

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13869844

Frame	: 404/5T	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	: 553 kg
Protection degree	: IP56	Moment of inertia (J)	: 1.26 kgm ²
Design	: B		

Output [HP]	100	100	100	100
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	116	142	135	131
L. R. Amperes [A]	719	795	837	865
LRC [A]	6.2x(Code G)	5.6x(Code F)	6.2x(Code G)	6.6x(Code G)
No load current [A]	32.0	31.7	33.7	35.0
Rated speed [RPM]	1775	1465	1470	1475
Slip [%]	1.39	2.33	2.00	1.67
Rated torque [kgfm]	40.9	49.5	49.4	49.2
Locked rotor torque [%]	240	190	210	220
Breakdown torque [%]	220	170	190	210
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	23s (cold) 13s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level ²	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%			
	50%	95.0	94.5	94.5
	75%	95.0	94.1	94.5
	100%	95.4	93.6	94.1
Power Factor	25%			
	50%	0.77	0.82	0.79
	75%	0.84	0.86	0.85
	100%	0.85	0.86	0.85

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

Losses (%)	P1 (0,9;1,0)	4.6	4.6	4.6	4.6
	P2 (0,5;1,0)	3.8	3.8	3.8	3.8
	P3 (0,25;1,0)	3.7	3.7	3.7	3.7
	P4 (0,9;0,5)	2.0	2.0	2.0	2.0
	P5 (0,5;0,5)	1.4	1.4	1.4	1.4
	P6 (0,5;0,25)	0.8	0.8	0.8	0.8
	P7 (0,25;0,25)	0.5	0.5	0.5	0.5

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6316 C3	6314 C3	Max. traction	: 741 kgf
Sealing	: Inpro/Seal	Inpro/Seal	Max. compression	: 1294 kgf
Lubrication interval	: 10000 h	12000 h		
Lubricant amount	: 34 g	27 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.

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

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Revision

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Customer :

Notes

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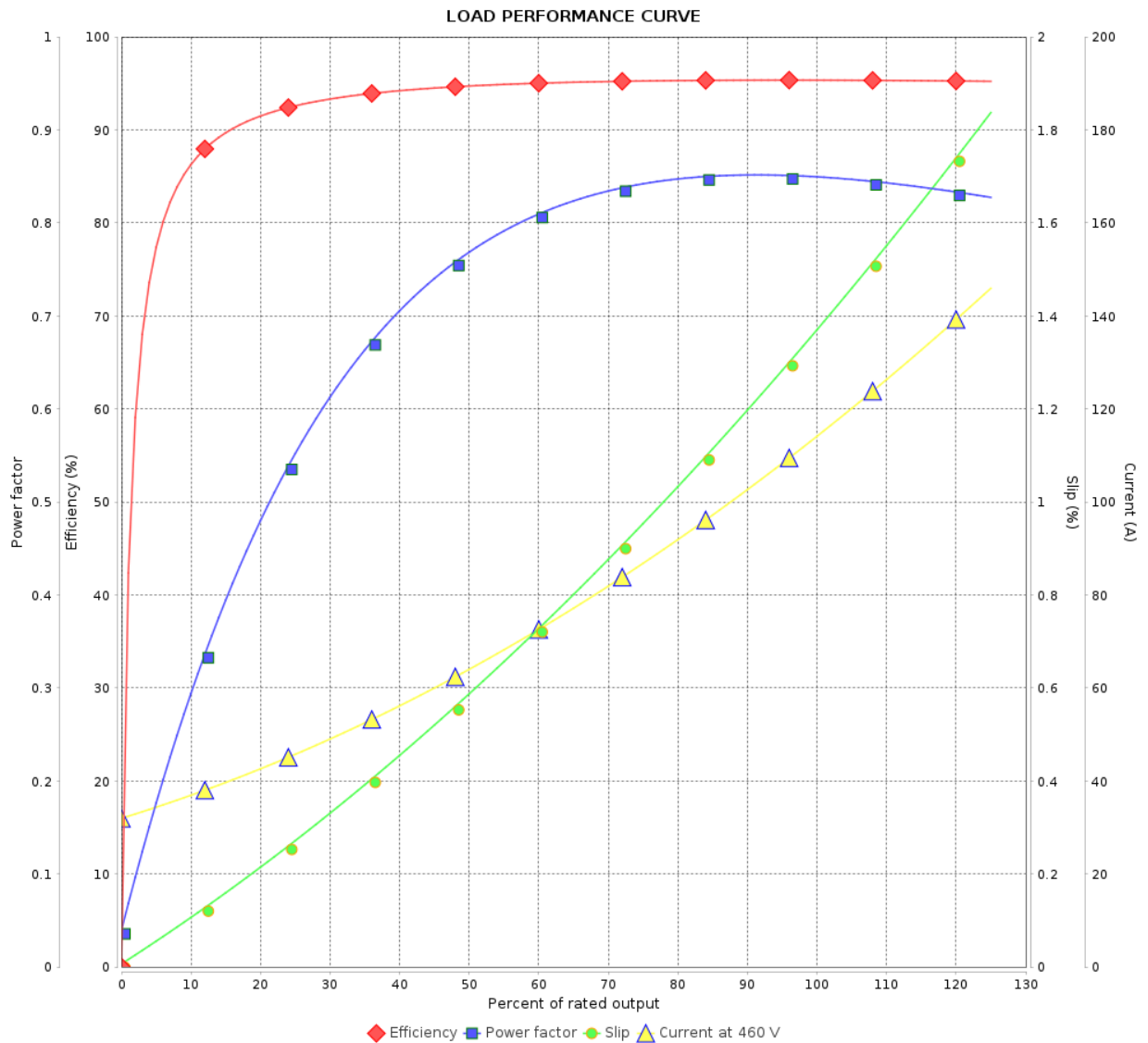
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13869844



