# DATA SHEET

Three Phase Induction Motor - Squirrel Cage

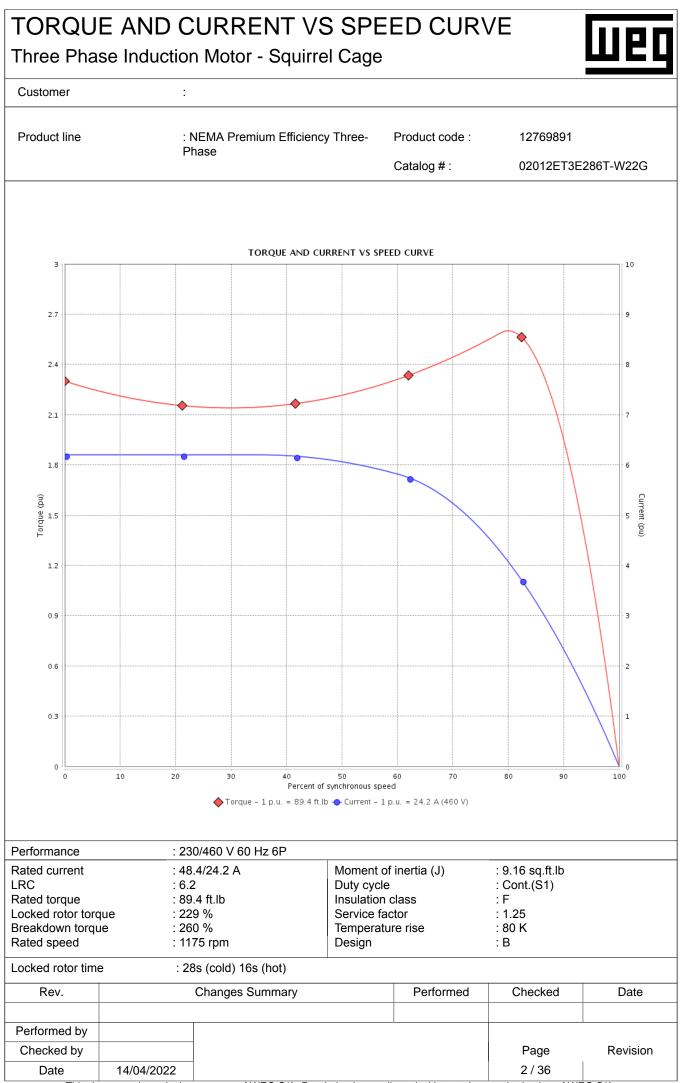
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#### Customer

Product line						e: 12	12769891	
		Phase			Catalog # :	02	012ET3E286 <sup>-</sup>	T-W22G
Frame		: 284/6T			g method		C411 - TEFC	
Insulation class		: F		Mount			-1	0011
Duty cycle	- 4	: Cont.(S1)	40%0	Rotatio			Both (CW and	CCW)
Ambient tempera	ature	: -20°C to +			g method		Direct On Line	
Altitude	-	: 1000 m.a.	S.I.		k. weight <sup>3</sup>		37 lb	
Protection degre Design	e	: IP55 : B		iviome	nt of inertia (J)	: 5	.16 sq.ft.lb	
-			·		· · · · · · · · · · · · · · · · · · ·	-		
Output [HP]		20	15	15	15	20	20	20
Poles		6	6	6	6	6	6	6
Frequency [Hz]		60	50	50	50	50	50	50
Rated voltage [V]		230/460	380	400	415	380	400	415
Rated current [A]		48.4/24.2 300/150	21.8 135	21.2 146	21.3 155	29.6 139	28.1 149	27.2 155
. R. Amperes [A]								
_RC [A]		6.2x(Code G)		o.ax(code J)	7.3x(Code J)		5.5X(COUE F)	5.7x(Code G)
No load current [A	1	19.0/9.50	9.40	10.0	10.6	9.40	10.0	10.6
Rated speed [RPN		1175	975	975	980	965	970	975
Slip [%]	•.]	2.08	2.50	2.50	2.00	3.50	3.00	2.50
Rated torque [ft.lb]	1	89.4	80.4	80.2	80.1	109	108	108
Locked rotor torgu		229	229	270	280	170	200	210
Breakdown torque		260	270	290	320	200	220	240
Service factor	r1	1.25	1.00	1.15	1.15	1.00	1.15	1.15
Temperature rise		80 K	80 K	80 K	80 K	105 K	105 K	80 K
_ocked rotor time		28s (cold)	21s (cold)	21s (cold)	21s (cold)	21s (cold)	21s (cold)	21s (cold)
		16s (hot)	12s (hot)	12s (hot)	12s (hot)	12s (hot)	12s (hot)	12s (hot)
Noise level <sup>2</sup>		59.0 dB(A)	56.0 dB(Á)	56.0 dB(Á)	56.0 dB(Á)	56.0 dB(Á)	56.0 dB(Á)	56.0 dB(A)
	25%	90.8	89.8	89.0	88.9	91.5	90.6	90.7
Efficiency (%)	50%	91.0	90.0	89.3	89.3	90.2	90.2	90.2
	75%	91.7	90.3	90.3	90.6	90.2	90.2	91.0
	100%	91.7	90.3	90.3	90.8	88.5	89.5	90.2
	25%	0.44	0.41	0.38	0.36	0.51	0.47	0.44
Power Factor	50%	0.70	0.66	0.63	0.60	0.76	0.73	0.70
	75%	0.80	0.79	0.76	0.73	0.84	0.82	0.80
	100%	0.85	0.85	0.83	0.81	0.87	0.86	0.85
		Drive end			ition loads			
Bearing type		: 6311 C3	6211 0	C3   Max. tra	action	: 90	09 lb	
Sealing		: V'Ring	V'Rin		ompression	: 1:	346 lb	
Lubrication interv		: 20000 h						
Lubricant amoun	nt	: 18 g	11 g					
Lubricant type		: Mobi	I Polyrex EM					
Notes USABLE @208V	753.5A SF 1.	15 SFA 61.5A						
	aces and car	ncel the previo	us one, which		are average va supply, subject			
This revision replamust be eliminate (1) Looking the m (2) Measured at 1 (3) Approximate w manufacturing pro (4) At 100% of ful	ed. notor from the 1m and with t weight subjec ocess.	olerance of +3		MG-1.				
must be eliminate (1) Looking the m (2) Measured at 1 (3) Approximate v manufacturing pro	ed. notor from the 1m and with t weight subjec ocess.	olerance of +3 t to changes a			Performe	d Che	ecked	Date
must be eliminate (1) Looking the m (2) Measured at 1 (3) Approximate v manufacturing pro (4) At 100% of ful	ed. notor from the 1m and with t weight subjec ocess.	olerance of +3 t to changes a	after		Performe	d Che	ecked	Date
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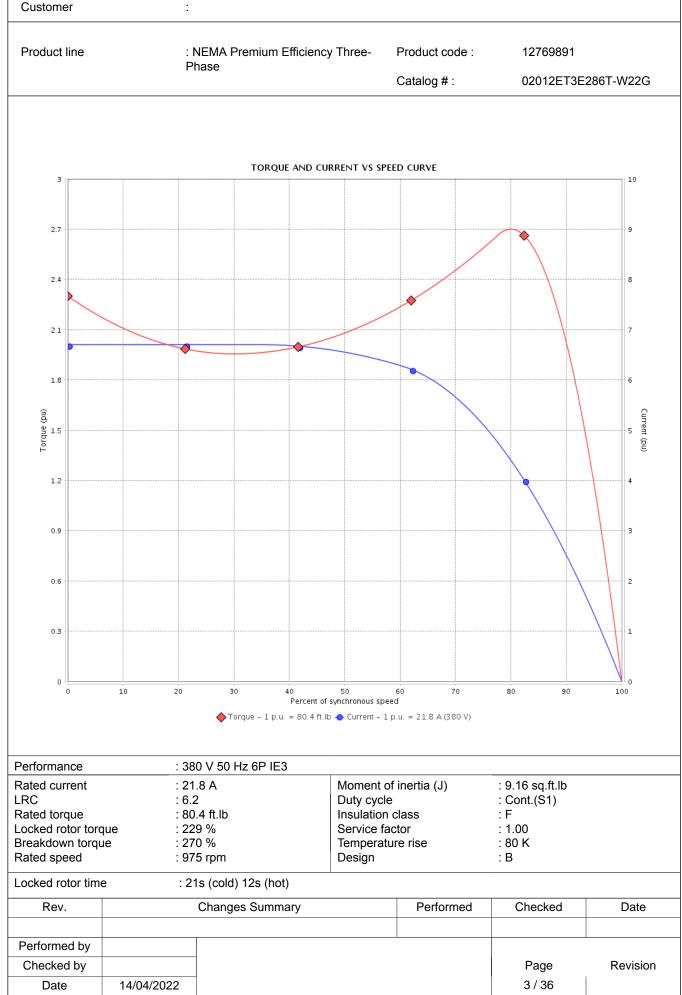
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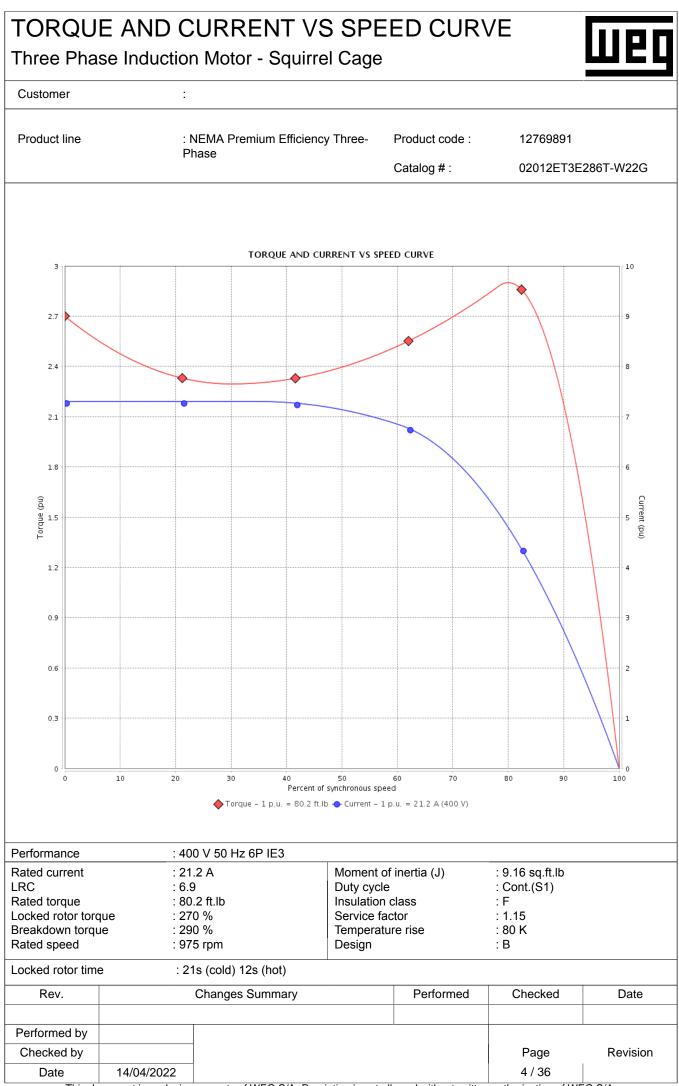
### TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage





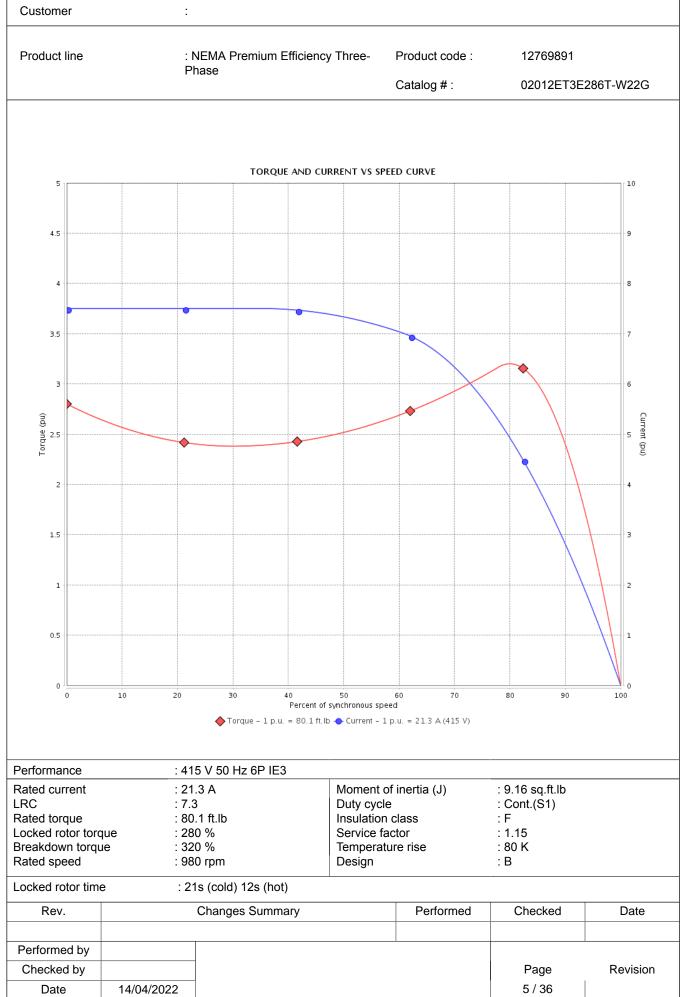
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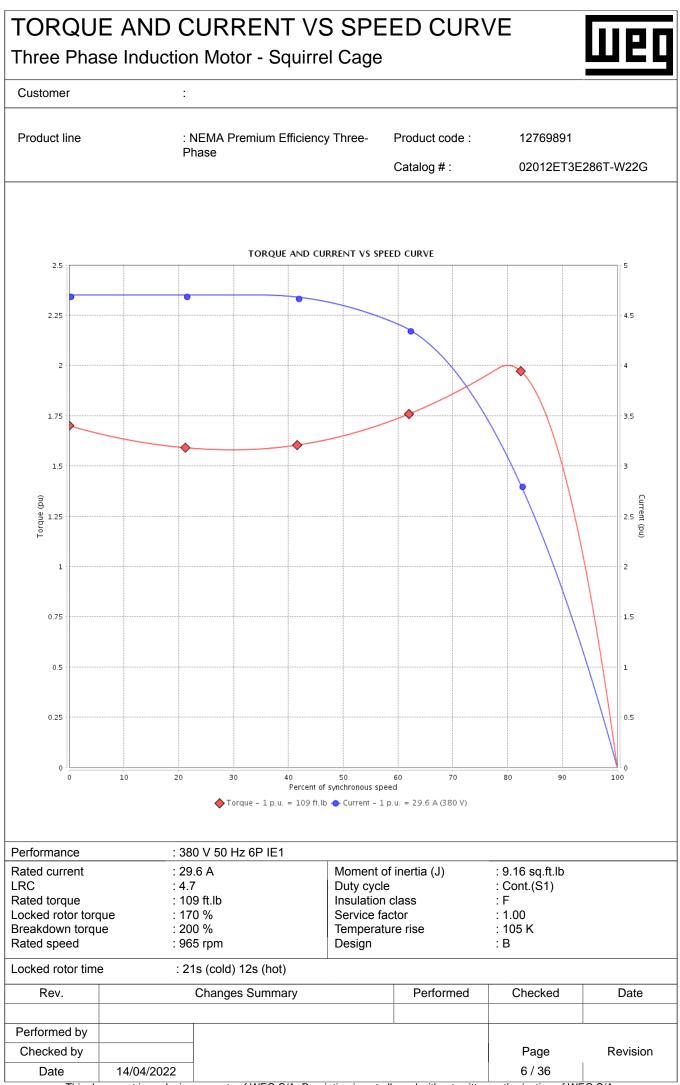
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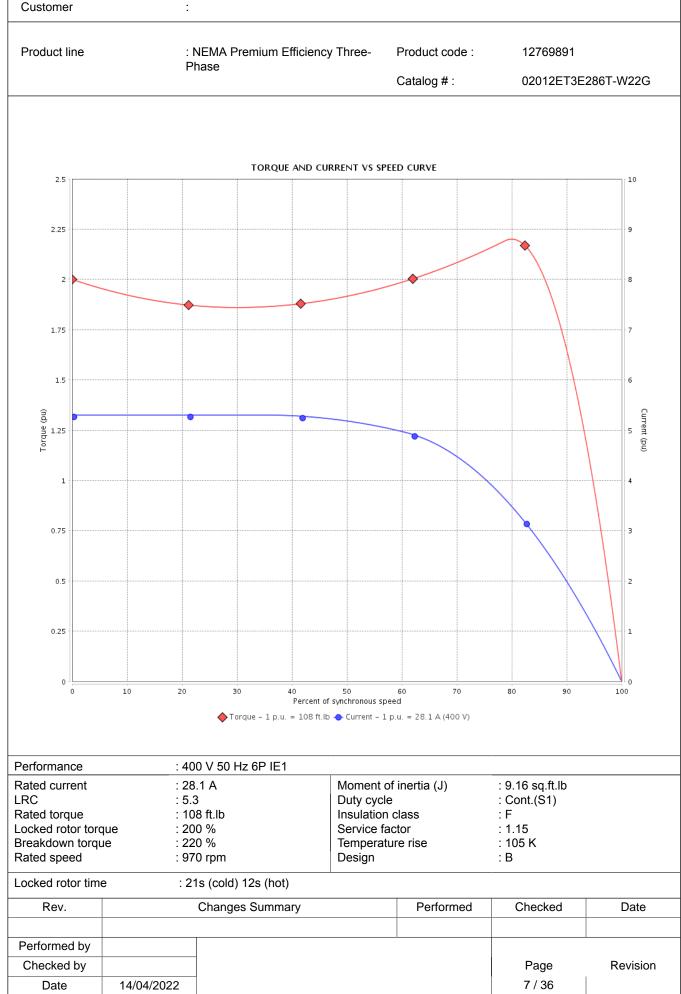
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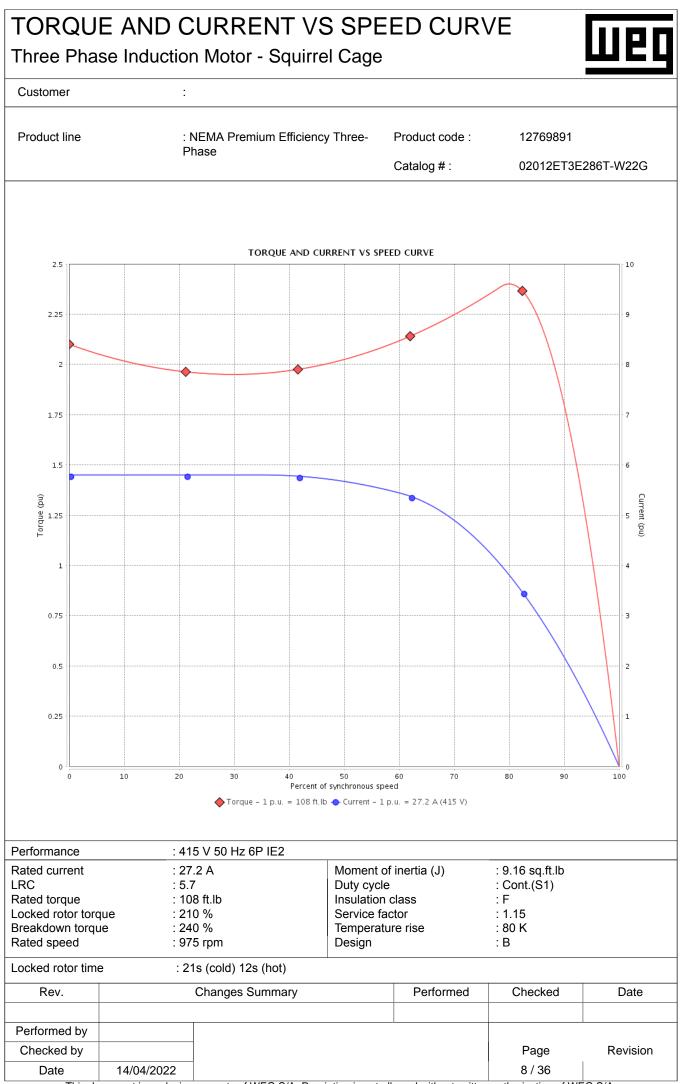
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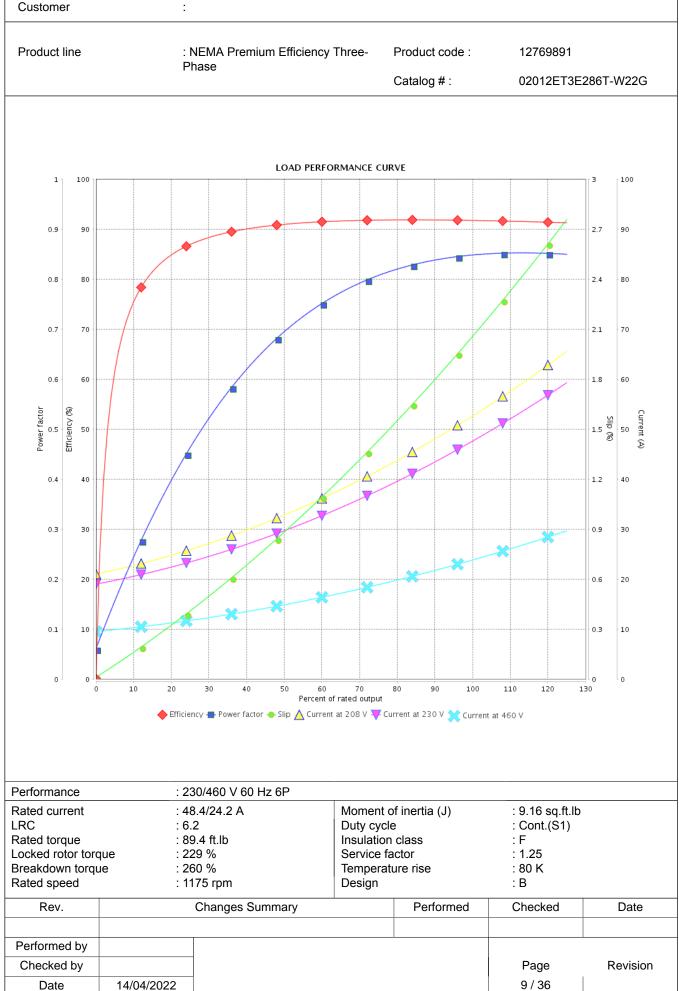


