# DATA SHEET

Three Phase Induction Motor - Squirrel Cage

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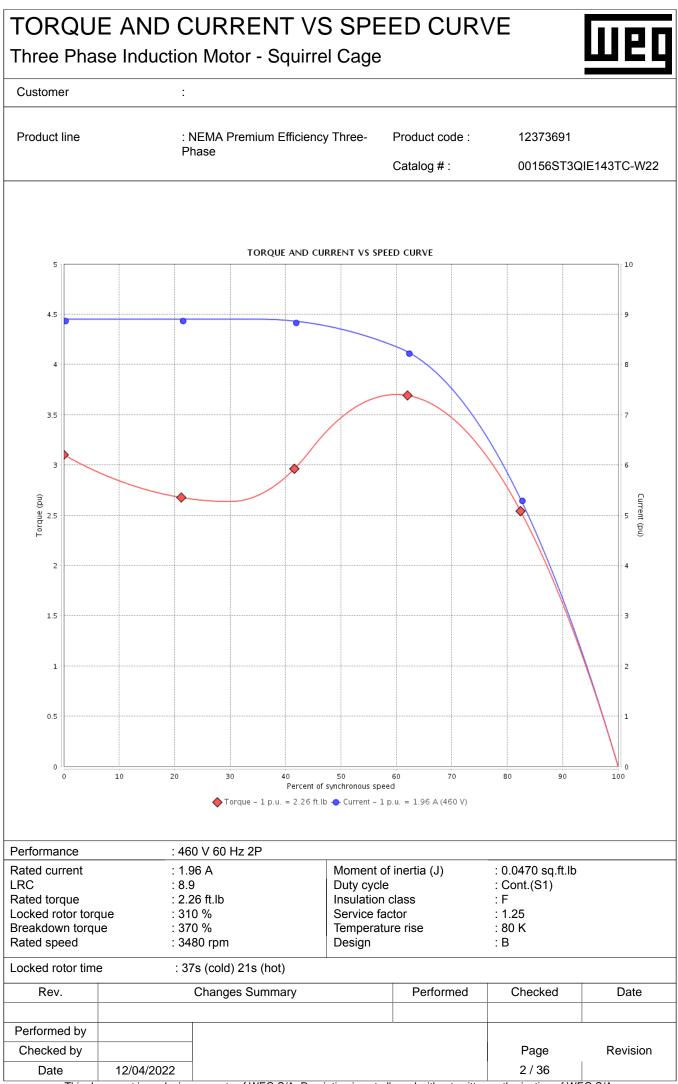
### Customer

Product line		: NEMA Pre Phase	mium Efficien	ncy Thr	ree-	Product code		2373691	
						Catalog # :	00	156ST3QIE	143TC-W22
Frame Insulation class Duty cycle Ambient tempera Altitude Protection degre Design		: 143/5TC : F : Cont.(S1) : -20°C to + : 1000 m.a.s : IP55 : B			Mountii Rotatio Starting Approx		: F : E : C : E	C411 - TEF0 F-1 Both (CW an Direct On Lin 53.2 lb 0.0470 sq.ft.l	d CCW) e
Output [HP]		1.5	1		1	1	1.5	1.5	1.5
Poles		2	2		2	2	2	2	2
Frequency [Hz]		60	50		50	50	50	50	50
Rated voltage [V]		460	380		00	415	380	400	415
Rated current [A]		1.96	1.69		.66	1.65	2.36	2.24	2.21
L. R. Amperes [A] LRC [A]		17.4 8.9x(Code L)	15.5 9.2x(Code M)	9.7x	6.1 (Code M)	16.8 10.2x(Code N)	15.8 6.7x(Code H	16.6 )7.4x(Code .	17.5 J) 7.9x(Code K
No load current [A	1	0.830	0.780		840	0.900	0.780	0.840	0.900
Rated speed [RPI		3480	2905	-	915	2920	2835	2860	2870
Slip [%]		3.33	3.17		.83	2.67	5.50	4.67	4.33
Rated torque [ft.lb	]	2.26	1.81		.80	1.80	2.78	2.75	2.74
Locked rotor torqu		310	340	3	80	420	220	260	280
Breakdown torque		370	390		40	480	260	290	310
Service factor		1.25	1.25		.25	1.25	1.25	1.25	1.25
Temperature rise Locked rotor time		80 K 37s (cold) 21s (hot)	80 K 27s (cold) 15s (hot)	27s	0 K (cold) (hot)	80 K 27s (cold) 15s (hot)	80 K 27s (cold) 15s (hot)	80 K 27s (cold) 15s (hot)	80 K 27s (cold) 15s (hot)
Noise level <sup>2</sup>		68.0 dB(A)	103 (1101)	105	(1101)	103 (101)	133 (101)	135 (1101)	155 (100)
	25%	81.1	79.9	7	8.4	77.9	80.6	81.6	81.7
	50%	81.5	80.5		9.3	78.9	81.0	82.0	82.0
Efficiency (%)	75%	84.0	83.2		2.8	82.7	81.5	82.5	82.5
	100%	84.0	83.4		3.4	83.4	81.5	82.5	82.5
	25%	0.43	0.39	0.	.35	0.33	0.51	0.46	0.43
Power Factor	50%	0.68	0.63	0.	.58	0.55	0.75	0.70	0.67
Power Factor	75%	0.78	0.74	0.	.71	0.68	0.84	0.80	0.78
	100%	0.84	0.81	0.	.78	0.76	0.87	0.86	0.84
Bearing type Sealing Lubrication inter Lubricant amour Lubricant type		Drive end           6205 C3           Inpro/Sea           20000 h           4 g           Mobi	3 6204 ( al Inpro/S	C3     Seal   I	Max. tra	tion loads action mpression		7 lb 00 lb	
Notes									
This revision repl must be eliminate (1) Looking the m (2) Measured at 7 (3) Approximate manufacturing pr (4) At 100% of fu	ed. notor from the 1m and with t weight subjec ocess.	e shaft end. olerance of +3	8dB(A).			are average va upply, subject			
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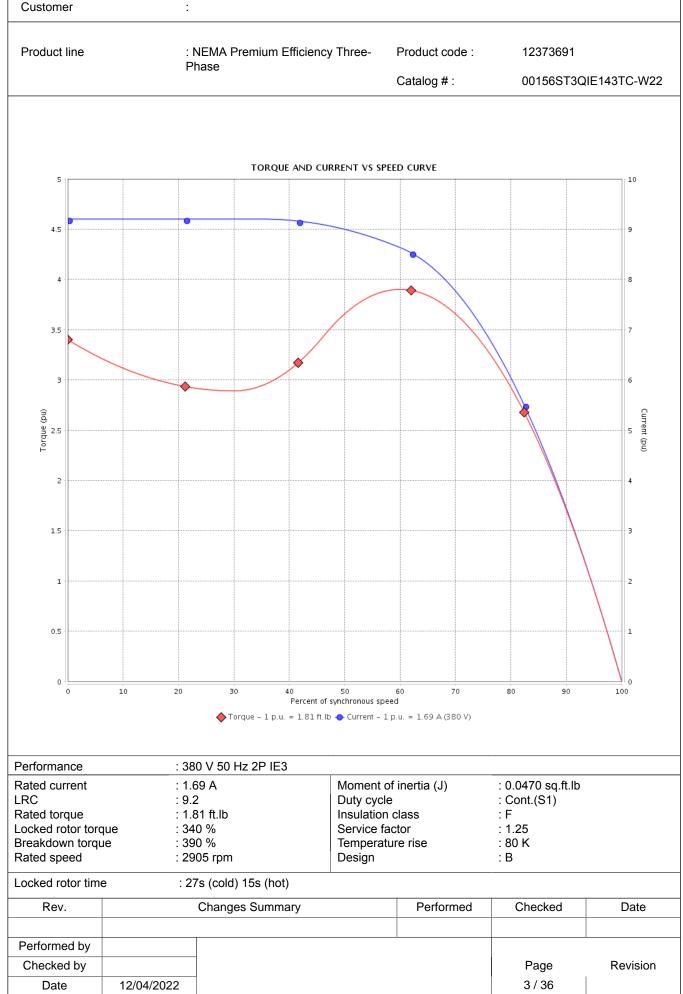
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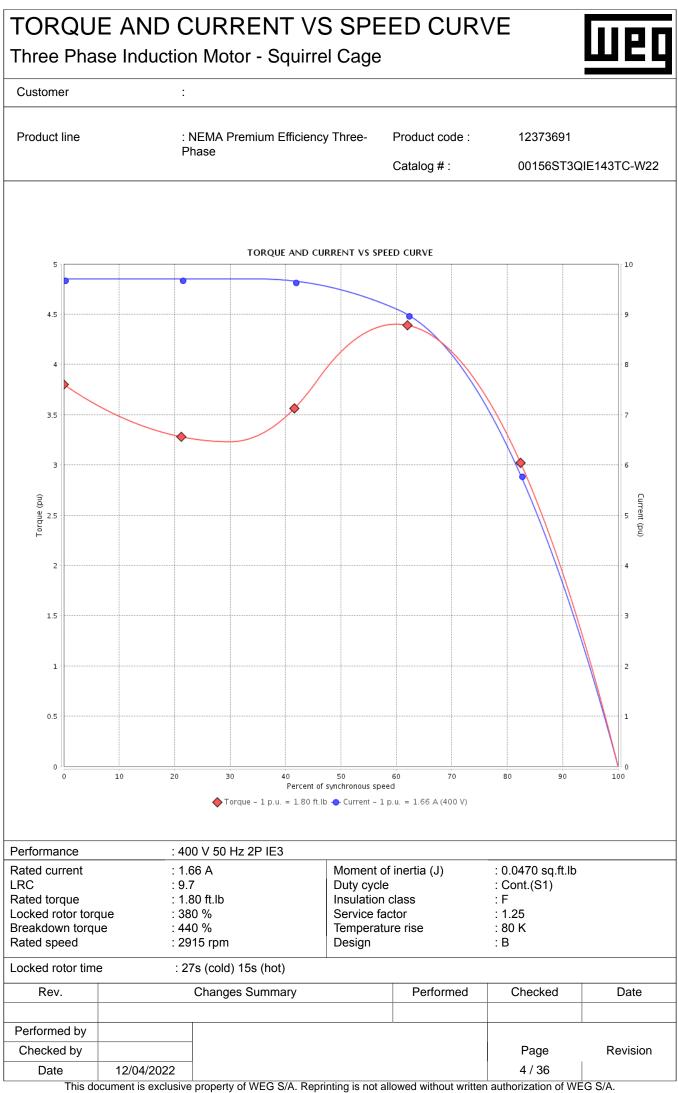
### TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

