

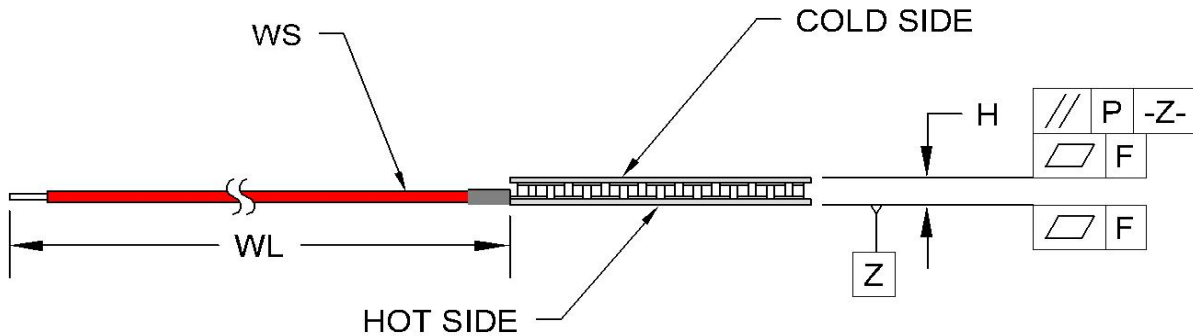
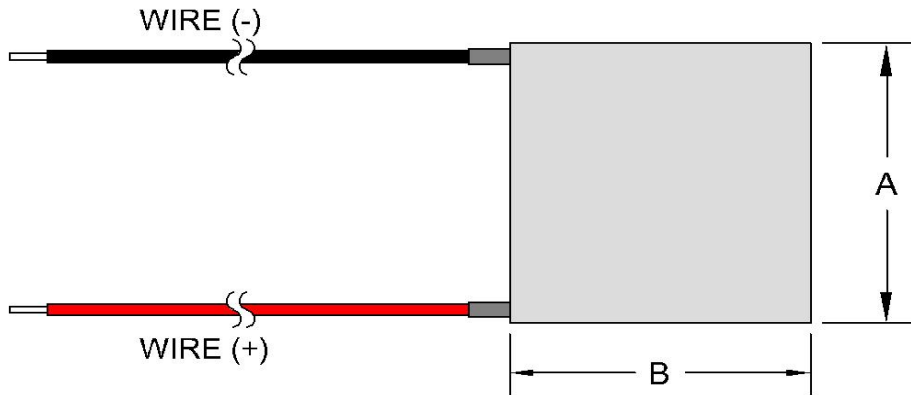
**HP-199-1.4-1.5
Thermoelectric Module
(Peltier Module)
Specifications**

| | Material Specifications (27 °C hot side temperature) | Material Specifications (50 °C hot side temperature) |
|-------------------------------|---|---|
| Vmax (V) | 24.9 | 27.6 |
| I _{max} (A) | 6.1 | 6.1 |
| Q _{max} (W) | 94.0 | 103.1 |
| DT _{max} (°C) | 70 | 79 |
| Operation/storage temperature | -40 °C to +80 °C | |

Module *material* specifications are nominal values based on the hot-side temperature indicated. Thermoelectric material parameter tolerance is +/-10%.

In no case should the module temperature be allowed to exceed its maximum operation/storage temperature.

Please review all product and technical information, *Thermoelectric Module Mounting Procedure*, FAQ's and ordering information posted on our website before purchasing or using this product.



| | |
|----------------------------------|--------------|
| Width, A (mm) | 40 +0.5/-0.2 |
| Width, B (mm) | 40 +0.5/-0.2 |
| Height, H (mm) | 4.1 ±0.05 |
| Flatness, F (mm) | 0.02 |
| Parallelism, P (mm) | 0.03 |
| Wire Size, WS (mm ²) | 0.35 |
| Wire Length, WL (mm) | 120 |

Optional Features and Notes:

