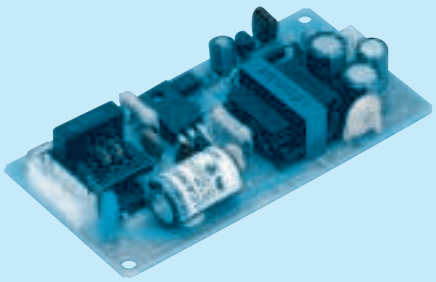
COSEL AC-DC Power Supplies Open Frame/Enclosed type

LCA10S

Ordering information

LC	A	10	S	-5	-□
①	②	③	④	⑤	⑥

RoHS



Recommended EMI/EMC Filter
NAC-06-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series

*The EMI/EMC Filter is recommended to connect with several devices.

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional *3
C :with Coating
G :Low leakage current
Y :with Potentiometer

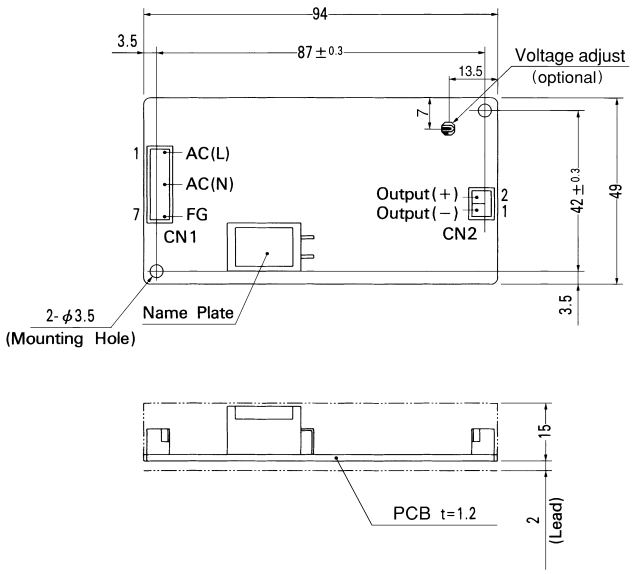
MODEL	LCA10S-5	LCA10S-5-H	LCA10S-12	LCA10S-15	LCA10S-24
MAX OUTPUT WATTAGE[W]	10	10	10.8	10.5	12
DC OUTPUT	5V 2A	5V 2A	12V 0.9A	15V 0.7A	24V 0.5A

SPECIFICATIONS

	MODEL		LCA10S-5	LCA10S-5-H	LCA10S-12	LCA10S-15	LCA10S-24
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170				
	CURRENT[A]	ACIN 100V	0.3typ (Io=100%)				
	FREQUENCY[Hz]		47 - 440 or DC				
	EFFICIENCY[%]		71typ	71typ	75typ	75typ	78typ
	INRUSH CURRENT[A]	ACIN 100V	25typ (Io=100%)				
	LEAKAGE CURRENT[mA]		0.5max (60Hz, According to UL, CSA and DEN-AN)				
OUTPUT	VOLTAGE[V]		5	5	12	15	24
	CURRENT[A]		2	2 (Peak 3)	0.9	0.7	0.5
	LINE REGULATION[mV]		20max	20max	48max	60max	96max
	LOAD REGULATION[mV]		40max	40max	100max	120max	150max
	RIPPLE[mVp-p]	0 to +50℃ *1	80max	80max	120max	120max	120max
		-10 - 0℃ *1	140max	140max	160max	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	120max	150max	150max	150max
		-10 - 0℃ *1	160max	160max	180max	180max	180max
	TEMPERATURE REGULATION[mV]		50max	50max	120max	150max	240max
	DRIFT[mV]	*2	20max	20max	48max	60max	96max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)				
	HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%) 20typ (ACIN 100V, Io=100%)				
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed ("Y"which can be adjusted the output is available as optional:5V -5 to +10% : 12, 15, 24V ±10%)				
	OUTPUT VOLTAGE SETTING[V]		4.9 - 5.3	4.9 - 5.3	11.5 - 12.5	14.4 - 15.6	23.0 - 25.0
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		Works over 115% of rating, by zener diode clamping				
	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.60950-1 Complies with DEN-AN				
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B				
OTHERS	CASE SIZE/WEIGHT		49×17×94mm (W×H×D) / 65g 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 Please contact us about safety approvals for the model with option.
* Avoid prolonged use under over-load.

External view



I/O Connector		Mating Connector	Terminal
CN1	B3(7.5)B-XH-A	XHP-7	Chain: SXH-001T-P0.6 Loose: BXH-001T-P0.6
CN2	B2B-XH-A	XHP-2	Chain: SXH-001T-P0.6 Loose: BXH-001T-P0.6

(Mfr : J.S.T.)

<PIN CONNECTION>

	Pin No.	Input
CN1	1	AC(L)
	2	
	3	
	4	AC(N)
	5	
	6	
	7	FG

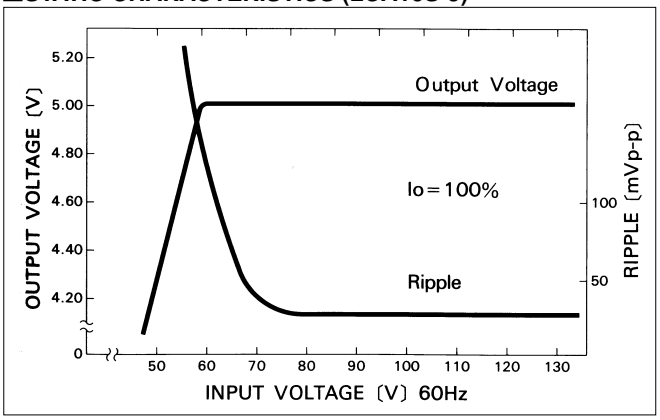
	Pin No.	Output
CN2	1	−V
	2	+V

※ Weight : 65g or less
※ Tolerance : ±1
※ Dimensions in mm.
※ PCB Material : Glass composite (CEM3)

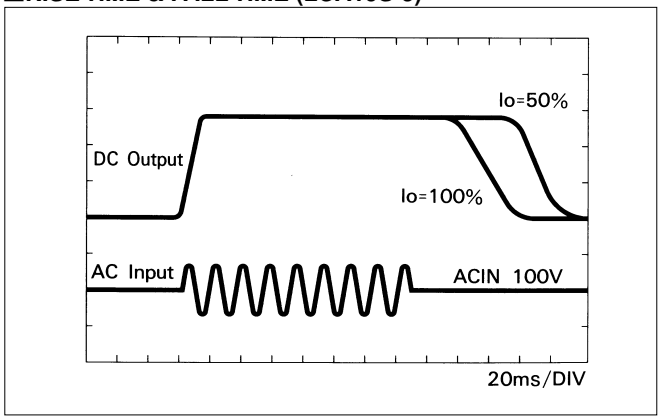
LCA

Performance data

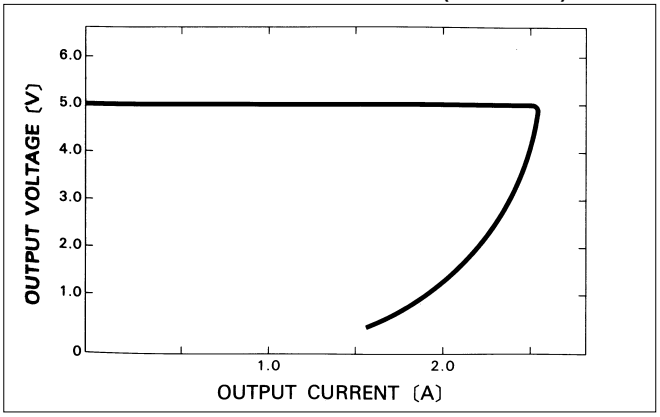
■STATIC CHARACTERISTICS (LCA10S-5)



