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Title: Low-dissipation Carnot-like heat engines at maximum efficient power

Authors: Singh, Varinder (/jspui/browse?type=author&value=Singh%2C+Varinder)
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Abstract: We study the optimal performance of Carnot-like heat engines working in the low-dissipation regime using the product of the efficiency and the power output, also known as the efficient power, as our objective function. Efficient power function represents a trade-off between power and efficiency of a heat engine. We find lower and upper bounds on the efficiency in the case of extreme asymmetric dissipation when the ratio of dissipation coefficients at the cold and the hot contacts approaches, respectively, zero or infinity. In addition, we obtain the form of efficiency for the case of symmetric dissipation. We also discuss the universal features of efficiency at maximum efficient power and derive the bounds on the efficiency using a global linear-irreversible framework introduced recently by one of the authors.

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