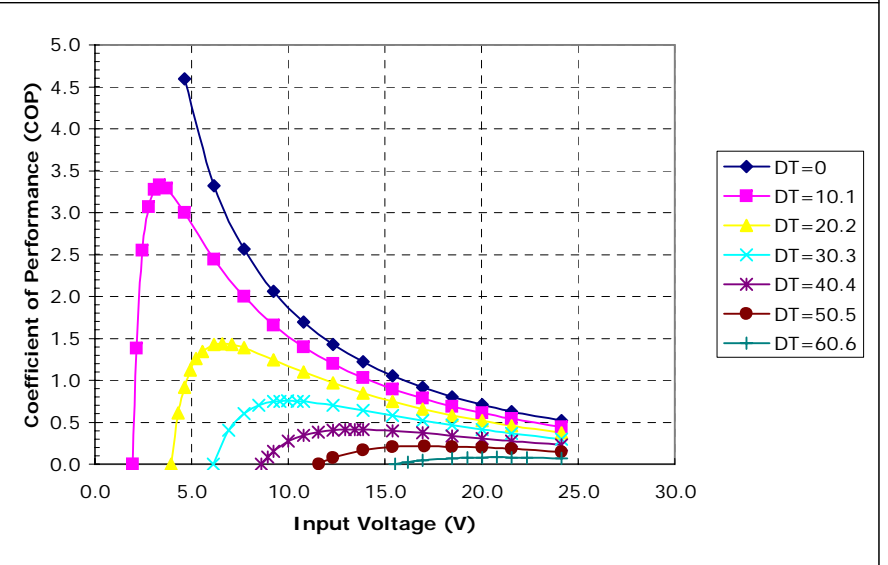
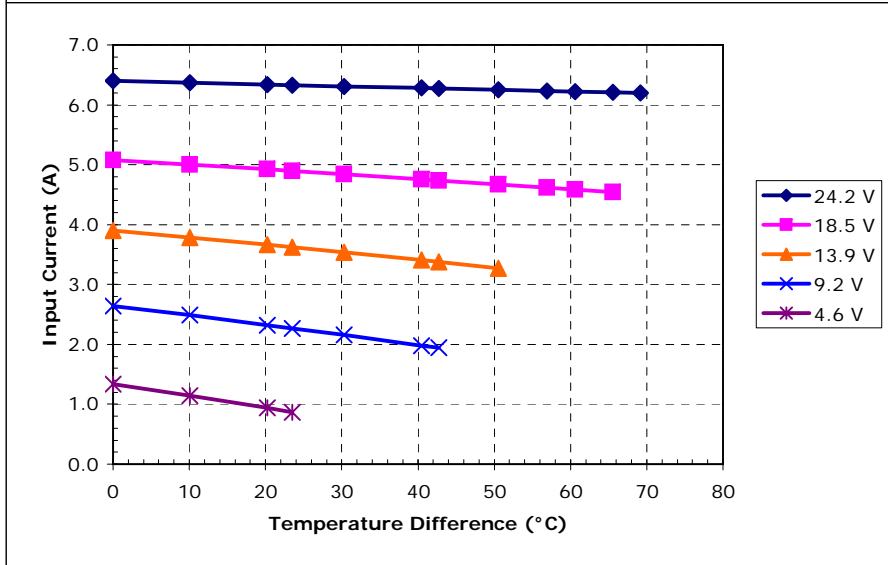
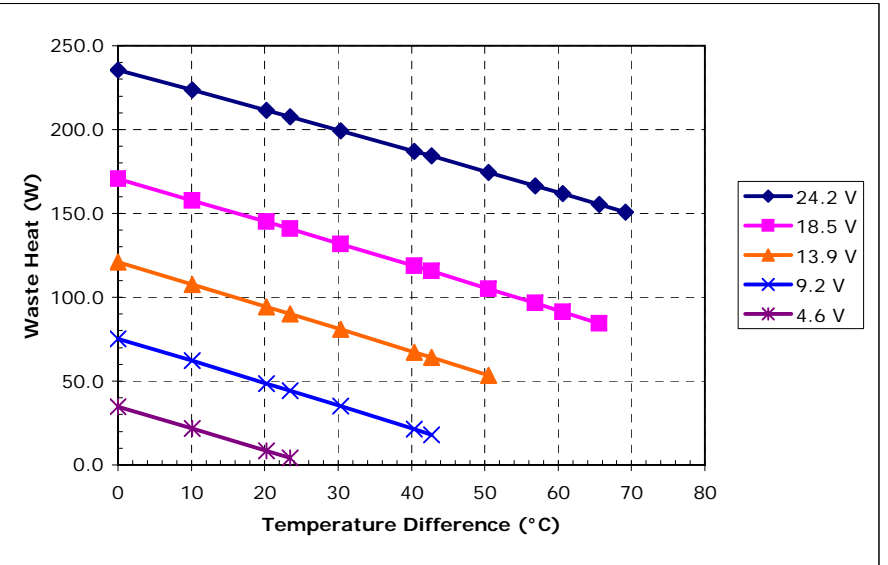
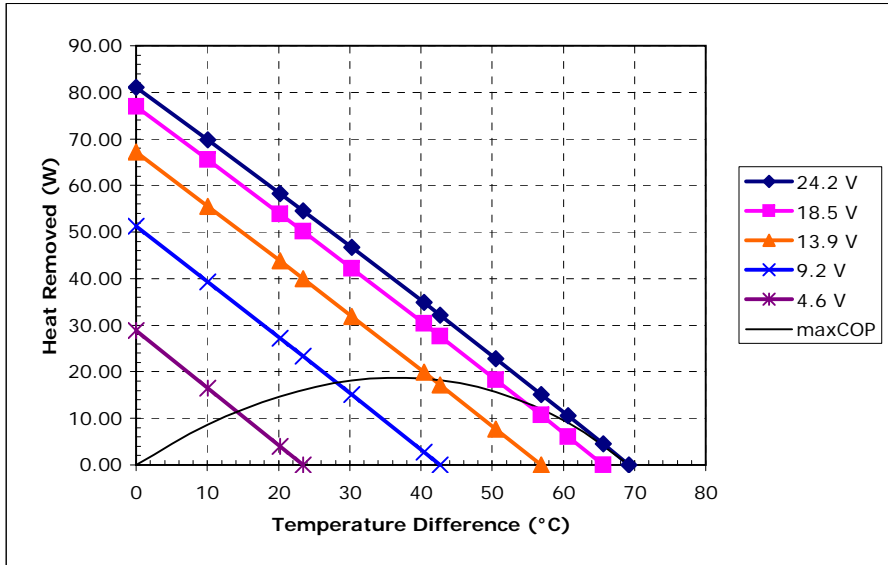
Add "P" to part number for sealing module with epoxy potting.

Performance graphs include thermal resistance of substrates.

