



SIZE 2100
10kW-100kW
DESIGN EXAMPLE



TRANSFORMER DESIGN | EXAMPLE - PQC2115

ELECTRICAL SPECIFICATIONS	Topology	LLC ZVS Converter	Temp. Rise Hot Spot Ambient Max. (Transformer Clamped To Heatsink)	+45°C
	Input Voltage	730-880VDC	Minimum Isolation Voltage	
	Output Power (Output Voltage/Current After Rectification)	60kW max. (400VDC / 75A)	Primary To Secondary	1750VAC
	Secondary Current Nom. Rms Half Sec. Current	19A RMS sinusoidal	Primary And Secondary To Core	2000VAC
	Turns Ratio - Np/Ns1/Ns2	10T/4T/4T	Primary Inductance, Np, Min.	39µH ±5%
	Switching Frequency	80kHz (60-104kHz range)	Primary Resistance, Rdc, Np, Max.	3m0hm
	Duty Cycle At Vin=800V Vout=400V, Max.	99% after rectification	Secondary Resistance, Rdc, Ns1 or Ns2, Max.	2m0hm
	Efficiency At Full Power (Calculated)	99.5% (150W losses)	Leakage Inductance 1-2/Secondary Shorted, Typ.	0.5µH
	External Heatsink Temperature Max.	+65°C	Thermal Impedance - Hotspot External Heatsink	0.3°C/W
	Ambient Temperature	+45°C	Weight (Approximate)	2000grams

- NOTES:
- 1) INDUSTRY BEST FORM FACTOR TO POWER RATIO
 - 2) INHERENT ISOLATION DUE TO PCB WINDINGS
 - 3) UNIQUE TERMINATION OPTIONS AVAILABLE FOR CUSTOMIZATION
 - 4) MULTI LAYER PCB'S REDUCE AC LOSSES