

TRANSFORMER DESIGN | EXAMPLE - PQC2029

ELECTRICAL SPECIFICATIONS

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|---|--------------------------|
| Topology | LLC Resonant |
| Input Voltage | 400VDC |
| Output Power (Output Voltage/Current After Rectification) | 10kW max. (400VDC/25ADC) |
| Secondary Current Nom. Rms Half Sec. Current | 19A RMS sinusoidal |
| Turns Ratio - N_p/N_s1+N_s2 | 8T/8T + 8T |
| Switching Frequency | 100kHz fixed |
| Duty Cycle Max. | 100% (50% + 50%) |
| Efficiency At Full Power (Calculated) | 99.5% (50W losses) |
| External Heatsink Temperature Max. | +80°C |
| Temp. Rise Hot Spot External Heatsink*, Max. | +25°C |

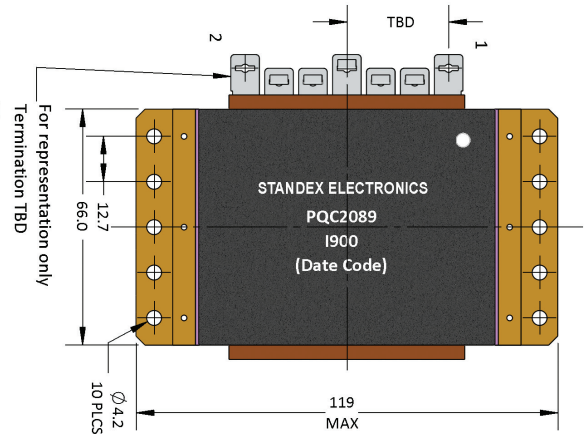
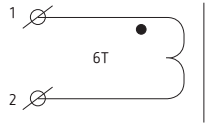
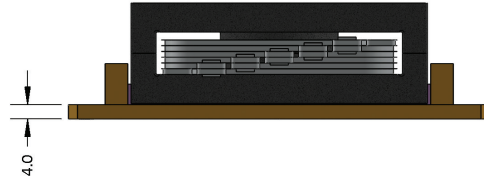
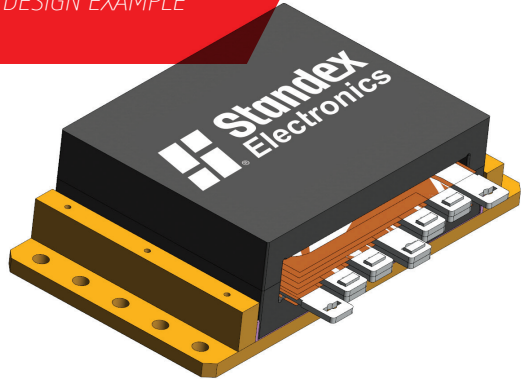
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|--|------------------|
| Minimum Isolation Voltage | |
| Primary To Secondary | 2500VAC for 1min |
| Primary To Core | 2500VAC for 1min |
| Secondary To Core | 2500VAC for 1min |
| Primary Inductance, N_p , Min. | 1000 μ H |
| Primary Resistance, N_p , Max. | 5mOhm |
| Secondary Resistance, N_s , Max. | 10mOhm |
| Leakage Inductance 1-2/3-4-5 Shorted, Typ. | 0.7 μ H |
| Weight Range | 800-1600grams |

NOTES:

- 1) CUSTOM TOOLED CORE UNIQUE TO STANDEX PRODUCT OFFERING
- 2) LARGE CROSS-SECTIONAL AREA REDUCES MAGNETIC FLUX DENSITY
- 3) MULTI LAYER PCB'S REDUCE AC LOSSES

SIZE 900
10kW-20kW

DESIGN EXAMPLE



INDUCTOR DESIGN | EXAMPLE - PQC2089

ELECTRICAL SPECIFICATIONS

| | | | |
|--|------------|--|------------------|
| Inductance At Rated Current | 12 μ H | Temp. Rise Hot Spot Baseplate, Typ. | +19 $^{\circ}$ C |
| Rated Current | 120ADC | Heatsink/Baseplate Temperature Max. | +70 $^{\circ}$ C |
| Ripple Frequency | 100kHz | Resistance Max. | 2mOhm |
| Minimum Isolation Voltage (Winding To Core/Heatsink) | 500VDC | Total Losses At Max. Current (Estimated Calc.) | 25W |

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