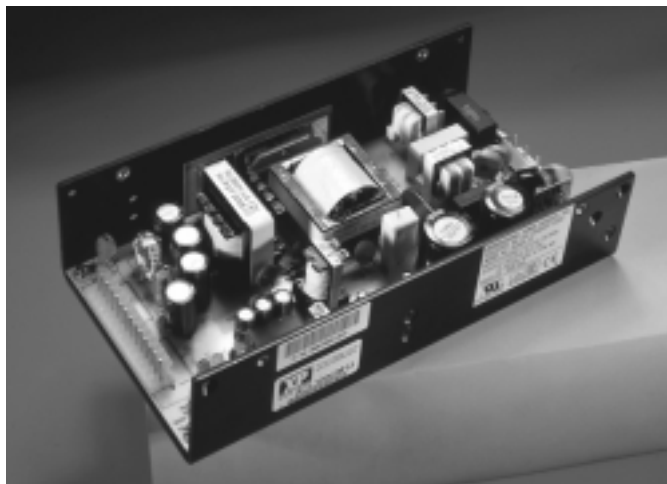


AC-DC Chassis Mount

150-300 Watts ACL Series



THE **XP**ERTS IN POWER

Convection Cooled Ratings

• Compact Size

• Up To 5.1 W/in³

• Single & Multi Outputs

• Remote Inhibit

• DC OK Signal

• Floating 4th Output

Specification

Input

Input Voltage	• 90-132 VAC, 180-264 VAC PFC, complies with EN61000-3-2
Input Frequency	• 47-63 Hz
Inrush Current	• 35 A at 115 VAC, 70 A at 230 VAC cold start
Leakage Current	• 3.5 mA max at 230 VAC 50 Hz

Output

Output Voltage	• See Tables
Output Voltage Adjustment	• $\pm 5\%$ output 1
Minimum Load Regulation	• See Tables
	• $\pm 1\%$ max single output models, $\pm 5\%$ multi output models
Transient Response	• 5% max for 50% load change, recovery to 1% within 500 μ s
Hold Up Time	• 20 ms min at 125 VAC @ 80% load
Ripple & Noise	• 1% pk-pk max
Overvoltage Protection	• 130%, recycle mains to reset
Overcurrent Protection	• 110-135%, auto recovery
Temperature Coefficient	• $\pm 0.1\%/^{\circ}\text{C}$ max
Fan Output	• 12 V, 160 mA

General

Efficiency	• 70% min
Switching Frequency	• 42 kHz
Isolation	• 3000 VAC input to output 1500 VAC input to ground
MTBF	• 100,000 hours to MIL-HDBK-217D

Environmental

Operating	• 0 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$, derate linearly from 100% load at 40 $^{\circ}\text{C}$ to 50% at 60 $^{\circ}\text{C}$
Storage Temperature	• -20 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Relative Humidity	• 5-95% non-condensing
Cooling	• See Notes

EMC & Safety

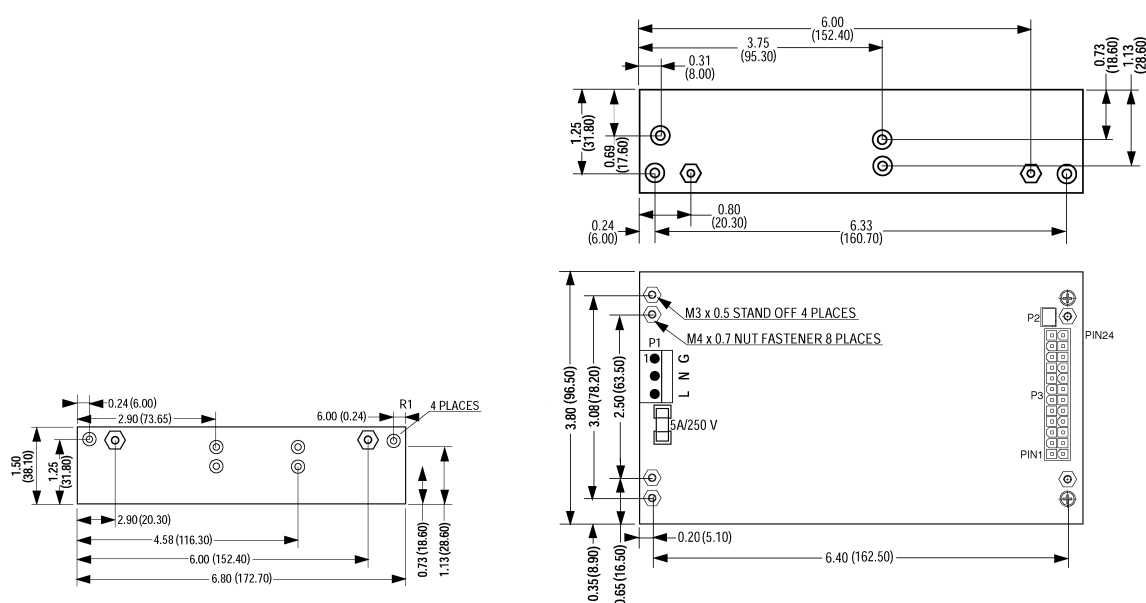
Safety Approvals	• UL1950, CSA C22.2 No. 234, IEC 950 (EN60950)
EMC	• EN55022 level B (300 W level A) CISPR 22 conducted

