INVERTERS(FOR 2-COLD CATHODE FLUORESCENT LAMP, ON-BOARD TYPE)

5, 12V input/4.5W

ADL series, ADL-10A/-10L

FEATURES

- The ADL-10 series inverters for 2-cold cathode fluorescent lamps support a wide range of CCFL devices and are characterized by highly stable output current.
- Employing a resonance-type push-pull circuit, these inverters deliver sine wave output with very low noise levels.
- Through the use of four different connection methods and combinations of 1 and 2 lamps, different output currents can be selected.
- Compact, lightweight printed circuit board design.
- High efficiency (typically 80%).

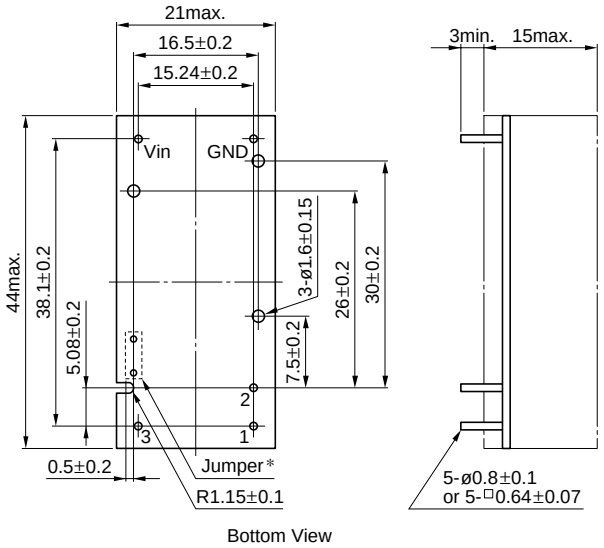
APPLICATIONS

Industrial and other equipment employing LCD panels, products employing small lamps, information terminal devices.

TEMPERATURE AND HUMIDITY RANGES

Temperature range (°C)	Operating	–10 to +60
	Storage	–20 to +85
Humidity range (%)RH		95max. [Maximum wet-bulb temperature 38°C]

SHAPES AND DIMENSIONS



Bottom View

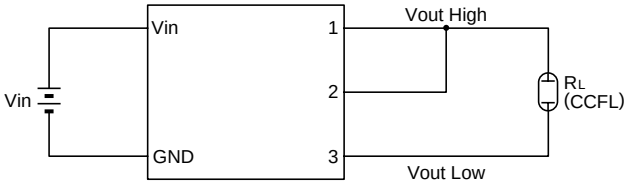
*Terminal numbers GND and 3 can be connected by jumper. Left of this jumper to let the secondary side float with respect to the primary side.

Weight: 15g typ.

