

T-57-11

CAP SERIES DC TO DC CONVERTERS

This is an on-board power supply being more compact but providing more power. TDK has developed the small and thin type high-power DC to DC converter by applying its unique double-side mounting PC board and circuit design techniques. We provide four types; two for 8W power and two for 10W power. All types are 13 mm [.512 inches] height. By combining the power ferrite core and dedicated bobbin developed with our materials technology using our unique winding technology, we have realized a compact transformer, further reducing the size of the power supply. The completely isolated input and output circuits allow you to freely select the connecting conditions on the secondary. The metal-case prevents the leakage of EMI and greatly reduces heat radiation. TDK has provided a wide range of DC to DC converters. They are compact and highly integrated and can be mounted on boards with high reliability (CAP series MTF: One million hours or longer) and free selection.

FEATURES

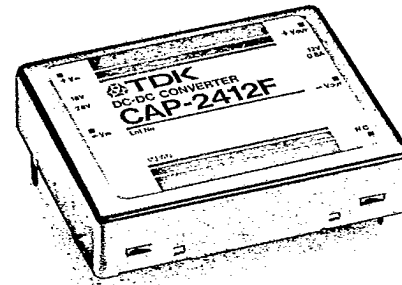
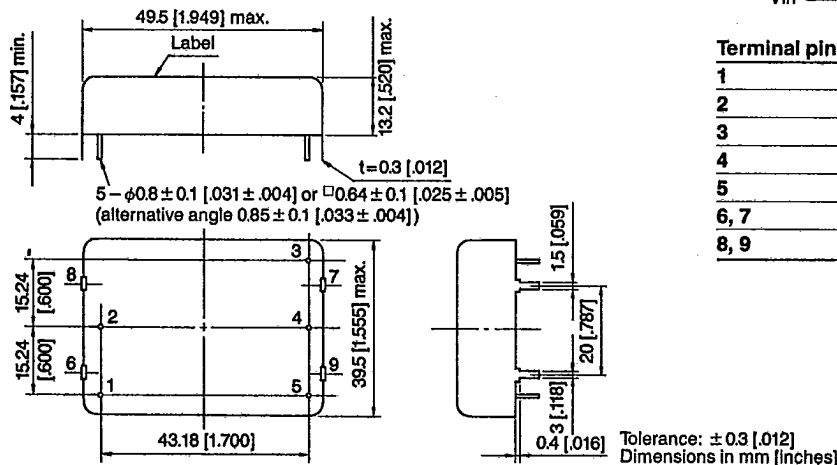
- Completely shielded by metal case.
- Highly stable output voltage.
- Input and output floating.
- Peripheral parts are not required.
- Shortcurrent protection is included.

APPLICATIONS

Main power supply, voltage polarity conversion, and power floating for the following:

- Computers and terminal devices.
- OA and FA equipment.
- Electronics measuring equipment and communications equipment (wire and radio communications).
- ME equipment and other electronics devices.

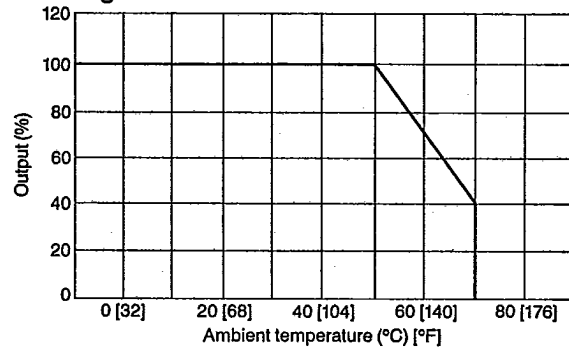
SHAPES AND DIMENSIONS



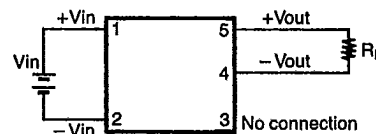
TEMPERATURE AND HUMIDITY RANGES

Operating temperature	-10 to 70°C [+14 to +158°F] (at 50°C [122°F] or above, refer to derating curve.)
Storage temperature	-20 to +85°C [-4 to +185°F]
Humidity	95% max. (Maximum wet-bulb temperature: 38°C [100.4°F])

Derating curve



Terminal pin configuration



Terminal pin No.	Connection
1	+Vin
2	-Vin
3	No connection
4	-Vout
5	+Vout
6, 7	Case connection
8, 9	Standing off

TDK DC to DC Converters, DC to AC Inverters

8W and 10W

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ELECTRICAL CHARACTERISTICS

T-57-11

Part No.	Input voltage (V)	Output* ¹ voltage (V)	Output current (mA)	Ripple* ² and noise voltage (% p-p)	Output voltage stability depending on:			Efficiency* ³ (%) min.	Input-output isolation	Weight (g)
					Input (%) typ.	Load (%) typ.	Temp. (%/°C) typ.			
CAP-2405F	18 to 28	5 ± 5%	0 to 1600	100	1.0	1.0	0.01	78	Dielectric strength 1 minute 500Vac Resistance 50MΩ min. 500Vdc	42
CAP-2412F	18 to 28	12 ± 5%	0 to 800		1.0	1.0	0.01			
CAP-4805F	36 to 56	5 ± 5%	0 to 1600		1.0	1.0	0.01			
CAP-4812F	36 to 56	12 ± 5%	0 to 800		1.0	1.0	0.01			

*¹ Output voltage: input change (18 to 28V or 36 to 56V), includes load (0 to 100%), temperature (−10 to +70°C [+14 to +158°F]).

*² Measured with a 50MHz bandwidth.

*³ Input voltage (typ.), Output current (max.)