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#### Customer



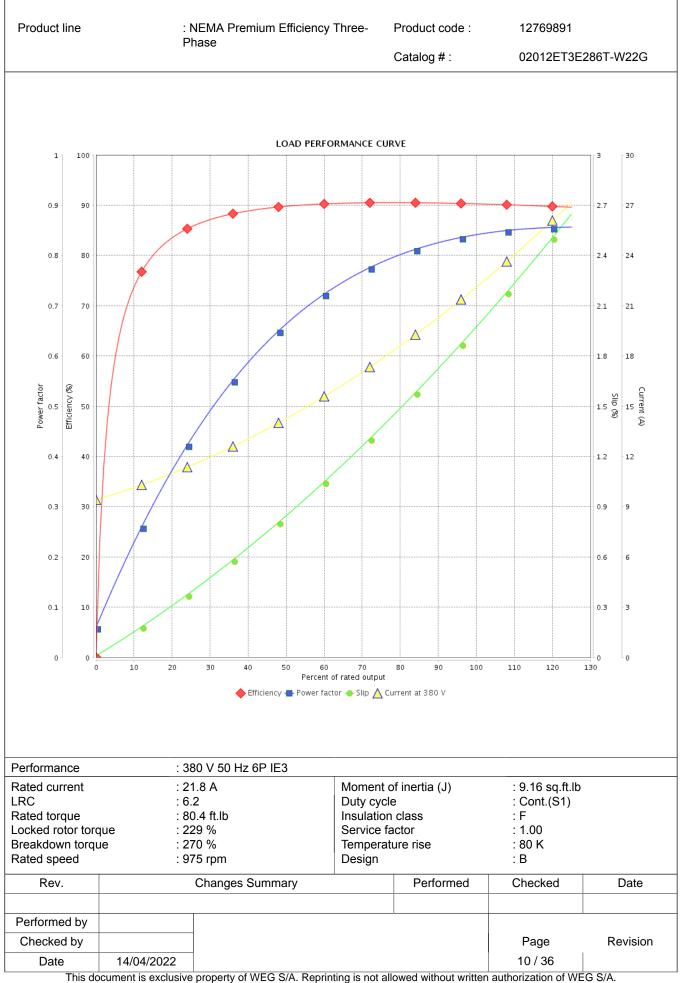
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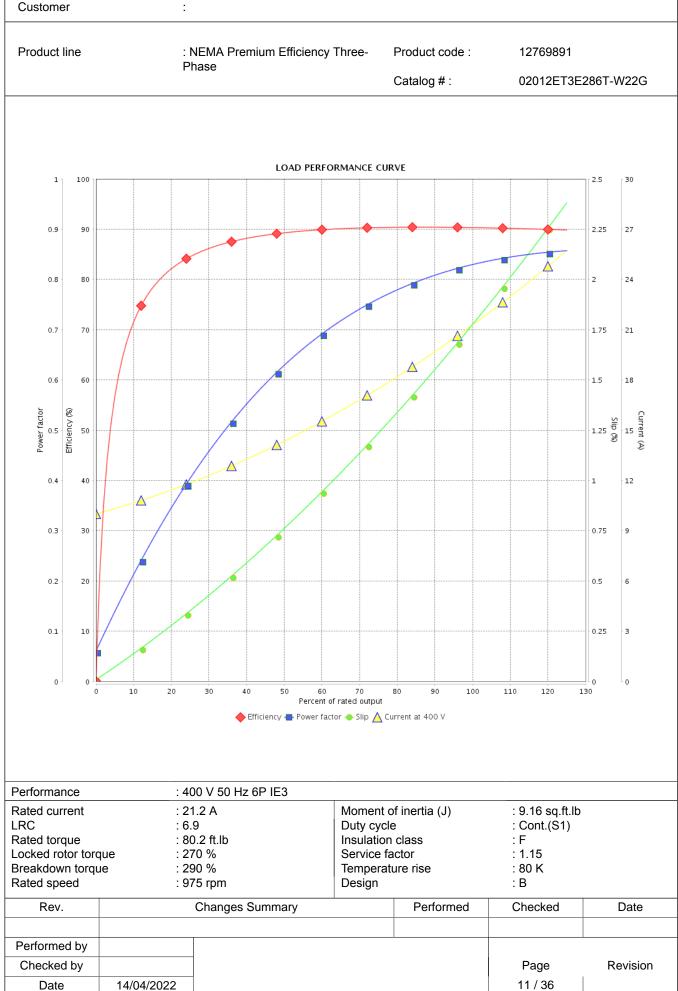


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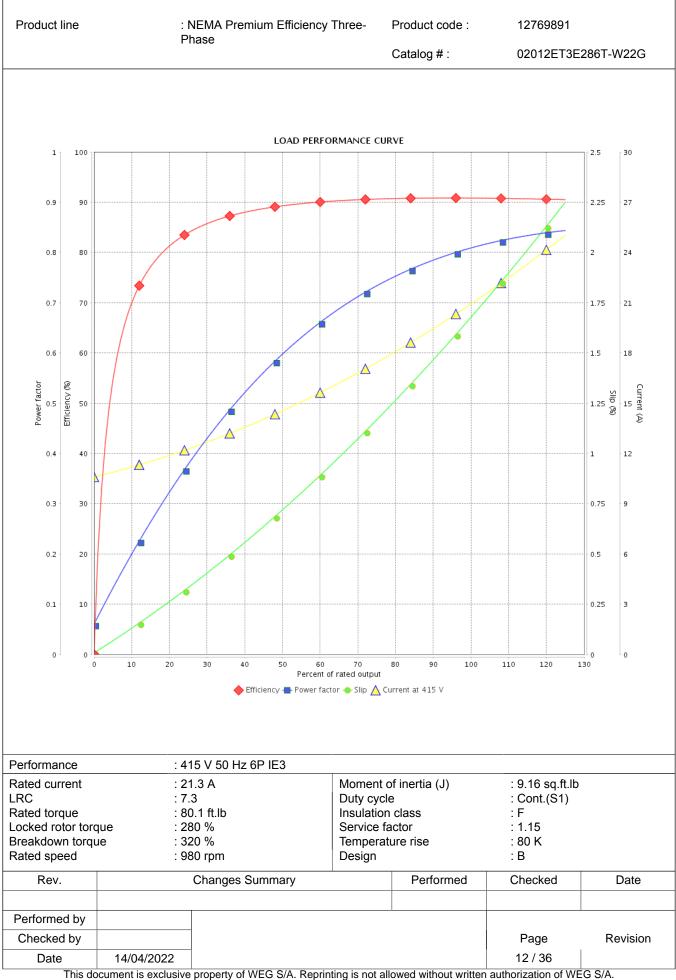
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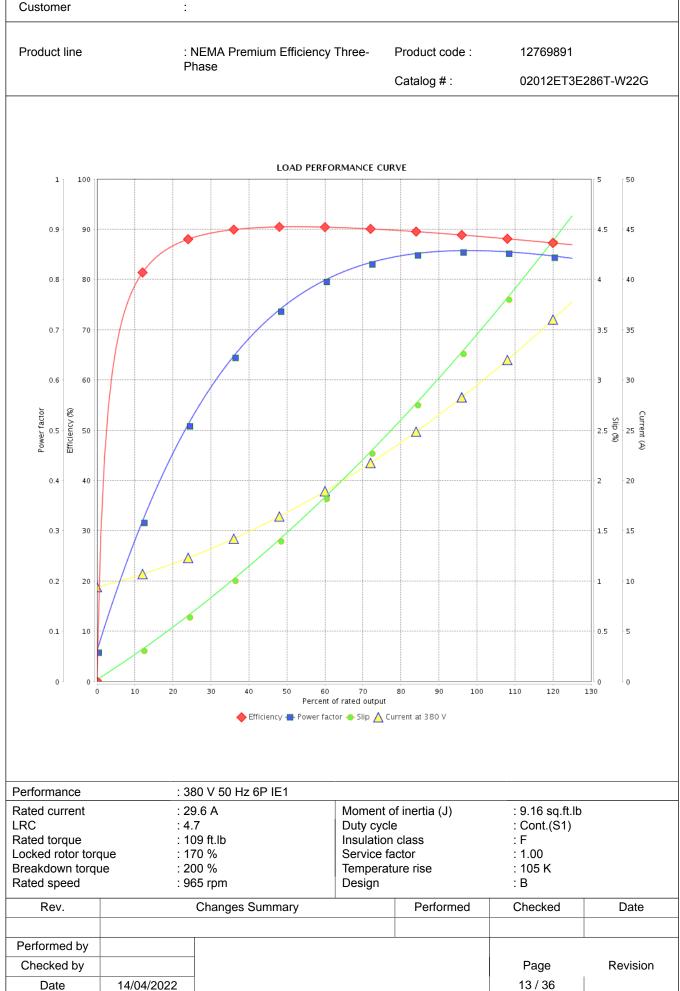


