

T.I.P.S.

TECHNICAL INFORMATION AND PRODUCT SHEETS

PROVINCIAL LEGISLATION TO AFFECT 1-200 HP MOTORS

Minimum efficiencies for 1-200 HP motors have been legislated since April 1, 1993. However, these minimum levels (based on CSA C390 - M1985: Table 3, "Minimum Motor Efficiencies") affect only the most inefficient motors on the market.

Effective January 1, 1996 the minimum efficiency levels will be increased to those set out in CSA C390 - M1993: Table 2, "Energy Efficient Motors." The

CSA C390 standard was modified in 1993 to raise the minimum levels to the same requirements found in the NEMA MG-1 standard in the U.S. These are the levels currently being promoted by Canadian utility DSM programs and, pursuant to the Energy Policy Act of 1992, these levels will become mandatory in the U.S. in October of 1997.

THE ENERGY EFFICIENCY ACT

The *Energy Efficiency Act* regulations set out minimum performance standards for specified products

manufactured or offered for sale in Ontario. Similar legislation is in effect in 6 other provinces, and the federal government recently enacted legislation that will cover imports and inter-provincial trade.

The legislation requires that efficiency levels of motors offered for sale be verified on an ongoing basis by an accredited certification



agency, such as the CSA. The mark of the accredited agency can appear on the motor in the form of a label or the design can be incorporated onto the motor nameplate.

**CSA C390 - M1993: TABLE 2
"ENERGY EFFICIENT MOTORS"**

HP	8 POLE 900 RPM		6 POLE 1200 RPM		4 POLE 1800 RPM		2 POLE 3600 RPM	
	ENCL.	OPEN	ENCL.	OPEN	ENCL.	OPEN	ENCL.	OPEN
1	74.0	74.0	80.0	80.0	82.5	82.5	75.5	75.5
1.5	77.0	75.5	85.5	84.0	84.0	84.0	82.5	82.5
2	82.5	85.5	86.5	85.5	84.0	84.0	84.0	84.0
3	84.0	86.5	87.5	86.5	87.5	86.5	85.5	84.0
5	85.5	87.5	87.5	87.5	87.5	87.5	87.5	85.5
7.5	85.5	88.5	89.5	88.5	89.5	88.5	88.5	87.5
10	88.5	89.5	89.5	90.2	89.5	89.5	89.5	88.5
15	88.5	89.5	90.2	90.2	91.0	91.0	90.2	89.5
20	89.5	90.2	90.2	91.0	91.0	91.0	90.2	90.2
25	89.5	90.2	91.7	91.7	92.4	91.7	91.0	91.0
30	91.0	91.0	91.7	92.4	92.4	92.4	91.0	91.0
40	91.0	91.0	93.0	93.0	93.0	93.0	91.7	91.7
50	91.7	91.7	93.0	93.0	93.0	93.0	92.4	92.4
60	91.7	92.4	93.6	93.6	93.6	93.6	93.0	93.0
75	93.0	93.6	93.6	93.6	94.1	94.1	93.0	93.0
100	93.0	93.6	94.1	94.1	94.5	94.1	93.6	93.0
125	93.6	93.6	94.1	94.1	94.5	94.5	94.5	93.6
150	93.6	93.6	95.0	94.5	95.0	95.0	94.5	93.6
200	94.1	93.6	95.0	94.5	95.0	95.0	95.0	94.5

SCOPE OF LEGISLATION

As set out in the legislation and CSA C390, the minimum efficiency regulations

Polyphase, 2, 4, 6 or 8 pole, squirrel-cage, single speed, continuous duty, open or enclosed NEMA/EEMAC Design A or B induction motors rated from 1-200 HP, and manufactured after January 1, 1996.

apply to:

Motors not covered include:

1. Fractional HP motors
2. Single phase motors
3. Special purpose motors
4. Existing installed motors

5. *Rewound or rebuilt motors*
6. *Medium voltage motors*

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