# DATA SHEET

Three Phase Induction Motor - Squirrel Cage

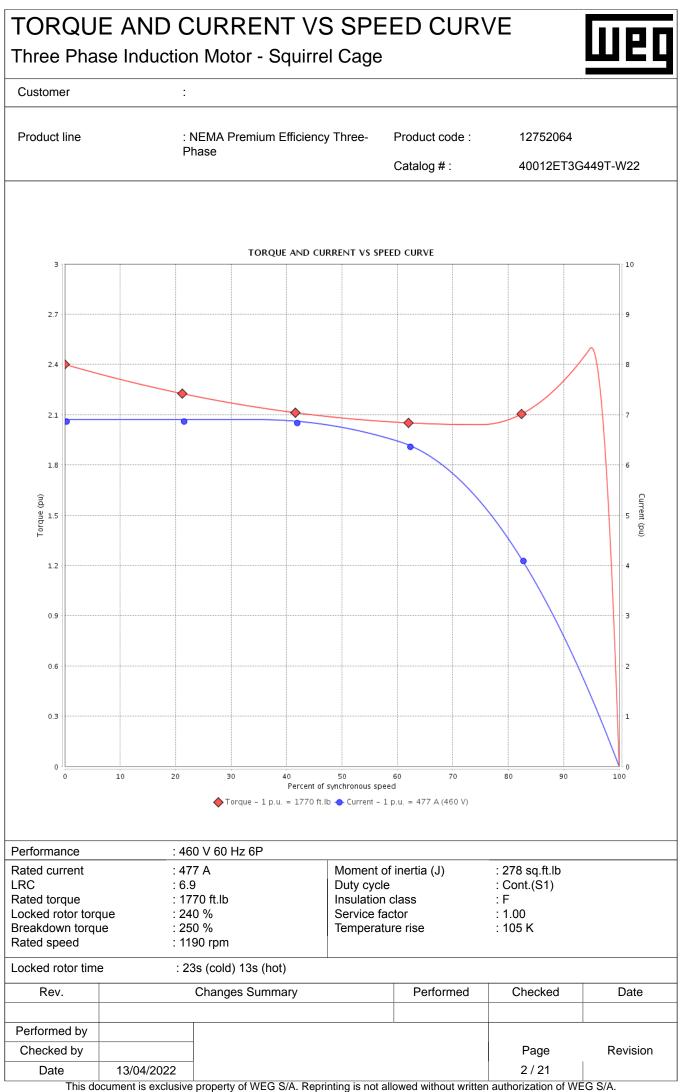
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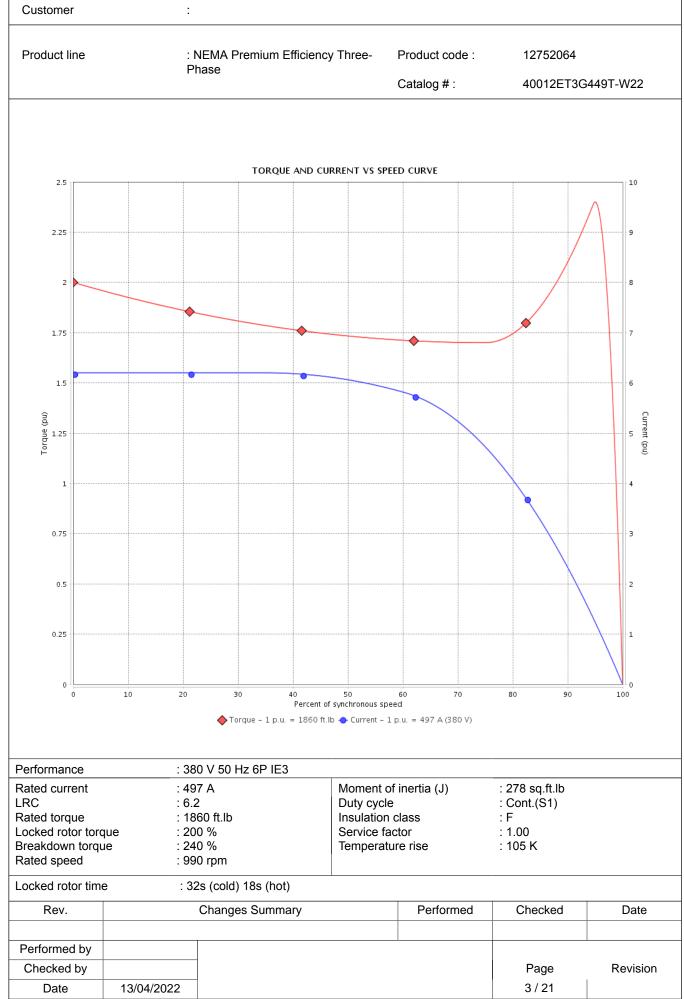
Catalog #:         40012ET3G449T-W22           Frame         : L447/9T         Frame         : Coll, Gram         : Coll, Gram         : Coll, Gram         : Coll, Gram         : Coll, Gram <th: coll,="" gram<="" th="">         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram         <th: coll,="" gram<="" th=""> <th: coll,="" gram<="" th="">         : Coll, Gram</th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:></th:>	Product line		: NEMA Premium Effice Phase	ciency Tl	hree- Prod	luct code :	127520	064	
Insulation class         : F         Mounting         : F-1         Mounting         : F-1         Cont (S1)           Ambient temperature         : 20°C (b +40°C         Starting method         : Direct On Line         Approx. weight*         : 3833 lb           Protection degree         : IP55         Mounting         : 21°C (b +40°C         Starting method         : Direct On Line           Approx. weight*         : 3833 lb         Moment of inertia (J)         : 278 sq.ft.lb         Starting method           Protection degree         : IP55         6         6         6         6           Frequency [H2]         60         50         50         50         50           Rated voltage [V]         460         380         400         4115           Rated voltage [V]         460         380         400         4115           Rated voltage [V]         460         380         100         1100         226           Rated voltage [V]         6.9x(Code H)         6.2x(Code G)         7.0x(Code H)         7.5x(Code J)         100         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00			Fliase		Cata	alog # :	40012ET3G449T-W22		
Dutput [HP]         400         360 <td< td=""><td>Insulation class Duty cycle Ambient tempera Altitude</td><td></td><td>: F : Cont.(S1) : -20°C to +40°C : 1000 m.a.s.l.</td><td></td><td>Mounting Rotation<sup>1</sup> Starting met Approx. weig</td><td>hod ght<sup>3</sup></td><td>: F-1 : Both : Direc : 3633</td><td>(CW and CCW) t On Line Ib</td></td<>	Insulation class Duty cycle Ambient tempera Altitude		: F : Cont.(S1) : -20°C to +40°C : 1000 m.a.s.l.		Mounting Rotation <sup>1</sup> Starting met Approx. weig	hod ght <sup>3</sup>	: F-1 : Both : Direc : 3633	(CW and CCW) t On Line Ib	
Poles         6         6         6         6         6         6         6           Frequency [Hz]         60         50         50         50         50           Rade voltage [V]         460         380         400         415         50           Rade voltage [V]         460         380         400         415         50           Rade voltage [V]         460         380         400         415         50           Rade voltage [V]         480         3291         3081         3344         5540           IRC [A]         6.9x(Code H)         6.2x(Code G)         7.0x(Code H)         7.5x(Code G)	_		400		350	3!		-	
Stated vorticity         460         380         400         415           Stated current [A]         477         497         478         472          R. Amperes [A]         0.3291         3081         3346         3540          R. C[A]         6.9x(Code H)         6.2x(Code G)         7.0x(Code H)         7.5x(Code J)          R. C[A]         6.9x(Code H)         6.9x(Code H)         990         990         990           Stated speed [RPM]         1190         990         990         990         990           Stated speed [RPM]         0.83         1.00         1.00         1.00         1.00           Stated speed [RPM]         1470         1860         1860         1860         1860           Stated speed [RPM]         1470         1860         1860         1600         100           Stated speed [RPM]         250         240         260         280         280           State speed [RPM]         100         0.0         1.00         1.00         1.00         1.00           State speed [Rotro time         225 (cold) 135 (ht)         125 (cold) 146 (ht)         25 (cold) 156 (ht)         25 (cold) 165 (ht)         25 (cold) 165 (ht)         25 (cold) 165 (ht)         25 (cold									
Facted current [A]         477         497         478         472           R. Amperes [A]         3291         3081         3346         3540           R. Amperes [A]         0.92(Code H)         6.2x(Code G)         7.0x(Code H)         7.5x(Code J)           Voload current [A]         200         190         210         225           Atel do speci [PM]         1190         990         990         990           Stated speci [PM]         0.83         1.00         1.00         1.00           Stated torque [%]         240         2200         220         240           Service factor         1.00         1.00         1.00         1.00         1.00           Ferkdown torque [%]         250         240         260         280         Service factor         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         50         Sociel (146)         Sociel(146)         Sociel (146)         Sociel (14	Frequency [Hz]		60					50	
