DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel Premium Efficiency Three-Phase

Product code : 12809206

Catalog # : .5018OT3E56-S

Frame	: 56	Cooling method	: IC01 - ODP
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]	: 9.4 kg
		Moment of inertia (J)	: 0.0025 kgm²

Output [HP]		0.5	0.5	0.5
Poles		4	4	4
Frequency [Hz]		60	50	50
Rated voltage [V]		208-230/460	190/380	220/415
Rated current [A]		1.90-1.72/0.861	1.89/0.943	1.79/0.948
L. R. Amperes [A]		13.7-12.4/6.20	10.9/5.47	10.9/5.78
LRC [A]		7.2x(Code L)	5.8x(Code J)	6.1x(Code K)
No load current [A]		1.12-1.30/0.650	1.23/0.617	1.29/0.683
Rated speed [RPM]		1765	1450	1455
Slip [%]		1.94	3.33	3.00
Rated torque [kgfm]		0.206	0.250	0.249
Locked rotor torque [%]		240	180	200
Breakdown torque [%]		330	260	290
Service factor			1.25	1.25
Temperature rise		80 K	80 K	80 K
Locked rotor time		48s (cold) 27s (hot)	55s (cold) 31s (hot)	50s (cold) 28s (hot)
Noise level[2]		52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	67.5	71.5	68.9
	50%	70.0	72.6	70.6
	75%	75.5	76.6	75.7
	100%	78.2	77.4	77.2
Power Factor	25%	0.26	0.31	0.28
	50%	0.47	0.55	0.51
	75%	0.60	0.68	0.64
	100%	0.69	0.77	0.73

		Drive end	Non drive end
Bearing type	:	6203 ZZ	6202 ZZ
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	-	-
Lubricant amount	:	-	-
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 18 kgf

Max. compression : 28 kgf

Notes

USABLE @208V SF 1.00

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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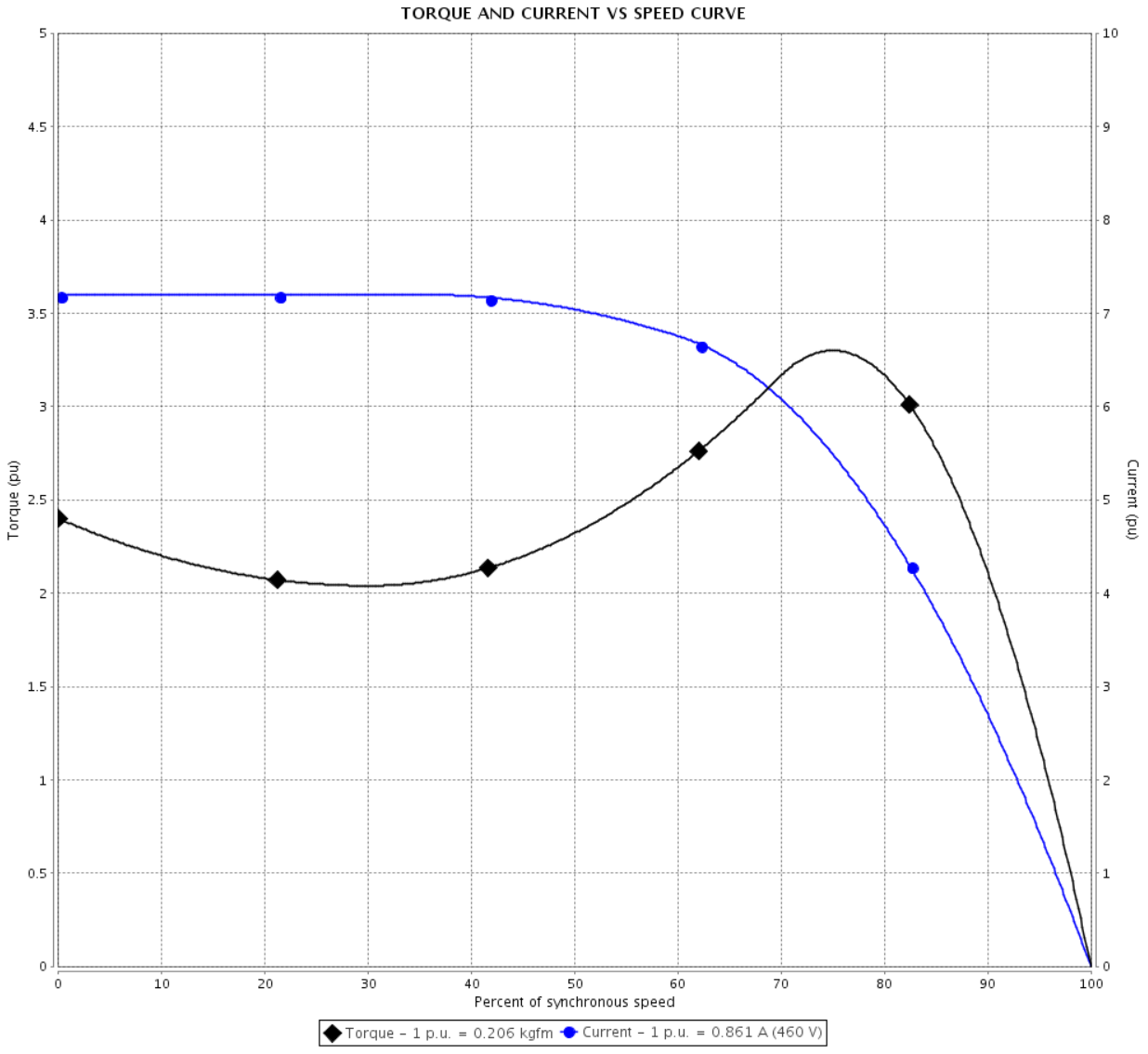
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: Rolled Steel Premium Efficiency Three-Phase	Product code :	12809206
		Catalog # :	.5018OT3E56-S



Performance	: 208-230/460 V 60 Hz 4P

Rated current	: 1.90-1.72/0.861 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.206 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm		