### Customer



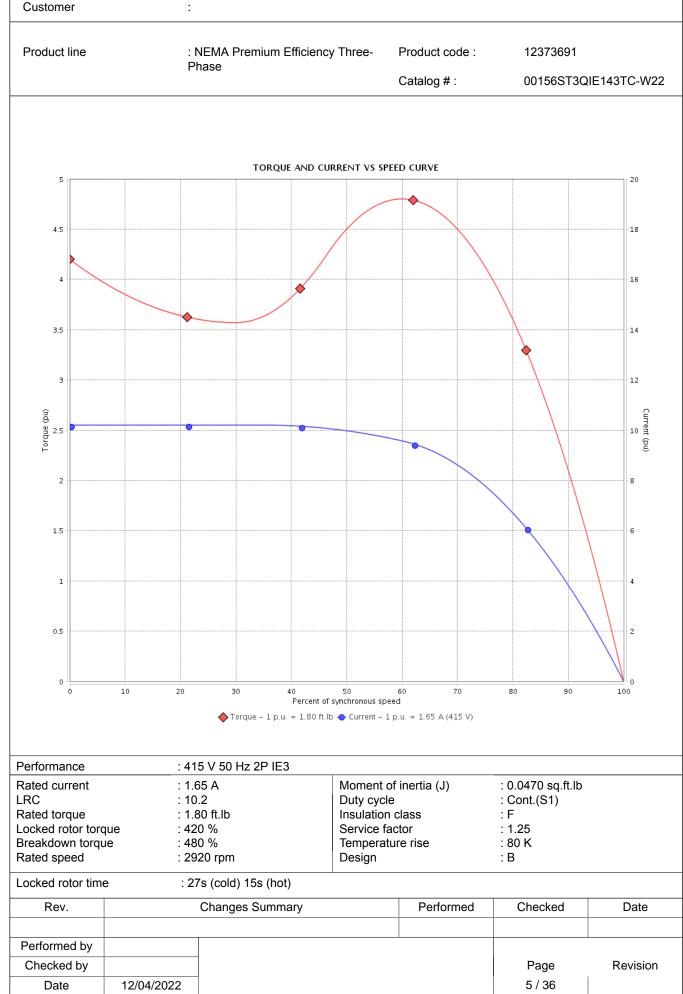
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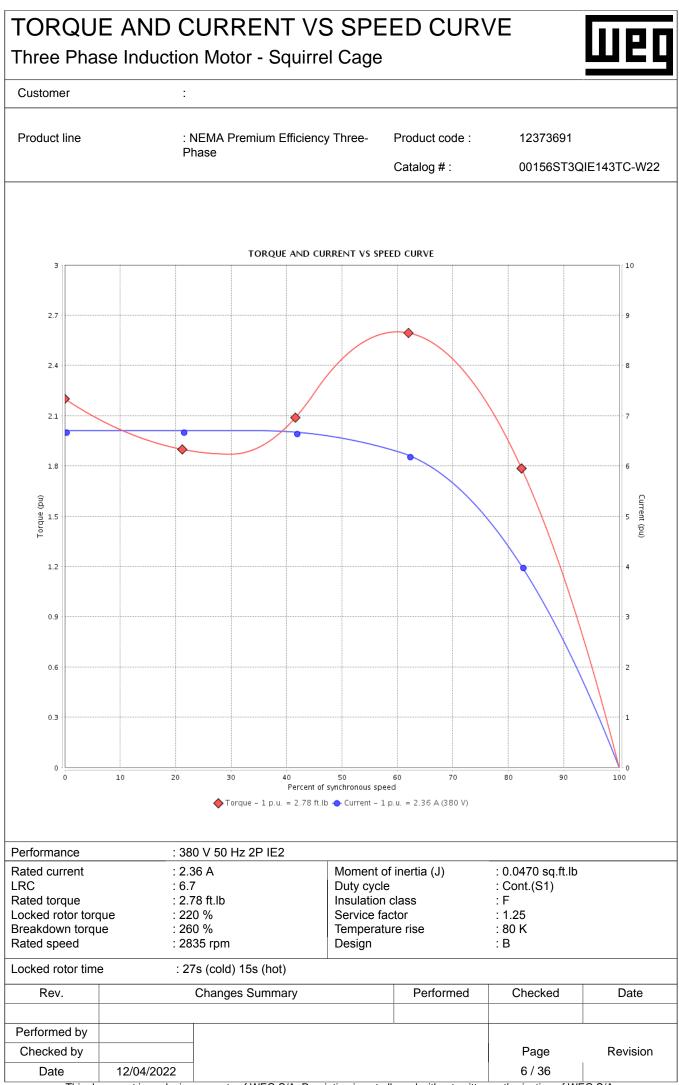
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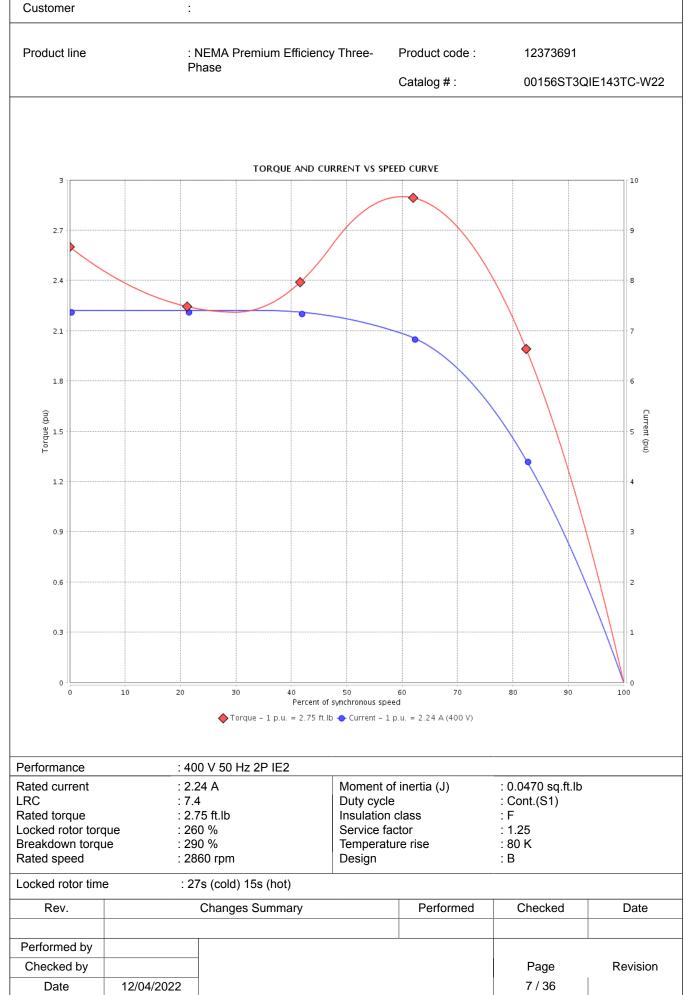
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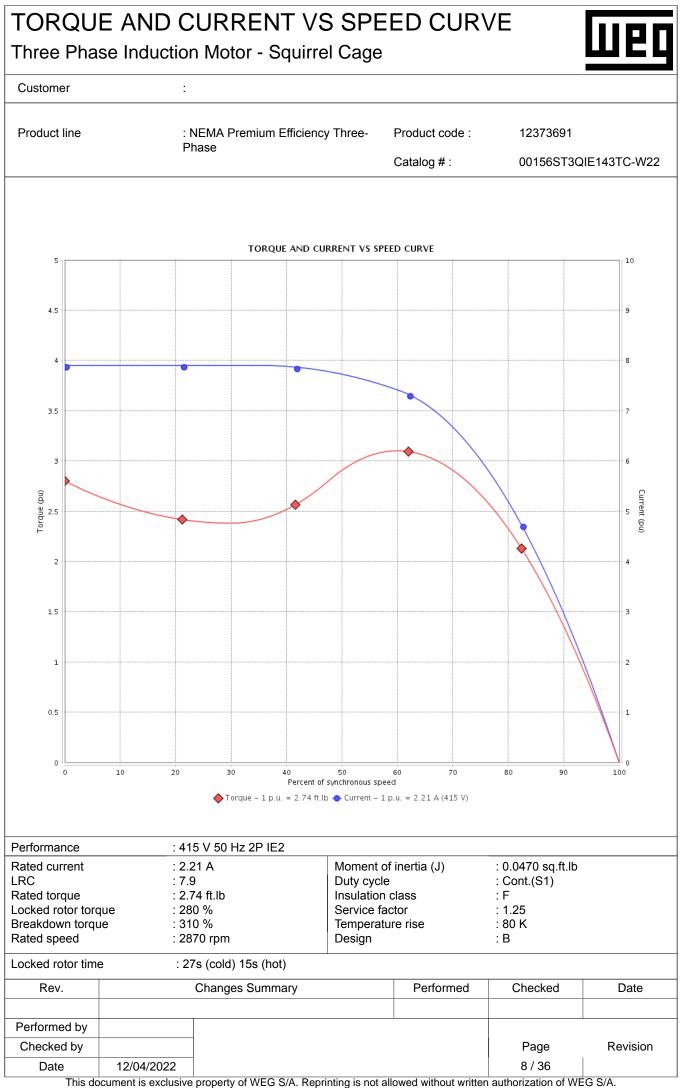
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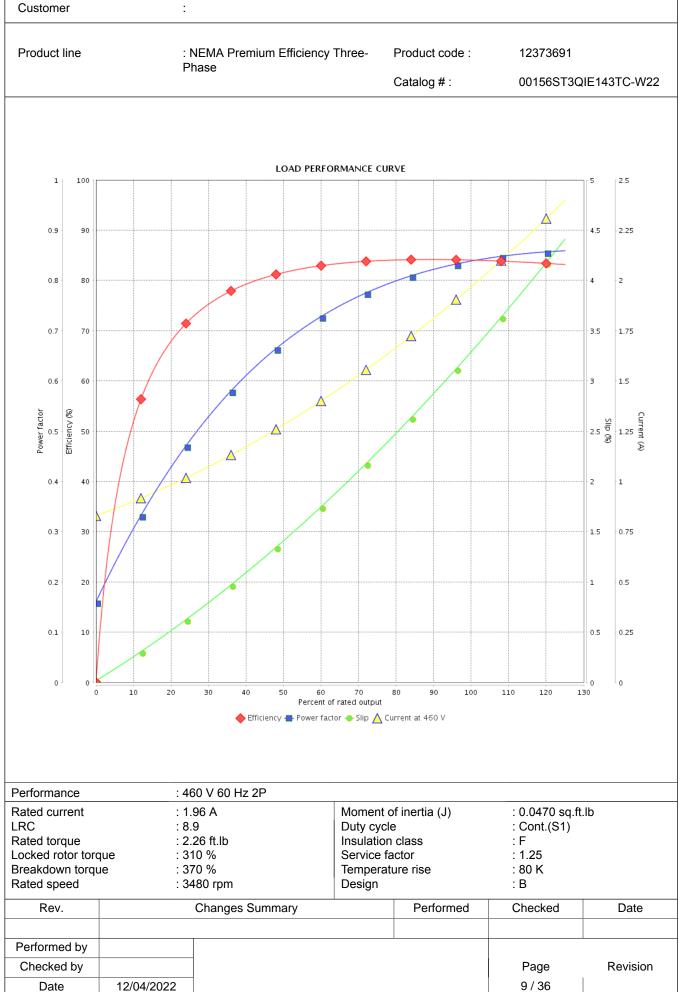
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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

