

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13152756

Frame : 182/4T	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ³ : 45.0 kg
Protection degree : IP55	Moment of inertia (J) : 0.0143 kgm ²
Design : B	

Output [HP]	3	3	3	3
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	3.91	4.78	4.54	4.43
L. R. Amperes [A]	31.7	30.1	32.2	33.7
LRC [A]	8.1x(Code K)	6.3x(Code H)	7.1x(Code J)	7.6x(Code K)
No load current [A]	2.00	2.00	2.10	2.25
Rated speed [RPM]	1760	1445	1450	1455
Slip [%]	2.22	3.67	3.33	3.00
Rated torque [kgfm]	1.24	1.51	1.50	1.50
Locked rotor torque [%]	220	220	220	240
Breakdown torque [%]	330	250	290	320
Service factor	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	41s (cold) 23s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%			
	50%	87.5	87.5	87.5
	75%	88.5	87.5	87.5
	100%	89.5	87.5	87.5
Power Factor	25%			
	50%	0.61	0.68	0.64
	75%	0.71	0.77	0.73
	100%	0.79	0.80	0.79

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	11.0	13.4	13.4	13.4
	P2 (0,5;1,0)	8.9	10.8	10.8	10.8
	P3 (0,25;1,0)	8.8	10.7	10.7	10.7
	P4 (0,9;0,5)	6.1	7.4	7.4	7.4
	P5 (0,5;0,5)	4.0	4.9	4.9	4.9
	P6 (0,5;0,25)	3.0	3.6	3.6	3.6
	P7 (0,25;0,25)	2.1	2.6	2.6	2.6

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6207 C3	6206 C3	Max. traction : 78 kgf
Sealing :	Taconite	Taconite	Max. compression : 123 kgf
	Labyrinth	Labyrinth	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	7 g	5 g	
Lubricant type :	Mobil Polyrex EM		

This revision replaces and cancel the previous one, which must be eliminated.

(1) Looking the motor from the shaft end.

(2) Measured at 1m and with tolerance of +3dB(A).

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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Notes

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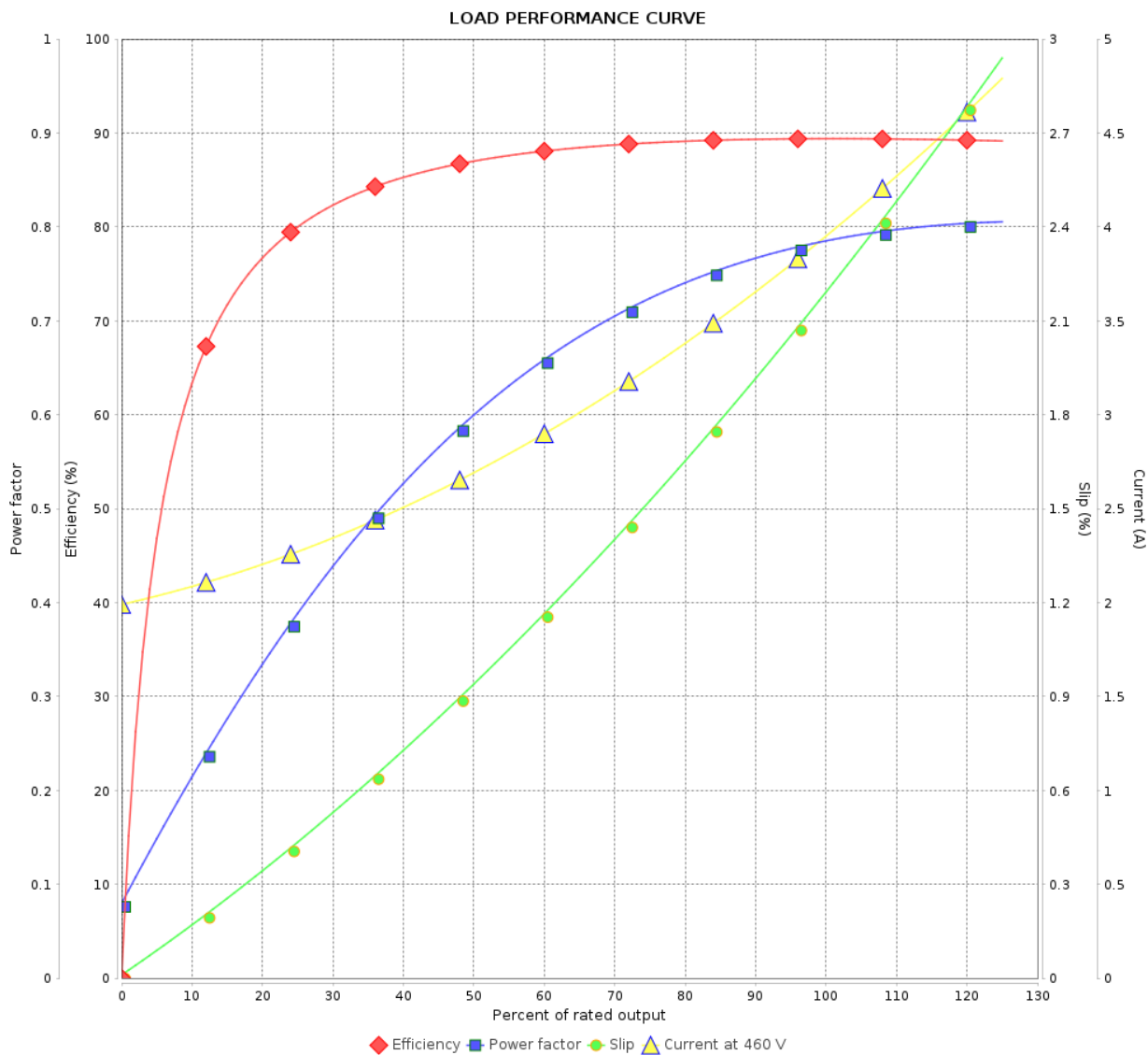
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 460 V 60 Hz 4P

