

**ENCLOSED OUTPUT POWER SUPPLY – AC/DC
SWITCH MODE
SINGLE OUTPUT**



SPECIFICATION

- **PROTECTIONS** Short circuit / Overload / Over voltage
- **COOLING BY FREE AIR CONVECTION** For models < 200W (By012ALI60, By024ALI100, By024ALI145, By024ALI200)
- **FORCED AIR COOLING BY BUILT-IN DC FAN** For model 350W (By024ALI350)
- **100% FULL LOAD BURN-IN TEST**

	By012ALI60	By024ALI100
OUTPUT		
▪ DC VOLTAGE	12V	24V
▪ RATED CURRENT	5A	4.5A
▪ CURRENT RANGE	0 ~ 5A	0 ~ 4.5A
▪ RATED POWER	60W	108W
▪ VOLTAGE ADJ. RANGE	10.8 ~ 13.2 V	22.8 ~ 26.4V
▪ VOLTAGE TOLERANCE (includes setup tolerance, line regulation and load regulation)	± 1.0%	± 1.0%
INPUT		
▪ VOLTAGE RANGE	200 – 240 Vac	
▪ FREQUENCY RANGE	47 ~ 63Hz	
▪ EFFICIENCY(Typ.)	76%	86%
▪ AC CURRENT (Typ.)	1.1A/115VAC 0.65A/230VAC	2A/115VAC 1.2A/230VAC
▪ INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC	COLD START 45A
▪ LEAKAGE CURRENT	<3.5mA / 240VAC	<2mA / 240VAC
PROTECTION		
▪ OVERLOAD	105 ~ 150% rated output power. Protection type : Hiccup mode, recovers automatically after fault condition is removed	110 ~ 150% rated output power. Protection type : Hiccup mode, recovers automatically after fault condition is removed
▪ OVER VOLTAGE	13.8 ~ 16.2V Protection type : Hiccup mode, recovers automatically after fault condition is removed	17.25 ~ 20.25V. Protection type : Hiccup mode, recovers automatically after fault condition is removed
ENVIRONMENT		
▪ WORKING TEMP.	-10 ~ +60°C(Refer to "Derating Curve")	-20 ~ +60°C (Refer to "Derating Curve")
▪ WORKING HUMIDITY	20 ~ 90% RH non-condensing	20 ~ 90% RH non-condensing
▪ STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH	-40 ~ +85°C, 10 ~ 95% RH
▪ TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)	
▪ VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes

SAFETY & EMC

(The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives)

▪ SAFETY STANDARDS	UL1012, UL60950-1, TUV EN60950-1	UL60950-1, CB(IEC60950-1),BSMI (CNS14336-1),CCC GB4943.1:2011 approved
▪ WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
▪ ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH	
▪ EMC EMISSION	Compliance to EN55022 Class B, EN61000-3-2,-3	
▪ EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-1, light industry level, criteria A	

OTHERS

▪ MTBF	316.2K hrs min. MIL-HDBK-217F (25°C)	320.7Khrs min. MIL-HDBK-217F (25°C)
▪ DIMENSION	159x97x38mm (LxWxH)	159x97x38mm (LxWxH)
▪ PACKING	0.51Kg	0.55Kg

	By024AL1200	By024AL1350
OUTPUT		
▪ DC VOLTAGE	24V	24V
▪ RATED CURRENT	8.8A	14.6A
▪ CURRENT RANGE	0 ~ 8.8A	0 ~ 14.6A
▪ RATED POWER	211.2W	350.4W
▪ VOLTAGE ADJ. RANGE	20 ~ 26.4V	20 ~ 26.4V
▪ VOLTAGE TOLERANCE (includes setup tolerance, line regulation and load regulation)	± 1.0%	± 1.0%
INPUT		
▪ VOLTAGE RANGE	200 – 240 Vac	
▪ FREQUENCY RANGE	47 ~ 63Hz	
▪ EFFICIENCY(Typ.)	87%	87%
▪ AC CURRENT (Typ.)	4.5A/115VAC 2.5A/230VAC	7A/115VAC 4A/230VAC
▪ INRUSH CURRENT (Typ.)	40A/115VAC 55A/230VAC	40A/115VAC 60A/230VAC
▪ LEAKAGE CURRENT	<3.5mA / 240VAC	
PROTECTION		
▪ OVERLOAD	105 ~ 150% rated output power. Protection type : Constant current limiting, recovers automatically after fault condition is removed	105 ~ 135% rated output power. Protection type : Constant current limiting, recovers automatically after fault condition is removed
▪ OVER VOLTAGE	27.6 ~ 32.4V. Protection type :Shut down O/P voltage, re-power on to recover	27.6 ~ 32.4V. Protection type :Shut down O/P voltage, re-power on to recover