Locked rotor time	: 48s (cold) 27s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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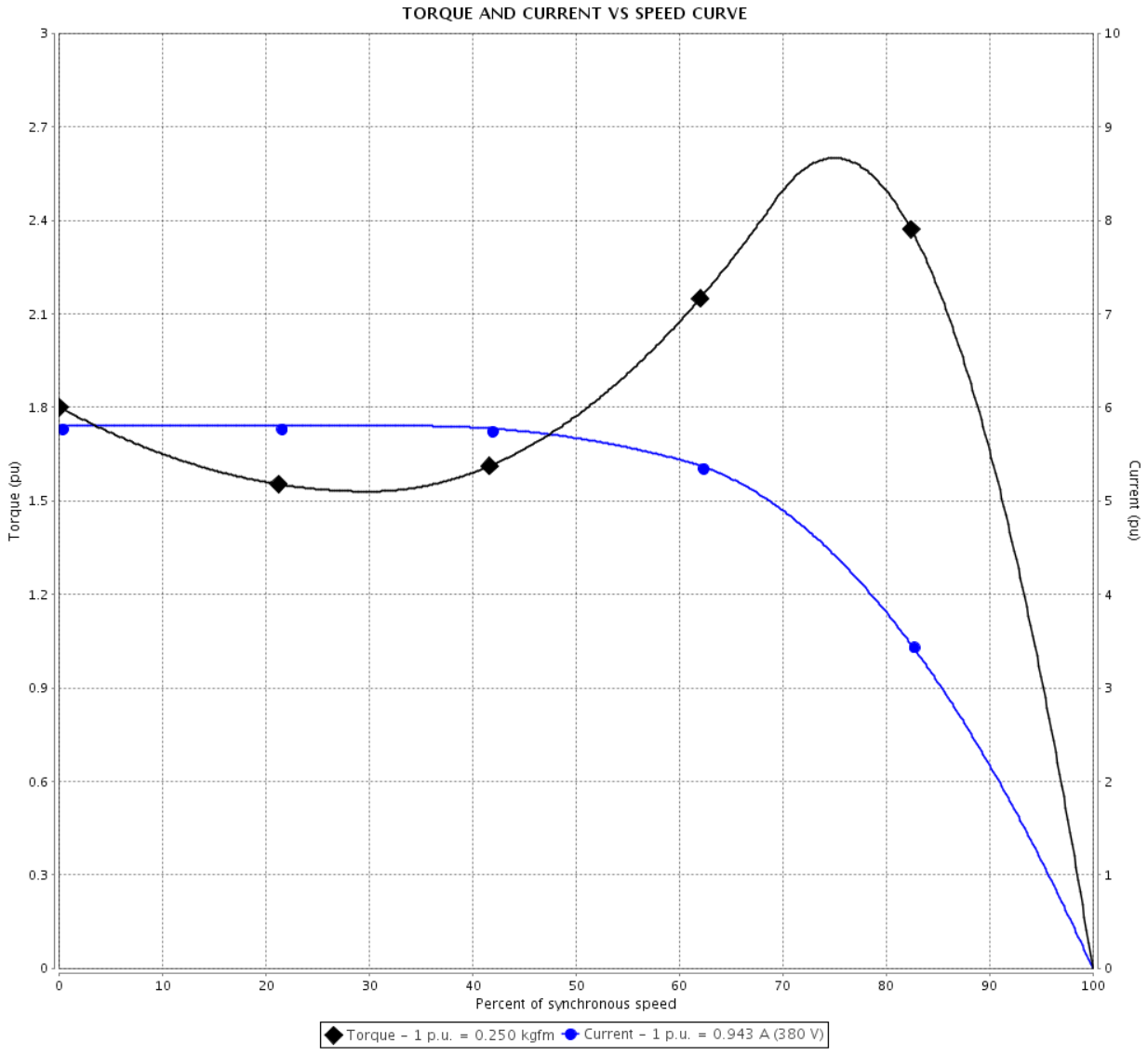

Performance	: 190/380 V 50 Hz 4P

Rated current	: 1.89/0.943 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.250 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm		

Locked rotor time	: 55s (cold) 31s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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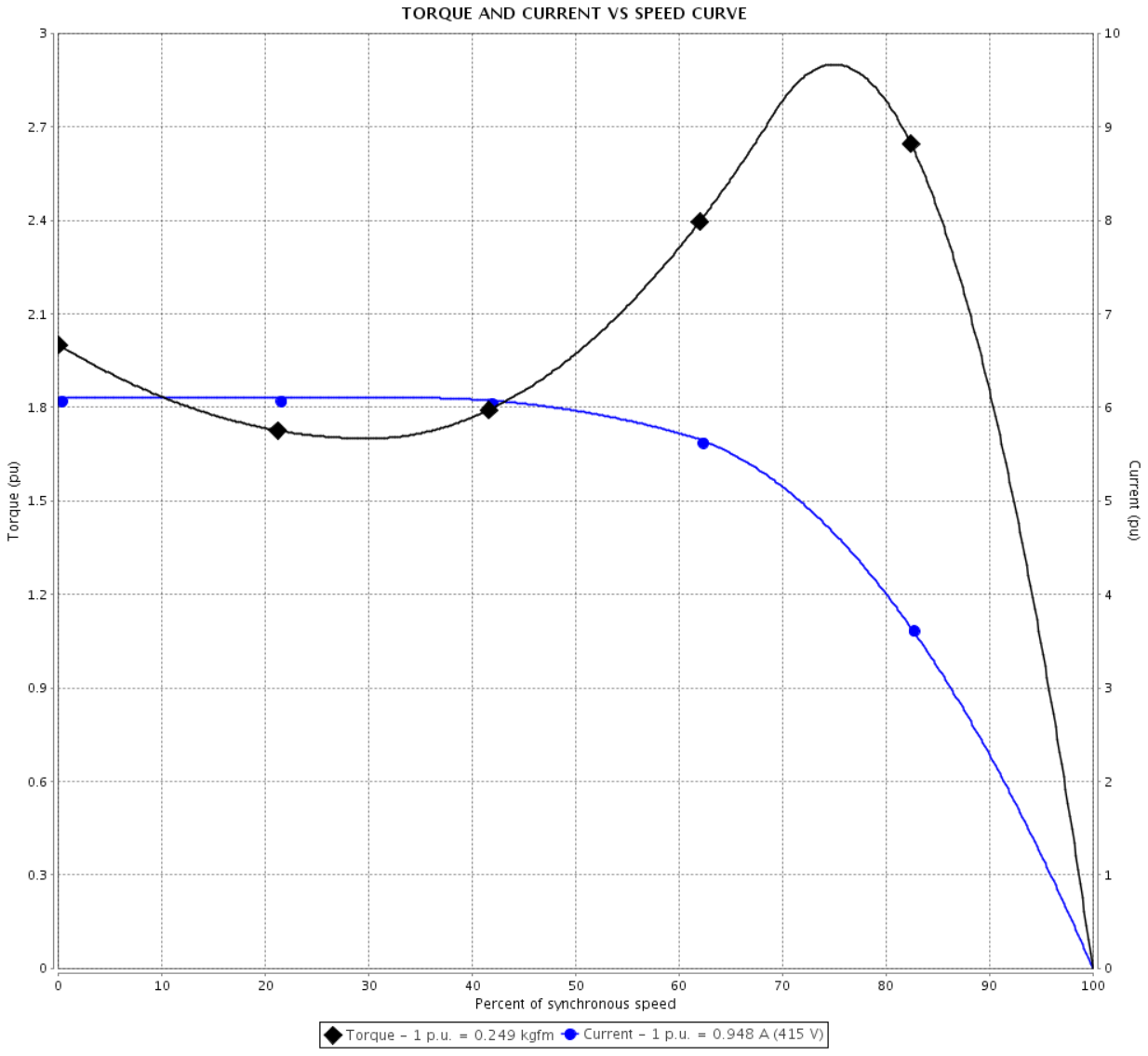

Performance	: 220/415 V 50 Hz 4P

Rated current	: 1.79/0.948 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.249 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm		

Locked rotor time	: 50s (cold) 28s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