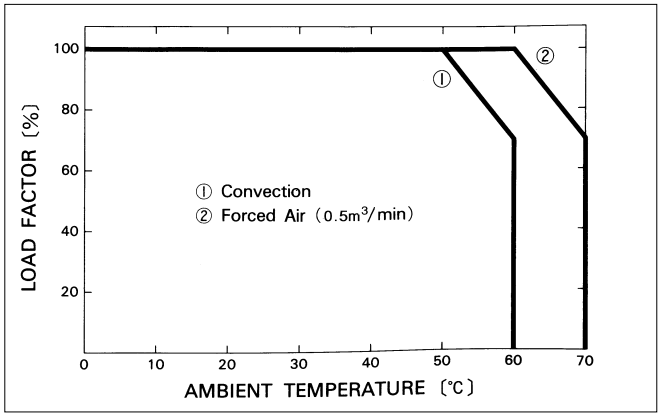
■RISE TIME & FALL TIME (LCA10S-5)



■OVERCURRENT CHARACTERISTICS (LCA10S-5)



■DERATING CURRENT



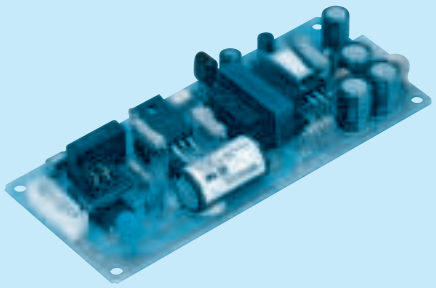
COSEL AC-DC Power Supplies Open Frame/Enclosed type

LCA15S

Ordering information

LC	A	15	S	-5	-□
①	②	③	④	⑤	⑧

cULus SA RoHS



Recommended EMI/EMC Filter
NAC-06-472

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

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional *3
C :with Coating
G :Low leakage current
Y :with Potentiometer

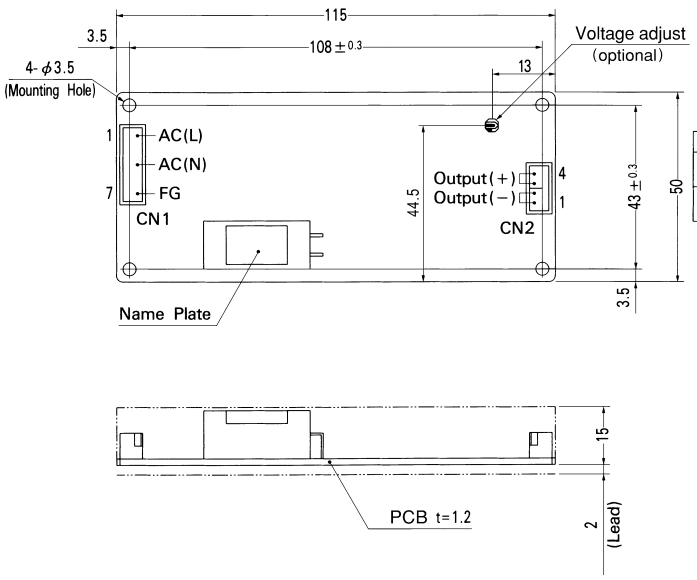
MODEL	LCA15S-5	LCA15S-12	LCA15S-15	LCA15S-24
MAX OUTPUT WATTAGE[W]	15	15.6	15	16.8
DC OUTPUT	5V 3A	12V 1.3A	15V 1A	24V 0.7A

SPECIFICATIONS

	MODEL		LCA15S-5	LCA15S-12	LCA15S-15	LCA15S-24
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170			
	CURRENT[A]	ACIN 100V	0.4typ (Io=100%)			
	FREQUENCY[Hz]		47 - 440 or DC			
	EFFICIENCY[%]		72typ	75typ	75typ	78typ
	INRUSH CURRENT[A]	ACIN 100V	20typ (Io=100%) (At cold start)			
	LEAKAGE CURRENT[mA]		0.5max (60Hz, According to UL, CSA and DEN-AN)			
OUTPUT	VOLTAGE[V]		5	12	15	24
	CURRENT[A]		3	1.3	1	0.7
	LINE REGULATION[mV]		20max	48max	60max	96max
	LOAD REGULATION[mV]		40max	100max	120max	150max
	RIPPLE[mVp-p]	0 to +50℃ *1	80max	120max	120max	120max
		-10 - 0℃ *1	140max	160max	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	150max	150max	150max
		-10 - 0℃ *1	160max	180max	180max	180max
	TEMPERATURE REGULATION[mV]		50max	120max	150max	240max
	DRIFT[mV]	*2	20max	48max	60max	96max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)			
	HOLD-UP TIME[ms]		10typ (ACIN 85V, Io=100%) 20typ (ACIN 100V, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed ("Y"which can be adjusted the output is available as optional:5V -5 to +10% : 12, 15, 24V ±10%)			
	OUTPUT VOLTAGE SETTING[V]		4.9 - 5.3	11.5 - 12.5	14.4 - 15.6	23.0 - 25.0
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically			
	OVERVOLTAGE PROTECTION		Works over 115% of rating, by zener diode clamping			
	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.60950-1 Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B			
OTHERS	CASE SIZE/WEIGHT		50×17×115mm (W×H×D) / 80g 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 Please contact us about safety approvals for the model with option.
* Avoid prolonged use under over-load.

External view



I/O Connector		Mating Connector	Terminal
CN1	B3(7.5)B-XH-A	XHP-7	Chain: SXH-001T-P0.6 Loose: BXH-001T-P0.6
CN2	B4B-XH-A	XHP-4	Chain: SXH-001T-P0.6 Loose: BXH-001T-P0.6

(Mfr : J.S.T.)

〈PIN CONNECTION〉

	Pin No.	Input
CN1	1	AC(L)
	2	
	3	
	4	AC(N)
	5	
	6	
	7	FG

	Pin No.	Output
CN2	1, 2	−V
	3, 4	+V

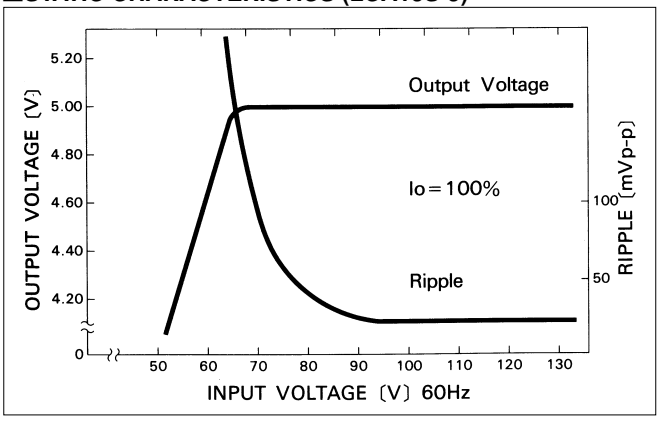
※Maximum 2A per pin of CN2 can be applied.

