*** This is a contract excerpt. To see the entire contract, choose the file listed next to the Entire Contract header.

CEGS
****
DEPARTMENT OF THE ARMY CEGS-16222 (September 1993)
U.S. ARMY CORPS OF ENGINEERS ----------
CECW-EE Superseding
CWGS-15171 (September 1993)
GUIDE SPECIFICATION FOR CONSTRUCTION
Includes Special Change (Submittal Paragraph)(June 2000)
Includes Special Change to convert CWGS-15171 to one CEGS system and to renumber the specifications in accordance with the 1995 CSI MASTERFORMAT. (September 1998) This is not a Technical Update.
Includes Text Adjustment (December 1998)
****
SECTION TABLE OF CONTENTS
DIVISION 16 - ELECTRICAL
SECTION 16222
ELECTRIC MOTORS, 3-PHASE VERTICAL SYNCHRONOUS TYPE
09/93

PART 1 GENERAL

1.4 SUBMITTALS
SD-01 Data
Motor Design Curves; G.
[Six] [_____] copies of motor design (characteristic) curves or tabulated data indicating the efficiency, current, and kilowatt input at rated voltage and 110 and 90 percent rated voltage, all plotted or tabulated against torque or percent load as abscissas. Where values are given in percentages all base values will be indicated.

SD-13 Certificates
Power Factor and Efficiency; [_].
[Six] [_____] copies of certification guaranteeing value of power factor and efficiency for full load, 3/4 full load, and 1/2 full load.

PART 2 PRODUCTS

2.1 MOTORS
2.1.2 Operating Characteristics

2.1.2.8 [Power Factor and Efficiency
****
NOTE: List power factor and efficiency for each size only if high efficiency motors are required. Generally manufacturers' standards will be used. See Additional Note K.
****
The power factor and efficiency at full load, 3/4 full load, and 1/2 full load shall be not less than [_____], [_____], [_____] and [_____], [_____], [_____], respectively. Motors will be rejected if factory tests specified

in paragraph FACTORY TESTS do not demonstrate that these values will be met or exceeded.]

2.12 FACTORY TESTS

2.12.2 Complete Test

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NOTE: See Additional Note K.

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A complete test of a synchronous motor shall including the following:

g. Conventional efficiency tests, in accordance with NEMA MG 1 paragraph 21.44. Motor shall meet manufacturer's published efficiency criteria for 1/2, 3/4, and full rated loads. Calculation of efficiency shall include [that portion of the thrust bearing loss produced by the motor itself] [bearing loss due to external thrust load].

NOTE K: For the large motors (1,500 hp and above), the efficiency is high, i.e. 95 percent at 1/2 to full load, however, efficiency varies with motor design. In general, high efficiency motors are not cost effective in the large size motors covered by this specification. If other than manufacturer's standard efficiency is required, the designer should list those values in paragraph FACTORY TEST.