

PAYTON 500W SMPS MODULE

Functional specs

Date : 31/12/17

1. Generic Type : T71AC-16-4C + I71-3uH/3.1Arms.
2. Total output power : **500 W (24Vdc/20.83Ade).**
3. Operating frequency of transformer : 220 ÷ 1000 kHz.
4. Input voltage of power stage : 340 ÷ 400 Vdc.
5. Topology : **LLC, Half Bridge.**
6. Ambient temperature range : -40 ÷ +55°C.
7. Estimated total power losses : 7.5W @ 480kHz
8. Operational temperature range : -40 ÷ +155°C.
(Including Module self-temperature rise)
9. Mechanical dimensions : Length – 35mm max.
(For reference only) : Width – 26 mm max.
: Height – 25 mm max.

PAYTON 500W SMPS Transformer

Functional specs

1. Generic Type	: T71AC-16-4C
2. Input voltage of transformer	: 200 Vdc.
3. Operating duty cycle, Fixed	: 1 (2x0.5)
4. Volt-second product, max.	: 910 (2x455) V- μ sec.
5. Pri. to half sec. ratio (Sec. current, max. – 18Arms.)	: 16 : 2
6. Primary current, max.	: 3.3Arms (5A peak)
7. Primary magnetizing inductance	: 50 \pm 15% (Measured on primary side with secondary Open)
8. Dielectric strength (Pri. To Sec.)	: 3000Vrms.
(Pri. to Core.)	: 2500Vrms.
(Sec. to Core)	: 500Vdc.
9. Estimated power losses	: 7.9W @ 220kHz 7.2W @ 480kHz 9W @ 1000kHz

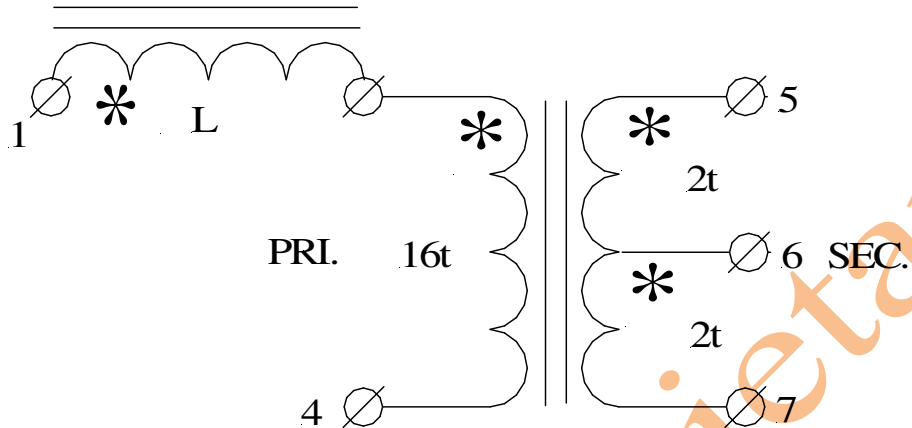
PAYTON 2 μ H & 3.3Arms Inductor

Functional specs

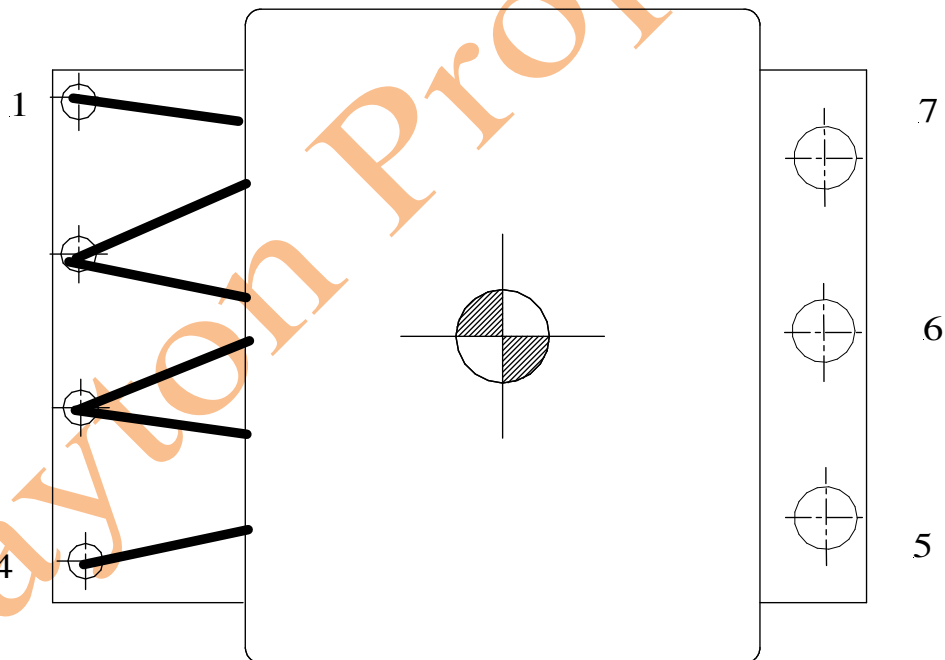
1. Generic Type	: I71-2 μ H/3.3Arms.
2. Inductor application	: Resonance inductor
3. Inductance L @ 0 \div 8 A (Measured on primary side of the module, with whole secondary side, terminals 5-7, shorted.)	: 2 μ H \pm 20%
4. Max. Inductor current	: 3.3Arms (5Apeak)
5. Dielectric strength (L to core)	: 2500Vrms;
6. Estimated power losses	: 0.1W @ 220kHz 0.3W @ 480kHz 1W @ 1000kHz

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Electrical diagram.



Terminals layout sketch (preliminary; top view; not to scale)



Note: Terminations made of through hole pins.