120mV	<120mV	<120mV	<50mV
Dimension		265 mmx 77 mmx 84mm					

* Optional configuration: Buzzer and reset button.

BCSE550AP-12Exx

CRPS 550W Platinum Power Supply

KEY NOTE

Output:

12Vmain 46A/550W(HL/LL)
12Vstandby 2.1A/25.2W

Input:

90 to 264 VAC
192 to 310 DC

BCSE550AP-12Exx power supply conforms to the standard market's Common Redundant Power Supplies. The form factor is 40x 73.5 x 185mm(1.57 x 2.89 x 7.28 inch)which is suit for 1U high rack-mount enclosure. The power supply operates as a single supply, or N+1/N+N parallel configuration.



ORDERING INFORMATION

BCS	E	550	A	P	-	12	E	xx
Model series	Width	Power level	Length	Efficiency	-	V1 output	Airflow	Suffix
BOCO common design	73.5mm	550W	up to 185mm	Platinum	-	12V	exhaust	

ELECTRICAL SPECIFICATIONS

Input	
Nominal input range	100-240VAC; 240 VDC
Input range	90 to 264 VAC; 192 to 310 VDC
Frequency (ac input)	47 to 63HZ
Efficiency	80Plus Platinum 92%@20% load, 94%@50% load, 91%@ 100% load, 230Vac
Max input current@Vin = 100V	8Arms
Inrush current	40A max
Power factor	0.91 @ 20% load, 0.95 @ 50% load, 0.98 @ 100% load
Leakage current@264Vac,60Hz	1.75mA
Hold-up time_12V main)	12ms @ 100%load
Hold-up time_12Vsb)	70ms @ 100%load
AC input UV protection	Max 90Vac on, with min 5V hysteria
AC input OV protection	Min 264Vac OV, with min 5V hysteria
Input Overvoltage Transient	300Vac, <1000ms

Notes: 1. From AC loss to output dropping below the dynamic regulation limit.

Output	Main DC Output			Standby DC Output		
	Min	Nom	Max	Min	Nom	Max
Nominal setting (half load,230Vac input, not including aging and temperature drift)	11.97V	12.0V	12.03V	11.88V	12.00V	12.12V
Output current	1A		46A(HL) 46A(LL)	0.1A		2.1A
Total output regulation range	11.64V		12.36V	11.4V		12.6V
Dynamic load regulation range ²⁾	11.40V		12.60V	11.5V		12.5V
Output ripple (Vp-p, 20MHZ)			120mV			
Current sharing	<5% @20%-100% load			N.A		
Capacitive loading	1000uf		30000uf	10uf		3100uf
Start-up from AC to output			30000ms			1500ms
Output rise time	1ms		100ms	1ms		100ms

Notes: 2. Step load less than 50% load with 1A/us for main output and 1A/us for standby output,Main output min start load is 1A,Vsb output min start load is 0.1A and test with minimum capacitive load.
3. Test with 0.1uf ceramic cap and 10uf tantalum capacitor.

Protections (Main output)				
	Min	Nom	Max	Comment
Output OCP	110%	-	130%	
Output OVP	13V	-	14.5V	
Output UVP	10.0V	-	10.9V	
Fan fault protection		YES		Protection with >15s delay
Protections (Standby Output)				
Output OCP	3.5A		4.5A	
Output OVP	13.5V		14.5V	
Output UVP	10.0V		10.9V	
Ambient OTP		YES		

ELECTROMAGNETIC COMPATIBILITY

OBAN: Class B Device

OBAN should comply with the EMC requirements of:

- √ GR-1089 (NEBS) √ VCCI Japan √ TEC India
- √ EN/GL √ Korea/Taiwan √ DT/BT

Category	Standard	Frequency	Level / Limits	Criteria
Radiated Emissions	EN 55032, FCC, CISPR 32, KN32, Taiwan, VCCI, GR1089 (NEBS)	30M -40GHz	Class B	Individual PSU: 3dB margin
	Additional requirements for DT	1Ghz to 6GHz	EN55032	
		6GHz to 18GHz	74dBuV/mPk	
Conducted Emissions	EN 55032, FCC, CISPR 32, KN, Taiwan, VCCI	150k-30MHz	Class B	Individual PSU: 3dB margin
	GR 1089 Issue 7	150k-30MHz	EN 55032 Class B	
		10k-30MHz	Current, Table 3-5	
DC Transient	ETS 300 132-2 (DT requirement)	Wideband/Narrowband noise emissions	See standard	
	GR 1089, Issue 7		Section 10	
Power Line Harmonics	EN 61000-3-2	AC supply<16Ampsper phase	See standard	
Power Line Harmonics	EN 61000-3-12	AC supply >16 Amps and <75 Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-3	AC supply<16Ampsper phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-11	AC supply <75 Amps per phase	See standard	
Radiated Immunity	EN 61000-4-3, TEC, KN35	80M-690 MHz	10V/meter	A
		690 MHz -6GHz	20V/meter	A
	Additional requirements for BT and DT	806 -960 MHz	20V/meter	A
		1700 -2025 MHz		
		2100 -2200 MHz		
		2500 -2690 MHz		
		880 -915 MHz	50V/meter	A
		1710 -1785 MHz	35V/meter	A
		1920 -1980 MHz	50V/meter	A
		2400 -2483 MHz	12V/meter	A
		5150 -5350 MHz		
		5725 -5820 MHz		
	GR 1089 Issue 7	10 kHz -10GHz	8.5 V/meter	A

MECHANICAL

Parameter	Description	Unit
Dimensions (W×L×H)	73.5 x 40.0 x 185 2.89 x 1.57 x 7.28	mm in
Weight	740	g
Airflow Direction	The normal airflow direction is exhaust which is from the card edge connector side to the AC IN inlet side of the power supply	

BCSE800AP-12E/Jxx

CRPS 800W Platinum Power Supply

KEY NOTE

Output:

12Vmain 66.7A/800W(HL/LL)

12Vstandby 3A/36W

Input:

90 to 264 VAC

192 to 310 DC

BCSE2000AP-12E/Jxx power supply conforms to the standard market's Common Redundant Power Supplies. The form factor is 40x 73.5 x 185mm(1.57 x 2.89 x 7.28 inch)which is suit for 1U high rack-mount enclosure. The power supply operates as a single supply, or N+1/N+N parallel configuration.



ORDERING INFORMATION

BCS	E	2000	A	P	-	12	E/J	xx
Model series	Width	Power level	Length	Efficiency	-	V1 output	Airflow	Suffix
BOCO common design	73.5mm	800W	up to 185mm	Platinum	-	12V	exhaust	
	73.5mm	800W	up to 185mm	Platinum	-	12V	intake	

ELECTRICAL SPECIFICATIONS

Input	
Nominal input range	100-240VAC; 240 VDC
Input range	90 to 264 VAC; 192 to 310 VDC
Frequency (ac input)	47 to 63HZ
Efficiency	80Plus Platinum 91%@20% load, 94%@50% load, 91%@ 100% load, 230Vac
Max input current@Vin = 100V	10Arms
Inrush current	35A max
Power factor	0.96 @ 20% load, 0.98 @ 50% load, 0.99 @ 100% load
ITHD	20% @ 5% load,15% @ 10% load, 10% @ 20% load, 8% @ 40% load,5% @ 50%load
Leakage current@264Vac,60Hz	1.75mA
Hold-up time_12V main	13ms @ 100%load
Hold-up time_12Vsb	70ms @ 100%load
AC input UV protection	Max 90Vac on, with min 5V hysteria
AC input OV protection	Min 264Vac OV, with min 5V hysteria
Input Overvoltage Transient	300Vac, <1000ms

Notes: 1. From AC loss to output dropping below the dynamic regulation limit.

Output	Main DC Output			Standby DC Output		
	Min	Nom	Max	Min	Nom	Max
Nominal setting (half load,230Vac input, not including aging and temperature drift)	11.97V	12.0V	12.03V	11.88V	12.00V	12.12V
Output current	1A		66.7A(HL) 66.7A(LL)	0.10A		3A
Total output regulation range	11.40V		12.60V	11.40V		12.60V
Dynamic load regulation range ²⁾	11.40V		12.60V	11.40V		12.60V
Output ripple (Vp-p, 20MHZ)			120mV			120mV
Current sharing	<5% @20%-100% load			N.A		
Capacitive loading	1000uf		30000uf	10uf		3100uf
Start-up from AC to output			3000ms			1500ms
Output rise time	1ms		100ms	1ms		100ms

Notes: 2. Step load less than 50% load with 2.5A/us for main output and 1A/us for standby output, Main output min start load is 1A, Vsb output min start load is 0.1A,and test with minimum capacitive load.
3. Test with 0.1uf ceramic cap and 10uf tantalum capacitor.