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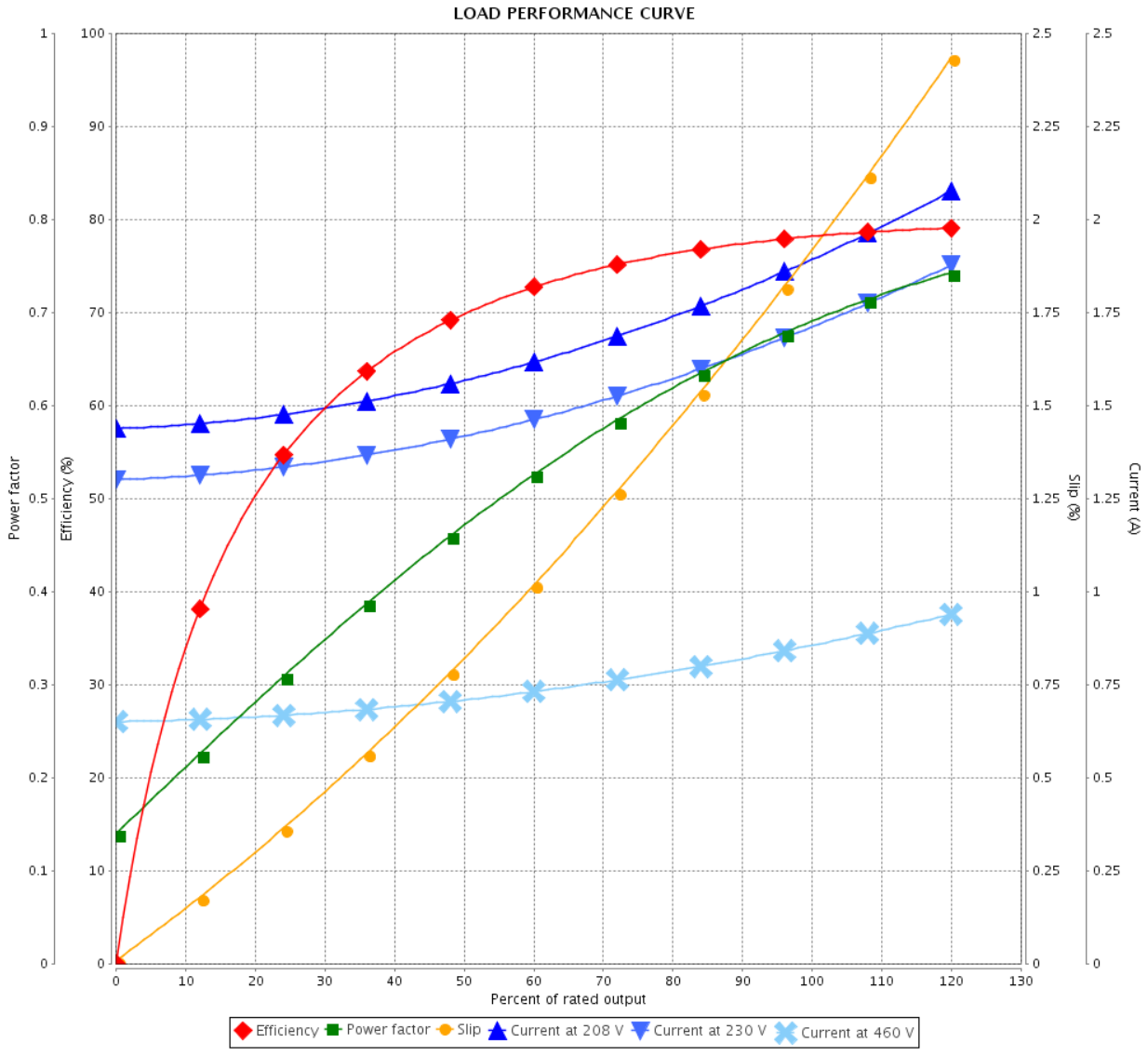

Performance	: 208-230/460 V 60 Hz 4P		
Rated current	: 1.90-1.72/0.861 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.206 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm		

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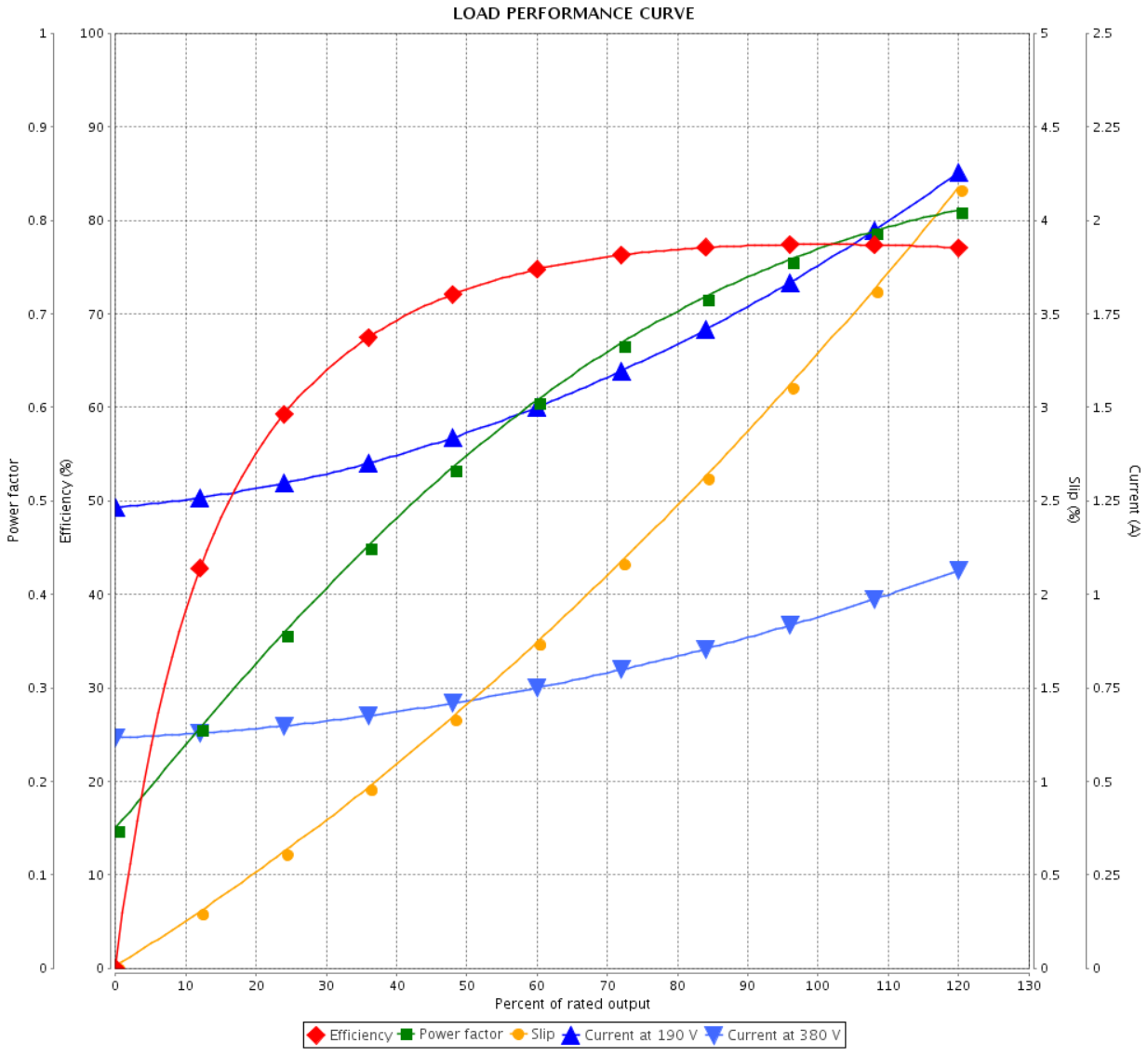

