



Powering Your Ideas



CINCON POWER SUPPLY OVERVIEW

Power Supply	Category	Wattage Range	Features
DC-DC	Brick Type	33 – 750W	Quarter, half and full bricks 2:1, 4:1, 8:1, 12:1 Input range
	Railway	6.6W – 600W	EN 50155, UL 60950-1 EN 45545-2, Shock & Vibration
	Low Power	1 - 60W	SIP, SMD, DIP 24, 1x1, 2x1" 1x1.6" , 2x2" , 2.05x1.2"
AC-DC	ITE & Industrial	5 – 1600W	Open frame, Encapsulated, Base-plate cooled (IEC/EN 60950-1, EN62368)
	Medical	15 – 350W	Open frame, Encapsulated, Adapters, Base-plate cooled (IEC/EN 60601-1)
LED	Lighting	5 -100W	Constant current, Compact size, DALI dimming, Modified & Custom

Cincon DC-DC Bricks



Input Voltage (Range)	Case Size	Output Voltage (V) and Max Power (W)							
		3.3V	5V	12V	15V	24V	28V	32V	48V
Input Range 2:1 3:1 4:1									
24Vdc Input (18-36Vdc & 9-36Vdc)	2" x 1" pin out	49.5W	60W	60W	60W				
	Quarter Brick	100W	150W	150W	100W	150W	150W		150W
	Half Brick	231W	350W	350W	300W	350W	350W		350W
	Full Brick		400W	600W		600W	600W	600W	600W
48V Input (36-75 Vdc & 18-75 Vdc)	2" x 1" pin out	49.5W	60W	60W	60W				
	Quarter Brick	100W	150W	150W	100W	150W	150W		150W
	Half Brick	231W	350W	350W	200W	350W	350W		350W
	Full Brick	132W	400W	600W		600W	700W	600W	600W
110 Vdc Input (66-160 Vdc & 43-160 Vdc)	2" x 1" pin out	33W	40W	40W	40W				
	Quarter Brick	82.5W	150W	150W	60W	150W	150W		150W
	Half Brick		300W	300W	100W	300W	300W		300W
	Full Brick			600W	200W	600W	600W		600W
300Vdc Input (180-425 Vdc & 200-425 Vdc & 180-450Vd)	2" x 1" pin out								
	Quarter Brick	99W	150W	150W	150W	150W	150W		150W
	Half Brick		300W	300W		300W	300W		300W
	Full Brick			750W	750W	750W	750W		750W
Input Range 8:1 :10:1 12:1									
72V (14-160 Vdc)	Quarter Brick		30W	50W		50W			50W
36V (9-75 Vdc)	Quarter Brick		75W	75W	75W	75W	75W		75W
	Half Brick		150W	150W	150W	150W	150W		150W
72V (14.5-140Vdc)	Half Brick		150W 200W	150W 200W	150W 200W	150W 200W			150W 200W

Q2,
2019

Railway Certified



Cincon Railway Certified

Input Range	Series Name	Pin Capability	Output Power	Efficiency	Isolation
9-36Vdc / 18-75Vdc	EC6AW	DIP 24	8W	86%	1500Vdc
	EC7BW	2" x 1"	20W	90%	1500Vdc
	CQB150W	Quarter Brick	150W	92%	2250Vdc
9-75Vdc	CQB50W8-36	Quarter Brick	50W	90%	3000Vdc
	CQB75W8	Quarter Brick	75W	90%	3000Vdc
8.5-160Vdc	Q2, 2019 EC7BW18-72S	2" x 1"	20W	87%	3000Vac
14-160Vdc	CQB50W12	Quarter Brick	50W	89%	3000Vdc
14.5-140Vdc	Q2, 2019 CHB150W10-72S	Half Brick	150W	90%	3000Vac
	CHB200W10-72S	Half Brick	200W		
43-160Vdc	EC6AW-110	DIP 24	10W	88.5%	3000Vdc
	EC7BW-110	2" x 1"	20W	90%	3000Vdc
	ECLB40W-110	2" x 1"	40W	91%	3000Vdc
	CQB60W-110S	Quarter Brick	60W	92%	3000Vdc
	CQB100W-110S	Quarter Brick	100W	93%	2250Vdc
	CQB150W-110S	Quarter Brick	150W	92%	3000Vdc
	CHB200W-110S	Half Brick	200W	90%	3000Vac
	CHB300W-110S	Half Brick	300W	91%	3000Vdc
	CFB600W-110S	Full Brick	600W	88%	2250Vdc
66-160Vdc	CQB100-110S	Quarter Brick	100W	93%	2250Vdc
	CHB100-110S	Half Brick	100W	89%	3000Vac
	CHB150-110S	Half Brick	150W	92.5%	2250Vdc

Why choose Cincon Railway Converters?

