



勇 做 科 技 先 锋 铸 造 电 源 未 来

AC/DC DC/DC 系列模块电源



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# 承力电源

CHENGLI POWERSUPPLY



Convenient Installation

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# 企业简介

北京承力电源有限公司位于中关村科技园昌平园，占地 12000 平方米，员工约 270 人，是经北京市科委认证的中关村高新技术企业。承力公司凭借出众的技术优势和可靠的质量管理体系，“CL”品牌的模块电源产品已覆盖全国市场，广泛应用于通信、自控、仪器仪表、航空航天、医疗、车载设备、铁路、船舶和电力等领域。

承力公司早在 97 年即开始批量生产军品模块电源，现产品已广泛应用于中国人民解放军海、陆、空及防化、装甲、通讯等各军、兵种的列装装备中。

承力公司始终以质量第一，信誉第一，用户至上为企业理念。以求新、求实、求精的企业精神，经过完善的科学管理和技术进步，成为国内具有一定规模，一定实力，一定水准的开关电源制造企业。

我公司以顾客需求为关注焦点，为顾客提供高标准、高质量、高可靠的电源产品作为我们的目标。以严格的生产流程，科学的质量控制，周到的客户服务为企业发展的宗旨。

公司拥有一支理论基础扎实和实践经验丰富高素质的研发队伍。并具有数条装备精良的生产线（其中一条军品生产线）及经过培训操作熟练的技术工人。力争在复杂的市场环境对客户的要求作出最满意的答复。

承力电源公司早于 1995 年就通过邮电部工业产品质量监督检验中心的 YD/T733 标准的检验，并制定了高于此标准的企业标准。

◆2000 年承力公司率先通过 2000 版的 GB/T9001-2000 质量体系认证。

◇2001 年 11 月通过信息产业部电信设备进网许可证。

◆2004 年 3 月获得 GJB9001A-2001 军工产品质量体系认证证书



## Corporate Profile

Located in the Changping Park of the Zhongguancun Science Park, Beijing Chengli Power Supply Co., Ltd. occupies a land area of 12,000m<sup>2</sup> and employs some 270 workers. It is a high and new technology enterprise certified by the Beijing Municipal Commission on Science and Technology. Building upon its outstanding technological advantages and reliable quality management system, Chengli Company has promoted its CL Brand modular power supply products to the market in the whole state. Its products have now been widely used in the fields of communications, automatic control, instruments and meters, aviation and aerospace, healthcare, in-board equipment, railway, ships and electric power.

As early as in 1997, Chengli Company started the batch production of military power supply modules. Currently, its products are widely used in the equipment of the army, air force, navy, antichemical warfare corps, armored forces and communications forces of the People's Liberation Army.

Chengli Company has long carried forward the corporate philosophy of Quality and Reputation First and Users Foremost. In line with the spirit of innovation, practicality and refinement and through sound scientific management and technological progress, the company has now become a switch power supply manufacturer of a certain size, strength and level in China.

The company takes customer demand as its focus of attention, providing customers with high standard, high quality and high reliability power supply products as its goal, and vigorous production workflows, scientific quality control and comprehensive customer services as its corporate tenet.

The company has a high quality R&D force with solid theoretical knowledge and rich practical experiences, several well-equipped production lines (one of them is a military product line) and skillful workers. The company strives to make the most satisfactory response to customer needs in a complicated market environment.

In 1995, Chengli Company passed the YD/T733 test undertaken by the Industrial Product Quality Supervision and Test center of the Ministry of Post and Telecommunications. It has also formulated an enterprise standard much higher than the YD/T733 Standard.

2000: Chengli Company was the first to pass GB/T9001-2000 certification.

November 2001: Chengli Company obtained Network Access License for Telecom Equipment from the Ministry of Information Industry.

March 2004: Chengli Company obtained the GJB9001A-2001 Certificate of Conformity of Quality System Certification of Military Product Supplier.

# 公司认证证书

Our certifications



## 生产及试验设备

Production, test & measurement equipment

三条装备精良生产线 (一条军工产品生产线)

Three well-equipped production lines (one military production line)



#### 铁路专用超薄: 13mm DC-DC CFZ 系列

输入电压: 12V、24V、48V、110V  
输出路数: 单路, 双路, 三路  
特性: 输入防浪涌限制, 符合铁标 T/B3034

【重量】CFZ:0.23Kg

功率: 30-75W



#### AC-DC CCA.CCW 系列 超低输出噪音 <30mvp-p

输入电压: 220VAC  
输出路数: 单路, 双路, 三路  
特性: 符合 GB9254,  
安装方便 (端子与引针出线方式可选择)

【重量】CCA:0.25Kg  
CCW:0.25Kg

外型尺寸: 116.4\*65\*21.5  
116.4\*65\*13

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#### 小尺寸、大功率

输入电压: 12V、24V、48V  
输出路数: 单路, 双路  
特性: 输入防浪涌限制, 符合 GB9254

DC-DC COF 系列  
【重量】COF:0.38Kg

功率: 50-150W



#### AC-DC COA.COW 系列 内置浪涌抑制及滤波电路

输入电压: 220VAC  
输出路数: 单路  
特性: 符合 GB9254, EN50121  
(端子与引针出线方式可选择)

【重量】COA:0.38Kg  
COW:0.21Kg

外型尺寸: 130\*70\*26

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#### 内置浪涌抑制及滤波电路 DC-DC CEF 系列

输入电压: 12V、24V、48V  
输出路数: 单路, 双路  
特性: 外型设计美观, 双路独立稳压, 双端出线

【重量】CEF:0.46Kg

功率: 50-120W



#### AC-DC CEA 系列 内置浪涌抑制及滤波电路

输入电压: 220VAC  
输出路数: 单路, 双路, 三路  
特性: 安装方便 (自然散热与传导散热可选择)  
双路独立稳压

【重量】CEA:0.4Kg

外型尺寸: 139\*88\*26

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#### 单端出线-内置滤波电路 DC-DC CDF 系列

输入电压: 24V、48V、110V  
输出路数: 双路  
特性: 双路独立稳压, 单端出线

【重量】CDF:0.47Kg

功率: 100-150W



#### AC-DC CDA 系列 单端出线-自然散热

输入电压: 220VAC  
输出路数: 单路  
特性: 高可靠性设计

【重量】CDA:0.4Kg

外型尺寸: 139.2\*108\*27

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#### 双路大功率、传导散热 DC-DC CLF 系列

输入电压: 24V、48V、110V、300V  
输入路数: 双路  
特性: 双路独立稳压

【重量】CLF:0.8Kg

功率: 100-200W



#### AC-DC CLD 系列 双端出线-传导散热

输入电压: 220VAC  
输出路数: 双路  
特性: 双路独立稳压, 外型设计美观

【重量】CLD:0.8Kg

外型尺寸: 150\*115\*27

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#### 大功率三路独立输出 DC-DC CNF 系列

输入电压: 24V、48V、110V、300V  
输入路数: 单路, 双路, 三路  
特性: 单端出线, 散热方式可选

【重量】CNF:0.69Kg

功率: 150-300W



#### AC-DC CNA 系列 提供多种散热及装配方式

输入电压: 220VAC  
输出路数: 单路, 双路, 三路  
特性: 内置浪涌抑制及滤波电路

【重量】CNA:0.6Kg

外型尺寸: 159\*98/118\*33/27

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#### 内置浪涌抑制及滤波电路 DC-DC CIF 系列

输入电压: 12V、18V、24V、48V、110V  
输入路数: 单路, 双路  
特性: 双路独立稳压, 符合 GB9254, EN50121

【重量】CIF:0.64Kg

功率: 50-150W



#### AC-DC CIA 系列 内置功率因数校正电路

输入电压: 220VAC  
输出路数: 单路, 双路  
特性: 符合 GB9254

【重量】CIA:0.64Kg

外型尺寸: 170\*88\*26mm

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#### 提供多种散热及出线方式 DC-DC CAZ,CBZ,CCZ,CDZ,CEZ 系列

输入电压: 12V、18V、24V、48V  
 输出路数: 单路  
 功率: 75-120W  
 外型尺寸: 98\*52.5\*16, 100\*65\*18/17  
 特性: 可四倍电压输入

【重量】CAZ: 0.12Kg CBZ: 0.12Kg  
 CCZ: 0.16Kg  
 CDZ,CEZ: 0.12Kg



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#### AC-DC MAC,MAD 系列 超低输出噪声 <30mvp-p

输入电压: 220VAC  
 输出路数: 单路, 双路  
 功率: 10-30W  
 外型尺寸: 120/110\*85/65\*27  
 特性: 双路独立稳压, 安装方便  
 (带马蹄孔与不带马蹄孔方式可选择)

【重量】MAC: 0.3Kg  
 MAD: 0.28Kg



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#### 小尺寸、双路独立稳压

#### DC-DC MZM 系列

输入电压: 12V、24V、48V  
 输出路数: 双路  
 功率: 20-50W  
 外型尺寸: 92\*58\*16.1  
 特性: 双路独立稳压

【重量】MZM: 0.15Kg



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#### AC-DC CQA 系列

#### 内置功率因数校正电路

输入电压: 220VAC  
 输出路数: 单路  
 功率: 100-300W  
 外型尺寸: 210\*118\*27  
 特性: 带 PFC, 可靠性高

【重量】CQA: 0.72Kg



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#### 小尺寸、双路独立稳压

#### DC-DC CDD 系列

输入电压: 12V、24V、48V  
 输出路数: 双路  
 功率: 40-100W  
 外型尺寸: 100\*80\*19  
 特性: 双路独立稳压, 快速动态响应

【重量】CDD: 0.3Kg



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#### 单路大功率传导散热

#### DC-DC MZK 系列

输入电压: 12V、24V、48V  
 输出路数: 单路  
 功率: 150-300W  
 外型尺寸: 129\*79\*25.5  
 特性: 可靠性高, 电磁兼容性好

【重量】MZK: 0.39Kg



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#### 薄型、大功率、双路独立稳压

#### DC-DC COZ,CPZ 系列

输入电压: 12V、24V、48V  
 输出路数: 单路, 双路  
 功率: 150-300W  
 外型尺寸: 160\*88\*23  
 特性: 底面散热与顶面散热可选择

【重量】COZ: 0.4Kg CPZ: 0.47Kg



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# DC/DC CFZ 系列

铁路专用超薄：13mm

# AC/DC CCA,CCW 系列

超低输出噪音 <30mvp-p

30-75W



## 特性

## Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950, IEC950 safety regulations

## CFZ 输入特性

## CFZ Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal) 9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal) 18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal) 36-72V <sub>DC</sub>

## CCA,CCW 输入特性

## CCA,CCW Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220V <sub>AC</sub> (Normal) 176-264V <sub>AC</sub>
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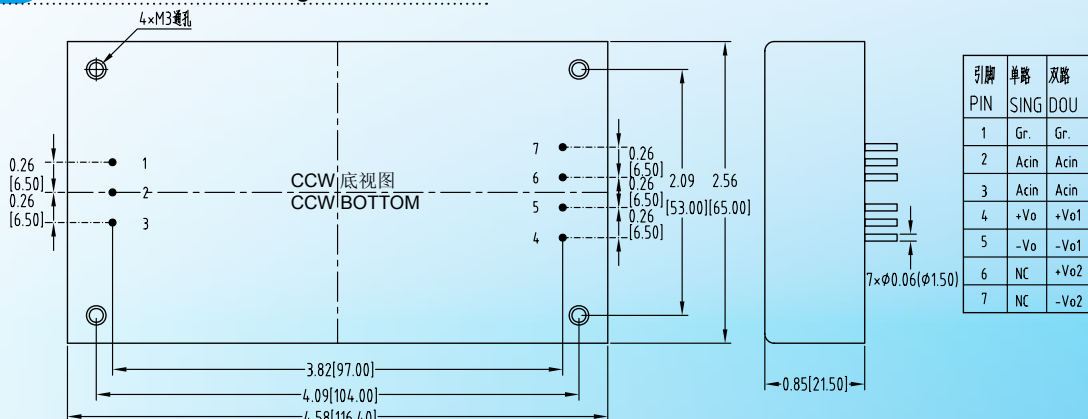
## 输出特性

## Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
交叉调节率 (Cross Regulation) (主路 30%-100% 负载, 辅路 80% 负载) (Main load 30%-100%, Aux load 80%)	±3%
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

## 尺寸图

## Dimensioned Drawing



单位尺寸为英寸(毫米)  
ALL DIMENSIONS IN INCHES(MM)

## 物理特性

结构尺寸: 116.4\*65\*21.5mm  
重量: CFZ:0.23Kg  
CCA:0.25KgCCW:0.25Kg

## 一般特性

## General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

## 绝缘强度 (Insulation Voltage)

DC-DC	AC-DC
输入-输出: > 1500 V <sub>DC</sub> (Input-Output)	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入-外壳: > 1050 V <sub>DC</sub> (Input-Case)	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出-外壳: > 500 V <sub>DC</sub> (Output-Case)	> 500 V <sub>DC</sub> /1min

## 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
	军 II (Military II)	-55~+85°C
存储温度: (Storage Temperature)	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

## 热阻特性

## Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	3.58°C /W
0.5M/S	2.98°C /W
1M/S	2.24°C /W
1.5M/S	1.64°C /W
2M/S	1.34°C /W

# DC/DC CFZ 系列

## 型号

## Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	05	6	30	82%	CFZ-X30-12S05
12	9-18	05	6	50	82%	CFZ30-12S05
12	9-18	12	2.5	30	82%	CFZ-X30-12S12
12	9-18	12	2.5	120	82%	CFZ30-12S12
12	9-18	48	0.63	300	84%	CFZ30-12S48
12	9-18	05	10	30	82%	CFZ-X50-12S05
12	9-18	05	10	50	82%	CFZ50-12S05
12	9-18	12	4.17	30	82%	CFZ-X50-12S12
12	9-18	12	4.17	120	82%	CFZ50-12S12
12	9-18	24	2.08	200	83%	CFZ50-12S24
12	9-18	05	15	30	82%	CFZ-X75-12S05
12	9-18	05	15	50	82%	CFZ75-12S05
12	9-18	12	6.25	30	82%	CFZ-X75-12S12
12	9-18	12	6.25	120	82%	CFZ75-12S12
12	9-18	24	3.13	200	83%	CFZ75-12S24
24	18-36	05	6	30	82%	CFZ-X30-24S05
24	18-36	05	6	50	82%	CFZ30-24S05
24	18-36	12	2.5	30	82%	CFZ-X30-24S12
24	18-36	12	2.5	120	82%	CFZ30-24S12
24	18-36	24	1.25	200	83%	CFZ30-24S24
24	18-36	05	10	30	82%	CFZ-X50-24S05
24	18-36	05	10	50	82%	CFZ50-24S05
24	18-36	15	3.33	150	82%	CFZ50-24S15
24	18-36	24	2.08	200	83%	CFZ50-24S24
24	18-36	48	1.04	300	84%	CFZ50-24S48
24	18-36	05	15	30	82%	CFZ-X75-24S05
24	18-36	05	15	50	82%	CFZ75-24S05
24	18-36	15	5	150	82%	CFZ75-24S15
24	18-36	24	3.13	200	83%	CFZ75-24S24
24	18-36	48	1.56	300	84%	CFZ75-24S48
48	36-72	05	6	50	82%	CFZ30-48S05
48	36-72	12	2.5	120	82%	CFZ30-48S12
48	36-72	24	1.25	200	83%	CFZ30-48S24
48	36-72	48	0.63	300	84%	CFZ30-48S48
48	36-72	05	10	30	82%	CFZ-X50-48S05
48	36-72	05	10	50	82%	CFZ50-48S05
48	36-72	24	2.08	200	83%	CFZ50-48S24
48	36-72	48	1.04	300	84%	CFZ50-48S48
48	36-72	05	15	50	82%	CFZ75-48S05
48	36-72	12	6.25	120	82%	CFZ75-48S12
48	36-72	24	3.13	200	83%	CFZ75-48S24
48	36-72	48	1.56	300	84%	CFZ75-48S48
12	9-18	05&12	2&1.67	30&30	82%	CFZ-X30-12D05&12
12	9-18	05&12	2&1.67	50&120	82%	CFZ30-12D05&12
12	9-18	12&12	1.25&1.25	30&30	82%	CFZ-X30-12D12&12
12	9-18	12&12	1.25&1.25	120&120	82%	CFZ30-12D12&12
24	18-36	05&12	4&2.5	50&120	82%	CFZ50-24D05&12
24	18-36	05&24	4&1.25	50&200	82%	CFZ50-24D05&24
24	18-36	12&12	2&2	120&120	82%	CFZ50-24D12&12
24	18-36	12&24	2&1	120&200	82%	CFZ50-24D12&24
48	36-72	05&12	5&4.17	50&120	82%	CFZ75-48D05&12
48	36-72	05&24	5&2	50&200	82%	CFZ75-48D05&24
48	36-72	12&12	3&3	120&120	82%	CFZ75-48D12&12

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.