Performance	: 190/380 V 50 Hz 4P

Rated current	: 1.89/0.943 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.250 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm		

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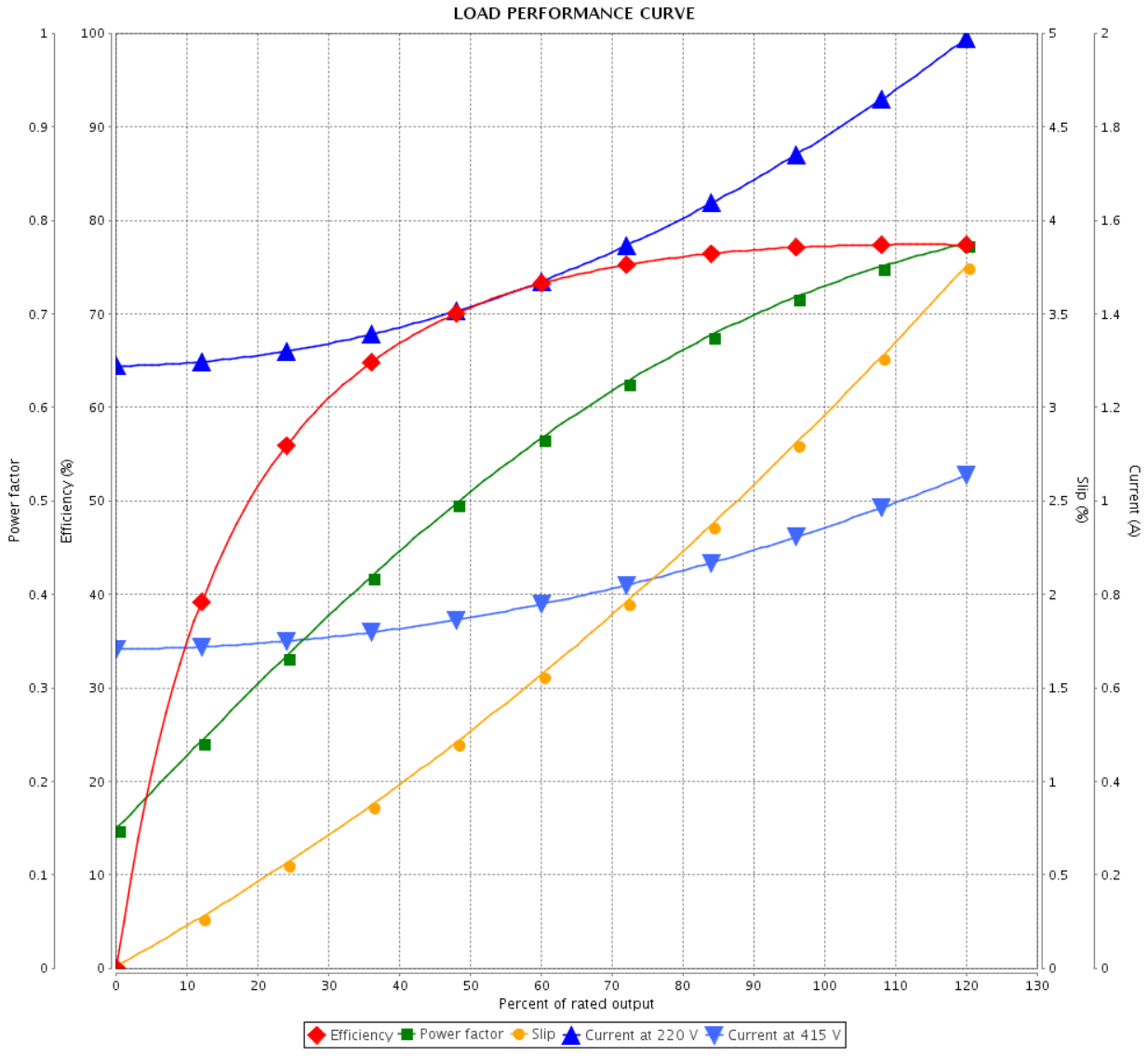

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Rated current	: 1.79/0.948 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.249 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm		

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: Rolled Steel Premium Efficiency Three-Phase	Product code :	12809206
		Catalog # :	.5018OT3E56-S

Performance	: 208-230/460 V 60 Hz 4P

Rated current	: 1.90-1.72/0.861 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.206 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm		

Heating constant	
Cooling constant	

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

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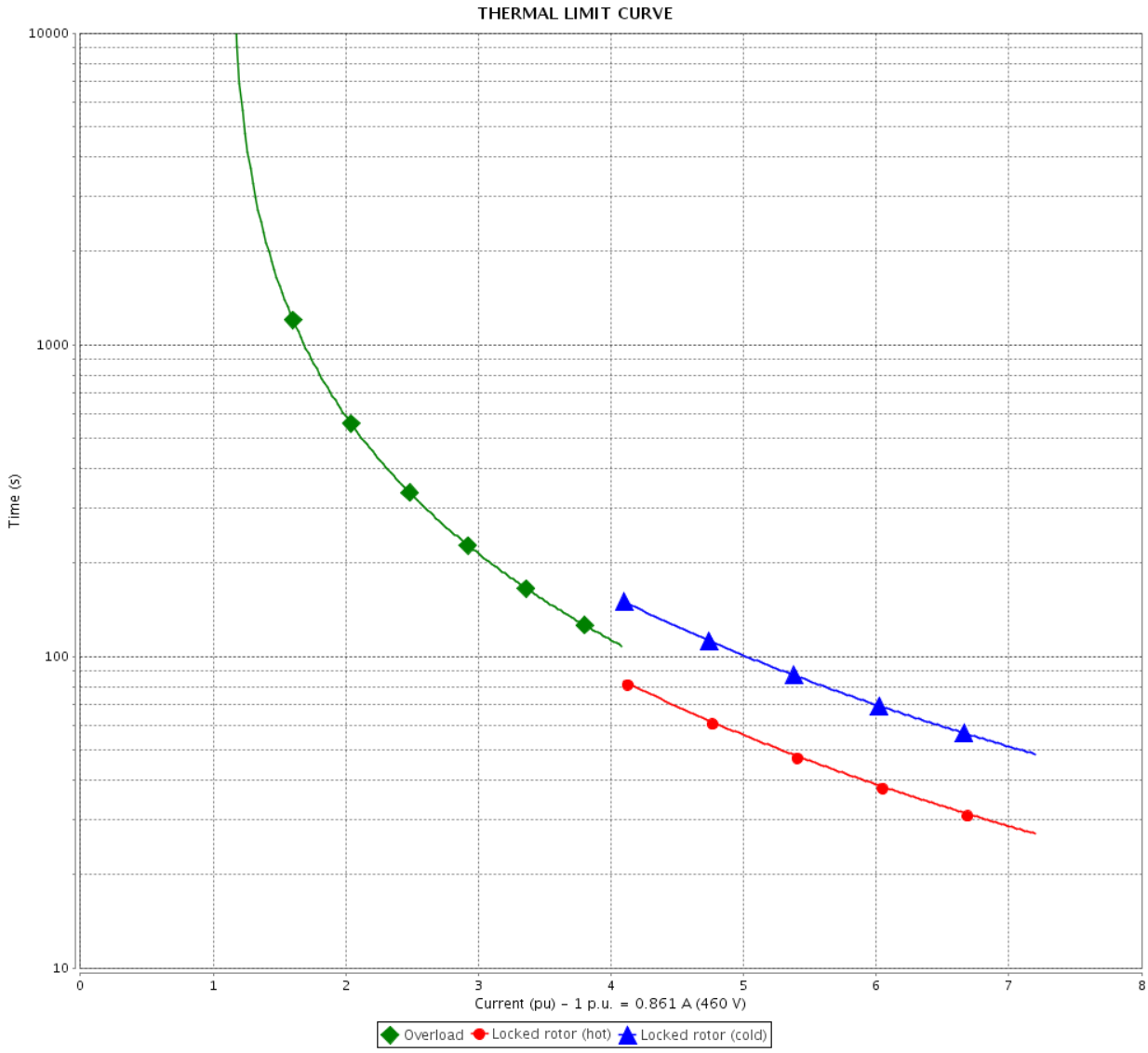