▪ OVER TEMPERATURE	95°C• ±5°C(3.3V);100°C• ±5°C(5V); 90°C• ±5°C(7.5V);85°C• ±5°C(12~24V);80°C• ±5°C(27~36V);75°C• ±5°C(48V) (TSW1) Detect on case. Protection type : Shut down O/P voltage, recovers automatically after temperature goes down	90°C• ±5°C(3.3~7.5V); 85°C• ±5°C(12~15V); 80°C• ±5°C(24V);75°C• ±5°C(27~48V) (TSW1) Detect on case. Protection type : Shut down O/P voltage, recovers automatically after temperature goes down
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FUNCTION

▪ FAN ON/OFF CONTROL(Typ.)		RTH2≥50°FAN ON,≤45°FAN OFF (3.3 ~ 7.5V). RTH2≥55°FAN ON,≤50°FAN OFF (12 ~ 48V)
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ENVIRONMENT

▪ WORKING TEMP.	-20 ~ +50°C(Refer to output load derating curve)	-20 ~ +60°C(Refer to output load derating curve)
▪ WORKING HUMIDITY	20 ~ 90% RH non-condensing	20 ~ 90% RH non-condensing
▪ STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH	-20 ~ +85°C, 10 ~ 95% RH
▪ TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)	
▪ VIBRATION	10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes	10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes

SAFETY & EMC

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▪ SAFETY STANDARDS	UL60950-1 approved	UL60950-1 approved
▪ WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
▪ ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH	

OTHERS

▪ MTBF	271.9K hrs min. MIL-HDBK-217F (25°C)	234.3K hrs min. MIL-HDBK-217F (25°C)
▪ DIMENSION	215x115x50mm (LxWxH)	215x115x50mm (LxWxH)
▪ PACKING	0.93Kg	1.07Kg

By024ALI145

OUTPUT

▪ DC VOLTAGE	24V	
▪ RATED CURRENT	6A	
▪ CURRENT RANGE	0 ~ 6A	
▪ RATED POWER	144W	
▪ VOLTAGE ADJ. RANGE	21.6 ~ 27.6 V	
▪ VOLTAGE TOLERANCE (includes setup tolerance, line regulation and load regulation)	± 1.0%	

INPUT

▪ VOLTAGE RANGE	200 – 240 Vac
▪ FREQUENCY RANGE	47 ~ 63Hz
▪ EFFICIENCY(Typ.)	86%

▪ AC CURRENT (Typ.)	3A/115VAC 2A/230VAC	
▪ INRUSH CURRENT (Typ.)	COLD START 45A/230VAC	
▪ LEAKAGE CURRENT	<2mA / 240VAC	
PROTECTION		
▪ OVERLOAD	115 ~ 150% rated output power. Protection type : Hiccup mode, recovers automatically after fault condition is removed	
▪ OVER VOLTAGE	27.6 ~ 36V Protection type : Hiccup mode, recovers automatically after fault condition is removed	
ENVIRONMENT		
▪ WORKING TEMP.	-10 ~ +50°C(Refer to "Derating Curve")	
▪ STORAGE TEMP.	-20 ~ +85°C	

SAFETY & EMC

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▪ SAFETY STANDARDS	UL60950-1, CB(IEC60950-1),BSMI (CNS14336-1),CCC GB4943.1:2011 approved	
▪ WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC	
▪ EMC EMISSION	Compliance to EN55022, GB9254	

