

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345

Frame	: 160M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3L(E)
Duty cycle	: 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	: 139 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1004 kgm ²
Design	: N		

Output [HP]	15	15	15
Poles	4	4	4
Frequency [Hz]	50	50	60
Rated voltage [V]	380	415	230/460
Rated current [A]	21.5	20.7	36.4/18.2
L. R. Amperes [A]	161	176	309/155
LRC [A]	7.5	8.5	8.5
No load current [A]	9.00	10.2	18.2/9.08
Rated speed [RPM]	1470	1476	1780
Slip [%]	2.00	1.60	1.11
Rated torque [kgfm]	7.41	7.38	6.12
Locked rotor torque [%]	220	270	300
Breakdown torque [%]	250	310	330
Service factor	1.00	1.00	1.25
Temperature rise	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	19s (cold) 11s (hot)	28s (cold) 16s (hot)
Noise level ²	61.0 dB(A)	61.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%		
	50%	91.0	89.5
	75%	91.4	91.7
	100%	91.4	92.4
Power Factor	25%		
	50%	0.69	0.63
	75%	0.79	0.75
	100%	0.85	0.82

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

Losses (%)	P1 (0,9;1,0)	9.0	9.0	7.9
	P2 (0,5;1,0)	7.3	7.3	6.4
	P3 (0,25;1,0)	6.9	6.9	6.0
	P4 (0,9;0,5)	5.2	5.2	4.6
	P5 (0,5;0,5)	3.5	3.5	3.1
	P6 (0,5;0,25)	2.6	2.6	2.3
	P7 (0,25;0,25)	1.9	1.9	1.6

	Drive end	Non drive end	Foundation loads
Bearing type	: 6309 C3	6209 C3	Max. traction : 248 kgf
Sealing	: V'Ring	V'Ring	Max. compression : 387 kgf
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 13 g	9 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).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

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

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Checked by				
Date	25/10/2024			

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Notes

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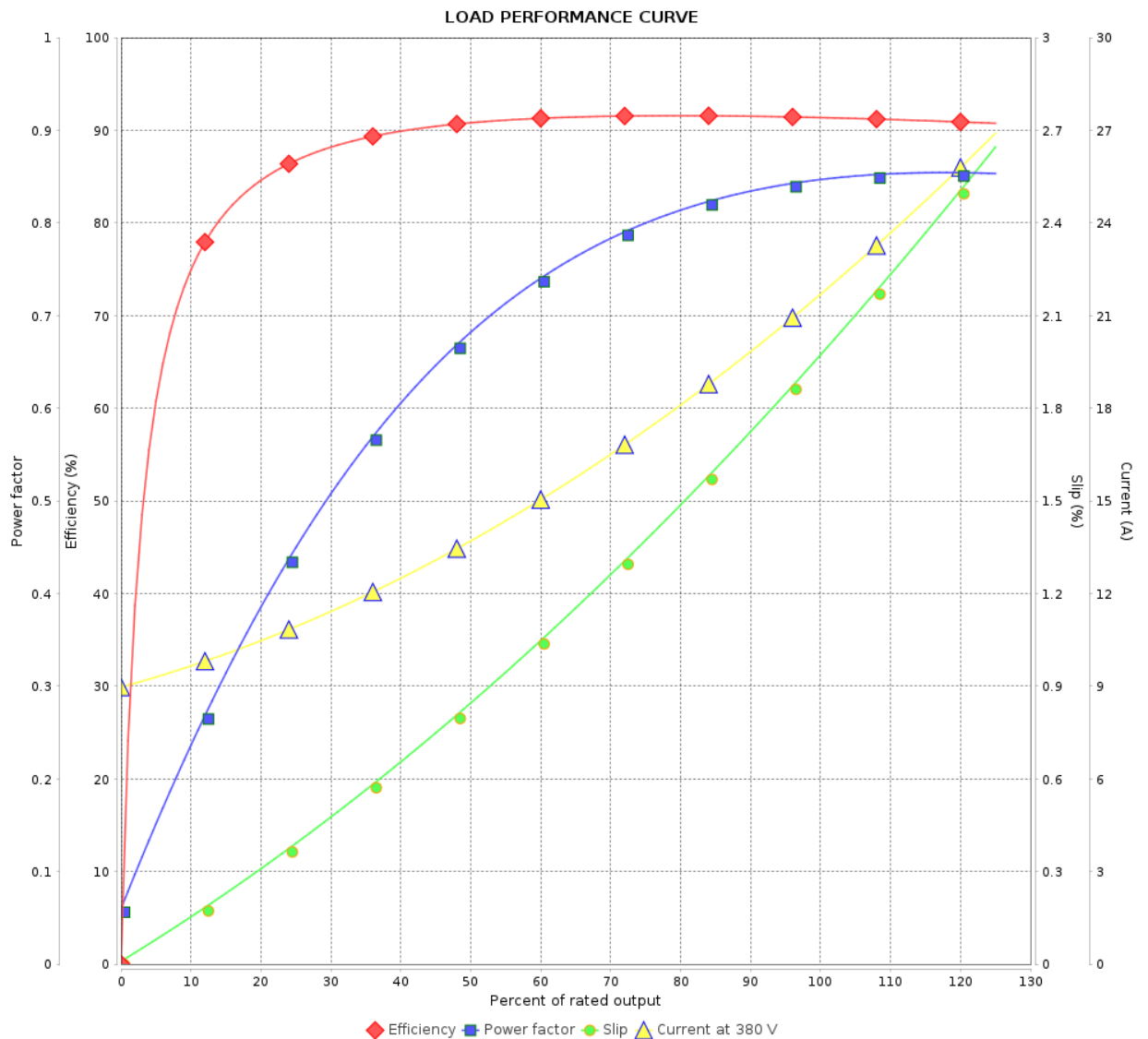
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Customer :