OUTPUT VOLTAGE & CURRENT RATINGS - 150 WATT MODELS**ACL**

Output 1 ⁽²⁾			Output 2 ⁽²⁾			Output 3			Output 4			Model Number
Voltage Nom	Current		Voltage Nom	Current		Voltage Nom	Current		Voltage Nom	Current		
	Min	Max		Min	Max		Min	Max		Min	Max	
+5.0 V	2.0 A	15.0 A	+3.3 V	0.0 A	15.0 A	+12.0 V	0.5 A	3.0 A	-5.0 V	0.0 A	1.0 A	ACL150PM40
+5.0 V	2.0 A	15.0 A	+3.3 V	0.0 A	15.0 A	+12.0 V	0.5 A	3.0 A	-12.0 V	0.0 A	1.0 A	ACL150PM42
+5.0 V	2.0 A	15.0 A	+3.3 V	0.0 A	15.0 A	+24.0 V	0.5 A	2.0 A	-12.0 V	0.0 A	1.0 A	ACL150PM45
+5.0 V	2.0 A	15.0 A	+3.3 V	0.0 A	15.0 A	+15.0 V	0.5 A	3.0 A	-15.0 V	0.0 A	1.0 A	ACL150PM46

Notes

1. Total output power for ACL150 is 150 W with 20 CFM air cooling. 100 W convection cooled.
2. Total combined output power for the +3.3 V and the +5.0 V not to exceed 100 W with 20 CFM or 70 W convection cooled.

Mechanical Details

P2 PIN CONNECTIONS		
Pin	Single Output	Multi Output
1	Output 1	Output 3
2	Output 1	Return
3	Output 1	Return
4	Output 1	Return
5	Output 1	Return
6	Output 1	Output 1
7	Return	Output 1
8	Return	Output 1
9	Return	Output 1
10	Return	Output 2
11	Return	Output 4
12	Return	Output 4 Return

P3 PIN CONNECTIONS	
Pin	Single
1, 13	+3.3 V Sense
2, 14	Output 2
3, 15	Output 2
4, 16	Return
5, 17	Return
6, 18	Return
7, 19	Output 1
8, 20	Output 1
9, 21	Output 3
10, 22	Return
11, 23	Output 4
12	DC OK
24	Return

NOTES:

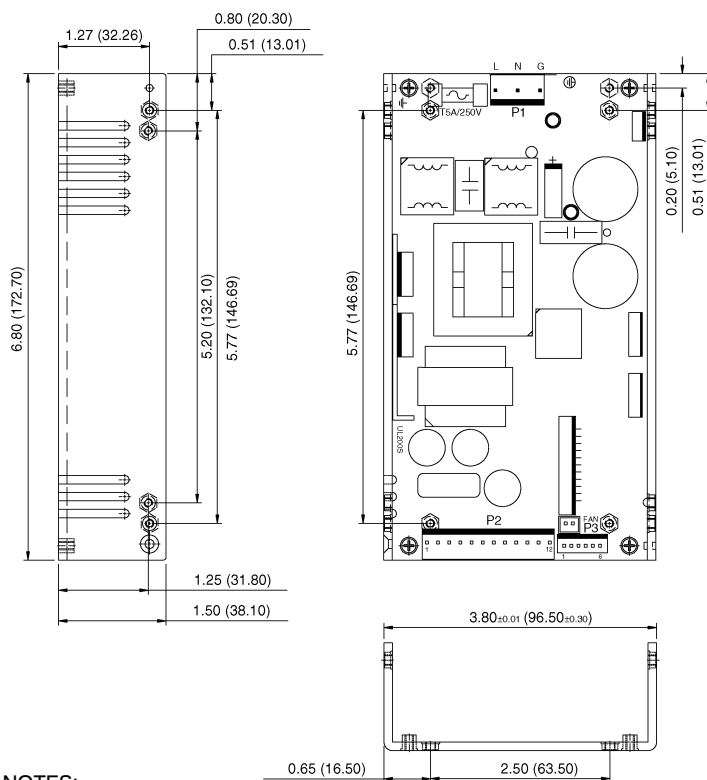
1. Dimensions shown in inches (mm).
2. Tolerance 0.02 (0.5)max.
3. Input connector P1 mates with Molex housing 09-91-0500 and Molex 2478/2578/8818 series crimp terminal.
4. Output connector P3 mates with Molex housing 39-01-2240 and Molex 44476 series crimp terminal.
5. Fan connector P2 mates with JST housing XHP-2 and JST 5XH-002T-P0.6 crimp terminals.
6. Weight: 600 g approx.
7. Covered versions are available, add suffix '-C' to model number.
8. Loom kits with 300 mm wire available, order part ACL150 LOOM KT. For mating connectors only, order part ACL150 CON KT.