### Customer



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#### LOAD PERFORMANCE CURVE Three Phase Induction Motor - Squirrel Cage Customer : Product line : NEMA Premium Efficiency Three-Product code : 12373691 Phase 00156ST3QIE143TC-W22 Catalog # : LOAD PERFORMANCE CURVE 100 1 2 5 4.5 1.8 0.9 90 Δ 0.8 80 4 1.6 Δ 3.5 1.4 0.7 70 Δ 1.2 0.6 60 З Efficiency (%) Current (A) Power factor 2.5 % $\Delta$ 50 $\Delta$ $\Delta$ 2 0.8 0.4 40 0.3 30 1.5 0.6 0.4 0.2 20 1 0.1 10 0.5 0.2 0 0 0 0 ó 10 20 30 40 100 110 120 130 50 60 70 80 90 Percent of rated output 🔶 Efficiency 🖶 Power factor 🔶 Slip 🛆 Current at 380 V

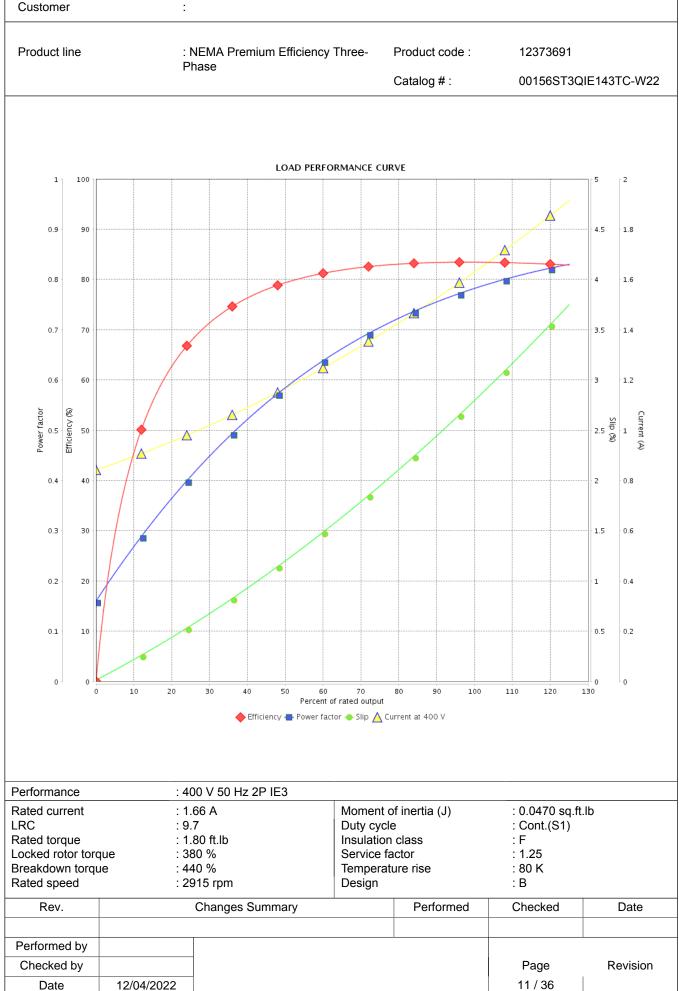
Performance	: :	380 V 50 Hz 2P IE3				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	e ::	1.69 A 9.2 1.81 ft.lb 340 % 390 % 2905 rpm	Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.0470 sq.ft : Cont.(S1) : F : 1.25 : 80 K : B	lb
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# LOAD PERFORMANCE CURVE

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### Customer



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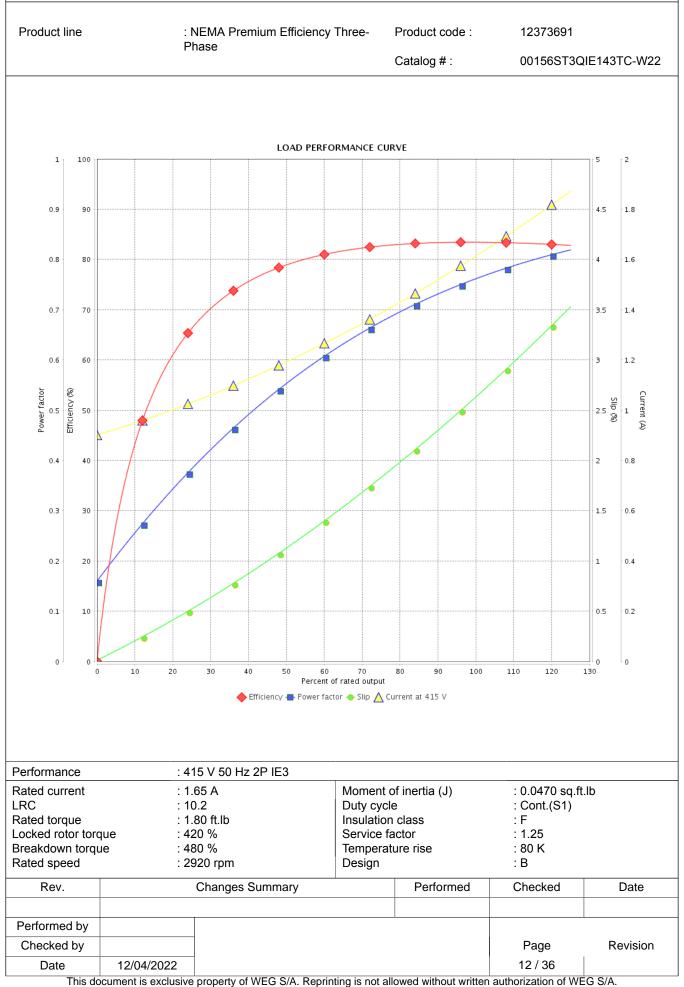
## LOAD PERFORMANCE CURVE

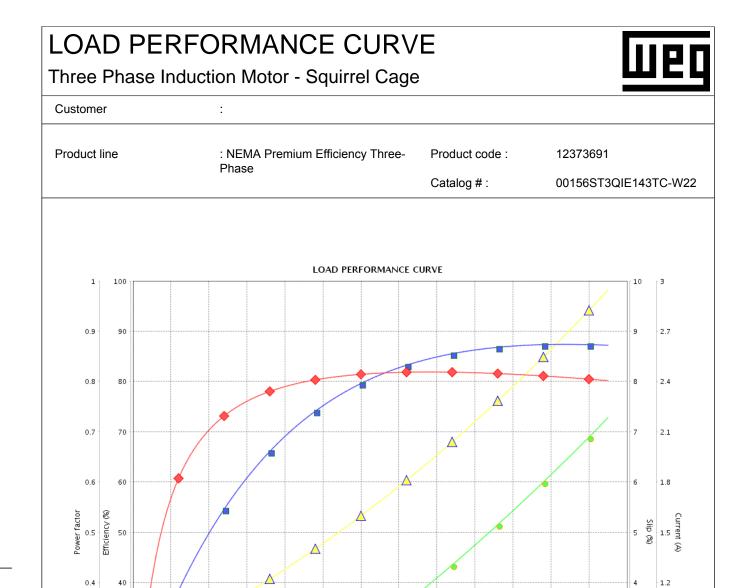
Three Phase Induction Motor - Squirrel Cage