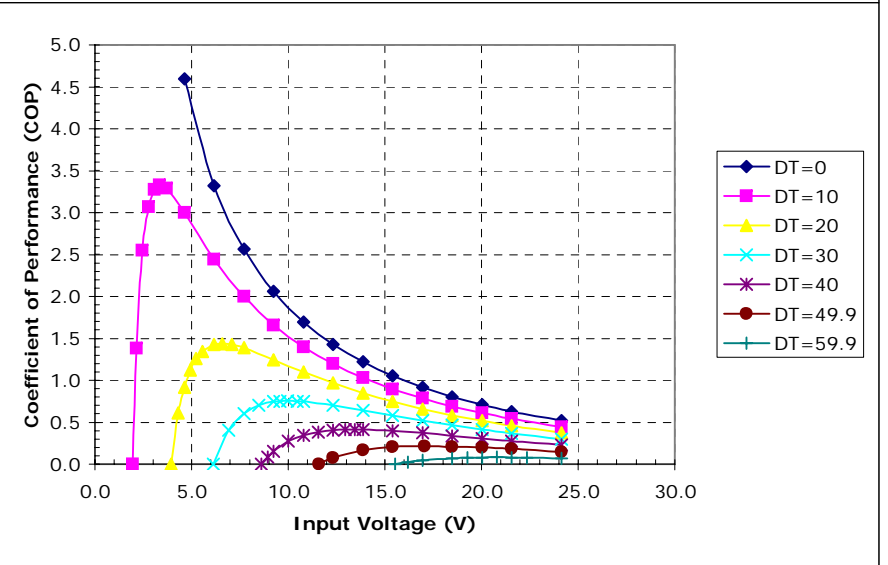
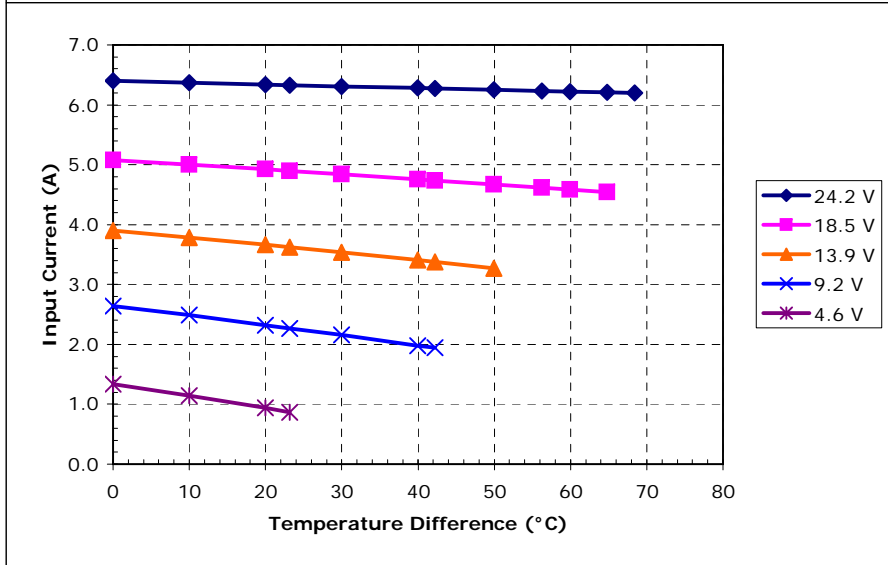
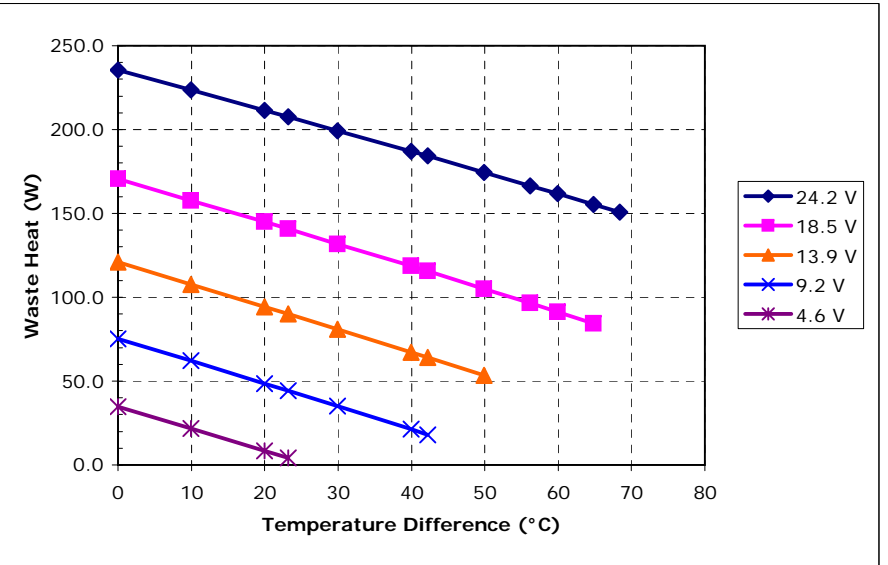
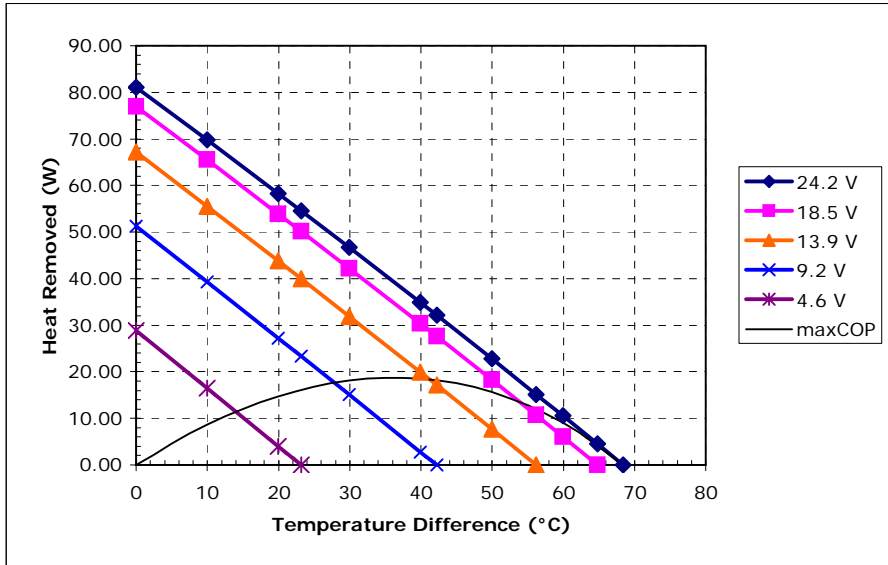
RoHS Compliant
Directive 2002/95/EC



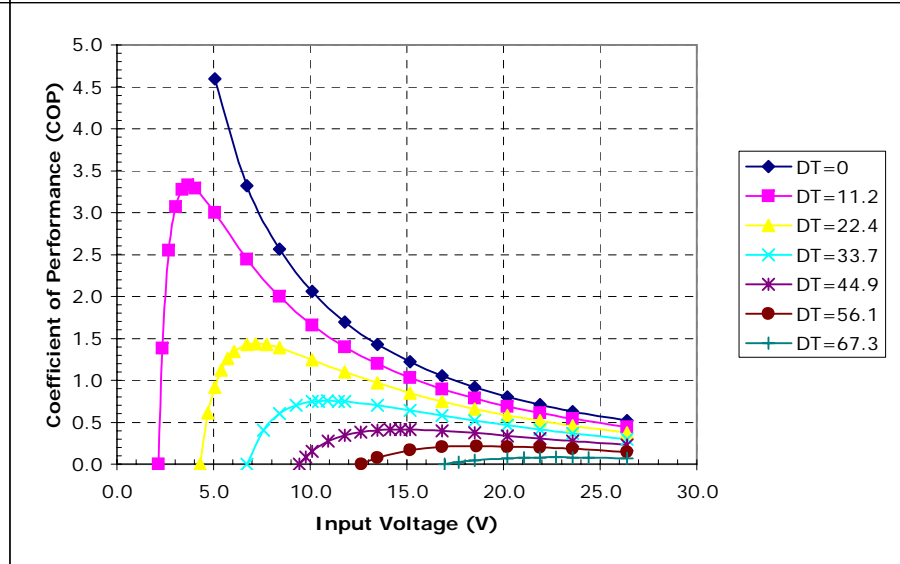
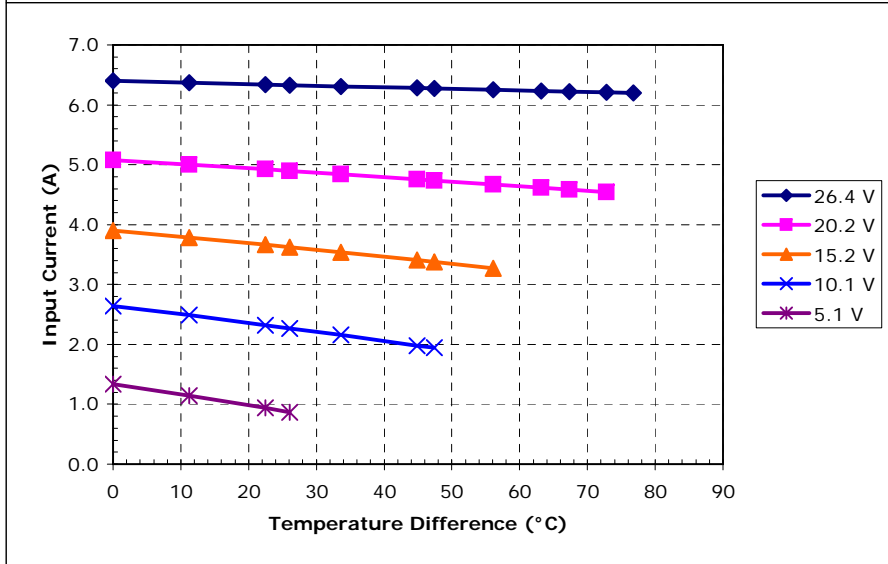
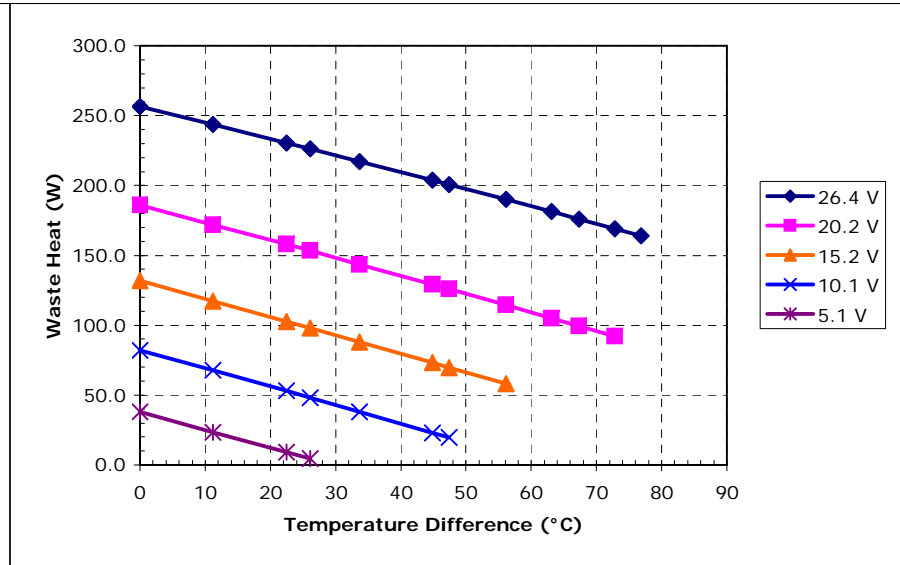
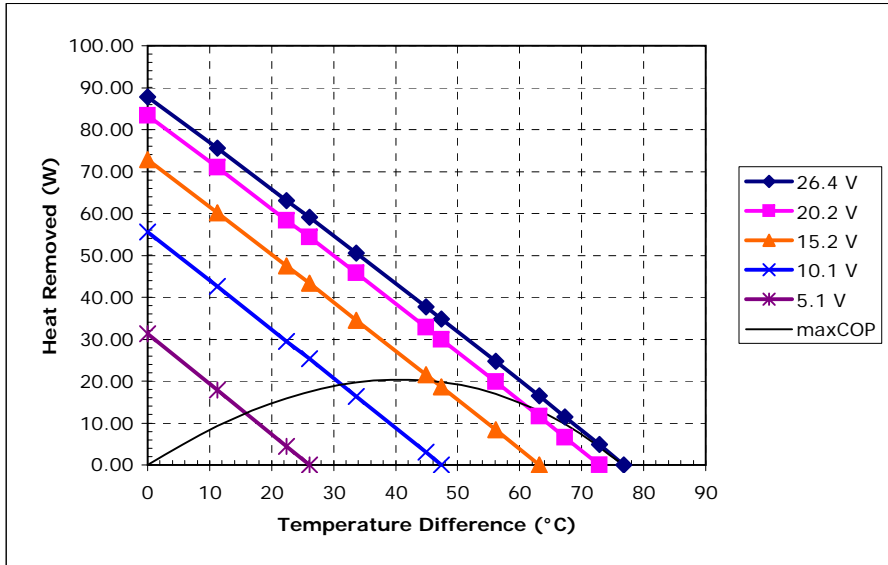
1590 Keane Drive, Traverse City, MI, 49686-8257 USA
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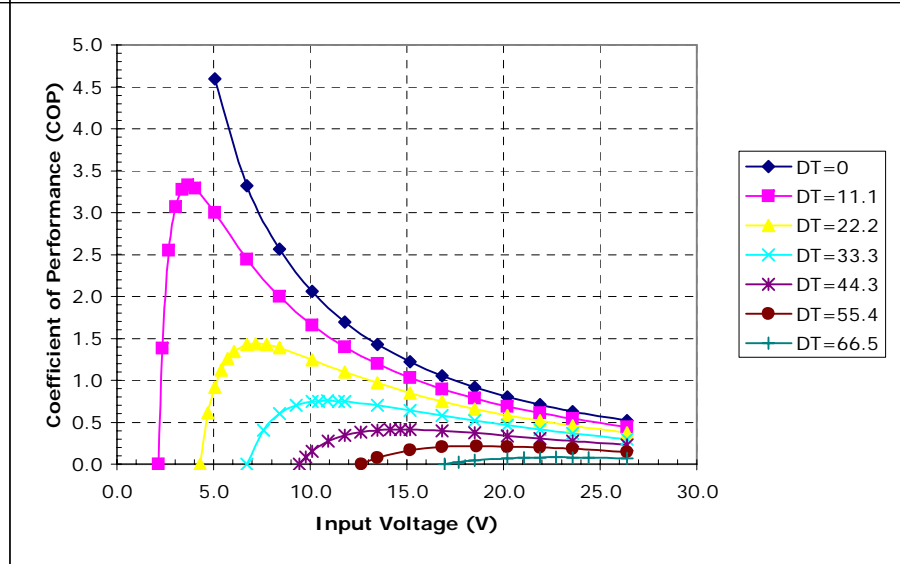
