

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12011329		
		Catalog # :	60012ET3G588/9-W22		
Frame	: 588/9T	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 ²	: 5867 lb		
Protection degree	: IP55	Moment of inertia (J)	: 449 sq.ft.lb		
Output [HP]	600	500	500	500	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	727	743	724	716	
L. R. Amperes [A]	4580	4532	4851	5155	
LRC [A]	6.3x(Code G)	6.1x(Code G)	6.7x(Code H)	7.2x(Code J)	
No load current [A]	330	325	354	379	
Rated speed [RPM]	1190	990	990	990	
Slip [%]	0.83	1.00	1.00	1.00	
Rated torque [ft.lb]	2650	2650	2650	2650	
Locked rotor torque [%]	220	200	229	250	
Breakdown torque [%]	229	220	250	270	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	55s (cold) 31s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	
Noise level ²	77.0 dB(A)	73.0 dB(A)	73.0 dB(A)	73.0 dB(A)	
Efficiency (%)	25%	95.2	95.3	95.1	94.9
	50%	95.4	95.4	95.2	95.0
	75%	96.1	95.8	95.8	95.8
	100%	96.2	95.8	95.8	95.8
Power Factor	25%	0.38	0.39	0.36	0.33
	50%	0.63	0.64	0.60	0.56
	75%	0.74	0.75	0.71	0.69
	100%	0.79	0.79	0.77	0.75
Bearing type	: <u>Drive end</u> 6322 C3	<u>Non drive end</u> 6319 C3	Foundation loads		
Sealing	: Taconite	Taconite	Max. traction	: 12007 lb	
	Labyrinth	Labyrinth	Max. compression	: 17874 lb	
Lubrication interval	: 11000 h	13000 h			
Lubricant amount	: 60 g	45 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
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.		
Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	12/04/2022			1 / 22	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Space heater information

Voltage: 200 - 240 V

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		2 / 22	

TORQUE AND CURRENT VS SPEED CURVE



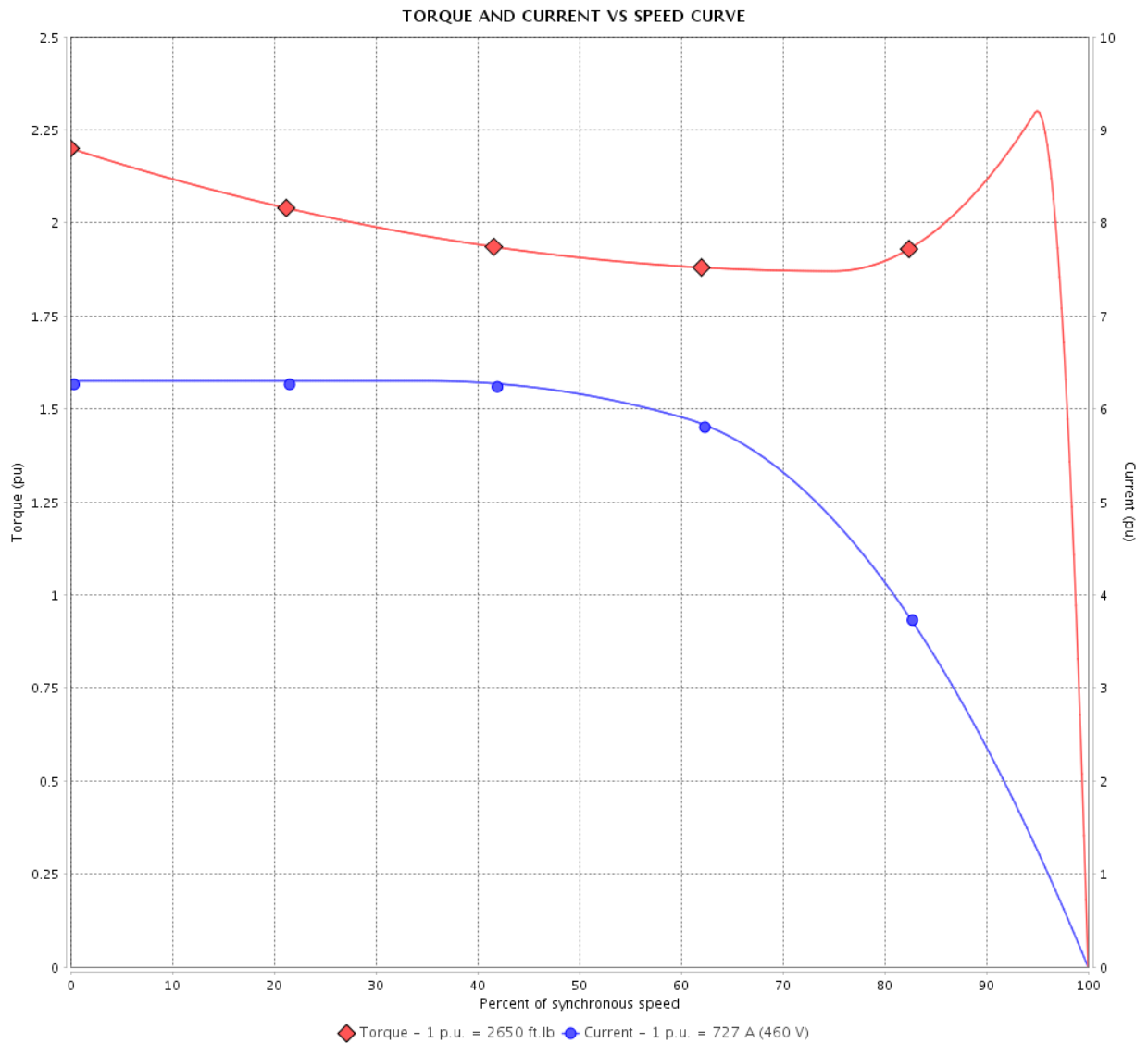
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22



Performance : 460 V 60 Hz 6P

Rated current : 727 A	Moment of inertia (J) : 449 sq.ft.lb
LRC : 6.3	Duty cycle : Cont.(S1)
Rated torque : 2650 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 229 %	Temperature rise : 80 K
Rated speed : 1190 rpm	

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 22	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



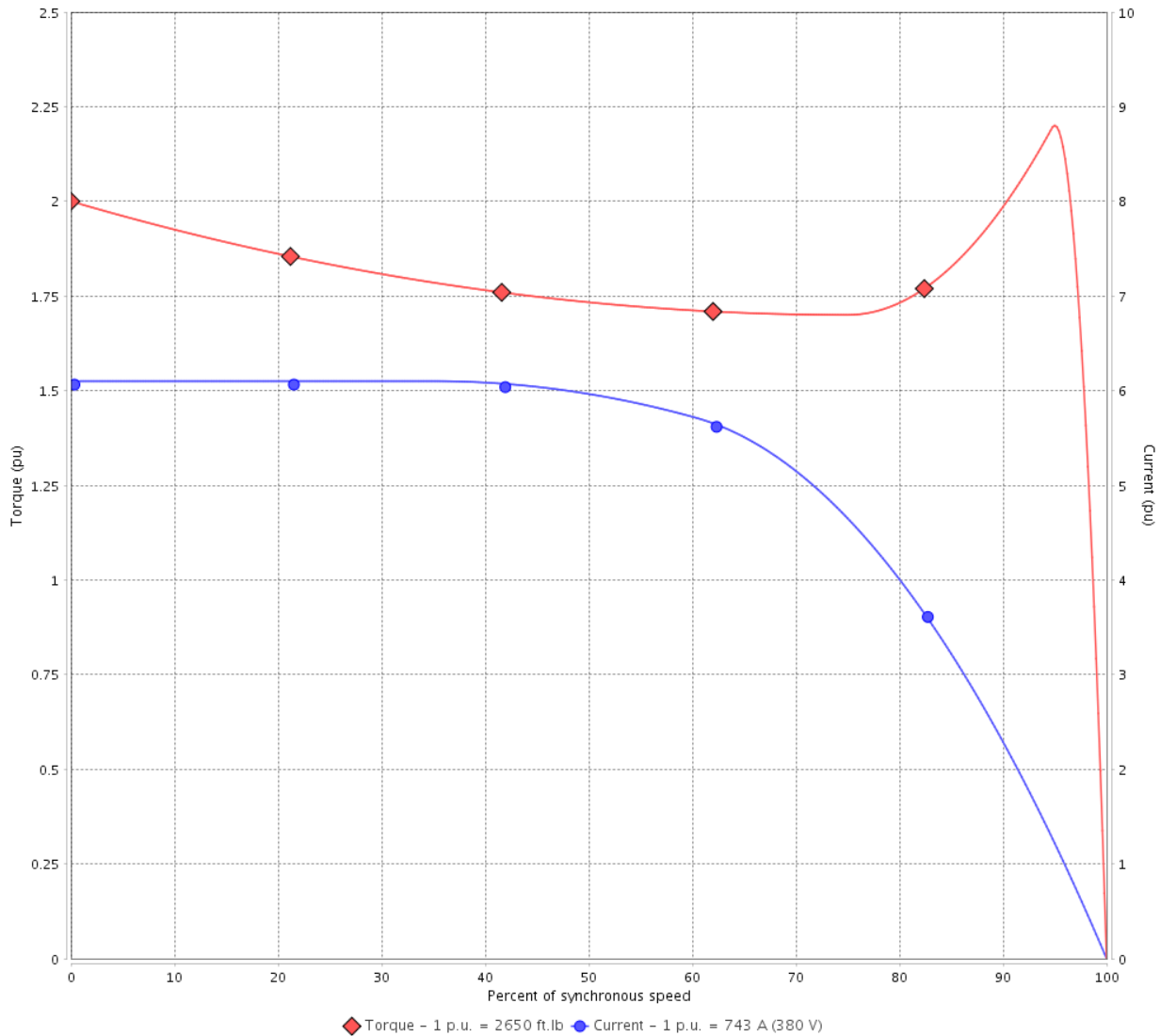
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 6P IE3