Performance : 460 V 60 Hz 4P

Rated current : 116 A
LRC : 6.2
Rated torque : 40.9 kgfm
Locked rotor torque : 240 %
Breakdown torque : 220 %
Rated speed : 1775 rpm

Moment of inertia (J) : 1.26 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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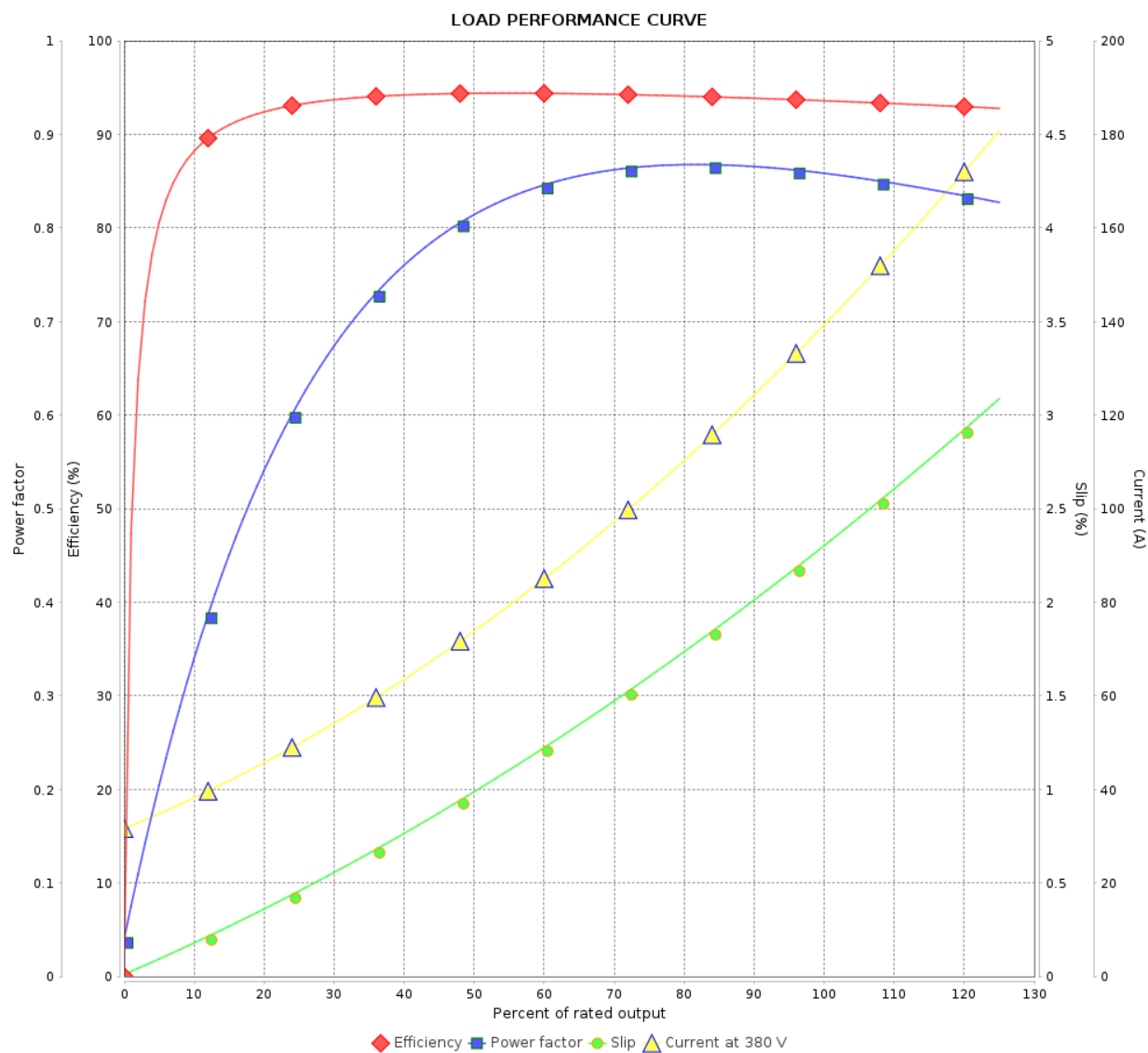
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13869844



