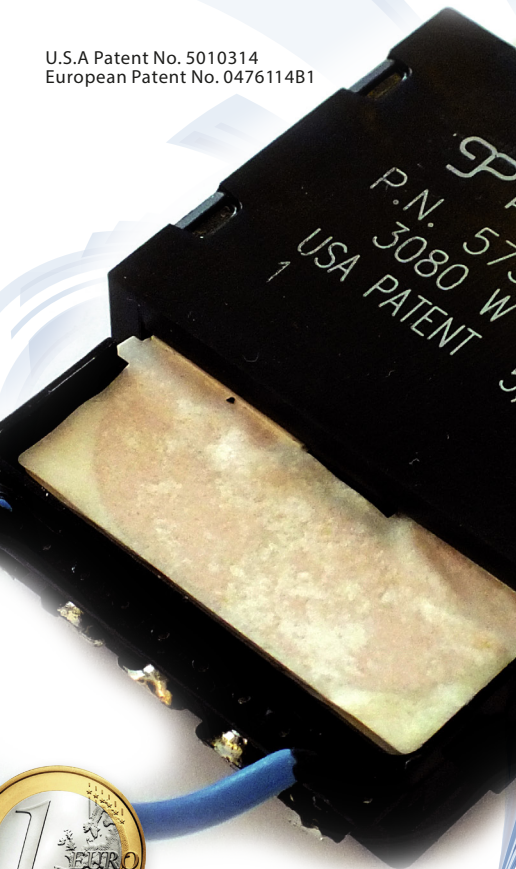


SIZE 1000

Power Capacity 1 to 10kW



U.S.A Patent No. 5010314
European Patent No. 0476114B1



Description

Payton SIZE 1000 provides a patented planar isolation solution for high power applications (such as welding, induction heating etc.) providing high efficiency, low EMI, excellent repeatability, low profile and weight with an operating temperature range of -40°C to +130°C.

1. Transformer Application

POWER CAPACITY	DIMENSIONS (mm)	TYPICAL WEIGHT	DIELECTRIC ISOLATION	OPERATING VOLTAGE	OPERATING CURRENT (RMS)
1kW, forward at 50 kHz 10kW, full bridge at 250 kHz	L=90-150 W=65-90 H=15-40	500 gr. - 1 kg.	500 V _{DC} - 4k V _{rms}	1000 V _{peak} max.	1000 A max.

Typical efficiency: 97-99%

Recommended frequency range: 50 kHz – 2.0 MHz.

Topologies:

Full bridge; Half bridge; Push-Pull; Forward; Flyback; Boost; Buck; Resonant topologies (in order of preference).

Mounting Options: a. Horizontal, b. Vertical

2. Inductor Application

STANDARD A _L (nH/t ²)	1600	1000	630	400	315	250	160
TYPICAL VALUE OF MAX. Amper Turns	94	144	250	376	445	570	695

A_L values not listed are available upon request.

3. Typical Thermal Impedance For Different Cooling Conditions

NATURAL COOLING (Hot Spot - Air)	BLOWING AIR 3m/sec (Hot Spot - Air)	ONE SIDE HEATSINK (Hot Spot - Heatsink)	TWO SIDES HEATSINK (Hot Spot - Heatsink)
4.2°C/W	2.5°C/W	1.6°C/W	0.8°C/W