R. Amperes [A]         3291         3061         3346         3540          RC [A]         6.9x(Code H)         6.2x(Code G)         7.0x(Code H)         7.5x(Code J)           No load current [A]         200         190         210         225           3tet speed [RPM]         1180         990         990         990         990           3tet speed [RPM]         0.83         1.00         1.00         1.00         1.00         1.00           atet speed [RPM]         250         240         220         240         286         240         286         240         286         280         280         280         280         280         280         280         280         280         280         280         280         280         285         295         240         286         280         285         285         285         285         285         285         285         285         285         285         285         285         32         95.3         94.5         395.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8         95.8									
RC [A]         6.9x(Code H)         6.2x(Code G)         7.0x(Code H)         7.5x(Code J)           No load current [A]         200         190         210         225           ated speed [RPM]         1190         990         990         990         990           Sated sroue [RM]         0.83         1.00         1.00         1.00         1.00         1.00           Sated store [RM]         250         240         260         280         280         280           Service factor         1.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
No load current [A]         200         190         210         226           Stated speed [RPM]         1190         990         990         990         990           Stated speed [RPM]         0.83         1.00         1.00         1.00         1.00           Stated forque [%]         240         200         220         240         260         280           Service factor         1.00         1.00         1.00         1.00         1.00         1.00           Generator forgue [%]         250         240         260         280         280           Service factor         1.05 K         105 K         105 K         105 K         105 K           Cacked rotor time         238 (cold) 13s (hot)         328 (cold) 18s (hot)         28 (cold) 14s (hot)         255 (cold) 14s (hot)           Visise level?         71.0 dB(A)         70.0 dB(A) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Sated speed [RPM]         1190         990         100         1.00 <th1.00< th=""> <th< td=""><td></td><td>1</td><td></td><td>6.2</td><td></td><td></td><td></td><td></td></th<></th1.00<>		1		6.2					
Bill [%]         0.83         1.00         1.00         1.00         1.00           ated torque [Klb]         1770         1860         1860         1860         1860           cocked rotor torque [%]         240         200         220         240           areakdown torque [%]         250         240         260         280           areakdown torque [%]         253         251         051K         105 K         <									
Rated forque [ft.lb]         1770         1860         220         240         220         240         220         240         220         240         260         281         295         281         295         281         295         200         295         295         200         200         203         203         203         203         203         203         203         203		//]							
cocked rotor torque [%]         240         200         220         240           3reakdown torque [%]         250         240         260         280           3reakdown torque [%]         250         240         260         280           Service factor         1.00         1.00         1.00         1.00         1.00           femperature rise         105 K         105 K         105 K         105 K         105 K           cocked rotor time         23s (cold) 18s (hot)         32s (cold) 18s (hot)         28s (cold) 14s (for top 25s (cold) 16s (hot top 25s (cold) 14s (for top 25s (cold) 14s (for top 25s (cold) 16s (hot top 25s (cold) 14s (for 105 K (		1							
Sreakdown torque [%]         250         240         260         280           Service factor         1.00         1.									
Service factor         1.00         1.05 K         105 K         105 K         105 K         105 K         105 K         100 %         95.8         95.									