Protections (Main output)				
	Min	Nom	Max	Comment
Output OCP1	120%	-	130%	Delay 10s
Output OCP2	130%	-	140%	Delay 50ms
Output OPP	140%	-		Delay 1ms
Output OVP	13.5V	-	14.5V	
Output UVP	10.0V	-	10.9V	
Fan fault protection		YES		Protection with >15s delay
Protections (Standby Output)				
Output OCP	3.5A		4.5A	
Output OVP	13.5V		14.5V	
Output UVP	10.0V		10.9V	
Ambient OTP		YES		

ELECTROMAGNETIC COMPATIBILITY

OBAN: Class B Device

OBAN should comply with the EMC requirements of:

√ GR-1089 (NEBS)	√ VCCI Japan	√ TEC India
√ EN/GL	√ Korea/Taiwan	√ DT/BT

Category	Standard	Frequency	Level / Limits	Criteria
Radiated Emissions	EN 55032, FCC, CISPR 32, KN32, Taiwan, VCCI, GR1089 (NEBS)	30M -40GHz	Class B	Individual PSU: 3dB margin
	Additional requirements for DT	1Ghz to 6GHz	EN55032	
		6GHz to 18GHz	74dBuV/mPk	
Conducted Emissions	EN 55032, FCC, CISPR 32, KN, Taiwan, VCCI	150k-30MHz	Class B	Individual PSU: 3dB margin
	GR 1089 Issue 7	150k-30MHz	EN 55032 Class B	
		10k-30MHz	Current, Table 3-5	
DC Transient	ETS 300 132-2 (DT requirement)	Wideband/Narrowband noise emissions	See standard	
	GR 1089, Issue 7		Section 10	
Power Line Harmonics	EN 61000-3-2	AC supply<16Ampsper phase	See standard	
Power Line Harmonics	EN 61000-3-12	AC supply >16 Amps and <75 Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-3	AC supply<16Ampsper phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-11	AC supply <75 Amps per phase	See standard	
Radiated Immunity	EN 61000-4-3, TEC, KN35	80M-690 MHz	10V/meter	A
		690 MHz -6GHz	20V/meter	A
	Additional requirements for BT and DT	806 -960 MHz	20V/meter	A
		1700 -2025 MHz		
		2100 -2200 MHz		
		2500 -2690 MHz		
		880 -915 MHz	50V/meter	A
		1710 -1785 MHz	35V/meter	A
		1920 -1980 MHz	50V/meter	A
		2400 -2483 MHz	12V/meter	A
		5150 -5350 MHz		
		5725 -5820 MHz		
	GR 1089 Issue 7	10 kHz -10GHz	8.5 V/meter	A

MECHANICAL

Parameter	Description	Unit
Dimensions (W×L×H)	73.5 x 40.0 x 185 2.89 x 1.57 x 7.28	mm in
Weight	830	g
Airflow Direction	The normal airflow direction is exhaust which is from the card edge connector side to the AC IN inlet side of the power supply. BCSE800AP-Jxx: The reverse airflow direction is intake which is from the the AC IN inlet side to the card edge connector side of the power supply.	

BCSE1300AP-12E/Jxx

CRPS 1300W Platinum Power Supply

KEY NOTE

Output:

12.2Vmain 106.5A/1300W(HL)
82A/1000W(LL)

12Vstandby 3A/36W

Input:

90 to 264 VAC

192 to 310 DC

BCSE1300AP-12Exx power supply conforms to the standard market's Common Redundant Power Supplies. The form factor is 40x 73.5 x 185mm(1.57 x 2.89 x 7.28 inch)which is suit for 1U high rack-mount enclosure. The power supply operates as a single supply, or N+1/N+N parallel configuration.



ORDERING INFORMATION

BCS	E	1300	A	P	-	12	E/J	xx
Model series	Width	Power level	Length	Efficiency	-	V1 output	Airflow	Suffix
BOCO common design	73.5mm	1300W	up to 185mm	Platinum	-	12V	exhaust	
	73.5mm	1300W	up to 185mm	Platinum	-	12V	intake	

ELECTRICAL SPECIFICATIONS

Input	
Nominal input range	100-240VAC; 240 VDC
Input range	90 to 264 VAC; 192 to 310 VDC
Frequency (ac input)	47 to 63HZ
Efficiency	80Plus Platinum 90%@10% load, 93%@20% load, 94%@50% load, 91%@ 100% load, 230Vac
Max input current@Vin = 100V	12Arms
Inrush current	35A max
Power factor	0.9 @ 10% load, 0.96 @ 20% load, 0.98 @ 50% load, 0.99 @ 100% load
ITHD	20% @ 5% load, 15% @ 10% load, 10% @ 20% load, 8% @ 40% load, 5% @ 50%load
Leakage current@264Vac, 60Hz	1.75mA
Hold-up time_12.2V main	13ms @ 100%load
Hold-up time_12Vsb	70ms @ 100%load
AC input UV protection	Max 90Vac on, with min 5V hysteria
AC input OV protection	Min 264Vac OV, with min 5V hysteria
Input Overvoltage Transient	300Vac, <1000ms

Notes: 1. From AC loss to output dropping below the dynamic regulation limit.

