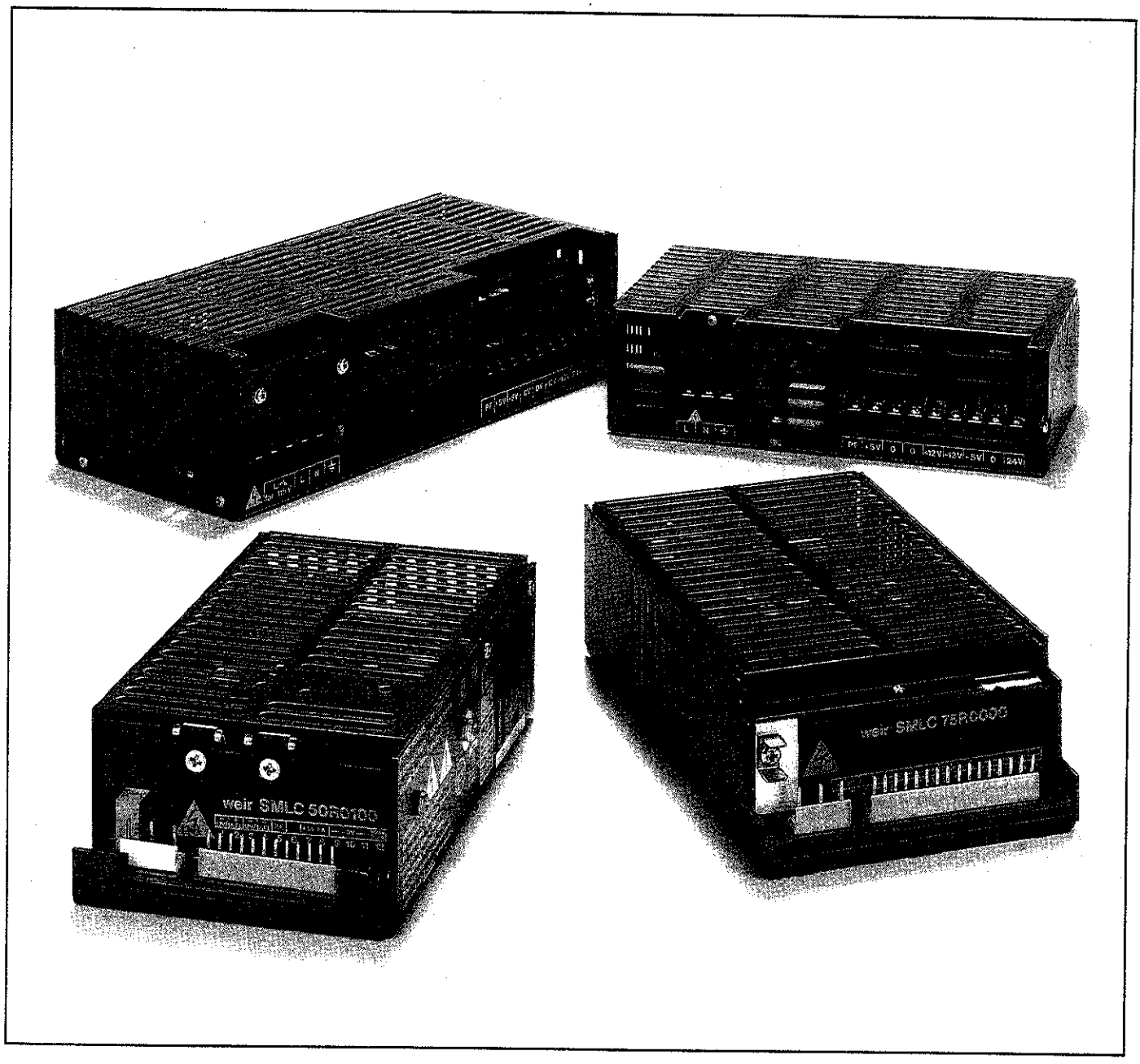
PART IA—AC-TO-DC SWITCHING POWER SUPPLIES

LAMBDA'S COMMERCIAL [redacted] AND SMLC SERIES



IDEAL FOR COMMUNICATIONS AND LOW END COMPUTER SYSTEMS

Lambda's HSS and SMLC Series provide single package solutions for 3, 4 and 5 output requirements. Worldwide agency approvals, integral EMI filtering to Curve A (some meet Curve B), and a power fail signal make these products ideal for communications and low end computer systems.

