

CXLDA480F Series (Single Phase)

Single Output 480W AC-DC DIN Rail



General description

CXLDA480F Series 480W power supplies feature high reliability and efficiency in a slim DIN Rail enclosure. The power supply has peak power capability, exceptional Electro Magnetic Susceptibility (EMS) and Electro Magnetic Compatibility (EMC) and it fulfills the safety requirements for both IEC61010-2-201 as well as IEC62368-1.

Features

- 85 to 264VAC input voltage range with PFC
- High Efficiency up to 94%
- Peak Power capacity to 150% rated power
- -40°C to 70°C wide range operation
- Built-in DC OK relay contact
- Operating altitude up to 5000 meters
- Protections: Short-circuit/
Over-voltage/ Over-current/
Over temperature
- Design to meet SEMI F47
- 5 years warranty
- Made in Vietnam



Applications

- Industrial and Automation
- Security and Surveillance
- Electromechanical Equipment
- Communications and Networking
- Charging and Energy Solutions
- Test and Measurement Equipment

Model Numbering

CXLDA	480	F	-	XX	-	XX
Din Rail	Output Power 480W => 480	Input F=>Single phase wide input range		Output Voltage 24V => 24 48V => 48		Options T: Screw interface T2: Spring interface T4: Push-In interface

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Electrical Specification

MODEL	CXLDA480F-24	CXLDA480F-48	
OUTPUT	DC Voltage	24V	48V
	Rated Current	20A	10A
	Rated Power	480W	480W
	Peak Current (Max.) (note#4)	30A	15A
	Peak Power (note#4)	720W (3 sec.)	720W (3 sec.)
	Output adj. range (note#4)	24 - 28V	48 - 55V
	Line Regulation	±0.5%	±0.5%
	Load Regulation	±1%	±1%
	Startup Time; Rise Time (Max.)	2000ms; 50ms	
	Hold-up Time (Typ.)	16ms at 115Vac, Full Load	
	Ripple & Noise (Max.) (at full load) (note#1)	100mVp-p	120mVp-p
	INPUT	Nominal Input Voltage Range	100 to 240Vac, 140 to 340Vdc (note#2)
Input Voltage Range		85 to 264Vac, 127 to 375Vdc (note#2)	
Input Frequency		47 to 63Hz	
Input Current (Typ.)		5.0A at 115Vac, 2.5A at 230Vac	
Inrush Current (Typ.)		40A at 230Vac (Cold Start)	
Power Factor (Min.)		0.9	
Efficiency (Typ.)		94.0%	94.0%
Leakage Current (Max.)		0.75mA at 240Vac/60Hz	
No Load Power Consumption (Max.)		1.5W	
FUNCTION	DC OK	Relay output (ON: shorted, OFF: Opened) 30Vdc/1A, 30Vac/0.5A	
PROTECTION	Over Voltage Protection	< 35V, auto-recovery	< 63V, auto-recovery
	Over Current Protection	150% to 185% of Rated Current, Hiccup mode, Auto-recovery mode	
	Short Current Protection	No damage, auto-recovery mode protection until fault is removed	
	Over Temperature Protection	No damage, auto-recovery mode protection until fault is removed	
ENVIRONMENT	Working Temperature	-40 to +70°C (Refer to "De-rating Curve")	
	Working Humidity	20% to 95% RH non-condensing	
	Storage Temperature/ Humidity	-40 to +85°C, 5 to 95% RH non-condensing	
	Vibration	10 to 500Hz, 2G, 10minutes non-operating	
	Operating Altitude (Max.) (note#3)	5000m	
	Shock	20G	
MECHANICAL	Input wire	AWG 18-10	
	Output wire	AWG 12-10	
	DC OK wire	AWG 22-18	
	Terminal	Screw/Spring/Push-In	

