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Short answers

- 1 (b) (i) 1041 rpm, 810 N m (ii) 1139 rpm (iii) 1798 rpm, 108 kW, 44.4°
(c) (i) $0.179 \text{ V s rad}^{-1}$ (ii) 1.79 N m, 1120 rpm (iii) 4.08 A (iv) 1200 rpm, 89.1%
- 2 (b) (i) $0.115 \text{ V s rad}^{-1}$, 0.344 N m, 1167 rpm, 1667 rpm
(c) 22.5 s (d) (ii) 0.64° (iii) 0.00114 kg m^2
- 3 (c) 0.00373 m^3 (d) 3, 6, 48
- 4 (d) 0.794 W K^{-1} , 104 J K^{-1}