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Performance : 380 V 50 Hz 4P

Rated current	: 21.5 A	Moment of inertia (J)	: 0.1004 kgm ²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 7.41 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: N

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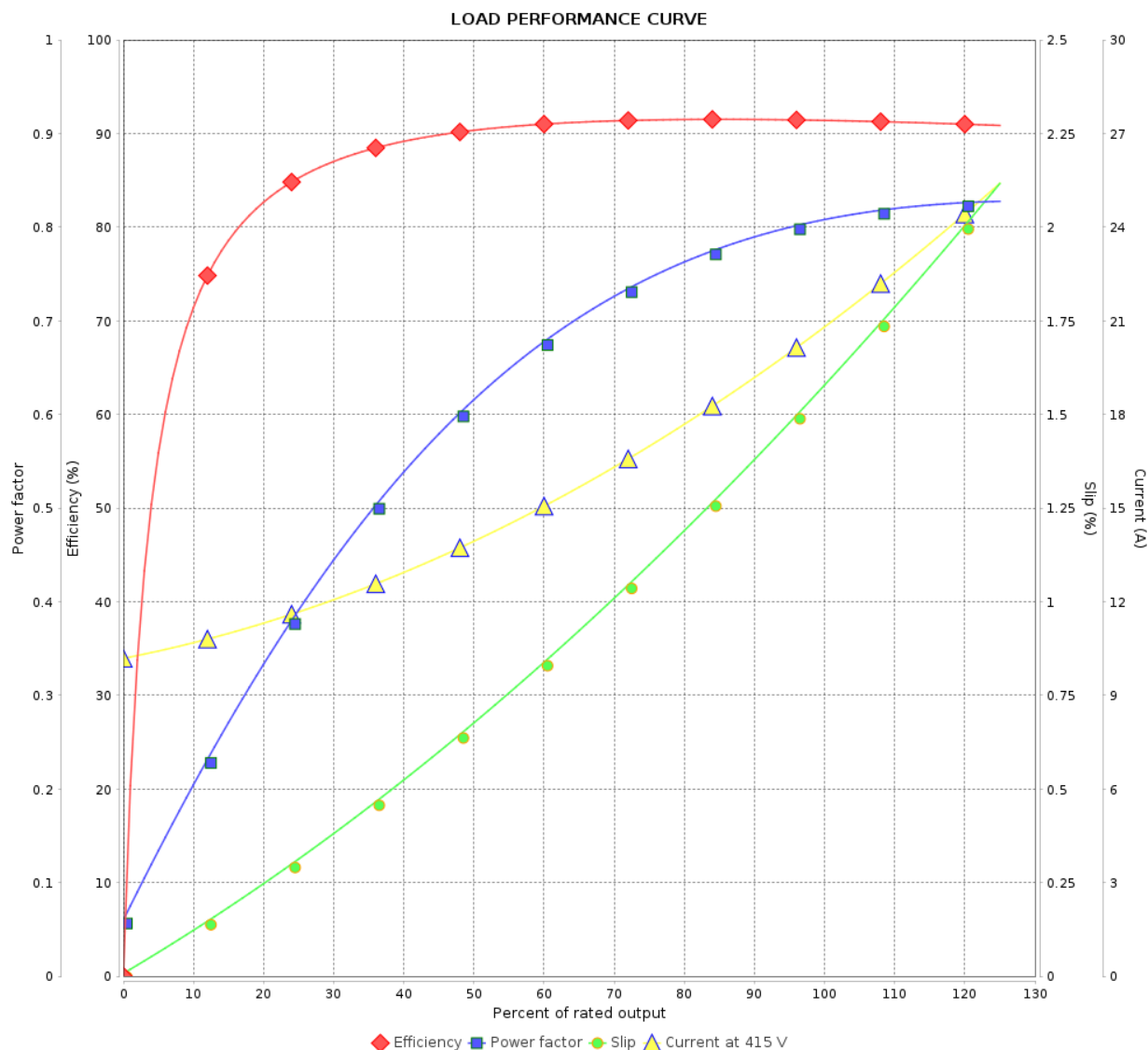
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 12645345