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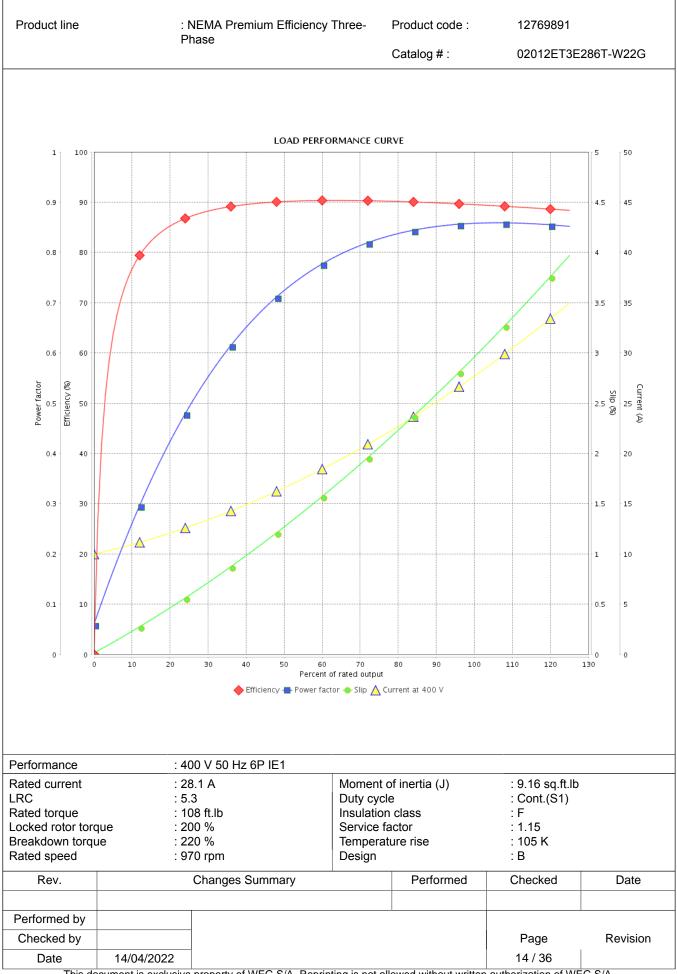
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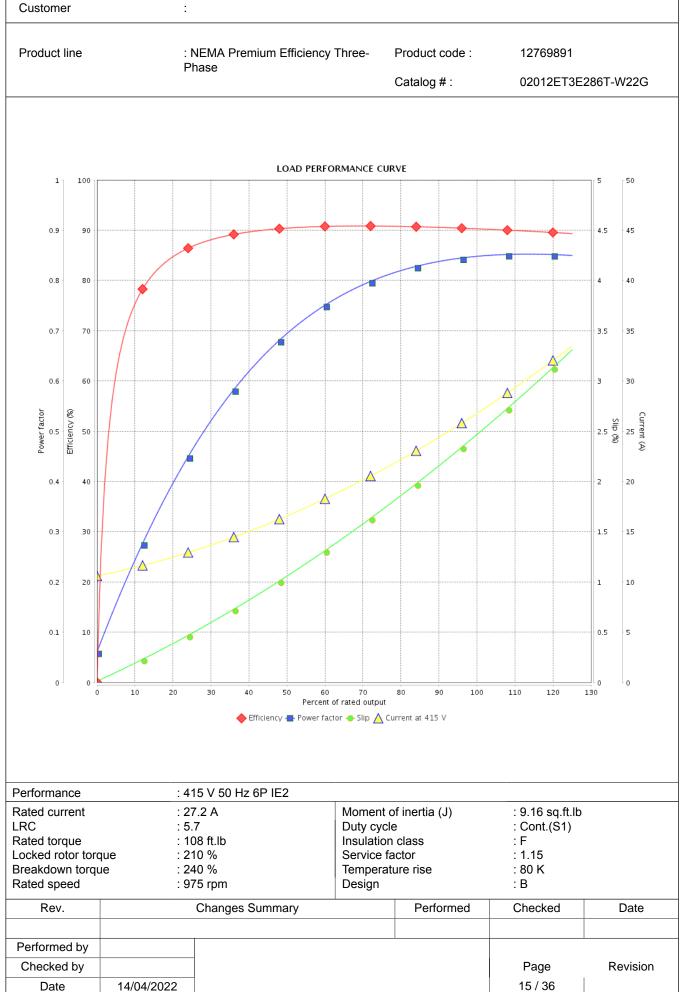


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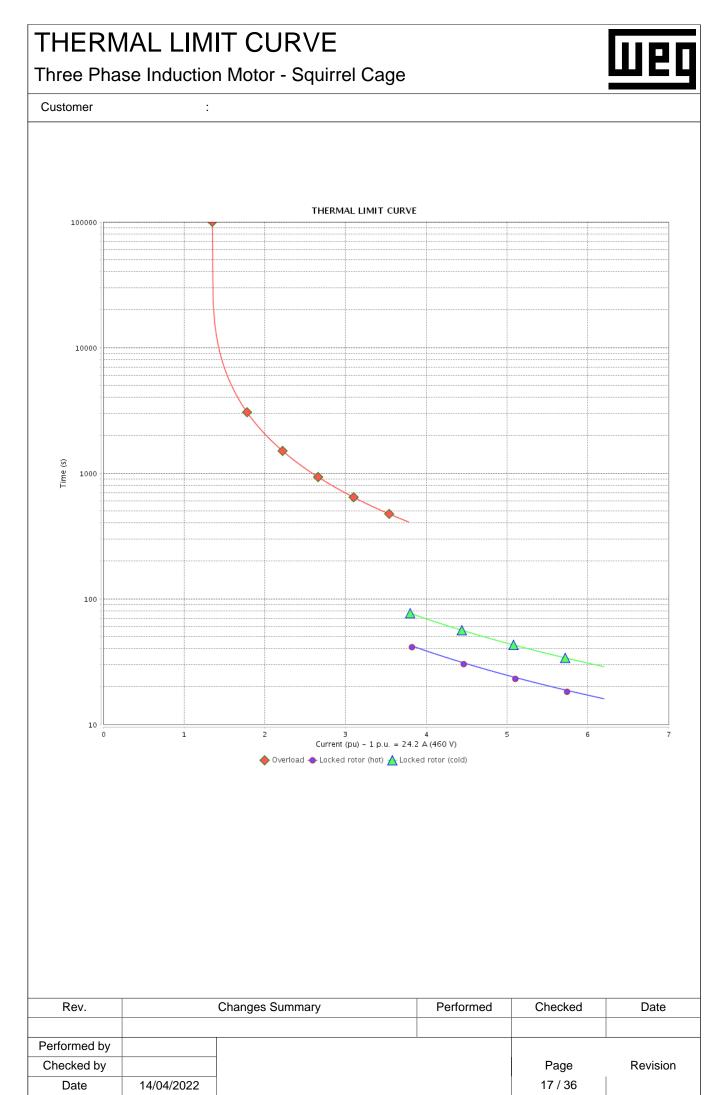
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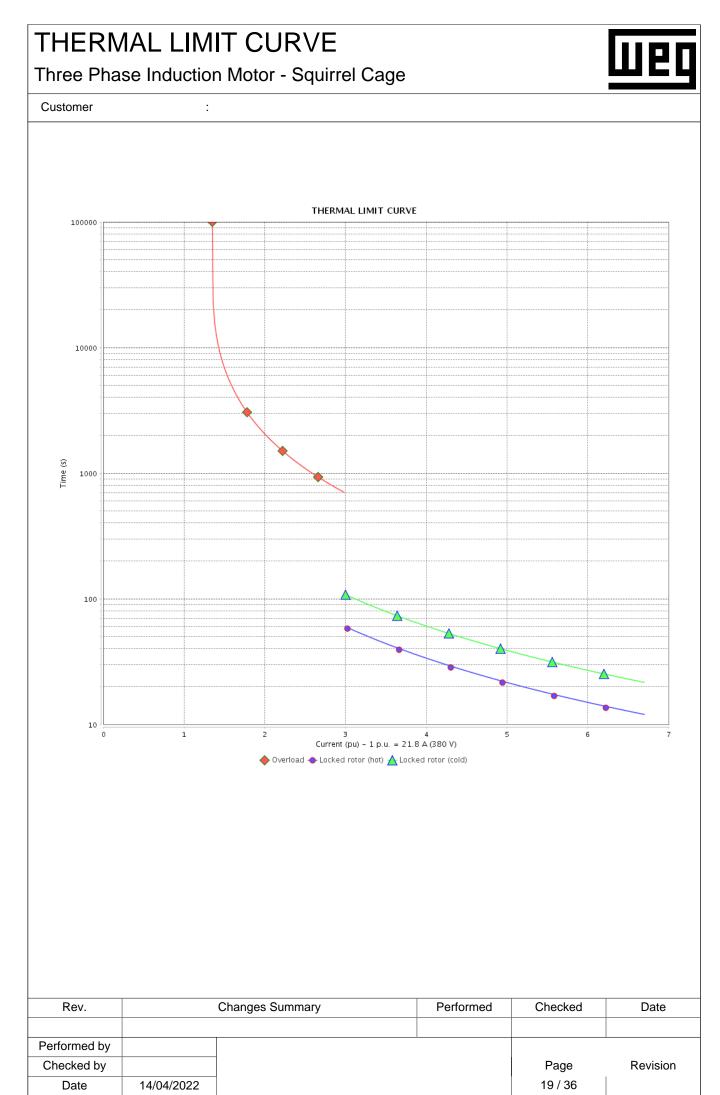
THERMAL LIMIT CURVE Three Phase Induction Motor - Squirrel Cage								
Customer		Jaye						
Product line	: NEMA Premium Efficiency Th Phase	nree- Product code : Catalog # :	12769891 02012ET3E286T-W22G					
Performance	: 230/460 V 60 Hz 6P							
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 48.4/24.2 A M : 6.2 E : 89.4 ft.lb I : 229 % S : 260 %	Moment of inertia (J) Duty cycle nsulation class Service factor Femperature rise Design	: 9.16 sq.ft.lb : Cont.(S1) : F : 1.25 : 80 K : B					
Heating constant								

