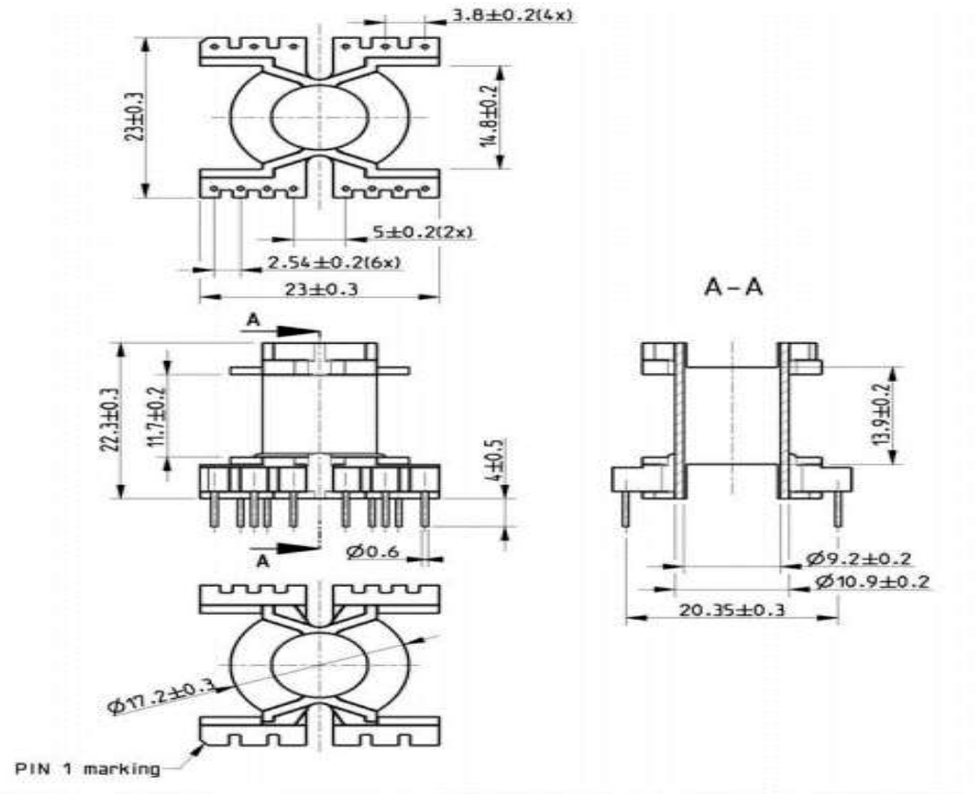
	Vac (min)	305	V
	Vac (max)	530	V
	Fline	50	Hz
	Fsw	1.30E+05	Hz
	Vout1	5	V
	Iout1	1	A
	Vout2	24	V
	Iout2	1.00E-01	A
	Vaux	18	V
	Iaux	6.00E-02	A
	Vtap	5	V
	Itap	5.00E-02	A
	Pout	8.73E+00	W
	Pin	1.09E+01	W
	Vdc(min)	422.818	V
	Vdc(max)	749.533	V
	Reflected Voltage across Flyback Transformer Primary (Vr)	150	V
	Dmax	0.262	
	Dmin	0.167	
	Ipri	0.197	A
	Lprimax	4.32E-03	H
	Np	78.281	
	Consider Primary Turns Np	**78**	Turns
	Lpri for Considered Np	4.67E-03	H
	Ipri-rms	0.058	A
	35 AWG (0.142 mm dia)		
	Conductor Copper Area	0.01582	mm2
	Current Density(Jp)	3.681	A/mm2
	Vs1	7.00	
	Ns1	3.64	
	Consider Ns1	**4**	**Turns**
	Is1p	3.844	A
	Is1rms	1.907	A
	25AWG wire (0.455mm dia) 3 in parallel		
	Conductor Copper Area	0.4875	mm2
	Current Density(Js1)	3.911	A/mm2
	Vs2	26.5	V
	Ns2	13.78	
	Consider Ns2	**14**	**Turns**
	Is2p	1.10	A

	Is2rms	0.545	A
	Conductor Copper Area	0.1281456	
	Current Density(Js2)	4.251	A/mm2
	26AWG wire 0.404mm dia		
	Vaux	18	V
	Naux	**9.36**	
	Consider Naux	**10**	**turns**
	Iauxp	1.538	A
	Iauxrms	0.76	A
	Conductor Copper Area	0.205	
	Current Density(Jaux)	3.728	A/mm2
	27AWG wire 0.361 mm dia x 2		