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EMC & SAFETY	EMI	Conducted Emission	EN/BS EN 55032 (CISPR32), FCC: Class B
		Radiated Emission	EN/BS EN 55032 (CISPR32), FCC: Class B
		Harmonic Current	IEC61000-3-2, Class A
		Voltage Flicker	IEC61000-3-3
	EMS	ESD	IEC61000-4-2, Criteria A
		Radiated Immunity	IEC61000-4-3, Criteria A
		EFT/Burst	IEC61000-4-4, Criteria A
		Surge	IEC61000-4-5, Criteria A
		Conducted Immunity	IEC61000-4-6, Criteria A
		Magnetic Field Immunity	IEC61000-4-8, Criteria A
		Voltage Dips, interruption	IEC61000-4-11, Criteria A SEMI F47, Criteria A
	Safety Standard		
	UL61010-1/61010-2-201, EN61010-1/61010-2-201 (Planned), UL62368-1, EN62368-1 (Planned)		
	Isolation Voltage		I/P-O/P: 3000VAC; I/P-PE: 2000VAC; O/P-PE: 500VAC; O/P-DC OK: 500VAC
Isolation Resistance (Min.)		I/P-O/P: 100MΩ; I/P-PE: 100MΩ; O/P-PE: 100MΩ, at 500VDC, 70%RH	
ENVIRONMENTAL COMPLIANCE	RoHS Compliance	2011/65/EU	
OTHERS	Warranty (Min.)	5 years	
	MTBF (Min.)	1000K hours	
	Dimension	56mm*124mm*117mm	
	Weight (Max.)	1000g	

Notes

All specifications are defined at 230Vac/50Hz, rated power, and 25°C ambient unless otherwise specified.

#1: Ripple and noise are measured with a 0.1 μF ceramic capacitor and a 47 μF electrolytic capacitor connected in parallel, using a 20 MHz bandwidth. Ripple and noise may be higher at light load than at full load.

#2: The safety approval is for only AC input. The input has non-polarity for DC input.

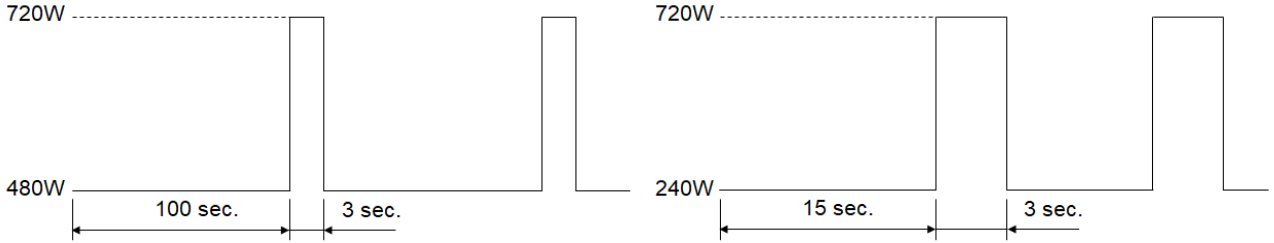
#3: When operating altitude is higher than 2000m (6500 feet), the environment temperature de-rating factor is 0.36°C /100m.

#4: The safety approval is different. Please contact us for details.

CXLDA480F Series (Single Phase)
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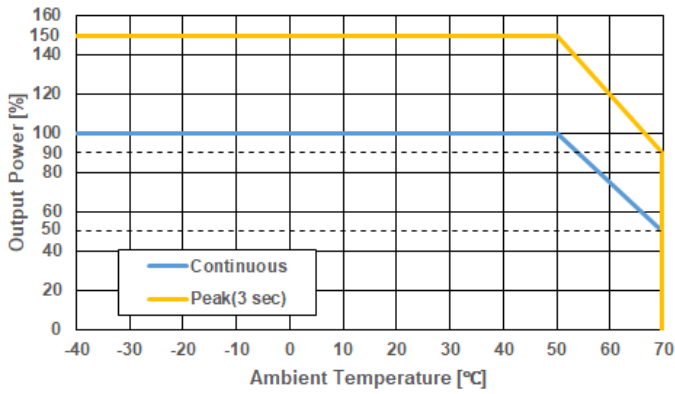


Peak Load

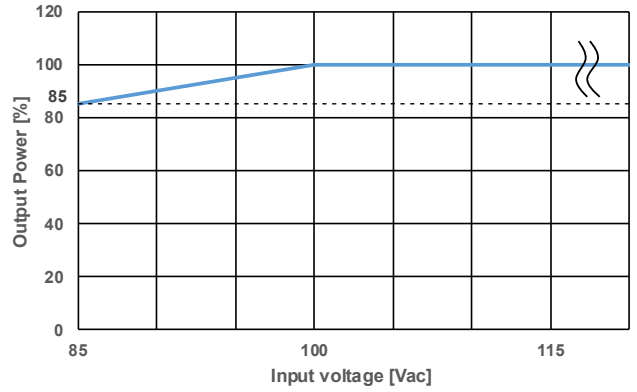


De-rating Curve

Output Power VS Ambient Temperature



Output Power VS Input Voltage



*The safety approval is different. Please contact us for details.