Rated current	: 743 A	Moment of inertia (J)	: 449 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 2650 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 990 rpm		

Locked rotor time : 45s (cold) 25s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 22	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



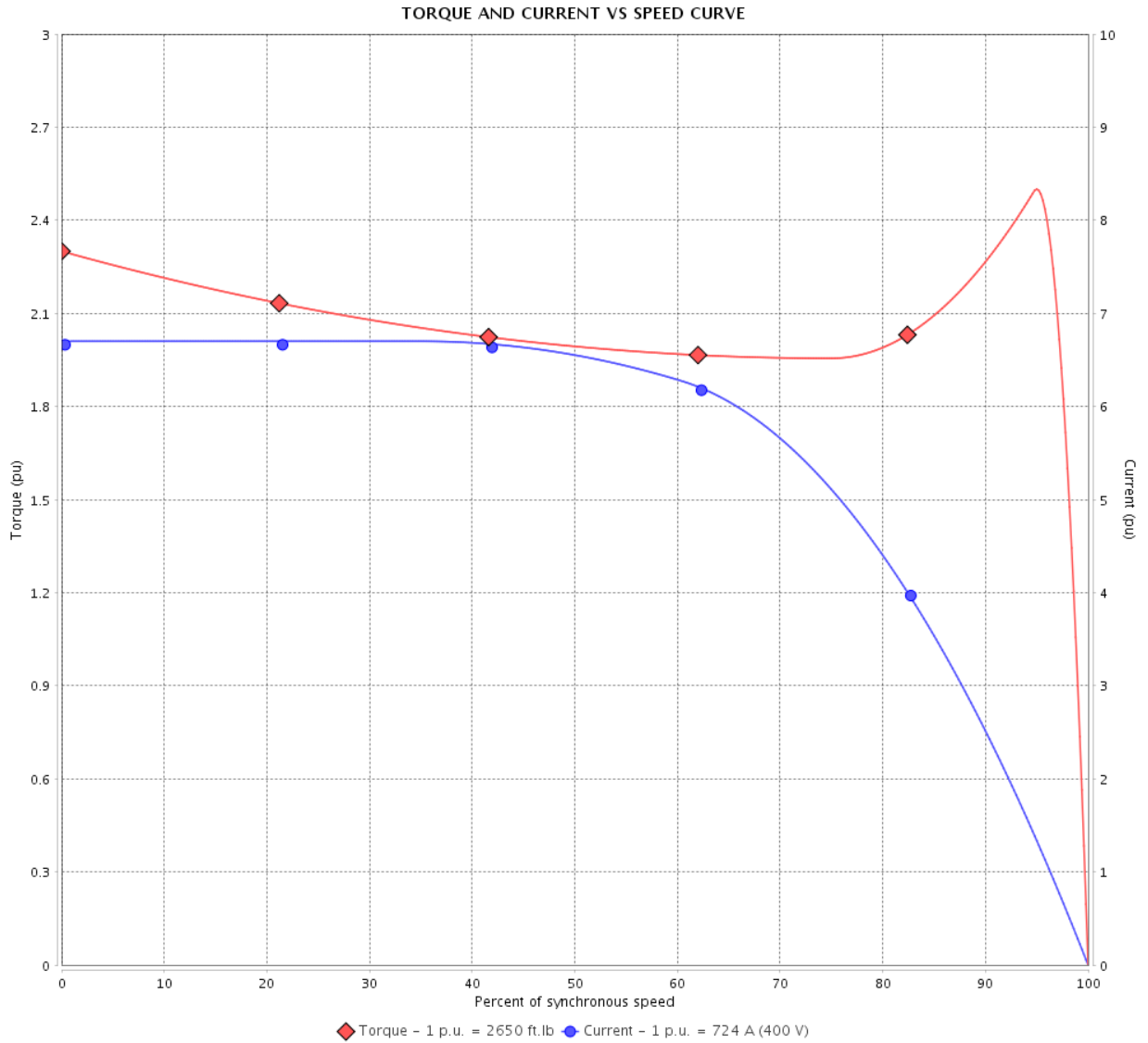
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22



Performance : 400 V 50 Hz 6P IE3

Rated current : 724 A
 LRC : 6.7
 Rated torque : 2650 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 250 %
 Rated speed : 990 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Locked rotor time : 45s (cold) 25s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 22	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



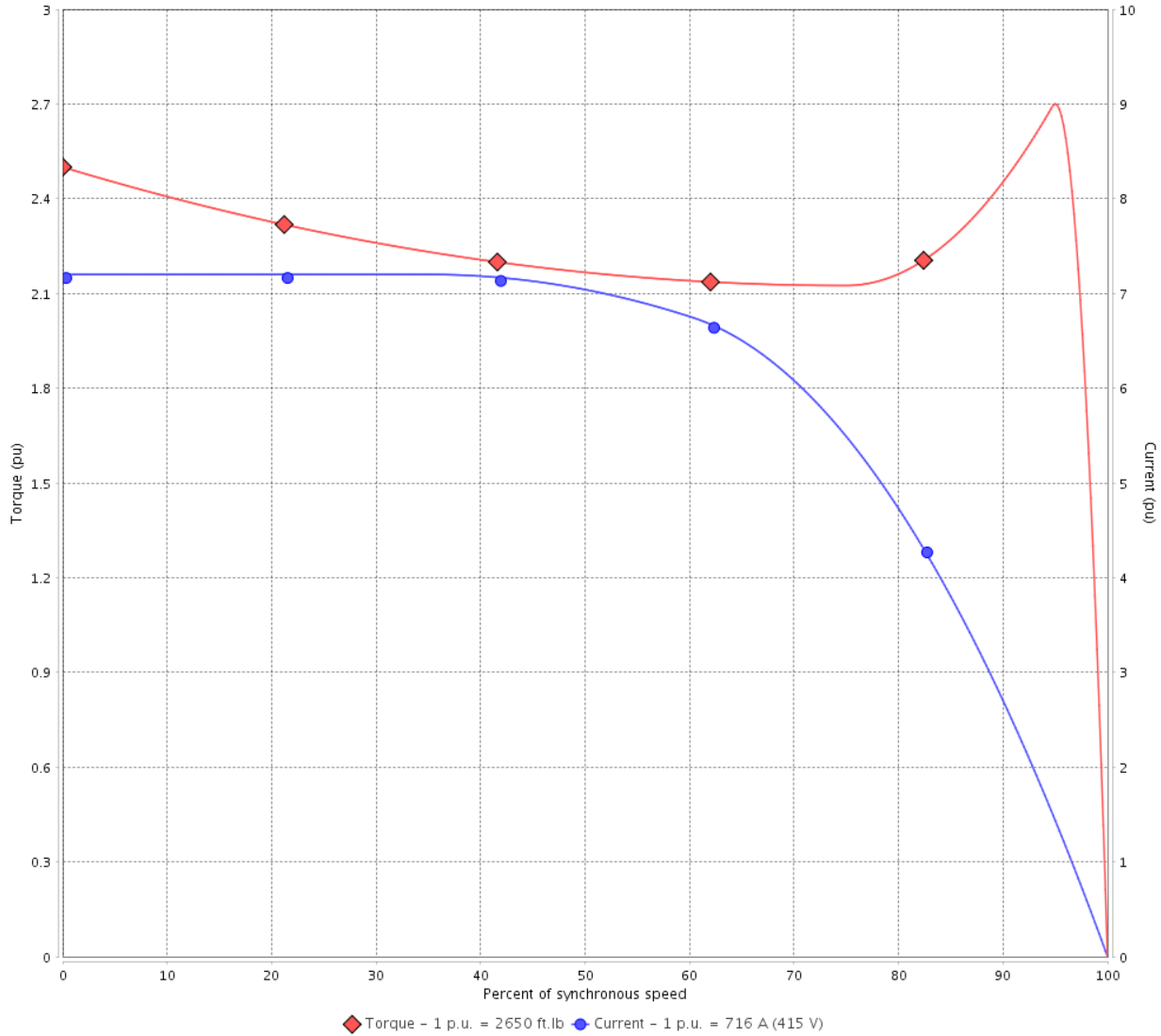
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 6P IE3

