Savings Analysis Report

Powerboss Integra
Injection Molding 37kW

6/9/06
Distributor: Fran
Location: France
Testing Instrument: AR5 3-phase Network Analyser Circuitor/Ideal System

SOMAR

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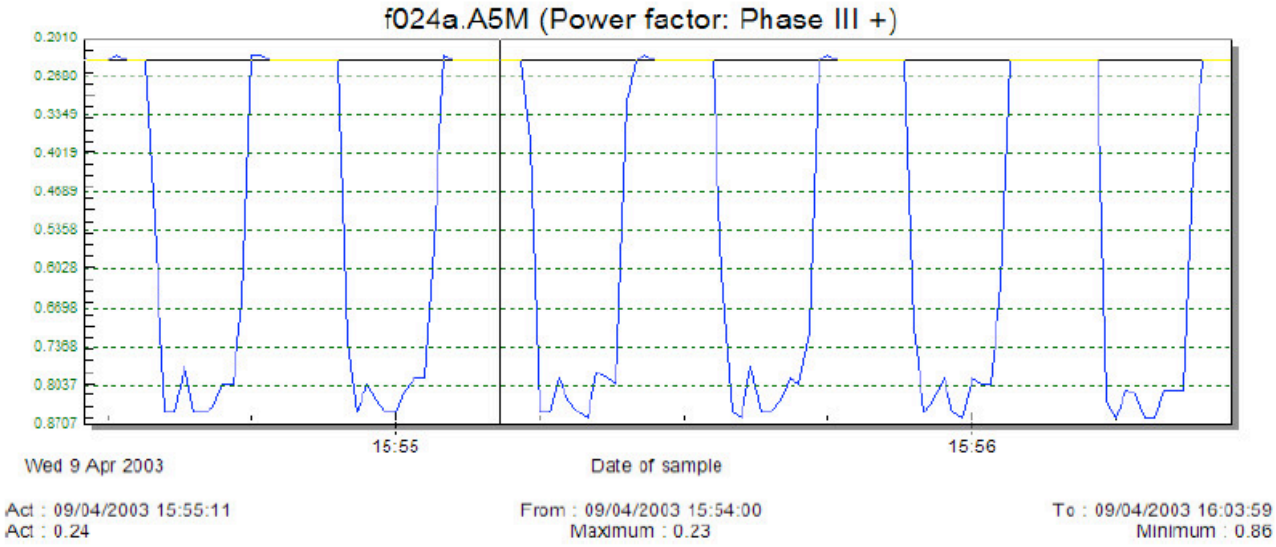
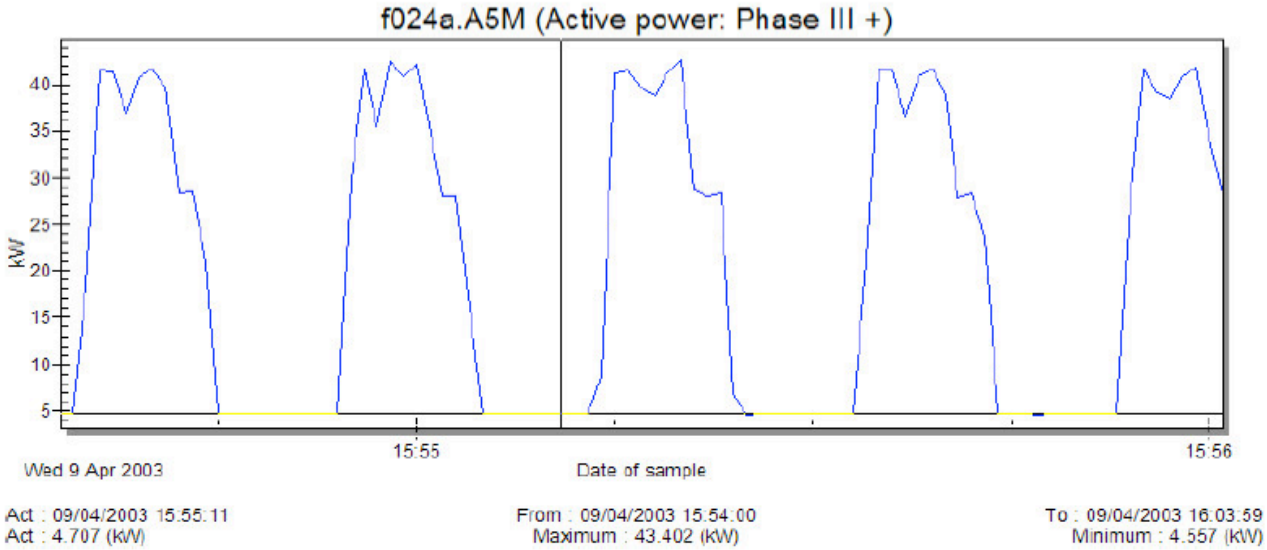
Duty cycle analysis