# AC/DC CCA,CCW 系列

型号

Models

	输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
单路	220	176-264	05	6	30	82%	CCA-X30-220S05
	220	176-264	05	6	50	82%	CCA30-220S05
	220	176-264	12	2.5	30	82%	CCA-X30-220S12
	220	176-264	12	2.5	120	82%	CCA30-220S12
	220	176-264	24	1.25	200	83%	CCA30-220S24
	220	176-264	28	1.07	300	83%	CCA30-220S28
	220	176-264	48	0.63	300	84%	CCA30-220S48
	220	176-264	05	8	30	82%	CCA-X40-220S05
	220	176-264	05	8	50	82%	CCA40-220S05
	220	176-264	12	3.33	30	82%	CCA-X40-220S12
	220	176-264	12	3.33	120	82%	CCA40-220S12
	220	176-264	24	1.67	200	83%	CCA40-220S24
	220	176-264	28	1.43	300	83%	CCA40-220S28
	220	176-264	48	0.83	300	84%	CCA40-220S48
	220	176-264	05	10	30	82%	CCA-X50-220S05
	220	176-264	05	10	50	82%	CCA50-220S05
二路	220	176-264	12	4.17	30	82%	CCA-X50-220S12
	220	176-264	12	4.17	120	82%	CCA50-220S12
	220	176-264	24	2.08	200	83%	CCA50-220S24
	220	176-264	28	1.79	300	83%	CCA50-220S28
	220	176-264	48	1.04	300	84%	CCA50-220S48
	220	176-264	12	5	120	82%	CCA60-220S12
	220	176-264	13.8	4.35	120	82%	CCA60-220S13.8
	220	176-264	15	4	120	82%	CCA60-220S15
	220	176-264	24	2.5	200	83%	CCA60-220S24
	220	176-264	28	2.14	300	83%	CCA60-220S28
	220	176-264	36	1.67	300	83%	CCA60-220S36
	220	176-264	48	1.25	300	84%	CCA60-220S48
	220	176-264	24	2.92	200	83%	CCA70-220S24
	220	176-264	28	2.5	300	83%	CCA70-220S28
	220	176-264	48	1.46	300	84%	CCA70-220S48
	220	176-264	12	6.25	120	82%	CCA75-220S12
220	176-264	13.8	5.43	120	82%	CCA75-220S13.8	
三路	220	176-264	15	5	150	82%	CCA75-220S15
	220	176-264	24	3.13	200	83%	CCA75-220S24
	220	176-264	28	2.68	300	83%	CCA75-220S28
	220	176-264	48	1.56	300	84%	CCA75-220S48
	220	176-264	05&05	3&3	30&30	82%	CCA-X30-220D05&05
	220	176-264	05&05	3&3	50&50	82%	CCA30-220D05&05
	220	176-264	05&12	2&1.67	30&30	82%	CCA-X30-220D05&12
	220	176-264	05&12	2&1.67	50&120	82%	CCA30-220D05&12
	220	176-264	05&05	4&4	50&50	82%	CCA40-220D05&05
	220	176-264	05&12	4&2.5	50&120	82%	CCA50-220D05&12
	220	176-264	12&12	2&2	120&120	82%	CCA50-220D12&12
	220	176-264	12&24	2&1	120&200	82%	CCA50-220D12&24
	220	176-264	05&24	5&2	50&200	82%	CCA75-220D05&24
	220	176-264	05&12	5&4.17	50&120	82%	CCA75-220D05&12
	220	176-264	12&12	3&3	120&120	82%	CCA75-220D12&12
	220	176-264	12&24	3&1.5	120&200	82%	CCA75-220D12&24
三路	220	176-264	±05, +12	2/2/0.83	50/50/120	81%	CCA30-220T05+12
	220	176-264	±12, +05	1.25/1.25/4	120/120/50	84%	CCA50-220T12+05
	220	176-264	±12, +24	2/2/1.13	120/120/200	86%	CCA75-220T12+24

注：以上 CCA 的选型，CCW 均可定制。 All above model CCA selected CCW able to customize.

型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Model selection of the mark with an "X" is low ripple power supply ,the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed.If you need other models,please confirm the power,input voltage and output voltage,then phone us.

# DC/DC COF 系列

小尺寸、大功率

# AC/DC COA,COW 系列

内置浪涌抑制及滤波电路

50-150W



## 特性

## Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950, IEC950 safety regulations

## COF 输入特性

## COF Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>

## COA,COW 输入特性

## COA,COW Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220V <sub>AC</sub> (Normal)	176-264V <sub>AC</sub>
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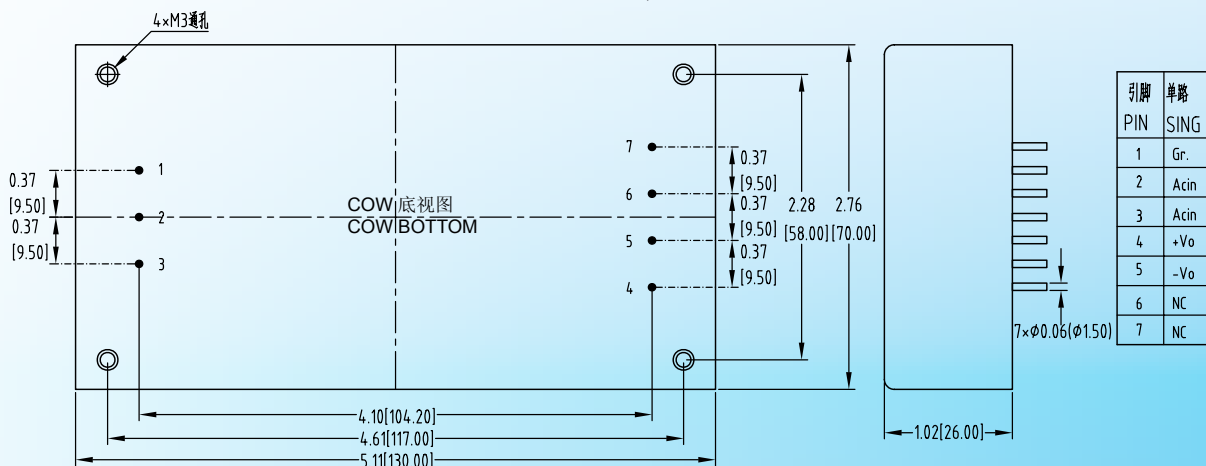
## 输出特性

## Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

## 尺寸图

## Dimensioned Drawing



单位尺寸为英寸(毫米)  
ALL DIMENSIONS IN INCHES(MM)

## 物理特性

结构尺寸: 130\*70\*26mm  
重量: COF: 0.38Kg  
COA: 0.38Kg COW: 0.21Kg

## 一般特性

## General Characteristics

工作频率(典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ) MΩ
MTBF:	>500000 hrs

## 绝缘强度 (Insulation Voltage)

### DC-DC

### AC-DC

输入-输出: (Input-Output)	> 1500 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入-外壳: (Input-Case)	> 1050 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出-外壳: (Output-Case)	> 500 V <sub>DC</sub>	> 500 V <sub>DC</sub> /1min

## 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
	军 II (Military II)	-55~+85°C
存储温度: (Storage Temperature)	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

## 热阻特性

## Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	2.90°C/W
0.5M/S	2.42°C/W
1M/S	1.82°C/W
1.5M/S	1.32°C/W
2M/S	1.09°C/W

# DC/DC COF 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	5	10	30	80%	COF-X50-12S05
12	9-18	5	10	50	80%	COF50-12S05
12	9-18	12	6.25	30	82%	COF-X75-12S12
12	9-18	12	6.25	120	82%	COF75-12S12
12	9-18	18	4.17	200	82%	COF75-12S18
12	9-18	24	3.13	200	83%	COF75-12S24
12	9-18	12	8.33	30	82%	COF-X100-12S12
12	9-18	12	8.33	120	82%	COF100-12S12
12	9-18	15	6.67	150	82%	COF100-12S15
12	9-18	18	5.56	200	82%	COF100-12S18
12	9-18	24	4.17	200	83%	COF100-12S24
12	9-18	12	10	120	82%	COF120-12S12
12	9-18	15	8	150	82%	COF120-12S15
12	9-18	18	6.67	200	82%	COF120-12S18
12	9-18	24	5	200	83%	COF120-12S24
12	9-18	12	12.5	120	82%	COF150-12S12
12	9-18	15	10	150	82%	COF150-12S15
12	9-18	18	8.33	200	82%	COF150-12S18
12	9-18	24	6.25	200	83%	COF150-12S24
24	18-36	12	6.25	120	82%	COF75-24S12
24	18-36	13.8	5.43	120	82%	COF75-24S13.8
24	18-36	15	5	150	82%	COF75-24S15
24	18-36	18	4.17	200	82%	COF75-24S18
24	18-36	24	3.13	200	83%	COF75-24S24
24	18-36	48	1.56	300	83%	COF75-24S48
24	18-36	12	8.33	120	82%	COF100-24S12
24	18-36	13.8	7.25	120	82%	COF100-24S13.8
24	18-36	15	6.67	150	82%	COF100-24S15
24	18-36	18	5.56	200	82%	COF100-24S18
24	18-36	24	4.17	200	83%	COF100-24S24
24	18-36	48	2.08	300	83%	COF100-24S48
24	18-36	12	10	120	82%	COF120-24S12
24	18-36	15	8	150	82%	COF120-24S15
24	18-36	18	6.67	200	82%	COF120-24S18
24	18-36	24	5	200	83%	COF120-24S24
24	18-36	48	2.5	300	83%	COF120-24S48
24	18-36	12	12.5	120	82%	COF150-24S12
24	18-36	15	10	150	82%	COF150-24S15
24	18-36	18	8.33	200	82%	COF150-24S18
24	18-36	24	6.25	200	83%	COF150-24S24
48	36-72	12	6.25	120	82%	COF75-48S12
48	36-72	24	3.13	200	82%	COF75-48S24
48	36-72	48	1.56	300	83%	COF75-48S48
48	36-72	12	8.33	120	82%	COF100-48S12
48	36-72	24	4.17	200	83%	COF100-48S24
48	36-72	48	2.08	300	83%	COF100-48S48
48	36-72	12	10	120	82%	COF120-48S12
48	36-72	15	8	150	82%	COF120-48S15
48	36-72	24	5	200	83%	COF120-48S24
48	36-72	48	2.5	300	83%	COF120-48S48
48	36-72	12	12.5	120	82%	COF150-48S12
48	36-72	24	6.25	200	83%	COF150-48S24
48	36-72	48	3.13	300	83%	COF150-48S48

单  
路

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# AC/DC COA,COW 系列

## 型号 Models

输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
220	176-264	05	10	30	82%	COA-X50-220S05
220	176-264	05	10	50	82%	COA50-220S05
220	176-264	12	4.17	30	82%	COA-X50-220S12
220	176-264	12	4.17	120	82%	COA50-220S12
220	176-264	15	3.33	150	82%	COA50-220S15
220	176-264	24	2.08	200	83%	COA50-220S24
220	176-264	28	1.79	300	83%	COA50-220S28
220	176-264	36	1.39	300	83%	COA50-220S36
220	176-264	48	1.04	300	83%	COA50-220S48
220	176-264	09	6.67	90	82%	COA60-220S09
220	176-264	12	5	30	82%	COA-X60-220S12
220	176-264	12	5	120	82%	COA60-220S12
220	176-264	15	4	150	82%	COA60-220S15
220	176-264	24	2.5	200	83%	COA60-220S24
220	176-264	28	2.14	300	83%	COA60-220S28
220	176-264	36	1.67	300	83%	COA60-220S36
220	176-264	48	1.25	300	83%	COA60-220S48
220	176-264	12	6.25	120	82%	COA75-220S12
220	176-264	13.8	5.43	120	82%	COA75-220S13.8
220	176-264	15	5	30	82%	COA-X75-220S15
220	176-264	15	5	150	82%	COA75-220S15
220	176-264	24	3.13	30	83%	COA-X75-220S24
220	176-264	24	3.13	200	83%	COA75-220S24
220	176-264	36	2.08	300	83%	COA75-220S36
220	176-264	48	1.56	300	83%	COA75-220S48
220	176-264	12	7.08	120	82%	COA85-220S12
220	176-264	13.8	6.16	120	82%	COA85-220S13.8
220	176-264	15	5.67	150	82%	COA85-220S15
220	176-264	18	4.72	200	82%	COA85-220S18
220	176-264	24	3.54	200	83%	COA85-220S24
220	176-264	28	3.04	300	83%	COA85-220S28
220	176-264	36	2.36	300	83%	COA85-220S36
220	176-264	48	1.77	300	83%	COA85-220S48
220	176-264	15	6.67	150	83%	COA100-220S15
220	176-264	18	5.56	200	83%	COA100-220S18
220	176-264	24	4.17	200	83%	COA100-220S24
220	176-264	28	3.57	300	83%	COA100-220S28
220	176-264	36	2.78	300	83%	COA100-220S36
220	176-264	48	2.08	300	84%	COA100-220S48
220	176-264	12	10	120	82%	COA120-220S12
220	176-264	15	8	150	83%	COA120-220S15
220	176-264	18	6.67	200	83%	COA120-220S18
220	176-264	24	5	30	83%	COA-X120-220S24
220	176-264	24	5	200	83%	COA120-220S24
220	176-264	36	3.33	300	83%	COA120-220S36
220	176-264	48	2.5	300	84%	COA120-220S48
220	176-264	12	12.5	120	82%	COA150-220S12
220	176-264	15	10	150	83%	COA150-220S15
220	176-264	18	8.33	200	83%	COA150-220S18
220	176-264	24	6.25	200	83%	COA150-220S24
220	176-264	28	5.36	300	84%	COA150-220S28
220	176-264	36	4.17	300	84%	COA150-220S36

单  
路

注：以上 COA 的选型，COW 均可定制。 All above model COA selected COW able to customize.  
型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。 Model selection of the mark with an "X" is low ripple power supply ,the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。  
Only typical models and listed.If you need other models,please confirm the power,input voltage and output voltage,then phone us.