This revision replaces and cancel the previous one, which must be eliminated.         105 K         258 (cold) 158 (hot)         258 (cold) 158		L,.1							
Locked rotor time         23s (cold) 13s (hot)         32s (cold) 18s (hot)         28s (cold) 16s (hot)         25s (cold) 14s ( 70.0 dB(A)           Voise level <sup>a</sup> 71.0 dB(A)         70.0 dB(A)         70.0 dB(A)         70.0 dB(A)         70.0 dB(A)           Efficiency (%)         50%         95.3         95.3         95.3         95.4         95.8         95.8         95.8									
Noise level®         71.0 dB(A)         70.0 dB(A)         95.3         95.3         95.3         95.3         95.4         95.3         95.4         95.6         95.8				32s (c				25s (cold) 14s (hot)	
Efficiency (%)         50%         95.4         95.4         95.4         95.4         95.8	Noise level <sup>2</sup>		71.0 dB(A)	7(				70.0 dB(A)	
Efficiency (%)         75%         95.8         96.8         96.8									
100%         95.6         95.8         0.62         0.80         0.77         0.74         0.74         0.82         0.83         0.82         0.83         0.82         0.83         0.82         0.83         0.82         0.83         12042 lb         Max. traction         12042 lb         Max. traction         12042 lb         Max. traction	Efficiency (%)								
Power Factor         25%         0.42         0.45         0.40         0.37           Formation in the shaft end.         0.88         0.70         0.66         0.62         0.74         0.74         0.74         0.74         0.74         0.77         0.74         0.74         0.74         0.77         0.74         0.77         0.74         0.74         0.80	Enciency (70)								