Performance : 380 V 50 Hz 4P IE1

Rated current : 142 A
LRC : 5.6
Rated torque : 49.5 kgfm
Locked rotor torque : 190 %
Breakdown torque : 170 %
Rated speed : 1465 rpm

Moment of inertia (J) : 1.26 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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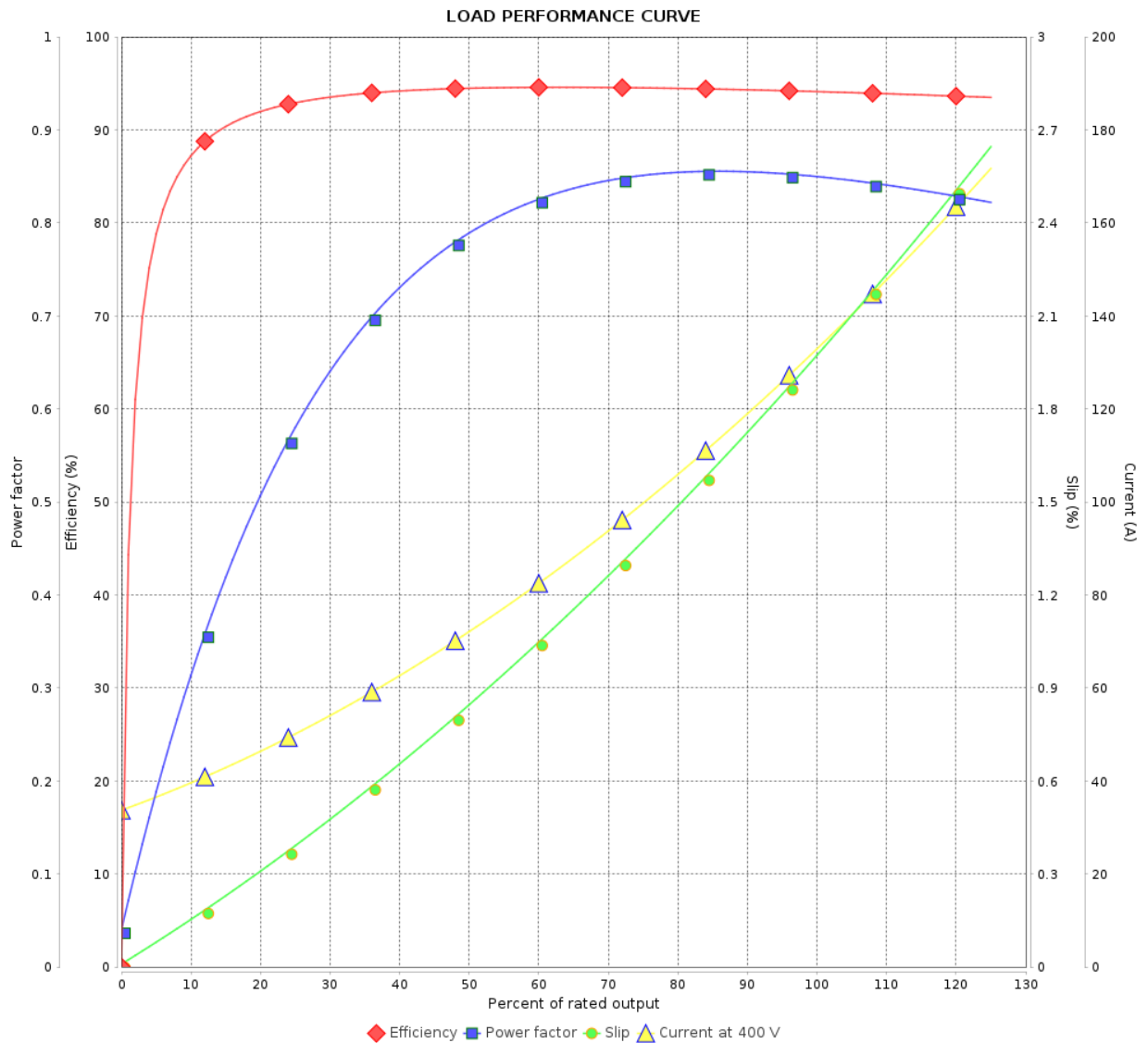
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13869844



Performance : 400 V 50 Hz 4P IE2

Rated current : 135 A
LRC : 6.2
Rated torque : 49.4 kgfm
Locked rotor torque : 210 %
Breakdown torque : 190 %
Rated speed : 1470 rpm