# DC/DC CEF 系列

内置浪涌抑制及滤波电路

# AC/DC CEA 系列

内置浪涌抑制及滤波电路

50-150W



### 物理特性

结构尺寸: 139\*88\*26mm  
重量: CEF:0.46Kg CEA:0.4Kg

## 特性

### Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950, IEC950 safety regulations

### CEF 输入特性

#### CEF Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal) 9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal) 18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal) 36-72V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

### CEA 输入特性

#### CEA Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220V <sub>AC</sub> (Normal) 176-264V <sub>AC</sub>
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### 输出特性

#### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

### 一般特性

#### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

### 绝缘强度 (Insulation Voltage)

	<b>DC-DC</b>	<b>AC-DC</b>
输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>	> 500 V <sub>DC</sub> /1min

### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85°C
	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

### 热阻特性

#### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	2.20°C /W
0.5M/S	1.83°C /W
1M/S	1.38°C /W
1.5M/S	1.01°C /W
2M/S	0.82°C /W

# DC/DC CEF 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	05&05	4&4	30&30	82%	CEF-X40-12D05&05
12	9-18	05&05	4&4	50&50	82%	CEF40-12D05&05
12	9-18	12&12	1.67&1.67	30&30	82%	CEF-X40-12D12&12
12	9-18	12&12	1.67&1.67	120&120	82%	CEF40-12D12&12
12	9-18	24&24	0.8&0.8	200&200	83%	CEF40-12D24&24
12	9-18	24&48	0.8&0.4	200&300	83%	CEF40-12D24&48
12	9-18	05&12	5&4.17	30&30	82%	CEF-X75-12D05&12
12	9-18	05&12	5&4.17	50&120	82%	CEF75-12D05&12
12	9-18	12&24	2.5&1.88	120&200	83%	CEF75-12D12&24
12	9-18	24&24	1.56&1.56	200&200	83%	CEF75-12D24&24
12	9-18	24&48	1&1	200&300	83%	CEF75-12D24&48
12	9-18	05&12	4&6.67	50&120	82%	CEF100-12D05&12
12	9-18	12&12	4.17&4.17	120&120	82%	CEF100-12D12&12
12	9-18	12&24	2.5&2.92	120&200	83%	CEF100-12D12&24
12	9-18	24&24	2&2	200&200	83%	CEF100-12D24&24
12	9-18	24&48	1.25&1.46	200&300	83%	CEF100-12D24&48
24	18-36	05&05	4&4	50&50	82%	CEF40-24D05&05
24	18-36	05&12	2&2.5	50&120	82%	CEF40-24D05&12
24	18-36	12&12	1.67&1.67	120&120	82%	CEF40-24D12&12
24	18-36	12&24	1.25&1	120&200	83%	CEF40-24D12&24
24	18-36	24&24	0.8&0.8	200&200	83%	CEF40-24D24&24
24	18-36	24&48	0.8&0.4	200&300	83%	CEF40-24D24&48
24	18-36	05&12	5&4.17	50&120	82%	CEF75-24D05&12
24	18-36	12&12	3&3	120&120	82%	CEF75-24D12&12
24	18-36	12&24	2.5&1.88	120&200	83%	CEF75-24D12&24
24	18-36	24&24	1.56&1.56	200&200	83%	CEF75-24D24&24
24	18-36	24&48	1&1	200&300	83%	CEF75-24D24&48
24	18-36	05&12	4&6.67	50&120	82%	CEF100-24D05&12
24	18-36	12&12	4.17&4.17	120&120	82%	CEF100-24D12&12
24	18-36	12&24	2.5&2.92	120&200	83%	CEF100-24D12&24
24	18-36	24&24	2&2	200&200	83%	CEF100-24D24&24
24	18-36	24&48	1.25&1.46	200&300	83%	CEF100-24D24&48
48	36-72	05&05	4&4	50&50	82%	CEF40-48D05&05
48	36-72	05&12	2&2.5	50&120	82%	CEF40-48D05&12
48	36-72	12&12	1.67&1.67	120&120	82%	CEF40-48D12&12
48	36-72	12&24	1.25&1	120&200	83%	CEF40-48D12&24
48	36-72	24&24	0.8&0.8	200&200	83%	CEF40-48D24&24
48	36-72	24&48	0.8&0.4	200&300	83%	CEF40-48D24&48
48	36-72	05&12	5&4.17	50&120	82%	CEF75-48D05&12
48	36-72	12&12	3&3	120&120	82%	CEF75-48D12&12
48	36-72	12&24	2.5&1.88	120&200	83%	CEF75-48D12&24
48	36-72	24&24	1.56&1.56	200&200	83%	CEF75-48D24&24
48	36-72	24&48	1&1	200&300	83%	CEF75-48D24&48
48	36-72	05&12	4&6.67	50&120	82%	CEF100-48D05&12
48	36-72	12&12	4.17&4.17	120&120	82%	CEF100-48D12&12
48	36-72	12&24	2.5&2.92	120&200	83%	CEF100-48D12&24
48	36-72	24&24	2&2	200&200	83%	CEF100-48D24&24
48	36-72	24&48	1.25&1.46	200&300	83%	CEF100-48D24&48
12	9-18	±12, +05	2.5/2.5/3	120/120/50	83%	CEF75-12T12+05
12	9-18	±15, +05	2.67/2.67/4	150/150/50	83%	CEF100-12T15+05
24	18-36	±12, +05	2.5/2.5/3	120/120/50	83%	CEF75-24T12+05
24	18-36	±15, +05	2.67/2.67/4	150/150/50	83%	CEF100-24T15+05
48	36-72	±12, +12	2.5/2.5/3.33	120/120/120	83%	CEF100-48T12+12

注: 以上选型, 型号中功率前面带“X”的为低纹波电源, 纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明: 仅列出典型型号, 其它型号请确定功率、输入电压及输出电压后, 致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

## 型号

## Models

	输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
单	220	176-264	05	10	30	82%	CEA-X50-220S05
	220	176-264	05	10	50	82%	CEA50-220S05
	220	176-264	12	4.17	30	82%	CEA-X50-220S12
	220	176-264	12	4.17	120	82%	CEA50-220S12
	220	176-264	05	15	50	82%	CEA75-220S05
	220	176-264	12	6.25	120	82%	CEA75-220S12
	220	176-264	13.8	5.43	120	82%	CEA75-220S13.8
	220	176-264	15	5	150	82%	CEA75-220S15
	220	176-264	24	3.13	200	83%	CEA75-220S24
	220	176-264	05	20	50	82%	CEA100-220S05
路	220	176-264	12	8.33	120	82%	CEA100-220S12
	220	176-264	13.8	7.25	120	82%	CEA100-220S13.8
	220	176-264	15	6.67	150	82%	CEA100-220S15
	220	176-264	24	4.17	200	83%	CEA100-220S24
	220	176-264	12	10	120	82%	CEA120-220S12
	220	176-264	15	8	150	82%	CEA120-220S15
	220	176-264	24	5	200	83%	CEA120-220S24
	220	176-264	48	2.5	300	84%	CEA120-220S48
	220	176-264	12	12.5	120	82%	CEA150-220S12
	220	176-264	15	10	150	82%	CEA150-220S15
路	220	176-264	24	6.25	200	83%	CEA150-220S24
	220	176-264	48	3.13	300	84%	CEA150-220S48
	220	176-264	05&05	5&5	30&30	82%	CEA-X50-220D05&05
	220	176-264	05&05	5&5	50&50	82%	CEA50-220D05&05
	220	176-264	05&05	7.5&7.5	30&30	82%	CEA-X75-220D05&05
	220	176-264	05&05	7.5&7.5	50&50	82%	CEA75-220D05&05
	220	176-264	12&12	3&3	30&30	82%	CEA-X75-220D12&12
	220	176-264	12&12	3&3	120&120	82%	CEA75-220D12&12
	220	176-264	05&05	10&10	50&50	82%	CEA100-220D05&05
	220	176-264	05&12	6&5.83	50&120	82%	CEA100-220D05&12
路	220	176-264	05&24	4&3.33	50&200	82%	CEA100-220D05&24
	220	176-264	12&12	4.17&4.17	120&120	82%	CEA100-220D12&12
	220	176-264	05&05	12&12	50&50	82%	CEA120-220D05&05
	220	176-264	05&12	8&6.67	50&120	82%	CEA120-220D05&12
	220	176-264	05&24	4&4.17	50&200	82%	CEA120-220D05&24
	220	176-264	12&12	5&5	120&120	82%	CEA120-220D12&12
	220	176-264	12&24	3.33&3.33	120&200	82%	CEA120-220D12&24
	220	176-264	05&05	15&15	50&50	82%	CEA150-220D05&05
	220	176-264	05&12	10&8.33	50&120	82%	CEA150-220D05&12
	220	176-264	05&24	6&5	50&200	82%	CEA150-220D05&24
三	220	176-264	12&12	6.25&6.25	120&120	82%	CEA150-220D12&12
	220	176-264	12&24	3.33&4.58	120&200	82%	CEA150-220D12&24
	220	176-264	24&24	3.13&3.13	200&200	84%	CEA150-220D24&24
	220	176-264	±12, +05	1.5/1.42/3	120/120/50	82%	CEA50-220T12+05
	220	176-264	±05, +12	2/2/2.5	50/50/120	82%	CEA50-220T05+12
	220	176-264	±05, +24	2/2/1.25	50/50/300	83%	CEA50-220T05+24
	220	176-264	±12, +05	3/3/4	120/120/50	82%	CEA100-220T12+05
	220	176-264	±05, +12	4/4/5	50/50/120	82%	CEA100-220T05+12
	220	176-264	±05, +24	3/3/2.92	50/50/300	83%	CEA100-220T05+24
	220	176-264	±12, +05	5/5/6	120/120/50	82%	CEA150-220T12+05
路	220	176-264	±05, +12	6/6/7.5	50/50/120	82%	CEA150-220T05+12
	220	176-264	±05, +24	3/3/5	50/50/300	83%	CEA150-220T05+24
	220	176-264	±12, +15	4/4/3.6	120/120/150	83%	CEA150-220T12+15

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

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# DC/DC CDF 系列

单端出线 - 内置滤波电路

# AC/DC CDA 系列

单端出线 - 自然散热

100-200W



## 物理特性

结构尺寸: 139.2\*108\*27mm  
重量: CDF:0.47Kg CDA:0.40Kg

## 特性

### Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950, IEC950 safety regulations

## CDF 输入特性

### CDF Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>
	110V <sub>DC</sub> (Normal)	66-160V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

## CDA 输入特性

### CDA Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220V <sub>AC</sub> (Normal)	176-264V <sub>AC</sub>
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## 输出特性

### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

## 一般特性

### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

## 绝缘强度 (Insulation Voltage)

	<b>DC-DC</b>	<b>AC-DC</b>
输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>	> 500 V <sub>DC</sub> /1min

## 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85°C
	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

## 热阻特性

### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	2.20°C /W
0.5M/S	1.84°C /W
1M/S	1.37°C /W
1.5M/S	0.99°C /W
2M/S	0.83°C /W



# DC/DC CDF 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
24	18-36	12&12	4.17&4.17	30&30	82%	CDF-X100-24D12&12
24	18-36	12&12	4.17&4.17	120&120	82%	CDF100-24D12&12
24	18-36	24&24	2&2	200&200	83%	CDF100-24D24&24
24	18-36	24&24	1.25&2.92	200&200	83%	CDF100-24D24&24
24	18-36	48&48	1&1	300&300	85%	CDF100-24D48&48
24	18-36	48&48	0.5&1.5	300&300	85%	CDF100-24D48&48
24	18-36	12&12	5&5	120&120	82%	CDF120-24D12&12
24	18-36	12&12	3.33&6.66	30&30	82%	CDF-X120-24D12&12
24	18-36	12&12	3.33&6.66	120&120	82%	CDF120-24D12&12
24	18-36	24&24	1.67&3.33	200&200	83%	CDF120-24D24&24
24	18-36	48&48	1.25&1.25	300&300	85%	CDF120-24D48&48
24	18-36	48&48	1&1.46	300&300	85%	CDF120-24D48&48
24	18-36	12&12	6.25&6.25	120&120	82%	CDF150-24D12&12
24	18-36	12&12	4.17&8.33	120&120	82%	CDF150-24D12&12
24	18-36	24&24	3.13&3.13	200&200	83%	CDF150-24D24&24
24	18-36	24&24	2&4.17	200&200	83%	CDF150-24D24&24
24	18-36	48&48	1.56&1.56	300&300	85%	CDF150-24D48&48
24	18-36	48&48	1&2	300&300	85%	CDF150-24D48&48
48	36-72	12&12	4.17&4.17	120&120	82%	CDF100-48D12&12
48	36-72	12&12	2.5&5.83	120&120	82%	CDF100-48D12&12
48	36-72	24&24	2&2	200&200	83%	CDF100-48D24&24
48	36-72	24&24	1.25&2.92	200&200	83%	CDF100-48D24&24
48	36-72	48&48	1&1	300&300	85%	CDF100-48D48&48
48	36-72	48&48	0.5&1.5	300&300	85%	CDF100-48D48&48
48	36-72	12&12	5&5	120&120	82%	CDF120-48D12&12
48	36-72	12&12	3.33&6.66	120&120	82%	CDF120-48D12&12
48	36-72	24&24	2.5&2.5	200&200	83%	CDF120-48D24&24
48	36-72	24&24	1.67&3.33	200&200	83%	CDF120-48D24&24
48	36-72	48&48	1.25&1.25	300&300	85%	CDF120-48D48&48
48	36-72	48&48	1&1.46	300&300	85%	CDF120-48D48&48
48	36-72	12&12	6.25&6.25	120&120	82%	CDF150-48D12&12
48	36-72	12&12	4.17&8.33	120&120	82%	CDF150-48D12&12
48	36-72	24&24	3.13&3.13	200&200	83%	CDF150-48D24&24
48	36-72	24&24	2&4.17	200&200	83%	CDF150-48D24&24
48	36-72	48&48	1.56&1.56	300&300	85%	CDF150-48D48&48
48	36-72	48&48	1&2	300&300	85%	CDF150-48D48&48
110	66-160	12&12	4.17&4.17	120&120	82%	CDF100-110D12&12
110	66-160	12&12	2.5&5.83	120&120	82%	CDF100-110D12&12
110	66-160	24&24	2&2	200&200	83%	CDF100-110D24&24
110	66-160	24&24	1.25&2.92	200&200	83%	CDF100-110D24&24
110	66-160	48&48	1&1	300&300	85%	CDF100-110D48&48
110	66-160	48&48	0.5&1.5	300&300	85%	CDF100-110D48&48
110	66-160	12&12	5&5	120&120	82%	CDF120-110D12&12
110	66-160	12&12	3.33&6.66	120&120	82%	CDF120-110D12&12
110	66-160	24&24	2.5&2.5	200&200	83%	CDF120-110D24&24
110	66-160	24&24	1.67&3.33	200&200	83%	CDF120-110D24&24
110	66-160	48&48	1.25&1.25	300&300	85%	CDF120-110D48&48
110	66-160	48&48	1&1.46	300&300	85%	CDF120-110D48&48
110	66-160	12&12	6.25&6.25	120&120	82%	CDF150-110D12&12
110	66-160	12&12	4.17&8.33	120&120	82%	CDF150-110D12&12
110	66-160	24&24	3.13&3.13	200&200	83%	CDF150-110D24&24
110	66-160	24&24	2&4.17	200&200	83%	CDF150-110D24&24
110	66-160	48&48	1.56&1.56	300&300	85%	CDF150-110D48&48

