Power Transformer Design Checklist

Company Name:		**Date:**	
Contact Person:		**Address:**	
Tel.:		**Email:**	
Application:	☐**New Project**		
	☐**Replacement[1] Type:**		
	Application[2] :		
Safety Requirements (please specify standards,use p.2):	☐**Welder :**	**Project Name,Description:**	
	☐**Railway:**		
	☐**UPS :**		
	☐**Aerospace:**		
	☐**Other:**		
ExpectedAnnual Usage [pcs]:	**Current Year:**	**Target Price [$]:**	
	Next Year:		
	Year 3:	**Product Life Cycle [Years]:**	
	Year 4:		
SamplesQuantity:	**pcs.**	**Desired SampleDate:**	
QM-Requirement:	☐**ISO 9000** ☐**TS16949** ☐**Others:**		

1) e.g. NiFe core, ferrite core. **2) e.g. power supply, inverter, solar, drive, UPS, welding.**

Circuit Topology[3]

☐**Forward Transformer** ☐ **…with demagnetization winding** ☐ **…with 2 switching transistors**	☐**Push / Pull Transformer** ☐ **…full bridge** ☐ **…half bridge** ☐**…half bridge center-tapped4)**	☐**Flyback Transformer** ☐ **…trapezoidal current** ☐ **…triangular current**

3) Use p. 2 to draw circuit diagram. **4) Two primary side windings.**

Transformer Secondary Windings

No. of Windings:		Specify Center Taps (use p.2)	
Output Voltage(s) with Load	____ / ____ / ____	Output Current(s) with Load	____ / ____ / ____
[Volt, 1/2/3/4/5/6]:	____ / ____ / ____	[Ampere, 1/2/3/4/5/6]:	____ / ____ / ____

Insulation & Environmental Requirements

Insulation Type:	☐Basic ☐Reinforced ☐Other:		
Insulation Voltage PRI–SEC [Vrms]:	☐None ☐EN: _____ ☐UL: _____		
Electrical Standards:	☐Others:		
System Voltage (e.g. 230V,390V) [Vrms]:		Partial Discharge Voltage PRI-SEC [Vrms]:	
Working Voltage (across xfmr) [Vrms]:		Partial Discharge Voltage SEC-SEC [Vrms]:	
Recurring Peak Voltage [V]:		Partial Discharge Voltage PRI - Casing [Vrms]:	
Pollution Degree (Typically 2):		Other:	
Environmental Requirements:	Vibration: Hunidity: Dust:		

Important Operational Characteristics

Nominal Power [W]:		Operating Frequency[kHz]:	
Input Voltage Range [Volt]:	_____ to _____	Maximum Pulse Width [%]:	
Ambient Temperature Range [°C]:	_____°C to _____°C	Convection Cooling:	☐
Max. Operating Temperature [°C]:		Forced Cooling:	☐___ [K/W]
Max. Dimensions: W × D × H [mm]:	____ x ____ x ____	Heat Sink:	☐____ [m/s]
Desired Contacts:	☐None (Tinned Leads) ☐Cable Lugs ☐Other:		
Lead Length[mm]:			

Additional Specifications

Test Voltage PRI–SEC [Vrms] /Time [s]:	_____ /_____
Test Voltage SEC–SEC [Vrms] /Time [s]:	_____ /_____
Core (if already defined):	

Circuit Diagram:

Additional Information: