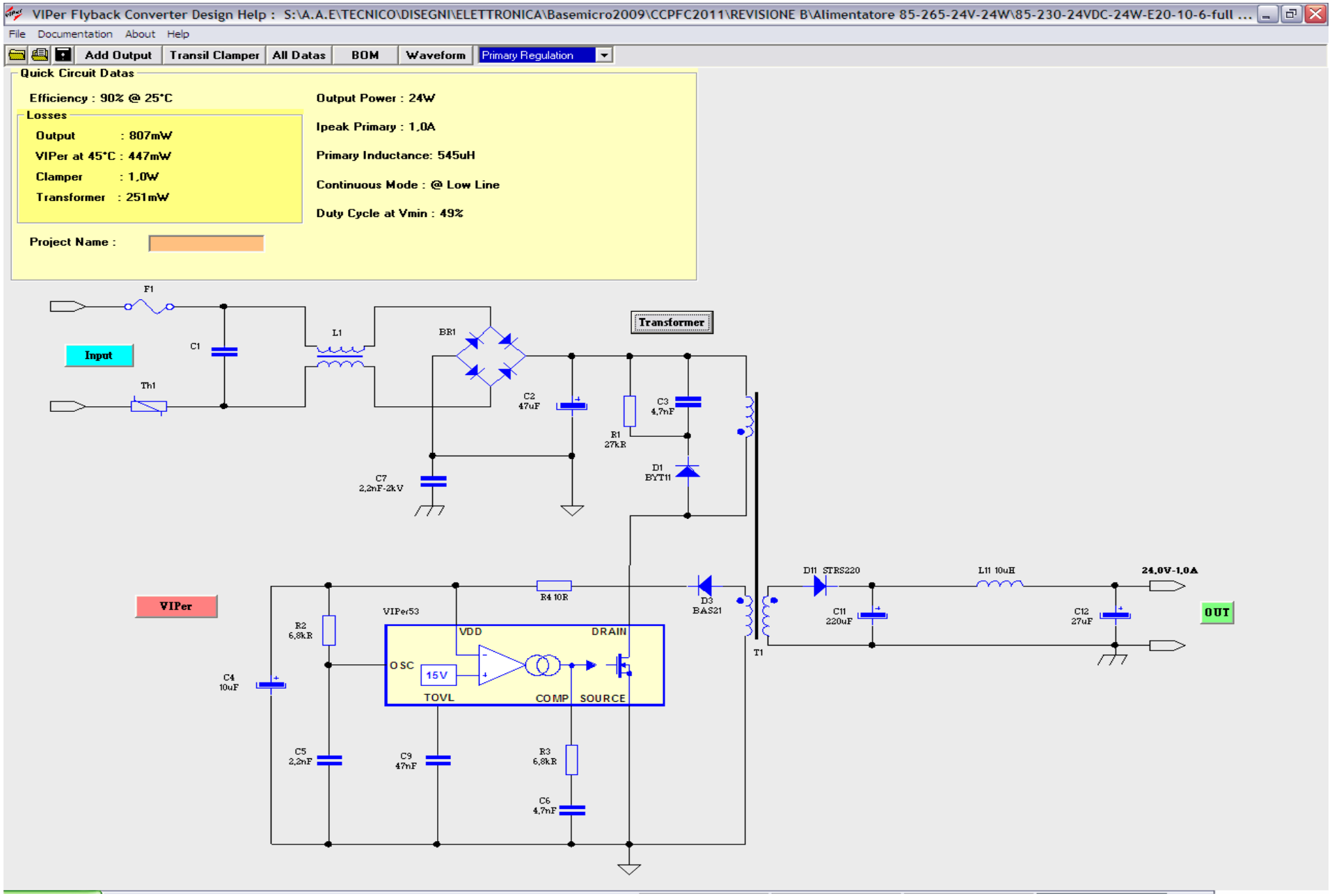
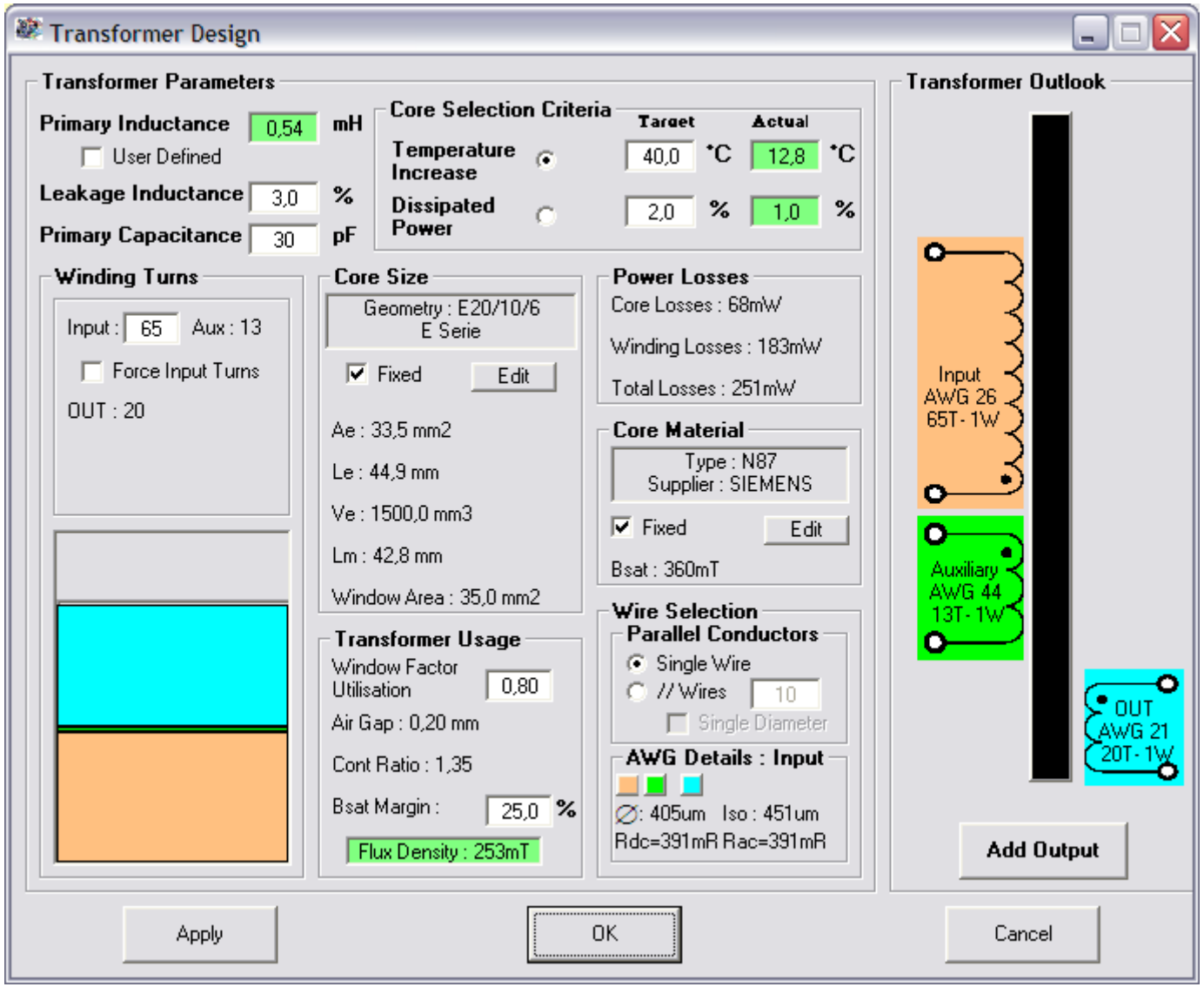

VIPer Flyback Converter Design Help : S:\A.A.E\TECNICO\DISEGNI\ELETTRONICA\Basemicro2009\CCPFC2011\REVISIONE B\Alimentatore 85-265-24V-24W\85-230-24VDC-24W-E20-10-6-full ...
File
Documentation
About
Help
Add Output
Transil Clamper
All Datas
BOM
Waveform
Primary Regulation
Quick Circuit Datas
Efficiency : 90% @ 25°C
Losses
Output : 807mW
VIPer at 45°C : 447mW
Clamper : 1,0W
Transformer : 251mW
Output Power : 24W
Ipeak Primary : 1,0A
Primary Inductance: 545uH
Continuous Mode : @ Low Line
Duty Cycle at Vmin : 49%
Project Name :
Input
Transformer
VIPer
F1
C1
L1
BR1
Th1
C2
47uF
C3
4,7nF
R1
27kR
D1
BYT11
C7
2,2nF-2kV
R4 10R
D3
BAS21
D11 STRS220
L11 10uH
24,0V-1,0A
OUT
C11
220uF
C12
27uF
T1
VIPer53
VDD
DRAIN
OSC
15V
TOVL
COMP
SOURCE
R2
6,8kR
C4
10uF
C5
2,2nF
C9
47nF
R3
6,8kR
C6
4,7nF


Transformer Design
Transformer Parameters
