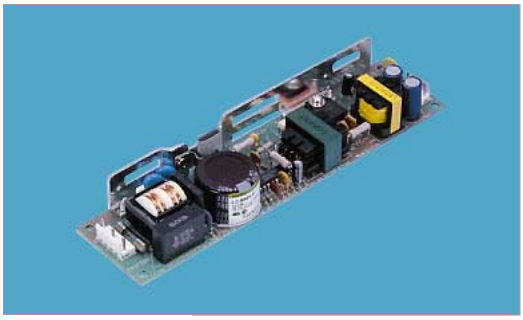
LCA50S



Features

- Small and compact PCB construction
- UL recognized, CSA certified
- Built-in Inrush Current Protection
- RoHS Compliant

Safety Agency Approvals

- Complies with DEN-AN
- UL1950, CSA C22.2 No.234

EMI Compliance

- FCC-B
- VCCI-B

2 year warranty(refer to Instruction Manual)

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
LCA50S-3	DC 110 - 170 AC 85 - 132	30	3V 10A
LCA50S-5	DC 110 - 170 AC 85 - 132	50	5V 10A
LCA50S-12	DC 110 - 170 AC 85 - 132	51.6	12V 4.3A
LCA50S-15	DC 110 - 170 AC 85 - 132	52.5	15V 3.5A
LCA50S-24	DC 110 - 170 AC 85 - 132	60	24V 2.5A
LCA50S-24-H	DC 110 - 170 AC 85 - 132	60 (peak 72)	24V 2.5A (peak 3A)
LCA50S-36	DC 110 - 170 AC 85 - 132	61.2	36V 1.7A
LCA50S-48	DC 110 - 170 AC 85 - 132	62.4	48V 1.3A

COSEL **Rugged PCB type**

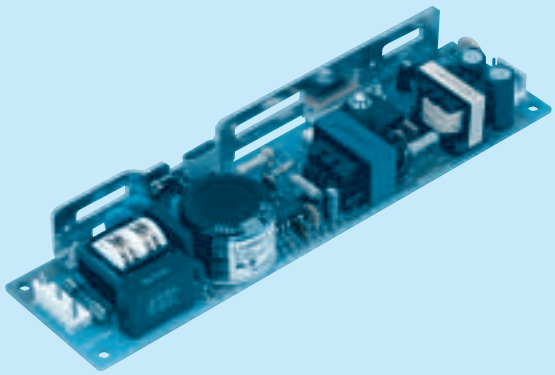
LCA50S

Ordering information

LC	A	50	S	-5	-□
①	②	③	④	⑤	⑧

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑧Optional
C :with Coating
G :Low leakage current
Y :with Potentiometer

RoHS



Recommended Noise Filter
NAC-06-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series
*The Noise Filter is recommended to connect with several devices.

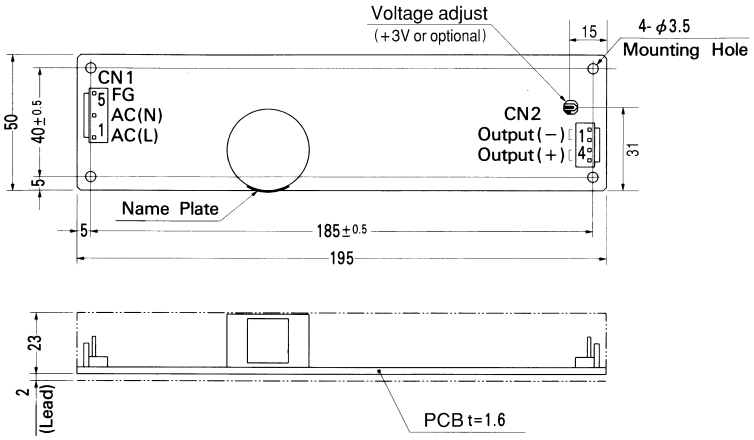
MODEL	LCA50S-3	LCA50S-5	LCA50S-12	LCA50S-15	LCA50S-24	LCA50S-24-H	LCA50S-36	LCA50S-48
MAX OUTPUT WATTAGE[W]	30	50	51.6	52.5	60	60	61.2	62.4
DC OUTPUT	3V 10A	5V 10A	12V 4.3A	15V 3.5A	24V 2.5A	24V 2.5A	36V 1.7A	48V 1.3A