Rated current : 3.91 A
LRC : 8.1
Rated torque : 1.24 kgfm
Locked rotor torque : 220 %
Breakdown torque : 330 %
Rated speed : 1760 rpm

Moment of inertia (J) : 0.0143 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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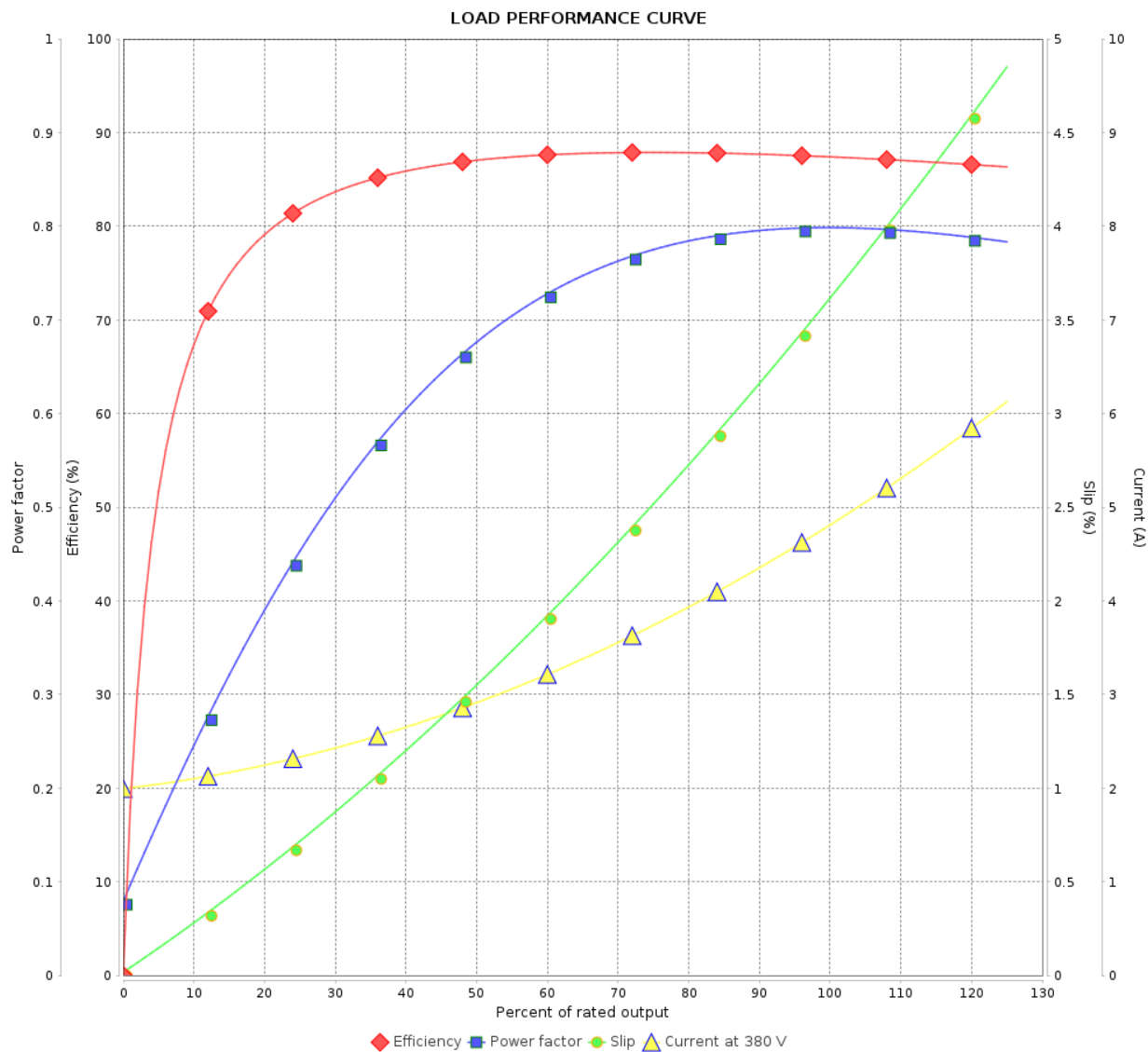
Three Phase Induction Motor - Squirrel Cage