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

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# AC/DC CDA 系列

型号

Models

输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
220	176-264	12	8.33	30	82%	CDA-X100-220S12
220	176-264	12	8.33	120	82%	CDA100-220S12
220	176-264	15	6.67	30	82%	CDA-X100-220S15
220	176-264	15	6.67	150	82%	CDA100-220S15
220	176-264	20	5	200	83%	CDA100-220S20
220	176-264	24	4.17	200	83%	CDA100-220S24
220	176-264	28	3.57	300	83%	CDA100-220S28
220	176-264	36	2.78	300	84%	CDA100-220S36
220	176-264	48	2.08	300	84%	CDA100-220S48
220	176-264	12	10	120	82%	CDA120-220S12
220	176-264	13.8	8.7	120	82%	CDA120-220S13.8
220	176-264	15	8	150	82%	CDA120-220S15
220	176-264	18	6.67	180	82%	CDA120-220S18
220	176-264	20	6	200	83%	CDA120-220S20
220	176-264	24	5	200	83%	CDA120-220S24
220	176-264	28	4.29	300	83%	CDA120-220S28
220	176-264	36	3.33	300	84%	CDA120-220S36
220	176-264	48	2.5	300	84%	CDA120-220S48
220	176-264	12	12.5	120	82%	CDA150-220S12
220	176-264	13.8	10.87	120	82%	CDA150-220S13.8
220	176-264	15	10	150	82%	CDA150-220S15
220	176-264	18	8.33	180	82%	CDA150-220S18
220	176-264	20	7.5	200	83%	CDA150-220S20
220	176-264	24	6.25	200	83%	CDA150-220S24
220	176-264	28	5.36	300	83%	CDA150-220S28
220	176-264	36	4.17	300	84%	CDA150-220S36
220	176-264	48	3.13	300	84%	CDA150-220S48
220	176-264	15	11.67	150	83%	CDA175-220S15
220	176-264	18	9.72	180	83%	CDA175-220S18
220	176-264	20	8.75	200	83%	CDA175-220S20
220	176-264	24	7.29	200	83%	CDA175-220S24
220	176-264	28	6.25	300	83%	CDA175-220S28
220	176-264	36	4.86	300	84%	CDA175-220S36
220	176-264	48	3.65	300	84%	CDA175-220S48
220	176-264	15	13.33	150	83%	CDA200-220S15
220	176-264	18	11.11	180	83%	CDA200-220S18
220	176-264	20	10	200	83%	CDA200-220S20
220	176-264	24	8.33	200	83%	CDA200-220S24
220	176-264	28	7.14	300	83%	CDA200-220S28
220	176-264	36	5.56	300	84%	CDA200-220S36
220	176-264	48	4.17	300	84%	CDA200-220S48

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注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# DC/DC CLF 系列

双路大功率、传导散热

# AC/DC CLD 系列

双端出线 - 传导散热

100-200W



## 物理特性

结构尺寸: 150\*115\*27mm  
重量: CLF: 0.8Kg CLD: 0.8Kg

## 特性

### Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950, IEC950 safety regulations

## CLF 输入特性

### CLF Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal) 9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal) 18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal) 36-72V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

## CLD 输入特性

### CLD Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220V <sub>AC</sub> (Normal) 176-264V <sub>AC</sub>
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## 输出特性

### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% / °C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

## 一般特性

### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ) MΩ
MTBF:	>500000 hrs

## 绝缘强度 (Insulation Voltage)

	<b>DC-DC</b>	<b>AC-DC</b>
输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>	> 500 V <sub>DC</sub> /1min

## 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85°C
	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

## 热阻特性

### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	1.62°C / W
0.5M/S	1.34°C / W
1M/S	1.00°C / W
1.5M/S	0.96°C / W
2M/S	0.71°C / W

# DC/DC CLF 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	05&12	4&6.67	30&30	82%	CLF-X100-12D05&12
12	9-18	05&12	4&6.67	50&120	83%	CLF100-12D05&12
12	9-18	05&15	8&4	50&150	83%	CLF100-12D05&15
12	9-18	05&18	6&4	50&180	83%	CLF100-12D05&18
12	9-18	05&24	6&3	50&200	83%	CLF100-12D05&24
12	9-18	05&48	4&1.67	50&300	83%	CLF100-12D05&48
12	9-18	12&12	6.25&6.25	30&30	82%	CLF-X150-12D12&12
12	9-18	12&12	6.25&6.25	120&120	83%	CLF150-12D12&12
12	9-18	12&15	5&6	120&150	83%	CLF150-12D12&15
12	9-18	12&18	5&5	120&180	83%	CLF150-12D12&18
12	9-18	12&24	6.25&3	120&200	83%	CLF150-12D12&24
12	9-18	12&48	6.25&1.56	120&300	83%	CLF150-12D12&48
12	9-18	15&15	6.67&6.67	30&30	82%	CLF-X200-12D15&15
12	9-18	15&15	6.67&6.67	150&150	82%	CLF200-12D15&15
12	9-18	15&18	6&6.11	150&180	83%	CLF200-12D15&18
12	9-18	15&24	8&3.33	150&200	83%	CLF200-12D15&24
12	9-18	15&48	6&2.3	150&300	83%	CLF200-12D15&48
24	18-36	05&12	4&6.67	30&30	82%	CLF-X100-24D05&12
24	18-36	05&12	4&6.67	50&120	83%	CLF100-24D05&12
24	18-36	05&15	8&4	50&150	83%	CLF100-24D05&15
24	18-36	05&18	6&4	50&180	83%	CLF100-24D05&18
24	18-36	05&24	6&3	50&200	83%	CLF100-24D05&24
24	18-36	05&48	4&1.67	50&300	83%	CLF100-24D05&48
24	18-36	12&12	6.25&6.25	30&30	82%	CLF-X150-24D12&12
24	18-36	12&12	6.25&6.25	120&120	83%	CLF150-24D12&12
24	18-36	12&15	5&6	120&150	83%	CLF150-24D12&15
24	18-36	12&18	5&5	120&180	83%	CLF150-24D12&18
24	18-36	12&24	6.25&3	120&200	83%	CLF150-24D12&24
24	18-36	12&48	6.25&1.56	120&300	83%	CLF150-24D12&48
24	18-36	15&15	6.67&6.67	30&30	82%	CLF-X200-24D15&15
24	18-36	15&15	6.67&6.67	150&150	82%	CLF200-24D15&15
24	18-36	15&18	6&6.11	150&180	83%	CLF200-24D15&18
24	18-36	15&24	8&3.33	150&200	83%	CLF200-24D15&24
24	18-36	15&48	6&2.3	150&300	83%	CLF200-24D15&48
48	36-72	05&12	4&6.67	30&30	82%	CLF-X100-48D05&12
48	36-72	05&12	4&6.67	50&120	83%	CLF100-48D05&12
48	36-72	05&15	8&4	50&150	83%	CLF100-48D05&15
48	36-72	05&18	6&4	50&180	83%	CLF100-48D05&18
48	36-72	05&24	6&3	50&200	83%	CLF100-48D05&24
48	36-72	05&48	4&1.67	50&300	83%	CLF100-48D05&48
48	36-72	12&12	6.25&6.25	30&30	82%	CLF-X150-48D12&12
48	36-72	12&12	6.25&6.25	120&120	83%	CLF150-48D12&12
48	36-72	12&15	5&6	120&150	83%	CLF150-48D12&15
48	36-72	12&18	5&5	120&180	83%	CLF150-48D12&18
48	36-72	12&24	6.25&3	120&200	83%	CLF150-48D12&24
48	36-72	12&48	6.25&1.56	120&300	83%	CLF150-48D12&48
48	36-72	15&15	6.67&6.67	30&30	82%	CLF-X200-48D15&15
48	36-72	15&15	6.67&6.67	150&150	82%	CLF200-48D15&15
48	36-72	15&18	6&6.11	150&180	83%	CLF200-48D15&18
48	36-72	15&24	8&3.33	150&200	83%	CLF200-48D15&24
48	36-72	15&48	6&2.3	150&300	83%	CLF200-48D15&48
48	36-72	24&24	3.13&3.13	200&200	84%	CLF150-48D24&24
48	36-72	24&24	4.17&4.17	300&300	84%	CLF200-48D24&24

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注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# AC/DC CLD 系列

## 型号

## Models

输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
220	176-264	05&05	10&10	30&30	82%	CLD-X100-220D05&05
220	176-264	05&05	10&10	50&50	82%	CLD100-220D05&05
220	176-264	05&12	6&5.83	30&30	82%	CLD-X100-220D05&12
220	176-264	05&12	6&5.83	50&120	82%	CLD100-220D05&12
220	176-264	12&05	6.67&4	120&50	82%	CLD100-220D12&05
220	176-264	12&09	5&4.44	120&90	82%	CLD100-220D12&09
220	176-264	12&12	4.17&4.17	120&120	82%	CLD100-220D12&12
220	176-264	12&15	3.33&4	120&150	82%	CLD100-220D12&15
220	176-264	12&24	2.5&2.92	120&200	82%	CLD100-220D12&24
220	176-264	24&05	3.33&4	200&50	83%	CLD100-220D24&05
220	176-264	24&12	2.92&2.5	200&120	83%	CLD100-220D24&12
220	176-264	24&24	2.08&2.08	200&200	83%	CLD100-220D24&24
220	176-264	24&48	1.25&1.46	200&300	84%	CLD100-220D24&48
220	176-264	48&48	1&1	300&300	84%	CLD100-220D48&48
220	176-264	05&05	12&12	30&30	82%	CLD-X120-220D05&05
220	176-264	05&05	12&12	50&50	82%	CLD120-220D05&05
220	176-264	05&12	6&7.5	50&120	82%	CLD120-220D05&12
220	176-264	05&24	4&4.17	50&200	82%	CLD120-220D05&24
220	176-264	12&05	7.5&6	120&50	82%	CLD120-220D12&05
220	176-264	12&09	5&6.67	120&90	82%	CLD120-220D12&09
220	176-264	12&12	5&5	120&120	82%	CLD120-220D12&12
220	176-264	12&15	5&4	120&150	82%	CLD120-220D12&15
220	176-264	12&24	3.33&3.33	120&200	82%	CLD120-220D12&24
220	176-264	24&05	4.17&4	200&50	83%	CLD120-220D24&05
220	176-264	24&12	3.33&3.33	200&120	83%	CLD120-220D24&12
220	176-264	24&24	2.5&2.5	200&200	83%	CLD120-220D24&24
220	176-264	24&48	1.67&1.67	200&300	84%	CLD120-220D24&48
220	176-264	48&48	1.25&1.25	300&300	84%	CLD120-220D48&48
220	176-264	05&05	15&15	50&50	82%	CLD150-220D05&05
220	176-264	05&09	12&10	50&90	82%	CLD150-220D05&09
220	176-264	05&12	10&8.33	50&120	82%	CLD150-220D05&12
220	176-264	05&24	6&5	50&200	82%	CLD150-220D05&24
220	176-264	12&05	8.33&10	30&30	82%	CLD-X150-220D12&05
220	176-264	12&05	8.33&10	120&50	82%	CLD150-220D12&05
220	176-264	12&12	6.25&6.25	120&120	82%	CLD150-220D12&12
220	176-264	12&15	5&6	120&150	82%	CLD150-220D12&15
220	176-264	12&24	5&3.75	120&200	82%	CLD150-220D12&24
220	176-264	24&05	5&6	200&50	83%	CLD150-220D24&05
220	176-264	24&12	3.75&5	200&120	83%	CLD150-220D24&12
220	176-264	24&24	3.13&3.13	200&200	83%	CLD150-220D24&24
220	176-264	24&48	2.08&2.08	200&300	84%	CLD150-220D24&48
220	176-264	48&48	1.56&1.56	300&200	84%	CLD150-220D48&48
220	176-264	05&12	12&11.67	50&120	82%	CLD200-220D05&12
220	176-264	05&24	8&6.67	50&200	82%	CLD200-220D05&24
220	176-264	12&05	11.67&12	120&50	82%	CLD200-220D12&05
220	176-264	12&12	8.33&8.33	30&30	82%	CLD-X200-220D12&12
220	176-264	12&12	8.33&8.33	120&120	82%	CLD200-220D12&12
220	176-264	12&24	5&5.83	120&200	82%	CLD200-220D12&24
220	176-264	24&05	6.67&8	200&50	83%	CLD200-220D24&05
220	176-264	24&12	5.83&5	200&120	83%	CLD200-220D24&12
220	176-264	24&24	4.17&4.17	200&200	83%	CLD200-220D24&24
220	176-264	24&48	2.5&2.92	200&300	84%	CLD200-220D24&48
220	176-264	48&48	2.08&2.08	300&200	84%	CLD200-220D48&48

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# DC/DC CNF 系列

## 大功率三路独立输出

# AC/DC CNA 系列

## 提供多种散热及装配方式

150-300W



### 物理特性

结构尺寸: 159\*118\*27mm(CNA)  
159\*98\*33mm(CNF)  
重量: CNF:0.69Kg CNA:0.6Kg

### 特性

### Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950,IEC950 safety regulations

### CNF 输入特性

### CNF Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>
	110V <sub>DC</sub> (Normal)	66-160V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

### CNA 输入特性

### CNA Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220V <sub>AC</sub> (Normal)	176-264V <sub>AC</sub>
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### 输出特性

### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 1%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

### 一般特性

### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

### 绝缘强度 (Insulation Voltage)

	<b>DC-DC</b>	<b>AC-DC</b>
输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>	> 500 V <sub>DC</sub> /1min

### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85°C
	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

### 热阻特性

### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	2.01°C /W
0.5M/S	1.67°C /W
1M/S	1.25°C /W
1.5M/S	0.91°C /W
2M/S	0.75°C /W

