

**COSEL U.S.A. inc.**

# CBS350

## 350W Half Brick DC-DC Converter



GaN

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### Specifications Summary

Part Number ("CBS350____")	2412	2424	2428	2432	2448	4812	4824	4828	4832	4848
Max. Output (W)	300	348	350	352	302	348	348	350	352	350
Input Voltage (VDC)	20-36	20-36	20-36	20-36	20-36	36-76	36-76	36-76	36-76	36-60
Output Voltage (VDC)	12	24	28	32	48	12	24	28	32	48
Output Current (A)	25.0	14.5	12.5	11.0	6.3	29.0	14.5	12.5	11.0	7.3
Input Current, typ. (A)	14.5	16.7	16.4	16.5	14.0	8.33	8.15	8.10	8.15	8.15
Efficiency, typ. (%)	86	87	89	89	90	87	89	90	90	91
Line Regulation (mV)	24 max.	48 max.	56 max.	64 max.	96 max.	24 max.	48 max.	56 max.	64 max.	96 max.
Load Regulation (mV)	24 max.	48 max.	56 max.	64 max.	96 max.	24 max.	48 max.	56 max.	64 max.	96 max.
Ripple, -20~100°C (mVp-p)	120 max.	150 max.	180 max.	180 max.	300 max.	120 max.	150 max.	180 max.	180 max.	300 max.
Ripple, -40~-20°C (mVp-p)	150 max.	180 max.	220 max.	220 max.	360 max.	150 max.	180 max.	220 max.	220 max.	360 max.
Ripple, 0~15% load (mVp-p)	240 max.	300 max.	360 max.	360 max.	600 max.	240 max.	300 max.	360 max.	360 max.	600 max.
Ripple Noise, -20~100°C (mVp-p)	150 max.	180 max.	220 max.	220 max.	360 max.	150 max.	180 max.	220 max.	220 max.	360 max.
Ripple Noise, -40~-20°C (mVp-p)	200 max.	250 max.	280 max.	280 max.	500 max.	200 max.	250 max.	280 max.	280 max.	500 max.
Ripple Noise, 0~15% load (mVp-p)	300 max.	360 max.	440 max.	440 max.	720 max.	300 max.	360 max.	440 max.	440 max.	720 max.
Temp. Reg., 0~65°C (mV)	120 max.	240 max.	280 max.	320 max.	480 max.	120 max.	240 max.	280 max.	320 max.	480 max.
Temp. Reg., -40~100°C (mV)	240 max.	480 max.	560 max.	640 max.	960 max.	240 max.	480 max.	560 max.	640 max.	960 max.
Drift (mV)	40 max.	90 max.	90 max.	120 max.	180 max.	40 max.	90 max.	90 max.	120 max.	180 max.
Output Voltage Range (VDC)	7.2 - 13.2	14.4 - 26.4	16.8 - 30.8	25.6 - 35.2	38.4 - 52.8	7.2 - 13.2	14.4 - 26.4	16.8 - 30.8	25.6 - 35.2	38.4 - 55.2
Output Voltage Setting (VDC)	11.8 - 12.1	23.8 - 24.2	27.7 - 28.3	31.7 - 32.3	47.5 - 48.5	11.8 - 12.1	23.8 - 24.2	27.7 - 28.3	31.7 - 32.3	47.5 - 48.5
Overvoltage Protection (VDC)	13.8 - 16.8	27.6 - 33.6	32.2 - 39.2	36.8 - 44.8	57.5 - 63.0	13.8 - 16.8	27.6 - 33.6	32.2 - 39.2	36.8 - 44.8	57.5 - 63.0

**Versatile configuration** – series and redundant operation capable

**200ms max. start-up time** – tested at 100% load

**Auto-recovering overcurrent protection** – active current limiting at 105% of rated current

**Built-in thermal protection** – latching safety circuit with 100°C cutoff temperature

**Remote sensing** – standard

**Remote ON/OFF** – both positive and negative logic control available

**1500VDC input-output isolation** – 1500VDC or 1000VAC for 1 min, 10mA cutoff current, 500VDC 50MΩ·min (20±15°C)

**1500VDC input-baseplate isolation** – 1500VDC or 1000VAC for 1 min, 10mA cutoff current, 500VDC 50MΩ·min (20±15°C)

**500VAC output-baseplate isolation** – 100mA cutoff current, 500VDC 50MΩ·min (20±15°C)

**-40~100°C operating temperature** – 20-95% operating non-condensing humidity, does not de-rate until 85°C

**5G vibration resistance** – 10-55Hz, 3min./cycle, 60min. total each axis (x, y, z)

**20G impact resistance** – 196m/sec<sup>2</sup> for 11msec once each axis (x, y, z)

**UL60950-1, C-UL and EN60950-1 approvals** – CE marking (Low Voltage Directive), RoHS compliant, C-UL recognized, TÜV approved

**Half brick industry standard** – 57.9mm x 12.7mm x 61.0mm dimensions, 83g max. weight

**Conduction cooled** – heat sinks available

**5-year warranty** – no built-in aluminum or tantalum electrolytic capacitors

**Detailed specifications and documentation available at [www.coselusa.com](http://www.coselusa.com)**

**Direct technical support available at 866-921-0968 or [techsupport@coselusa.com](mailto:techsupport@coselusa.com)**

**On-site sales and engineering support provided nationwide**

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