Performance : 415 V 50 Hz 4P

Rated current	: 20.7 A	Moment of inertia (J)	: 0.1004 kgm ²
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 7.38 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1476 rpm	Design	: N

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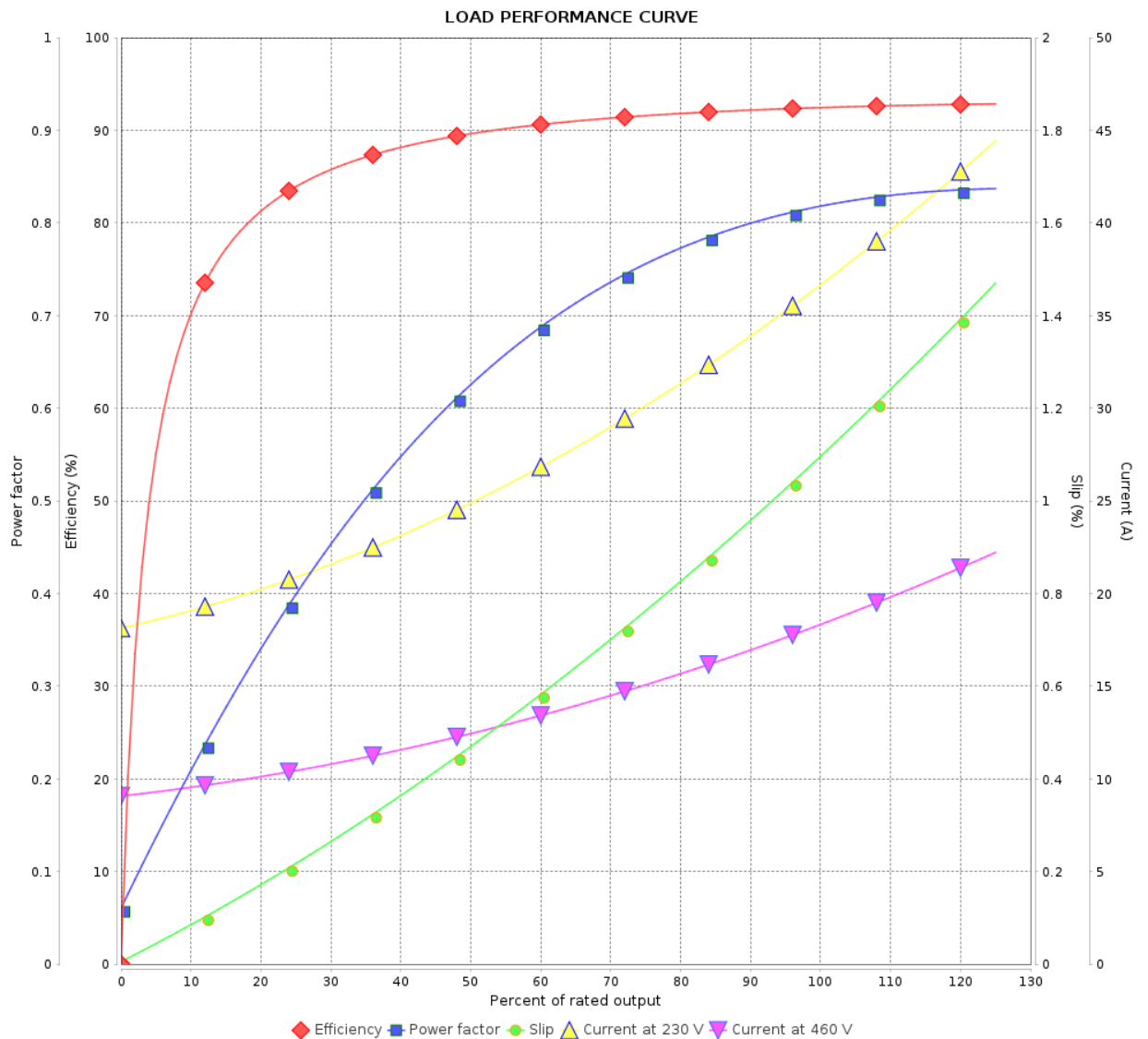