# DC/DC CNF 系列

型号

Models

	输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
单路	12	9-18	05	30	30	82%	CNF-X150-12S05
	12	9-18	05	30	50	82%	CNF150-12S05
	12	9-18	12	12.5	30	82%	CNF-X150-12S12
	12	9-18	12	12.5	120	82%	CNF150-12S12
	12	9-18	24	6.25	200	83%	CNF150-12S24
	12	9-18	12	16.67	30	82%	CNF-X200-12S12
	12	9-18	12	16.67	120	82%	CNF200-12S12
	12	9-18	24	8.33	200	83%	CNF200-12S24
	12	9-18	48	4.17	300	84%	CNF200-12S48
	12	9-18	24	12.5	200	83%	CNF300-12S24
	24	18-36	05	30	50	82%	CNF150-24S05
	24	18-36	12	12.5	120	82%	CNF150-24S12
	24	18-36	24	6.25	200	83%	CNF150-24S24
	24	18-36	48	3.13	300	83%	CNF150-24S48
	24	18-36	12	16.67	120	82%	CNF200-24S12
	24	18-36	24	8.33	200	83%	CNF200-24S24
	24	18-36	48	4.17	300	84%	CNF200-24S48
	二路	24	18-36	24	12.5	200	83%
24		18-36	48	6.25	300	84%	CNF300-24S48
48		36-72	05	30	50	82%	CNF150-48S05
48		36-72	24	6.25	200	83%	CNF150-48S24
48		36-72	48	3.13	300	83%	CNF150-48S48
48		36-72	24	12.5	200	83%	CNF300-48S24
48		36-72	48	6.25	300	84%	CNF300-48S48
110		66-160	12	12.5	120	82%	CNF150-110S12
110		66-160	13.8	10.87	120	82%	CNF150-110S13.8
110		66-160	12	16.67	120	82%	CNF200-110S12
110		66-160	13.8	14.49	120	82%	CNF200-110S13.8
110		66-160	24	12.5	200	83%	CNF300-110S24
12		9-18	12&12	6.25&6.25	30&30	82%	CNF-X150-12D12&12
12		9-18	12&12	6.25&6.25	120&120	83%	CNF150-12D12&12
12		9-18	12&15	5&6	120&150	83%	CNF150-12D12&15
12		9-18	12&18	5&5	120&180	83%	CNF150-12D12&18
12		9-18	12&24	6.25&3	120&200	83%	CNF150-12D12&24
12		9-18	12&48	6.25&1.56	120&300	83%	CNF150-12D12&48
24	18-36	15&15	6.67&6.67	30&30	82%	CNF-X200-24D15&15	
24	18-36	15&15	6.67&6.67	150&150	82%	CNF200-24D15&15	
24	18-36	15&18	6&6.11	150&180	83%	CNF200-24D15&18	
24	18-36	15&24	8&3.33	150&200	83%	CNF200-24D15&24	
24	18-36	15&48	6&2.3	150&300	83%	CNF200-24D15&48	
48	36-72	15&15	10&10	30&30	82%	CNF-X300-48D15&15	
48	36-72	15&15	10&10	150&150	82%	CNF300-48D15&15	
48	36-72	15&18	10&8.33	150&180	83%	CNF300-48D15&18	
48	36-72	15&24	10&6.25	150&200	83%	CNF300-48D15&24	
48	36-72	15&48	10&3.125	150&300	83%	CNF300-48D15&48	
三路	12	9-18	±12, +05	4/4/10	120/120/50	82%	CNF150-12T12+05
	12	9-18	±05, +12	10/10/4	50/50/120	82%	CNF150-12T05+12
	12	9-18	±05, +24	10/10/2	50/50/300	83%	CNF150-12T05+24
	24	18-36	±12, +05	5.83/5.83/12	120/120/50	82%	CNF200-24T12+05
	24	18-36	±05, +12	12/12/6.67	50/50/120	82%	CNF200-24T05+12
	24	18-36	±05, +24	12/12/3.3	50/50/300	83%	CNF200-24T05+24
	48	36-72	±12, +05	8.3/8.3/20	120/120/50	82%	CNF300-48T12+05
	48	36-72	±05, +12	20/20/8.3	50/50/120	82%	CNF300-48T05+12

注: 以上选型, 型号中功率前面带“X”的为低纹波电源, 纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明: 仅列出典型型号, 其它型号请确定功率、输入电压及输出电压后, 致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# AC/DC CNA 系列

## 型号

## Models

	输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models	
单路	220	176-264	05	30	30	82%	CNA-X150-220S05	
	220	176-264	05	30	50	82%	CNA150-220S05	
	220	176-264	12	12.5	30	82%	CNA-X150-220S12	
	220	176-264	12	12.5	120	82%	CNA150-220S12	
	220	176-264	24	6.25	200	83%	CNA150-220S24	
	220	176-264	12	14.17	30	82%	CNA-X170-220S12	
	220	176-264	12	14.17	120	82%	CNA170-220S12	
	220	176-264	24	7.08	200	83%	CNA170-220S24	
	220	176-264	12	16.67	120	82%	CNA200-220S12	
	220	176-264	24	8.33	200	83%	CNA200-220S24	
	二路	220	176-264	48	4.17	300	84%	CNA200-220S48
		220	176-264	12	20.83	120	82%	CNA250-220S12
		220	176-264	24	10.42	200	83%	CNA250-220S24
		220	176-264	48	5.21	300	84%	CNA250-220S48
		220	176-264	12	25	120	82%	CNA300-220S12
220		176-264	24	12.5	200	83%	CNA300-220S24	
220		176-264	48	6.25	300	84%	CNA300-220S48	
三路		220	176-264	±05	15/15	30/30	82%	CNA-X150-220D05
		220	176-264	±05	15/15	50/50	82%	CNA150-220D05
	220	176-264	05&12	6&10	50&120	82%	CNA150-220D05&12	
	220	176-264	12&12	6.25&6.25	120&120	82%	CNA150-220D12&12	
	220	176-264	05&24	6&5	50&200	82%	CNA150-220D05&24	
	220	176-264	±05	17/17	50/50	82%	CNA170-220D05	
	220	176-264	±12	7/7	120/120	82%	CNA170-220D12	
	220	176-264	05&12	5&12	50&120	82%	CNA170-220D05&12	
	220	176-264	12&12	7&7	120&120	82%	CNA170-220D12&12	
	220	176-264	05&24	3&5.8	50&200	82%	CNA170-220D05&24	
	四路	220	176-264	±05	20/20	50/50	82%	CNA200-220D05
		220	176-264	±12	8.3/8.3	120/120	82%	CNA200-220D12
		220	176-264	05&12	6&14	50&120	82%	CNA200-220D05&12
		220	176-264	12&12	8.3&8.3	120&120	82%	CNA200-220D12&12
		220	176-264	05&24	6&7	50&200	82%	CNA200-220D05&24
		220	176-264	±05	25/25	50/50	82%	CNA250-220D05
		220	176-264	±12	10/10	120/120	82%	CNA250-220D12
		220	176-264	05&12	25&10	50&120	82%	CNA250-220D05&12
		220	176-264	12&12	10&10	120&120	82%	CNA250-220D12&12
		220	176-264	05&24	25&6	50&200	82%	CNA250-220D05&24
		220	176-264	±05	30/30	50/50	82%	CNA300-220D05
		220	176-264	±12	12.5/12.5	120/120	82%	CNA300-220D12
		220	176-264	05&12	30&12.5	50&120	82%	CNA300-220D05&12
		220	176-264	12&12	12.5&12.5	120&120	82%	CNA300-220D12&12
		220	176-264	05&24	30&6.25	50&200	82%	CNA300-220D05&24
	220	176-264	±24	6.25/6.25	200/200	84%	CNA300-220D24	
	五路	220	176-264	±12, +05	4/4/10	120/120/50	82%	CNA150-220T12+05
220		176-264	±05, +12	10/10/4	50/50/120	82%	CNA150-220T05+12	
220		176-264	±05, +24	10/10/2	50/50/300	83%	CNA150-220T05+24	
220		176-264	±12, +05	5.83/5.83/12	120/120/50	82%	CNA200-220T12+05	
220		176-264	±05, +12	12/12/6.67	50/50/120	82%	CNA200-220T05+12	
220		176-264	±05, +24	12/12/3.3	50/50/300	83%	CNA200-220T05+24	
220		176-264	±12, +05	8.3/8.3/20	120/120/50	82%	CNA300-220T12+05	
220		176-264	±05, +12	20/20/8.3	50/50/120	82%	CNA300-220T05+12	
220		176-264	±05, +24	20/20/4	50/50/300	83%	CNA300-220T05+24	
220		176-264	±12, +15	8.3/8.3/6.7	120/120/150	83%	CNA300-220T12+15	

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

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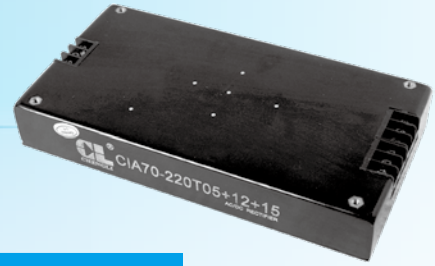
# DC/DC CIF 系列

内置浪涌抑制及滤波电路

# AC/DC CIA 系列

内置功率因数校正电路

50-150W



## 物理特性

结构尺寸: 170\*88\*26mm  
重量: CIF:0.64Kg CIA:0.64Kg

## 特性

## Features

- 宽电压输入范围 Wide range of input voltage
- 输入宽频噪声滤波器 Wideband noise filter of input
- 快速动态响应 Fast dynamic response
- 接线端子出线方式 Outlet terminal method
- 输入浪涌抑制电路 Surge suppression circuit of input
- 符合 UL1950、IEC950 安全规程 Comply with UL1950, IEC950 safety regulations

## CIF 输入特性

## CIF Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12Vdc(Normal)	9-18Vdc
	18Vdc(Normal)	9-36Vdc
	24Vdc(Normal)	18-36Vdc
	48Vdc(Normal)	36-72Vdc
	110Vdc(Normal)	66-160Vdc
	300Vdc(Normal)	200-400Vdc

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

## CIA 输入特性

## CIA Input Characteristics

电压范围: (Voltage Range)	<b>AC-DC</b> 220VAc(Normal)	176-264VAc
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## 输出特性

## Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 1%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

## 一般特性

## General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

## 绝缘强度 (Insulation Voltage)

	<b>DC-DC</b>	<b>AC-DC</b>
输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>	> 500 V <sub>DC</sub> /1min

## 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
	军 II (Military II)	-55~+85°C
存储温度: (Storage Temperature)	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

## 热阻特性

## Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	1.90°C /W
0.5M/S	1.59°C /W
1M/S	1.18°C /W
1.5M/S	0.86°C /W
2M/S	0.71°C /W

# DC/DC CIF 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	5	10	30	80%	CIF-X50-12S05
12	9-18	5	10	50	80%	CIF50-12S05
12	9-18	12	6.25	30	82%	CIF-X75-12S12
12	9-18	12	6.25	120	82%	CIF75-12S12
12	9-18	12	8.33	30	82%	CIF-X100-12S12
12	9-18	12	8.33	120	82%	CIF100-12S12
12	9-18	24	4.17	200	83%	CIF100-12S24
12	9-18	12	10	120	82%	CIF120-12S12
12	9-18	24	5	200	83%	CIF120-12S24
18	9-36	12	12.5	120	82%	CIF150-18S12
18	9-36	24	6.25	200	83%	CIF150-18S24
24	18-36	12	6.25	120	82%	CIF75-24S12
24	18-36	13.8	5.43	120	82%	CIF75-24S13.8
24	18-36	24	3.125	200	83%	CIF75-24S24
24	18-36	12	8.33	120	82%	CIF100-24S12
24	18-36	13.8	7.25	120	82%	CIF100-24S13.8
24	18-36	24	4.17	200	83%	CIF100-24S24
24	18-36	12	10	30	82%	CIF-X120-24S12
24	18-36	12	10	120	82%	CIF120-24S12
24	18-36	24	5	200	83%	CIF120-24S24
24	18-36	12	12.5	30	82%	CIF-X150-24S12
24	18-36	12	12.5	120	82%	CIF150-24S12
48	36-72	12	8.33	120	82%	CIF100-48S12
48	36-72	24	4.17	200	83%	CIF100-48S24
48	36-72	12	10	120	82%	CIF120-48S12
48	36-72	15	8	150	82%	CIF120-48S15
48	36-72	24	5	200	83%	CIF120-48S24
48	36-72	12	12.5	120	82%	CIF150-48S12
48	36-72	15	10	150	82%	CIF150-48S15
48	36-72	24	6.25	200	83%	CIF150-48S24
110	66-160	12	8.33	120	82%	CIF100-110S12
110	66-160	15	6.67	150	82%	CIF100-110S15
110	66-160	24	4.17	200	83%	CIF100-110S24
110	66-160	48	2.08	300	84%	CIF100-110S48
110	66-160	12	10	120	82%	CIF120-110S12
110	66-160	24	5	200	83%	CIF120-110S24
110	66-160	48	2.5	300	84%	CIF120-110S48
110	66-160	12	12.5	120	82%	CIF150-110S12
110	66-160	24	6.25	200	83%	CIF150-110S24
110	66-160	48	3.125	300	84%	CIF150-110S48
110	80-180	12	8.33	120	82%	CIF100-110S12
110	80-180	24	4.17	200	83%	CIF100-110S24
110	80-180	12	10	120	82%	CIF120-110S12
110	80-180	24	5	200	83%	CIF120-110S24
110	80-180	12	12.5	120	82%	CIF150-110S12
110	80-180	24	6.25	200	83%	CIF150-110S24
300	200-400	24	5	200	83%	CIF120-300S24
12	9-18	05&12	6&5.83	30&30	82%	CIF-X100-12D05&12
12	9-18	05&12	6&5.83	50&120	82%	CIF100-12D05&12
24	18-36	05&12	6&7.5	50&120	82%	CIF120-24D05&12
24	18-36	05&24	4&4.17	50&200	83%	CIF120-24D05&24
110	80-180	05&12	8&9.17	50&120	82%	CIF150-110D05&12
110	80-180	05&24	6&5	50&200	83%	CIF150-110D05&24

单  
路

双  
路

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。  
Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# AC/DC CIA 系列

型号

Models

	输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models	
单	220	176-264	05	10	30	82%	CIA-X50-220S05	
	220	176-264	05	10	50	82%	CIA50-220S05	
	220	176-264	12	4.17	30	82%	CIA-X50-220S12	
	220	176-264	12	4.17	120	82%	CIA50-220S12	
	220	176-264	24	2.08	200	83%	CIA50-220S24	
	220	176-264	05	15	30	82%	CIA-X75-220S05	
	220	176-264	05	15	50	82%	CIA75-220S05	
	220	176-264	12	6.25	30	82%	CIA-X75-220S12	
	220	176-264	12	6.25	120	82%	CIA75-220S12	
	220	176-264	24	3.13	200	83%	CIA75-220S24	
	220	176-264	12	8.33	30	82%	CIA-X100-220S12	
	220	176-264	12	8.33	120	82%	CIA100-220S12	
路	220	176-264	24	4.17	200	83%	CIA100-220S24	
	220	176-264	48	2.08	300	84%	CIA100-220S48	
	220	176-264	12	10	120	82%	CIA120-220S12	
	220	176-264	15	8	120	82%	CIA120-220S15	
	220	176-264	24	5	200	83%	CIA120-220S24	
	220	176-264	48	2.5	300	84%	CIA120-220S48	
	220	176-264	12	12.5	120	82%	CIA150-220S12	
	220	176-264	15	10	150	82%	CIA150-220S15	
	220	176-264	24	6.25	200	83%	CIA150-220S24	
	220	176-264	48	3.13	300	84%	CIA150-220S48	
	双	220	176-264	05&05	5&5	30&30	82%	CIA-X50-220D05&05
		220	176-264	05&05	5&5	50&50	82%	CIA50-220D05&05
220		176-264	05&12	3&2.92	30&30	82%	CIA-X50-220D05&12	
220		176-264	05&12	3&2.92	50&120	82%	CIA50-220D05&12	
220		176-264	05&24	3&2.5	50&200	82%	CIA75-220D05&24	
220		176-264	12&12	3&3	120&120	82%	CIA75-220D12&12	
220		176-264	05&05	10&10	50&50	82%	CIA100-220D05&05	
220		176-264	05&12	6&5.83	50&120	82%	CIA100-220D05&12	
220		176-264	05&24	4&3.33	50&200	82%	CIA100-220D05&24	
220		176-264	12&12	4.17&4.17	120&120	82%	CIA100-220D12&12	
220		176-264	05&05	12&12	50&50	82%	CIA120-220D05&05	
220		176-264	05&12	8&6.67	50&120	82%	CIA120-220D05&12	
路	220	176-264	05&24	4&4.17	50&200	82%	CIA120-220D05&24	
	220	176-264	12&12	5&5	120&120	82%	CIA120-220D12&12	
	220	176-264	12&24	3.33&3.33	120&200	82%	CIA120-220D12&24	
	220	176-264	05&05	15&15	50&50	82%	CIA150-220D05&05	
	220	176-264	05&12	10&8.33	50&120	82%	CIA150-220D05&12	
	220	176-264	05&24	6&5	50&200	82%	CIA150-220D05&24	
	220	176-264	12&12	6.25&6.25	120&120	82%	CIA150-220D12&12	
	220	176-264	12&24	3.33&4.58	120&200	82%	CIA150-220D12&24	
	220	176-264	24&24	3.13&3.13	200&200	84%	CIA150-220D24&24	
	三	220	176-264	±12, +05	1.5/1.42/3	120/120/50	82%	CIA50-220T12+05
		220	176-264	±05, +12	2/2/2.5	50/50/120	82%	CIA50-220T05+12
		220	176-264	±05, +24	2/2/1.25	50/50/200	83%	CIA50-220T05+24
220		176-264	±12, +05	3/3/4	120/120/50	82%	CIA100-220T12+05	
220		176-264	±05, +12	4/4/5	50/50/120	82%	CIA100-220T05+12	
220		176-264	±05, +24	3/3/2.92	50/50/200	83%	CIA100-220T05+24	
220		176-264	±12, +05	5/5/6	120/120/50	82%	CIA150-220T12+05	
220		176-264	±05, +12	6/6/7.5	50/50/120	82%	CIA150-220T05+12	
220		176-264	±05, +24	3/3/5	50/50/200	83%	CIA150-220T05+24	
220		176-264	±12, +15	4/4/3.6	120/120/150	83%	CIA150-220T12+15	