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Product line	: Rolled Steel Premium Efficiency Three-Phase	Product code :	12809206
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Performance	: 190/380 V 50 Hz 4P		
Rated current	: 1.89/0.943 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.250 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm		
Heating constant			
Cooling constant			

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THERMAL LIMIT CURVE

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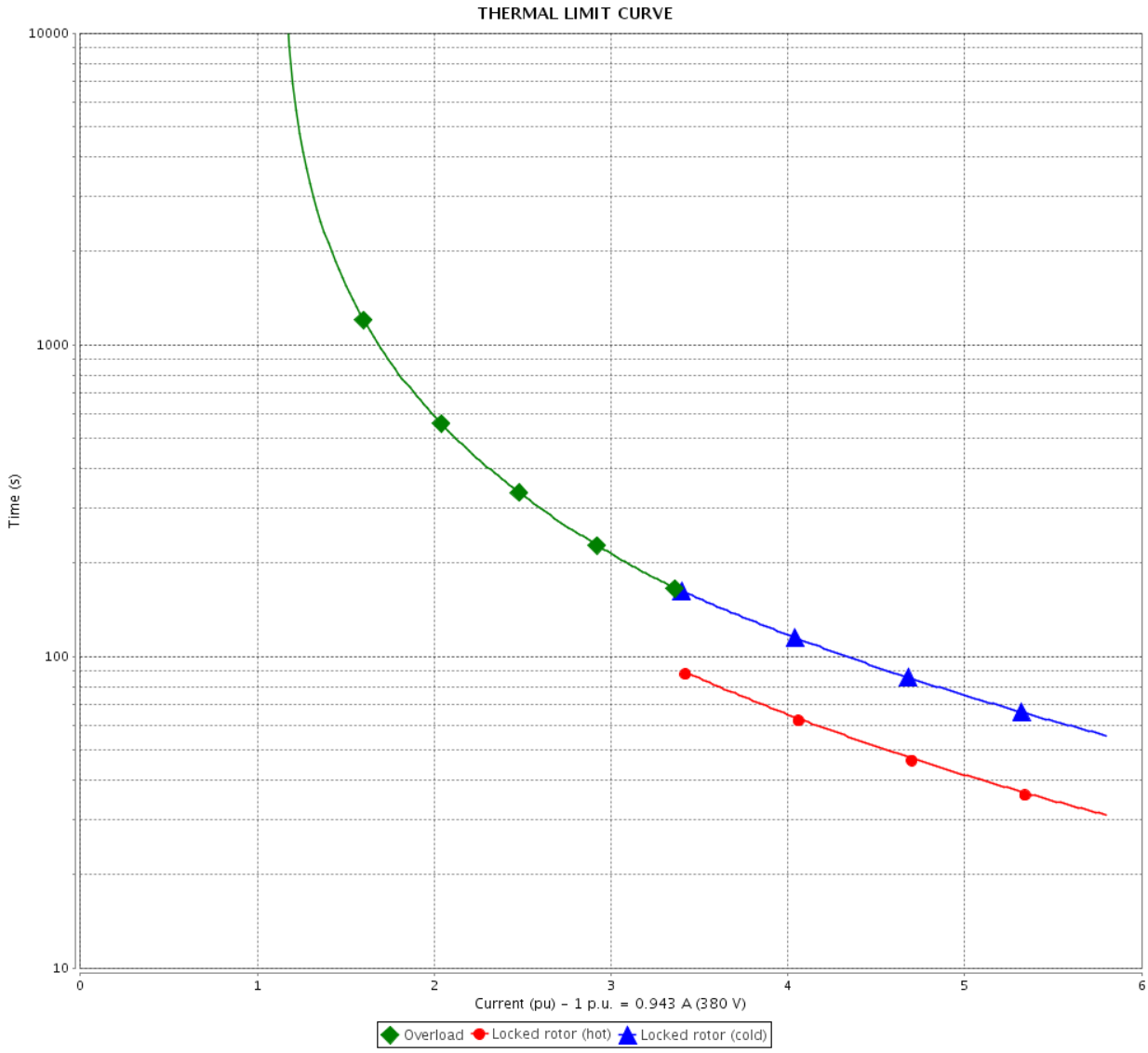

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Rated torque	: 0.249 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm		
Heating constant			
Cooling constant			