- All Cincon DC/DC converters for railway application are designed to be safe, reliable with high efficiency, high operating temperature for harsh environment
- Meet Train standards - -EMC EN50155 (EN50121-3-2), extra filter required, shock & vibration: EN50155(EN61373), UL 60905-1 2nd
- Offers a wide range of EN50155 compliant DC/DC converters from **6.6W-600W**
- Cincon Railway converters are fully encapsulated in a heat resistant silicone rubber compound, which protect against high level of shock and vibration, moisture, dust and other contaminants. Also has fully electronic protection, surge protection and transients protection.
- We provide total solution.

Railway Application



Cabin Electrical
Equipment



Internal &
External Lighting



Computer systems



Wireless & Radio
Communications



Braking Control



LED Information
Display

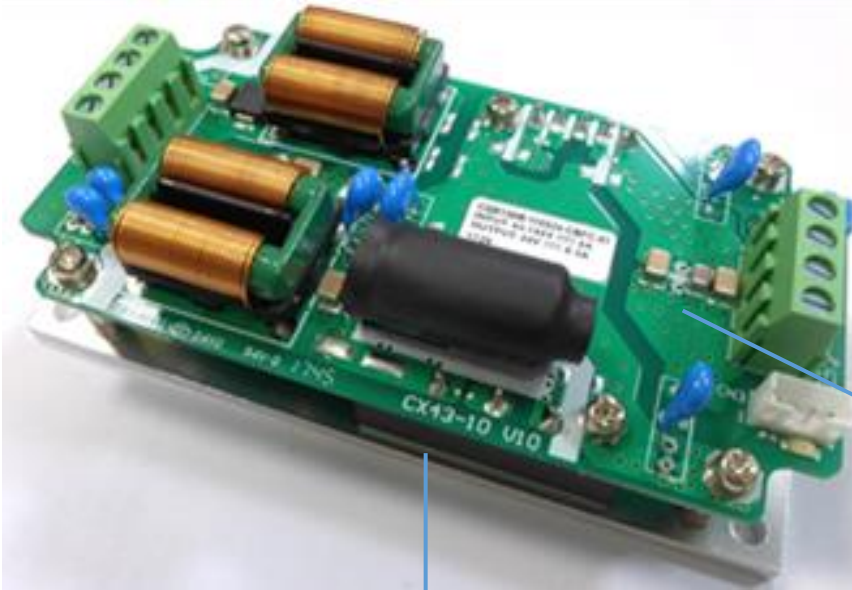


Door Control



Windshield System

**CHASSIS MOUNT
CQB150W-110S SERIES
150 WATT 4:1 INPUT
DC-DC CONVERTERS**



CQB150W-110S Module

***External output filter
To meet EMC
EN50121-3-2***

CINCON AC/DC Power Supply

AC/DC POWER SUPPLY SELECTION GUIDE

Type	Power Range	Input Voltage	Output Voltage	Application	Efficiency	Operating Temperature	Safety Approval
Wall-Mount	6W-30W	90-264VAC	5V-24V	ITE/Industrial	87.70%	"-20 to 60"	UL, TUV, CE, IEC/EN EN60950 & EN62368
	15W-30W	90-264VAC	5V-24V	Medical	86%	"0 to 60"	UL, TUV, CE, IEC/EN 60950 & EN62368 2 MOPP,
Desk-Top	20W-150W	90-264VAC	5V-48V	ITE/Industrial	94%	"-25 to 85", "-20 to 60" "-20 to 70", "-30 to 70" "-40 to 85"	UL, TUV, CE, IEC/EN 60950 & EN62368
	21W-160W	90-264VAC	5V-48V	Medical	89%	"-20 to 80", "-20 to 60" "-20 to 85"	UL, TUV, CE, EN60601, 2 MOPP
Open Frame	3W-360W	85-264VAC, 90-264VAC	5V-48V	ITE/Industrial	84%	"0 to 60", "0 to 70", "0 to 85", "-25 to 70" -30 to 70", "-20 to 80"	UL, TUV, CE, IEC/EN EN60950 & 62368
	21W-500W	90-264VAC	3.3V-48V	Medical	85%	"-25 to 70", "-40 to 80"	UL, TUV, CE, EN60601, 2 MOPP
DIN Rail	40W-100W	90-264VAC	3.3V-48V	ITE	90%	"0 to 70"	UL, TUV, CE, IEC/EN EN60950
BRICKS	70W-700W	90-264VAC	12V-48V	ITE/Industrial	90%	"-20 to 80"	UL, TUV, CE, IEC/EN EN60950