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

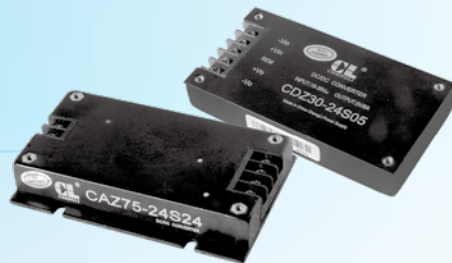
Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# DC/DC CAZ,CBZ,CCZ

## CDZ,CEZ 系列

提供多种散热及出线方式

75-120W



### 特性

### Features

- 输入 II 型滤波
- 恒流输出特性
- 功率覆盖范围广, 便于升级
- 高可靠性, 长寿命设计
- 安装方便, 单端出线
- 自然冷却, 无须附加散热器

- II type input filter
- Constant output current feature
- Wide range of power ,easy to upgrade
- Design for high reliability,long lifetime
- Easy installation,single outlet
- Natural cooling,no heat sink needed

### 物理特性

结构尺寸: 98\*52.5\*16mm(CDZ,CEZ)  
100\*65\*17mm(CAZ,CBZ)  
100\*65\*18mm(CCZ)  
重量: CAZ: 0.12Kg CBZ: 0.12Kg  
CCZ: 0.16Kg CDZ,CEZ: 0.12Kg

### 输入特性

### Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	18V <sub>DC</sub> (Normal)	9-36V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

### 输出特性

### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

### 选型说明

### User's Selection Guide

- CAZ: 顶面散热, 双端出线, 带马蹄孔安装板  
(Top heat dissipation,two side terminal,mounting hoof-hole)
- CBZ: 顶面散热, 单端出线, 带马蹄孔安装板  
(Top heat dissipation,one side terminal,mounting hoof-hole)
- CCZ: 传导散热, 单端出线, 带马蹄孔安装板  
(Bottom heat conduction,one side terminal,mounting hoof-hole)
- CDZ: 传导散热, 单端出线  
(Bottom heat conduction,one side terminal)
- CEZ: 顶面散热, 单端出线  
(Top heat dissipation,one side terminal)

### 一般特性

### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

### 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>

### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85°C
	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

### 热阻特性

### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	4. 38°C /W
0. 5M/S	3. 65°C /W
1M/S	2. 72°C /W
1. 5M/S	1. 98°C /W
2M/S	1. 64°C /W

# DC/DC CAZ,CBZ,CCZ,CDZ,CEZ 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	5	15	30	83%	CAZ-X75-12S05
12	9-18	5	15	50	83%	CAZ75-12S05
12	9-18	12	6.25	30	83%	CAZ-X75-12S12
12	9-18	12	6.25	120	83%	CAZ75-12S12
12	9-18	24	3.13	200	84%	CAZ75-12S24
12	9-18	28	2.68	300	84%	CAZ75-12S28
12	9-18	12	6.67	30	83%	CAZ-X80-12S12
12	9-18	12	6.67	120	83%	CAZ80-12S12
12	9-18	15	5.33	150	83%	CAZ80-12S15
12	9-18	24	3.33	200	84%	CAZ80-12S24
12	9-18	28	2.86	300	84%	CAZ80-12S28
12	9-18	12	10.42	120	83%	CAZ125-12S12
12	9-18	13.8	9.06	120	83%	CAZ125-12S13.8
12	9-18	15	8.33	150	83%	CAZ125-12S15
12	9-18	24	5.21	200	83%	CAZ125-12S24
12	9-18	28	4.46	300	83%	CAZ125-12S28
18	9-36	5	15	50	83%	CAZ75-18S05
18	9-36	12	6.25	120	83%	CAZ75-18S12
18	9-36	13.8	5.43	120	83%	CAZ75-18S13.8
18	9-36	15	5	150	83%	CAZ75-18S15
18	9-36	24	3.13	200	84%	CAZ75-18S24
18	9-36	28	2.68	300	84%	CAZ75-18S28
18	9-36	12	6.67	120	83%	CAZ80-18S12
18	9-36	13.8	5.8	120	83%	CAZ80-18S13.8
18	9-36	15	5.33	150	83%	CAZ80-18S15
18	9-36	24	3.33	200	84%	CAZ80-18S24
18	9-36	28	2.86	300	84%	CAZ80-18S28
18	9-36	12	10.42	120	83%	CAZ125-18S12
18	9-36	13.8	9.06	120	83%	CAZ125-18S13.8
18	9-36	15	8.33	150	83%	CAZ125-18S15
18	9-36	24	5.21	200	83%	CAZ125-18S24
18	9-36	28	4.46	300	83%	CAZ125-18S28
24	18-36	5	15	50	83%	CAZ75-24S05
24	18-36	12	6.25	120	83%	CAZ75-24S12
24	18-36	13.8	5.43	120	83%	CAZ75-24S13.8
24	18-36	24	3.13	200	84%	CAZ75-24S24
24	18-36	28	2.68	300	84%	CAZ75-24S28
24	18-36	12	6.67	120	83%	CAZ80-24S12
24	18-36	24	3.33	200	84%	CAZ80-24S24
24	18-36	28	2.86	300	84%	CAZ80-24S28
24	18-36	12	10.42	120	83%	CAZ125-24S12
24	18-36	24	5.21	200	83%	CAZ125-24S24
24	18-36	28	4.46	300	83%	CAZ125-24S28
48	36-72	5	15	50	83%	CAZ75-48S05
48	36-72	12	6.25	120	83%	CAZ75-48S12
48	36-72	24	3.13	200	84%	CAZ75-48S24
48	36-72	28	2.68	300	84%	CAZ75-48S28
48	36-72	12	6.67	120	83%	CAZ80-48S12
48	36-72	24	3.33	200	84%	CAZ80-48S24
48	36-72	28	2.86	300	84%	CAZ80-48S28
48	36-72	12	10.42	120	83%	CAZ125-48S12
48	36-72	24	5.21	200	83%	CAZ125-48S24

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注：以上 CAZ 的选型，CBZ,CCZ,CDZ,CEZ 均可定制。 All above model CAZ selected CBZ,CCZ,CDZ,CEZ able to customize.  
型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。 Model selection of the mark with an "X" is low ripple power supply ,the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed.If you need other models,please confirm the power,input voltage and output voltage,then phone us.

# DC/DC MZM 系列

## 小尺寸、双路独立稳压

20-50W



### 物理特性

结构尺寸: 92\*58\*16.1mm  
重量: 0.15Kg

### 特性

#### Features

- 快速动态响应 Fast dynamic response
- 功率覆盖范围广, 便于升级 Wide range of power, easy to upgrade
- 高可靠性, 长寿命设计 Design for high reliability, long lifetime
- 双路独立稳压 Two stable outputs
- 引出脚功能兼容 Pin function compatible
- 主副路电压精度高 Main & Aux output voltages with high accuracy

### 输入特性

#### Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

### 输出特性

#### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

### 一般特性

#### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ) MΩ
MTBF:	>500000 hrs

### 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>

### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85°C
	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

### 热阻特性

#### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	4. 60°C /W
0. 5M/S	3. 30°C /W
1M/S	2. 20°C /W
1. 5M/S	1. 60°C /W
2M/S	1. 00°C /W

# DC/DC MZM 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	05&05	2&2	30&30	82%	MZM-X20-12D05&05
12	9-18	05&05	2&2	50&50	82%	MZM20-12D05&05
12	9-18	12&12	0.83&0.83	30&30	82%	MZM-X20-12D12&12
12	9-18	12&12	0.83&0.83	120&120	82%	MZM20-12D12&12
12	9-18	24&24	0.42&0.42	200&200	83%	MZM20-12D24&24
12	9-18	24&48	0.42&0.21	200&300	83%	MZM20-12D24&48
12	9-18	05&05	2&3	50&50	82%	MZM25-12D05&05
12	9-18	05&12	2.5&1	50&120	82%	MZM25-12D05&12
12	9-18	12&12	1&1	120&120	82%	MZM25-12D12&12
12	9-18	12&24	1&0.5	120&200	83%	MZM25-12D12&24
12	9-18	24&24	0.5&0.5	200&200	83%	MZM25-12D24&24
12	9-18	24&48	0.5&0.25	200&300	83%	MZM25-12D24&48
12	9-18	05&05	3&3	30&30	82%	MZM-X30-12D05&05
12	9-18	05&05	3&3	50&50	82%	MZM30-12D05&05
12	9-18	05&12	3&1.25	30&30	82%	MZM-X30-12D05&12
12	9-18	05&12	3&1.25	50&120	82%	MZM30-12D05&12
12	9-18	24&24	0.625&0.625	200&200	83%	MZM30-12D24&24
12	9-18	24&48	0.625&0.31	200&300	83%	MZM30-12D24&48
24	18-36	05&05	2&2	30&30	82%	MZM-X20-24D05&05
24	18-36	05&05	2&2	50&50	82%	MZM20-24D05&05
24	18-36	12&12	0.83&0.83	120&120	82%	MZM20-24D12&12
24	18-36	12&24	0.83&0.42	120&200	83%	MZM20-24D12&24
24	18-36	24&24	0.42&0.42	200&200	83%	MZM20-24D24&24
24	18-36	24&48	0.42&0.21	200&300	83%	MZM20-24D24&48
24	18-36	05&05	3&3	50&50	82%	MZM30-24D05&05
24	18-36	05&12	3&1.25	50&120	82%	MZM30-24D05&12
24	18-36	12&12	1.25&1.25	120&120	82%	MZM30-24D12&12
24	18-36	12&24	1.25&0.625	120&200	83%	MZM30-24D12&24
24	18-36	24&24	0.625&0.625	200&200	83%	MZM30-24D24&24
24	18-36	24&48	0.625&0.31	200&300	83%	MZM30-24D24&48
24	18-36	05&05	4&4	50&50	82%	MZM40-24D05&05
24	18-36	05&12	4&2.5	50&120	82%	MZM50-24D05&12
24	18-36	12&12	2&2	120&120	82%	MZM50-24D12&12
24	18-36	12&24	2&1	120&200	83%	MZM50-24D12&24
24	18-36	24&24	1&1	200&200	83%	MZM50-24D24&24
24	18-36	24&48	1&0.5	200&300	83%	MZM50-24D24&48
48	36-72	05&05	2&2	50&50	82%	MZM20-48D05&05
48	36-72	05&12	2&0.83	50&120	82%	MZM20-48D05&12
48	36-72	12&12	0.83&0.83	120&120	82%	MZM20-48D12&12
48	36-72	12&24	0.83&0.42	120&200	83%	MZM20-48D12&24
48	36-72	24&24	0.42&0.42	200&200	83%	MZM20-48D24&24
48	36-72	24&48	0.42&0.21	200&300	83%	MZM20-48D24&48
48	36-72	05&05	3&3	50&50	82%	MZM30-48D05&05
48	36-72	05&12	3&1.25	50&120	82%	MZM30-48D05&12
48	36-72	12&12	1.25&1.25	120&120	82%	MZM30-48D12&12
48	36-72	12&24	1.25&0.625	120&200	83%	MZM30-48D12&24
48	36-72	24&24	0.625&0.625	200&200	83%	MZM30-48D24&24
48	36-72	24&48	0.625&0.31	200&300	83%	MZM30-48D24&48
48	36-72	05&05	4&4	50&50	82%	MZM40-48D05&05
48	36-72	05&12	4&2.5	50&120	82%	MZM50-48D05&12
48	36-72	12&12	2&2	120&120	82%	MZM50-48D12&12
48	36-72	12&24	2&1	120&200	83%	MZM50-48D12&24
48	36-72	24&24	1&1	200&200	83%	MZM50-48D24&24

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注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。  
Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# DC/DC CDD 系列

## 小尺寸、双路独立稳压

40-100W



### 物理特性

结构尺寸: 100\*80\*19mm  
重量: 0.3Kg

### 特性

#### Features

- 输入  $\pi$  型滤波  $\pi$  type input filter
- 快速动态响应 Fast dynamic response
- 高可靠性, 长寿命设计 Design for high reliability, long lifetime
- 双路独立稳压 Two stable outputs
- 引出脚功能兼容 Pin function compatible
- 主副路电压精度高 Main & Aux output voltages with high accuracy

### 输入特性

#### Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

### 输出特性

#### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	$\pm 1\%$
电压调整率: (Line Regulation)	$\pm 0.2\%$
负载调整率: (Load Regulation)	$\pm 0.5\%$
温度变化率: (Temperature Coefficient)	$\pm 0.02\% / ^\circ\text{C}$
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 $\mu\text{s}$

### 一般特性

#### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ) M $\Omega$
MTBF:	>500000 hrs

#### 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>

#### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85 $^\circ\text{C}$
	军 I (Military I)	-40~+85 $^\circ\text{C}$
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85 $^\circ\text{C}$
	工业品 (Industry)	-45~+105 $^\circ\text{C}$
	军品 (Military)	-55~+105 $^\circ\text{C}$

### 热阻特性

#### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	3.24 $^\circ\text{C}/\text{W}$
0.5M/S	2.66 $^\circ\text{C}/\text{W}$
1M/S	2.18 $^\circ\text{C}/\text{W}$
1.5M/S	1.79 $^\circ\text{C}/\text{W}$
2M/S	1.46 $^\circ\text{C}/\text{W}$