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THERMAL LIMIT CURVE

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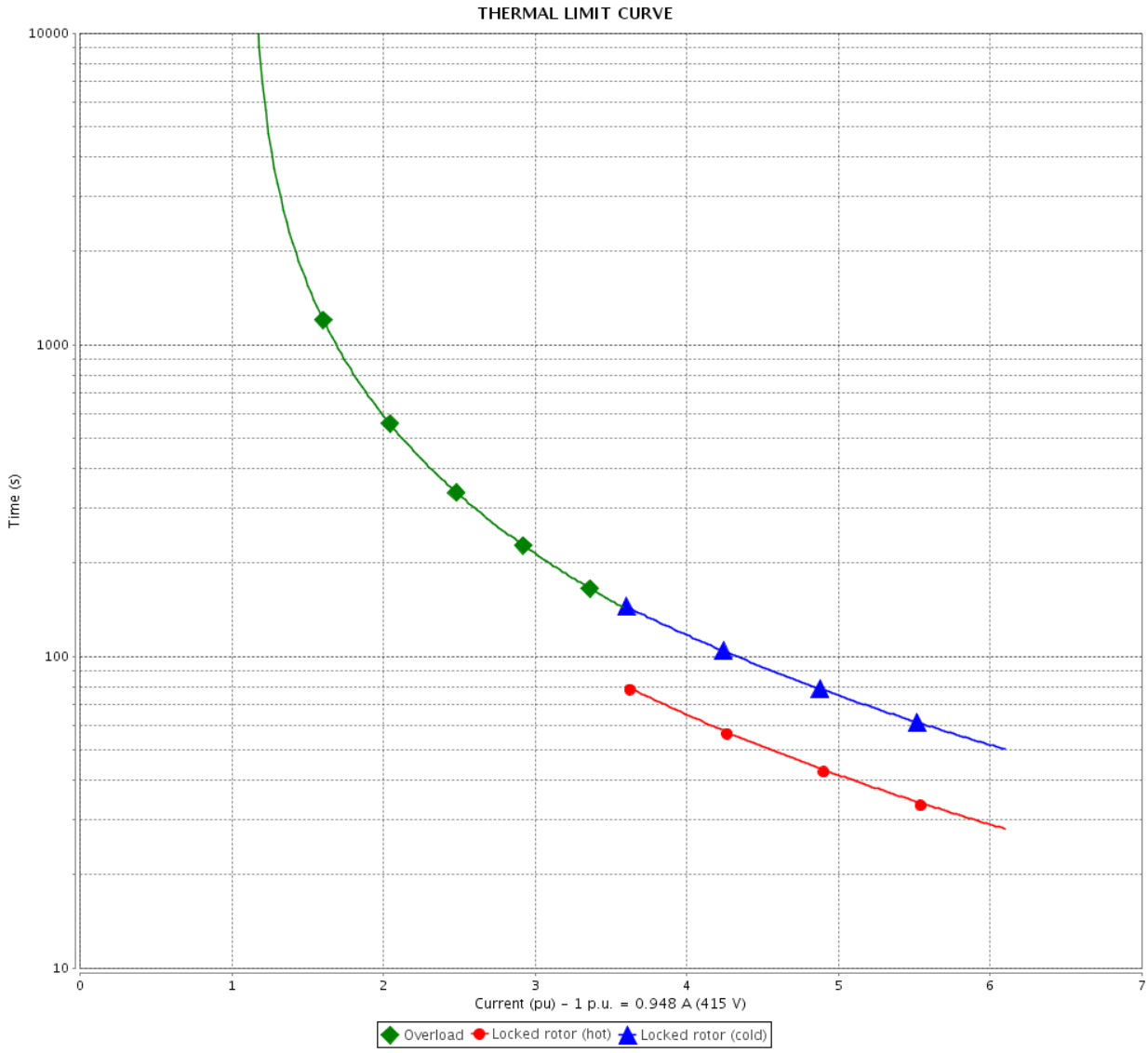

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VFD OPERATION CURVE

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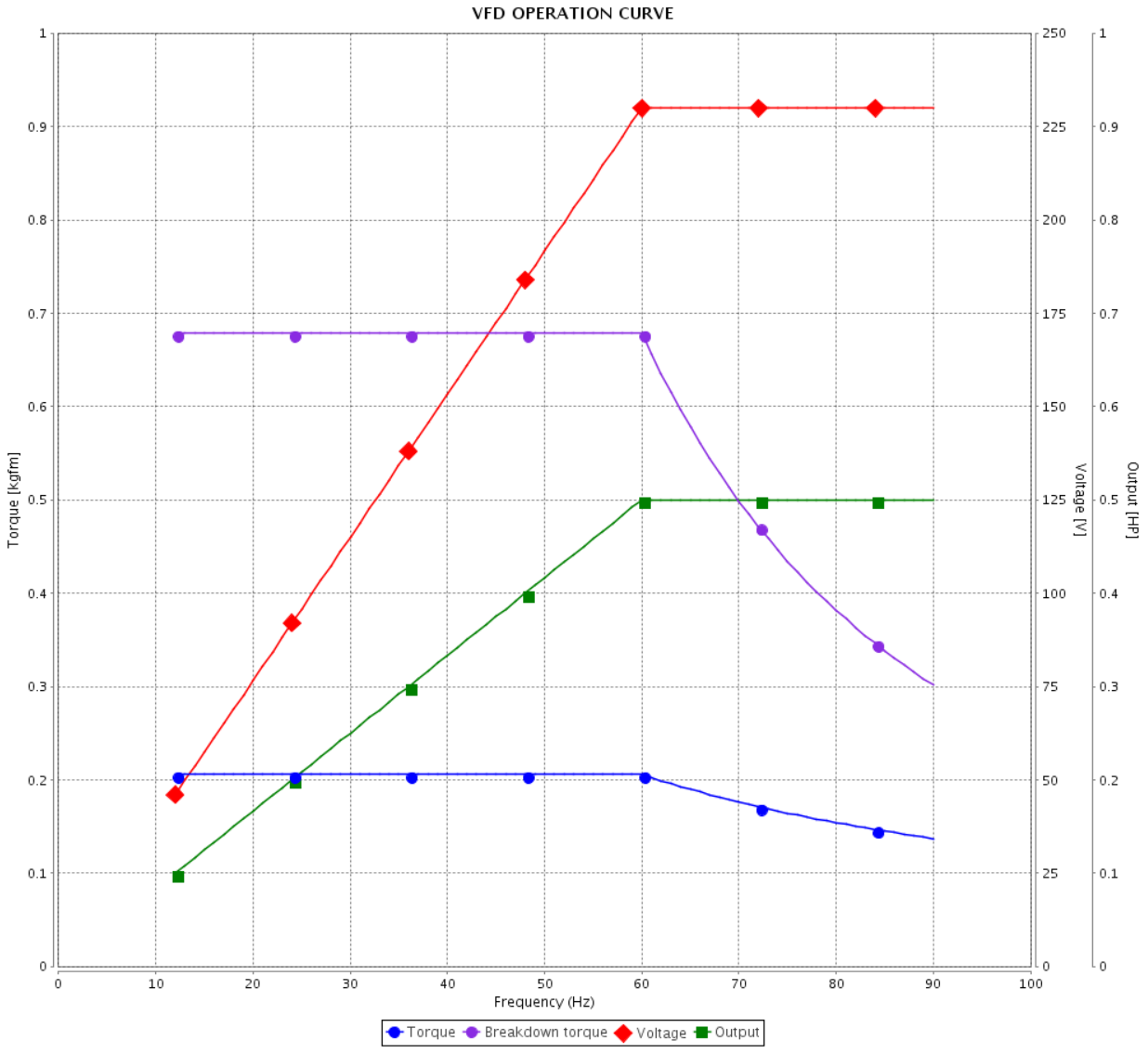

Performance	: 208-230/460 V 60 Hz 4P		
Rated current	: 1.90-1.72/0.861 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.206 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm		