Power Factor         50%         0.68         0.70         0.66         0.62           75%         0.78         0.80         0.77         0.74         0.74           100%         0.82         0.80         0.77         0.74         0.74           Bearing type         :         6322 C3         6319 C3         Max. traction         :         12042 lb           Sealing         :         WSeal         WSeal         Use of a 3000 h         Max. compression         :         15675 lb           Lubricant amount         :         60 g         45 g         Max. compression         :         15675 lb           Notes         Mobil Polyrex EM         Mobil Polyrex EM         Max. compression         :         15675 lb           Notes         :         Mobil Polyrex EM         Mosil power supply, subject to the tolerances stipulated in NEM power supply, subject to the tolerances stipulated in NEM MG-1.         :         MG-1.         MG-1.         :           (2) Measured at 1m and with tolerance of +3dB(A).         :         MG-1.         :         MG-1.         :         MG-1.         :         MG-1.         :         MG-1.         :         :         :         :         :         :         :         :         :									
Power Factor       75%       0.78       0.80       0.77       0.74         100%       0.82       0.83       0.82       0.80         Bearing type       :       6322 C3       6319 C3       Max. traction       : 12042 lb         Sealing       ::       WSeal       WSeal       Max. traction       : 12042 lb         Lubrication interval       :       11000 h       13000 h       Max. compression       : 15675 lb         Lubricant amount       :       60 g       45 g       Max. compression       : 15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       Max. compression       : 15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       Max. compression       : 15675 lb         Notes        Mobil Polyrex EM       Max. compression       : 15675 lb         Mosta              Mosta              Mosta              MG-1.              (3) Approximate weight subject to changes after manufacturing process. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
