

# Energibesparelser i produktionen hos Toms

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Tasteful moments - Responsible choices

# Forventede investeringer

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- Isolering af flanger, ventiler, lign.
  - Specialsyede puder m. velcro
  - Beregning på varmecentral

Energi: 90.000 kWh/ år.       $\approx$       28.000 kr./ år.

Invest: 45.750 kr.       $\implies$       TBT: 20 mdr.

# Forventede investeringer

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- Styring af belysning
  - Pir løsning m. dæmp.
  - T5 Armaturer & Lysrør 49W 830, Secura rør

Energi: 200.000 kWh/ år.       $\approx$       190.000 kr./ år.

Invest: 560.000 kr.       $\implies$       TBT: 35 mdr.

# Forventede investeringer

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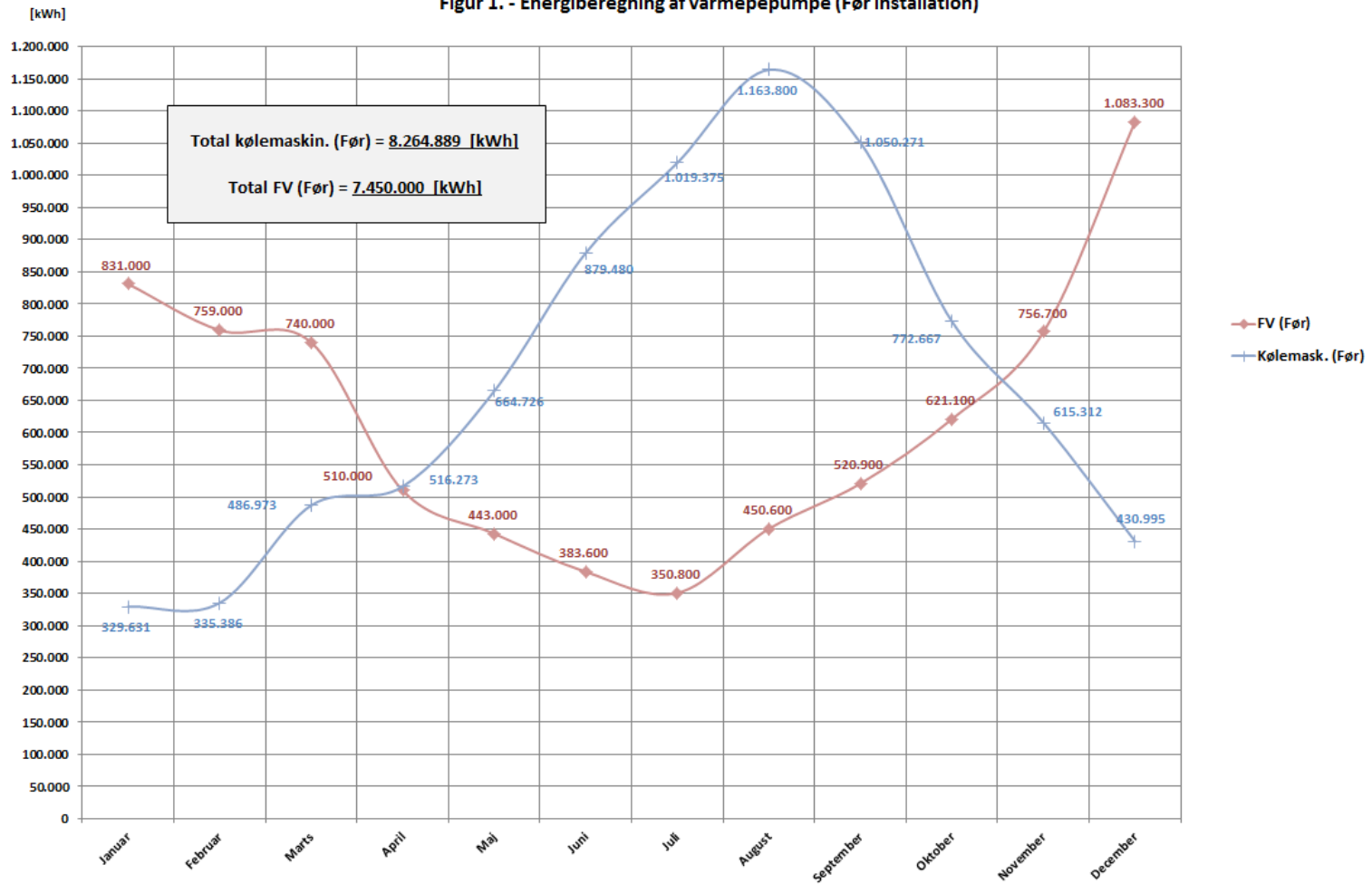
- Investering i varmepumpe
  - Et-trins ammoniak pumpe m. skruekompressor  
(Type: SAB 157 H)
  - 1.400 kW Heating Capacity,  $COP_{\text{varme}} = 4,61$   
(Kond. Temp. 22 °C)

Energi: 6 MWh/ år.  $\approx$  1.280.000 kr./ år.

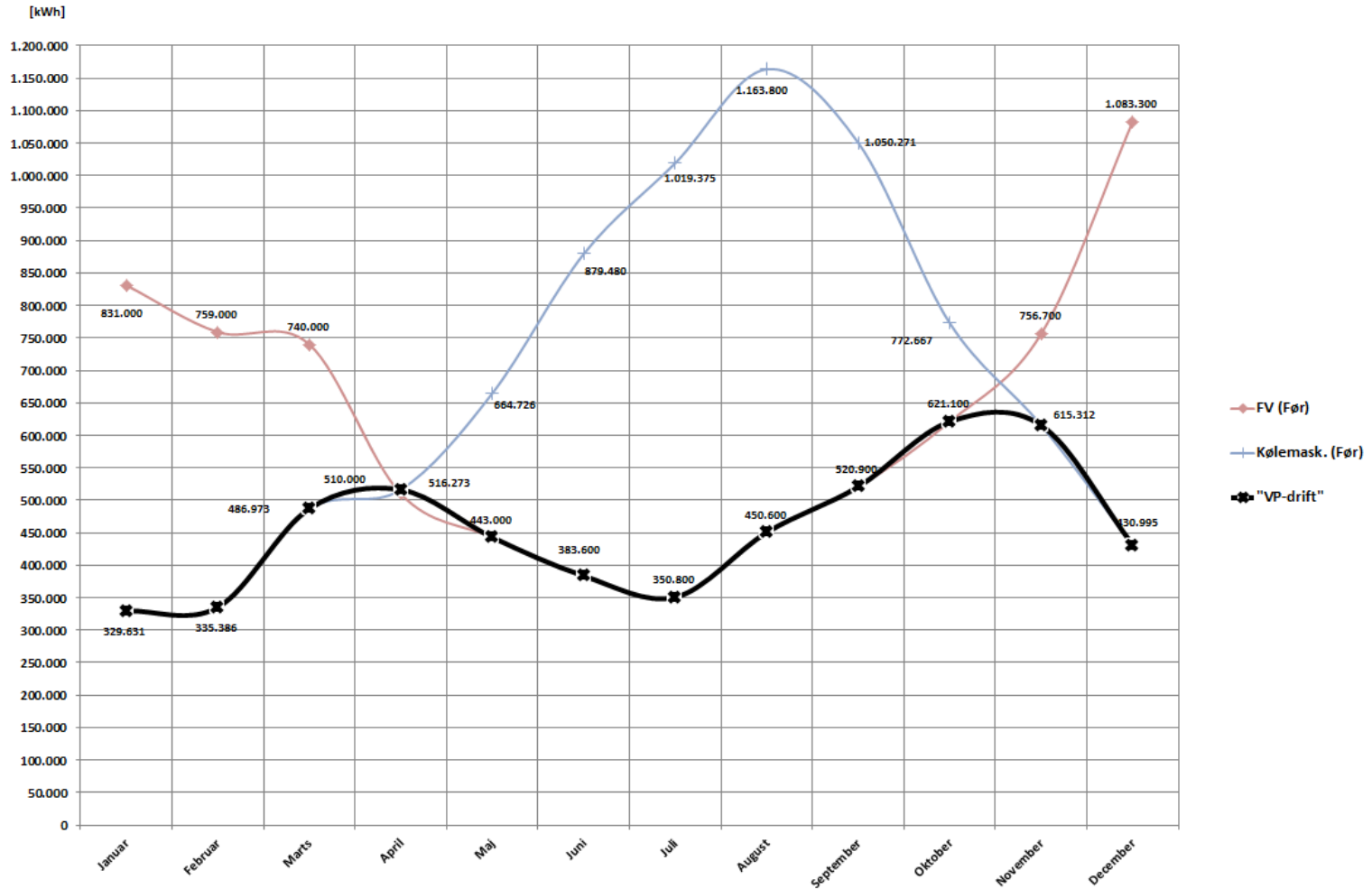
Invest: 3.675.000 kr.  $\implies$  TBT: 29 mdr.

# Beregning

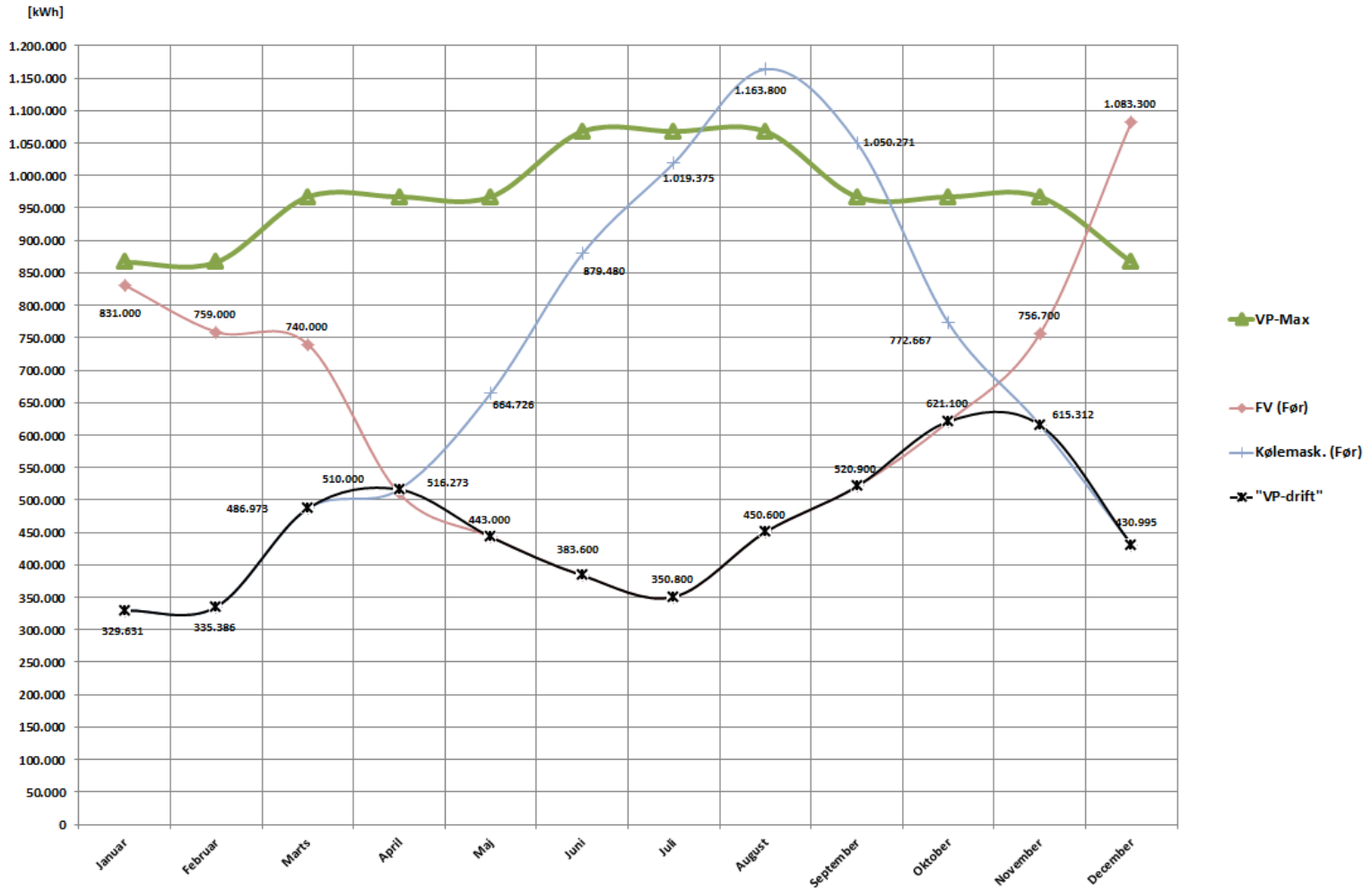
Figur 1. - Energiberegning af varmepepumpe (Før installation)