※Weight : 80g or less
※Tolerance : ±1
※Dimensions in mm.
※PCB Material : Glass composite (CEM3)

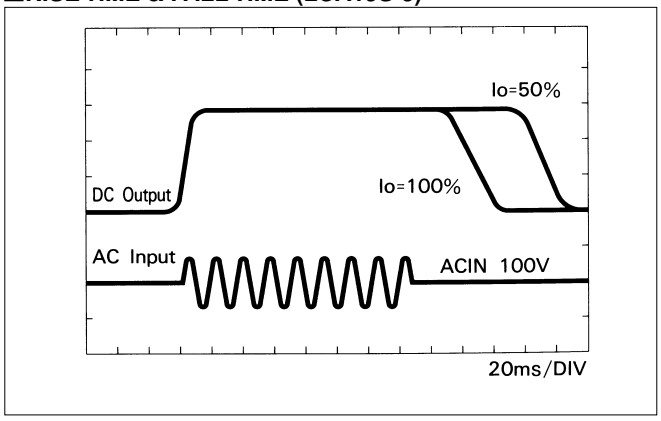
LCA

Performance data

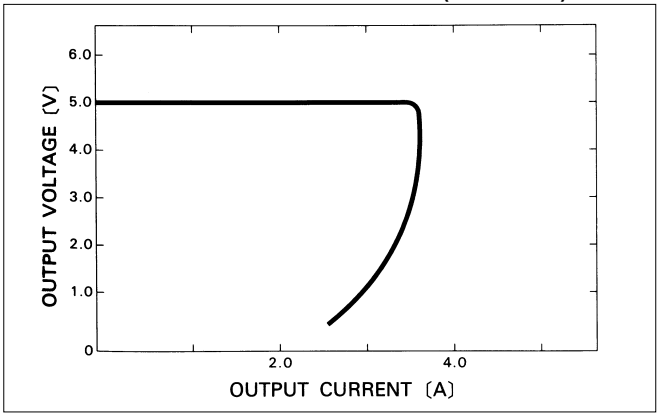
■STATIC CHARACTERISTICS (LCA15S-5)



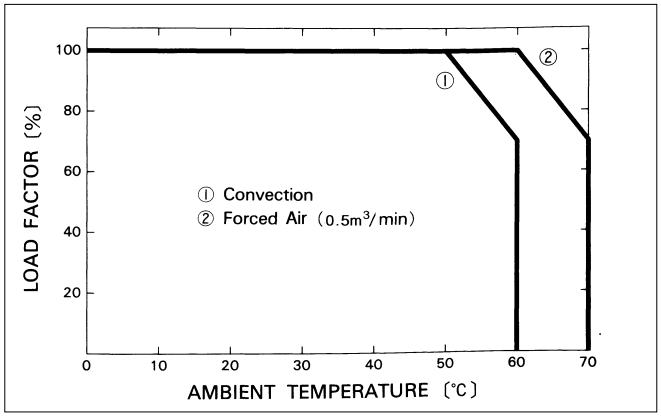
■RISE TIME & FALL TIME (LCA15S-5)



■OVERCURRENT CHARACTERISTICS (LCA15S-5)



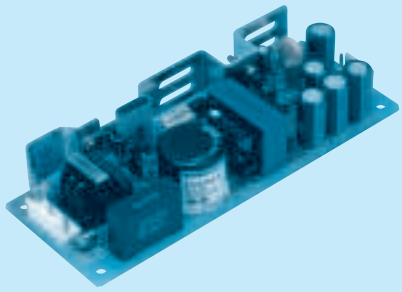
■DERATING CURVE



COSEL AC-DC Power Supplies Open Frame/Enclosed type

LCA30S

RoHS



Recommended EMI/EMC Filter NAC-06-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series

*The EMI/EMC Filter is recommended to connect with several devices.

Ordering information

LC ① A ② 30 ③ S ④ -5 ⑤ -□ ⑥

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional *3
C :with Coating
G :Low leakage current
Y :with Potentiometer

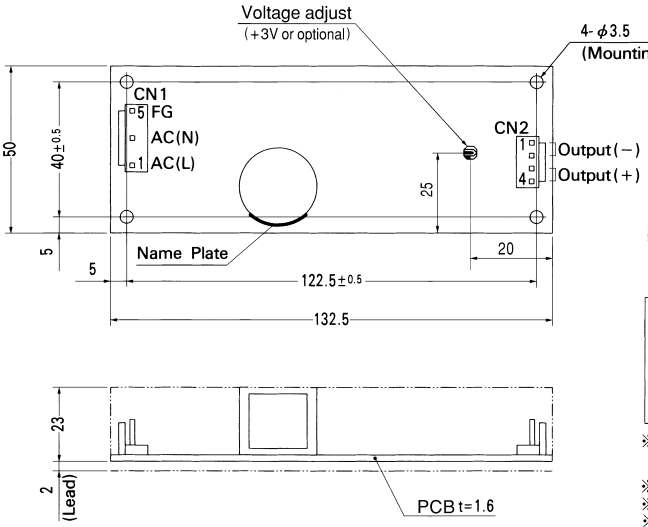
MODEL	LCA30S-3	LCA30S-5	LCA30S-12	LCA30S-15	LCA30S-24	LCA30S-36	LCA30S-48
MAX OUTPUT WATTAGE[W]	18	30	30	30	31.2	32.4	33.6
DC OUTPUT	3V 6A	5V 6A	12V 2.5A	15V 2A	24V 1.3A	36V 0.9A	48V 0.7A

SPECIFICATIONS

	MODEL		LCA30S-3	LCA30S-5	LCA30S-12	LCA30S-15	LCA30S-24	LCA30S-36	LCA30S-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170						
	CURRENT[A]	ACIN 100V	0.7typ (Io=100%)						
	FREQUENCY[Hz]		47 - 440 or DC						
	EFFICIENCY[%]		69typ	75typ	80typ	81typ	82typ	80typ	80typ
	INRUSH CURRENT[A]	ACIN 100V	25typ (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	36	48
	CURRENT[A]		6	6	2.5	2	1.3	0.9	0.7
	LINE REGULATION[mV]		20max	20max	48max	60max	96max	144max	192max
	LOAD REGULATION[mV]		40max	40max	100max	120max	150max	240max	300max
	RIPPLE[mVp-p]	0 to +50℃ *1	80max	80max	120max	120max	120max	150max	150max
		-10 - 0℃ *1	140max	140max	160max	160max	160max	200max	200max
	RIPPLE NOISE[mVp-p]	0 to +50℃ *1	120max	120max	150max	150max	150max	250max	350max
		-10 - 0℃ *1	160max	160max	180max	180max	180max	300max	400max
	TEMPERATURE REGULATION[mV]		50max	50max	120max	150max	240max	360max	480max
	DRIFT[mV]	*2	20max	20max	48max	60max	96max	144max	192max
	START-UP TIME[ms]		100max (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:5V -5 to +10% : 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	34.5 - 37.5	46.0 - 50.0
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically						
	OVERVOLTAGE PROTECTION		4.00V min	Works over 115% of rating, by zener diode clamping					
	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.60950-1 Complies with DEN-AN						
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B						
OTHERS	CASE SIZE/WEIGHT		50×25×132.5mm (W×H×D) / 150g 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 Please contact us about safety approvals for the model with option.
* Avoid prolonged use under over-load.