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Customer





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0.3

0.2

30

20

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	10 20	30 40 ♦ Effi	50 Pe ciency 🖶 Pow		70 ated output ◆ Slip ▲ 0	80 Current at	90 380 V	100	110	120	130	0.3
Performance	: 38	0 V 50 Hz 2	P IE2									
Rated current	: 2.3	36 A		Ν	Moment	of iner	tia (J)		: 0.0	)470 sq	ı.ft.lb	
LRC	: 6.7	7		. і г	Duty cyc	le			· Co	nt.(S1)	-	
					July Cyc							
		78 ft.lb			nsulatio		6		: F	(01)		
Rated torque		78 ft.lb		1		n class	6					
Rated torque Locked rotor torque	: 2.7	78 ft.lb 0 %		li S	nsulatio	n class actor			: F	25		
Rated torque Locked rotor torque Breakdown torque Rated speed	: 2.7 : 22 : 26	78 ft.lb 0 %		ו פ ד	nsulatio Service f	n class actor			: F : 1.2	25		
Rated torque Locked rotor torque Breakdown torque	: 2.7 : 220 : 260 : 280	78 ft.lb 0 % 0 %	ımmary	ו פ ד	nsulatio Service f Fempera	n class actor ture ris		d	: F : 1.2 : 80 : B	25		Date
Rated torque Locked rotor torque Breakdown torque Rated speed	: 2.7 : 220 : 260 : 280	78 ft.lb 0 % 0 % 35 rpm	Immary	ו פ ד	nsulatio Service f Fempera	n class actor ture ris	se	d	: F : 1.2 : 80 : B	25 K		Date
Rated torque Locked rotor torque Breakdown torque Rated speed Rev.	: 2.7 : 220 : 260 : 280	78 ft.lb 0 % 0 % 35 rpm	immary	ו פ ד	nsulatio Service f Fempera	n class actor ture ris	se	d	: F : 1.2 : 80 : B Che	25 K		Date

3

2

0.9

0.6

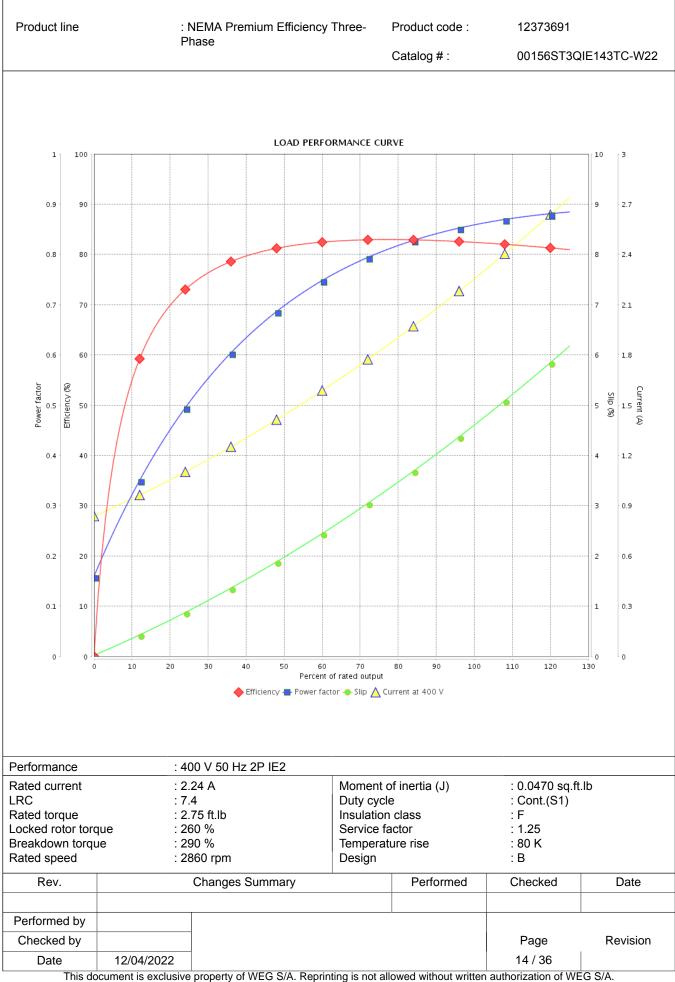
## LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

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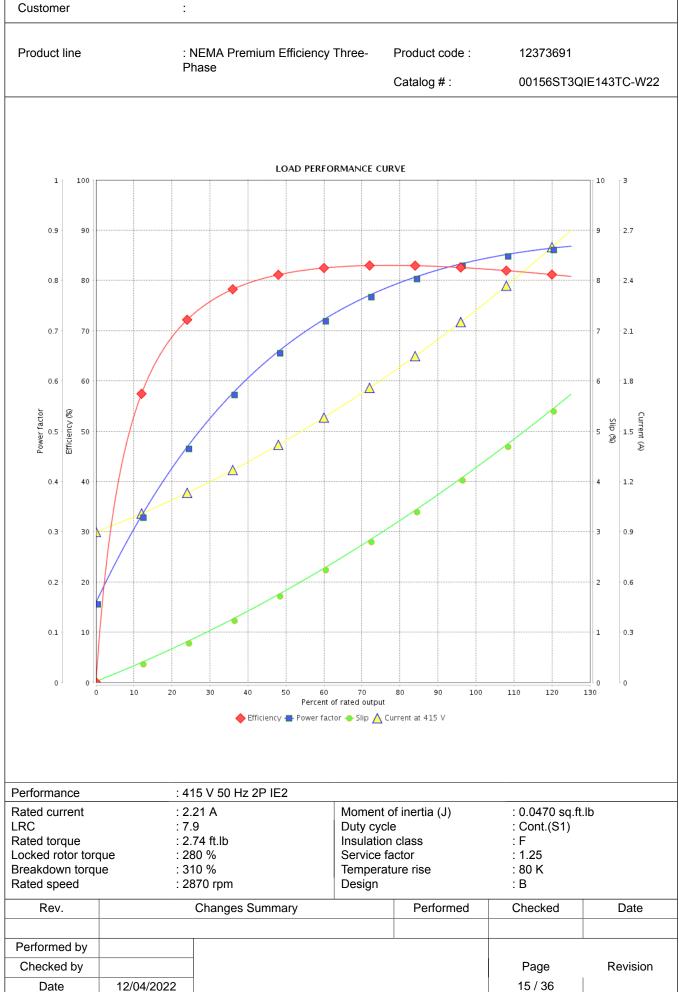
Customer



# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

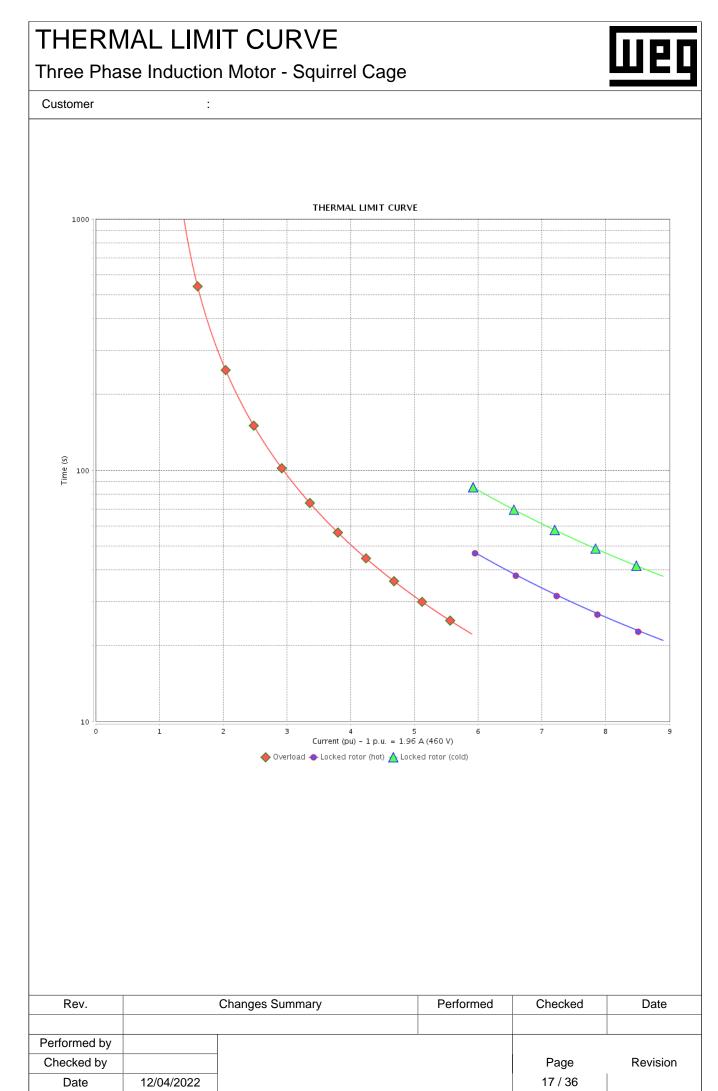
### Customer



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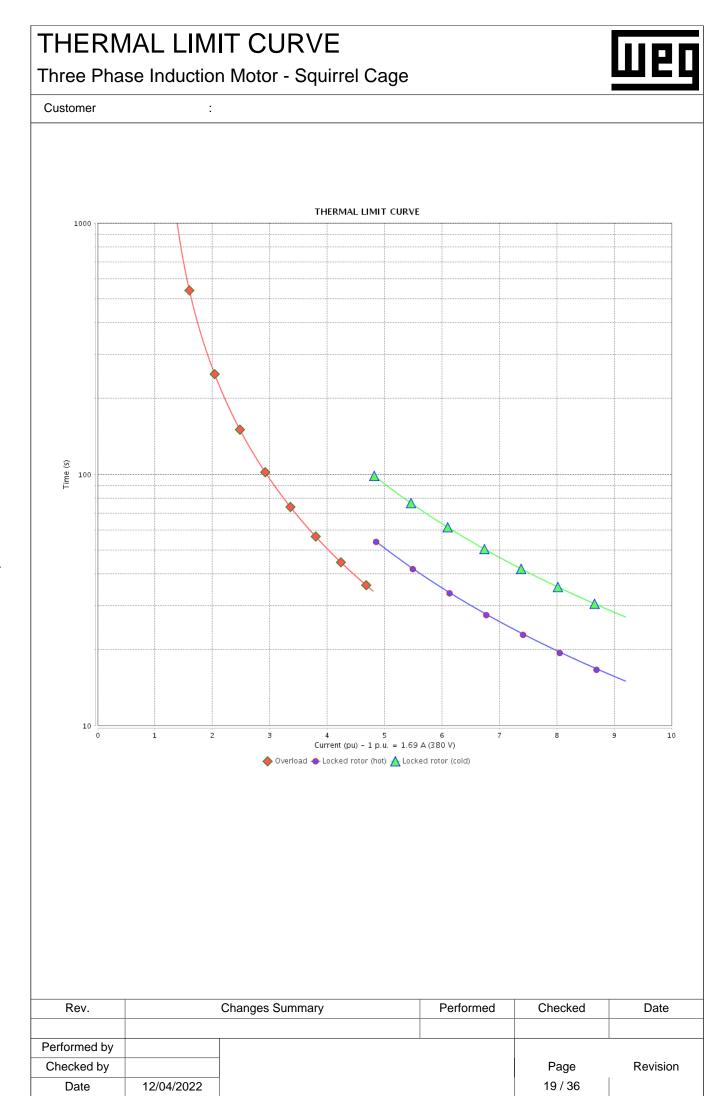
THERMAL LIMIT CURVE       Image: Customer of the set induction Motor - Squirrel Cage         Customer       :         Product line       : NEMA Premium Efficiency Three- Phase       Product code :       12373691 Catalog # :         O0156ST3QIE143TC-W22				
Product line : NEMA Premium Efficiency Three- Product code : 12373691 Phase			9	Шер
Phase	Customer	:		
Catalog # : 00156ST3QIE143TC-W22	Product line		Product code :	12373691
			Catalog # :	00156ST3QIE143TC-W22

Performance	: 40	60 V 60 Hz 2P				
Rated current LRC Rated torque Locked rotor torc Breakdown torqu Rated speed	: 8 : 2 que : 3 ie : 3	96 A 9 26 ft.lb 10 % 70 % 480 rpm	Moment of Duty cycle Insulation Service fau Temperatu Design	class	: 0.0470 sq.ff : Cont.(S1) : F : 1.25 : 80 K : B	.lb
Heating constant	t					
Cooling constant	t					
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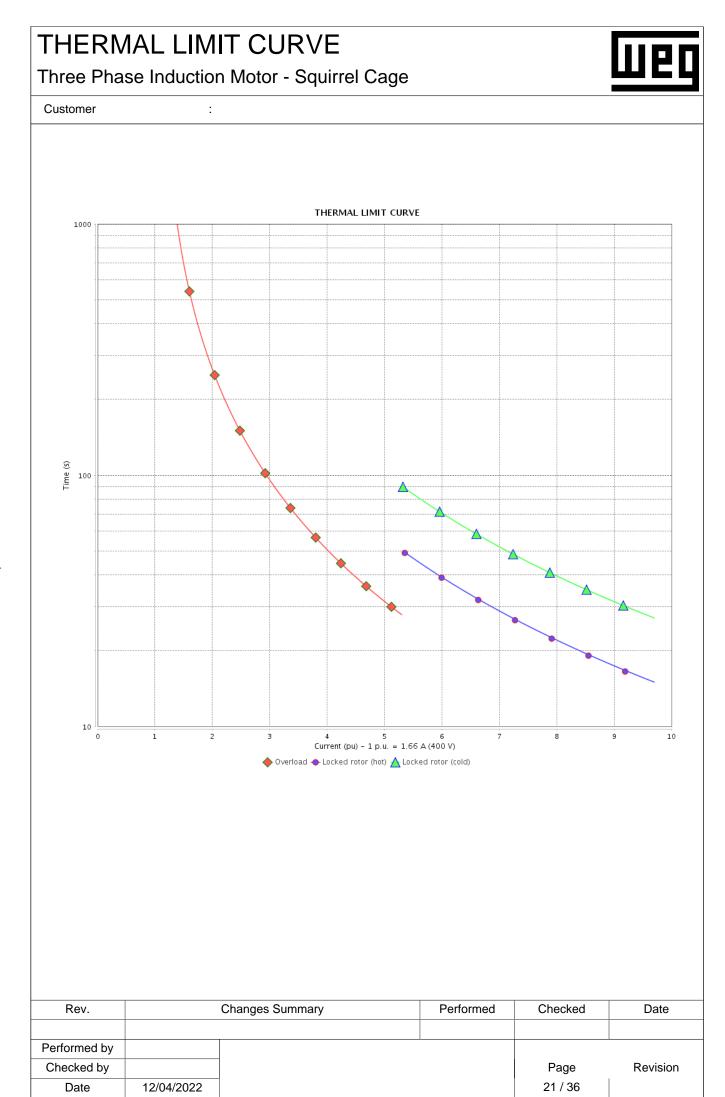
Customer	:		
Product line	: NEMA Premium Efficiency Three- Phase	Product code :	12373691
	Phase	Catalog # :	00156ST3QIE143TC-W2

Performance	: 3	380 V 50 Hz 2P IE3				
Rated current LRC Rated torque Locked rotor toro Breakdown torqu Rated speed	ue : 3	1.69 A 9.2 1.81 ft.lb 340 % 390 % 2905 rpm	Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.0470 sq.ft : Cont.(S1) : F : 1.25 : 80 K : B	lb
Heating constant	t					
Cooling constant	t					
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Customer	:		
Product line	: NEMA Premium Efficiency Three- Phase	Product code : Catalog # :	12373691 00156ST3QIE143TC-W2

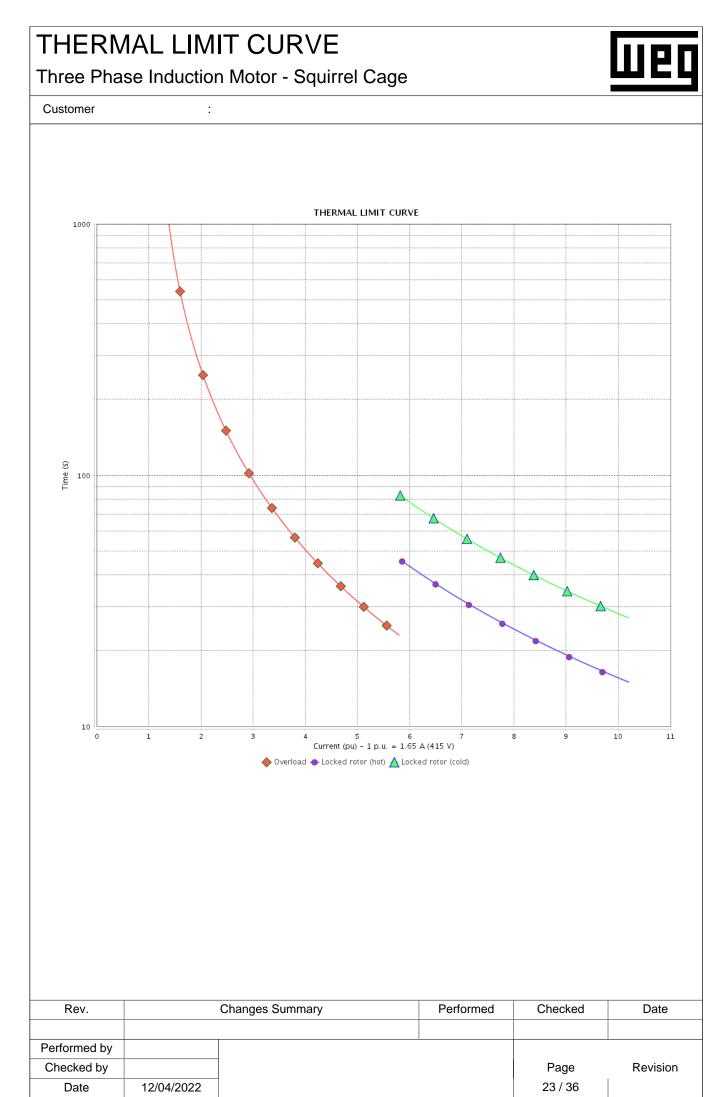
Performance	: 40	00 V 50 Hz 2P IE3				
Rated current LRC Rated torque Locked rotor toro Breakdown torqu Rated speed	: 9. : 1. gue : 38 ie : 44	66 A 7 80 ft.lb 30 % 40 % 915 rpm	Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.0470 sq.ft : Cont.(S1) : F : 1.25 : 80 K : B	.lb
Heating constant	t					
Cooling constant	t					
Rev.		Changes Summary		Performed	Checked	Date
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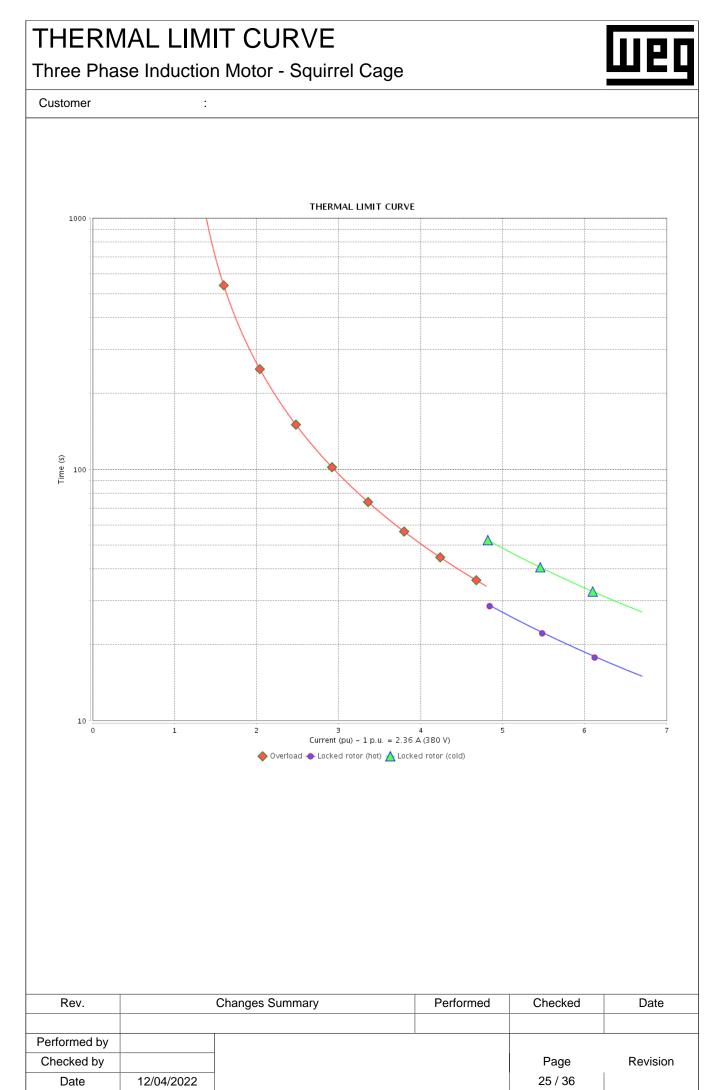
Customer	:		
Product line	: NEMA Premium Efficiency Three- Phase	Product code : Catalog # :	12373691 00156ST3QIE143TC-W2