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

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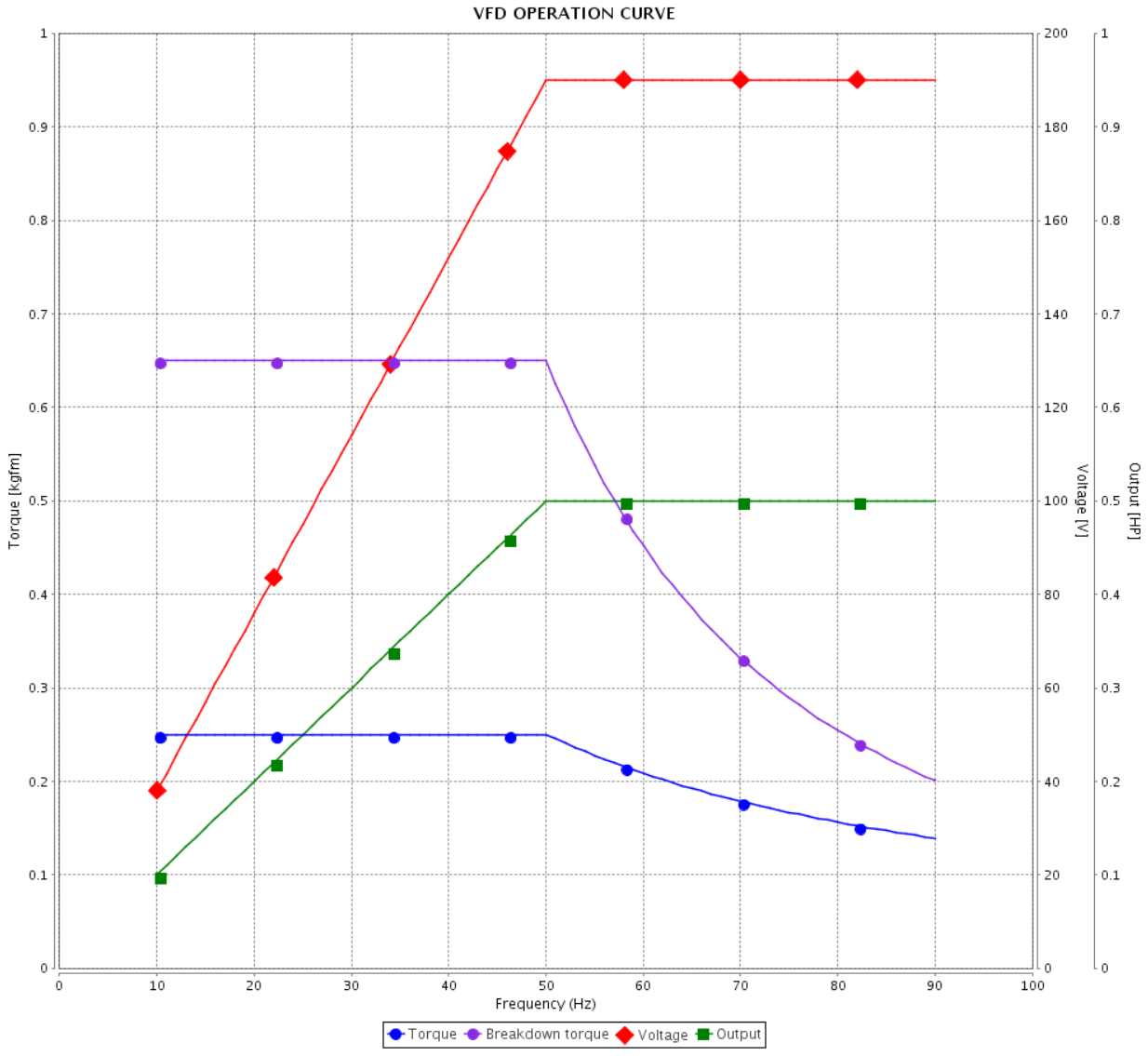

Performance	: 190/380 V 50 Hz 4P

Rated current	: 1.89/0.943 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.250 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm		

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

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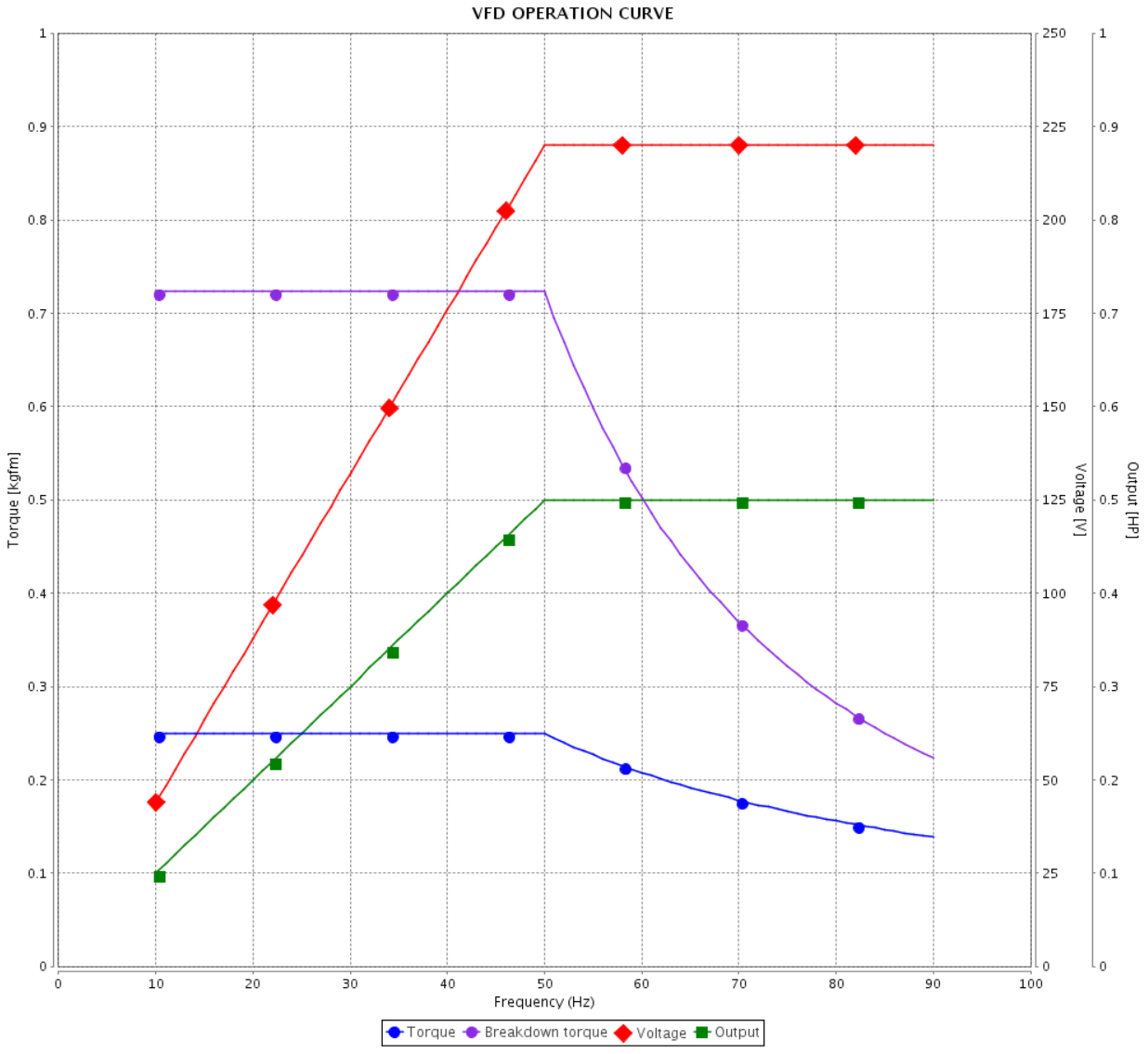

