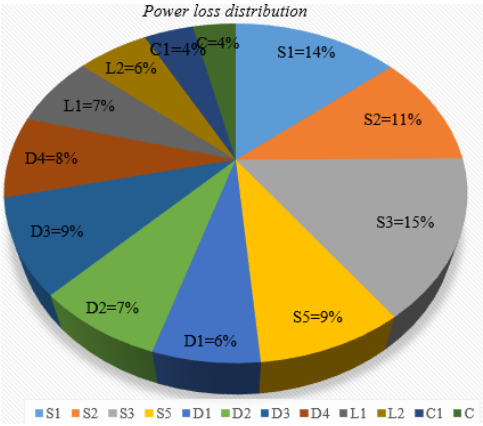
Fig. 18(a) data: The pie chart presented in Figure 18(a) is generated using values calculated from experimental data based on equations (19)–(24).

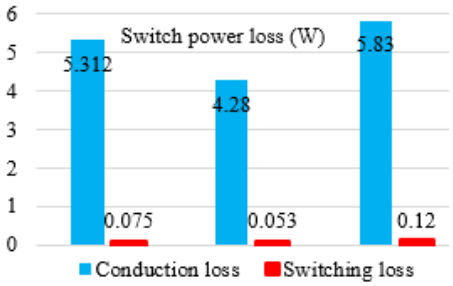
Power loss distribution	
S1	5.37
S2	4.2
S3	5.84
S5	3.3
D1	2.4
D2	2.9
D3	3.5
D4	3
L1	2.7
L2	2.3
C1	1.6
C	1.4



(a)

Fig. 18(b) data: The bar chart shown in Figure 18(b) is plotted using values calculated from experimental data based on equations (20)–(22).

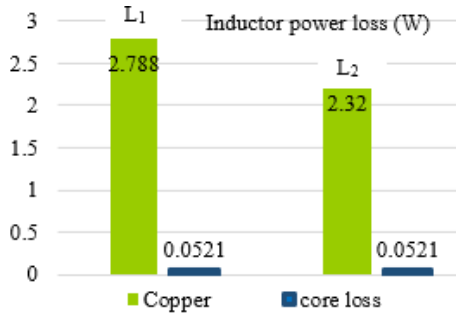
Device	Conduction loss (W)	Switching loss (W)
S1	5.312	0.075
S2	4.28	0.053
S3	5.83	0.12



(b)

Fig. 18(c) data: The bar chart presented in Figure 18(c) is generated using values calculated from experimental data based on equation (23).

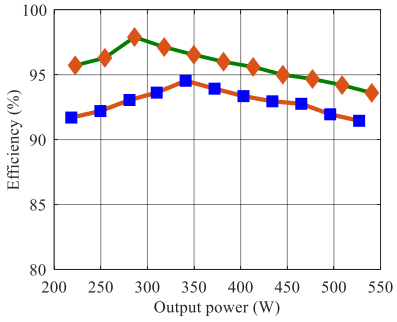
Device	Copper loss (W)	Core loss (W)
L1	2.788	0.0521
L2	2.32	0.0521



(c)

Fig. 18(d) data: The pie chart shown in Figure 18(d) is plotted using values calculated from experimental data based on equations (19)–(26).

```
a=[218.4 249.6 280.8 310 341 372 403 434 465 496 527];
b=[91.70 92.2 93.05 93.62 94.535 93.925 93.35 92.95 92.76 91.95 91.45];
plot(a,b,'-*');
hold on;
c=[222.6 254.4 286.2 318 349.8 381.6 413.4 445.2 477 508.8 540.6];
d=[95.72 96.3 97.9 97.13 96.54 96 95.6 95 94.67 94.2 93.6];
plot(c,d,'-*');
xlabel('Output power (W)'); ylabel('Efficiency (%)');
```



(d)

Fig. 18. (a) Power loss across each component, (b) Efficiency vs output power, (c) Switch power losses, (d) Inductor power losses