# DC/DC CDD 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	05&05	4&4	30&30	82%	CDD-X40-12D05&05
12	9-18	05&05	4&4	50&50	82%	CDD40-12D05&05
12	9-18	05&12	2&2.5	30&30	82%	CDD-X40-12D05&12
12	9-18	05&12	2&2.5	50&120	82%	CDD40-12D05&12
12	9-18	24&24	0.8&0.8	200&200	83%	CDD40-12D24&24
12	9-18	24&48	0.8&0.4	200&300	83%	CDD40-12D24&48
12	9-18	05&12	5&4.17	30&30	82%	CDD-X75-12D05&12
12	9-18	05&12	5&4.17	50&120	82%	CDD75-12D05&12
12	9-18	12&24	2.5&1.88	120&200	83%	CDD75-12D12&24
12	9-18	24&24	1.56&1.56	200&200	83%	CDD75-12D24&24
12	9-18	24&48	1&1	200&300	83%	CDD75-12D24&48
12	9-18	05&12	4&6.67	50&120	82%	CDD100-12D05&12
12	9-18	12&12	4.17&4.17	120&120	82%	CDD100-12D12&12
12	9-18	12&24	2.5&2.92	120&200	83%	CDD100-12D12&24
12	9-18	24&24	2&2	200&200	83%	CDD100-12D24&24
12	9-18	24&48	1.25&1.46	200&300	83%	CDD100-12D24&48
24	18-36	05&05	4&4	50&50	82%	CDD40-24D05&05
24	18-36	05&12	2&2.5	50&120	82%	CDD40-24D05&12
24	18-36	12&12	1.67&1.67	120&120	82%	CDD40-24D12&12
24	18-36	12&24	1.25&1	120&200	83%	CDD40-24D12&24
24	18-36	24&24	0.8&0.8	200&200	83%	CDD40-24D24&24
24	18-36	24&48	0.8&0.4	200&300	83%	CDD40-24D24&48
24	18-36	05&12	5&4.17	30&30	82%	CDD-X75-24D05&12
24	18-36	05&12	5&4.17	50&120	82%	CDD75-24D05&12
24	18-36	12&24	2.5&1.88	120&200	83%	CDD75-24D12&24
24	18-36	24&24	1.56&1.56	200&200	83%	CDD75-24D24&24
24	18-36	24&48	1&1	200&300	83%	CDD75-24D24&48
24	18-36	05&12	4&6.67	50&120	82%	CDD100-24D05&12
24	18-36	12&12	4.17&4.17	120&120	82%	CDD100-24D12&12
24	18-36	12&24	2.5&2.92	120&200	83%	CDD100-24D12&24
24	18-36	24&24	2&2	200&200	83%	CDD100-24D24&24
24	18-36	24&48	1.25&1.46	200&300	83%	CDD100-24D24&48
48	36-72	05&05	4&4	50&50	82%	CDD40-48D05&05
48	36-72	05&12	2&2.5	50&120	82%	CDD40-48D05&12
48	36-72	12&12	1.67&1.67	120&120	82%	CDD40-48D12&12
48	36-72	12&24	1.25&1	120&200	83%	CDD40-48D12&24
48	36-72	24&24	0.8&0.8	200&200	83%	CDD40-48D24&24
48	36-72	24&48	0.8&0.4	200&300	83%	CDD40-48D24&48
48	36-72	05&12	5&4.17	50&120	82%	CDD75-48D05&12
48	36-72	12&12	3&3	120&120	82%	CDD75-48D12&12
48	36-72	12&24	2.5&1.88	120&200	83%	CDD75-48D12&24
48	36-72	24&24	1.56&1.56	200&200	83%	CDD75-48D24&24
48	36-72	24&48	1&1	200&300	83%	CDD75-48D24&48
48	36-72	05&12	4&6.67	50&120	82%	CDD100-48D05&12
48	36-72	12&12	4.17&4.17	120&120	82%	CDD100-48D12&12
48	36-72	12&24	2.5&2.92	120&200	83%	CDD100-48D12&24
48	36-72	24&24	2&2	200&200	83%	CDD100-48D24&24
48	36-72	24&48	1.25&1.46	200&300	83%	CDD100-48D24&48
12	9-18	±12&05	2.5/2.5&3	120/120&50	83%	CDD75-12T12&05
12	9-18	±15&05	2.67/2.67&4	150/150&50	83%	CDD100-12T15&05
24	18-36	±12&05	2.5/2.5&3	120/120&50	83%	CDD75-24T12&05
24	18-36	±15&05	2.67/2.67&4	150/150&50	83%	CDD100-24T15&05
48	36-72	±12&12	2.5/2.5&3.33	120/120&120	83%	CDD100-48T12&12

注: 以上选型, 型号中功率前面带“X”的为低纹波电源, 纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明: 仅列出典型型号, 其它型号请确定功率、输入电压及输出电压后, 致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# DC/DC MZK 系列

## 单路大功率传导散热

150-300W



### 物理特性

结构尺寸: 129\*79\*25.5mm  
重量: 0.39Kg

### 特性

### Features

- 输入  $\pi$  型滤波  $\pi$  type input filter
- 大电流, 大功率输出 High output current and power
- 功率密度可达 28W/in<sup>3</sup> Up to 28W/in<sup>3</sup> power density
- 快速动态响应 Fast dynamic response
- 引出脚功能兼容 Pin function compatible
- 自然冷却可附带散热器 Natural cooling, heat sink attachable

### 输入特性

### Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>

反压保护: 应用时外接电熔丝  
(Voltage Range) (External Fuse)

### 输出特性

### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	$\pm 1\%$
电压调整率: (Line Regulation)	$\pm 0.2\%$
负载调整率: (Load Regulation)	$\pm 0.5\%$
温度变化率: (Temperature Coefficient)	$\pm 0.02\% / ^\circ\text{C}$
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 $\mu\text{s}$

### 一般特性

### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ) M $\Omega$
MTBF:	>500000 hrs

### 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>

### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85 $^\circ\text{C}$
	军 I (Military I)	-40~+85 $^\circ\text{C}$
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85 $^\circ\text{C}$
	工业品 (Industry)	-45~+105 $^\circ\text{C}$
	军品 (Military)	-55~+105 $^\circ\text{C}$

### 热阻特性

### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	2. 10 $^\circ\text{C} / \text{W}$
0. 5M/S	1. 60 $^\circ\text{C} / \text{W}$
1M/S	1. 30 $^\circ\text{C} / \text{W}$
1. 5M/S	1. 00 $^\circ\text{C} / \text{W}$
2M/S	0. 80 $^\circ\text{C} / \text{W}$

# DC/DC MZK 系列

## 型号

## Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	12	12.5	30	82%	MZK-X150-12S12
12	9-18	12	12.5	120	82%	MZK150-12S12
12	9-18	15	10	150	82%	MZK150-12S15
12	9-18	24	6.25	200	83%	MZK150-12S24
12	9-18	48	3.13	300	85%	MZK150-12S48
12	9-18	12	16.67	30	82%	MZK-X200-12S12
12	9-18	12	16.67	120	82%	MZK200-12S12
12	9-18	15	13.33	150	82%	MZK200-12S15
12	9-18	24	8.33	200	83%	MZK200-12S24
12	9-18	48	4.17	300	85%	MZK200-12S48
12	9-18	12	20.83	120	82%	MZK250-12S12
12	9-18	13.8	18.12	120	82%	MZK250-12S13.8
12	9-18	15	16.67	150	82%	MZK250-12S15
12	9-18	24	10.42	200	83%	MZK250-12S24
12	9-18	48	5.21	300	85%	MZK250-12S48
24	18-36	12	12.5	30	82%	MZK-X150-24S12
24	18-36	12	12.5	120	82%	MZK150-24S12
24	18-36	15	10	150	82%	MZK150-24S15
24	18-36	24	6.25	200	83%	MZK150-24S24
24	18-36	28	5.36	300	85%	MZK150-24S28
24	18-36	36	4.17	300	85%	MZK150-24S36
24	18-36	48	3.13	300	85%	MZK150-24S48
24	18-36	12	16.67	120	82%	MZK200-24S12
24	18-36	13.8	14.49	120	82%	MZK200-24S13.8
24	18-36	15	13.33	150	82%	MZK200-24S15
24	18-36	24	8.33	200	83%	MZK200-24S24
24	18-36	48	4.17	300	85%	MZK200-24S48
24	18-36	12	20.83	30	82%	MZK-X250-24S12
24	18-36	12	20.83	120	82%	MZK250-24S12
24	18-36	15	16.67	150	82%	MZK250-24S15
24	18-36	24	10.42	200	83%	MZK250-24S24
24	18-36	28	8.93	300	85%	MZK250-24S28
24	18-36	36	6.94	200	83%	MZK250-24S36
24	18-36	48	5.21	300	85%	MZK250-24S48
24	18-36	12	25	120	82%	MZK300-24S12
24	18-36	13.8	22	120	82%	MZK300-24S13.8
24	18-36	15	20	150	82%	MZK300-24S15
24	18-36	24	12.5	200	83%	MZK300-24S24
24	18-36	28	10.71	200	83%	MZK300-24S28
24	18-36	48	6.25	300	85%	MZK300-24S48
48	36-72	12	12.5	120	82%	MZK150-48S12
48	36-72	13.8	10.87	120	82%	MZK150-48S13.8
48	36-72	15	10	120	82%	MZK150-48S15
48	36-72	24	6.25	200	83%	MZK150-48S24
48	36-72	48	3.13	300	85%	MZK150-48S48
48	36-72	12	16.67	120	82%	MZK200-48S12
48	36-72	24	8.33	200	83%	MZK200-48S24
48	36-72	48	4.17	300	85%	MZK200-48S48
48	36-72	12	20.83	120	82%	MZK250-48S12
48	36-72	24	10.42	200	83%	MZK250-48S24
48	36-72	48	5.21	300	85%	MZK250-48S48
48	36-72	12	25	120	82%	MZK300-48S12
48	36-72	24	12.5	200	83%	MZK300-48S24

注：以上选型，型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Above selection, Model selection of the mark with an "X" is low ripple power supply, the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed. If you need other models, please confirm the power, input voltage and output voltage, then phone us.

# DC/DC COZ,CPZ 系列

## 薄型、大功率、双路独立稳压

100-500W



### 物理特性

结构尺寸: 160\*88\*23mm  
重量: COZ:0.4Kg CPZ:0.47Kg

### 特性

#### Features

- 输入  $\pi$  型滤波  $\pi$  type input filter
- 高可靠性, 长寿命设计 Design for high reliability, long lifetime
- 安装方便, 单端出线 Easy installation, single outlet
- 最佳壳体连接方式 Est case attaching mode
- 恒流输出特性 Constant output current feature
- 输出短路保护, 容性负载 >6 万  $\mu$ F Output short circuit protection, capacitive load >60,000 $\mu$ F

### 输入特性

#### Input Characteristics

电压范围: (Voltage Range)	<b>DC-DC</b> 12V <sub>DC</sub> (Normal)	9-18V <sub>DC</sub>
	24V <sub>DC</sub> (Normal)	18-36V <sub>DC</sub>
	48V <sub>DC</sub> (Normal)	36-72V <sub>DC</sub>
四倍输入:	18V <sub>DC</sub> (Normal)	9-36V <sub>DC</sub>
反压保护: (Voltage Range)	应用时外接电熔丝 (External Fuse)	

### 输出特性

#### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	$\pm 1\%$
输出电压范围: (Line Regulation)	$\pm 10\%$
电压调整率: (Line Regulation)	$\pm 0.2\%$
负载调整率: (Load Regulation)	$\pm 0.5\%$
温度变化率: (Temperature Coefficient)	$\pm 0.02\% / ^\circ\text{C}$
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 $\mu$ s

### 选型说明

#### User's Selection Guide

- CPZ: 传导散热, 双端出线  
(Bottom heat conduction, two side terminal)
- COZ: 顶面散热, 双端出线  
(Top heat dissipation, two side terminal)

### 一般特性

#### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ) M $\Omega$
MTBF:	>500000 hrs

#### 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>DC</sub>
输入 - 外壳: (Input-Case)	> 1050 V <sub>DC</sub>
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub>

#### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85 $^\circ\text{C}$
	军 I (Military I)	-40~+85 $^\circ\text{C}$
存储温度: (Storage Temperature)	军 II (Military II)	-55~+85 $^\circ\text{C}$
	工业品 (Industry)	-45~+105 $^\circ\text{C}$
	军品 (Military)	-55~+105 $^\circ\text{C}$

### 热阻特性

#### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	2.01 $^\circ\text{C} / \text{W}$
0.5M/S	1.67 $^\circ\text{C} / \text{W}$
1M/S	1.25 $^\circ\text{C} / \text{W}$
1.5M/S	0.91 $^\circ\text{C} / \text{W}$
2M/S	0.75 $^\circ\text{C} / \text{W}$

# DC/DC COZ,CPZ 系列

型号

Models

输入电压 (Vdc) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
12	9-18	12	8.33	30	82%	CPZ-X100-12S12
12	9-18	12	8.33	120	82%	CPZ100-12S12
12	9-18	48	2.08	300	84%	CPZ100-12S48
12	9-18	12	12.5	30	82%	CPZ-X150-12S12
12	9-18	12	12.5	120	82%	CPZ150-12S12
12	9-18	48	3.13	300	84%	CPZ150-12S48
12	9-18	24	8.33	200	83%	CPZ200-12S24
12	9-18	48	4.17	300	84%	CPZ200-12S48
12	9-18	24	10.42	200	83%	CPZ250-12S24
12	9-18	48	5.21	300	84%	CPZ250-12S48
12	9-18	24	12.5	200	83%	CPZ300-12S24
12	9-18	28	10.7	300	84%	CPZ300-12S28
12	9-18	36	8.33	300	83%	CPZ300-12S36
12	9-18	48	6.25	300	84%	CPZ300-12S48
18	9-36	12	8.33	120	82%	CPZ100-18S12
18	9-36	24	4.17	200	83%	CPZ100-18S24
18	9-36	48	2.08	300	84%	CPZ100-18S48
18	9-36	12	12.5	120	82%	CPZ150-18S12
18	9-36	24	6.25	200	83%	CPZ150-18S24
18	9-36	48	3.13	300	84%	CPZ150-18S48
18	9-36	24	8.33	200	83%	CPZ200-18S24
18	9-36	48	4.17	300	84%	CPZ200-18S48
18	9-36	24	10.42	200	83%	CPZ250-18S24
18	9-36	48	5.21	300	84%	CPZ250-18S48
18	9-36	24	12.5	200	83%	CPZ300-18S24
18	9-36	36	8.33	300	84%	CPZ300-18S36
18	9-36	48	6.25	300	84%	CPZ300-18S48
24	18-36	12	8.33	30	82%	CPZ-X100-24S12
24	18-36	12	8.33	120	82%	CPZ100-24S12
24	18-36	48	2.08	300	84%	CPZ100-24S48
24	18-36	12	12.5	30	82%	CPZ-X150-24S12
24	18-36	12	12.5	120	82%	CPZ150-24S12
24	18-36	48	3.13	300	84%	CPZ150-24S48
24	18-36	24	8.33	200	83%	CPZ200-24S24
24	18-36	48	4.17	300	84%	CPZ200-24S48
24	18-36	24	10.42	200	83%	CPZ250-24S24
24	18-36	48	5.21	300	84%	CPZ250-24S48
24	18-36	24	12.5	200	83%	CPZ300-24S24
24	18-36	48	6.25	300	84%	CPZ300-24S48
24	18-36	24	16.67	200	83%	CPZ400-24S24
24	18-36	48	8.33	300	84%	CPZ400-24S48
48	36-72	12	8.33	120	83%	CPZ100-48S12
48	36-72	24	4.17	200	84%	CPZ100-48S24
48	36-72	24	12.5	200	83%	CPZ300-48S24
12	9-18	05&12	4&6.67	50&120	83%	CPZ100-12D05&12
12	9-18	05&12	10&8.33	50&120	83%	CPZ150-12D05&12
24	18-36	05&12	6&5.83	50&120	83%	CPZ100-24D05&12
24	18-36	05&12	8&9.17	50&120	83%	CPZ150-24D05&12
24	18-36	12&12	12.5&12.5	120&120	83%	CPZ300-24D12&12
24	18-36	24&24	6.25&6.25	200&200	83%	CPZ300-24D24&24
48	36-72	12&12	4.17&4.17	120&120	83%	CPZ100-48D12&12
48	36-72	24&24	3.13&3.13	200&200	84%	CPZ150-48D24&24

注：以上 CPZ 的选型，COZ 均可定制。 All above model CPZ selected COZ able to customize.  
型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。 Model selection of the mark with an "X" is low ripple power supply ,the ripple is less than 30mV.