I00%       0.82       0.83       0.82       0.80         Bearing type       :       6322 C3       6319 C3       Max. traction       :       12042 lb         Sealing       :       WSeal       WSeal       WSeal       Max. traction       :       15675 lb         Lubrication interval       :       11000 h       13000 h       Max. compression       :       15675 lb         Lubricant amount       :       60 g       45 g       Max. traction       :       15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       Max. traction       :       15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       Max. traction       :       15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       Max. traction       :       15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       MG-1.       Max. traction       :       :         (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.       MG-1.       MG-1.       Max. traction       E         Rev.       Changes Summary       Performed       Checked Date<	Power Factor								
Drive end Bearing type       Non drive end 6322 C3       Foundation loads Max. traction       Sealing Max. traction       Status         Sealing       WSeal       WSeal 1000 h       WSeal 13000 h       WSeal Max. compression       Max. traction         Lubricant amount       60 g       45 g Lubricant type       Mobil Polyrex EM       Max. compression       Status         Notes       Mobil Polyrex EM       Mobil Polyrex EM       These are average values based on tests with sinusoida power supply, subject to the tolerances stipulated in NEM MG-1.         (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 sinusoida power supply, subject to the tolerances stipulated in NEM MG-1.         Rev.       Changes Summary       Performed       Checked       Date         Performed by       Page       Revisio									