Performance	: 220/415 V 50 Hz 4P		
Rated current	: 1.79/0.948 A	Moment of inertia (J)	: 0.0025 kgm²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.249 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm		

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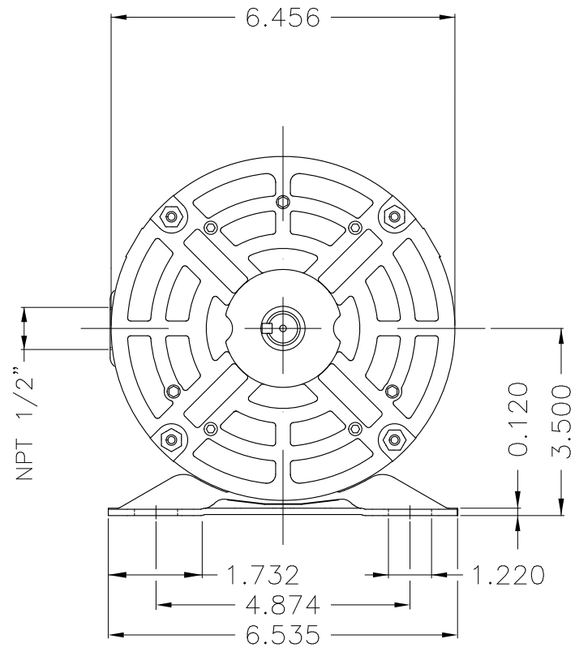
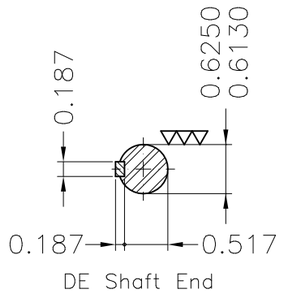
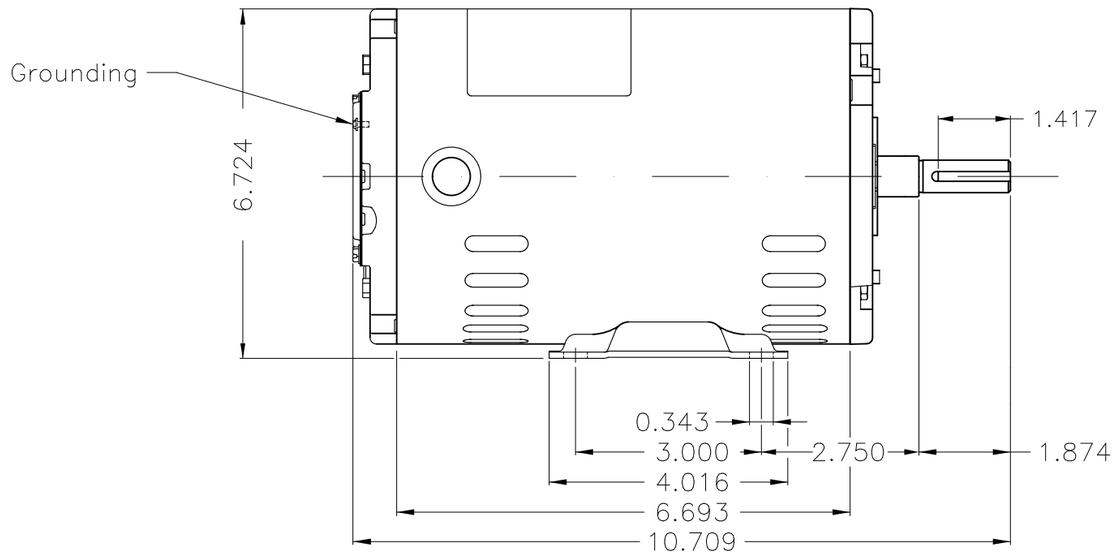
EIXO
PADRÃO X
OPCIONAL
ESPECIAL

Dimensões em polegada
Dimensions in inches

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.







Without coating
Mounting F-1/B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER

EXECUTED	USERADMIN	THREE P. MOTOR OPEN ROLLED STEEL PREM EFF		
CHECKED		FRAME 56 ODP		
RELEASED		WEG code: 12809206		
REL DT	22.03.2021	WMO Jaragua do Sul Product Engineering	SHEET	1 / 1

0.5 HP 04 Poles 60Hz

A

A3

ZME

NEMA Premium®

3PT9 c UL us LISTED

c SA us Energy Verified

MADE IN MÉXICO

CE

MAT: 12809206
W01.T00IC0X0X
MODEL .5018OT3E56-S
23MAR2021 B/N:

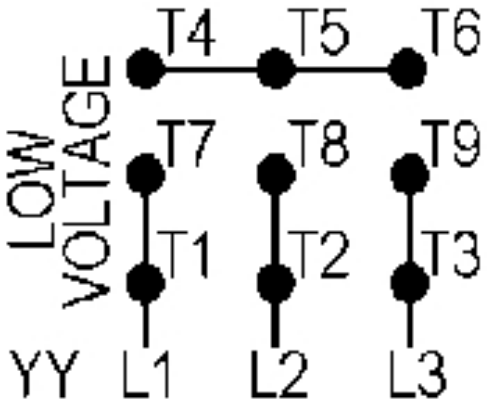
PH	3	Hz 60	
FR	56		
DUTY	CONT.		
ALT	1000 m.a.s.l		
INS CL F ΔT 80K			
AMB	40°C	DES -	
ENCL	ODP	CODE L	
USABLE @ 208V 1.90A SF1.00			

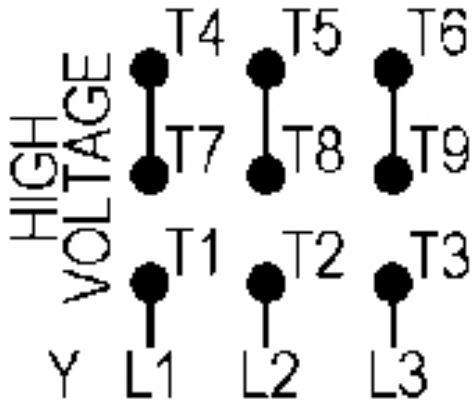
HP	0.50
kW	0.37
V	230/460
A	1.72/0.861
SFA	2.15/1.08
SF	1.25
PF	0.69
RPM	1765
AVG. F.L. EFF.	78.2%

ALTERNATE RATING: 0.50HP 50Hz 190-220/380-415V SF1.25
1.89-1.81/0.943-0.959A 1450RPM EFF 76.7% (IE2) IEC 60034-1

Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6203-ZZ	ODE 6202-ZZ	MOBIL POLYREX EM	





T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-BRK RED

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.

AVERTISSEMENT: Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.