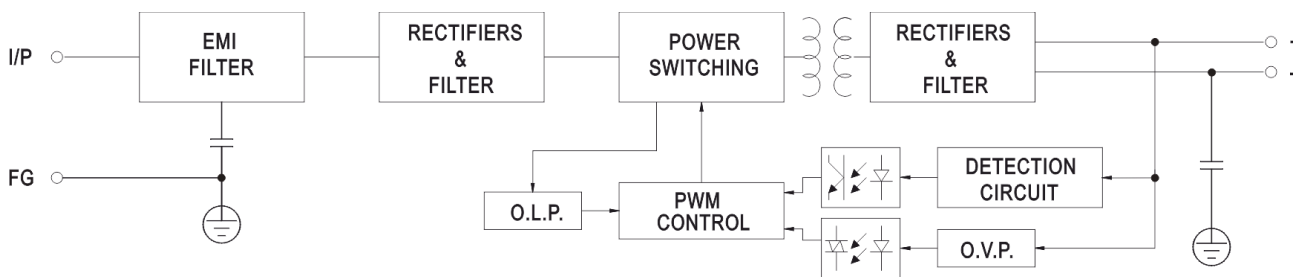
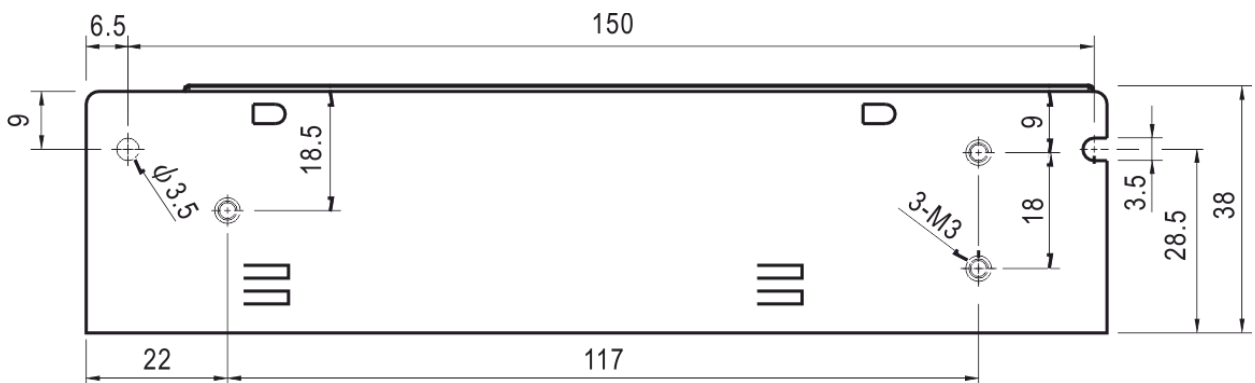
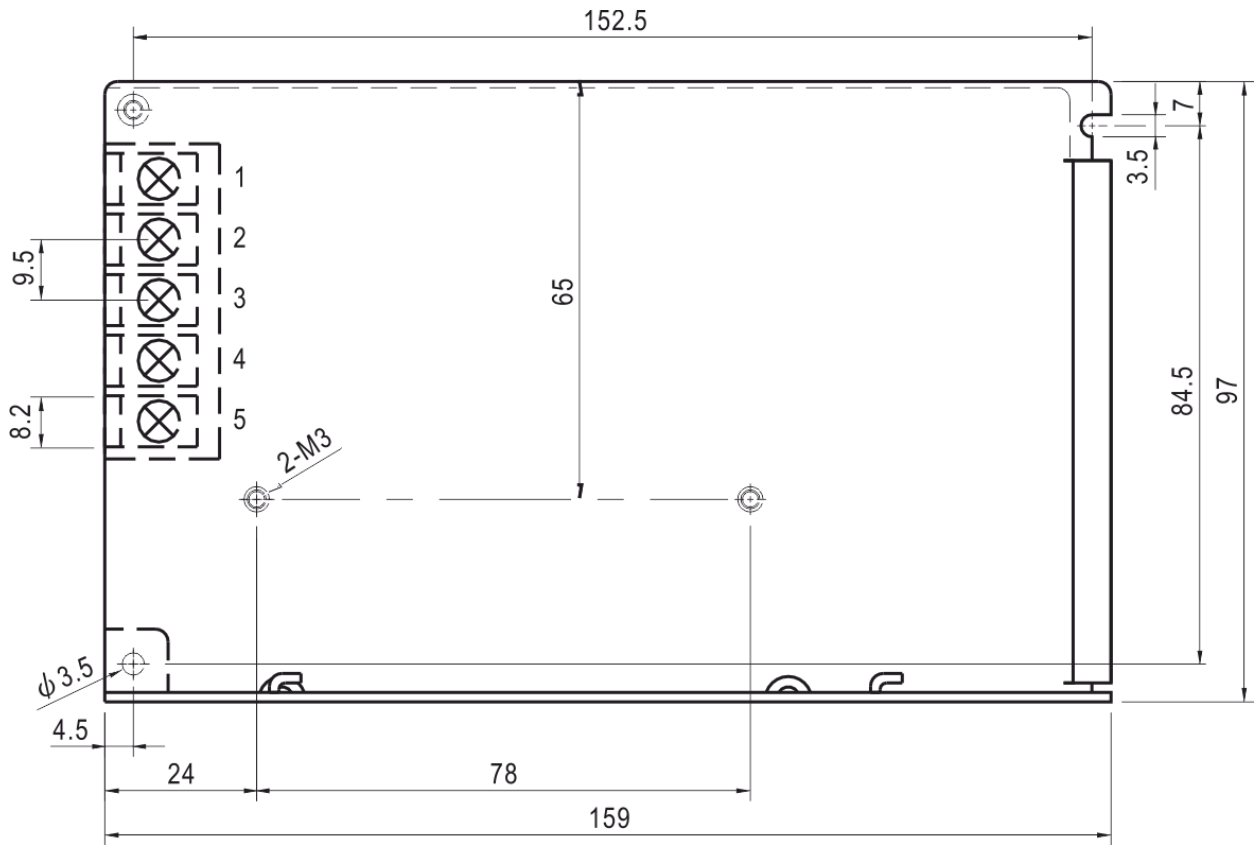
OTHERS

