

PE Lab Expt 4

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Table:

Parameter	Load voltage (V) Ideal case	Load voltage (V) With source inductance	Load voltage (V) With source inductance and freewheeling diode
Firing angle (Degree)	30	30	30
Average load voltage (V)	183.9	183.8	183.8
Average load current (A)	8.32	8.32	8.32
Input rms current (A)	9.98	9.94	9.95
Fundamental input current	13.86	13.84	13.84
Distortion factor	0.9998	0.9998	0.9998
THD (%)	19.60%	18.07%	18.15%
Dpf	0.866	0.866	0.866
Pf	0.866	0.866	0.866
P1 (W)	2202.25	2202.25	2202.25