Bearing type       :       6322 C3       6319 C3       Max. traction       : 12042 lb         Sealing       :       WSeal       WSeal       Max. compression       : 15675 lb         Lubrication interval       :       11000 h       13000 h       Max. compression       : 15675 lb         Lubricant amount       :       60 g       45 g       Max. compression       : 15675 lb         Notes       Mobil Polyrex EM       Mobil Polyrex EM       Notes       Notes       Notes         This revision replaces and cancel the previous one, which must be eliminated.       These are average values based on tests with sinusoida power supply, subject to the tolerances stipulated in NEM (1) Looking the motor from the shaft end.       MG-1.         (2) Measured at 1m and with tolerance of +3dB(A).       (3) Approximate weight subject to changes after manufacturing process.       MG-1.         (4) At 100% of full load.       Exercise       Performed       Checked       Date         Performed by       Page       Revision		100%					02	0.60	
Notes       This revision replaces and cancel the previous one, which must be eliminated.       These are average values based on tests with sinusoida power supply, subject to the tolerances stipulated in NEM (1) Looking the motor from the shaft end.         (2) Measured at 1m and with tolerance of +3dB(A).       MG-1.         (3) Approximate weight subject to changes after manufacturing process.       MG-1.         (4) At 100% of full load.       Performed       Checked       Date         Performed by       Page       Revision	Sealing Lubrication interv Lubricant amoun		: 6322 C3 63 : WSeal W : 11000 h 13 : 60 g 4	19 C3 /Seal 000 h 45 g	Max. traction				
must be eliminated.       power supply, subject to the tolerances stipulated in NEM         (1) Looking the motor from the shaft end.       power supply, subject to the tolerances stipulated in NEM         (2) Measured at 1m and with tolerance of +3dB(A).       MG-1.         (3) Approximate weight subject to changes after manufacturing process.       MG-1.         (4) At 100% of full load.       Performed       Checked       Date         Performed by       Page       Revisio	Notes								