At -40°C, the unit may require additional time to start under full load. To avoid this delay, start the unit under no-load conditions and begin drawing load current after 5 seconds. Alternatively, the unit can be started under full load at temperatures above -25°C.

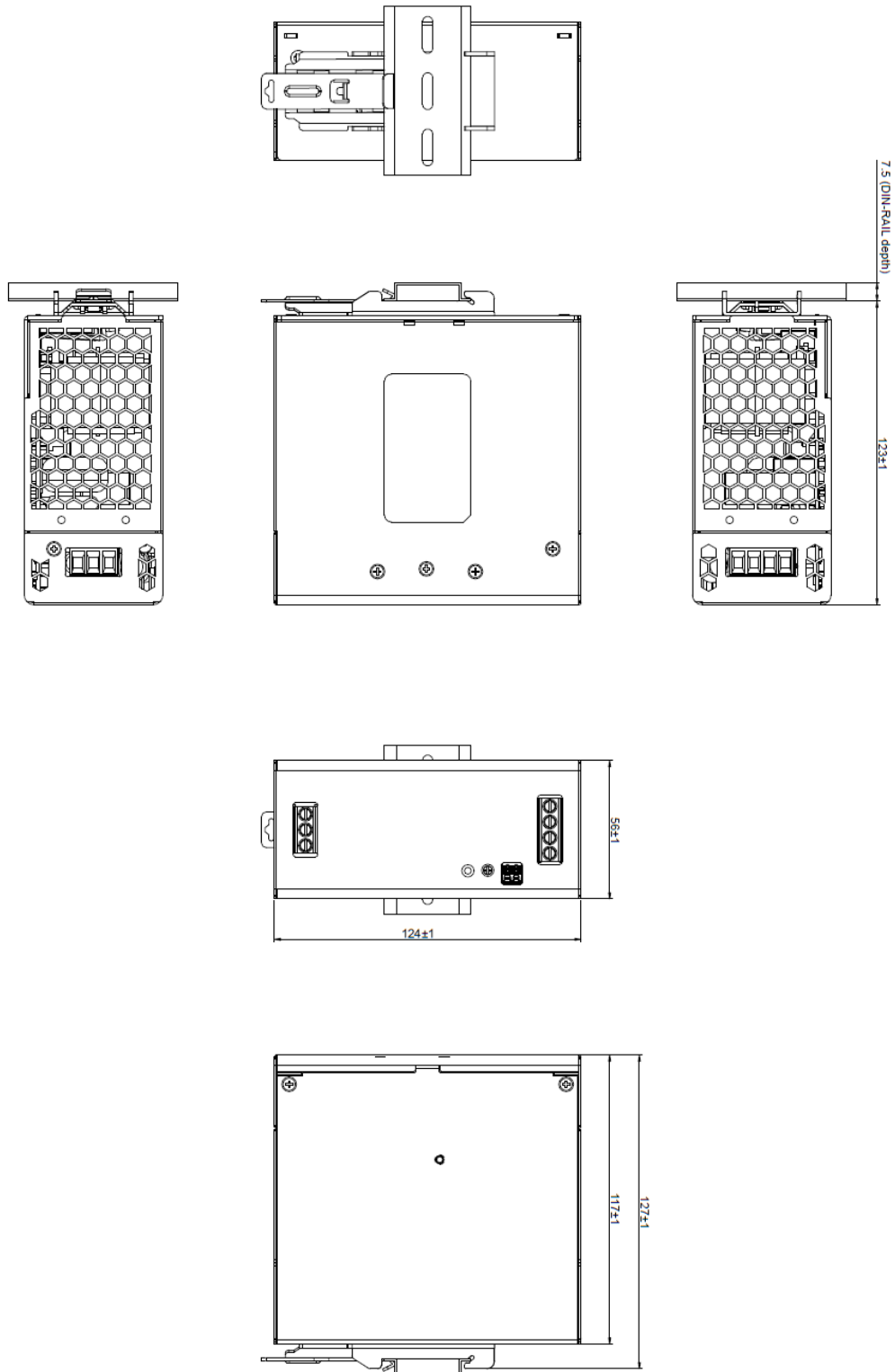
CXLDA480F Series (Single Phase)