Customer :

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Efficiency Three-Phase

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Performance : 380 V 50 Hz 4P IE3

Rated current : 4.78 A
LRC : 6.3
Rated torque : 1.51 kgfm
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 1445 rpm

Moment of inertia (J) : 0.0143 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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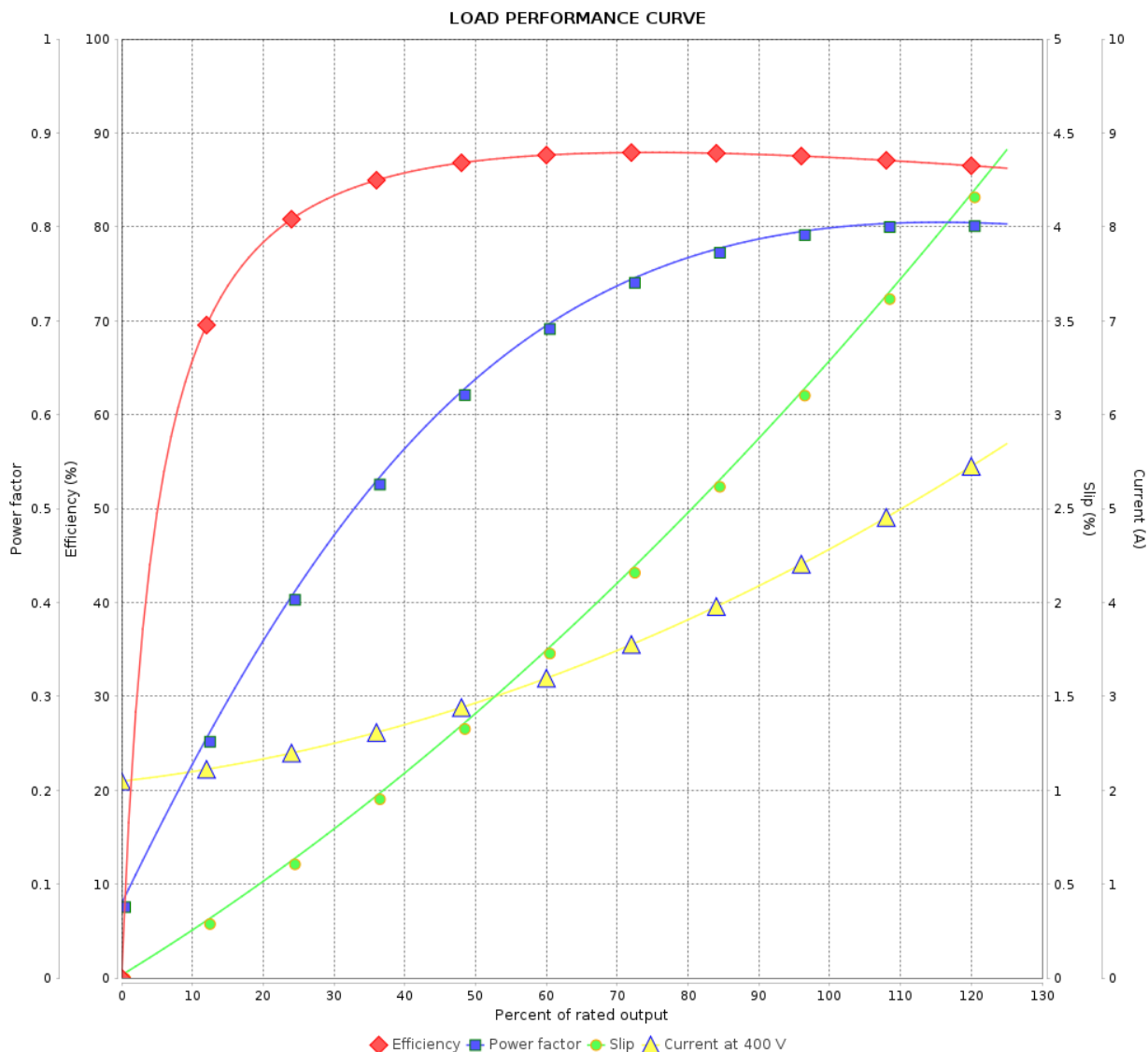
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 4P IE3