▪ MTBF	100K hrs min.	
▪ DIMENSION	199x98x38mm (LxWxH)	
▪ PACKING	0.7Kg	

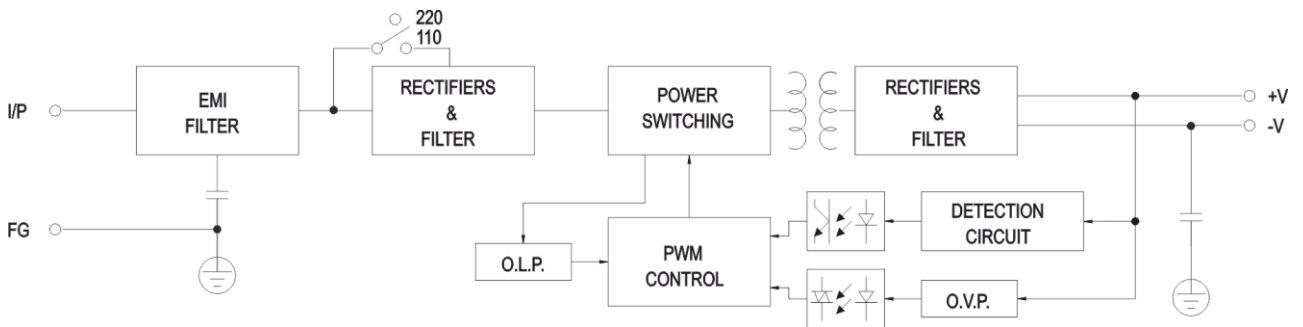