Rated current	: 716 A	Moment of inertia (J)	: 449 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 2650 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 990 rpm		

Locked rotor time : 45s (cold) 25s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 22	Revision
Checked by				
Date	12/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

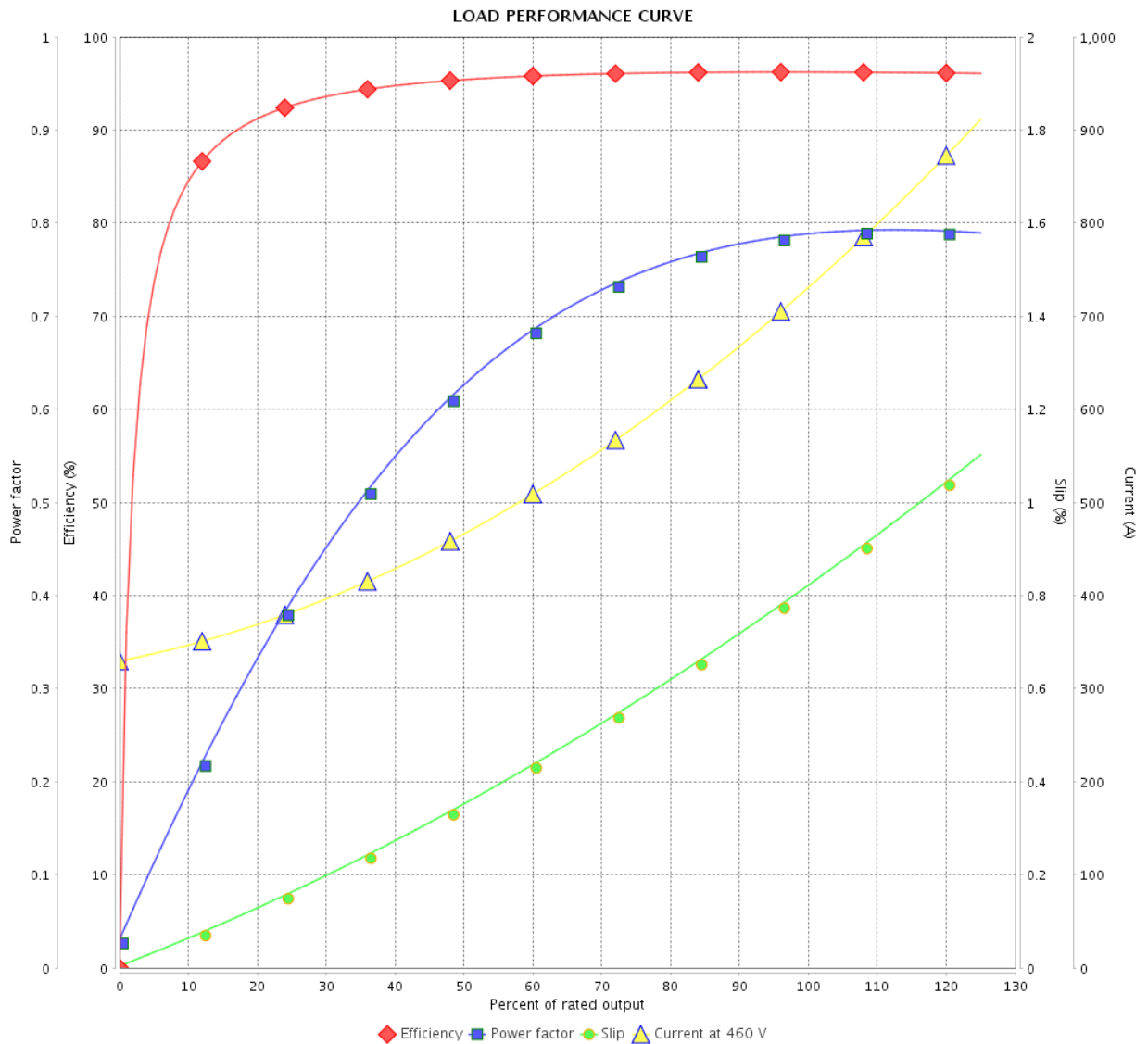


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22



Performance : 460 V 60 Hz 6P

Rated current : 727 A
 LRC : 6.3
 Rated torque : 2650 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 229 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			7 / 22	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



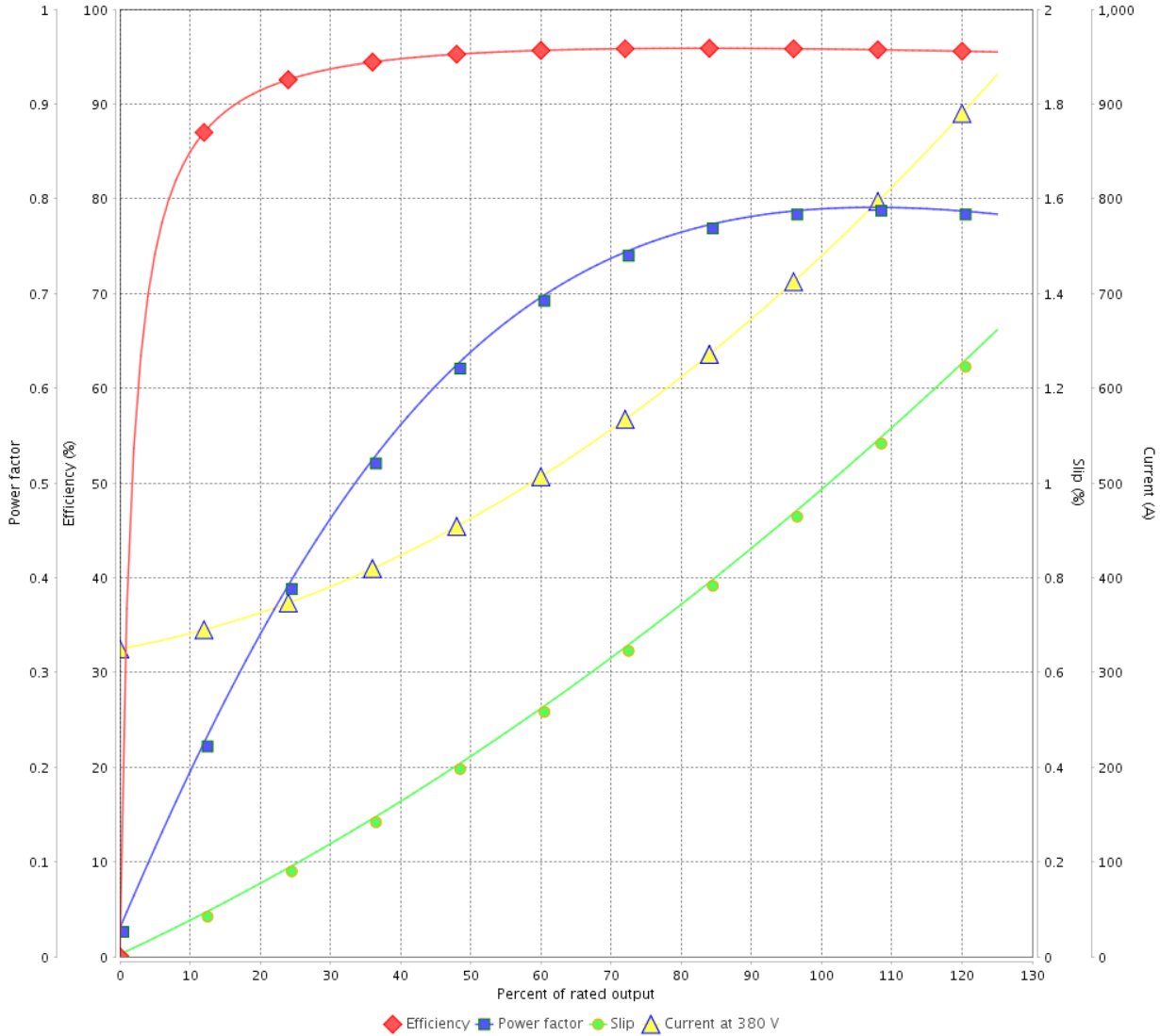
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 6P IE3

Rated current : 743 A
 LRC : 6.1
 Rated torque : 2650 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 990 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			8 / 22	
Date	12/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