Heating constant	t				
Cooling constant	t				
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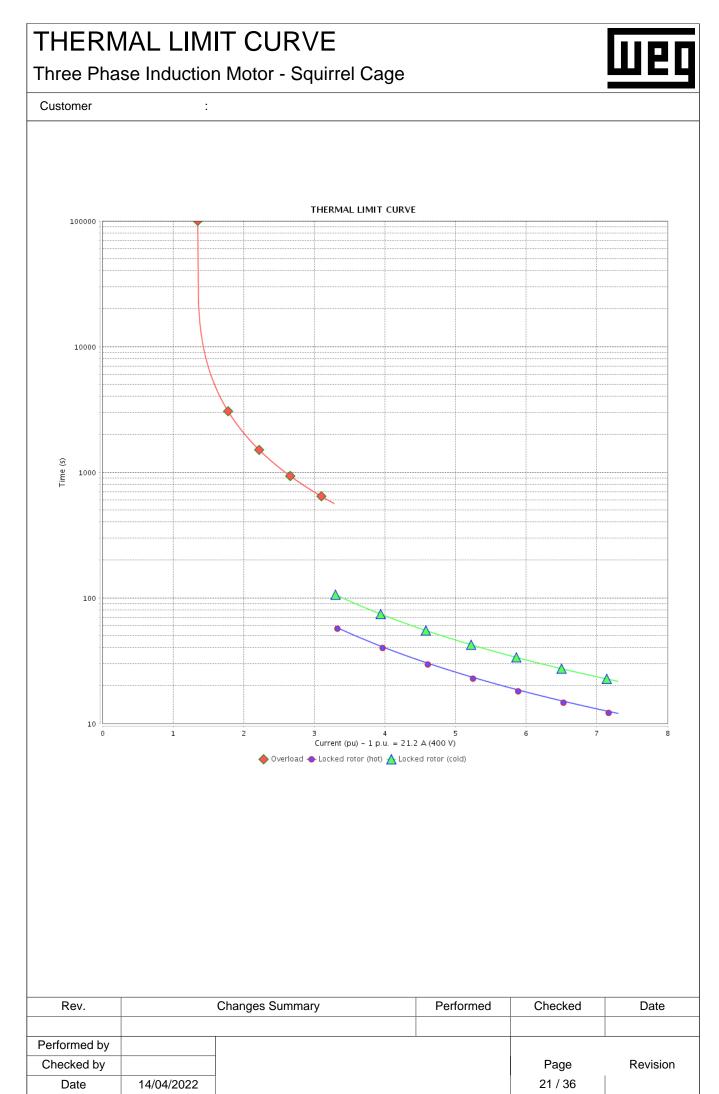
THERMAL LIMIT CURVE         Three Phase Induction Motor - Squirrel Cage								
Customer		:						
Product line		: NEMA Premium Efficiency Phase		Product code : Catalog # :	12769891 02012ET3E	286T-W22G		
Derferrer								
Performance Rated current		: 380 V 50 Hz 6P IE3 : 21.8 A		f inertia (J)	: 9.16 sq.ft.lb			
LRC Rated torque		: 6.2 : 80.4 ft.lb	Duty cycle Insulation	e	: Cont.(S1) : F			
Locked rotor torq	lue	: 229 %	Service fa	ictor	: 1.00			
Breakdown torqu Rated speed		: 270 % : 975 rpm	Temperati Design	ure rise	: 80 K : B			
Heating constant								
Cooling constant Rev.		Changes Summary		Performed	Checked	Date		

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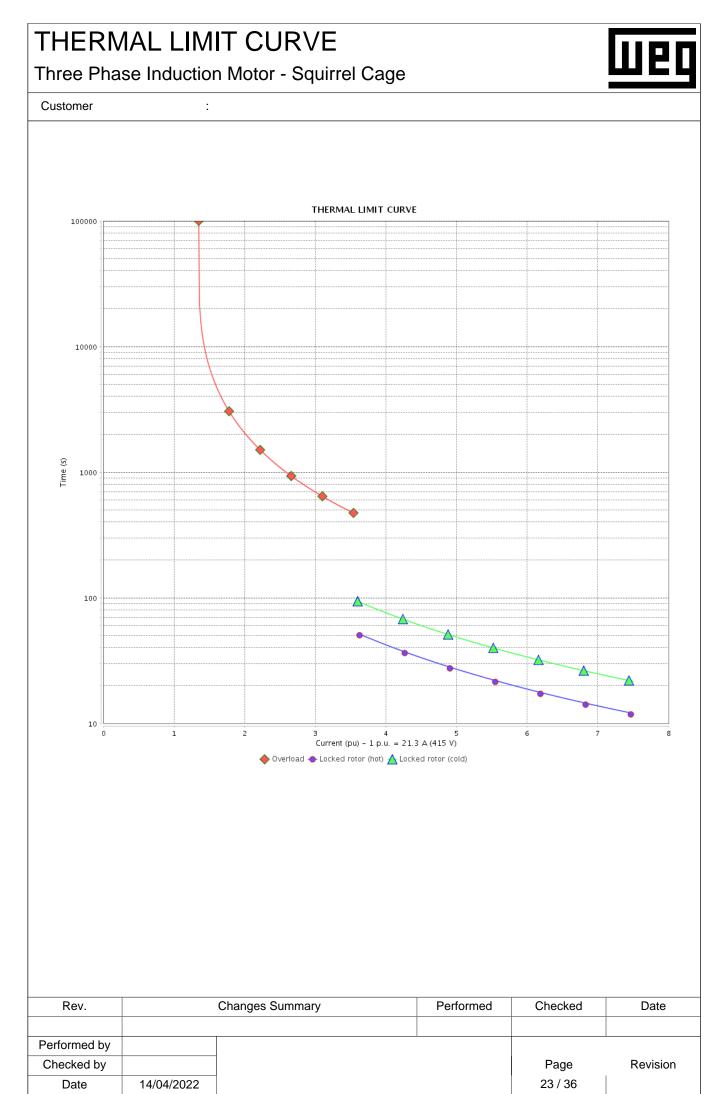
THERMAL LI Three Phase Induc	MIT CURVE tion Motor - Squirrel	Cage			Шед
Customer	:				
Product line	: NEMA Premium Efficiency <sup>-</sup> Phase		Product code : Catalog # :	12769891 02012ET3E28	36T-W22G
Derformenee					
Performance	: 400 V 50 Hz 6P IE3 : 21.2 A	Moment -	finartia (1)		
Rated current LRC	: 6.9	Duty cycle	of inertia (J) e	: 9.16 sq.ft.lb : Cont.(S1)	
Rated torque	: 80.2 ft.lb	Insulation	class	: F	
Locked rotor torque Breakdown torque	: 270 % : 290 %	Service fa Temperat		: 1.15 : 80 K	
Rated speed	: 975 rpm	Design		: B	
Heating constant					
Cooling constant Rev.	Changes Summary		Performed	Checked	Date