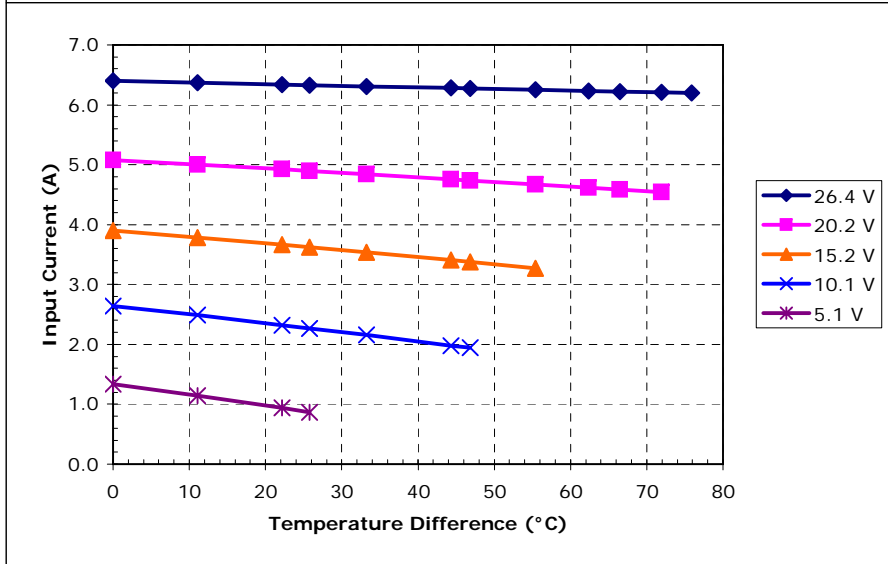
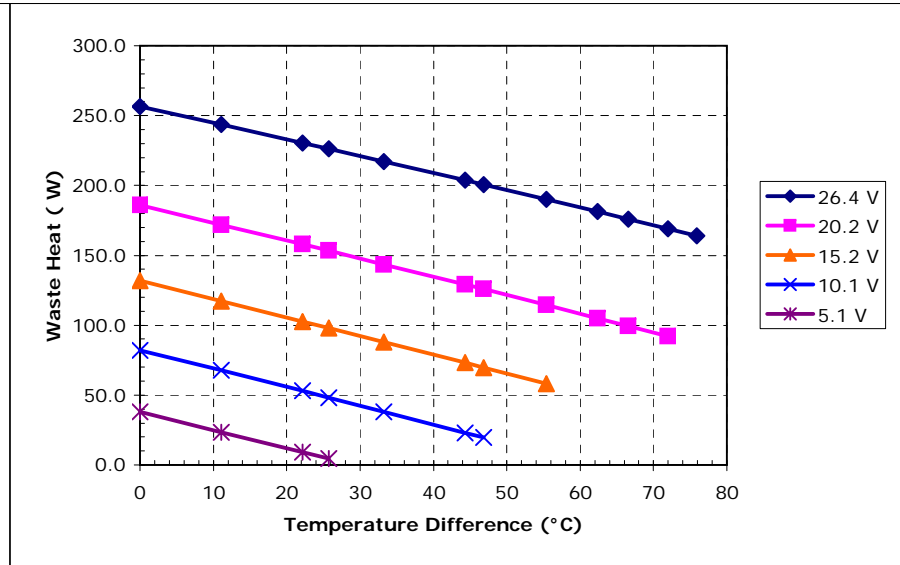
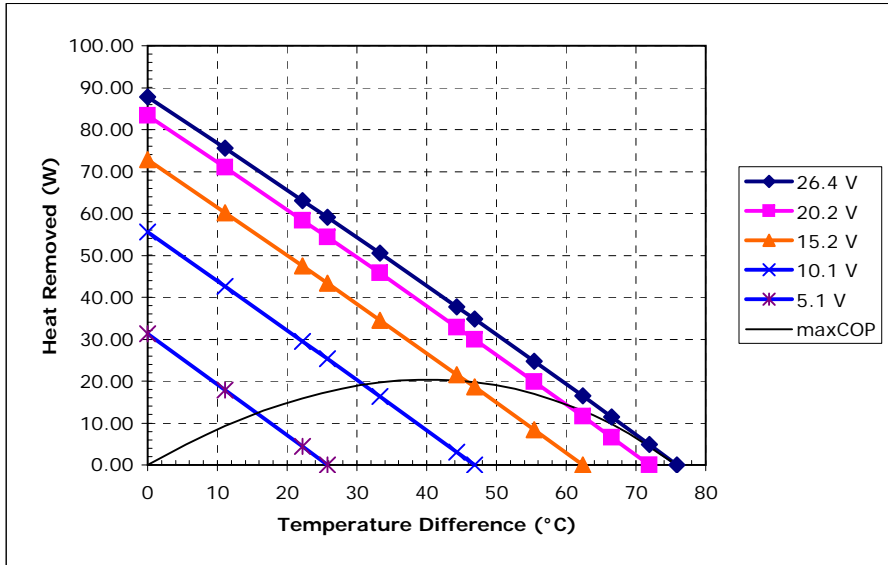
Unpotted HP-199-1.4-1.5 at a hot-side temperature of 30 °C