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	XHR-4N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1

(Mfr : J.S.T.)

〈PIN CONNECTION〉

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

	Pin No.	Output
CN2	1	−V
	2	−V
	3	+V
	4	+V

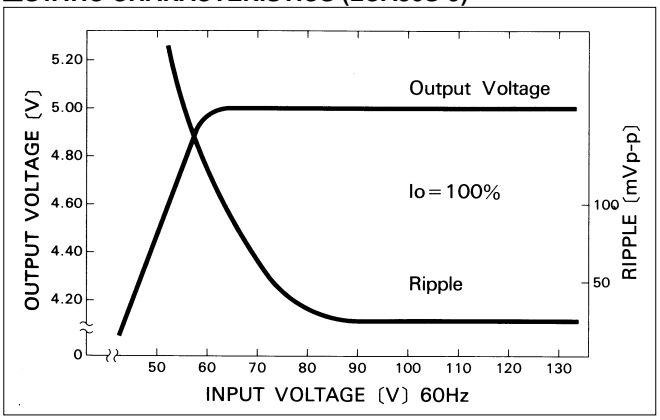
※Maximum 5A per pin of CN2 can be applied.

※Weight : 150g or less
※Tolerance : ±1
※Dimensions in mm.
※PCB Material : Glass composite (CEM3)

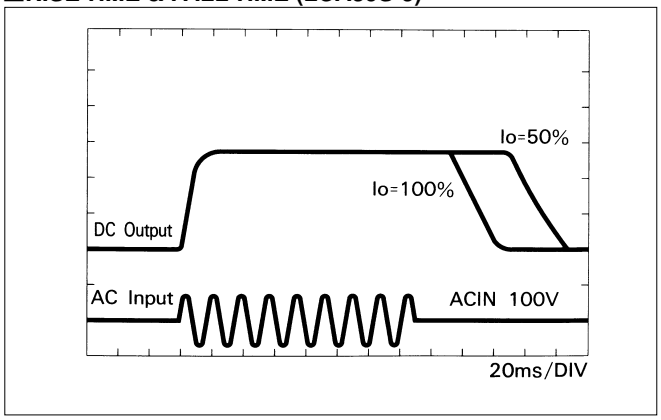
LCA

Performance data

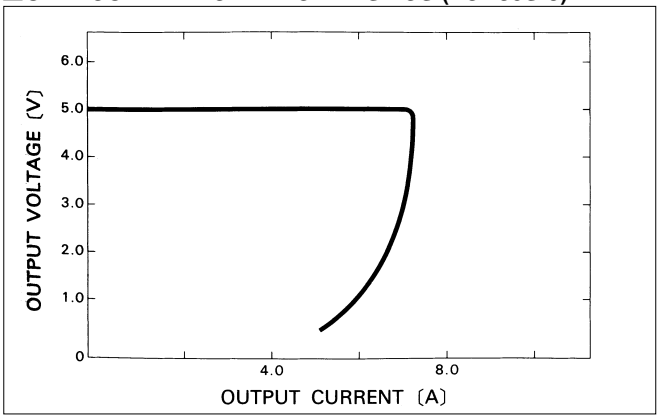
■STATIC CHARACTERISTICS (LCA30S-5)



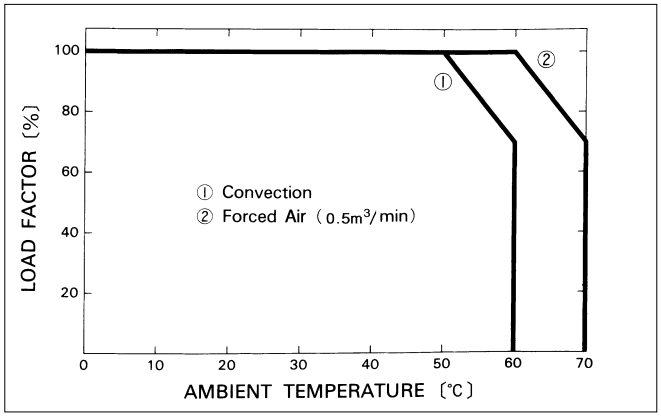
■RISE TIME & FALL TIME (LCA30S-5)



■OVERCURRENT CHARACTERISTICS (LCA30S-5)



■DERATING CURVE



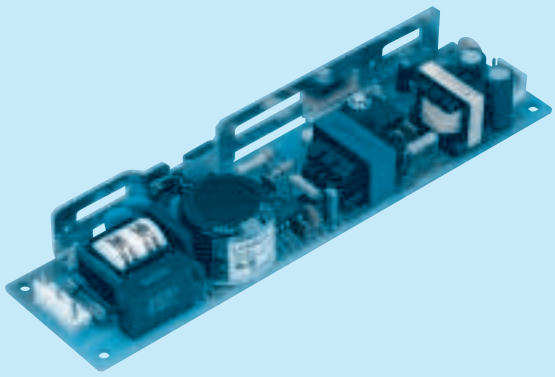
COSEL AC-DC Power Supplies Open Frame/Enclosed type

LCA50S

Ordering information

LC	A	50	S	-5	-□
①	②	③	④	⑤	⑥

RoHS



Recommended EMI/EMC Filter
NAC-06-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series

*The EMI/EMC Filter is recommended to connect with several devices.

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional *4
C :with Coating
G :Low leakage current
Y :with Potentiometer

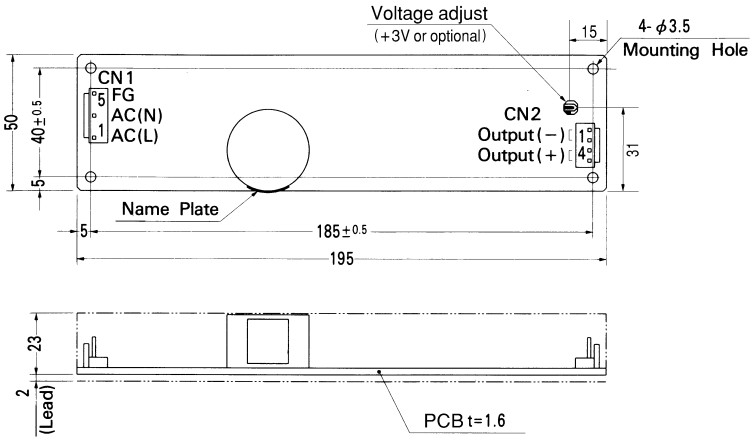
MODEL	LCA50S-3	LCA50S-5	LCA50S-12	LCA50S-15	LCA50S-24	LCA50S-24-H	LCA50S-36	LCA50S-48
MAX OUTPUT WATTAGE[W]	30	50	51.6	52.5	60	60	61.2	62.4
DC OUTPUT	3V 10A	5V 10A	12V 4.3A	15V 3.5A	24V 2.5A	24V 2.5A	36V 1.7A	48V 1.3A

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.60950-1 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).
*4 Please contact us about safety approvals for the model with option.