Performed by     Page     Revision	must be eliminate (1) Looking the m (2) Measured at 1 (3) Approximate w manufacturing pro	ed. lotor from the Im and with t weight subjec ocess.	shaft end. olerance of +3dB(A).	hich	power supply				
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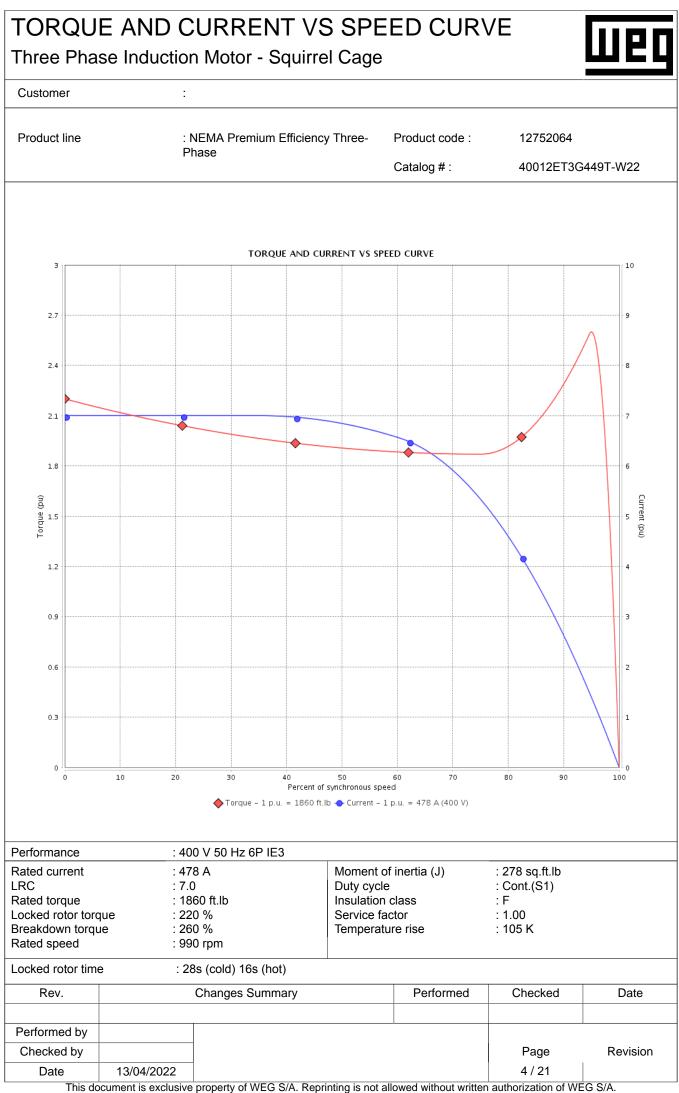


### TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



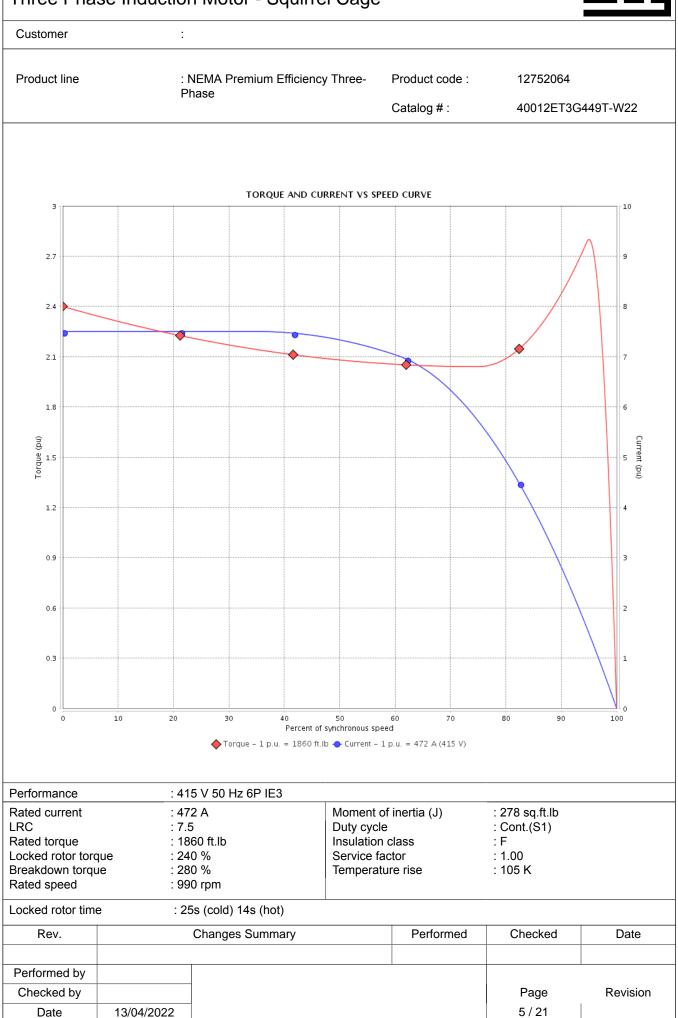
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### TORQUE AND CURRENT VS SPEED CURVE

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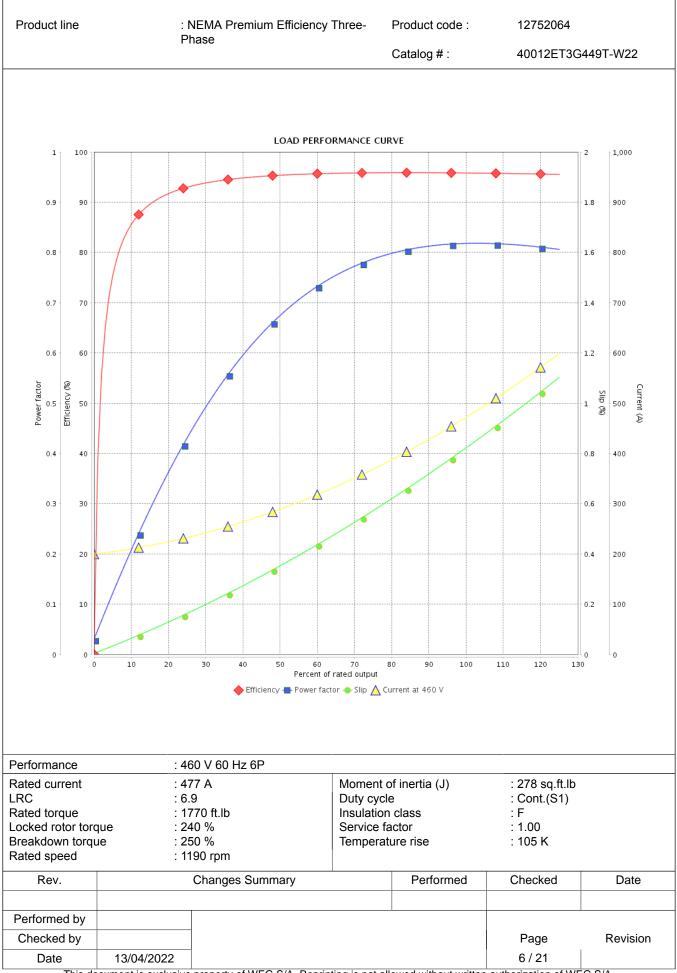
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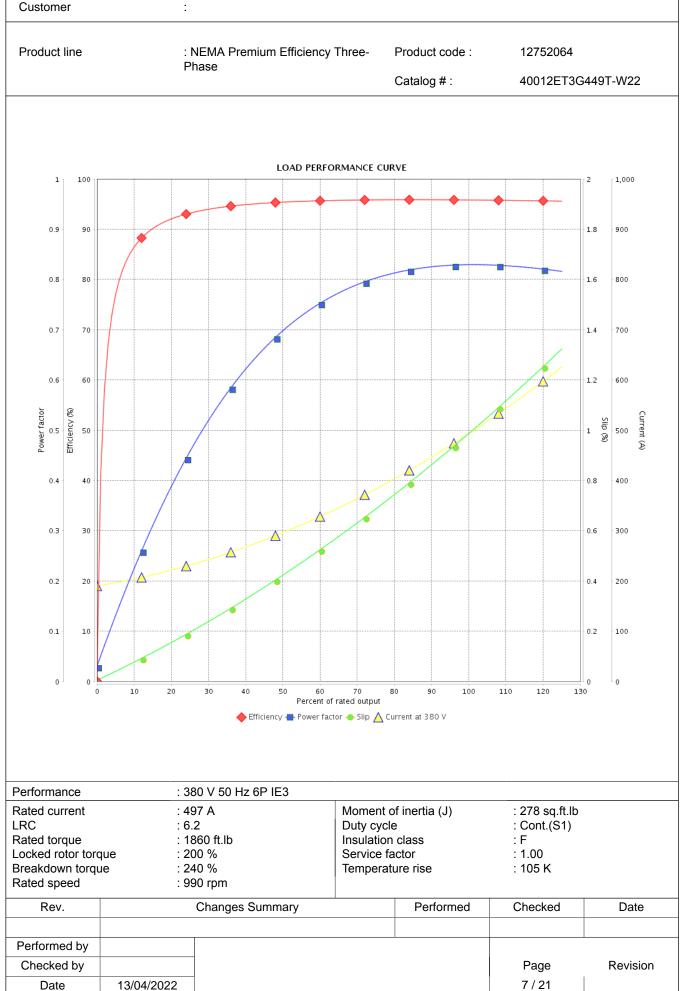
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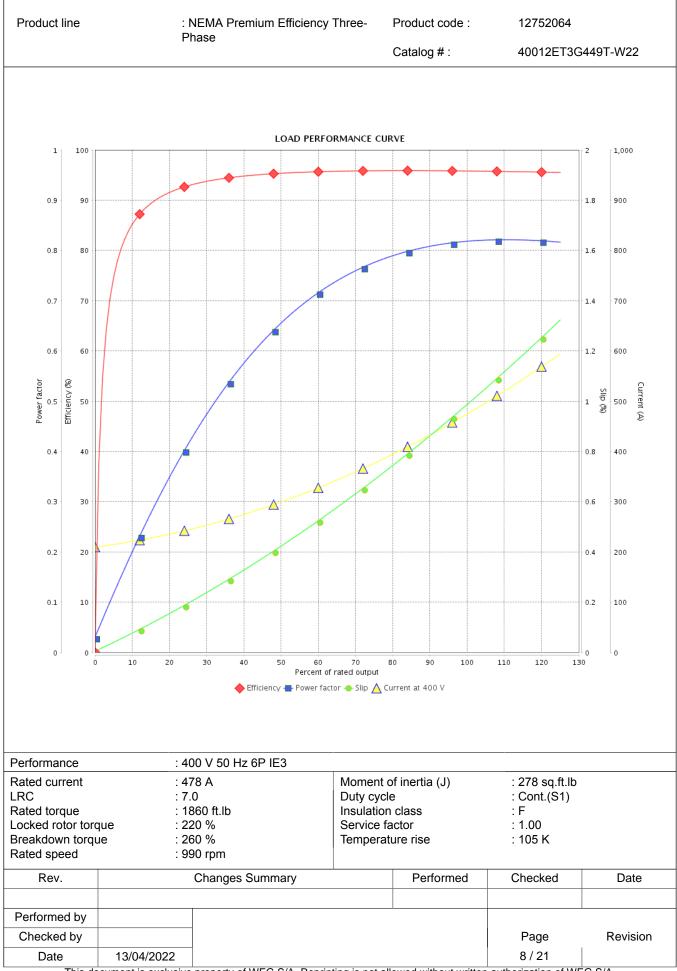
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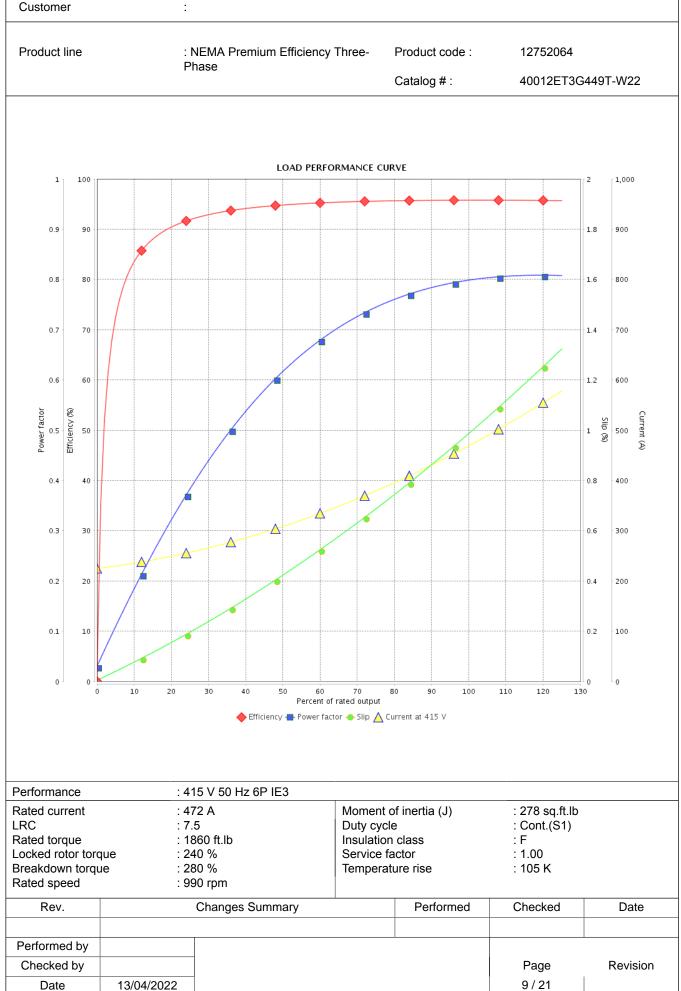
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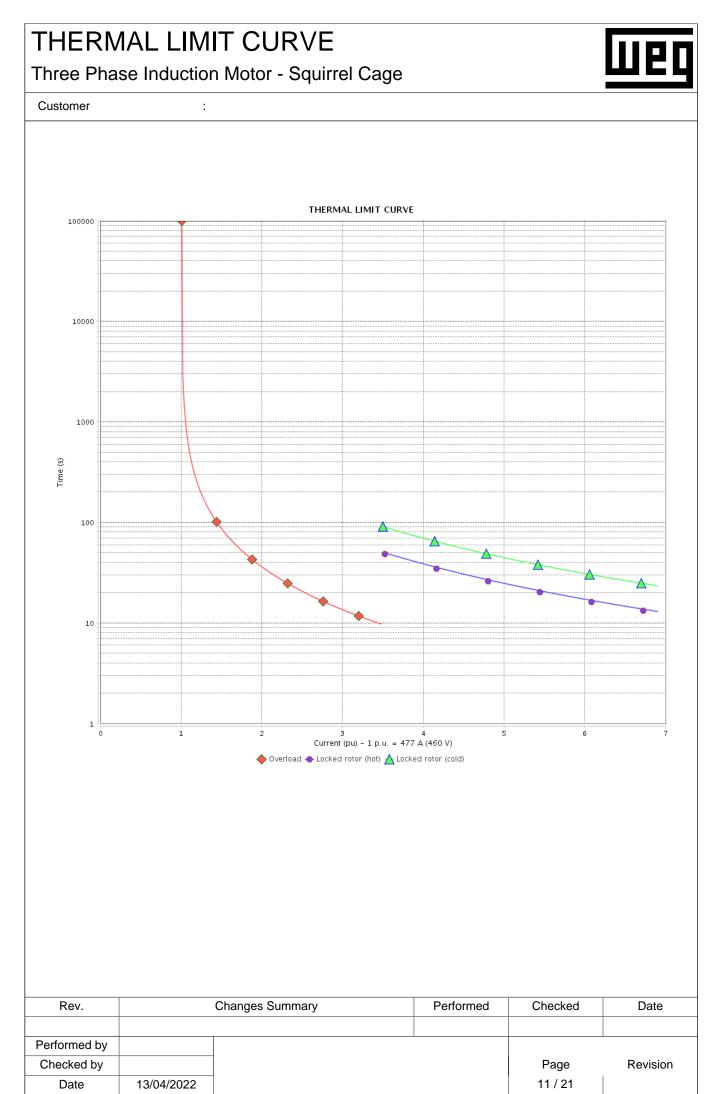
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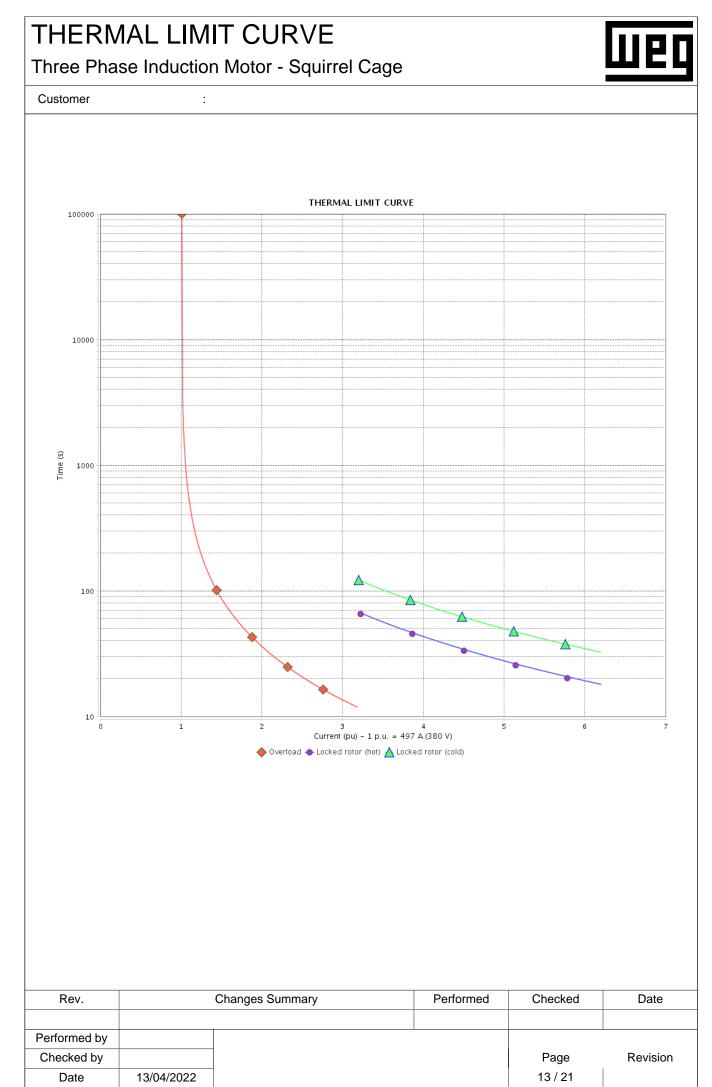
THERMAL LIMIT CURVE Three Phase Induction Motor - Squirrel Cage									
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Product line	: NEMA Premium Efficiency Phase	Three- Product code : Catalog # :	12752064 40012ET3G449T-W22						
Derfermene									
Performance Rated current LRC Rated torque	: 460 V 60 Hz 6P : 477 A : 6.9 : 1770 ft.lb	Moment of inertia (J) Duty cycle Insulation class	: 278 sq.ft.lb : Cont.(S1) : F						
Locked rotor torque Breakdown torque Rated speed	: 240 % : 250 % : 1190 rpm	Service factor Temperature rise	: 1.00 : 105 K						

Heating constan	t					
Cooling constant	t					
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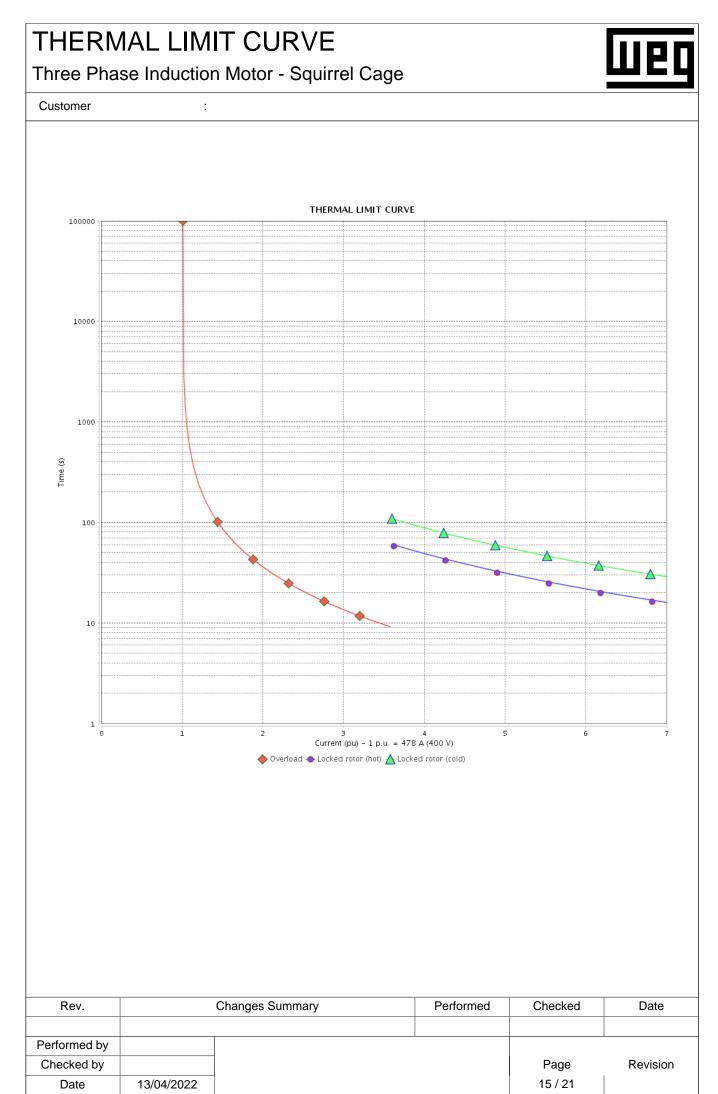
THERMAL LIMIT CURVE										
Three Phase Induction Motor - Squirrel Cage										
Customer	:									
Product line	: NEMA Premium Efficiency Th	ree- Product code :	12752064							
