



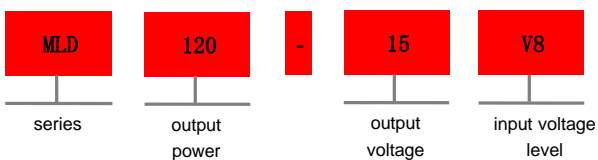
▲ Specification

- 250-1500VDC 6:1 ultra wide range input
- Capable of withstanding 1700VDC surge input for 10 seconds
- ultra-thin width 63MM
- Protection: Over Voltage/Over load/ Over temperature
- Short circuit/reverse polarity protection·input undervoltage protection
- no fans, natural air cooling
- rail installation: TS-35/7.5 or 15
- 40~+80°C wide range working temperature (>+50°C derating)
- over voltage level II
- highest working altitude 5000m
- DC OK relay control
- Output voltage (DC) adjustable
- 3 years warranty

▲ Application

- solar power generation
- renewable energy system
- high-voltage inverter
- Industrial automation control system
- semiconductor manufacturing equipment
- Electronic instruments and devices
- DC bus control system
- energy storage system (ESS)
- charging pile
- power rail

▲ Model encoding





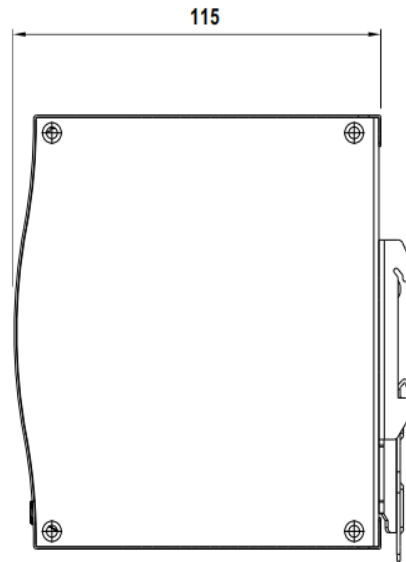
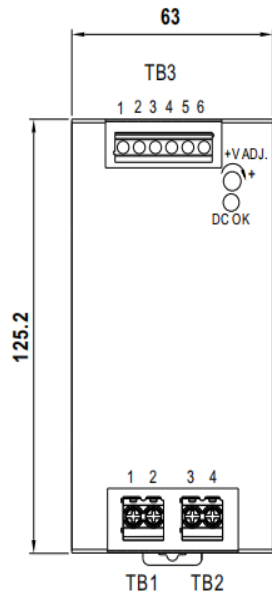
Specification