Performance	: 41	15 V 50 Hz 2P IE3				
Rated current LRC Rated torque Locked rotor toro Breakdown torqu Rated speed	: 10 : 1. que : 42 ie : 48	65 A 0.2 80 ft.lb 20 % 30 % 920 rpm	Moment o Duty cycle Insulation Service fa Temperatu Design	class ctor	: 0.0470 sq.ft : Cont.(S1) : F : 1.25 : 80 K : B	.lb
Heating constan	t					
Cooling constant	t					
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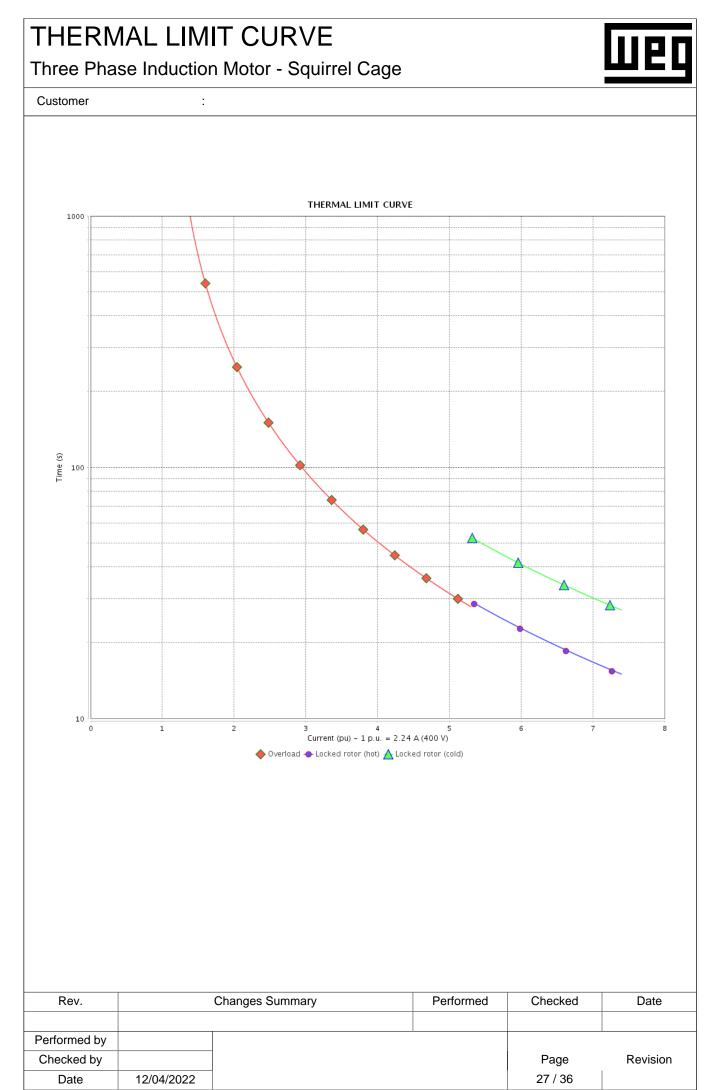
Customer	:		
Product line	: NEMA Premium Efficiency Three- Phase	Product code : Catalog # :	12373691 00156ST3QIE143TC-W2
			00130313Q1214310-112

Performance : 380 V 50 Hz 2P IE2		30 V 50 Hz 2P IE2				
LRC: 6.Rated torque: 2.Locked rotor torque: 22Breakdown torque: 26		36 A 7 78 ft.lb 20 % 60 % 335 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0470 sq.ft.lb : Cont.(S1) : F : 1.25 : 80 K : B	
Heating constan	t					
Cooling constant	t					
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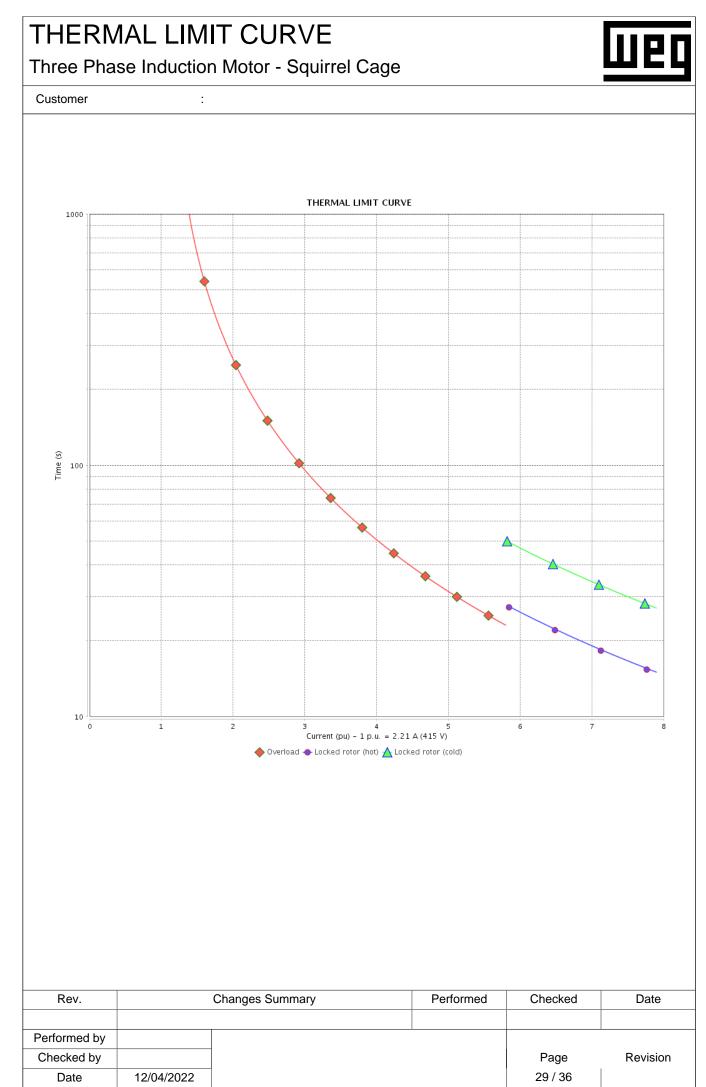
	duction Motor - Squirrel Cage	<b>;</b>	ШВ
Justomer	·		
Product line	: NEMA Premium Efficiency Three- Phase	Product code :	12373691
		Catalog # :	00156ST3QIE143TC-W2