	Min. Bobbin Width	11.7	mm
	Considered Width	7.5	mm
	Possible No. of Primary Turns/Layer	52.82	
	Considered No. of Primary Turns/Layer	39	
	Total No. of Primary Layer	**2**	
	Effective Build	0.284	mm
	5 mil Nomax	0.127	mm
	Possible No. of Secondary1 Turns/Layer	16.50	
	Considered No. of secondary1 Turns/layer	4	
	Total No. of Secondary1 Layer	1	
	Effective Build	0.454	mm
	5 mil Nomax	0.127	mm
	Possible No. of Secondary2 Turns/Layer	18.57	
	Considered No. of secondar2 Turns/layer	14	
	Total No. of Secondary2 Layer	1	

	Effective Build	0.40386	mm
	5 mil Nomax	0.127	mm
	Possible No. Of Auxilliary Turns/Layer	20.776	turns
	Considered No. of secondar2 Turns/layer	10	turns
	Total No. of Aux. Layer	2	
	Effective Build	0.722	mm
	5 mil Nomax	0.127	mm
	Total Build on Bobbin	**2.37186**	**mm**
	Total Bobbin Build Available	3.5	mm

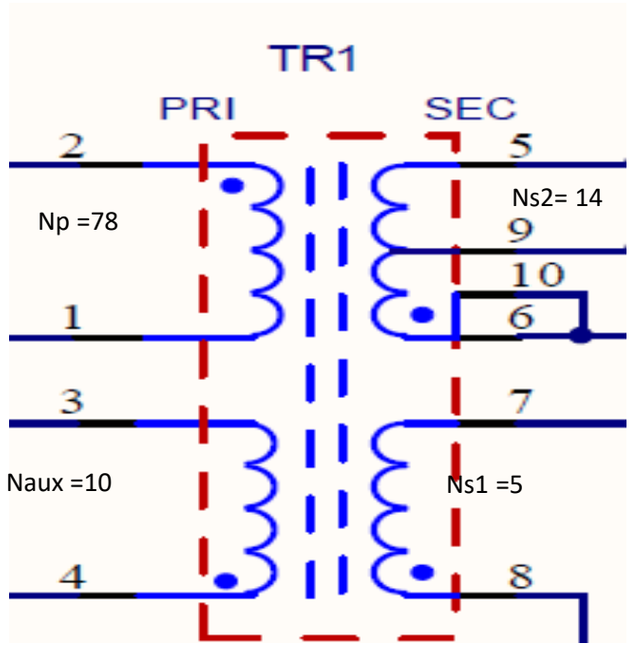
$$VDC_{min} = \sqrt{2 \times Vac^2 - \frac{Pin_{max} \times (1 - d_{charge})}{Cin \times fline}}$$

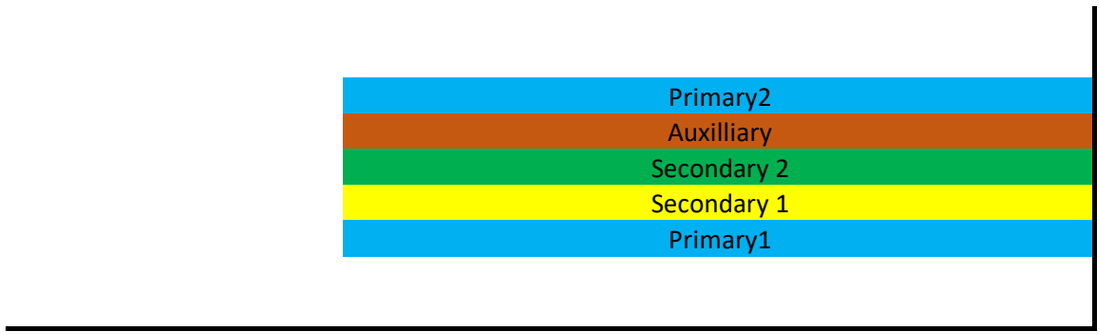
$$Ip = \frac{2 \times Pin_{max}}{VDCmin \times Dmax}$$

$$Lpri_{max} = \frac{VDCmin \times Dmax}{Ipri \times fsw}$$

$$Np = \frac{Lpri \times Ipri}{Bmax \times Ae}$$

PQ20/20 Core Considered


TR1
PRI
SEC
2
5
Np =78
Ns2= 14
9
10
1
6
3
7
Naux =10
Ns1 =5
4
8


Primary2
Auxilliary
Secondary 2
Secondary 1
Primary1