CINCON New

**AC-DC Switching Adapters & New Generation Open Frame
High Quality for High Volume Application**

Cost Effective – TRE series

6W 15W 25W 36W



FEATURES	TRE06 series	TRE15 series	TRE25 series	TRE36 series
Position	Competitive Price Miniature	Competitive Price	Competitive Price	Small & Flat
Output	5V, 9V, 12V, 15V	5V, 9V, 12V, 15V, 24V	5V, 12V, 15V, 18V, 24V	5V, 9V, 12V, 15V, 18V, 24V
Operating Temp.	-20 °C to 60°C	-20 °C to 60°C	-20 °C to 60°C	-20 °C to 60°C
EMI Safety	EN 55032 Class B CISPR/ FCC Class B	EN 55032 Class B CISPR/ FCC Class B	EN 55032 Class B CISPR/ FCC Class B	EN 55032 Class B CISPR/ FCC Class B
Safety	IEC/UL 62368 Class II	IEC/UL 6236 Class II	IEC/UL 60950 Class II	IEC/EN/UL 62368 Meet IEC/EN 60335 (Household) Class II
Efficiency	82%	84%	87%	87%
Range Operating Altitude	4000m	5000m	2000m	5000m
No Load	No load power consumption < 75mW	No load power consumption < 75mW	No load power consumption < 75mW	No load power consumption < 75mW

2018
New

New Generation Open Frame 6W and 12W

for Consumer Electronics, Telecommunication Devices, Commercial equipment, and Light/ Heavy industry



FEATURES	CFM06S series	CFM12S series
Size	1.5"x0.8"	1"x1.5"
Output	3.3V, 5V, 9V, 12V, 15V, 24V	5V, 9V, 12V, 15V, 24V
Operating Temp.	-30 °C to 70°C	-30 °C to 70°C
EMI	EN 55032 Class B CISPR/ FCC Class B Heavy Industrial	EN 55032 Class B CISPR/ FCC Class B Heavy Industrial
Safety	IEC/EN/UL 62368 Class II Meet IEC/EN 60335 (Household)	IEC/EN/UL 62368 Class II Meet IEC/EN 60335 (Household)
Efficiency	79%	84%
No Load	No load power consumption < 75mW	No load power consumption < 100mW
Peak Load	-	-
Protection	OVP , OLP , Short Circuit	OVP , OLP , Short Circuit
Package	Open Frame , Encapsulation , JST housing	Open Frame , Encapsulation , JST housing

New Generation Open Frame with **PEAK POWER** 25W 40W 60W 80W

FEATURES	CFM25S series	CFM41S series	CFM61S series	CFM81S series
Size	1"x2"	2"x 2"	2"x2"	2"x 3"
Output	5V, 12V, 15V, 24V, 36V, 48V		5V, 12V, 15V, 24V, 36V, 48V	
Operating Temp.	-30 °C to 70 °C	-30 °C to 70 °C	-30 °C to 70 °C	-30 °C to 70 °C
EMI	EN 55032 Class B CISPR/ FCC Class B Heavy Industrial	EN 55032 Class B CISPR/ FCC Class B	EN 55032 Class B CISPR/ FCC Class B Heavy Industrial	EN 55032 Class B CISPR/ FCC Class B
Safety	IEC/EN/UL 60950 Meet IEC/EN 60335 (household) Class II	IEC/EN/UL 62368 Meet IEC/EN 60335 (household) Class II	IEC/EN/UL 62368 Meet IEC/EN 60335 (household) Class II	IEC/EN/UL 62368 Meet IEC/EN 60335 (household) Class II
Efficiency	87%	88%	90%	90%
No Load	No load power consumption < 100mW	No load power consumption < 0.75W	No load power consumption < 100mW	No load power consumption < 0.75W
Peak Load	Double power peak 50W (<10sec)	Double power peak 80W (<10sec)	Double power peak 120W (<10sec)	Double power peak 160W (<10sec)
Protection	OVP , OLP , Short Circuit	OVP , OLP , Short Circuit	OVP , OLP , Short Circuit	OVP , OLP , Short Circuit
Package	Open Frame , Encapsulation , JST housing	Open Frame , Encapsulation , JST housing	Open Frame , Encapsulation , JST housing	JST housing

CINCON BASEPLATE-COOLED FAMILY

Use 280mm x 100mm x 2mm thermal pad with thermal grease!