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Mechanical and Connector Information

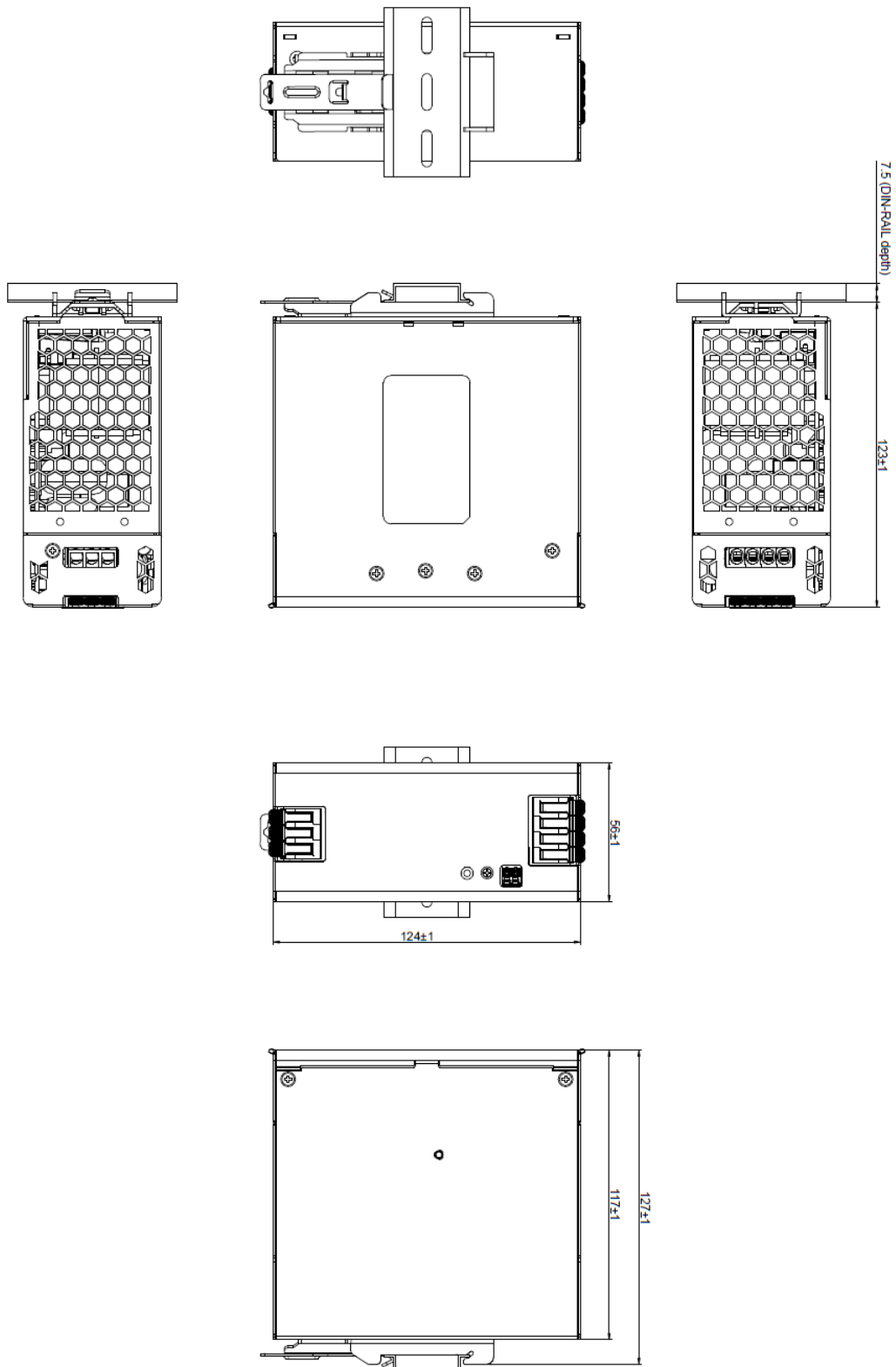
Screw Type (Model Numbering: T): Unit: mm