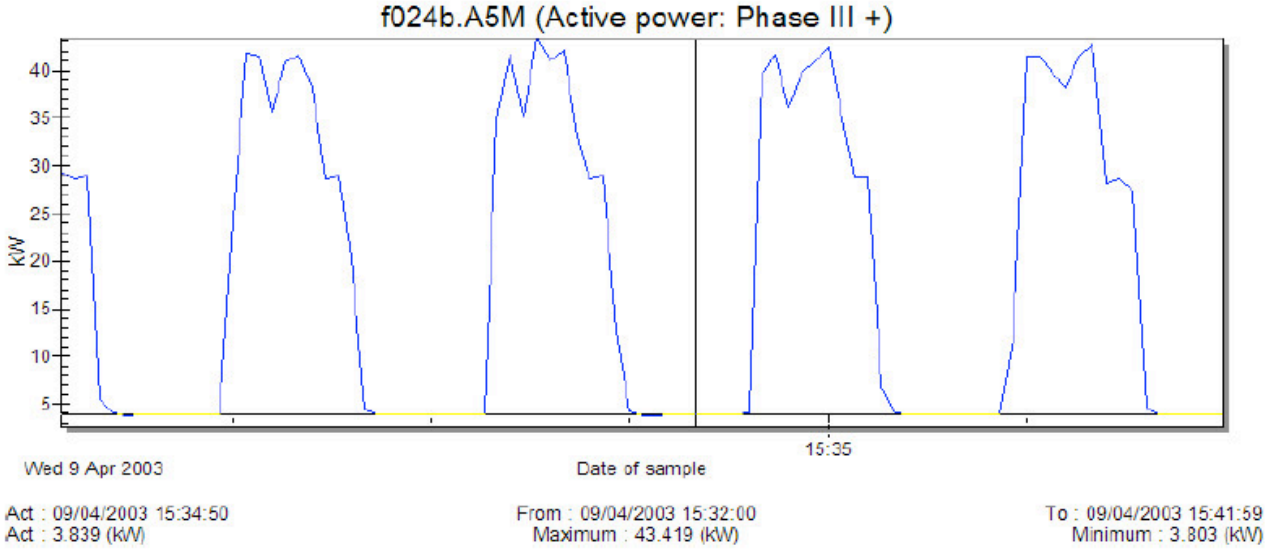


Description of Operation & Comments

The duty cycle of this application is 50% off-load and 50% on-load. This motor is used on an injection molding machine used to make general car parts.

Kw savings analysis





Instantaneous Measurements Time

Without Optimisation: 15:55:11
With Optimisation: 15:34:50

Off-load Measurements

kW Before: 4.707
kW After: 3.839
Saving in kW%: 18.44

Return on Investment Calculation

Off load savings:

16 hours of operation per day x 50% (time off load) = 8hrs per day
8hrs per day x 0.87kW (kW saved off load) = 6.94kWh saved per day
6.94kWh saved per day x £0.07 (average UK electricity price) = £0.49 savings per day
£0.49 Savings per day x 350 days (days of operation per year) = £171.50 savings per year