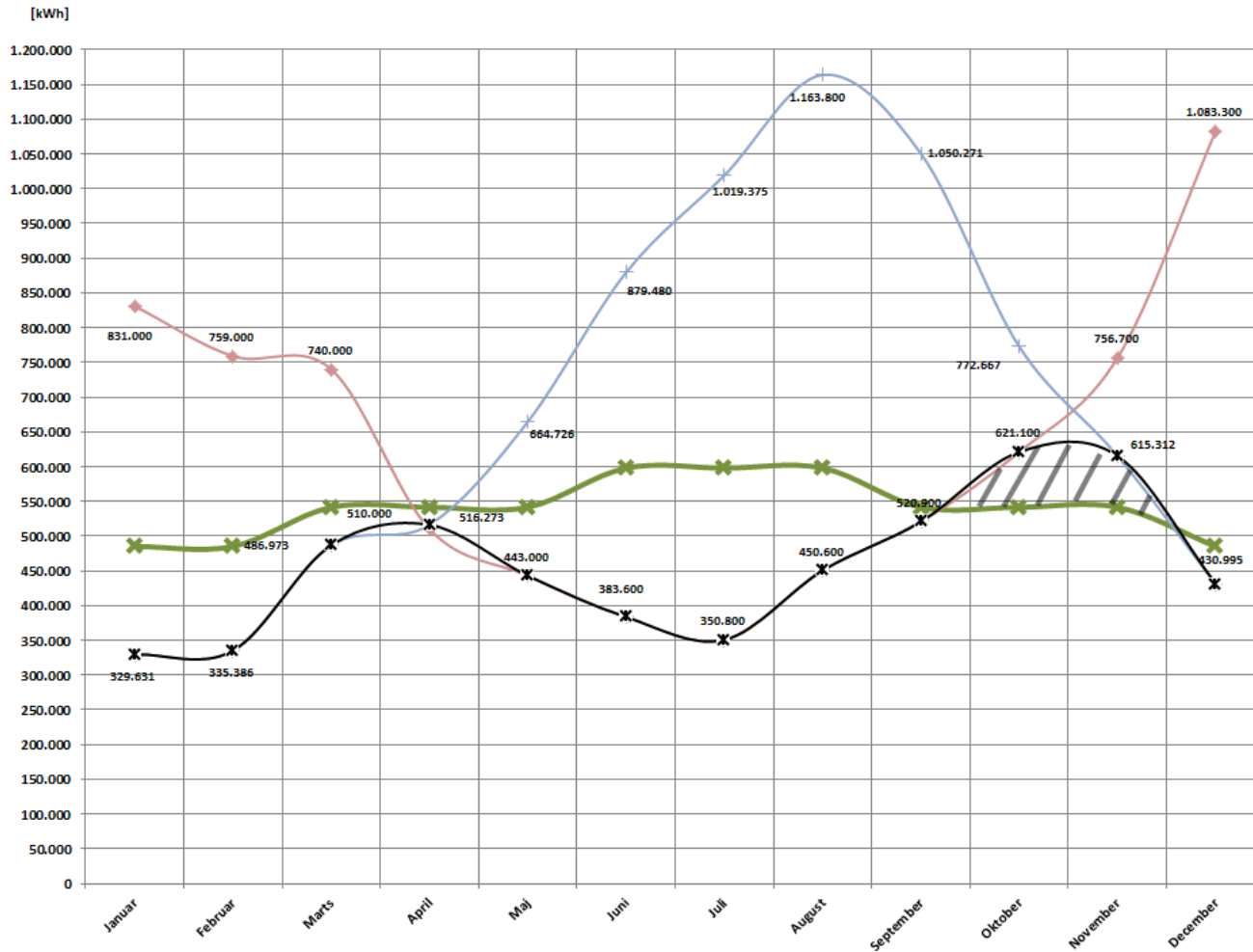
# Beregning



# Beregning



# Beregning



**Kfaktor**

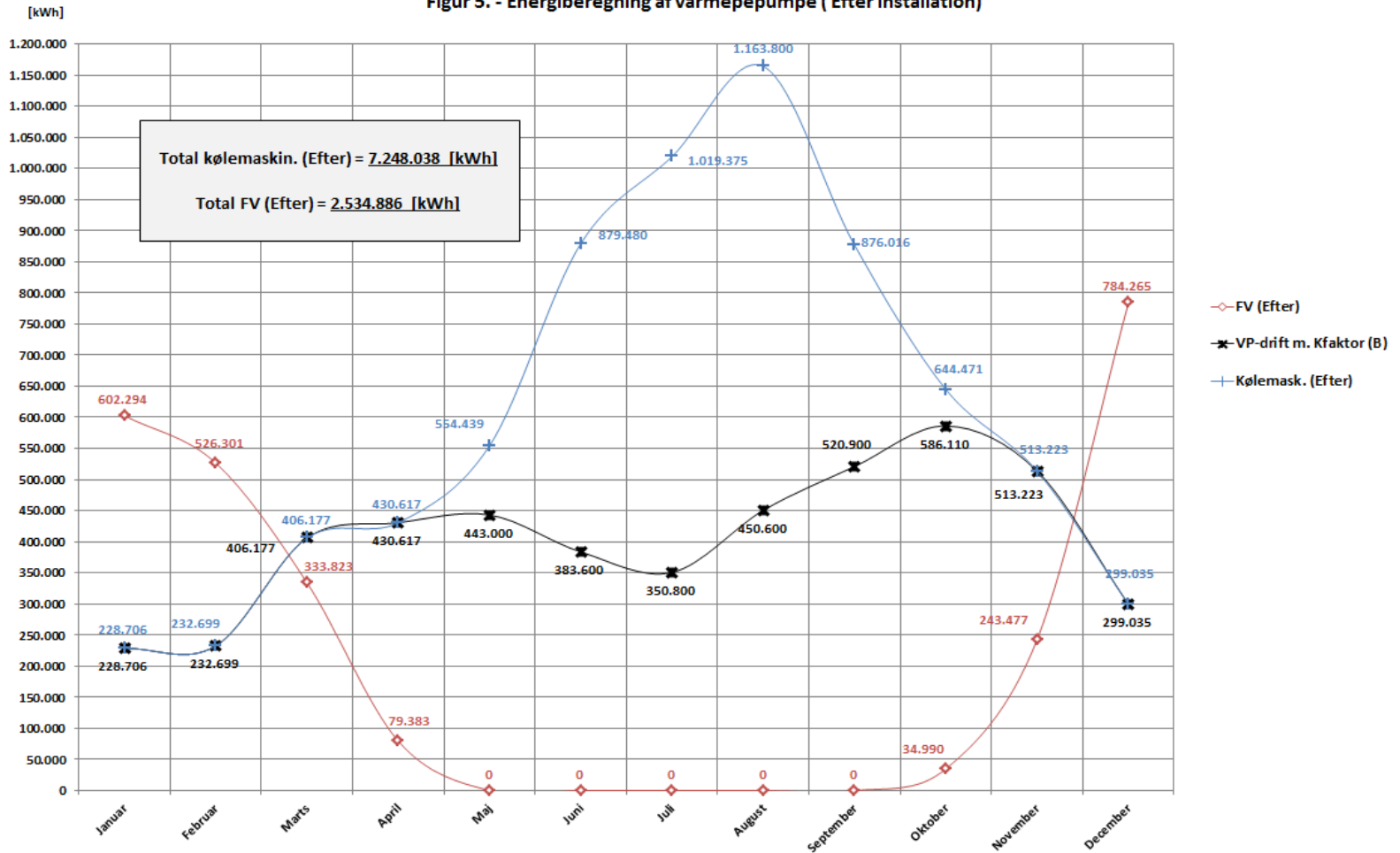
**0,56**

- VP-Max m. Kfaktor
- FV (Før)
- Kølemask. (Før)
- "VP-drift"



# Beregning

Figur 5. - Energiberegning af varmepepumpe ( Efter installation)



# Kompensationsfaktor

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