Primary Inductance
0,54
mH
User Defined
Leakage Inductance
3,0
%
Primary Capacitance
30
pF
Core Selection Criteria
Target
Actual
Temperature Increase
40,0
°C
12,8
°C
Dissipated Power
2,0
%
1,0
%
Winding Turns
Input : 65
Aux : 13
Force Input Turns
OUT : 20
Core Size
Geometry : E20/10/6
E Serie
Fixed
Edit
Ae : 33,5 mm2
Le : 44,9 mm
Ve : 1500,0 mm3
Lm : 42,8 mm
Window Area : 35,0 mm2
Power Losses
Core Losses : 68mW
Winding Losses : 183mW
Total Losses : 251mW
Core Material
Type : N87
Supplier : SIEMENS
Fixed
Edit
Bsat : 360mT
Transformer Usage
Window Factor Utilisation
0,80
Air Gap : 0,20 mm
Cont Ratio : 1,35
Bsat Margin :
25,0
%
Flux Density : 253mT
Wire Selection
Parallel Conductors
Single Wire
// Wires
10
Single Diameter
AWG Details : Input
∅: 405um Iso : 451um
Rdc=391mR Rac=391mR
Transformer Outlook
Input
AWG 26
65T - 1W
Auxiliary
AWG 44
13T - 1W
OUT
AWG 21
20T - 1W
Add Output
Apply
OK
Cancel