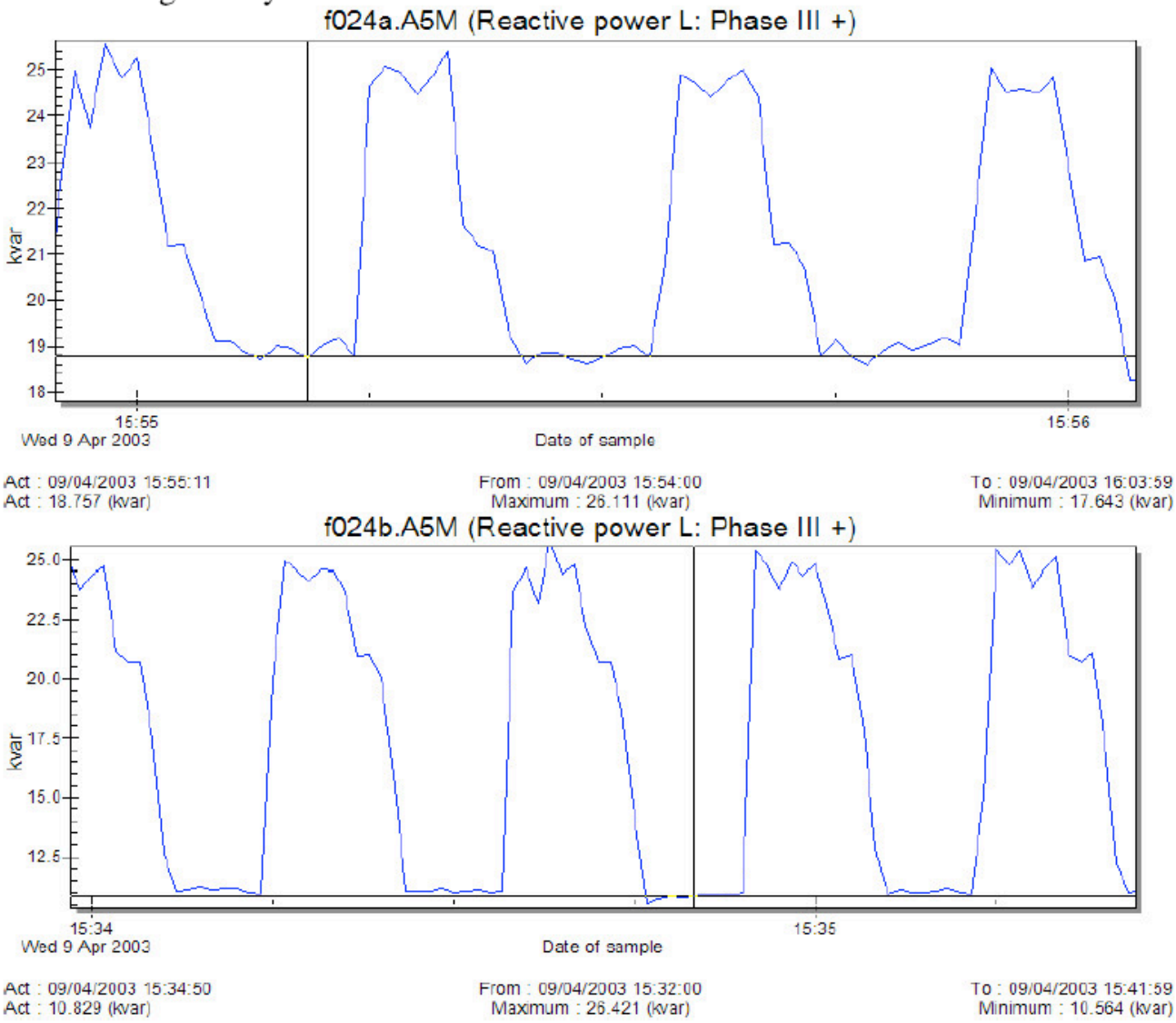
Cost of Powerboss = £530.42

ROI (Payback) = 3.09 years

If this application was operating 24/7 (not unusual in this industry) the ROI would be reduced to = 2.06 years

This ROI calculation is based solely on the optimisation feature of Powerboss. It does not include the additional cost saving benefits/features of a Powerboss installation. Depending on the application these could include Soft-Start, Stored Energy, Automatic Switch Off, Signal Optimisation, Dry Well Protection, Belt Breakage Protection, Heat Reduction, Maintenance Reduction + Downtime Reduction to name but a few. These factors can have a significant effect on the ROI. Powerboss Distributors are trained to include all of the cost saving benefits of a Powerboss installation when they calculate the ROI for their customers. When they do this the ROI can be reduced to such an extent that they can significantly increase their 100% mark-up and still meet their customers expectations.