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

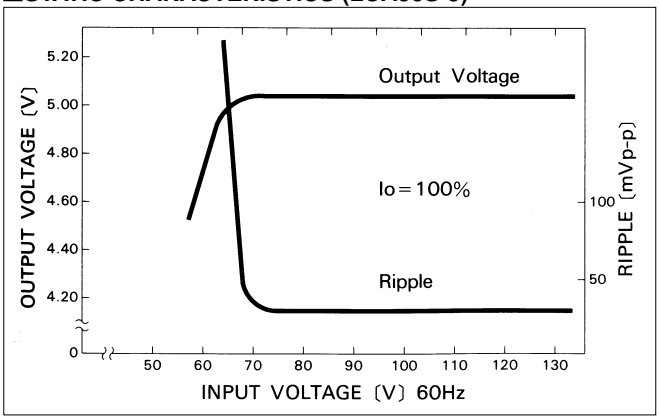
※Maximum 5A per pin of CN2 can be applied.

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

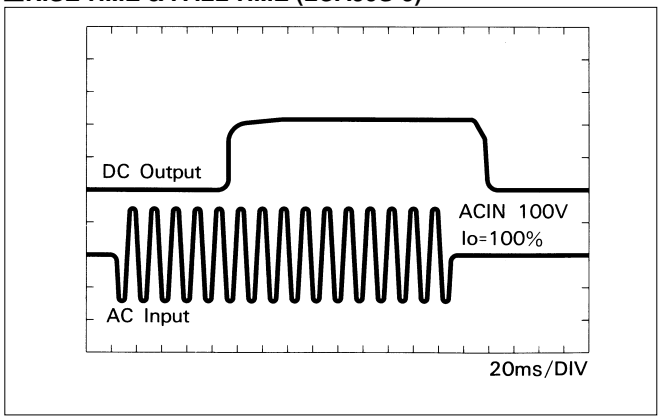
LCA

Performance data

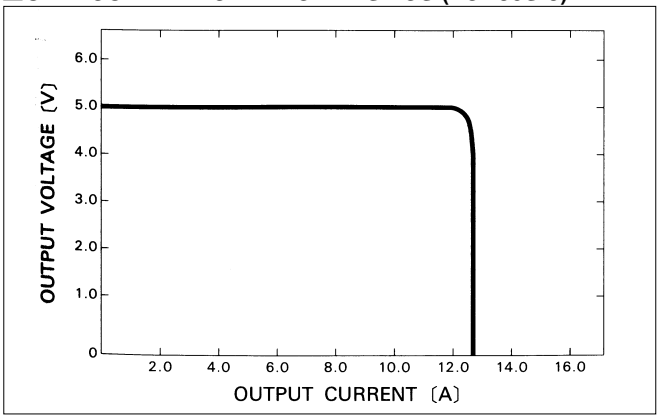
■STATIC CHARACTERISTICS (LCA50S-5)



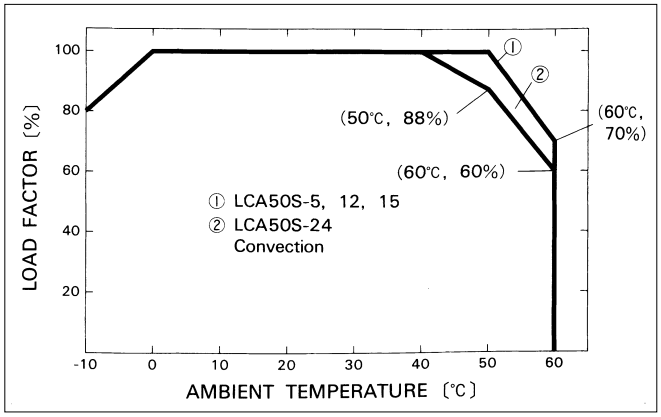
■RISE TIME & FALL TIME (LCA50S-5)



■OVERCURRENT CHARACTERISTICS (LCA50S-5)



■DERATING CURVE



COSEL AC-DC Power Supplies Open Frame/Enclosed type

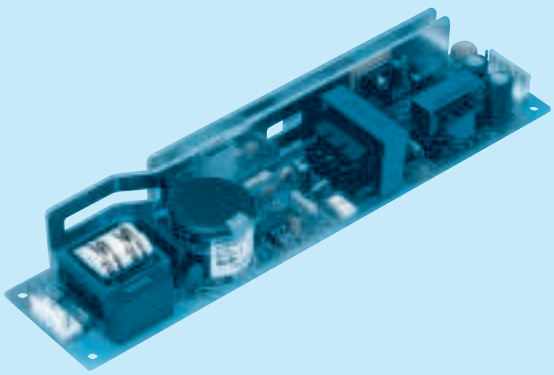
LCA75S

Ordering information

LC	A	75	S	-5	-□
①	②	③	④	⑤	⑥

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional ＊4
C :with Coating
G :Low leakage current
Y :with Potentiometer

RoHS



Recommended EMI/EMC Filter
NAC-06-472

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

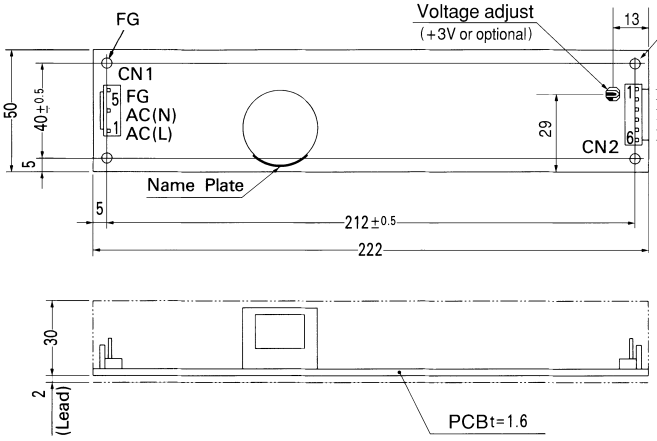
MODEL	LCA75S-3	LCA75S-5	LCA75S-12	LCA75S-15	LCA75S-24	LCA75S-24-H	LCA75S-36	LCA75S-48
MAX OUTPUT WATTAGE[W]	45	75	75.6	75	76.8	76.8	75.6	76.8
DC OUTPUT	3V 15A	5V 15A	12V 6.3A	15V 5A	24V 3.2A	24V 3.2A	36V 2.1A	48V 1.6A

SPECIFICATIONS

	MODEL		LCA75S-3	LCA75S-5	LCA75S-12	LCA75S-15	LCA75S-24	LCA75S-24-H	LCA75S-36	LCA75S-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170							
	CURRENT[A]	ACIN 100V	1.9typ (Io=100%)							
	FREQUENCY[Hz]		47 - 440 or DC							
	EFFICIENCY[%]		72typ	79typ	81typ	83typ	84typ	84typ	84typ	84typ
	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	15	15	6.3	5	3.2	3.2 (Peak 4.2)	2.1	1.6
	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.60950-1 Complies with DEN-AN							
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B							
OTHERS	CASE SIZE/WEIGHT		50×32×222mm (W×H×D) / 300g 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).
＊4 Please contact us about safety approvals for the model with option.

External view



I/O Connector		Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1
CN2	B6P-VH	VHR-6N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1

(Mfr : J.S.T.)