OUTPUT VOLTAGE & CURRENT RATINGS - 200 WATT MODELS												ACL
Output 1			Output 2			Output 3			Output 4 ⁽¹⁾			Model Number
Voltage Nom	Current		Voltage Nom	Current		Voltage Nom	Current		Voltage Nom	Current		
	Min	Max		Min	Max		Min	Max		Min	Max	
3.3 V	0.5 A	30.00 A										ACL200PS03
5.0 V	0.5 A	40.00 A										ACL200PS05
12.0 V	0.5 A	16.70 A										ACL200PS12
15.0 V	0.5 A	13.30 A										ACL200PS15
24.0 V	0.5 A	8.30 A										ACL200PS24
48.0 V	0.5 A	4.10 A										ACL200PS48
+5.0 V	0.5 A	20.00 A	+12.0 V	0.0 A	8.0 A							ACL200PM23
+5.0 V	0.5 A	20.00 A	+15.0 V	0.0 A	6.6 A							ACL200PM26
+5.0 V	0.5 A	20.00 A	+24.0 V	0.0 A	4.2 A							ACL200PM25
+5.0 V	0.5 A	20.00 A	+12.0 V	0.0 A	8.0 A				F 12.0 V	0.0 A	1.0 A	ACL200PM31
+5.0 V	0.5 A	20.00 A	+15.0 V	0.0 A	5.0 A				F 15.0 V	0.0 A	1.0 A	ACL200PM32
+5.0 V	0.5 A	20.00 A	+12.0 V	0.0 A	6.0 A	-5.0 V	0.0 A	1.0 A	F 12.0 V	0.0 A	1.0 A	ACL200PM40
+5.0 V	0.5 A	20.00 A	+24.0 V	0.0 A	3.0 A	-12.0 V	0.0 A	1.0 A	F 12.0 V	0.0 A	1.0 A	ACL200PM45
+5.0 V	0.5 A	20.00 A	+15.0 V	0.0 A	5.0 A	-5.0 V	0.0 A	1.0 A	F 15.0 V	0.0 A	1.0 A	ACL200PM46

Notes

- Output 4 is floating and can be connected externally for positive or negative output.
- Total output power for ACL200PS03 is 100 W with 18.7 CFM forced air cooling. 73 W convection cooled.
- Total output power for single output models is 200 W with 18.7 CFM forced air cooling, 150 W convection cooled.
Total output power for multi output models is 200 W with 18.7 CFM forced air cooling, 100 W convection cooled.

Mechanical Details



P2 PIN CONNECTIONS		
Pin	Single Output	Multi Output
1	Output 1	Output 3
2	Output 1	Return
3	Output 1	Return
4	Output 1	Return
5	Output 1	Return
6	Output 1	Output 1
7	Return	Output 1
8	Return	Output 1
9	Return	Output 1
10	Return	Output 2
11	Return	Output 4
12	Return	Output 4 Return

P3 PIN CONNECTIONS	
Pin	Function
1	Fan +
2	Return
3	Return
4	DC OK
5	Remote ON/OFF
6	Return

NOTES:

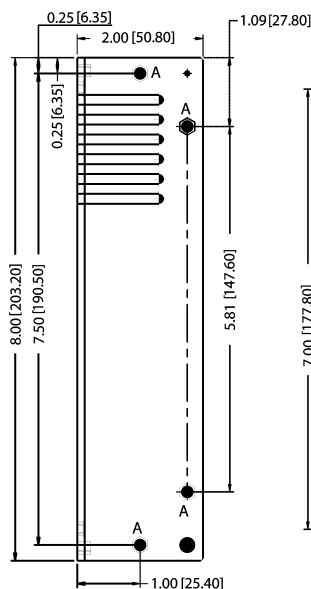
- Dimensions shown in inches (mm).
- Tolerance 0.02 (0.5) maximum.
- Input connector P1 mates with Molex housing 09-91-0500 and Molex 2478/2578/8818 series crimp terminal.
- Output connector P2 mates with Molex housing 09-91-1200 and Molex 2478/2578/8818 series crimp terminal.
- Fan connector P3 mates with JST housing XHP-2 and JST 5XH-002T-P0.6 crimp terminals.
- Weight: 800 grams approx.
- Covered versions are available, add suffix '-C' to model number.
- Output is turned off by taking the Remote ON/OFF pin low (connect to Return).
- Loom kits with 300 mm wire available, order part number ACL200 LOOM-S for single output models, ACL200 LOOM-D for dual output models, ACL200 LOOM-T for triple output models or ACL200 LOOM-Q for quad output models. For mating connectors only, order part ACL200 CON KT.