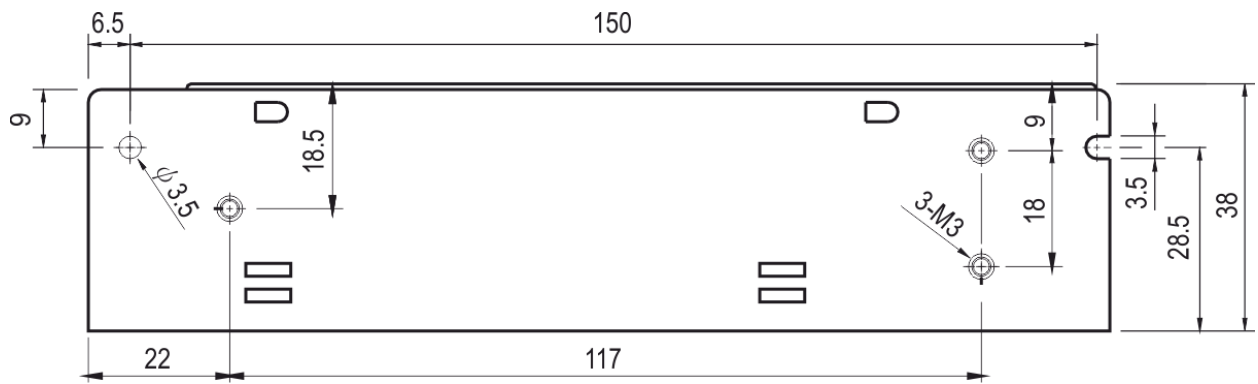
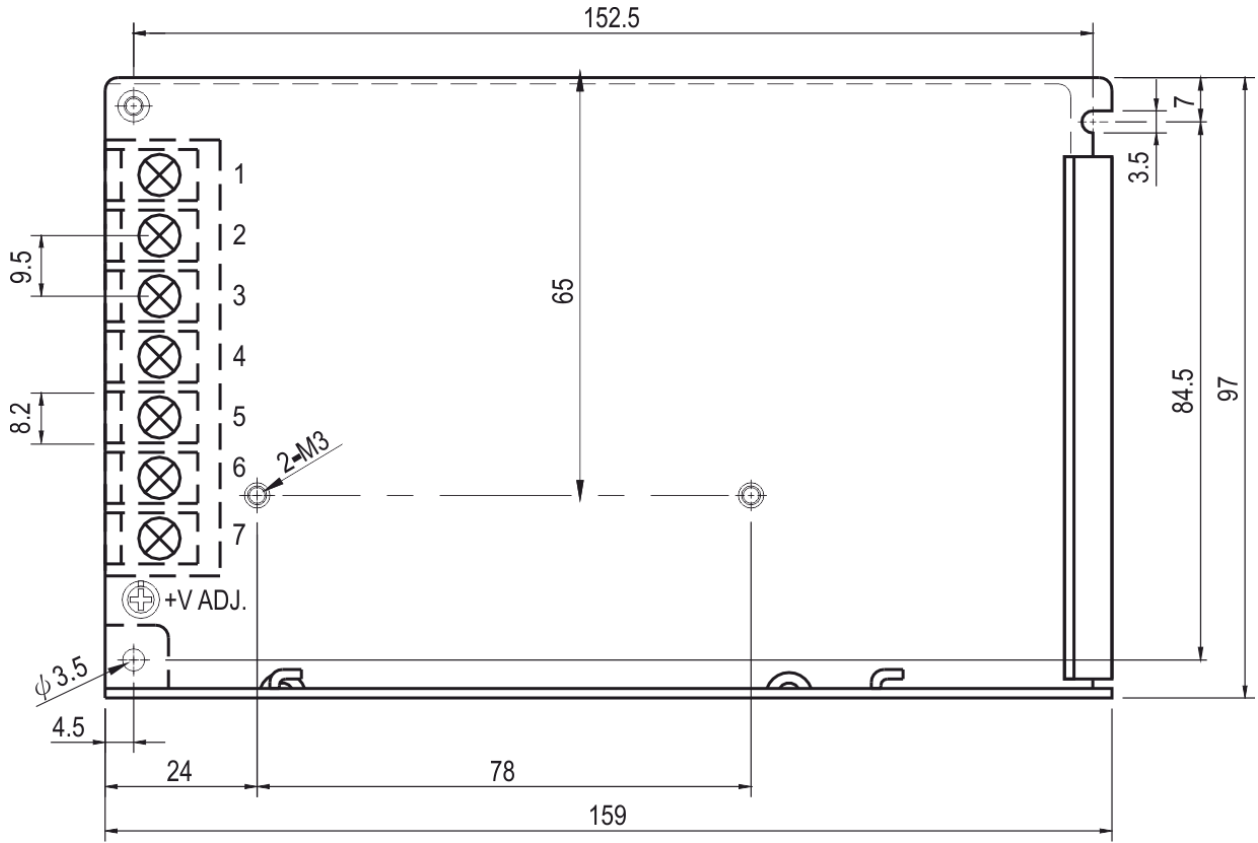