CXLDA480F Series (Single Phase)
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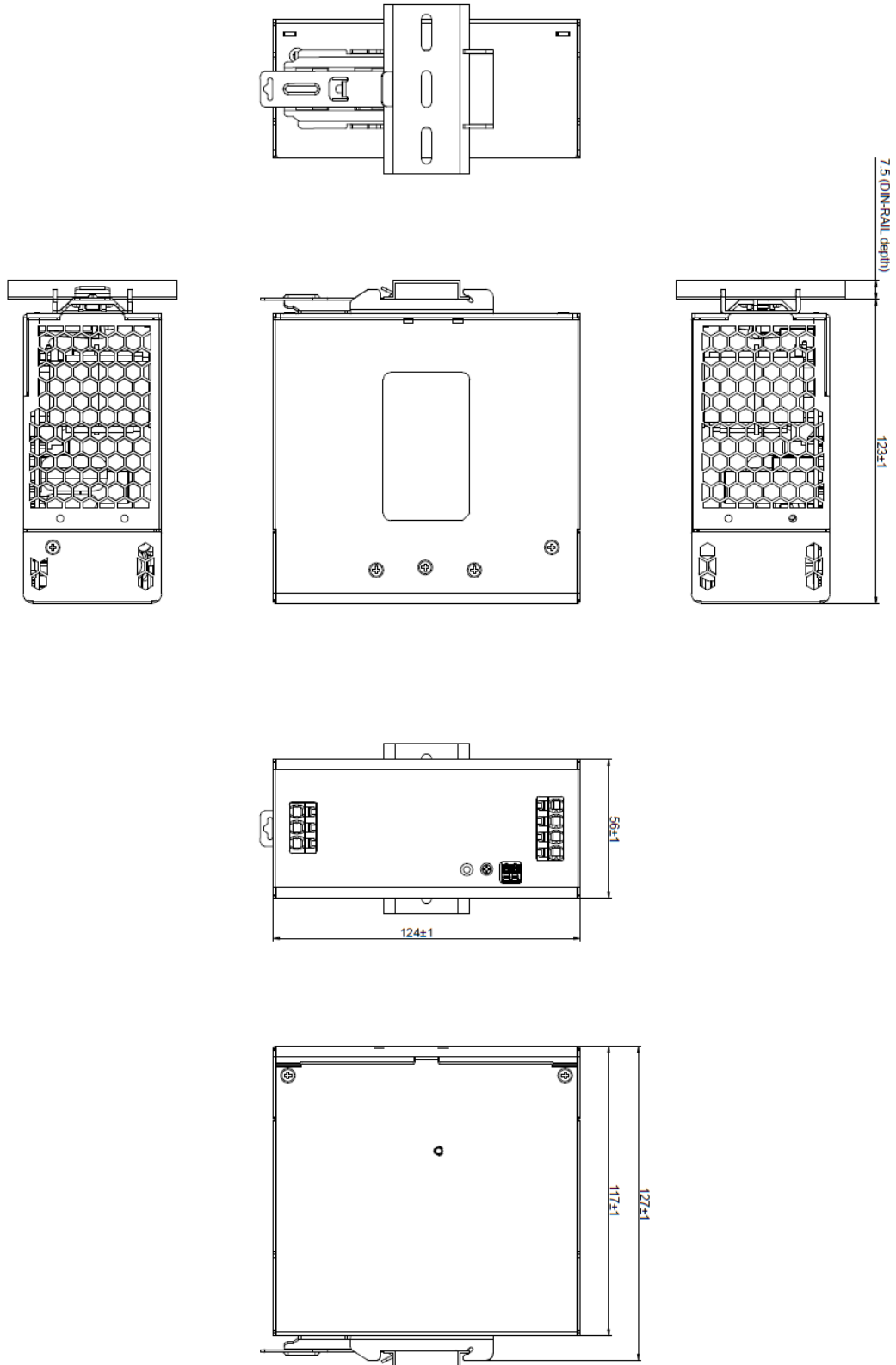
Spring Type (Model Numbering: T2): Unit: mm



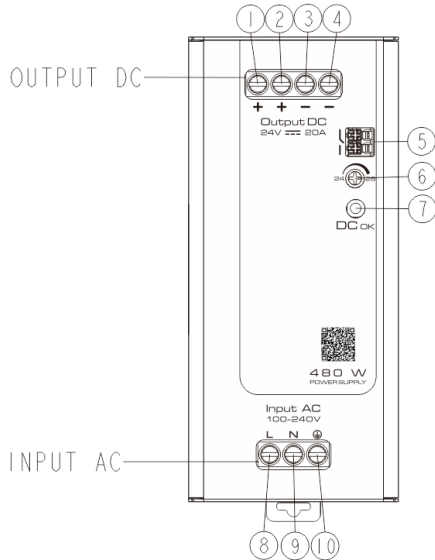
CXLDA480F Series (Single Phase)
Single Output 480W AC-DC DIN Rail