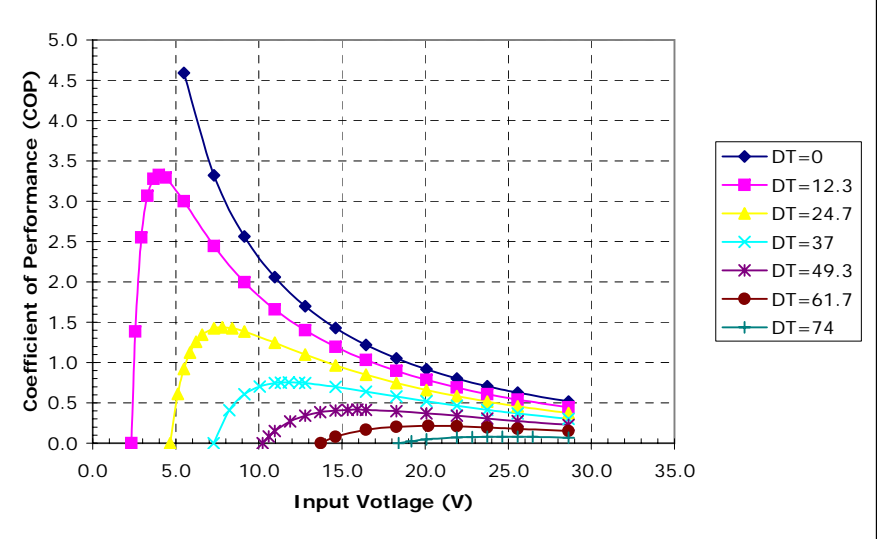
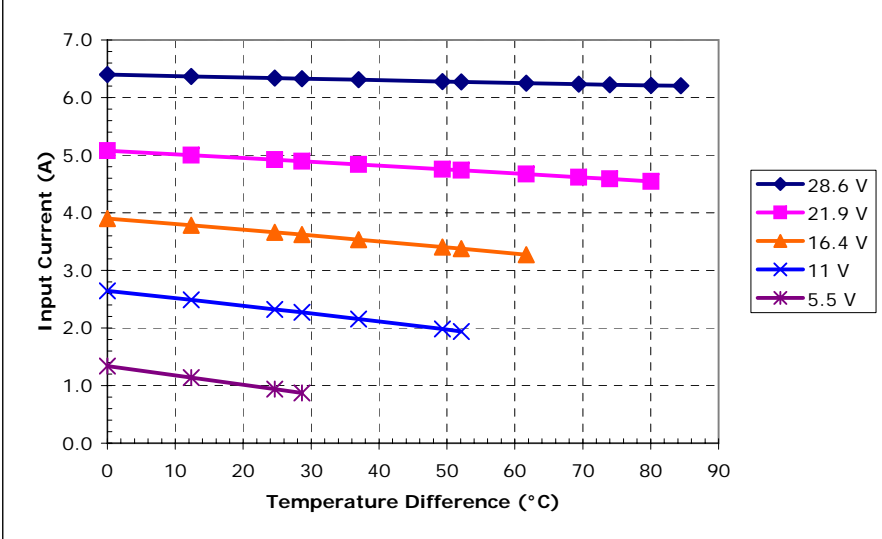
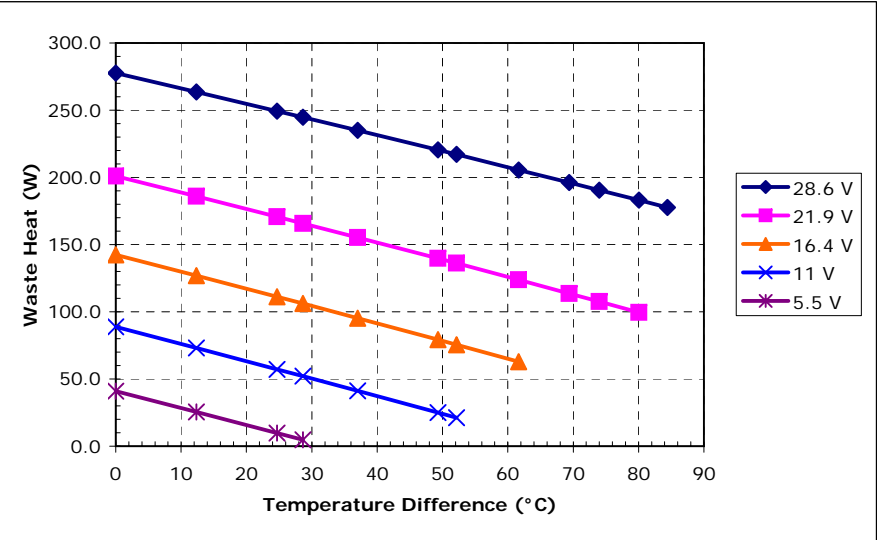
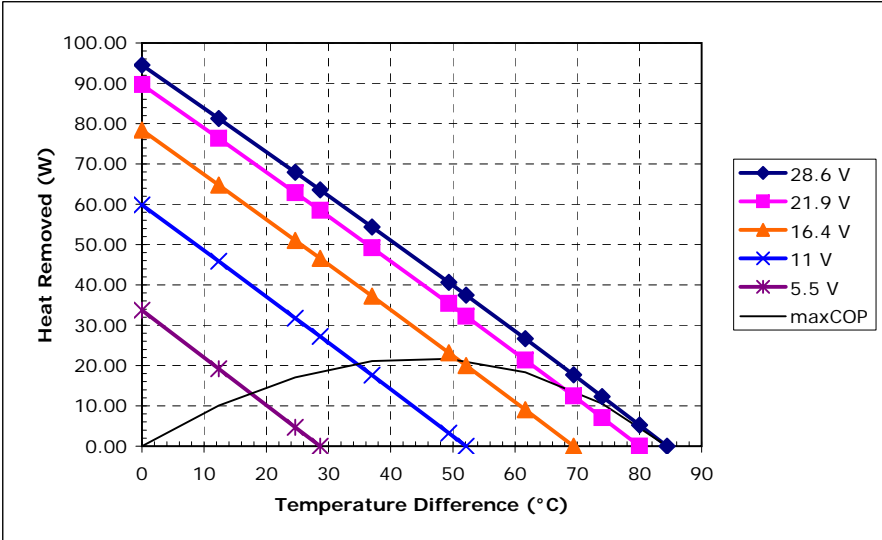
Potted HP-199-1.4-1.5 at a hot-side temperature of 30 °C