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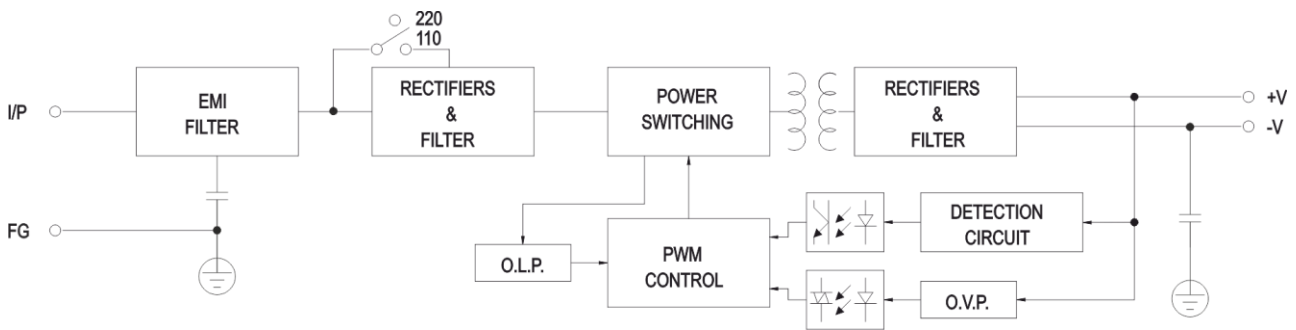
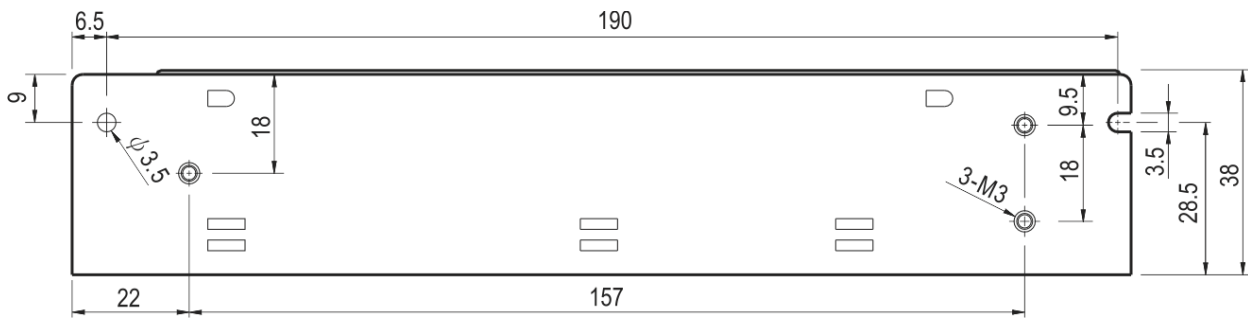
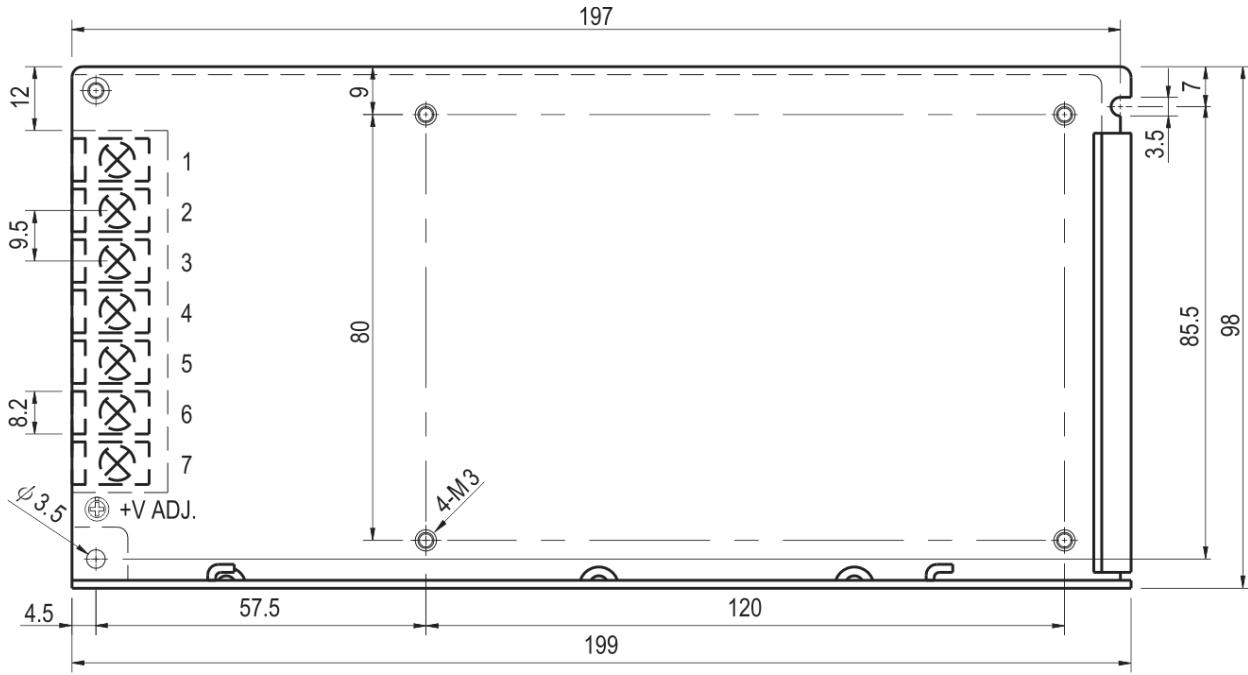
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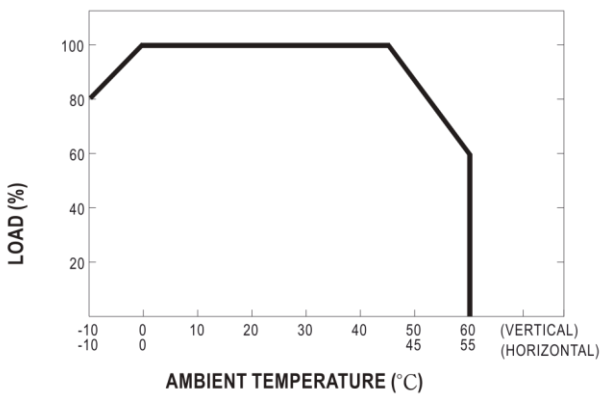