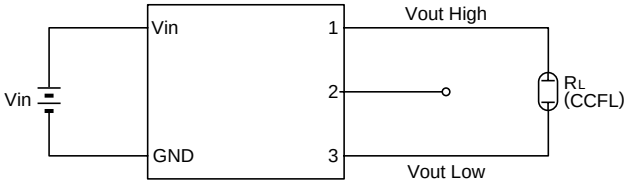
Dimensions in mm

CIRCUIT DIAGRAMS

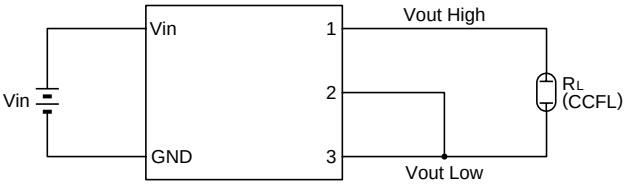
CONNECTION A



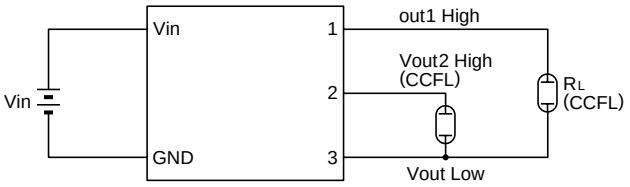
CONNECTION B



CONNECTION C



CONNECTION D



TERMINAL NUMBERS AND FUNCTIONS

Terminal No.	Functions
Vin	+Vin
GND	–Vin(GND)
1	Iout1
2	Iout2
3	Iout-return

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ELECTRICAL CHARACTERISTICS

5V INPUT TYPE, ADL-10A

Connections	Items			Specifications			Conditions		
				min.	typ.	max.	Vin(V)	Ta(°C)	RL(kΩ)
A	Output current	Irms(mA)	Iout	9	10	11	5±1%	23±5	30
				8	10	12	5±5%	–10 to +60	23 to 37
	Input current	Idc(A)	Iin	—	0.8	1.2	5±5%	–10 to +60	23 to 37
	Oscillation frequency	(kHz)	f	25	30	35	5±5%	–10 to +60	23 to 37
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	5±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	4.5	5±5%	–10 to +60	—
B	Output current	Irms(mA)	Iout	5.2	6	6.6	5±1%	23±5	50
				4.6	6	7.2	5±5%	–10 to +60	38 to 62
	Input current	Idc(A)	Iin	—	0.51	0.77	5±5%	–10 to +60	38 to 62
	Oscillation frequency	(kHz)	f	30	35	40	5±5%	–10 to +60	38 to 62
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	5±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	2.7	5±5%	–10 to +60	—
C	Output current	Irms(mA)	Iout	4.5	5	5.6	5±1%	23±5	60
				4	5	6.1	5±5%	–10 to +60	45 to 75
	Input current	Idc(A)	Iin	—	0.45	0.68	5±5%	–10 to +60	45 to 75
	Oscillation frequency	(kHz)	f	25	30	35	5±5%	–10 to +60	45 to 75
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	5±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	2.25	5±5%	–10 to +60	—
D	Output current	Irms(mA)	Iout1	4.5	5	5.5	5±1%	23±5	60
			Iout2	4.5	5	5.5	5±1%	23±5	60
			Iout1	4	5	6	5±5%	–10 to +60	45 to 75
			Iout2	4	5	6	5±5%	–10 to +60	45 to 75
	Input current	Idc(A)	Iin	—	0.8	1.2	5±5%	–10 to +60	45 to 75
	Oscillation frequency	(kHz)	f	25	30	35	5±5%	–10 to +60	45 to 75
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	5±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	2.25×2	5±5%	–10 to +60	—

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ELECTRICAL CHARACTERISTICS

12V INPUT TYPE, ADL-10L

Connections	Items			Specifications			Conditions		
				min.	typ.	max.	Vin(V)	Ta(°C)	R_L(kΩ)
A	Output current	Irms(mA)	Iout	9	10	11	12±1%	23±5	30
				8	10	12	12±5%	–10 to +60	23 to 37
	Input current	Idc(A)	Iin	—	0.32	0.48	12±5%	–10 to +60	23 to 37
	Oscillation frequency	(kHz)	f	25	30	35	12±5%	–10 to +60	23 to 37
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	12±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	4.5	12±5%	–10 to +60	—
B	Output current	Irms(mA)	Iout	5.3	6	6.7	12±1%	23±5	50
				4.7	6	7.3	12±5%	–10 to +60	38 to 62
	Input current	Idc(A)	Iin	—	0.2	0.3	12±5%	–10 to +60	38 to 62
	Oscillation frequency	(kHz)	f	30	35	40	12±5%	–10 to +60	38 to 62
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	12±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	2.7	12±5%	–10 to +60	—
C	Output current	Irms(mA)	Iout	4.5	5	5.6	12±1%	23±5	60
				4	5	6.1	12±5%	–10 to +60	45 to 75
	Input current	Idc(A)	Iin	—	0.18	0.27	12±5%	–10 to +60	45 to 75
	Oscillation frequency	(kHz)	f	25	30	35	12±5%	–10 to +60	45 to 75
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	12±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	2.25	12±5%	–10 to +60	—
D	Output current	Irms(mA)	Iout1	4.5	5	5.5	12±1%	23±5	60
			Iout2	4.5	5	5.5	12±1%	23±5	60
			Iout1	4	5	6	12±5%	–10 to +60	45 to 75
			Iout2	4	5	6	12±5%	–10 to +60	45 to 75
	Input current	Idc(A)	Iin	—	0.32	0.48	12±5%	–10 to +60	45 to 75
	Oscillation frequency	(kHz)	f	25	30	35	12±5%	–10 to +60	45 to 75
	Open circuit output voltage	Erms(V)	Vopen	800	900	—	12±5%	–10 to +60	∞
	Output power	(W)	Pout	—	—	2.25×2	12±5%	–10 to +60	—