SPECIFICATIONS

	MODEL		LCA50S-3	LCA50S-5	LCA50S-12	LCA50S-15	LCA50S-24	LCA50S-24-H	LCA50S-36	LCA50S-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170							
	CURRENT[A]	ACIN 100V	1.3typ (Io=100%)							
	FREQUENCY[Hz]		47 - 440 or DC							
	EFFICIENCY[%]		71typ	78typ	80typ	81typ	82typ	82typ	82typ	82typ
	INRUSH CURRENT[A]	ACIN 100V	30typ (Io=100%) (At cold start)							
	LEAKAGE CURRENT[mA]		0.5max (60Hz, According to UL, CSA and DEN-AN)							
OUTPUT	VOLTAGE[V]		3	5	12	15	24	24	36	48
	CURRENT[A]	*3	10	10	4.3	3.5	2.5	2.5 (Peak 3)	1.7	1.3
	LINE REGULATION[mV]		20max	20max	48max	60max	96max	96max	144max	192max
	LOAD REGULATION[mV]		40max	40max	100max	120max	150max	150max	240max	300max
	RIPPLE[mVp-p]	0 to +50℃ *1	80max	80max	120max	120max	120max	120max	150max	150max
		-10 - 0℃ *1	140max	140max	160max	160max	160max	160max	200max	200max
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	120max	150max	150max	150max	150max	250max	350max
		-10 - 0℃ *1	160max	160max	180max	180max	180max	180max	300max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	50max	120max	150max	240max	240max	360max	480max
		-10 to +50℃	60max	60max	150max	180max	290max	290max	450max	600max
	DRIFT[mV]	*2	20max	20max	48max	60max	96max	96max	144max	192max
	START-UP TIME[ms]		200max (ACIN 85V, Io=100%)							
	HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%) 20typ (ACIN 100V, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		2.85 - 3.6	Fixed ("Y"which can be adjusted the output is available as optional: 5, 12, 15, 24, 36, 48V ±10%)						
	OUTPUT VOLTAGE SETTING[V]		——	4.9 - 5.3	11.5 - 12.5	14.4 - 15.6	23.0 - 25.0	23.0 - 25.0	34.5 - 37.5	46.0 - 50.0
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (works over 105% of peak current at option -H) and recovers automatically							
	OVERVOLTAGE PROTECTION		4.00 - 5.25V	Works at 115 - 140% of rating						
	OPERATING INDICATION		Not provided							
	REMOTE SENSING		Not provided							
	REMOTE ON/OFF		Not provided							
ISOLATION	INPUT-OUTPUT		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)							
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)							
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)							
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-10 to +60℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max							
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max							
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis							
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis							
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, CSA C22.2 No.234 Complies with DEN-AN							
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B							
OTHERS	CASE SIZE/WEIGHT		50×25×195mm (W×H×D) / 200g max							
	COOLING METHOD		Convection							

*1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN : RM101).
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃ with the input voltage held constant at the rated input/output.
*3 Peak load for 10 sec. or less is acceptable(The average current has to be less than the rated current).

External view



I/O Connector		Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N	Chain: SVH-21T-P1.1
			Loose: BVH-21T-P1.1
CN2	B4P-VH	VHR-4N	Chain: SVH-21T-P1.1
			Loose: BVH-21T-P1.1

(Mfr : J.S.T.)

〈PIN CONNECTION〉

CN1 Pin No.	Input
1	AC(L)
2	
3	AC(N)
4	
5	FG

CN2 Pin No.	Output
1・2	−V
3・4	+V

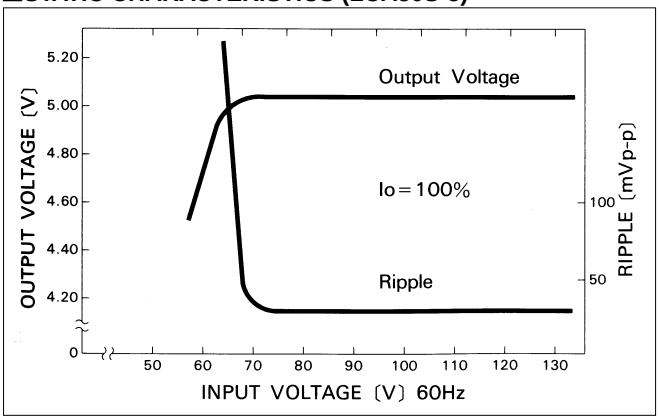
※Maximum 5A per pin of CN2 can be applied.

※Weight : 200g or less
※Tolerance : ±1
※Dimensions in mm.
※PCB Material : Glass composite (CEM3)

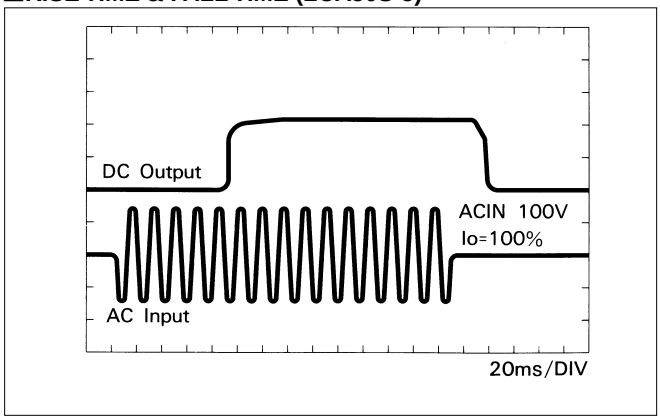
LCA

Performance data

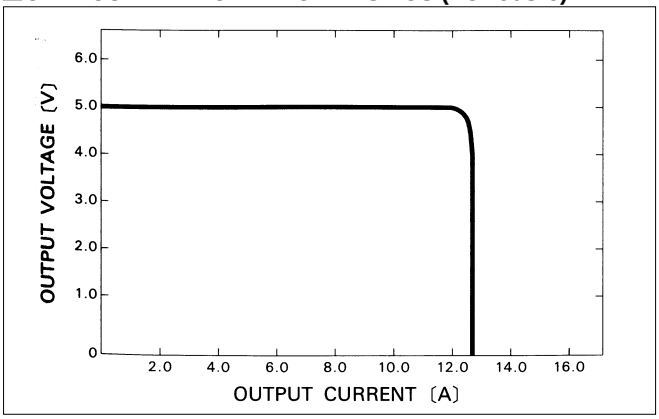
■STATIC CHARACTERISTICS (LCA50S-5)



■RISE TIME & FALL TIME (LCA50S-5)



■OVERCURRENT CHARACTERISTICS (LCA50S-5)



■DERATING CURVE