

POWER FACTOR BENEFITS OF HIGH EFFICIENCY MOTORS

ABSTRACT

INTRODUCTION

UTILITY POWER FACTOR CHARGES

x

Utility Rate Example One

DATA FROM MOTORMASTER

x

x

Utility Rate Example Two

x

x

x

x

Utility Rate Example Three

x

x

TABLE 1. MOTOR POWER FACTORS [1]

HP Rating	Load Factor	Standard Motor Power Factor (%)	Premium Motor Power Factor (%)	Cost Premium (\$)

POWER FACTOR IMPROVEMENTS

x x x x
 x x
 x x x

x x

x x

√

√

x x

x

ECONOMIC BENEFITS OF HIGH POWER FACTOR MOTORS

x

× ×

**A COMPARISON OF ECONOMICS UNDER THREE
DIFFERENT RATE STRUCTURES**

CONCLUSION

ACKNOWLEDGEMENT

REFERENCES

**TABLE 2. HIGH EFFICIENCY MOTOR SAVINGS FOR A COMPANY
UNDER THREE DIFFERENT RATE STRUCTURES**

N	HP	LF	EFF _s	EFF _p	PF _s	PF _p	kW _s	kW _p	kW _{sv}	APR	RPR	ECS ₁ (\$)	ECS ₂ (\$)	ECS ₃ (\$)	TCS ₁ (\$)	TCS ₂ (\$)	TCS ₃ (\$)
Totals																	

TABLE 3. COMPARISON OF SAVINGS UNDER THREE UTILITY RATE STRUCTURES