Output	Main DC Output			Standby DC Output		
	Min	Nom	Max	Min	Nom	Max
Nominal setting (half load, 230Vac input, not including aging and temperature drift)	12.17V	12.0V	12.23V	11.88V	12.00V	12.12V
Output current	1A		106.5A(HL) 82A(LL)	0.10A		3A
Total output regulation range	11.59V		12.81V	11.40V		12.60V
Dynamic load regulation range ²⁾	11.59V		12.81V	11.40V		12.60V
Output ripple (Vp-p, 20MHZ)			120mV			120mV
Current sharing	<5% @20%-100% load			N.A		
Capacitive loading	1000uf		30000uf	10uf		3100uf
Start-up from AC to output			3000ms			1500ms
Output rise time	1ms		100ms	1ms		100ms

Notes: 2. Step load less than 50% load with 2.5A/us for main output and 1A/us for standby output, min start load is 5%, and test with minimum capacitive load
3. Test with 0.1uf ceramic cap and 10uf tantalum capacitor.

Protections (Main output)				
	Min	Nom	Max	Comment
Output OCP1	120%	-	130%	Delay 10s
Output OCP2	130%	-	140%	Delay 50ms
Output OPP	140%	-		Delay 1ms
Output OVP	13.5V	-	14.5V	
Output UVP	10.0V	-	10.9V	
Fan fault protection		YES		Protection with >15s delay
Protections (Standby Output)				
Output OCP	3.5A		4.5A	
Output OVP	13.5V		14.5V	
Output UVP	10.0V		10.9V	
Ambient OTP		YES		

ELECTROMAGNETIC COMPATIBILITY

OBAN: Class A Device

OBAN should comply with the EMC requirements of:

√ GR-1089 (NEBS)	√ VCCI Japan	√ TEC India
√ EN/GL	√ Korea/Taiwan	√ DT/BT

Category	Standard	Frequency	Level / Limits	Criteria
Radiated Emissions	EN 55032, FCC, CISPR 32, KN32, Taiwan, VCCI, GR1089 (NEBS)	30M -40GHz	Class A	Individual PSU: 6dB margin
	Additional requirements for DT	1Ghz to 6GHz	EN55032	
		6GHz to 18GHz	74dBuV/mPk	
Conducted Emissions	EN 55032, FCC, CISPR 32, KN, Taiwan, VCCI	150k-30MHz	Class A	Individual PSU: 6dB margin
	GR 1089 Issue 7	150k-30MHz	EN 55032 Class A	
		10k-30MHz	Current, Table 3-5	
DC Transient	ETS 300 132-2 (DT requirement)	Wideband/Narrowband noise emissions	See standard	
	GR 1089, Issue 7		Section 10	
Power Line Harmonics	EN 61000-3-2	AC supply<16Ampsper phase	See standard	
Power Line Harmonics	EN 61000-3-12	AC supply >16 Amps and <75 Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-3	AC supply<16Ampsper phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-11	AC supply <75 Amps per phase	See standard	
Radiated Immunity	EN 61000-4-3, TEC, KN35	80M-690 MHz	10V/meter	A
		690 MHz -6GHz	20V/meter	A
	Additional requirements for BT and DT	806 -960 MHz	20V/meter	A
		1700 -2025 MHz		
		2100 -2200 MHz		
		2500 -2690 MHz		
		880 -915 MHz	50V/meter	A
		1710 -1785 MHz	35V/meter	A
		1920 -1980 MHz	50V/meter	A
		2400 -2483 MHz	12V/meter	A
		5150 -5350 MHz		
		5725 -5820 MHz		
	GR 1089 Issue 7	10 kHz -10GHz	8.5 V/meter	A

MECHANICAL

Parameter	Description	Unit
Dimensions (W×L×H)	73.5 x 40.0 x 185 2.89 x 1.57 x 7.28	mm in
Weight	900	g
Airflow Direction	The normal airflow direction is exhaust which is from the card edge connector side to the AC IN inlet side of the power supply	

BCSE1300AT-12E/J_{xx}

CRPS 1300W Titanium Power Supply

KEY NOTE

Output:

12.2V_{main} 106.5A/1300W(HL)
82A/1000W(LL)

12V_{standby} 2.5A/30W

Input:

90 to 264 VAC

192 to 310 DC

BCSE1300AT-12Exx power supply conforms to the standard market's Common Redundant Power Supplies. The form factor is 40x 73.5 x 185mm(1.57 x 2.89 x 7.28 inch) which is suit for 1U high rack-mount enclosure. The power supply operates as a single supply, or N+1/N+N parallel configuration.



ORDERING INFORMATION

BCS	E	1300	A	T	-	12	E/J	xx
Model series	Width	Power level	Length	Efficiency	-	V1 output	Airflow	Suffix
BOCO common design	73.5mm	1300W	up to 185mm	Titanium	-	12V	exhaust	
	73.5mm	1300W	up to 185mm	Titanium	-	12V	intake	

ELECTRICAL SPECIFICATIONS

Input	
Nominal input range	100-240VAC; 240 VDC
Input range	90 to 264 VAC; 192 to 310 VDC
Frequency (ac input)	47 to 63HZ
Efficiency	80Plus Platinum 90%@10% load, 93%@20% load, 94%@50% load, 91%@ 100% load, 230Vac
Max input current@Vin = 100V	12Arms
Inrush current	35A max
Power factor	0.9 @ 10% load, 0.96 @ 20% load, 0.98 @ 50% load, 0.99 @ 100% load
ITHD	20% @ 5% load, 15% @ 10% load, 10% @ 20% load, 8% @ 40% load, 5% @ 50%load
Leakage current@264Vac, 60Hz	1.75mA
Hold-up time_12.2V main	13ms @ 100%load
Hold-up time_12Vsb	70ms @ 100%load
AC input UV protection	Max 90Vac on, with min 5V hysteria
AC input OV protection	Min 264Vac OV, with min 5V hysteria
Input Overvoltage Transient	300Vac, <1000ms

Notes: 1. From AC loss to output dropping below the dynamic regulation limit.

Output	Main DC Output			Standby DC Output		
	Min	Nom	Max	Min	Nom	Max
Nominal setting (half load, 230Vac input, not including aging and temperature drift)	12.17V	12.0V	12.23V	11.88V	12.00V	12.12V
Output current	1A		106.5A(HL) 82A(LL)	0.10A		2.5A
Total output regulation range	11.59V		12.81V	11.40V		12.60V
Dynamic load regulation range ²⁾	11.59V		12.81V	11.40V		12.60V
Output ripple (Vp-p, 20MHZ)			120mV			120mV
Current sharing	<5% @20%-100% load			N.A		
Capacitive loading	1000uf		30000uf	10uf		3100uf
Start-up from AC to output			3000ms			1500ms
Output rise time	1ms		100ms	1ms		100ms

Notes: 2. Step load less than 50% load with 2.5A/us for main output and 1A/us for standby output, min start load is 5%, and test with minimum capacitive load

3. Test with 0.1uf ceramic cap and 10uf tantalum capacitor.

Protections (Main output)				
	Min	Nom	Max	Comment
Output OCP1	120%	-	130%	Delay 10s
Output OCP2	130%	-	140%	Delay 50ms
Output OPP	140%	-		Delay 1ms
Output OVP	13.5V	-	14.5V	
Output UVP	10.0V	-	10.9V	
Fan fault protection		YES		Protection with >15s delay
Protections (Standby Output)				
Output OCP	3.5A		4.5A	
Output OVP	13.5V		14.5V	
Output UVP	10.0V		10.9V	
Ambient OTP		YES		

ELECTROMAGNETIC COMPATIBILITY

OBAN: Class A Device

OBAN should comply with the EMC requirements of:

√ GR-1089 (NEBS)	√ VCCI Japan	√ TEC India
√ EN/GL	√ Korea/Taiwan	√ DT/BT

Category	Standard	Frequency	Level / Limits	Criteria
Radiated Emissions	EN 55032, FCC, CISPR 32, KN32, Taiwan, VCCI, GR1089 (NEBS)	30M -40GHz	Class A	Individual PSU: 6dB margin
	Additional requirements for DT	1Ghz to 6GHz	EN55032	
		6GHz to 18GHz	74dBuV/mPk	
Conducted Emissions	EN 55032, FCC, CISPR 32, KN, Taiwan, VCCI	150k-30MHz	Class A	Individual PSU: 6dB margin
	GR 1089 Issue 7	150k-30MHz	EN 55032 Class A	
		10k-30MHz	Current, Table 3-5	
DC Transient	ETS 300 132-2 (DT requirement)	Wideband/Narrowband noise emissions	See standard	
	GR 1089, Issue 7		Section 10	
Power Line Harmonics	EN 61000-3-2	AC supply<16Ampsper phase	See standard	
Power Line Harmonics	EN 61000-3-12	AC supply >16 Amps and <75 Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-3	AC supply<16Ampsper phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-11	AC supply <75 Amps per phase	See standard	
Radiated Immunity	EN 61000-4-3, TEC, KN35	80M-690 MHz	10V/meter	A
		690 MHz -6GHz	20V/meter	A
	Additional requirements for BT and DT	806 -960 MHz	20V/meter	A
		1700 -2025 MHz		
		2100 -2200 MHz		
		2500 -2690 MHz		
		880 -915 MHz	50V/meter	A
		1710 -1785 MHz	35V/meter	A
		1920 -1980 MHz	50V/meter	A
		2400 -2483 MHz	12V/meter	A
		5150 -5350 MHz		
		5725 -5820 MHz		
	GR 1089 Issue 7	10 kHz -10GHz	8.5 V/meter	A

MECHANICAL

Parameter	Description	Unit
Dimensions (W×L×H)	73.5 x 40.0 x 185 2.89 x 1.57 x 7.28	mm in
Weight	900	g
Airflow Direction	The normal airflow direction is exhaust which is from the card edge connector side to the AC IN inlet side of the power supply	

BCSE2000AP-12E/Jxx

CRPS 2000W Platinum Power Supply

KEY NOTE

Output:

12.2Vmain 161.5A/2000W(HL)
82A/1000W(LL)
12Vstandby 3A/36W

Input:

90 to 264 VAC
192 to 310 VAC

BCSE2000AP-12E/Jxx power supply conforms to the standard market's Common Redundant Power Supplies. The form factor is 40x 73.5 x 185mm(1.57 x 2.89 x 7.28 inch)which is suit for 1U high rack-mount enclosure. The power supply operates as a single supply, or N+1/N+N parallel configuration.



ORDERING INFORMATION

BCS	E	2000	A	P	-	12	E/J	xx
Model series	Width	Power level	Length	Efficiency	-	V1 output	Airflow	Suffix
BOCO common design	73.5mm	2000W	up to 185mm	Platinum	-	12.2V	exhaust	
	73.5mm	2000W	up to 185mm	Platinum	-	12.2V	intake	

ELECTRICAL SPECIFICATIONS

Input	
Nominal input range	100-240VAC; 240 VDC
Input range	90 to 264 VAC; 192 to 310 VDC
Frequency (ac input)	47 to 63HZ
Efficiency	80Plus Platinum 90%@10% load, 92%@20% load, 94%@50% load, 91%@ 100% load, 230Vac
Max input current@Vin = 100V	12Arms
Inrush current	35A max
Power factor	0.9 @ 10% load, 0.96 @ 20% load, 0.98 @ 50% load, 0.99 @ 100% load
ITHD	20% @ 5% load, 15% @ 10% load, 10% @ 20% load, 8% @ 40% load, 5% @ 50%load
Leakage current@264Vac, 60Hz	1.75mA
Hold-up time_12.2V main	12ms @ 100%load
Hold-up time_12Vsb	70ms @ 100%load
AC input UV protection	Max 90Vac on, with min 5V hysteria
AC input OV protection	Min 264Vac OV, with min 5V hysteria
Input Overvoltage Transient	300Vac, <1000ms

Notes: 1. From AC loss to output dropping below the dynamic regulation limit.

Output	Main DC Output			Standby DC Output		
	Min	Nom	Max	Min	Nom	Max
Nominal setting (half load, 230Vac input, not including aging and temperature drift)	12.17V	12.0V	12.23V	11.88V	12.00V	12.12V
Output current	1A		161.5A(HL) 82A(LL)	0.10A		3A
Total output regulation range	11.59V		12.81V	11.40V		12.60V
Dynamic load regulation range ²⁾	11.59V		12.81V	11.40V		12.60V
Output ripple (Vp-p, 20MHZ)			120mV			120mV
Current sharing	<5% @20%-100% load			N.A		
Capacitive loading	1000uf		30000uf	10uf		3100uf
Start-up from AC to output			30000ms			1500ms
Output rise time	1ms		100ms	1ms		100ms

Notes: 2. Step load less than 50% load with 2.5A/us for main output and 1A/us for standby output, min start load is 5%, and test with minimum capacitive load
3. Test with 0.1uf ceramic cap and 10uf tantalum capacitor.