〈PIN CONNECTION〉

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

	Pin No.	Output
CN2	1~3	−V
	4~6	+V

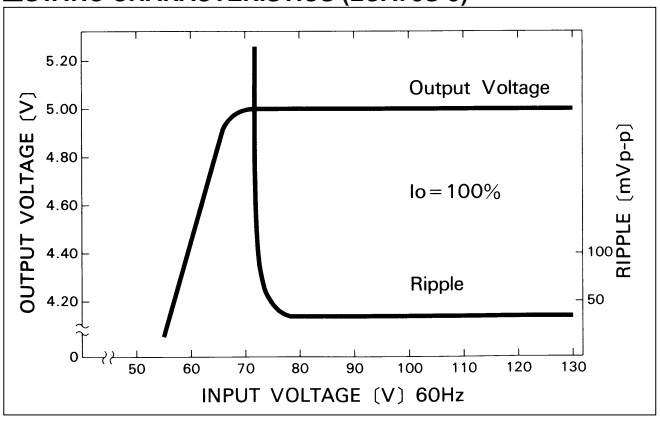
※Maximum 5A per pin of CN2 can be applied.

※Weight : 300g or less
※Tolerance : ±1
※Dimensions in mm.
※PCB Material : Glass composite (CEM3)

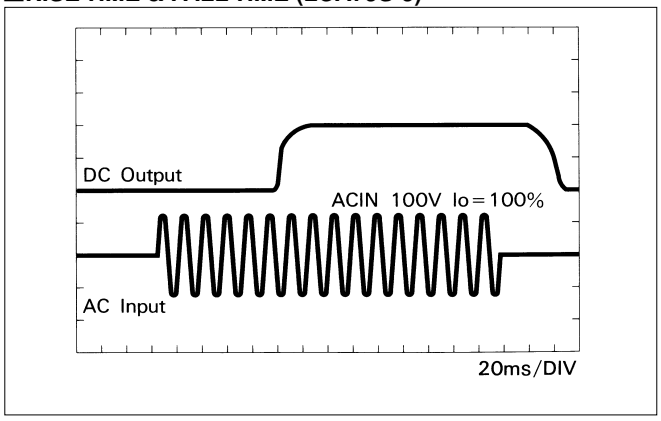
LCA

Performance data

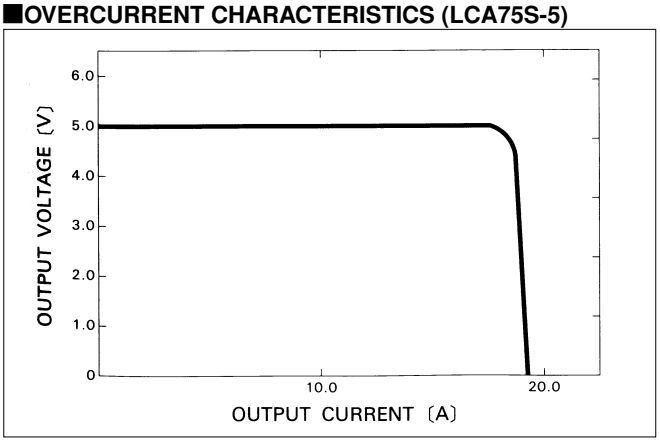
■STATIC CHARACTERISTICS (LCA75S-5)



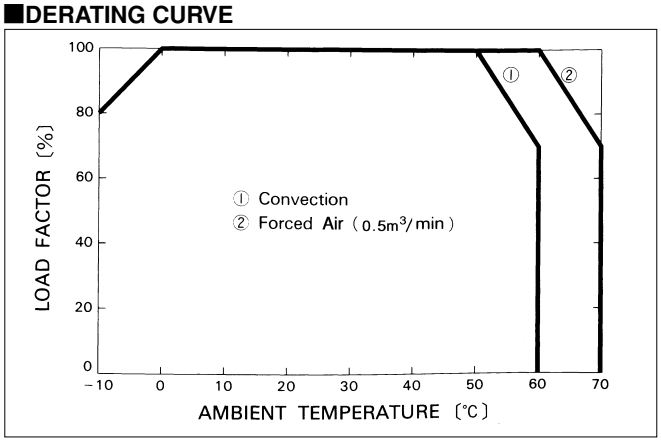
■RISE TIME & FALL TIME (LCA75S-5)



■OVERCURRENT CHARACTERISTICS (LCA75S-5)



■DERATING CURVE



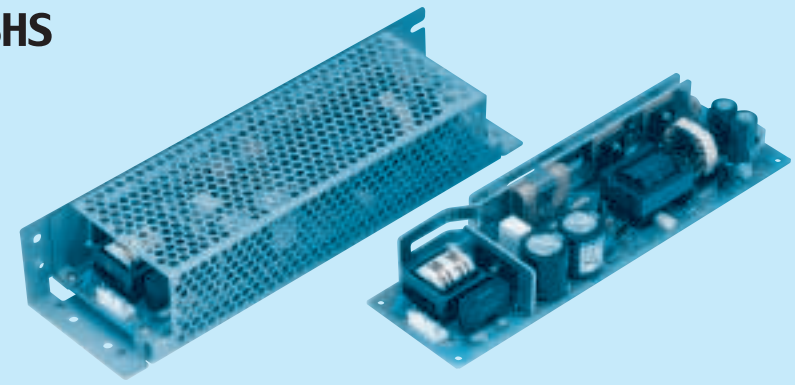
COSEL AC-DC Power Supplies Open Frame/Enclosed type

LCA100S

Ordering information

LC	A	100	S	-5	-□
①	②	③	④	⑤	⑥

RoHS



Recommended EMI/EMC Filter
NAC-06-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series

*The EMI/EMC Filter is recommended to connect with several devices.

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional *4
C :with Coating
G :Low leakage current
S :with Chassis
SN:with Chassis & cover
Y :with Potentiometer

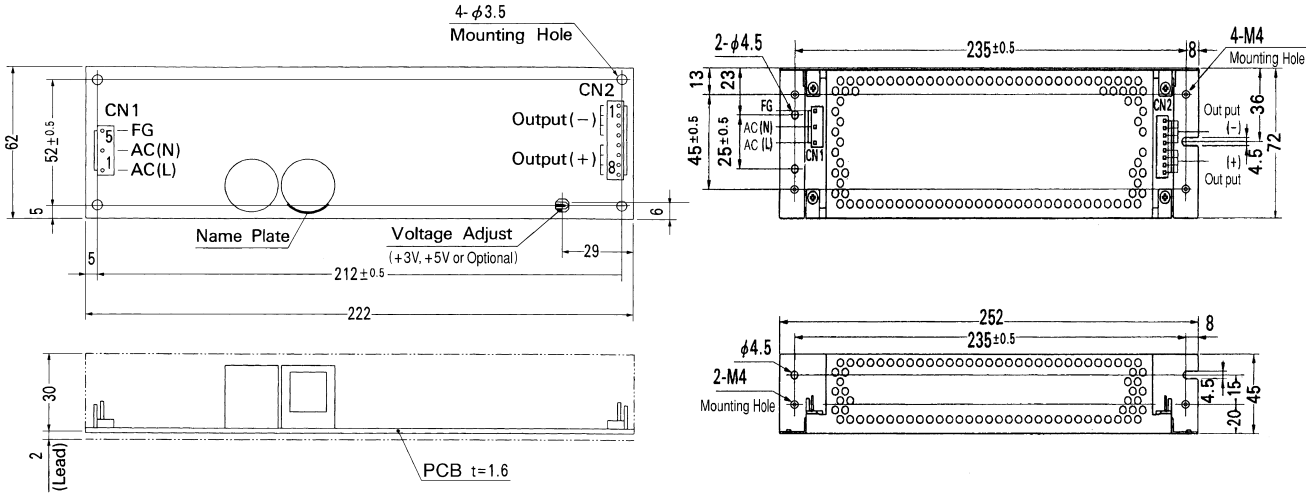
MODEL	LCA100S-3	LCA100S-5	LCA100S-12	LCA100S-15	LCA100S-24	LCA100S-24-H	LCA100S-36	LCA100S-48
MAX OUTPUT WATTAGE[W]	60	100	102	105	103.2	103.2	108	105.6
DC OUTPUT	3V 20A	5V 20A	12V 8.5A	15V 7A	24V 4.3A	24V 4.3A	36V 3A	48V 2.2A