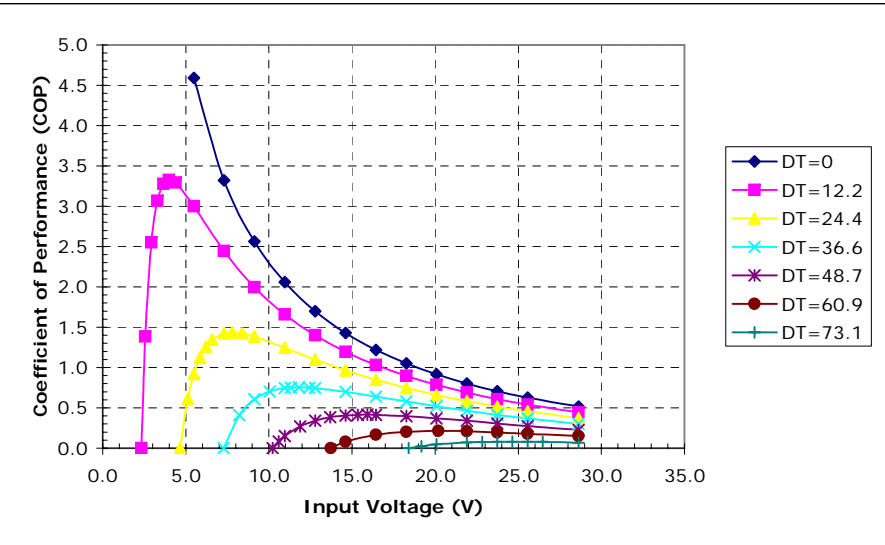
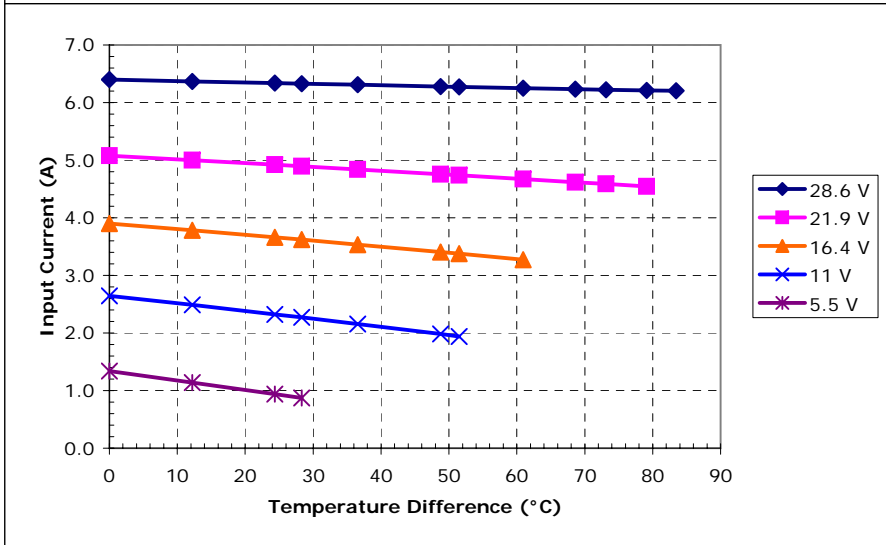
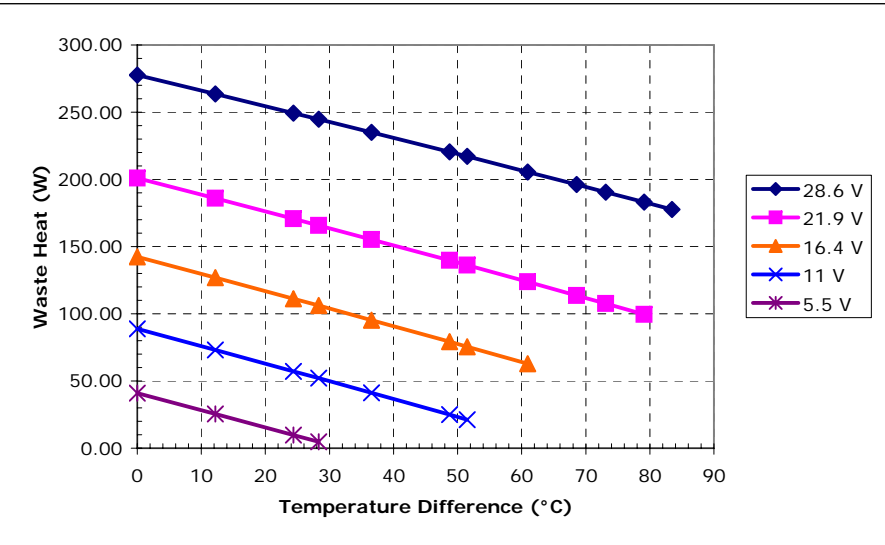
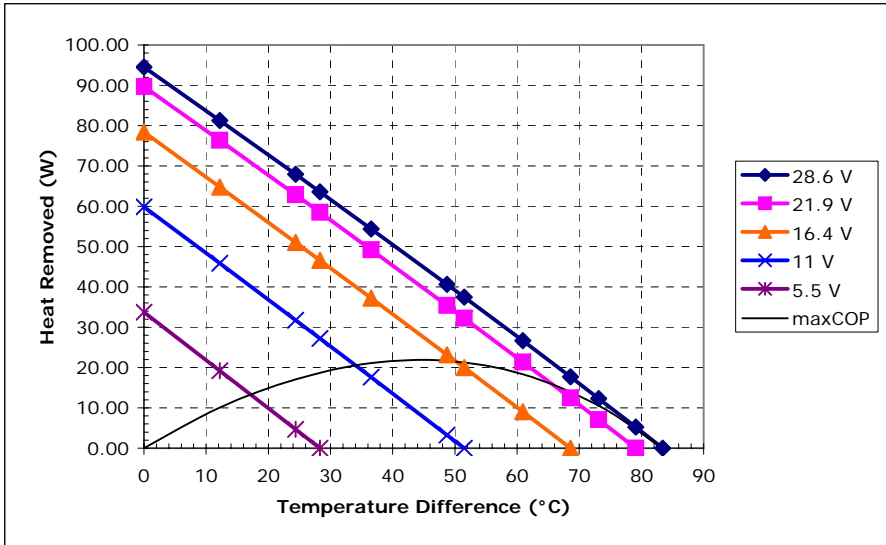
Unpotted HP-199-1.4-1.5 at a hot-side temperature of 50 °C



Potted HP-199-1.4-1.5 at a hot-side temperature of 50 °C



Unpotted HP-199-1.4-1.5 at a hot-side temperature of 70 °C



Potted HP-199-1.4-1.5 at a hot-side temperature of 70 °C