Protections (Main output)				
	Min	Nom	Max	Comment
Output OCP1	120%	-	130%	Delay 10s
Output OCP2	130%	-	140%	Delay 50ms
Output OPP	140%	-		Delay 1ms
Output OVP	13.5V	-	14.5V	
Output UVP	10.0V	-	10.9V	
Fan fault protection		YES		Protection with >15s delay
Protections (Standby Output)				
Output OCP	2.5A		4.5A	
Output OVP	13.5V		14.5V	
Output UVP	10.0V		10.9V	
Ambient OTP		YES		

ELECTROMAGNETIC COMPATIBILITY

OBAN: Class A Device

OBAN should comply with the EMC requirements of:

√ GR-1089 (NEBS)	√ VCCI Japan	√ TEC India
√ EN/GL	√ Korea/Taiwan	√ DT/BT

Category	Standard	Frequency	Level / Limits	Criteria
Radiated Emissions	EN 55032, FCC, CISPR 32, KN32, Taiwan, VCCI, GR1089 (NEBS)	30M -40GHz	Class A	Individual PSU: 6dB margin
	Additional requirements for DT	EN55032	EN55032	
		6GHz to 18GHz	74dBuV/mPk	
Conducted Emissions	EN 55032, FCC, CISPR 32, KN, Taiwan, VCCI	150k-30MHz	Class A	Individual PSU: 6dB margin
	GR 1089 Issue 7	150k-30MHz	EN 55032 Class A	
		10k-30MHz	Current, Table 3-5	
DC Transient	ETS 300 132-2 (DT requirement)	Wideband/Narrowband noise emissions	See standard	
	GR 1089, Issue 7		Section 10	
Power Line Harmonics	EN 61000-3-2	AC supply <16Amps per phase	See standard	
Power Line Harmonics	EN 61000-3-2	AC supply >16 Amps and <75 Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-2	AC supply <16Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-11	AC supply <75 Amps per phase	See standard	
Radiated Immunity	EN 61000-4-3, TEC, KN35	80M-690 MHz	10V/meter	A
		690 MHz -6GHz	20V/meter	A
	Additional requirements for BT and DT	806 -960 MHz	20V/meter	A
		1700 -2025 MHz		
		2100 -2200 MHz		
		2500 -2690 MHz		
		880 -915 MHz	50V/meter	A
		1710 -1785 MHz	35V/meter	A
		1920 -1980 MHz	50V/meter	A
		2400 -2483 MHz	12V/meter	A
		5150 -5350 MHz		
		5725 -5820 MHz		
	GR 1089 Issue 7	10 kHz -10GHz	8.5 V/meter	A

MECHANICAL

Parameter	Description	Unit
Dimensions (W×L×H)	73.5 x 40.0 x 185 2.89 x 1.57 x 7.28	mm in
Weight	920	g
Airflow Direction	The normal airflow direction is exhaust which is from the card edge connector side to the AC IN inlet side of the power supply	

BCSE3200AT-12E/Jxx

CRPS 3200W Titanium Power Supply

KEY NOTE

Output:

12.2Vmain 262A/3200W(HL)
131A/1600W(LL)
12Vstandby 2.5A/30W

Input:

90 to 264 VAC
192 to 310 VAC

BCSE3200AT-12Exx power supply conforms to the standard market's Common Redundant Power Supplies. The form factor is 40x 73.5 x 185mm(1.57 x 2.89 x 7.28 inch)which is suit for 1U high rack-mount enclosure. The power supply operates as a single supply, or N+1/N+N parallel configuration.



ORDERING INFORMATION

BCS	E	3200	A	T	-	12	E	xx
Model series	Width	Power level	Length	Efficiency	-	V1 output	Airflow	Suffix
BOCO common design	73.5mm	3200W	up to 185mm	Titanium	-	12.2V	exhaust	

ELECTRICAL SPECIFICATIONS

Input	
Nominal input range	100-240VAC; 240 VDC
Input range	90 to 264 VAC; 192 to 310 VDC
Frequency (ac input)	47 to 63HZ
Efficiency	80Plus Titanium
Max input current@Vin = 100V	12Arms
Inrush current	35A max
Power factor	0.9 @ 10% load,0.96 @ 20% load, 0.98 @ 50% load, 0.99 @ 100% load
Leakage current@264Vac,60Hz	1.75mA
Hold-up time_12.2V main)	12ms @ 100%load
Hold-up time_12Vsb)	70ms @ 100%load
AC input UV protection	Max 90Vac on, with min 5V hysteria
AC input OV protection	Min 264Vac OV, with min 5V hysteria
Input Overvoltage Transient	300Vac, <1000ms

Notes: 1. From AC loss to output dropping below the dynamic regulation limit.

