

# Power Electronics Laboratory

## Experiment 4

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### PART B

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)	184.9	184.6	184.2
Average load current (A)	8.32	8.31	8.29
Input rms current (A)	9.978	9.953	9.949
Fundamental input current	13.76	13.72	13.73
Distortion factor	0.99987	0.99984	0.99982
THD (%)	19.57	18.10	18.16
DPF	0.864	0.864	0.864
PF	0.827	0.827	0.827
P1 (W)			
Q1 (VAR)			
S1 (VA)			