- 39 unique models from 50W to 250W.
- Triple, Quad, and Pent Output models with semi and fully regulated outputs.
- Worldwide AC input of 98–132VAC/196–268VAC.
- Overvoltage protection on main outputs.
- Worldwide safety agency approvals on most models (UL, CSA, TUV, BABT).
- SELV on outputs below 24VDC.
- Conducted EMI filtering per FCC 20780 Class A and VDE 0871 A (some models meet Curve B).
- AC power fail signal.
- For precise performance information, ask for Lambda's operating manual.
- Grade 2 design.

PART IA—AC-TO-DC SWITCHING POWER SUPPLIES

LAMBDA'S COMMERCIAL [redacted] AND SMLC SERIES

DC OUTPUT
Voltage range shown in tables.
All outputs are preset at factory.

REGULATED VOLTAGE
regulation, line ..... see tables.
regulation, load ..... see tables.
ripple and noise ..... see tables.
minimum load ..... 2.4A on main output of HSS 100 and HSS 150 Series.
4.0A on main output of HSS 180.
1.0A on main output of SMLC Series.

AC INPUT
line ..... 98-132VAC/196-264VAC, 48-440Hz (consult factory for operation above 63Hz).

EFFICIENCY
78% minimum on all HSS models at full load. 70% minimum on all SMLC models at full load.

OUTPUT POWER
SMLC 50R—50W convection.
SMLC 75R—75W convection.
HSS 100—100W convection, 150W with 20CFM of forced air.
HSS 150—150W convection.
HSS 180—180W convection, 250W with 20CFM of forced air.

OPERATING TEMPERATURE RANGE
Continuous duty from 0°C to 70°C. Derating above 40°C for SMLC 50R and above 50°C for SMLC 75R.

OVERLOAD PROTECTION ELECTRICAL
Automatic electronic current limiting on all outputs limits the output current to a preset value thereby providing protection to the load as well as the power supply.

OVERVOLTAGE PROTECTION
Provided on main 5V output of all models.

COOLING
The SMLC Series and the HSS 150 are convection cooled only. The HSS 100 and HSS 180 are convection cooled or forced air cooled for increased output power.

IN-RUSH CURRENT LIMITING
The turn-on in-rush current will not exceed the following from a cold start:

Model	In-Rush Current
SMLC 50R	25A peak
SMLC 75R	40A peak
HSS 100	50A peak
HSS 150	50A peak
HSS 180	40A peak

INPUT AND OUTPUT CONNECTIONS
All input, output, sensing and power fail connections are made via barrier strips.

MOUNTING
Three mounting surfaces, one mounting position on the HSS Series. Two mounting surfaces, one mounting position on the SMLC Series.

HOLD UP TIME
All models will remain within regulation limits for a minimum of 1/2 cycle at 115VAC, 50Hz, full load.

POWER FAIL SIGNAL
When the input voltage is no longer sufficient to guarantee the output will be within specifications for more than another 5 msec, a power fail signal will provide a logic "0" to a logic "1" change. (Logic "1" to logic "0" on SMLC 75R.)

EMI
Conducted EMI conforms to FCC Docket 20780 Class A and VDE 0871 Curve A. The HSS 150, SMLC 75R (and HSS 100 at an additional charge) conforms to FCC Docket 20780 Class B and VDE 0871 Curve B.

COVERS
All models are provided with metal covers.