Kvar Savings Analysis



Instantaneous Measurements Time

Without Optimisation: 15:55:11
With Optimisation: 15:34:50

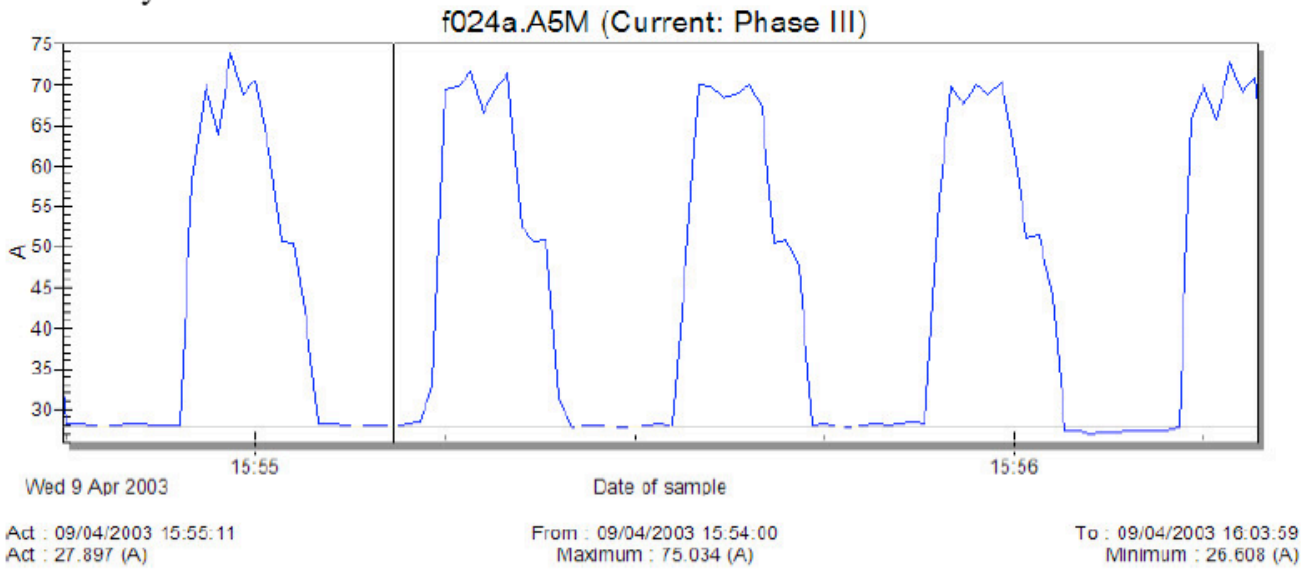
Off-load Measurements

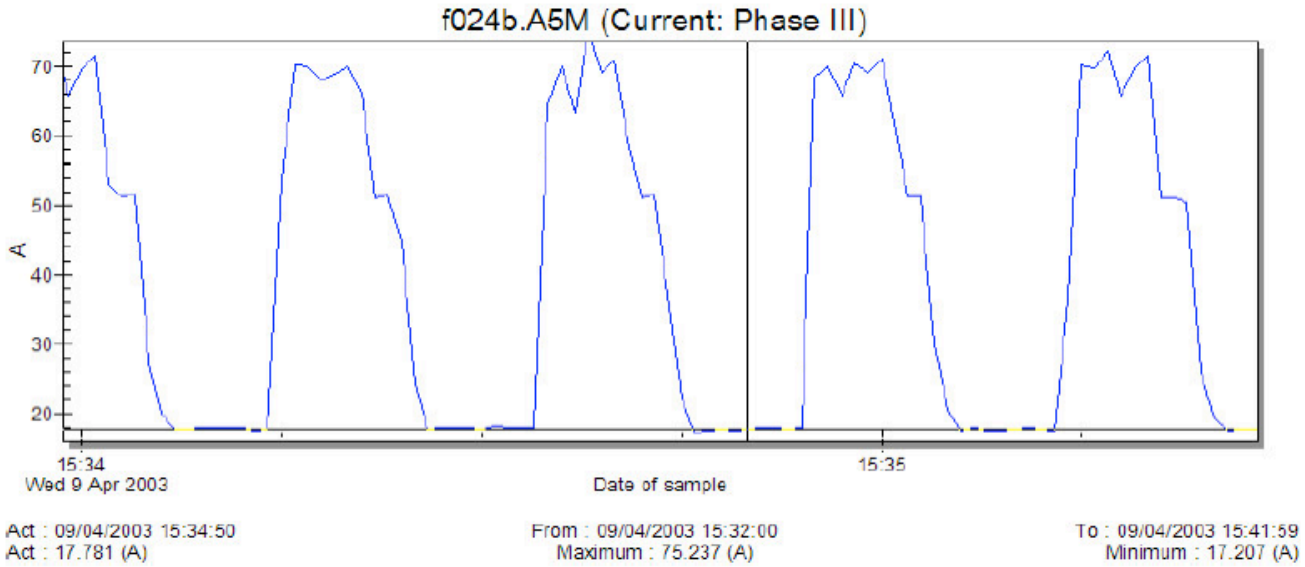
kVARL Before: 18.757
kVARL After: 10.829
Saving in kW%: 42.27%

Advantages of kVARL Savings

- Less heat generated in motor
- Motor runs more efficiently
- Assists power factor correction in the amount of capacitive current needed to correct system Pf
- Allows more machinery to be installed before system PFC needs to be upgraded

Kva analysis:





Instantaneous Measurements Time

Without Optimisation: 15:55:11
With Optimisation: 15:34:50

Off-load Measurements

Current Before: 27.897
Current After: 17.781
Current Saving: 36.26%

Advantages of kVA Savings

- Less current flowing through motor, cables, fuses and overload will have an effect on component's life and maintenance
- Less current drawn from the supply means less strain on supply
- Generators will have to produce less kVA and thus perform better
- Less kVA produced on a generator will have a direct impact on fuel consumption