Input					
Input voltage note1	250-1500VDC				
external input fuse	4A/1500VDC optional				
Surge current (max)	cold start 300A/1500VDC 200A/800VDC 70A/250VDC				
Output					
DC voltage (V)	12V	15V	24V	48V	
Voltage adjustment range	12-15V	15-18.6V	24-29V	48-58V	
Rated current (A)	8.4A	8A	5A	2.5A	
Current range (A)	0-8.4A	0-8A	0-5A	0-2.5A	
Rated power (W)	100.8W	120W	120W	120W	
Ripple & noise (max MVP-P)note3	120mVp-p	120mVp-p	240mVp-p	300mVp-p	
Voltage tolerance note4	±1.5%	±1.5%	±1%	±1%	
Line regulation	±0.5%	±0.5%	±0.5%	±0.5%	
Load regulation	±1.5%	±1.5%	±1.5%	±1%	
Efficiency	300VDC	88%	88%	89.0%	91.0%
	800VDC	87%	87%	90.0%	91.0%
	1500VDC	84%	84%	86.0%	87.0%
external capacitive load (max)	4000uF	4000uF	2500uF	1000uF	
Status indicator	Green				
Protection					
Over load	105%-135% of the rated output power				
	Protection mode: Output voltage<55%: Hiccup mode, recover automatically after fault condition is removed				
	Output voltage 50% - 100%: constant current mode, recover automatically after fault condition is removed				
Over voltage	16.5-21V	20.6-26.2V	33-42V	62-70V	
	Protection mode: Hiccup mode, recover automatically after fault condition is removed				
Over temperature	Protection mode: Hiccup mode, recover automatically after fault condition is removed				
DC input	reverse polarity	Through internal bridge diode, without damage, automatic recovery after removal of abnormal load conditions.			
	undervoltage	Under-voltage protection range: 200-230VDC, under-voltage release range: 230-245VDC.			
DC signal	maximum relay contact rating: 30V/1A resistive load				
Safety and EMC					
Withstand voltage	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:2KVAC O/P-DC OK:0.5KVAC				
Insulation resistance	I/P-O/P, 100M Ohms / 500VDC / 25°C/ 70% RH				
Safety standard	Reference IEC62109-1, BS EN/EN 62109-1				
EMC emission	Parameter	Standard		Test Level/Note	
	Conducted	BS EN/EN55032 (CISPR32)		Class A	
	Radiated	BS EN/EN55032 (CISPR32)		Class A	
EMC immunity	BS EN/EN55035, BS EN/EN61000-6-2				
	Parameter	Standard		Test Level/Note	
	ESD	BS EN/EN61000-4-2		Level 3,8KV air;Level 2,4KV contact,criteria A	
	Radiated Susceptibility	BS EN/EN61000-4-3		Level 3,10V,criteria A	
	EFT/Burest	BS EN/EN61000-4-4		Level 3,2KV,criteria A	
	Surge	BS EN/EN61000-4-5		Level 4,2KV/Vin+ ~ Vin-,4KV/Vin ~ FG,criteria A	
	Conducted	BS EN/EN61000-4-6		Level 3,10V,criteria A	
Magnetic Field	BS EN/EN61000-4-8		Level 4,30A,criteria A		
Environment					
Working temperature	-40 ~ +80°C (Please refer to the "derating curve")				
Working humidity	20 ~ 90% RH ,No condensation				
Storage temp./humidity	-40 ~ +80°C, 10 ~ 95% RH ,No condensation				
Temperature coefficient	±0.03%/°C (0 ~ 50°C)				
Vibration resistance	Component:10~500Hz, 2G 10Min/Circle 60min in each X,Y,Z direction; Installation:IEC60068-2-6				
Altitude	5000 m				
Over voltage level	OVCII 2000m;Reference EN62109-1				
Others					
MTBF	≥257.2K hrs MIL-HDBK-217F (25°C)				
Weight	about 0.845kg				
Dimension	63*125.2*115mm				



Data	Description	Model
	MLD 100.8W 8.4A/12V	MLD120-12V8
	MLD 120W 8A/15V	MLD120-15V8
	MLD 120W 5A/24V	MLD120-24V8
	MLD 120W 2.5A/48V	MLD120-48V8

Installation instruction



Terminal block pin definition (TB3)

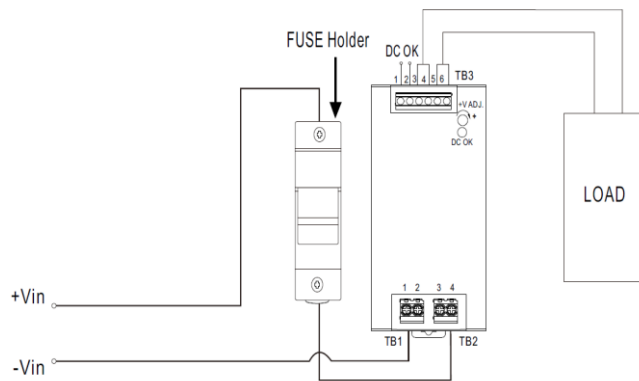
Pin Numbering	Function
1, 2	DC OK Relay Contact
3, 4	-Vo
5, 6	+Vo

Terminal block pin definition (TB1, TB2)