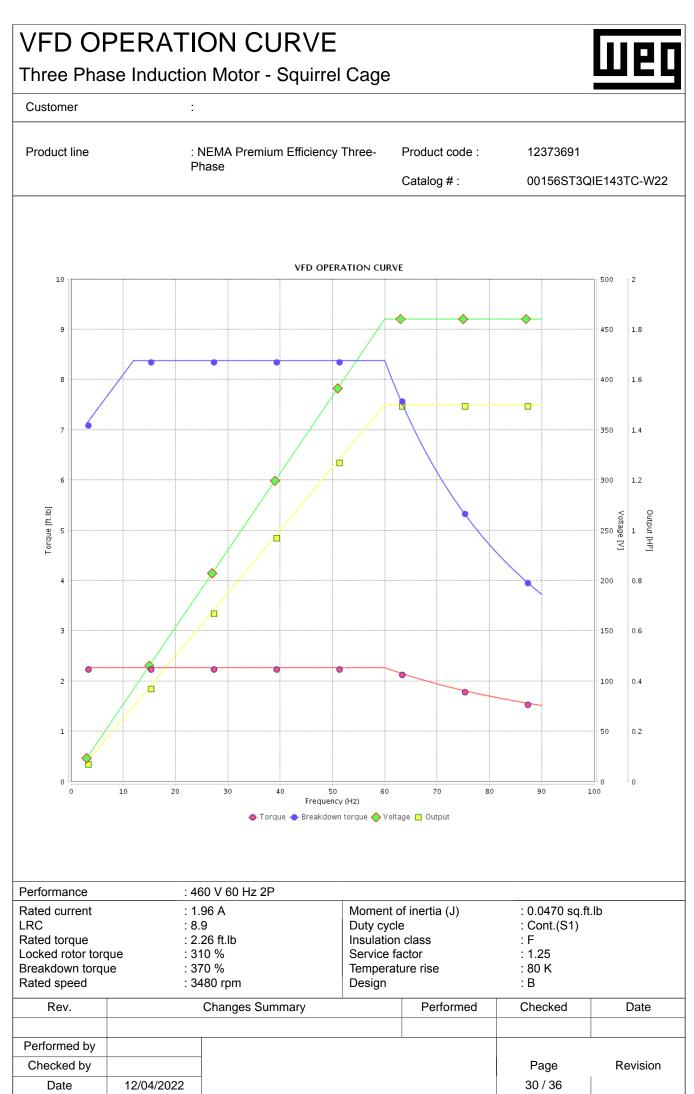
Performance : 400 V 50 Hz 2P IE2		00 V 50 Hz 2P IE2				
LRC: 7.Rated torque: 2.Locked rotor torque: 26Breakdown torque: 29		24 A 4 75 ft.lb 60 % 90 % 360 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 0.0470 sq.ft.lb : Cont.(S1) : F : 1.25 : 80 K : B	
Heating constant	t					
Cooling constant	t					
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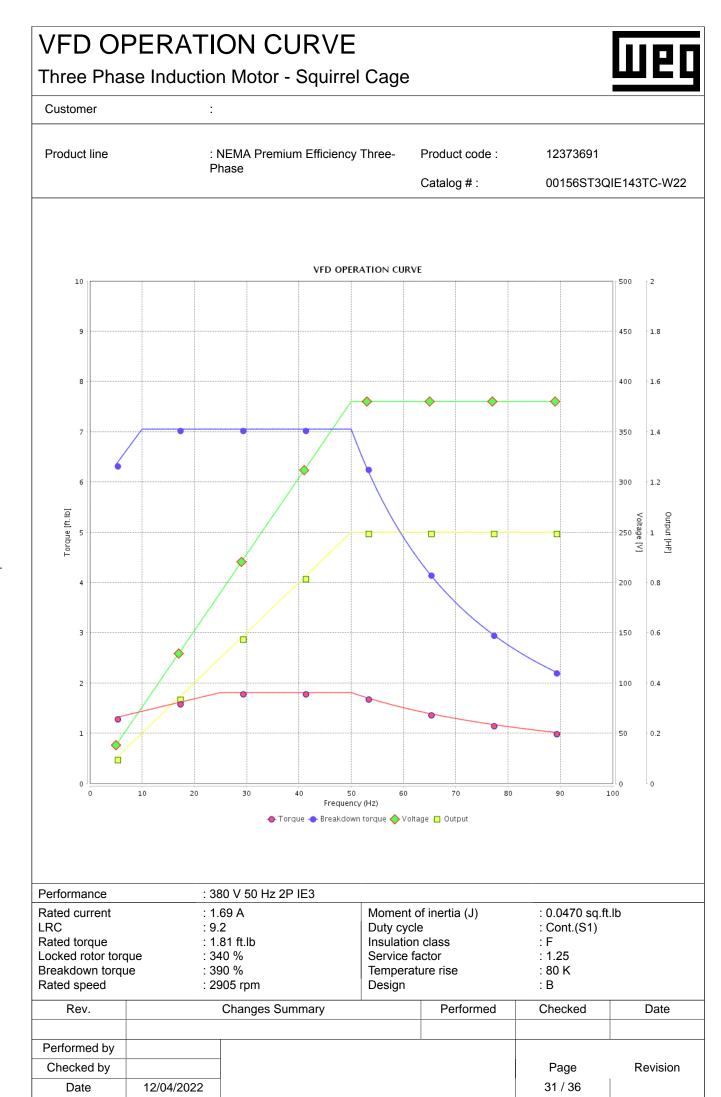


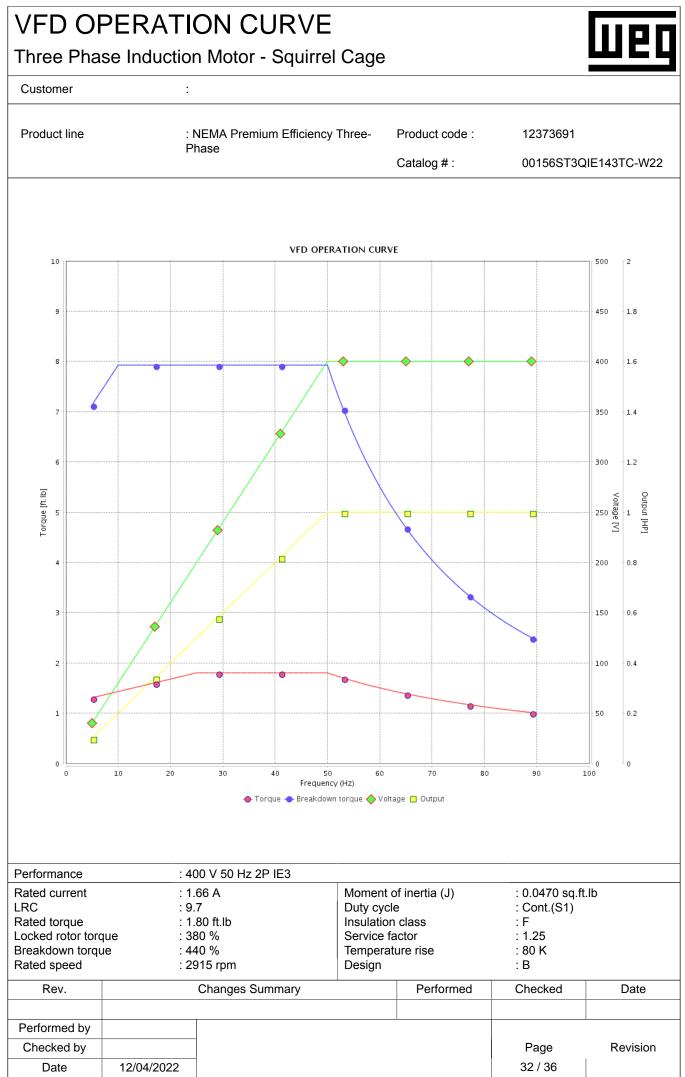
Customer	:		
Product line	: NEMA Premium Efficiency Three- Phase	Product code : Catalog # :	12373691 00156ST3QIE143TC-W2

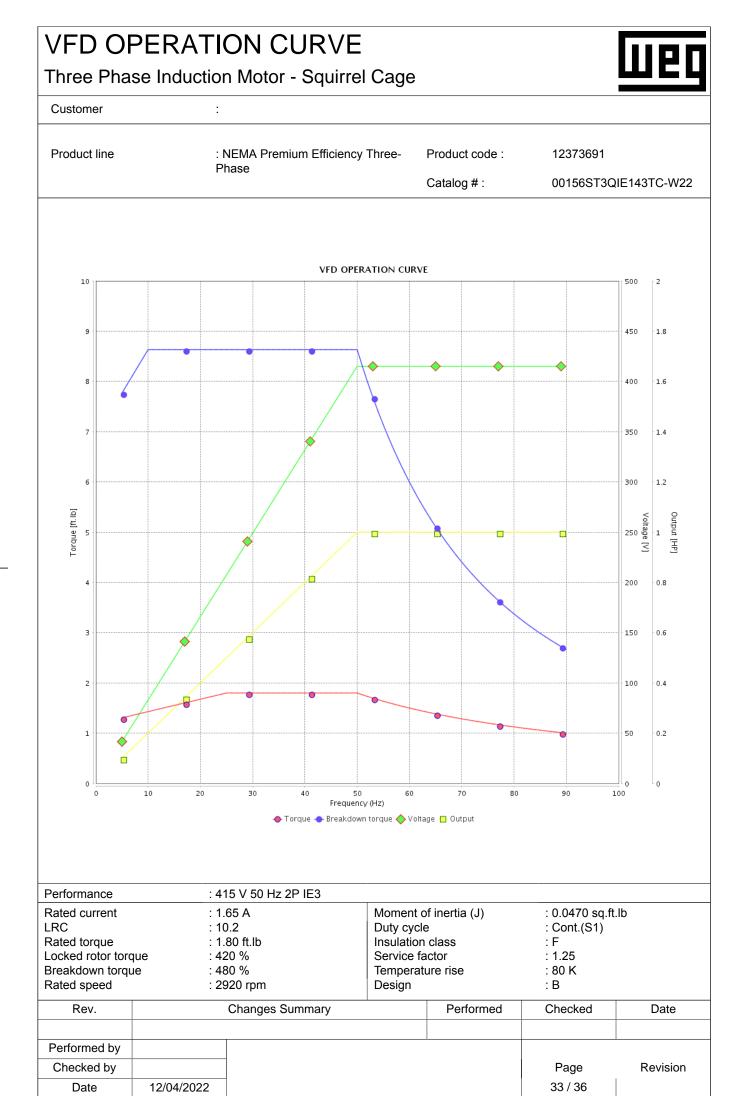
Performance : 415 V 50 Hz 2P IE2						
Rated current : 2.21 A		21 A	Moment of inertia (J)		: 0.0470 sq.ft.lb	
LRC	: 7.	9	Duty cycle		: Cont.(S1)	
-		74 ft.lb	Insulation class		:F	
· ·		30 %	Service factor		: 1.25	
		10 %	Temperature rise		: 80 K	
Rated speed : 2870 rpm		370 rpm	Design : B			
Heating constan	t					
Cooling constant	t					
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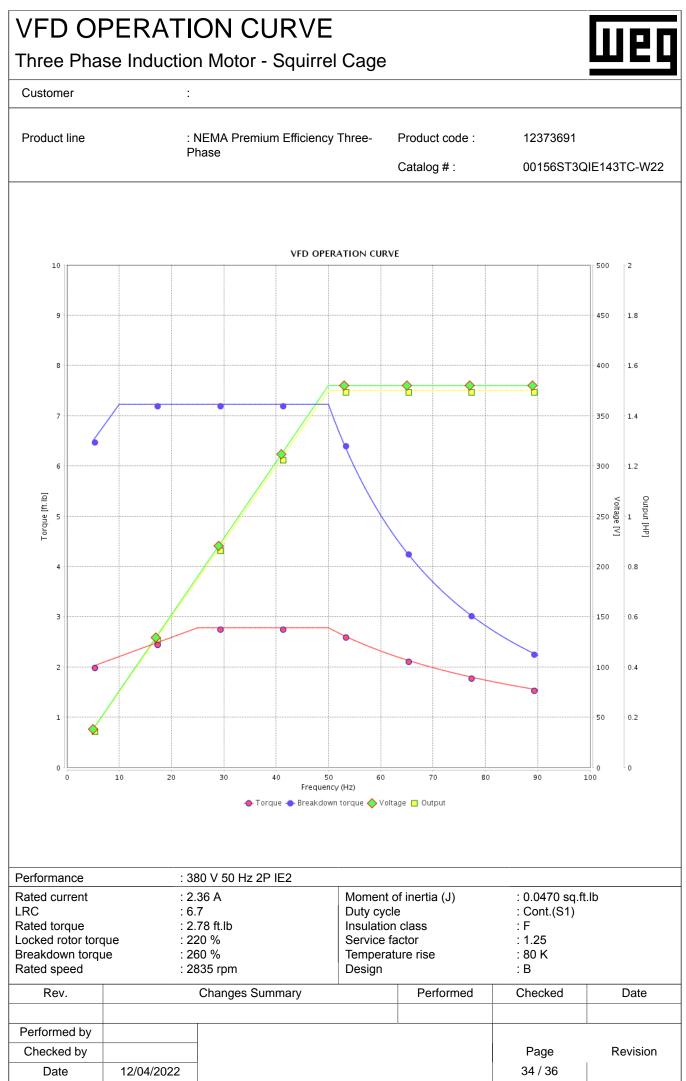