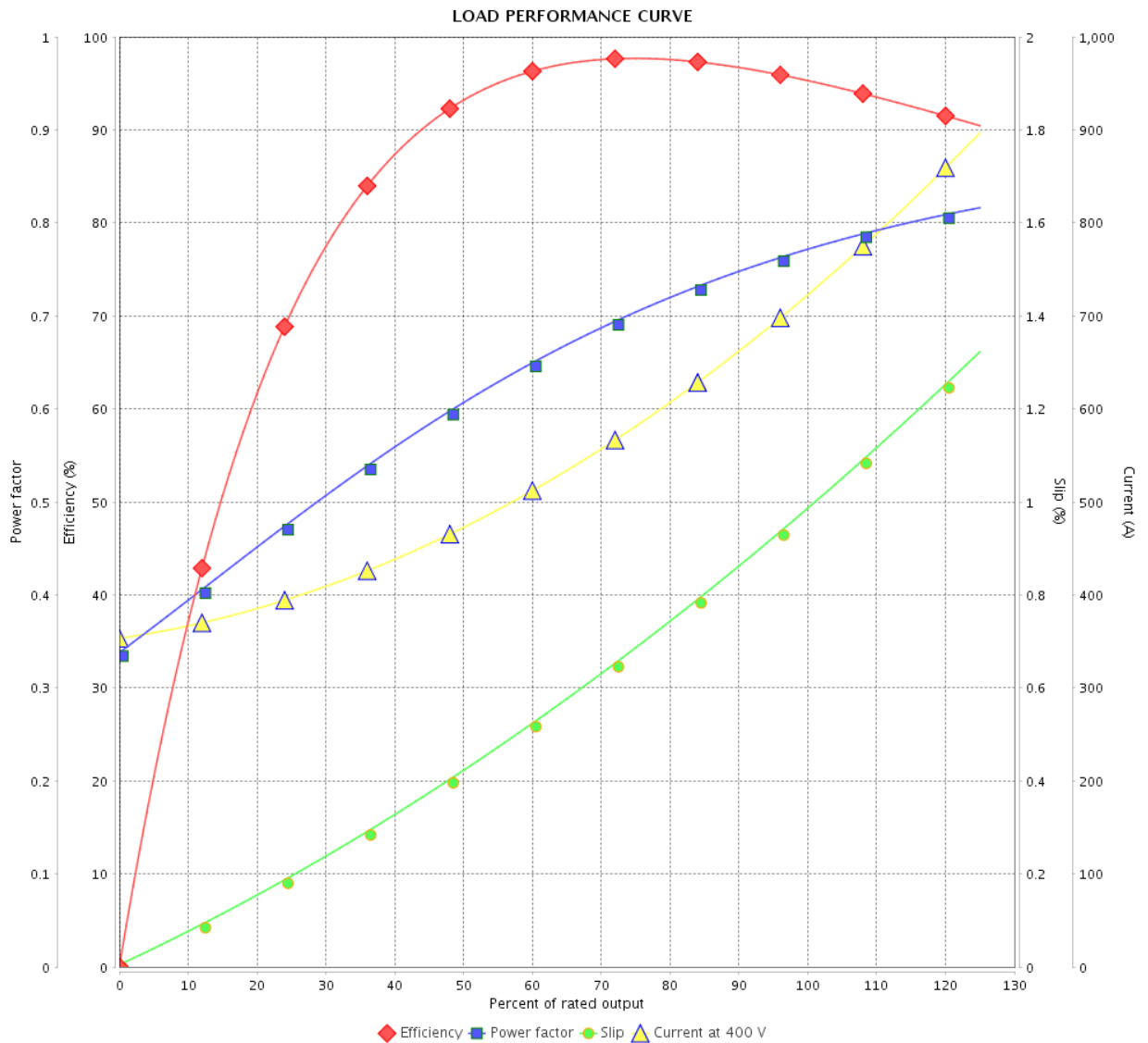


Customer :

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Performance : 400 V 50 Hz 6P IE3

Rated current : 724 A
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 Rated torque : 2650 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 250 %
 Rated speed : 990 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			9 / 22	
Date	12/04/2022			

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Three Phase Induction Motor - Squirrel Cage



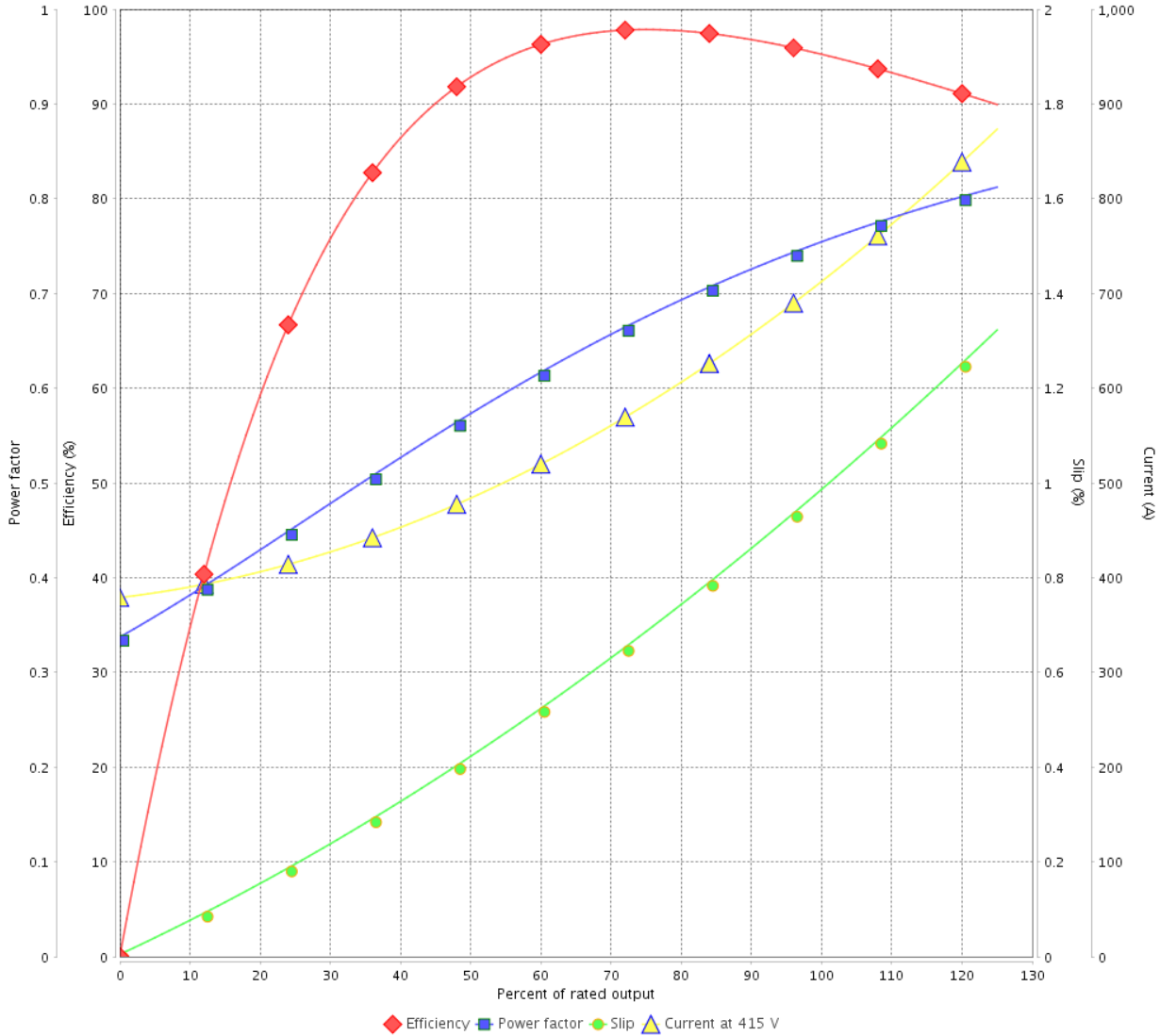
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		10 / 22		
Date	12/04/2022			