PHYSICAL DATA

Package Model	Lbs. Net	Size Inches
SMLC 50R	2.0	7.20 × 4.41 × 2.36
SMLC 75R	2.2	7.99 × 4.72 × 2.40
HSS 100	2.64	8.42 × 4.61 × 2.36
HSS 150	3.3	10.57 × 4.53 × 2.36
HSS 180	4.75	10.59 × 4.80 × 2.80

GUARANTEED FOR ONE YEAR
One year guarantee includes labor as well as parts. Guarantee applies to operation at full published specifications at the end of 1 year.

SAFETY AGENCY APPROVALS
SELV for output voltages up to 24VDC. Most models have the following agency approvals: UL, CSA, TUV/IEC AND BABT. Consult the factory for information on specific models.

PART IA—AC-TO-DC SWITCHING POWER SUPPLIES

COMMERCIAL SWITCHING SELECTOR GUIDE

SMLC 50R Series. Triple and Quad Output. 98-132/196-264VAC Input.

Model No.	PRICING				Voltage and max current ratings at 40°C*			
	QTY. 1	QTY. 10	QTY. 25	QTY. 100	Output 1(1)	Output 2(1)	Output 3(3)	Output 4(3)
SMLC 50R 00 00	$147	$139	$135	$125	+5V 5A	+12V 2A	12V 1A	–
SMLC 50R 01 00	147	139	135	125	+5V 5A	+24V 1.5A	12V 1A	12V 1A
SMLC 50R 02 00	147	139	135	125	+5V 5A	+12V 2A	12V 1A	12V 1A
SMLC 50R 03 00	147	139	135	125	+5V 5A	+24V 1.5A	5V 1A	12V 1A
SMLC 50R 04 00	147	139	135	125	+5V 5A	+12V 2A	5V 1A	12V 1A
SMLC 50R 08 00	147	139	135	125	+5V 5A	+15V 2A	15V 1A	–
Performance Specifications								
Line regulation (±15% line voltage change)					±0.1%	±0.1%	±0.1%	±0.1%
Load regulation (20 to 100% load change)					0.5%	0.5%	1%	1%
Cross regulation (O/P1 20% to 100% load)					N/A	±0.5%	±0.5%	±0.5%
Max change (0° to 50°C) due to temperature					±0.5%	±0.75%	±1%	±1%
Short circuit protection					power limit	current limit	foldback	foldback
Overvoltage protection					6.2V ± 10%	–	–	–
Regulation					fully regulated	fully regulated	fully regulated	fully regulated
Initial accuracy setting (½ load)					±1%	±2%	±5%	±5%
Noise (peak to peak) wideband (10Hz to 30MHz)					100mV	200mV	100mV	100mV

General Electrical Specifications for SMLC 50R are on page 73.
Mechanical Specifications for SMLC 50R are on page 169.
Contact the factory for operating information.
*Other output combinations are available. Consult the factory to discuss your requirements.

SMLC 75R Series. Triple and Quad Output. 98-132/196-264VAC Input.

Model No.	PRICING				Voltage and max current ratings at 40°C*			
	QTY. 1	QTY. 10	QTY. 25	QTY. 100	Output 1	Output 2	Output 3	Output 4
SMLC 75R 00 00	$166	$158	$154	$141	+5V 8A (1)	+12V 3A (2)	12V 2A (1,3)	–
SMLC 75R 02 00	166	158	154	141	+5V 8A (1)	+15V 1A (1)	−15V 1A (1)	−48V 1.4A (2)
SMLC 75R 03 00	166	158	154	141	+5V 8A (1)	+12V 1A (1)	12V 1A (1,3)	+24V 1.5A (1)
Performance Specifications								
Line regulation (±15% line voltage change)					±0.2%	±0.2%(1) ±1.0%(2)	±0.2%(1) ±1.0%(2)	±1.0%(1) ±1.0%(2)
Load regulation (20% to 100% load change)					1.0%	2.0%(1) 8.0%(2)	2.0%(1) 8.0%(2)	1.0%(1) 8.0%(2)
Cross regulation (O/P1 – 20% to 100% load)					N/A	±1.0%(1) ±10%(2)	±1.0%(1) ±10%(2)	±1.0%(1) ±10%(2)
Max change (0°C to 50°C) due to temperature					±1%	±2%	±2%	±2%
Short circuit protection					power limit	foldback(1) current limit(2)	foldback(1) current limit(2)	foldback(1) current limit(2)
Overvoltage protection					6.2V ± 10%	–	–	–
Regulation					fully regulated	fully/semi regulated	fully/semi regulated	fully/semi regulated
Initial setting accuracy (½ load)					±2%	±5%	±5%	±2%(1) ±4%(2)
Noise (peak to peak) wideband (10Hz to 30MHz)					100mV	100mv	100mv	2%