SPECIFICATIONS

	MODEL		LCA100S-3	LCA100S-5	LCA100S-12	LCA100S-15	LCA100S-24	LCA100S-24-H	LCA100S-36	LCA100S-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170							
	CURRENT[A]	ACIN 100V	2.5typ (Io=100%)							
	FREQUENCY[Hz]		47 - 440 or DC							
	EFFICIENCY[%]		74typ	79typ	83typ	84typ	85typ	85typ	85typ	85typ
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%)							
	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	20	20	8.5	7	4.3	4.3 (Peak 7)	3	2.2
	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	250max	250max	350max
		-10 - 0℃ *1	160max	160max	180max	180max	180max	280max	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	4.5 - 5.5	Fixed ("Y"which can be adjusted the output is available as optional: 12, 15, 24, 36, 48V ±10%)					
	OUTPUT VOLTAGE SETTING[V]		——	——	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.60950-1 Complies with DEN-AN							
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B							
OTHERS	CASE SIZE/WEIGHT		62×32×222mm (W×H×D) / 370g max (without chassis and cover)							
	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 20 sec. or less is acceptable(The average current has to be less than the rated current).
*4 Please contact us about safety approvals for the model with option.
* Derating is required when operated with chassis and cover.

External view



I/O Connector		Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1
CN2	B8P-VH	VHR-8N	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
1~4	−V
5~8	+V

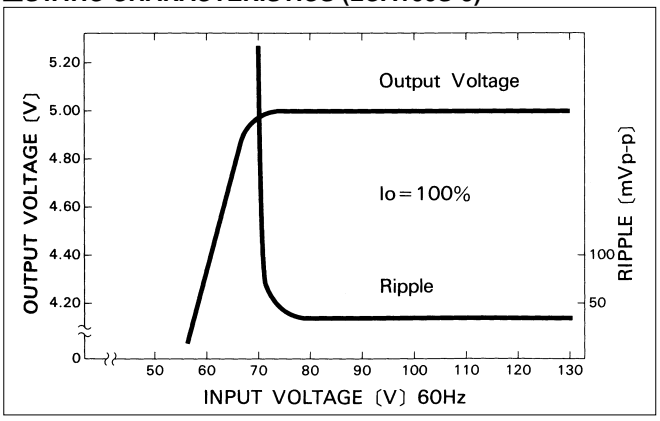
※Maximum 5A per pin of CN2 can be applied.

※Weight : 370g or less (without chassis and cover)
※Tolerance : ±1
※Dimensions in mm.
※PCB Material : Glass composite (CEM-3)
※Chassis and cover is optional
※Mounting torque : 1.5N·m(16kgf-cm) max

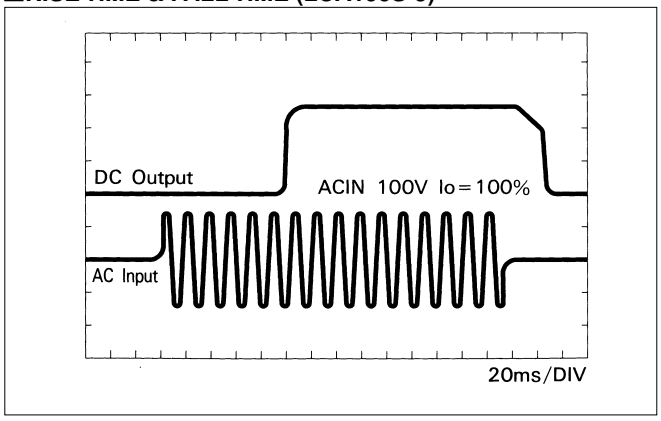
LCA

Performance data

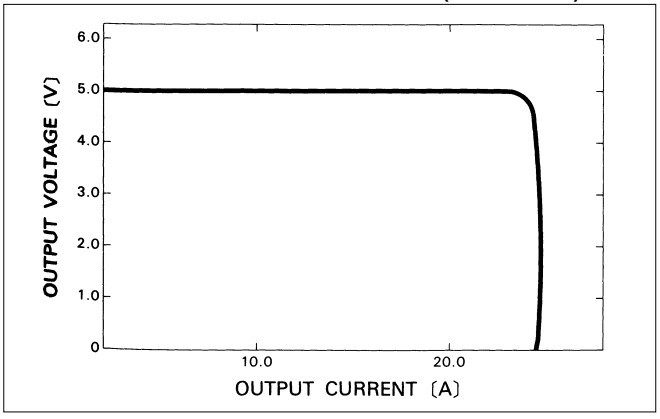
■STATIC CHARACTERISTICS (LCA100S-5)



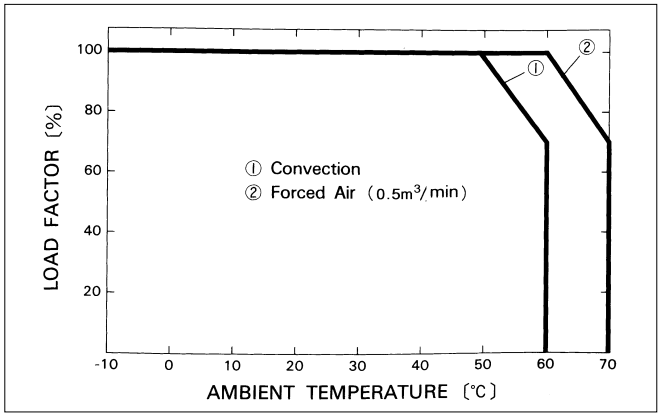
■RISE TIME & FALL TIME (LCA100S-5)



■OVERCURRENT CHARACTERISTICS (LCA100S-5)



■DERATING CURVE



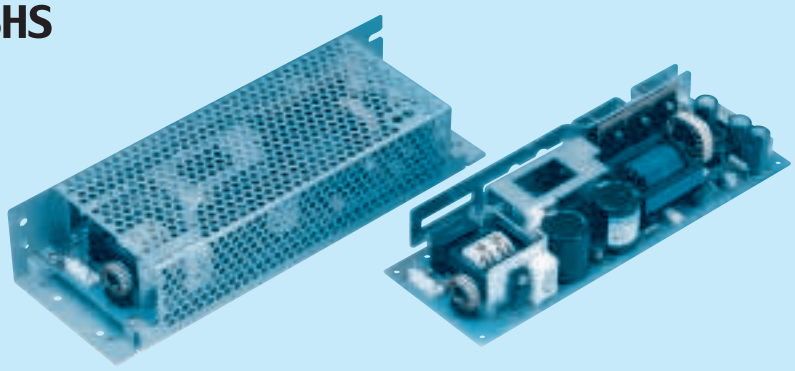
COSEL AC-DC Power Supplies Open Frame/Enclosed type

LCA150S

Ordering information

LC	A	150	S	-5	-□
①	②	③	④	⑤	⑥

RoHS



Recommended EMI/EMC Filter
NAC-06-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series

*The EMI/EMC Filter is recommended to connect with several devices.