THERMAL LIMIT CURVE



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Rated speed : 1190 rpm	

Heating constant

Cooling constant

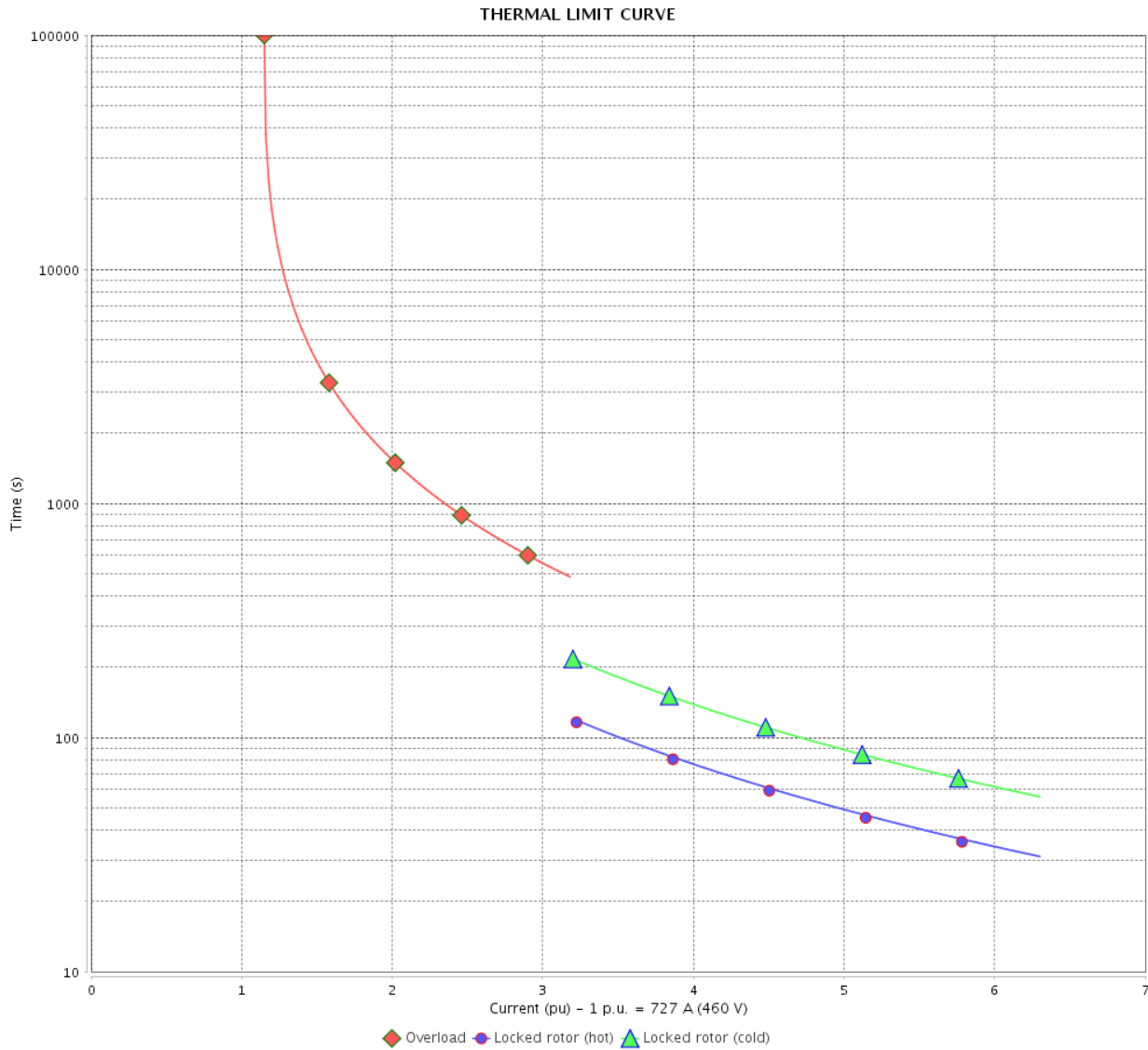
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		11 / 22	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		12 / 22		
Date		12/04/2022		

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Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 220 %	Temperature rise : 80 K
Rated speed : 990 rpm	

Heating constant

Cooling constant

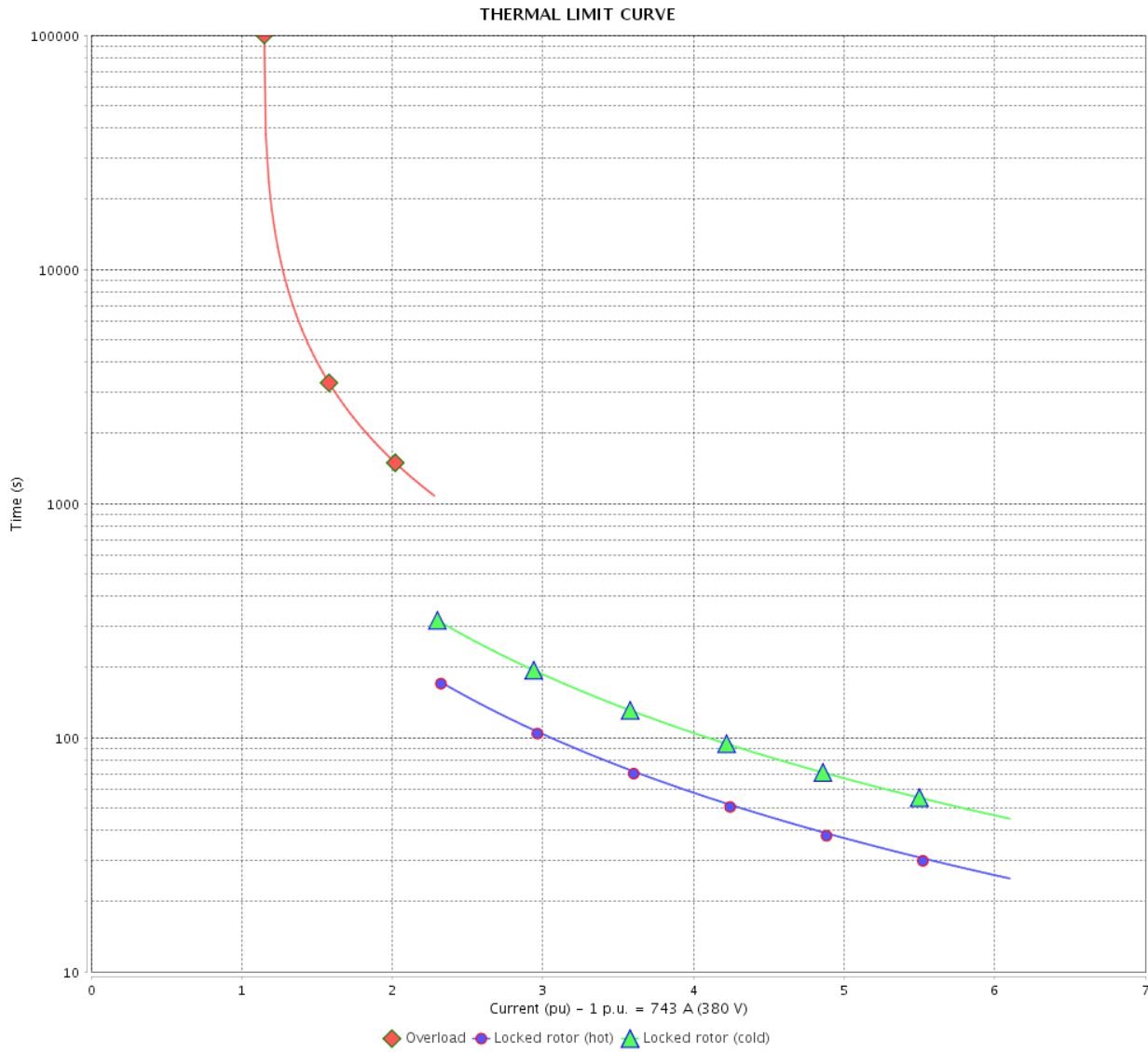
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Performed by				
Checked by			Page	Revision
Date	12/04/2022		13 / 22	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		14 / 22		
Date		12/04/2022		

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Rated torque : 2650 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 990 rpm	

Heating constant

Cooling constant

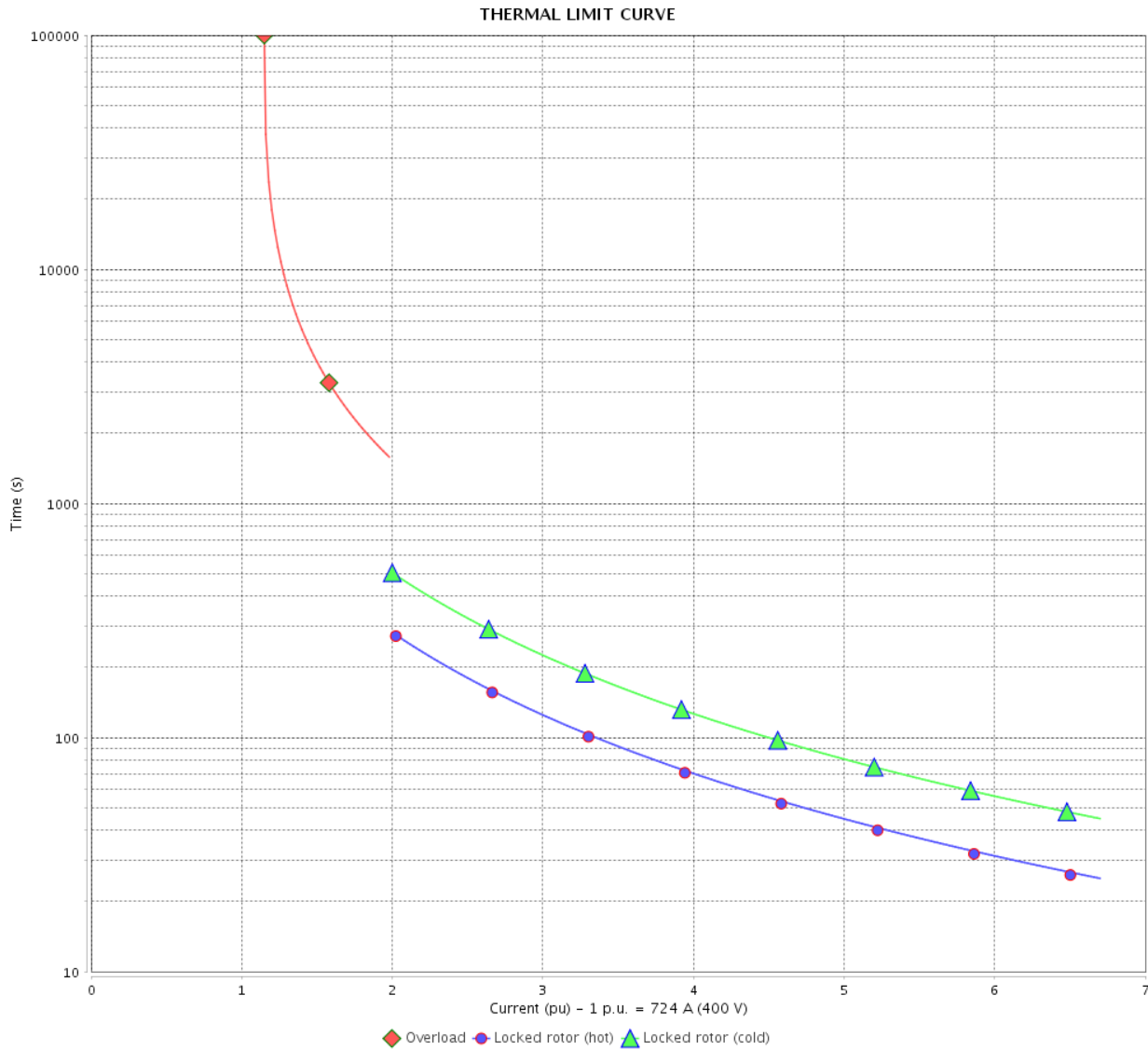
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		15 / 22	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		16 / 22		
Date		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 12011329
 Catalog # : 60012ET3G588/9-W22