Provides **solution** for High Operating Temperature, no fan,
limited space, long life time power supply

FEATURES	CFM130M Series	CFM150S Series	CFM200M Series	CFM260S Series	CFM300M Series	CFM500M Series
Size	2"x3"	2"x 4"	2" x 4"	2" x 4"	3"x 5"	3"x 5"
Output Power	130W	150W	200W	260W	300W	500W
Efficiency	Up to 94%	Up to 93%	Up to 93%	Up to 94%	Up to 94%	Up to 94%
Operating Temperature	-20°+70°C (with derating)	-20°+70°C (with derating)	-20°+80°C (with derating)	-30°+70°C (with derating)	-40°+80°C (with derating)	-40°+80°C (with derating)
Application	Medical	ITE	Medical, Homecare application	ITE	Medical	Medical

CINCON AC/DC Brick Power



AC/DC Brick Power 70W, 100W, 700W

FEATURES	CBM70S series	CBM100S series	PDF700 series
Size	Half-Brick	Full-Brick	Full-Brick
Operating Temp.	-40 °C to 90°C	-40 °C to 100°C	-40 °C to 100°C
EMI	EN 55032 Class B CISPR/ FCC Class B	EN 55022 Class B CISPR/ FCC Class B	EN 55032 Class B CISPR/ FCC Class B
Safety	IEC/EN/UL 62368 Meet IEC/EN 60335 (Household) Class II	IEC/EN/UL 60950 Class I	IEC/EN/UL 62368 Meet IEC/EN 60335 (Household) Class II
Efficiency	90%	91.5%	93%
No Load	No load power consumption < 0.15W	No load power consumption < 0.5W	No load power consumption < 0.5W
Range Operating Altitude	3000m	2000m	3000m
Protection	OVP , OLP , Short Circuit	OVP , OCP , OTP	OVP , OCP , Short Circuit

CINCON New Medical

AC-DC Switching Adapters & Open Frame



Medical Desk-Top Adapter 36W and 70W

FEATURES	TR36M series	TR70M series
Size	Small & Flat	Small
Output	5V, 9V, 12V, 15V, 18V, 24V	12V, 15V, 18V, 24V, 36V, 48V
Operating Temp.	-20 °C to 60°C	-20 °C to 60°C
Green Power	CoC Tier 2 & DoE Level VI	CoC Tier 2 & DoE Level VI
EMI	EN 55011 Class B EN60601-1-2 Ed.4	EN 55011 Class B EN60601-1-2 Ed.4
Safety	IEC60601-1 Ed.3.1 2 MOPP , Class II Meet IEC/EN 60335 (Household)	IEC60601-1 Ed.3.1 2 MOPP , Class I & Class II Meet IEC/EN 60335 (Household)
Ripple & Noise	100mA, 120mA, 150mA, 180mA, 240mA	120mA, 150mA, 180mA, 240mA, 360mA, 480mA
Efficiency	87%	89%
Range Operating Altitude	5000m	5000m
No Load	No load power consumption < 75mW	No load power consumption < 150mW
Peak Load	-	Power Peak 130% (< 1.5sec)



Medical Wall-Mount Adapter 30W and 18W

FEATURES	TR30RDM series	TR18RDM series
Size	Smaller (IP21)	Smaller (IP21)
Output	5V, 9V, 12V, 15V,18V, 24V	5V, 9V, 12V, 15V,18V, 24V
Operating Temp.	-20 °C to 60°C	-20 °C to 60°C
Green Power	CoC Tier 2 & DoE Level VI	CoC Tier 2 & DoE Level VI
EMI	EN 55011 Class B EN60601-1-2 Ed.4	EN 55011 Class B EN60601-1-2 Ed.4
Safety	IEC60601-1 Ed.3.1 Meet IEC/EN 60335 (Household) Meet IEC/EN 60601-1-11 (House health care) 2 MOPP , Class II	IEC60601-1 Ed.3.1 Meet IEC/EN 60335 (Household) Meet IEC/EN 60601-1-11 (House health care) 2 MOPP , Class II
Ripple & Noise	100mV, 120mV	100mV, 120mV
Efficiency	87.7%	87.7%
Range Operating Altitude	5000m	5000m
Leakage Current	< 50uA	< 50uA
No Load	No load power consumption < 75mW	No load power consumption < 75mW

Thank you

Any question?