General Electrical Specifications for SMLC 75R are on page 73.
Mechanical Specifications for SMLC 75R are on page 169.
Contact the factory for operating information.
*Other output combinations are available. Consult the factory to discuss your requirements.

Notes: (1) Fully regulated
(2) Semi regulated
(3) Fully floating output

PART V—MECHANICAL DRAWINGS

SMLC AND ADG SERIES

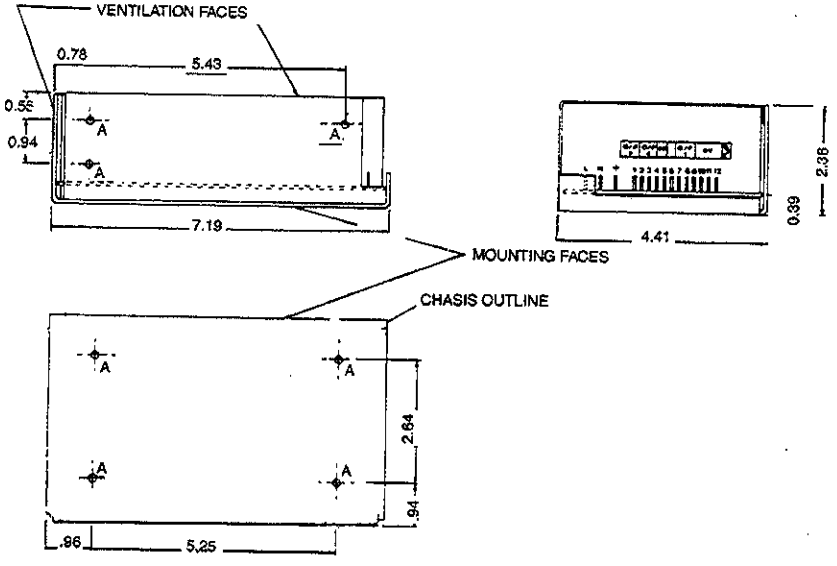
SMLC 50R

NOTES:
(1) "A" holes are M3, 7 each for chassis mounting. Max depth 5/32".
(2) Dimensions in inches.
(3) 2 mounting surfaces.

AC INPUT CONNECTOR
Molex 5 way 2391
1 (L) line
3 (N) neutral
5 (E) ground

DC OUTPUT CONNECTOR
Molex 12 way 2391

(1) op3 neg	(7) op1 pos
(2) op3 pos	(8) op1 pos
(3) op4 neg	(9) common op1 & op2
(4) op4 pos	(10) common op1 & op2
(5) power fail	(11) common op1 & op2
(6) N/C	(12) op2 pos



SMLC 75R

NOTES:
(1) "A" Holes are M3, 7 each for chassis mounting. Max depth 5/32".
(2) Dimensions in inches.
(3) 2 mounting surfaces.

AC INPUT CONNECTOR
Molex 5 way 2630
1 (L) line
3 (N) neutral
5 (E) ground

DC OUTPUT CONNECTOR
Molex 16 pin 2630

(1) +5V	(9) op2 pos
(2) +5V	(10) op3 neg
(3) +5V	(11) op3 pos
(4) common	(12) op4 neg
(5) common	(13) op4 pos
(6) common	(14) inhibit
(7) common	(15) power fail
(8) op2 pos	(16) N/C