Performance : 415 V 50 Hz 6P IE3

Rated current : 716 A	Moment of inertia (J) : 449 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 2650 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 990 rpm	

Heating constant

Cooling constant

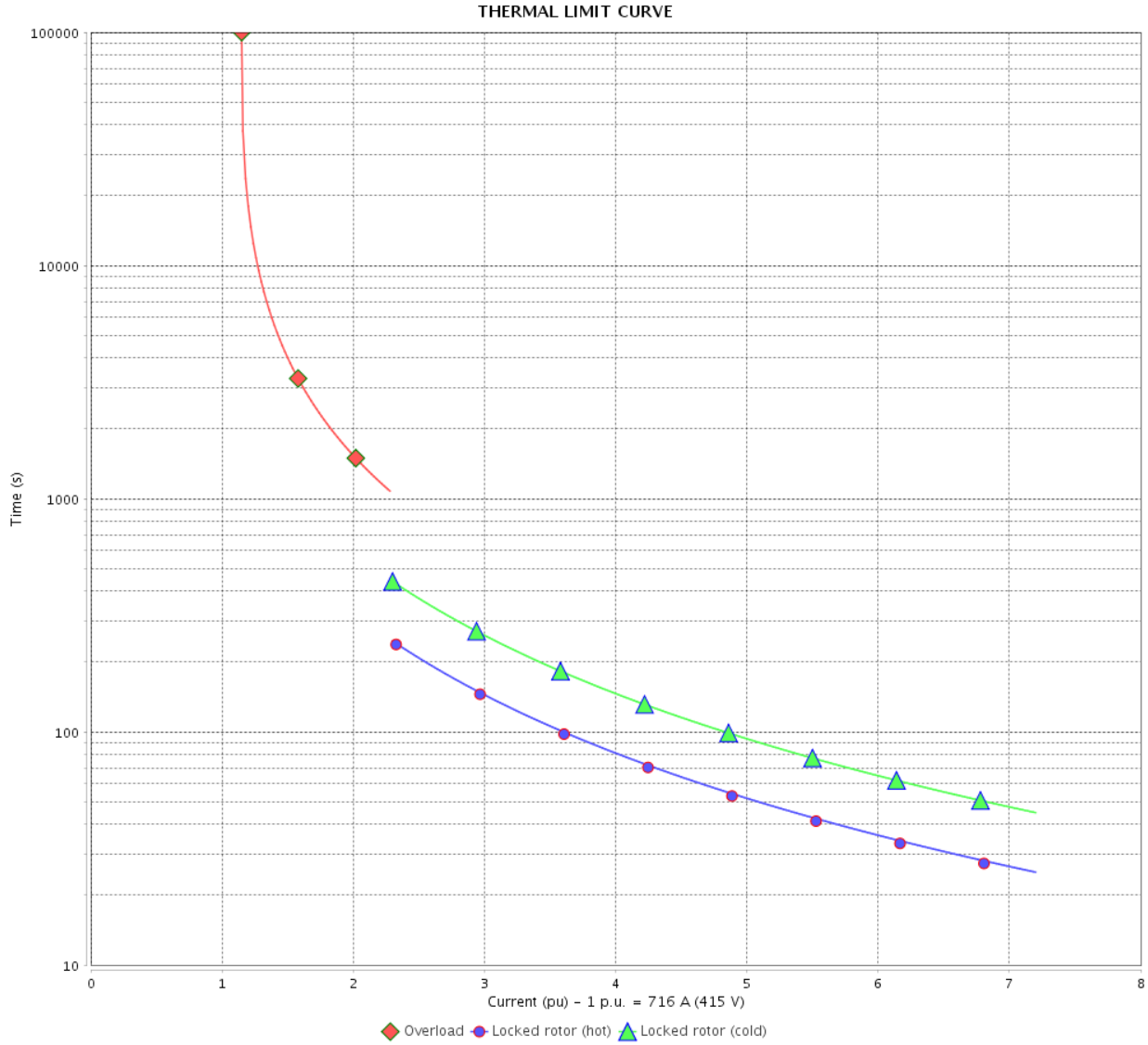
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		17 / 22	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		18 / 22		
Date		12/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

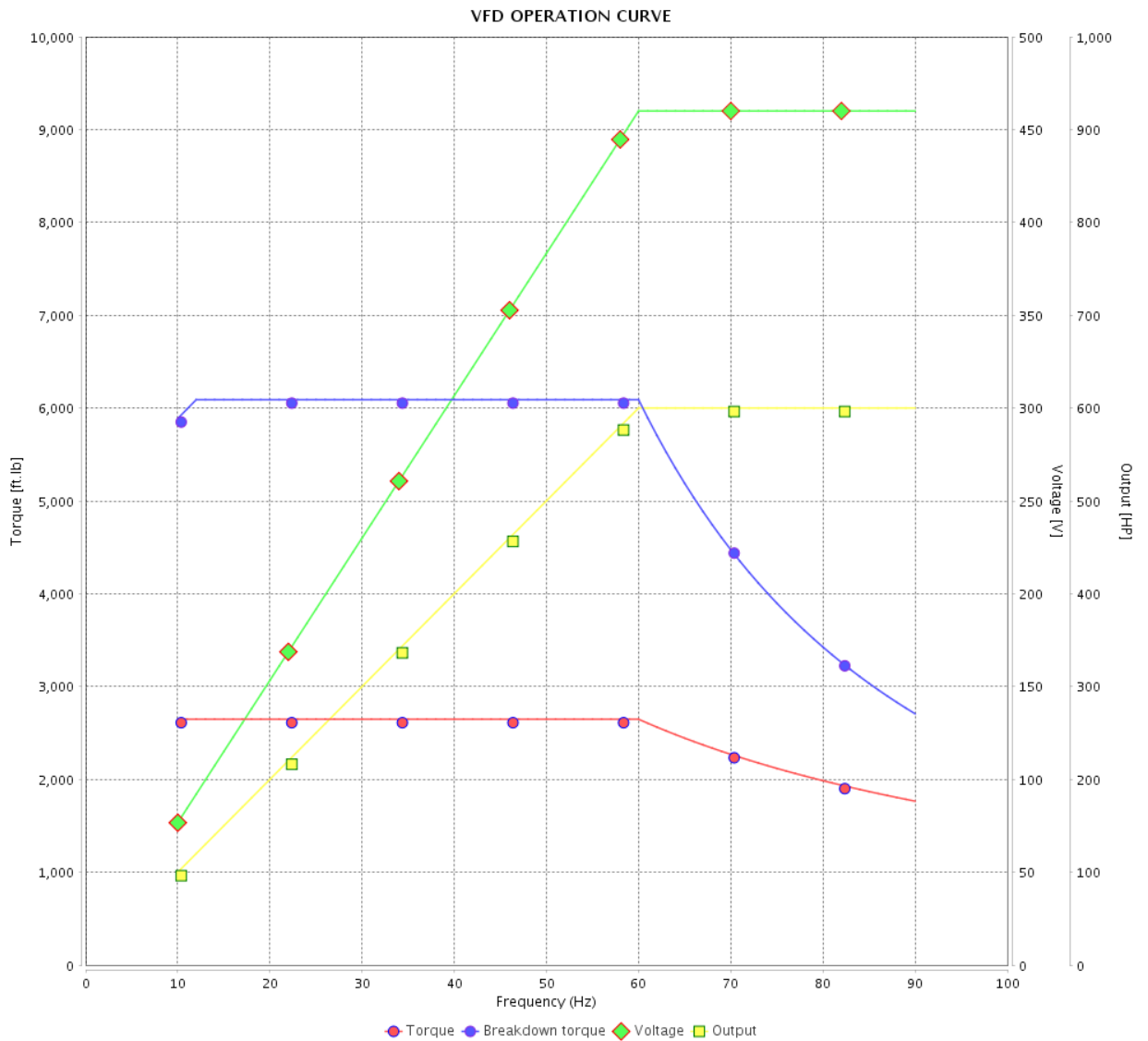


Customer :