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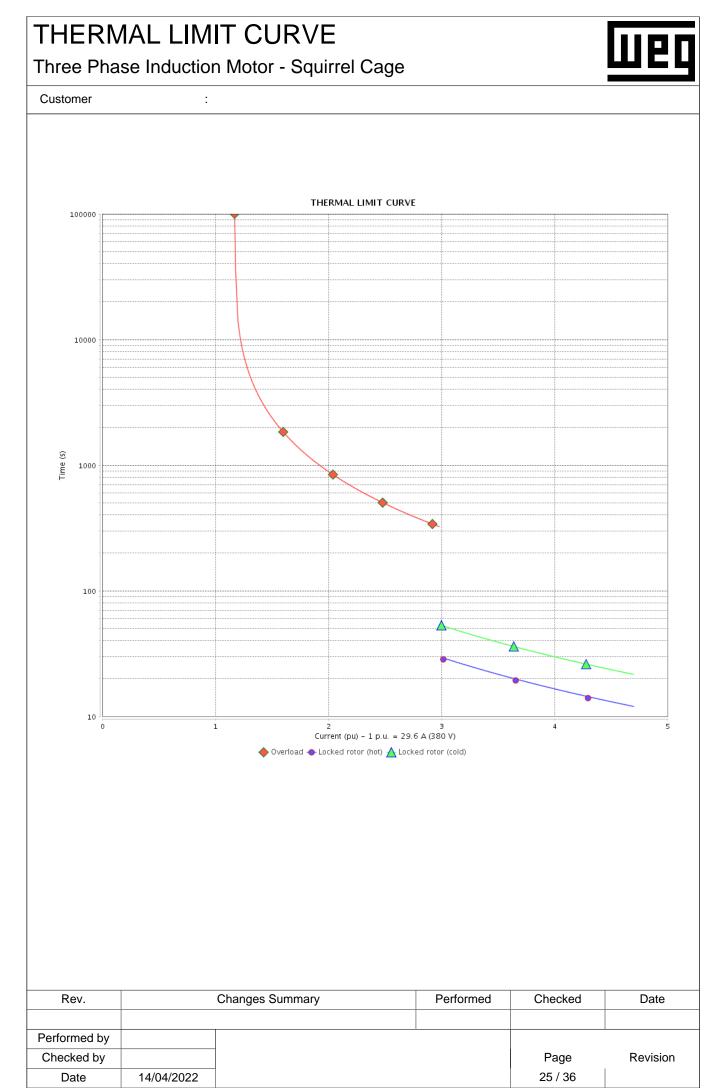
THERMAL LIMIT CURVE Three Phase Induction Motor - Squirrel Cage							
Customer	:						
Product line	: NEMA Premium Efficiency T Phase	hree- Product code Catalog # :	e: 12769891 02012ET3E	286T-W22G			
Performance Rated current	: 415 V 50 Hz 6P IE3 : 21.3 A	Moment of inertia (J)	: 9.16 sq.ft.lb				
LRC	: 7.3	Duty cycle Insulation class	: Cont.(S1) : F				
Rated torque Locked rotor torq	ue : 280 %	Service factor	: 1.15				
Breakdown torqu Rated speed		Temperature rise Design	: 80 K : B				
Heating constant	:	-					
Cooling constant Rev.	Changes Summary	Performe	d Checked	Date			

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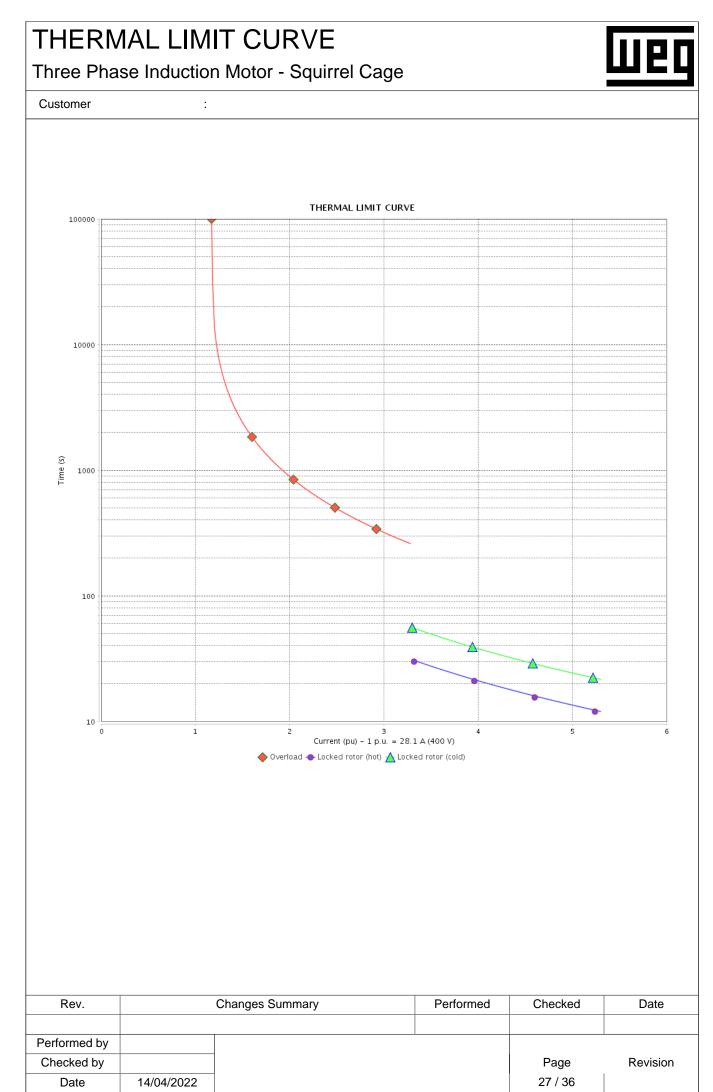
THERMAL LIMIT CURVE Three Phase Induction Motor - Squirrel Cage								
Customer	:							
Product line	: NEMA Premium Efficiency Thr Phase	ee- Product code : Catalog # :	12769891 02012ET3E286T-W22G					
Performance	: 380 V 50 Hz 6P IE1							
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 4.7 Du : 109 ft.lb In : 170 % Se : 200 % Te	oment of inertia (J) uty cycle sulation class ervice factor emperature rise esign	: 9.16 sq.ft.lb : Cont.(S1) : F : 1.00 : 105 K : B					
Heating constant								

Cooling constan	t				
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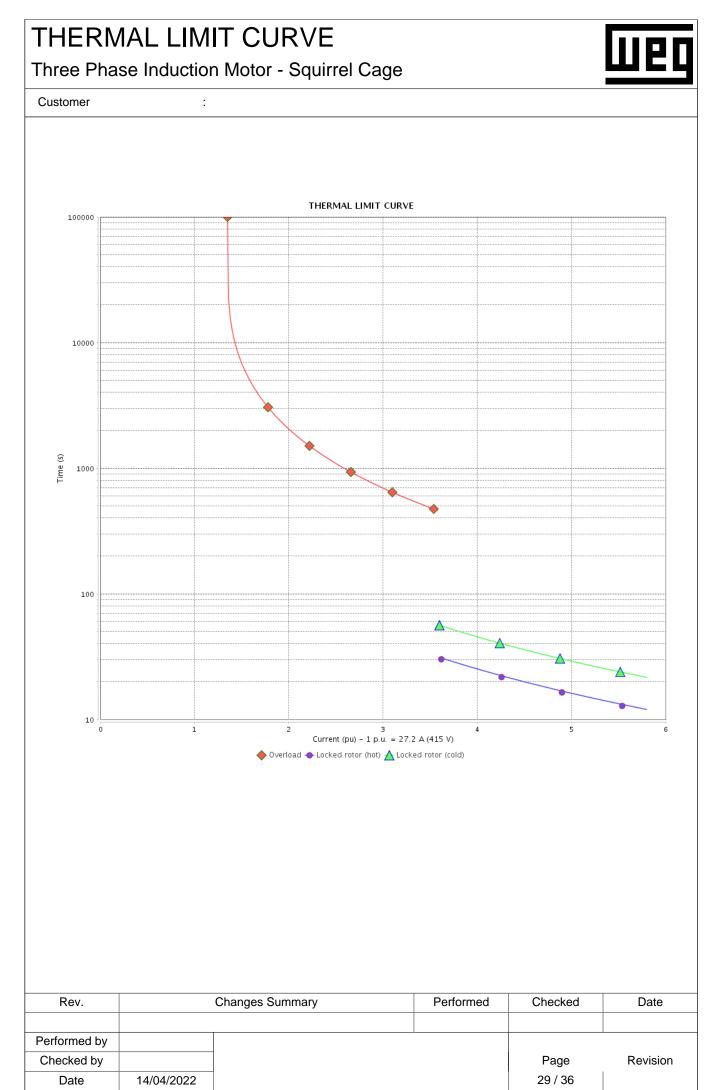
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Product line	: NEMA Premium Efficiency T Phase	hree- Product code : Catalog # :	12769891 02012ET3E2	286T-W22G
Dorformonoo				
Performance Rated current		Moment of inertia (J)	: 9.16 sq.ft.lb	
LRC Rated torque	: 108 ft.lb	Duty cycle Insulation class	: Cont.(S1) : F	
Locked rotor torq Breakdown torqu		Service factor Temperature rise	: 1.15 : 105 K	
Rated speed		Design	: B	
Heating constant Cooling constant				
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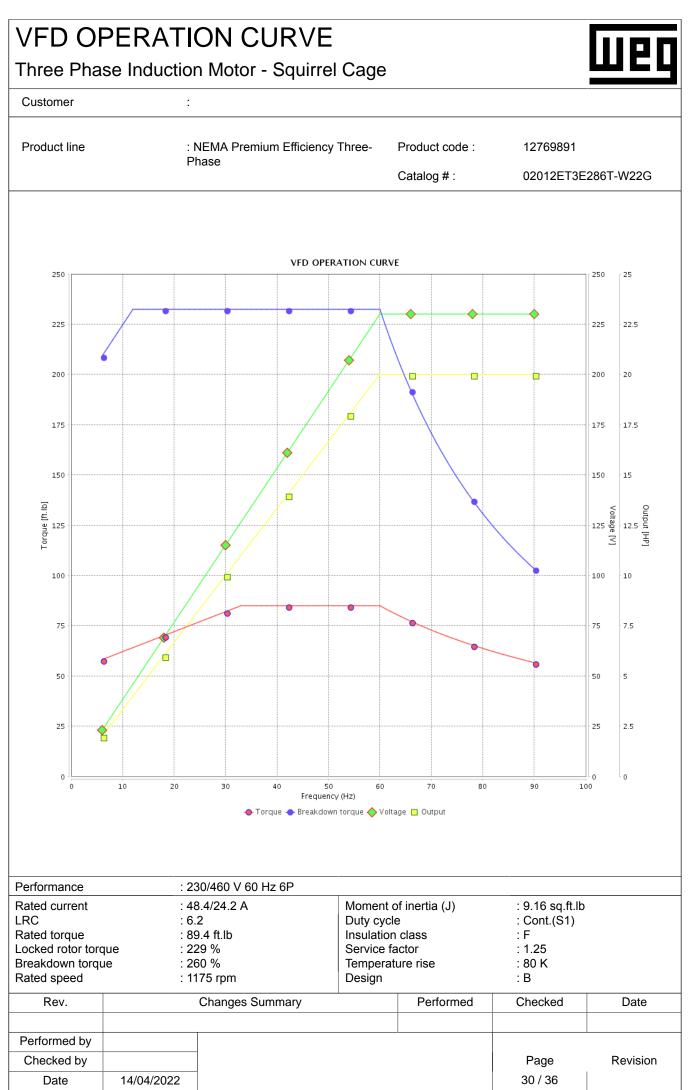
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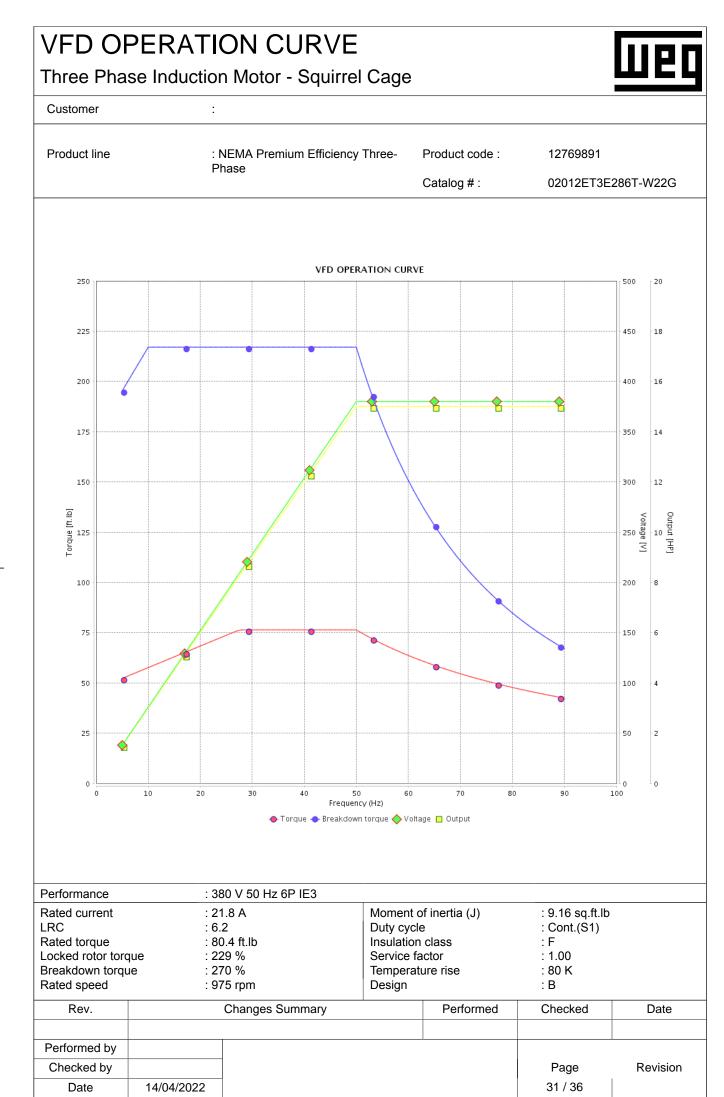


