Power Systems

DC-AC INVERTER UNIT

PS-DA0140-01(S) (8 W SINGLE OUTPUT)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile DC to AC Inverter is developed for single lamps Displays. Optimized for **Hitachi: TX14D11VM1;TX14D12VM1; TX14D14VM1BAA; TX16D11VM2; TX18D16VM1CAB; TX20D16VM2; TX23D11VM2; TX23D12VM0**

APPLICABLE LCD:

Lamp Voltage 1.000 Vrms
Lamp Current 3.5 ~ 6.0 mArms
Lamp Start Up Voltage 2.400 Vrms (Vin : 12 Vdc)

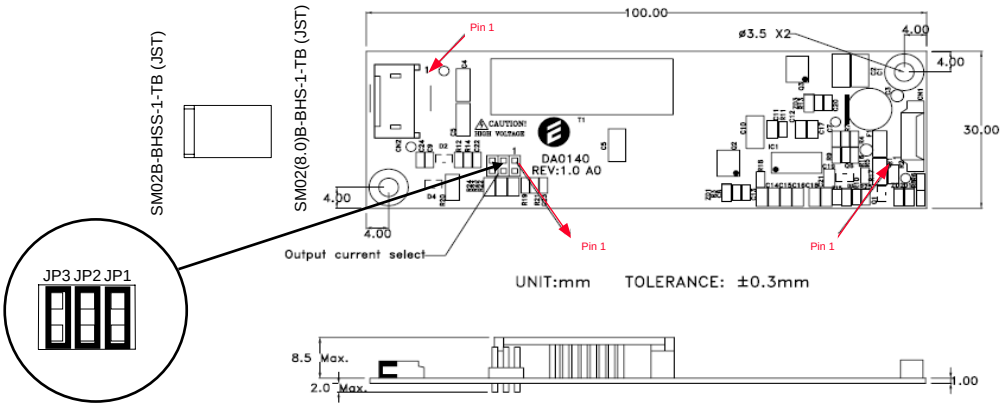
FEATURES :

Remote ON/OFF
Current balance circuit
Extra high starting Voltage
Selectable output current by jumper setting (crosslist second page)
RoHS compliant (S)

TEMPERATURE & HUMIDITY :

Operating Temperature Range	-10°C ~ +60°C
Storage Temperature Range	-20°C ~ +85°C
Humidity	95 %RH max

DIMENSIONS : L x B x H 100 x 30 x 8.5 mm



Unit : mm
Weight :15 (g) typ.

Note: Please use plastic screw in case of a non-insulating mounting base!

ORDER KEY :

With order of this Inverter please give the following key.
-1: for SM02(8.0)B-BHS-1-TB (JST)
-2: for SM02B-BHSS-1-TB (JST)

For example PS-DA0140-01-1 (S)

Components

No.	Part Description	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1mm
2	Connector CN1	1	53261-0690	Molex or equal
3	Connector CN2	1	SM02(8.0)B-BHS-1-TB	JST or equal
		1	SM02B-BHSS-1-TB	JST or equal

Power Systems – The Power Solution

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(PRELIMINARY INFORMATION)

Input side CN1:

Pin No.	Symbols	Ratings
CN 1-1	Vin	10.8 ~ 13.2 Vdc
CN 1-2	Vin	10.8 ~ 13.2 Vdc
CN 1-3	Vrmt	0 ~ 0.4 = OFF / 2.5 ~ 5.0 = ON
CN 1-4	Vbr	0 ~ 5.0 Vdc
CN 1-5	GND	-
CN 1-6	GND	-

Output side CN2

Pin No.	Symbols	Ratings
CN 2-1	Vhigh	1.000 Vrms (6.0 mArms)
CN 2-2	N.C.	-
CN 2-3	Vlow	(GND)

Output Current Select Control

Jumper	JP 1	JP 2	JP 3	Output Current (± 0.5 mArms)
Short				3.5 mArms
Short				4.0 mArms
Short				5.0 mArms
Short				6.0 mArms

Crosslist:

Displays	Jumper
TX14D11VM1	JP 1
TX14D12VM1	JP 2
TX14D14VM1BAA	JP 2
TX16D11VM2	JP 2
TX18D16VM1CAB	NO JP
TX20D16VM2	NO JP
TX23D11VM2	JP 3
TX23D12VM0	JP 3

■ = JUMP (SHORT J1=Short 1-2, J2=Short 3-4, J3=Short 5-6)

ELECTRICAL CHARACTERISTICS : (for 6mArms selection)

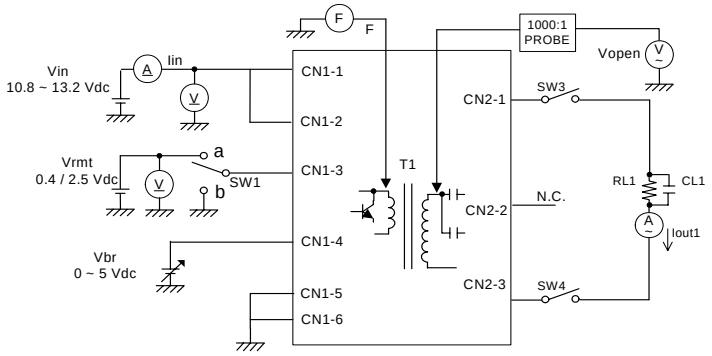
Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	0.0	-10 ~ +60	5.5	6.0	6.5	mArms	Duty 100%
Output Current	Iout	12±0.6	5.0	-10 ~ +60	-	20	-	%	
Input Current	Iin	12±1.2	0.0	-10 ~ +60	-	0.67	0.75	Adc	
Frequency	F	12±1.2	0.0	-10 ~ +60	50	60	70	kHz	
Open Circuit Voltage	Vopen	11.4	0.0	-10 ~ +60	2.200	2.400	2.700	Vrms	
No Load Shotdown	Tsd	12±1.2	0.0	-10 ~ +60	1.0	-	-	sec	without load

Note 1 : Please keep minimum of 2mm clearance (all directions) between inverter high voltage area as marked on mechanical drawing and any conductors.

Note 2: Open circuit on all lamps for more than 3 sec., will shut the inverter down.

Note 3: Before apply any control signal into inverter, please provide Vcc first. Please follow the reversed sequence during power off. Power off control signal first, then power off Vcc.

TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

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