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Product code : 12011329

Catalog # : 60012ET3G588/9-W22



Performance : 460 V 60 Hz 6P

Rated current : 727 A
 LRC : 6.3
 Rated torque : 2650 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 229 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 22
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



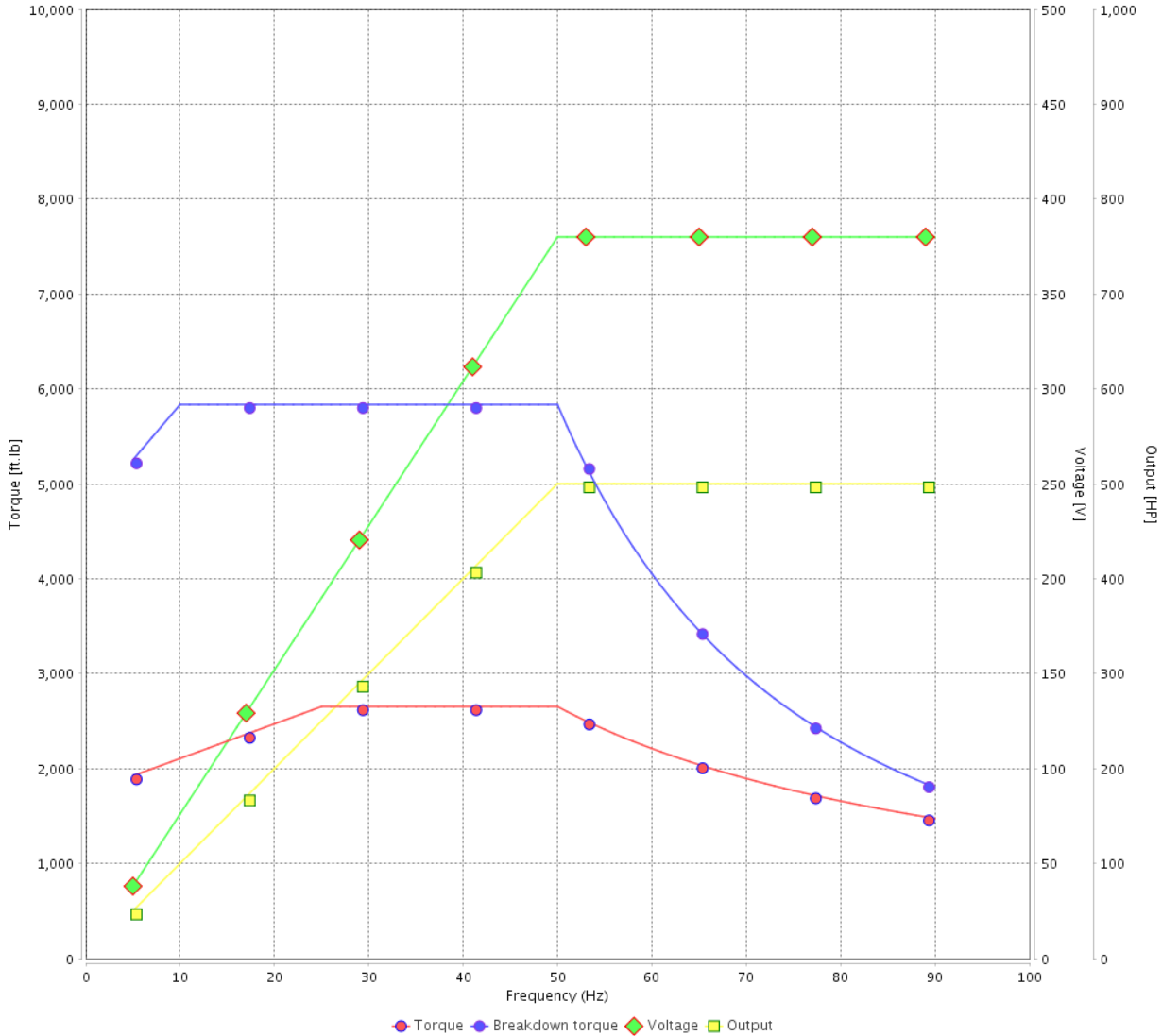
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12011329

Catalog # : 60012ET3G588/9-W22

VFD OPERATION CURVE



Performance : 380 V 50 Hz 6P IE3

Rated current : 743 A
 LRC : 6.1
 Rated torque : 2650 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 990 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

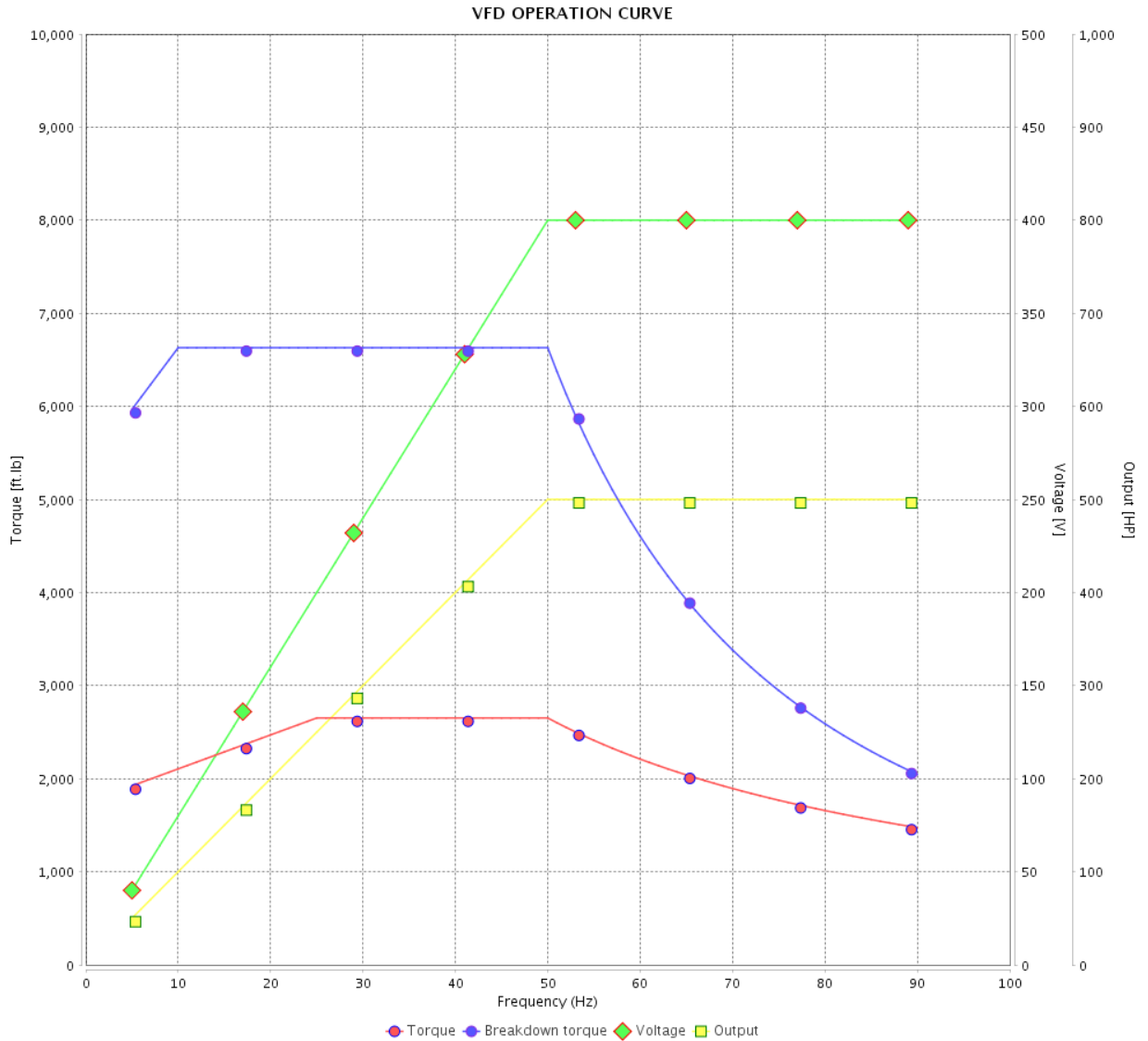
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 12011329
 Catalog # : 60012ET3G588/9-W22



Performance : 400 V 50 Hz 6P IE3

Rated current	: 724 A	Moment of inertia (J)	: 449 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 2650 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 990 rpm		

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 21 / 22
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