Push In Type (Model Numbering: T4): Unit: mm

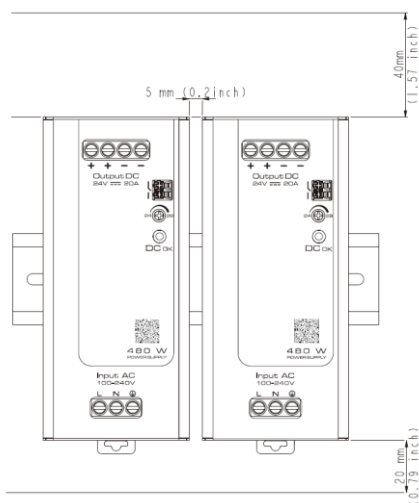


CXLDA480F Series (Single Phase)
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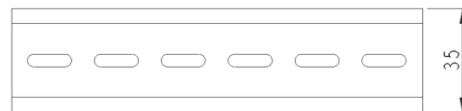
Terminal Number	Terminal Name	Function
1	+VOUT	+Output terminal
2	+VOUT	+Output terminal
3	-VOUT	-Output terminal
4	-VOUT	-Output terminal
5	DC OK relay	DC OK relay contact Rating : 30 Vdc, 1 A (Resistive load)
6	TRM	Adjustment of output voltage
7	DC OK LED	DC OK Power on light
8	AC(L)	Input terminal
9	AC(N)	
10	PE	Protective earth terminal

Mounting information
Vertical Mounting



Applicable DIN rail

Admissible DIN-rail: TS35/7.5 or TS35/15



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Terminal Connector

Screw Type (Model Numbering: T):

Number of positions: 3P (Input)/4P (Output)

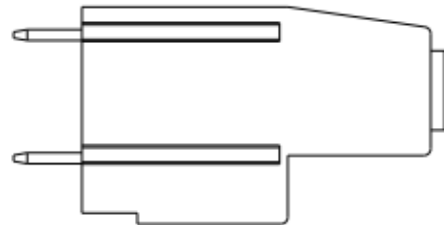
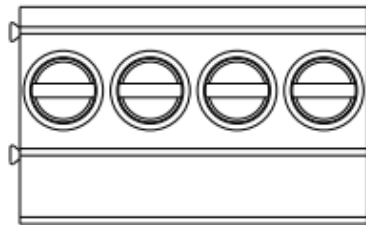
Pitch: 6.35mm

Rated Voltage: 600V

Rated Current: 30A

Connection type: Screw Connection

Flammability: UL94 V0



Spring Type (Model Numbering: T2):

Number of positions: 3P (Input)/4P (Output)

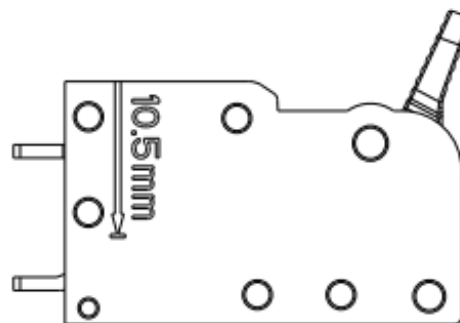
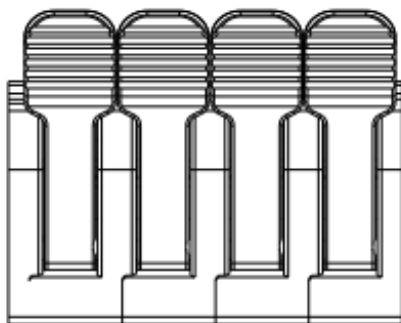
Pitch: 6.35mm

Rated Voltage: 600V

Rated Current: 30A

Connection type: Spring Connection

Flammability: UL94 V0



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Push In Type (Model Numbering: T4):

Number of positions: 3P (Input)/4P (Output)

Pitch: 6.35mm

Rated Voltage: 600V

Rated Current: 30A

Connection type: Push in Connection

Flammability: UL94 V0