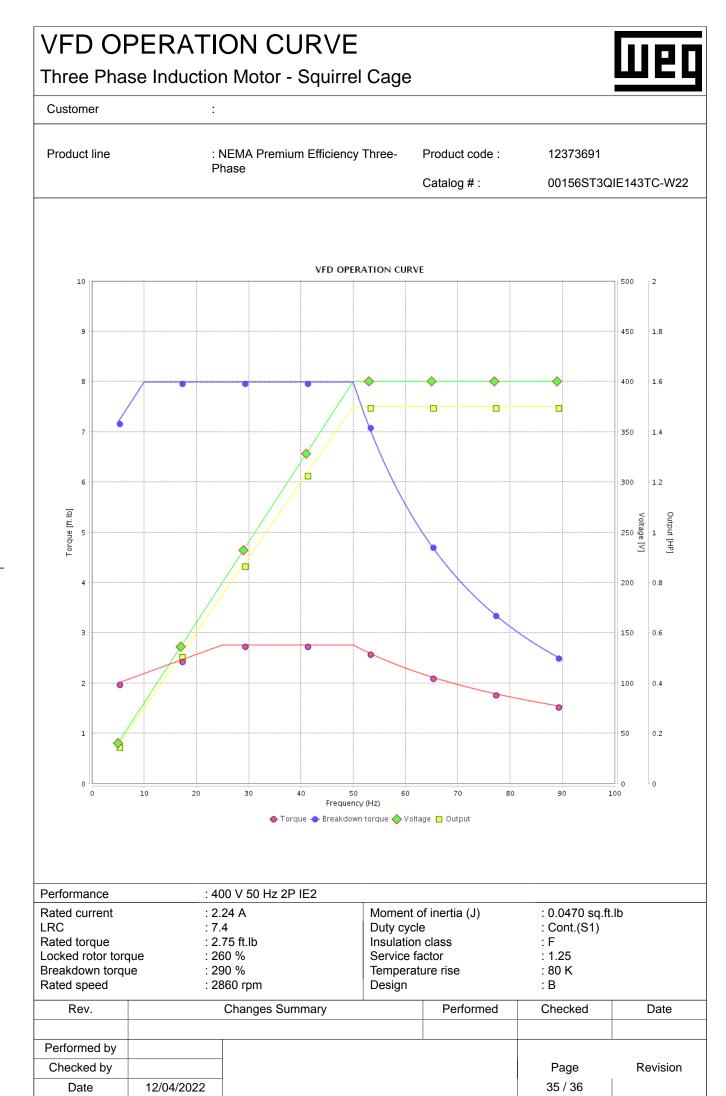


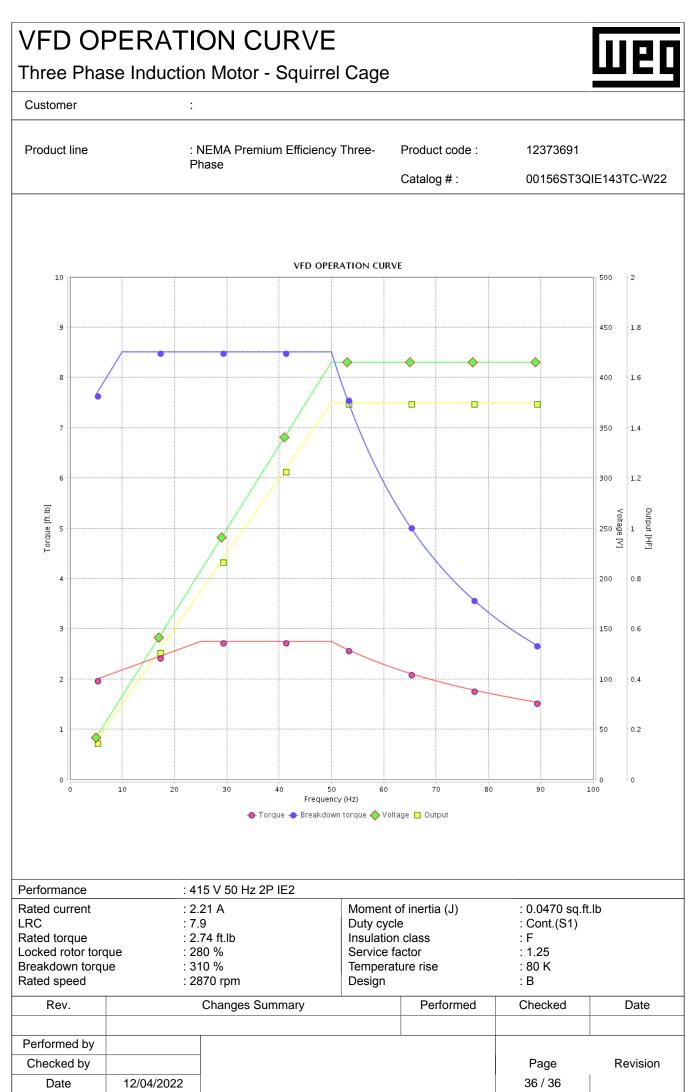


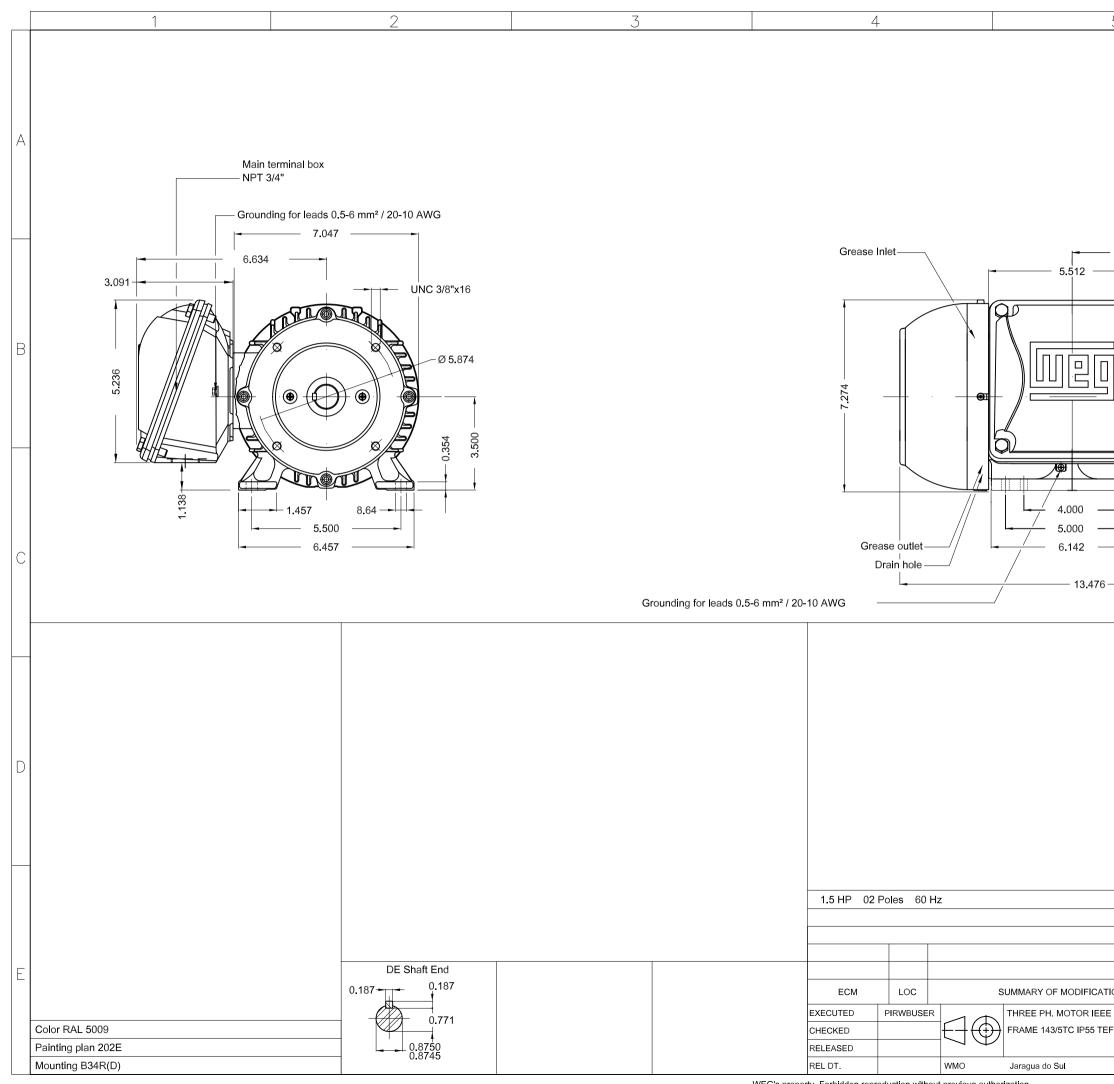












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FC		WDD		ШВ		A3
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