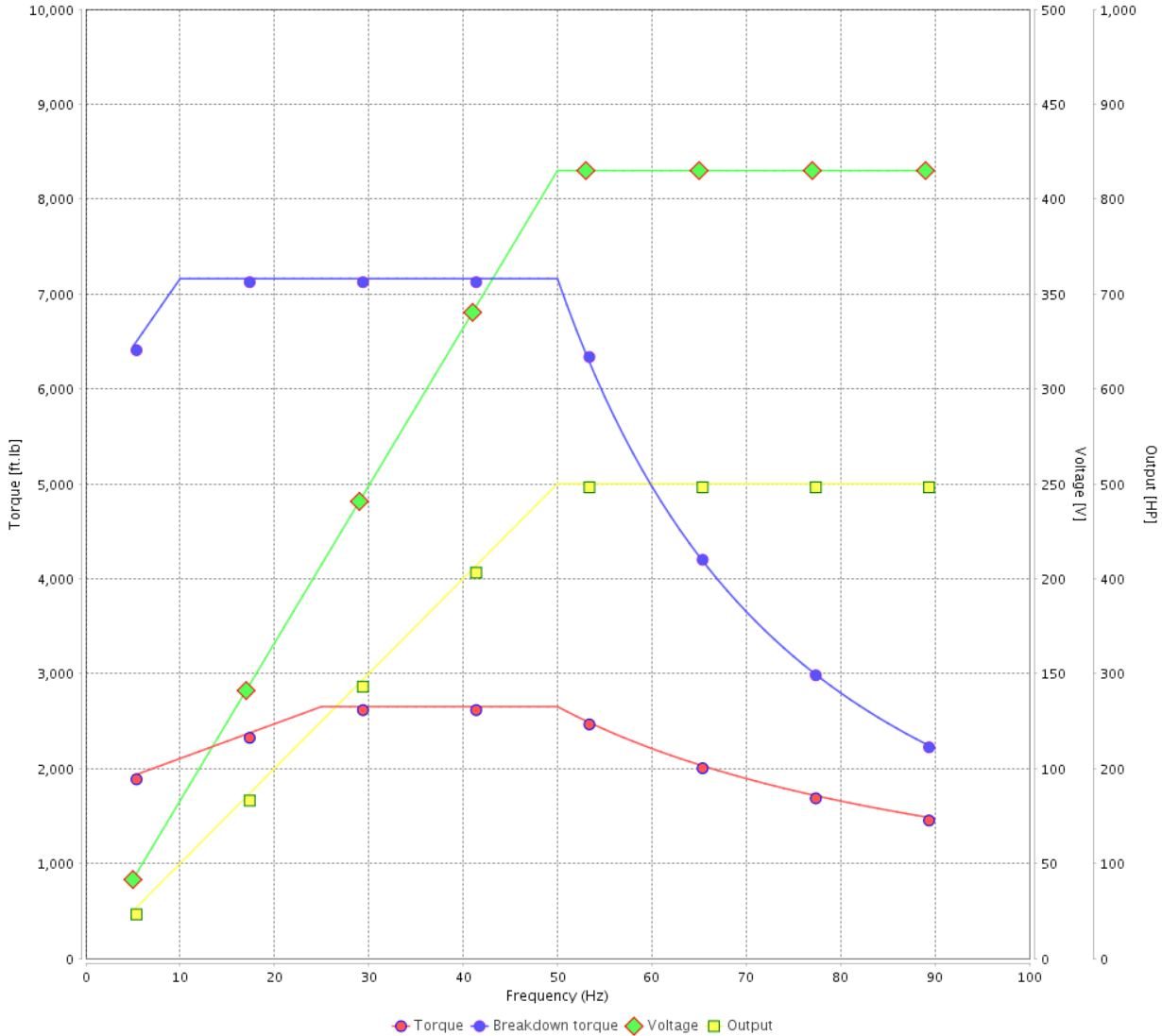
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VFD OPERATION CURVE

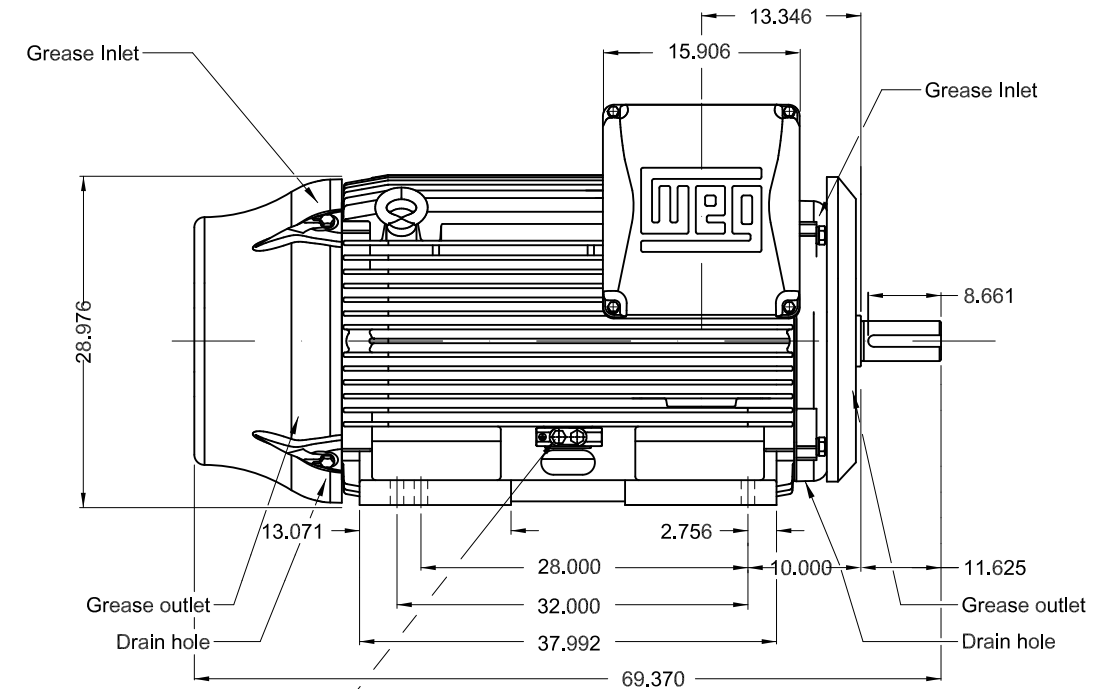
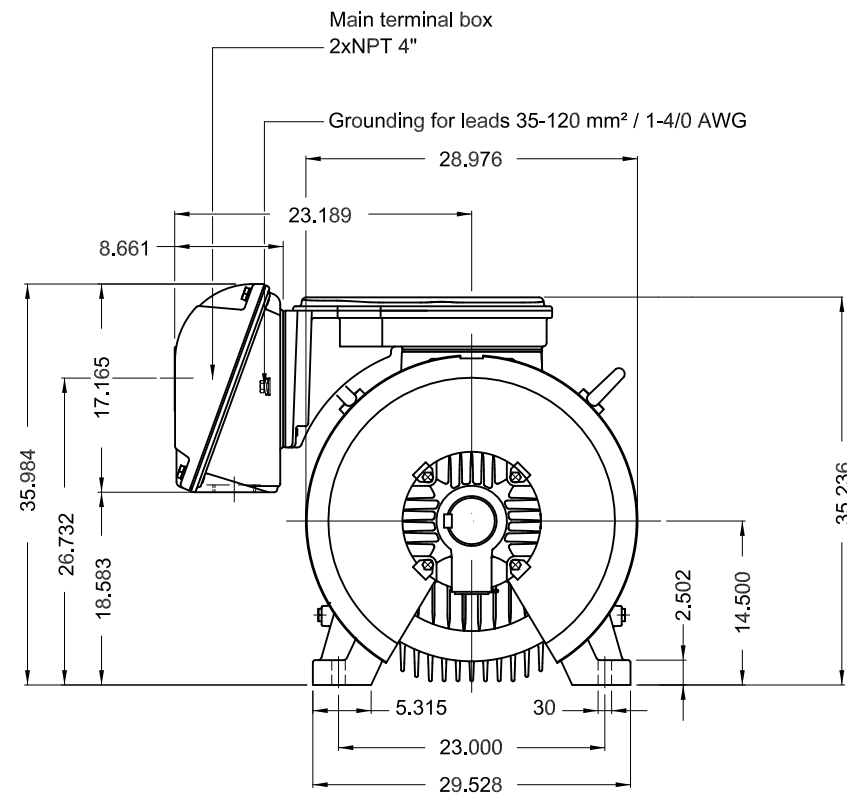


Performance : 415 V 50 Hz 6P IE3

Rated current : 716 A
 LRC : 7.2
 Rated torque : 2650 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 990 rpm

Moment of inertia (J) : 449 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 22 / 22	Revision
Checked by				
Date	12/04/2022			

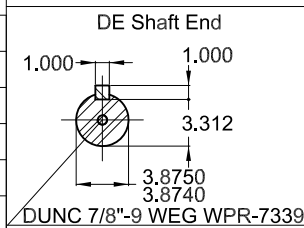


Grounding for leads 25-185 mm² / 3AWG-350MCM

600 HP 06 Poles 60 Hz

Dimensions in inches

- Without vertical jackscrews
- NDE endshield with electrically insulated bearing hub
- Drive-End Air Deflector
- Color RAL 5009
- Painting plan 203A
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 588/9T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD



SHEET 1 / 1