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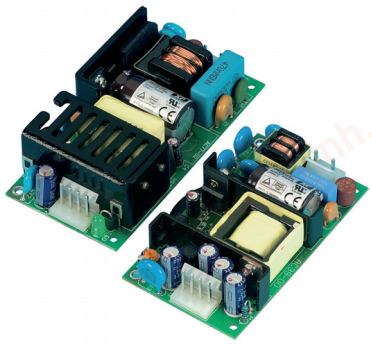
40–60 Watts

ACS Series



- Low Cost
- Small Size
- Universal Input
- Rugged Design
- High MTBF
- International Safety Approvals
- Covered Versions Available

Specification

Input

Input Voltage	• 90-264 VAC (110-370 VDC)
Input Frequency	• 47-63 Hz
Input Current	• ACS40: 0.45 A rms at 230 VAC ACS60: 0.60 A rms at 230 VAC
Inrush Current	• Cold start at 25 şC: 25 A at 115 VAC, 50 A at 230 VAC
Earthing	• Class I

Output

Output Voltage	• See table
Hold Up Time	• 8 ms typical at full load
Line Regulation	• 0.5%max at full load
Load Regulation	• 1.0% max at 10% load to full load
Ripple & Noise	• 1% max pk-pk, 20MHz BW
Overvoltage Protection	• Typically 130% of max output
Overcurrrent Protection	• 120% typical

General

Efficiency	• See tables
Isolation	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Switching Frequency	• 50-70 kHz
MTBF	• 230 kHrs per MIL-HDBK-217F

Environmental

Operating Temperature	• 0 °C to +70 °C, derate from full load at +50 °C to half load at +60 °C. Reduce both temperatures by 10 °C when cover is fitted
Storage Temperature	• -40 °C to +85 °C

EMC & Safety

Emissions	• FCC20780 Level B, CISPR22 (EN55022), level B conducted
ESD Immunity	• EN61000-4-2, level 3 Perf Criteria A
Radiated Immunity	• EN61000-4-3, 10 V/m Perf Criteria A
EFT/Burst	• EN61000-4-4, level 2 Perf Criteria A
Surge	• EN61000-4-5, level 3 Perf Criteria A
Conducted Immunity	• EN61000-4-6, 10 V Perf Criteria y
Safety Approvals	• EN62368-1, UL62368-1, CE & UKCA meets all applicable directives & legislation.

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Models and Ratings

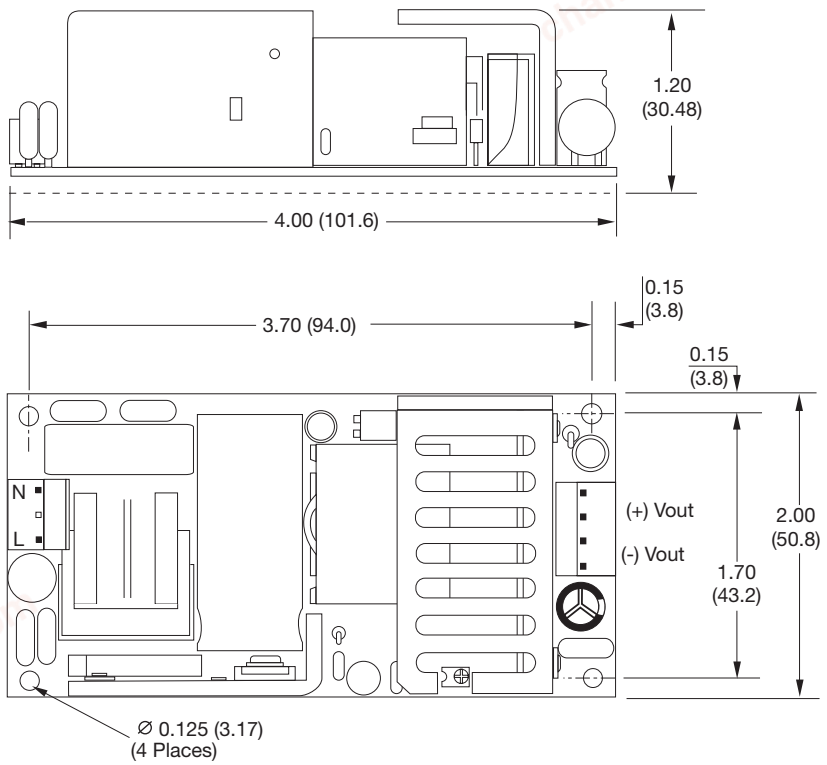
ACS XP

Output Power	Output Voltage	Output Current		Efficiency	Model Number
		Nominal	Peak[1]		
40 W	3.3 V	6.000 A	7.200 A	74%	ACS40US03
	5.0 V	6.000 A	7.200 A	78%	ACS40US05
	9.0 V	4.450 A	5.340 A	82%	ACS40US09
	12.0 V	3.340 A	4.000 A	84%	ACS40US12
	15.0 V	2.670 A	3.200 A	85%	ACS40US15
	24.0 V	1.670 A	2.000 A	86%	ACS40US24
	36.0 V	1.110 A	1.330 A	87%	ACS40US36
	48.0 V	0.834 A	1.000 A	88%	ACS40US48
60 W	3.3 V	8.000 A	8.500 A	74%	ACS60US03
	5.0 V	8.000 A	9.000 A	78%	ACS60US05
	9.0 V	6.670 A	8.000 A	82%	ACS60US09
	12.0 V	5.000 A	6.000 A	84%	ACS60US12
	15.0 V	4.000 A	4.800 A	85%	ACS60US15
	24.0 V	2.500 A	3.000 A	86%	ACS60US24
	36.0 V	1.670 A	2.000 A	87%	ACS60US36
	48.0 V	1.250 A	1.500 A	88%	ACS60US48

Notes

1. Peak load lasting <30 s with a maximum duty cycle of 10%.

Mechanical Details



Notes

1. All dimensions shown in inches (mm).
2. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
   Output connector mates with Molex housing 90-50-3041 and Molex 2878 series crimp terminal.
3. Loom kits with 300 mm wire available. Order part number ACS40/60 LOOM KIT.
4. For mating connectors only, order part number ACS20-60 CONKIT.
5. Covers available. Order part number ACS40/60 COVER (114 x 64 x 38.5mm). To receive unit with cover fitted, add suffix '-C' to model number.