Rated current : 4.54 A
LRC : 7.1
Rated torque : 1.50 kgfm
Locked rotor torque : 220 %
Breakdown torque : 290 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0143 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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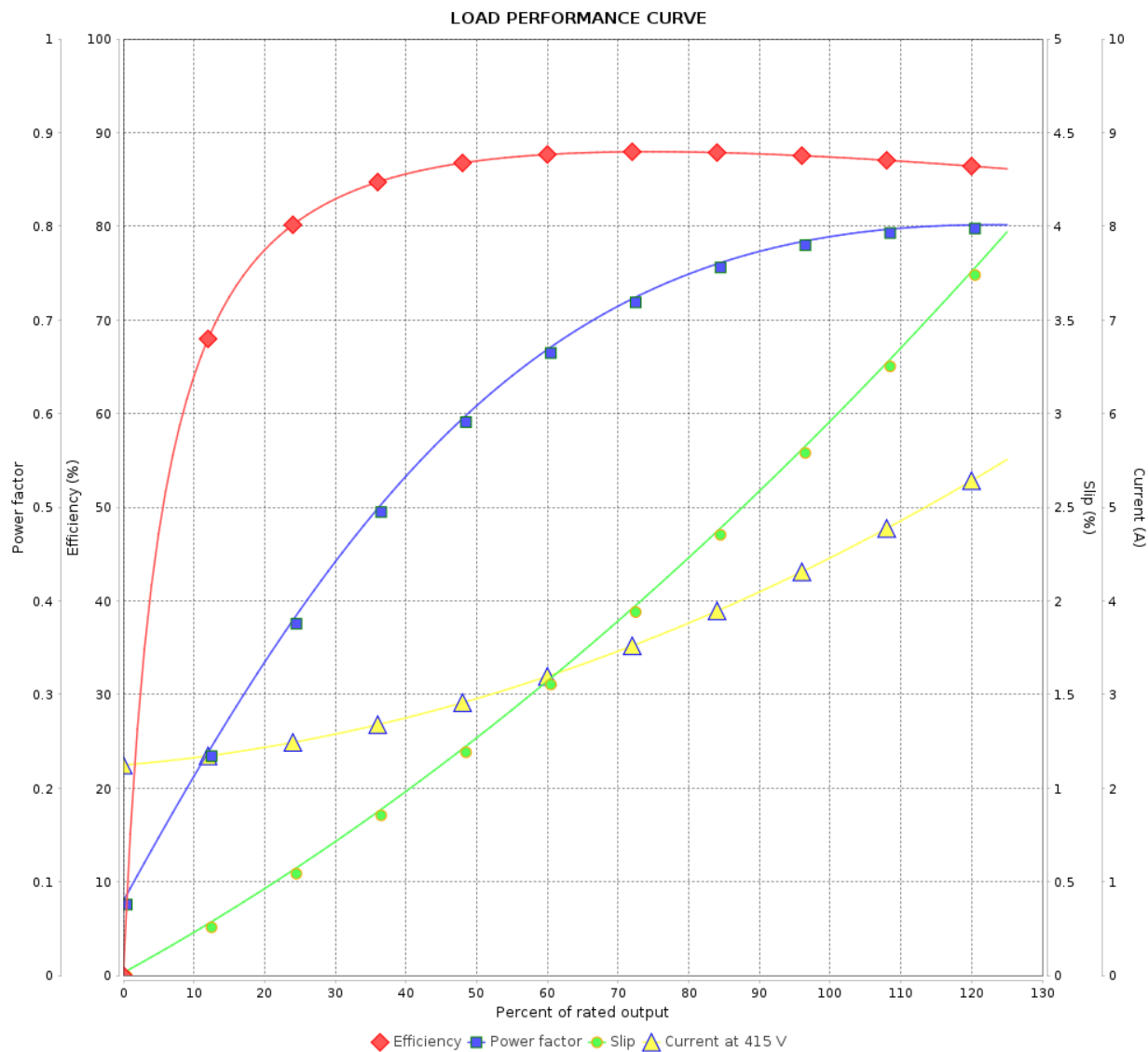
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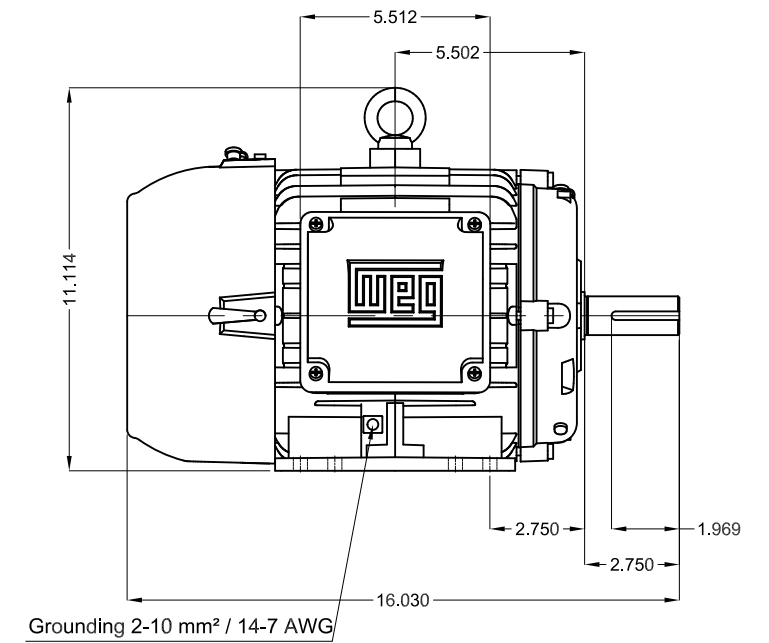


Performance : 415 V 50 Hz 4P IE3

Rated current : 4.43 A
LRC : 7.6
Rated torque : 1.50 kgfm
Locked rotor torque : 240 %
Breakdown torque : 320 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0143 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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Sealing - Taconite labyrinth
Grease outlet according to IEEE841
Color RAL 5009
Painting plan 202E
Mounting NEMA F-1
Mounting B3R(D)