Output	Main DC Output			Standby DC Output		
	Min	Nom	Max	Min	Nom	Max
Nominal setting (half load,230Vac input, not including aging and temperature drift)	11.17V	12.0V	12.23V	11.88V	12.00V	12.12V
Output current	1A		262A(HL) 131A(LL)	0.10A		2.50A
Total output regulation range	11.59V		12.81V	11.40V		12.60V
Dynamic load regulation range ²⁾	11.59V		12.81V	11.40V		12.60V
Output ripple (Vp-p, 20MHZ)			120mV			120mV
Current sharing	5% @20%-100% load			N.A		
Capacitive loading	1000uf		30000uf	10uf		3100uf
Start-up from AC to output			30000ms			1500ms
Output rise time	1ms		100ms	1ms		100ms

Notes: 2. Step load less than 50% load with 1A/us for main output and 1A/us for standby output, Main output min start load is 1A, Vsb output min start load is 0.1A and test with minimum capacitive load

3. Test with 0.1uf ceramic cap and 10uf tantalum capacitor.

Protections (Main output)				
	Min	Nom	Max	Comment
Output OCP	110%	-	130%	
Output OVP	13V	-	14.5V	
Output UVP	10.0V	-	10.9V	
Fan fault protection		YES		Protection with >15s delay
Protections (Standby Output)				
Output OCP	2.8A		4.5A	
Output OVP	13.5V		14.5V	
Output UVP	10.0V		10.9V	
Ambient OTP		YES		

ELECTROMAGNETIC COMPATIBILITY

OBAN: Class B Device

OBAN should comply with the EMC requirements of:

- √ GR-1089 (NEBS) √ VCCI Japan √ TEC India
- √ EN/GL √ Korea/Taiwan √ DT/BT

Category	Standard	Frequency	Level / Limits	Criteria
Radiated Emissions	EN 55032, FCC, CISPR 32, KN32, Taiwan, VCCI, GR1089 (NEBS)	30M -40GHz	Class A	Individual PSU: 6dB margin
	Additional requirements for DT	EN55032	EN55032	
		6GHz to 18GHz	74dBuV/mPk	
Conducted Emissions	EN 55032, FCC, CISPR 32, KN, Taiwan, VCCI	150k-30MHz	Class B	Individual PSU: 6dB margin
	GR 1089 Issue 7	150k-30MHz	EN 55032 Class B	
		10k-30MHz	Current, Table 3-5	
DC Transient	ETS 300 132-2 (DT requirement)	Wideband/Narrowband noise emissions	See standard	
	GR 1089, Issue 7		Section 10	
Power Line Harmonics	EN 61000-3-2	AC supply <16Amps per phase	See standard	
Power Line Harmonics	EN 61000-3-2	AC supply >16 Amps and <75 Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-2	AC supply <16Amps per phase	See standard	
Voltage Flicker and Fluctuations	EN 61000-3-11	AC supply <75 Amps per phase	See standard	
Radiated Immunity	EN 61000-4-3, TEC, KN35	80M-690 MHz	10V/meter	A
		690 MHz -6GHz	20V/meter	A
	Additional requirements for BT and DT	806 -960 MHz	20V/meter	A
		1700 -2025 MHz		
		2100 -2200 MHz		
		2500 -2690 MHz		
		880 -915 MHz	50V/meter	A
		1710 -1785 MHz	35V/meter	A
		1920 -1980 MHz	50V/meter	A
		2400 -2483 MHz	12V/meter	A
		5150 -5350 MHz		
		5725 -5820 MHz		
	GR 1089 Issue 7	10 kHz -10GHz	8.5 V/meter	A

MECHANICAL

Parameter	Description	Unit
Dimensions (W×L×H)	73.5 x 40.0 x 185 2.89 x 1.57 x 7.28	mm in
Weight	740	g
Airflow Direction	The normal airflow direction is exhaust which is from the card edge connector side to the AC IN inlet side of the power supply	



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