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。  
Only typical models and listed.If you need other models,please confirm the power,input voltage and output voltage,then phone us.

# AC/DC MAC,MAD 系列

超低输出噪声 <30mvp-p

10-30W



## 物理特性

结构尺寸: 120/110\*85\*27mm  
重量: MAC:0.3Kg MAD:0.28Kg

## 特性

### Features

- |                         |  |
|-------------------------|--|
| ■ 输入宽频噪声滤波              | Wideband noise filter of input               |
| ■ 快速动态响应                | Fast dynamic response                        |
| ■ 安装方便                  | Easy installation                            |
| ■ 接线端子出线方式              | Outlet terminal method                       |
| ■ 输入浪涌抑制电路              | Surge suppression circuit of input           |
| ■ 符合 UL1950、IEC950 安全规程 | Comply with UL1950,IEC950 safety regulations |

## 输入特性

### Input Characteristics

电压范围: **AC-DC** 220V<sub>AC</sub>(Normal) 176-264V<sub>AC</sub>  
(Voltage Range)

## 输出特性

### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

## 选型说明

### User's Selection Guide

- MAD: 顶面散热, 双端出线  
(Top heat dissipation, two side terminal)
- MAC: 顶面散热, 双端出线, 带马蹄孔安装板  
(Top heat dissipation, two side terminal, mounting hoof-hole)

## 一般特性

### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

## 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub> /1min

## 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
	军 II (Military II)	-55~+85°C
存储温度: (Storage Temperature)	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

## 热阻特性

### Thermal Characteristics

冷却方式: (Cooling)	热阻 (MAC) 热阻 (MAD) (Thermal Resistance)
自然风冷: (Breeze of Nature)	2.43°C/W 3.03°C/W
0.5M/S	1.99°C/W 2.48°C/W
1M/S	1.63°C/W 2.03°C/W
1.5M/S	1.34°C/W 1.67°C/W
2M/S	1.09°C/W 1.37°C/W

# AC/DC MAC,MAD 系列

型号

Models

输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
220	176-264	3.3	3.03	20	82%	MAC-X10-220S3.3
220	176-264	3.3	3.03	30	82%	MAC10-220S3.3
220	176-264	05	2	30	82%	MAC-X10-220S05
220	176-264	05	2	30	82%	MAC10-220S05
220	176-264	13.8	0.72	120	82%	MAC10-220S13.8
220	176-264	15	0.67	150	82%	MAC10-220S15
220	176-264	18	0.56	200	82%	MAC10-220S18
220	176-264	24	0.42	200	83%	MAC10-220S24
220	176-264	3.3	4.55	30	82%	MAC15-220S3.3
220	176-264	05	3	30	82%	MAC-X15-220S05
220	176-264	05	3	50	82%	MAC15-220S05
220	176-264	12	1.25	30	82%	MAC-X15-220S12
220	176-264	12	1.25	120	82%	MAC15-220S12
220	176-264	15	1	150	82%	MAC15-220S15
220	176-264	18	0.83	200	82%	MAC15-220S18
220	176-264	24	0.63	200	83%	MAC15-220S24
220	176-264	28	0.54	300	83%	MAC15-220S28
220	176-264	3.3	6.06	50	82%	MAC20-220S3.3
220	176-264	05	4	30	82%	MAC-X20-220S05
220	176-264	05	4	50	82%	MAC20-220S05
220	176-264	12	1.67	30	82%	MAC-X20-220S12
220	176-264	12	1.67	120	82%	MAC20-220S12
220	176-264	15	1.33	150	82%	MAC20-220S15
220	176-264	18	1.11	200	82%	MAC20-220S18
220	176-264	24	0.83	200	83%	MAC20-220S24
220	176-264	28	0.71	300	83%	MAC20-220S28
220	176-264	05	5	50	82%	MAC25-220S05
220	176-264	09	2.78	90	82%	MAC25-220S09
220	176-264	12	2.08	120	82%	MAC25-220S12
220	176-264	13.8	1.81	120	82%	MAC25-220S13.8
220	176-264	15	1.67	150	82%	MAC25-220S15
220	176-264	18	1.39	200	82%	MAC25-220S18
220	176-264	24	1.04	200	83%	MAC25-220S24
220	176-264	28	0.89	300	83%	MAC25-220S28
220	176-264	05	6	50	82%	MAC30-220S05
220	176-264	09	3.33	90	82%	MAC30-220S09
220	176-264	12	2.5	120	82%	MAC30-220S12
220	176-264	13.8	2.17	120	82%	MAC30-220S13.8
220	176-264	15	2	150	82%	MAC30-220S15
220	176-264	18	1.67	200	82%	MAC30-220S18
220	176-264	24	1.25	200	83%	MAC30-220S24
220	176-264	28	1.07	300	83%	MAC30-220S28
220	176-264	36	0.83	300	83%	MAC30-220S36
220	176-264	48	0.63	300	83%	MAC30-220S48
220	176-264	05&05	1&1	30&30	82%	MAC-X10-220D05&05
220	176-264	05&05	1&1	50&50	82%	MAC10-220D05&05
220	176-264	05&12	0.5&0.63	30&30	82%	MAC-X10-220D05&12
220	176-264	05&12	0.5&0.63	50&120	82%	MAC10-220D05&12
220	176-264	05&12	1&1.25	50&120	82%	MAC20-220D05&12
220	176-264	12&12	0.83&0.83	120&120	82%	MAC20-220D12&12
220	176-264	12&12	1.25&1.25	120&120	82%	MAC30-220D12&12
220	176-264	15&15	1.5&0.5	150/150	82%	MAC30-220D15&15

单

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注：以上 MAC 的选型，MAD 均可定制。 All above model MAC selected MAD able to customize.

型号中功率前面带“X”的为低纹波电源，纹波小于等于 30mV。Model selection of the mark with an "X" is low ripple power supply ,the ripple is less than 30mV.

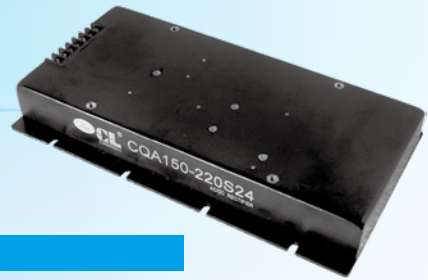
■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

Only typical models and listed.If you need other models,please confirm the power,input voltage and output voltage,then phone us.

# AC/DC CQA 系列

## 内置功率因数校正电路

100-200W



### 物理特性

结构尺寸: 210\*118\*27mm  
重量: 0.72Kg

### 特性

#### Features

- |                         |   |
|-------------------------|---|
| ■ 宽电压输入范围               | Wide range of input voltage                   |
| ■ 输入宽频噪声滤波              | Wideband noise filter of input                |
| ■ 快速动态响应                | Fast dynamic response                         |
| ■ 接线端子出线方式              | Outlet terminal method                        |
| ■ 输入浪涌抑制电路              | Surge suppression circuit of input            |
| ■ 符合 UL1950、IEC950 安全规程 | Comply with UL1950, IEC950 safety regulations |

### 输入特性

#### Input Characteristics

电压范围: **AC-DC** 220V<sub>AC</sub>(Normal) 176-264V<sub>AC</sub>  
(Voltage Range)

### 输出特性

#### Output Characteristics

稳压精度: (Regulated Voltage Accuracy)	± 1%
电压调整率: (Line Regulation)	± 0.2%
负载调整率: (Load Regulation)	± 0.5%
温度变化率: (Temperature Coefficient)	± 0.02% /°C
电流限制点: (Output Current Limiting)	120% (Typ)
瞬态响应: (Transient Response)	400 μs

### 一般特性

#### General Characteristics

工作频率 (典型值): (Switching Frequency)	200 KHz
隔离电阻: (Isolation Resistance)	200 (Typ)MΩ
MTBF:	>500000 hrs

#### 绝缘强度 (Insulation Voltage)

输入 - 输出: (Input-Output)	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输入 - 外壳: (Input-Case)	> 1500 V <sub>AC</sub> /1min (漏电流 < 5mA)
输出 - 外壳: (Output-Case)	> 500 V <sub>DC</sub> /1min

#### 环境特性 (Environmental Characteristics)

工作壳温: (Operation Temperature)	工业品 (Industry)	-25~+85°C
	军 I (Military I)	-40~+85°C
	军 II (Military II)	-55~+85°C
存储温度: (Storage Temperature)	工业品 (Industry)	-45~+105°C
	军品 (Military)	-55~+105°C

### 热阻特性

#### Thermal Characteristics

冷却方式: (Cooling)	热阻 (Thermal Resistance)
自然风冷: (Breeze of Nature)	1.28°C/W
0.5M/S	1.07°C/W
1M/S	0.80°C/W
1.5M/S	0.59°C/W
2M/S	0.48°C/W



# AC/DC CQA 系列

型号

Models

	输入电压 (Vac) Input Voltage	输入电压 (范围) Input Voltage<Range>	输出电压 (Vdc) Output Voltage	输出电流 (A) Output Current	纹波 pk-pk (mV) Ripple and noise	效率 (Typ) Efficiency	型号 Models
单	220	176-264	5	20	50	82%	CQA100-220S05
	220	176-264	12	8.33	120	82%	CQA100-220S12
	220	176-264	24	4.17	200	83%	CQA100-220S24
	220	176-264	48	2.08	300	84%	CQA100-220S48
	220	176-264	12	10	120	82%	CQA120-220S12
路	220	176-264	24	5	200	83%	CQA120-220S24
	220	176-264	48	2.5	300	84%	CQA120-220S48
	220	176-264	12	12.5	120	82%	CQA150-220S12
	220	176-264	24	6.25	200	83%	CQA150-220S24
	220	176-264	48	3.13	300	84%	CQA150-220S48
	220	176-264	12	16.67	120	82%	CQA200-220S12
	220	176-264	24	8.33	200	83%	CQA200-220S24
	220	176-264	48	4.17	300	84%	CQA200-220S48

■ 说明：仅列出典型型号，其它型号请确定功率、输入电压及输出电压后，致电我公司。

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# 选型说明 Selection Guide

## 1. 模块电源

CLZ 150 - 48 S 05 - J  
1 2 3 4 5 6

1- 系列号

2- 输出功率：单路输出功率或多路输出功率总和；

3- 输入电压

4- 输出路数：S - 单路；D- 双路；T- 三路；Q- 四路；F- 五路；F1- 六路；

5- 输出电压

a) 当输出为双路（D）时，如果为正负输出，此项代表正负输出电压值；如果两路输出不同，第一个电压值为第一路输出（Vo1），第二个电压值为第二路输出（Vo2）；不共地用“&”联接两个电压值；

b) 当输出为三路（T）时，如果为正负，加一正输出，第一项为正负电压值；第二项为正输出值；如果三路输出不同，此处三项一次为三个电压值；

四路及以上输出的情况与三路输出相同或只标明路数再做详细解释

6- 辅助说明

J- 军品；K- 宽范围；S- 安装散热器

附加说明：

(1) 若把 AC/DC 产品型号转换为相对应的 DC/DC 型号，可将“系列号”最后一个字母 A 改成 F。

如原交流输入电源模块 CDA120-220S24 转换直流输入的型号应该是：CDF120-220S24

(2) 若低纹波输出的模块电源，命名方法只需在“系列号”后加“-X”。如：CCA-X35-220S07

## 2. 箱体式电源：

CL 19 A 2 A 400 -220S12  
1 2 3 4 5 6 7

1- 系列号前缀

2- 机箱宽度：定制尺寸“19”为标准 U 箱电源

3- 机箱深度 A—350 ~ 400；B—400 ~ 450；C—450 ~ 500；D—500；X—客户定制尺寸

4- 机箱高度：客户定制高度，对于 U 箱 1—1U；2—2U；3—3U（1U=44.45mm）

5- 输入交流或直流方式：A—交流 Z—直流

6- 输出功率：电源单路输出功率或多路输出功率的总和；

7- 与模块电源命名方法第 3 ~ 6 部分相同

# 选型说明 Selection Guide

## 1. Module Power Supply Naming

CLZ 150 - 48 S 05 - J  
1 2 3 4 5 6

1 Series Number

2 Output Power: Single output loop power or the power sum of output circuits;

3 Input Voltage

4 Output Circuits: S-Single; D-Double; T-Triple; Q-Quad; F-Five; F1-Six

5 Output Voltage

For double output, if it is positive or negative, this part refers to positive or negative voltage value, if both output are different, the first voltage refers to the first output(Vo1), and the second voltage refers to the second output(Vo2). Using symbol "&" link up two voltage values when the output circuits are isolation each other.

For triple output, if it is positive or negative output plus a positive output, then first part refers to positive or negative voltage value, the second part refers to positive; if all three are different, then three parts refers to three kind of voltage value in turn.

Quad and more outputs are same with triple output.

6 Auxiliary Notes: J-Military; K- Extension Input-Voltage; S-Heat Sink Installed

Attachment:

(1) Properly transition the model of AC/DC into DC/DC, using the letter "F" replacing "A" . For example AC/DC model is "CDA120-220S24" , correspond with the DC/DC model is: CDF120-220S24

(2) For the output at ultra-low ripple, insert "-X" between the series number and output power value.

## 2. Chassis Power Supply Naming:

CL 19 A 2 A 400 -220S12  
1 2 3 4 5 6 7

1 Series prefix

2 Width: Customize size; "19" is 19 inch standard chassis

3 Depth: A—350~400; B—400~450; C—450~500; D- 500; X—Customize size

4 Height: Customize size, for 19 inch chassis is under 1—1U; 2—2U; 3—3U (1U=44.45mm)

5 Input Volt at Alternation or Direct: A—Alternative current Z—Direct current

6 Output power: Single loop output power or the power sum of output circuits.

7 Same as Module Power Supply Series part 3-6

本公司承诺严格按照  
(GJB9001A-2001)  
国军标质量管理体系  
的要求，为军队及普  
通客户专门设计、生  
产特殊要求与规格的  
电源产品。

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