OUTPUT VOLTAGE & CURRENT RATINGS - 300 WATT MODELS**ACL**

Output 1			Output 2			Output 3			Output 4 ⁽¹⁾			Model Number
Voltage Nom	Current		Voltage Nom	Current		Voltage Nom	Current		Voltage Nom	Current		
	Min	Max		Min	Max		Min	Max		Min	Max	
3.3 V	0.5 A	60.00 A										ACL300PS03
5.0 V	0.5 A	60.00 A										ACL300PS05
12.0 V	0.5 A	25.00 A										ACL300PS12
15.0 V	0.5 A	20.00 A										ACL300PS15
24.0 V	0.5 A	12.50 A										ACL300PS24
36.0 V	0.5 A	8.33 A										ACL300PS36
48.0 V	0.5 A	6.25 A										ACL300PS48
+5.0 V	0.5 A	30.00 A	+12.0 V	0.0 A	12.5 A							ACL300PM23
+5.0 V	0.5 A	30.00 A	+15.0 V	0.0 A	10.0 A							ACL300PM26
+5.0 V	0.5 A	30.00 A	+24.0 V	0.0 A	6.3 A							ACL300PM25
+5.0 V	0.5 A	30.00 A	+12.0 V	0.0 A	10.5 A				F 12.0 V	0.0 A	2.0 A	ACL300PM31
+5.0 V	0.5 A	30.00 A	+15.0 V	0.0 A	8.0 A				F 15.0 V	0.0 A	2.0 A	ACL300PM32
+5.0 V	0.5 A	30.00 A	+12.0 V	0.0 A	10.0 A	-5.0 V	0.0 A	2.0 A	F 12.0 V	0.0 A	2.0 A	ACL300PM40
+5.0 V	0.5 A	30.00 A	+24.0 V	0.0 A	4.3 A	-12.0 V	0.0 A	2.0 A	F 12.0 V	0.0 A	2.0 A	ACL300PM45
+5.0 V	0.5 A	30.00 A	+15.0 V	0.0 A	7.4 A	-5.0 V	0.0 A	2.0 A	F 15.0 V	0.0 A	2.0 A	ACL300PM46

Notes

- Output 4 is floating and can be connected externally for positive or negative output.
- Total output power for ACL300PS12, 15, 24 & 48 is 300 W with 30 CFM forced air cooling, 200 W convection cooled. Total output power for all other models is 300 W with 30 CFM, 150 W convection cooled.

Mechanical Details

A: M4x0.7 Nut Fastener 8 Places

P2 PIN CONNECTIONS		
Pin	Single Output	Multi Output
1	Output 1	Output 3
2	Output 1	Output 1
3	Output 1	Output 1
4	Output 1	Output 1
5	Output 1	Output 1
6	Output 1	Return
7	Output 1	Return
8	Return	Return
9	Return	Return
10	Return	Return
11	Return	Output 2
12	Return	Output 2
13	Return	Output 4
14	Return	Output 4 Return

P3 PIN CONNECTIONS		
Pin	Single	Dual
1	Fan+	Return
2	Return	DC OK
3	DC OK	Return
4	Power Good	Remote ON/OFF
5	Remote ON/OFF	Return
6	Return	Power Good

NOTES:

- Dimensions shown in inches (mm).
- Tolerance 0.02 (0.5) max.
- Input connector P1 mates with Molex housing 09-91-0500 and Molex 2478/2578/8818 series crimp terminal.
- Output connector P2 mates with Molex housing 09-91-1400 and Molex 2478/2578/8818 series crimp terminal.
- Weight: 1000 g approx.
- Covered versions are available, add suffix '-C' to model number.
- Fan connector P2 mates with JST housing XHP-2 and JST 5XH-002T-P0.6 crimp terminals.
- Output is turned off by taking the Remote ON/OFF pin low (connect to Return).
- Loom kits with 300 mm wire available, order part number ACL300 LOOM-S for single output models, ACL300 LOOM-D for dual output models, ACL300 LOOM-T for triple output models or ACL300 LOOM-Q for quad output models. For mating connectors only, order part ACL300 CON KT.