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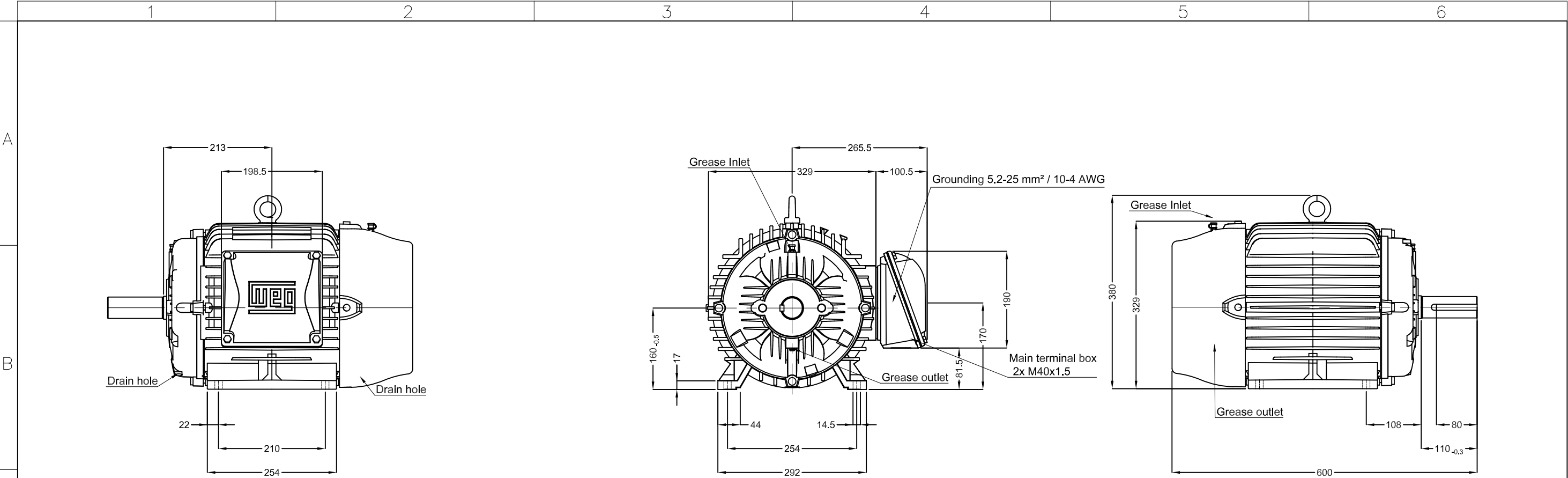


Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A
LRC : 8.5
Rated torque : 6.12 kgfm
Locked rotor torque : 300 %
Breakdown torque : 330 %
Rated speed : 1780 rpm

Moment of inertia (J) : 0.1004 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : N

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