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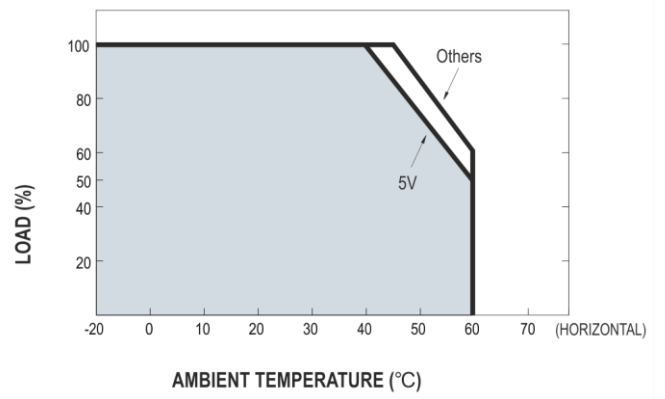


DERATING CURVES

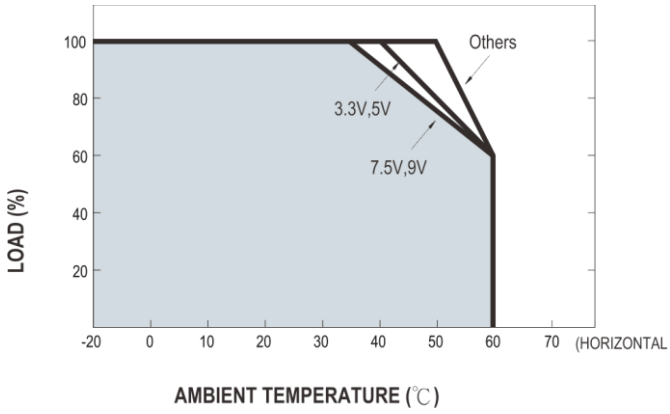
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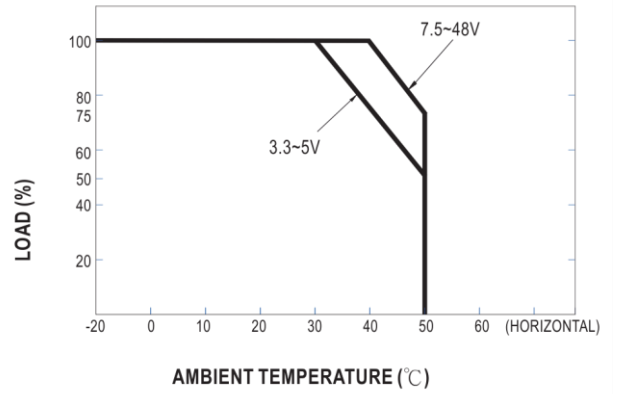
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