①Series name
②100/120V input
③Output wattage
④Single output
⑤Output voltage
⑥Optional *4
C :with Coating
G :Low leakage current
S :with Chassis
SN:with Chassis & cover
Y :with Potentiometer

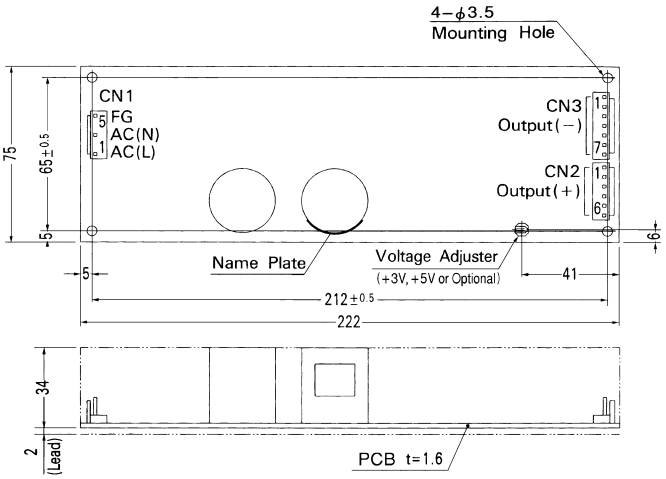
MODEL	LCA150S-3	LCA150S-5	LCA150S-12	LCA150S-15	LCA150S-24	LCA150S-24-H	LCA150S-36	LCA150S-48
MAX OUTPUT WATTAGE[W]	90	150	150	150	151.2	151.2	151.2	153.6
DC OUTPUT	3V 30A	5V 30A	12V 12.5A	15V 10A	24V 6.3A	24V 6.3A	36V 4.2A	48V 3.2A

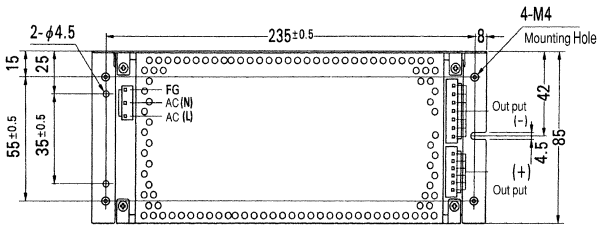
SPECIFICATIONS

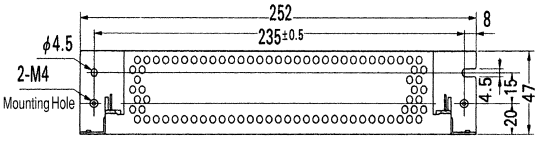
	MODEL		LCA150S-3	LCA150S-5	LCA150S-12	LCA150S-15	LCA150S-24	LCA150S-24-H	LCA150S-36	LCA150S-48
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170							
	CURRENT[A]	ACIN 100V	3.6typ (Io=100%)							
	FREQUENCY[Hz]		47 - 440 or DC							
	EFFICIENCY[%]		72typ	79typ	82typ	83typ	85typ	85typ	85typ	85typ
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%)							
	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	30	30	12.5	10	6.3	6.3 (Peak 10)	4.2	3.2
	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	4.5 - 5.5	Fixed ("Y"which can be adjusted the output is available as optional: 12, 15, 24, 36, 48V ±10%)					
	OUTPUT VOLTAGE SETTING[V]		——	——	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.60950-1 Complies with DEN-AN							
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B							
OTHERS	CASE SIZE/WEIGHT		75×36×222mm (W×H×D) / 550g max (without chassis and cover)							
	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 15 sec. or less is acceptable(The average current has to be less than the rated current).
*4 Please contact us about safety approvals for the model with option.
* Derating is required when operated with chassis and cover.

External view







I/O Connector		Mating Connector	Terminal
CN1	B3P5-VH	VHR-5N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1
CN2	B6P-VH	XHR-6N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1
CN3	B7P-VH	VHR-7N	Chain: SVH-21T-P1.1 Loose: BVH-21T-P1.1

(Mfr : J.S.T.)

<PIN CONNECTION>

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

	Pin No.	Output
CN2	1~6	+V

	Pin No.	Output
CN3	1~7	−V

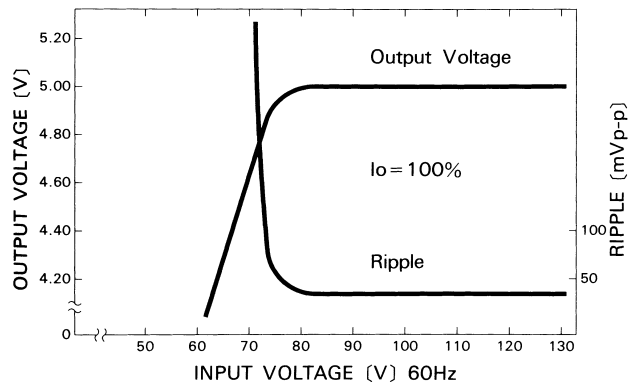
※Maximum 5A per pin of CN2 and CN3 can be applied.

※Weight : 550g or less (without chassis and cover)
※Tolerance : ±1
※Dimensions in mm.
※PCB Material : Glass composite (CEM3)
※Chassis and cover is optional
※Mounting torque : 1.5N·m(16kgf·cm) max

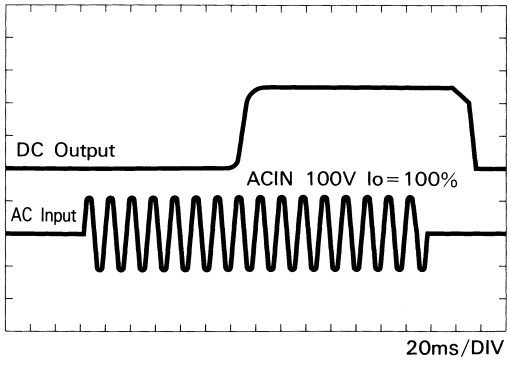
LCA

Performance data

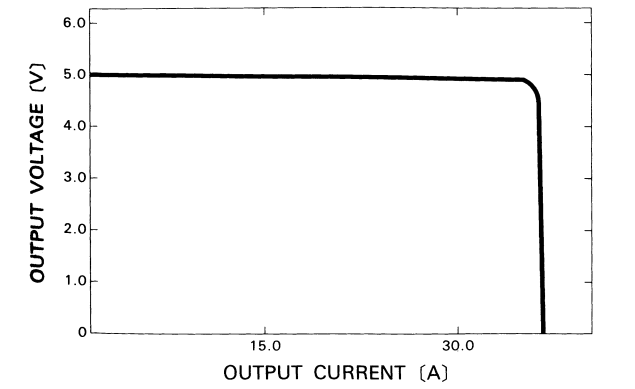
■STATIC CHARACTERISTICS (LCA150S-5)



■RISE TIME & FALL TIME (LCA150S-5)



■OVERCURRENT CHARACTERISTICS (LCA150S-5)



■DERATING CURVE