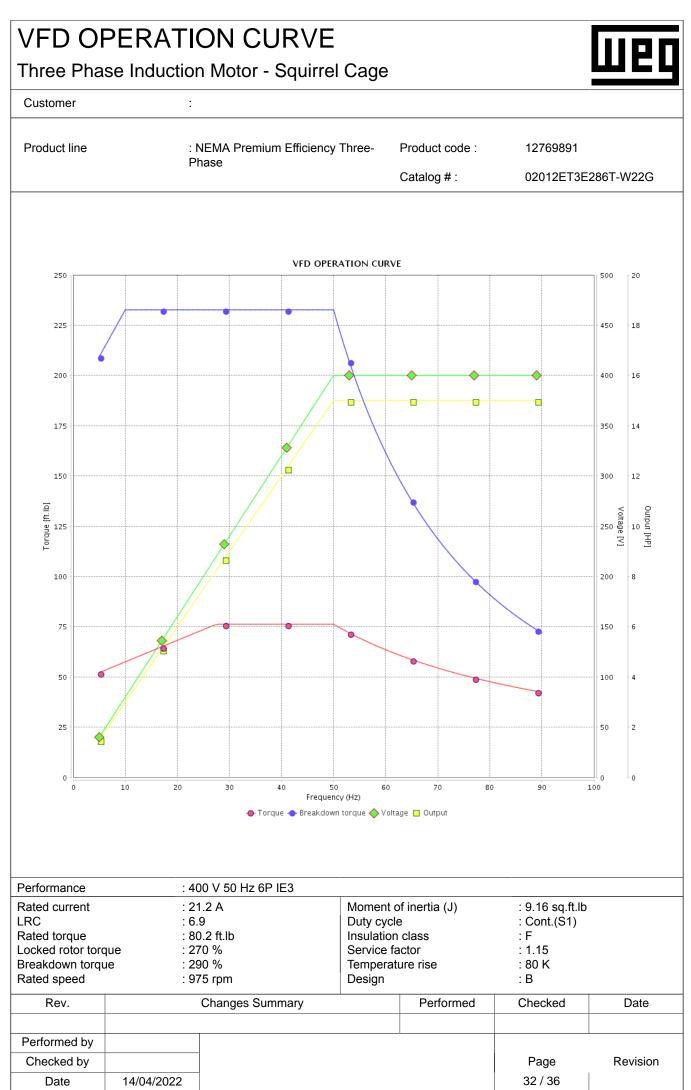
THERMAL LIMIT CURVE         Three Phase Induction Motor - Squirrel Cage							
Customer	:						
Product line	: NEMA Premium Efficiency Phase		Product code : Catalog # :	12769891 02012ET3E286T-W22G			
Performance	: 415 V 50 Hz 6P IE2						
Rated current LRC Rated torque Locked rotor torq Breakdown torqu	: 27.2 A : 5.7 : 108 ft.lb ue : 210 %	Moment of Duty cycle Insulation Service fa Temperate	class ctor	: 9.16 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K			
Rated speed	: 975 rpm	Design		: B			
Heating constant Cooling constant							
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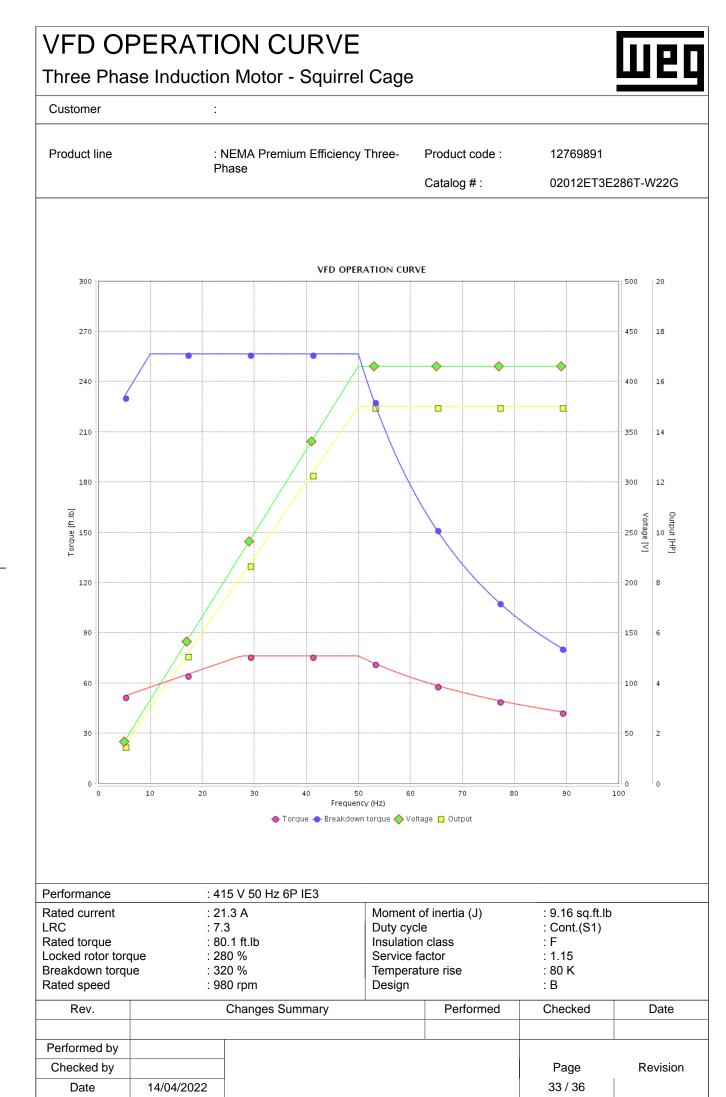
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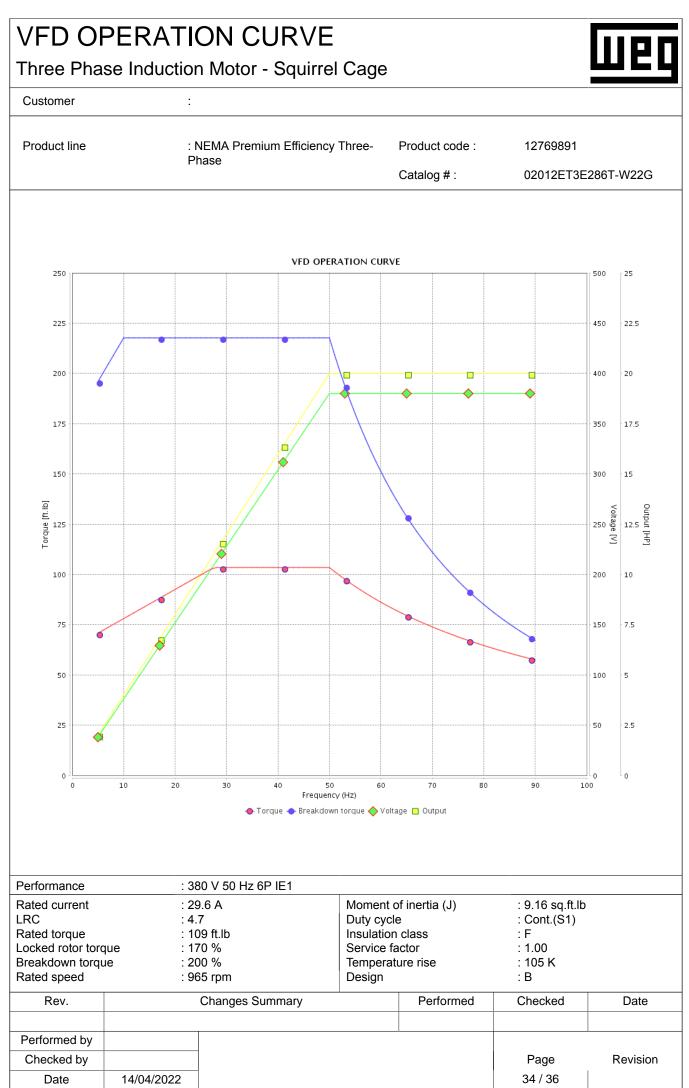