Moment of inertia (J) : 1.26 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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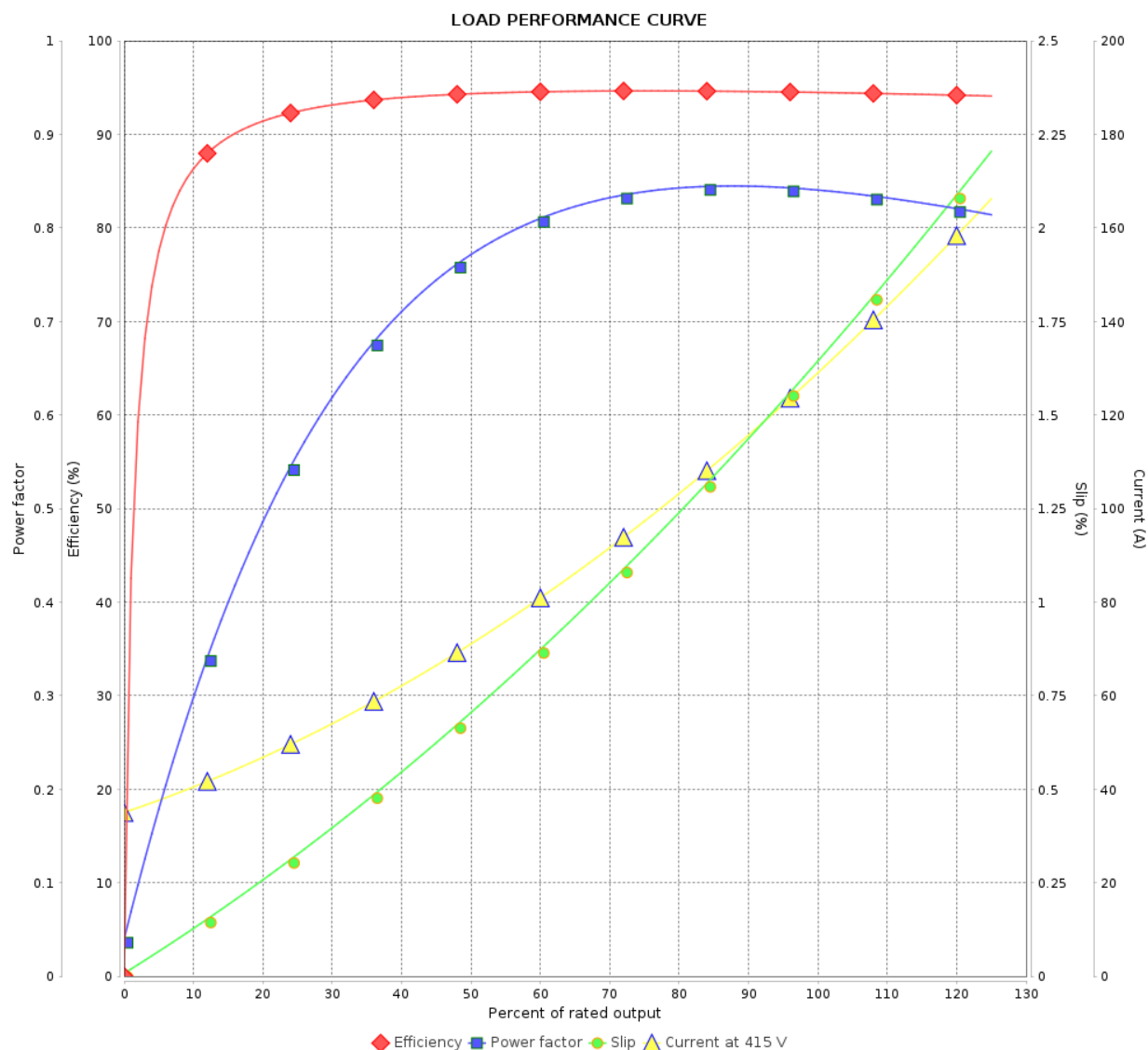
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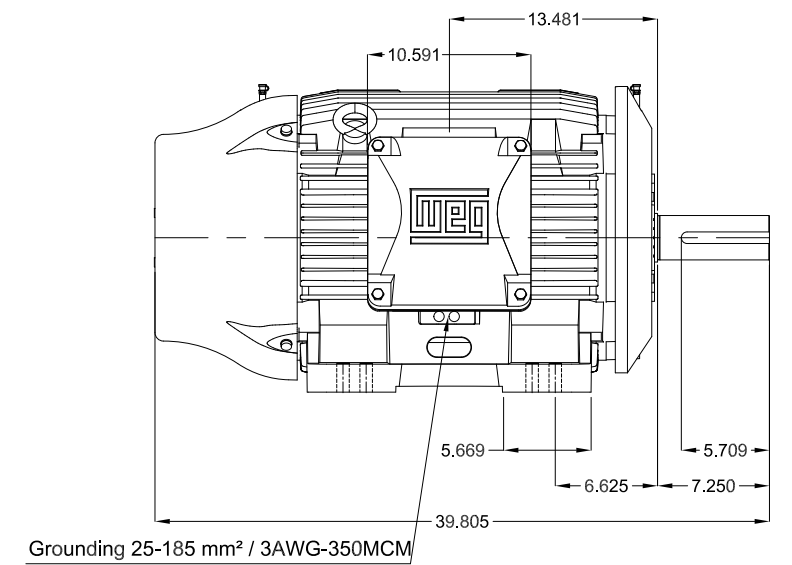




Performance : 415 V 50 Hz 4P IE2

Rated current : 131 A
LRC : 6.6
Rated torque : 49.2 kgfm
Locked rotor torque : 220 %
Breakdown torque : 210 %
Rated speed : 1475 rpm

Moment of inertia (J) : 1.26 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER		THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 404/5T IP56 TEFC					PREVIEW WDD 00 SHEET /				
CHECKED												
RELEASED												
REL. DATE												