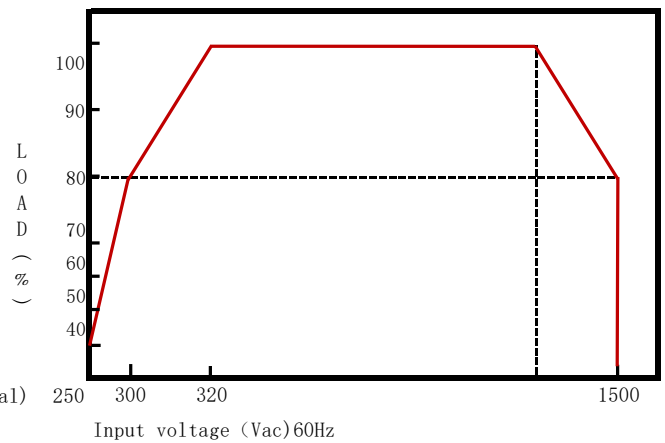
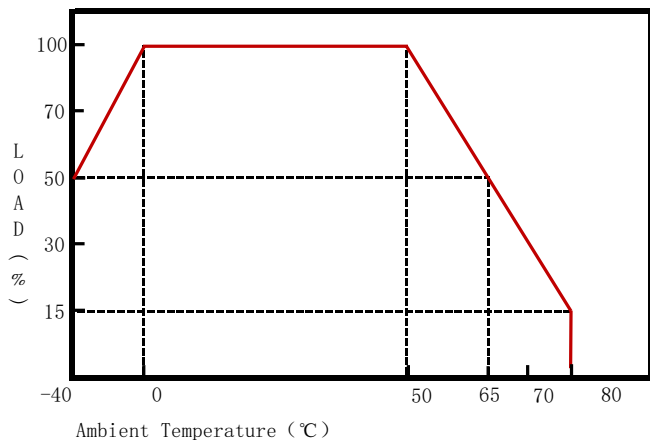
Pin Numbering	Function
1, 2	-Vin
3, 4	+Vin

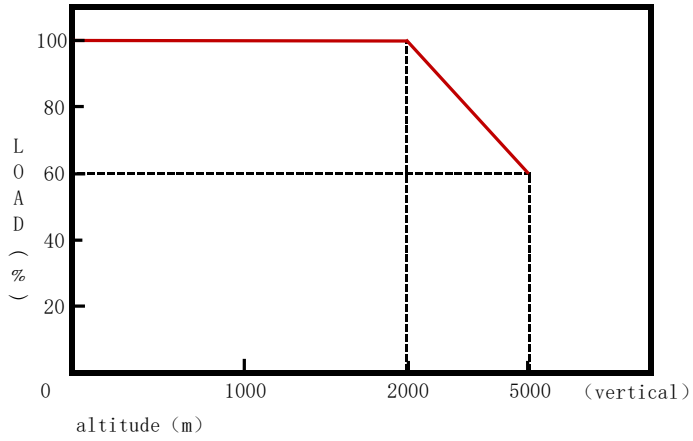
External fuse wiring instructions

The required external fuse specifications: 4A/1500Vdc



Temperature characteristic curve





DC OK Relay triggering

contact closure	power on/DC normal
contact open	power off/DC fault
contact (max.)	30V/1A resistive load

Note:

- 1: Under low input voltage conditions, output derating is required. Please refer to the derating curve for specifics.
- 2: Unless otherwise specified, all specifications are tested at an input of V2: 24Vdc; V3: 48Vdc, rated load, and 25° C ambient temperature.
- 3: Ripple & noise are measured at 20MHZ of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor
- 4: Tolerance: includes set up tolerance, line regulation and load regulation.
- 5: The power supply should be considered as part of the system components and EMC (Electromagnetic Compatibility) related confirmation should be carried out in conjunction with terminal equipment.
- 6: Installation distance: It is recommended to have a distance of 40 mm from the top, 20 mm from the bottom, 5 mm from the left, and 5 mm from the right when the unit is loaded at full power permanently.
- 7: When operating at an altitude higher than 2000 meters (6500 feet), the ambient temperature for fanless models decreases by 3.5° C per 1000 meters, and for models with fans, it decreases by 5° C per 1000 meters.