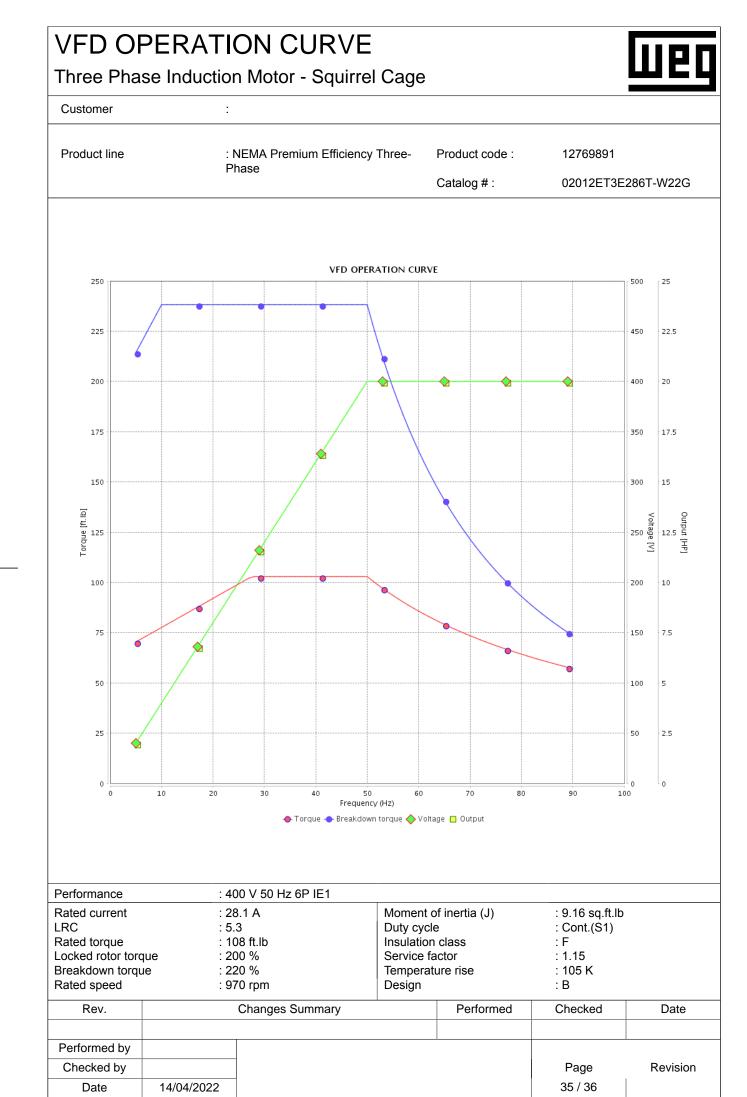


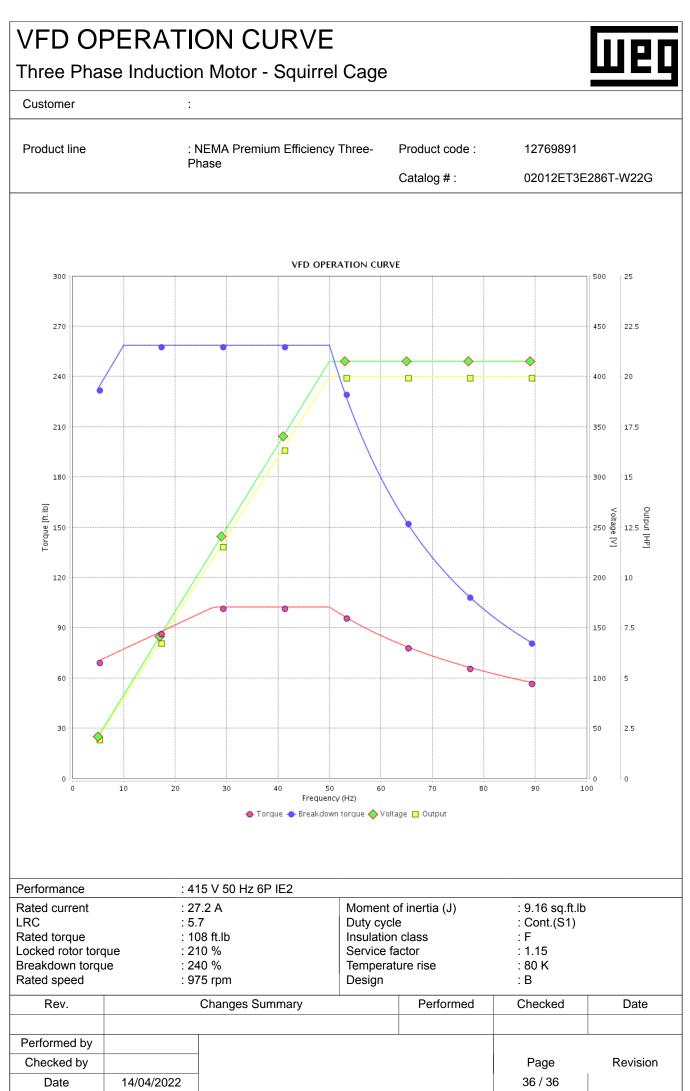


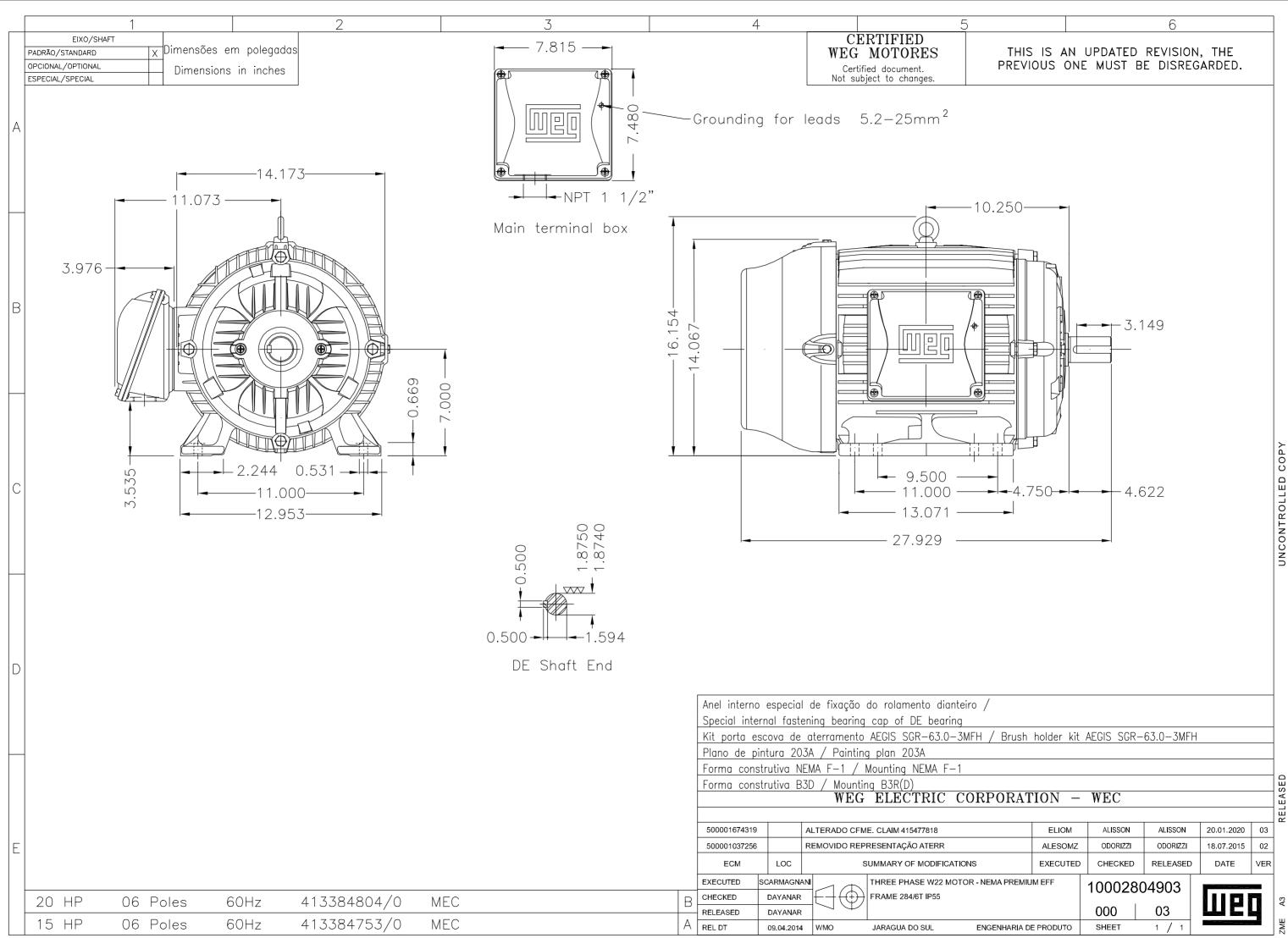












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Inverter Duty Motor Severe Duty

#### 60Hz: For use on PWM: VT 1000:1, C1 20:1, 1.00SF