	Phase	Catalog # :	40012ET3G449T-W22							
Performance	: 380 V 50 Hz 6P IE3									
Rated current LRC	: 6.2 E	<i>l</i> loment of inertia (J) Duty cycle	: 278 sq.ft.lb : Cont.(S1)							
Rated torque Locked rotor torque		nsulation class Service factor	: F : 1.00							

		40 % 90 rpm	Tempera	Temperature rise		
Heating constant	t					
Cooling constant	t					
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Date	13/04/2022				12/21	



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Three Phase Inc	luction Motor - Squirrel Ca	age			
Customer	:				
Product line	: NEMA Premium Efficiency Three Phase	ee- Product code :	12752064		
		Catalog # :	40012ET3G449T-W22		
Performance	: 400 V 50 Hz 6P IE3				
Rated current	: 478 A Mo	oment of inertia (J)	: 278 sq.ft.lb		
LRC Rated torque	: 1860 ft.lb Ins	uty cycle sulation class	: Cont.(S1) : F		
Locked rotor torque	: 220 % Se	ervice factor	: 1.00		

Rated torque Locked rotor toro Breakdown torqu Rated speed	que : 22 Je : 20	: 1860 ft.lbInsulation class: 220 %Service factor: 260 %Temperature rise: 990 rpm		factor	: F : 1.00 : 105 K	
Heating constant	t					
Cooling constant	t					
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THERMAL LIMIT CURVE Three Phase Induction Motor - Squirrel Cage									
Three Phase Induction Motor - Squirrel Cage									
Customer	:								
Product line		Three Dreduct	oodo i						
	: NEMA Premium Efficiency			12752064					
		Catalog	#:	40012ET3G449T-W22					
Performance	: 415 V 50 Hz 6P IE3								
Rated current LRC	: 472 A : 7.5	Moment of inertia Duty cycle	(J)	: 278 sq.ft.lb : Cont.(S1)					
Rated torque	: 1860 ft.lb	Insulation class		:F					
Locked rotor torque Breakdown torque	: 240 % : 280 %	Service factor Temperature rise		: 1.00 : 105 K					
Rated speed	: 990 rpm								

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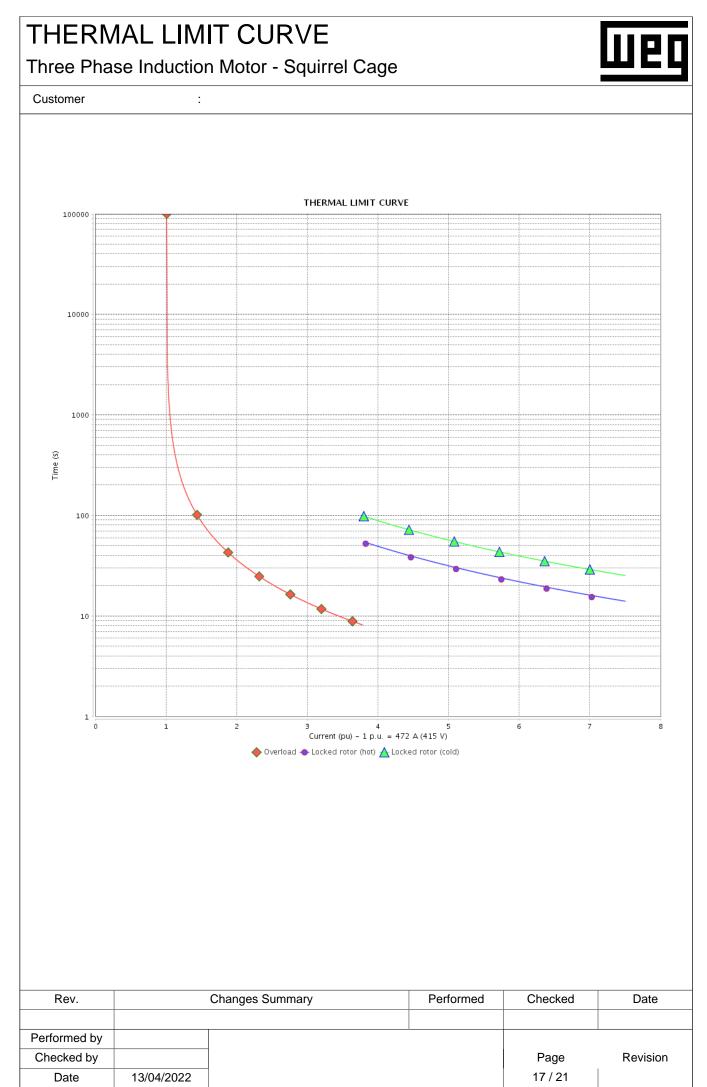
Revision

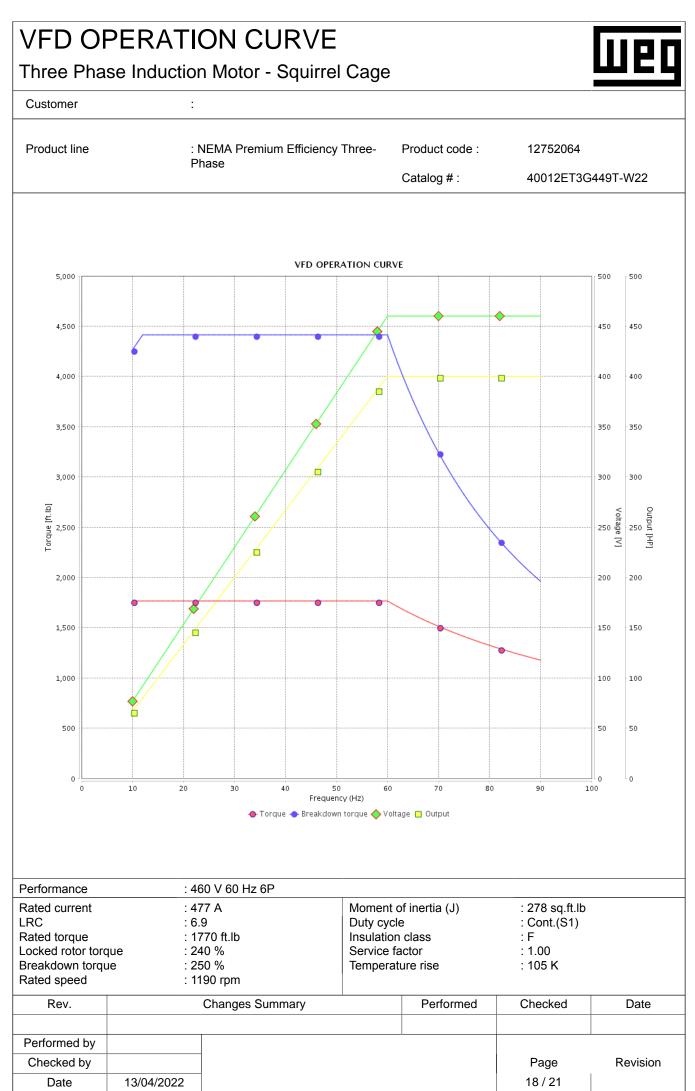
Changes Summary

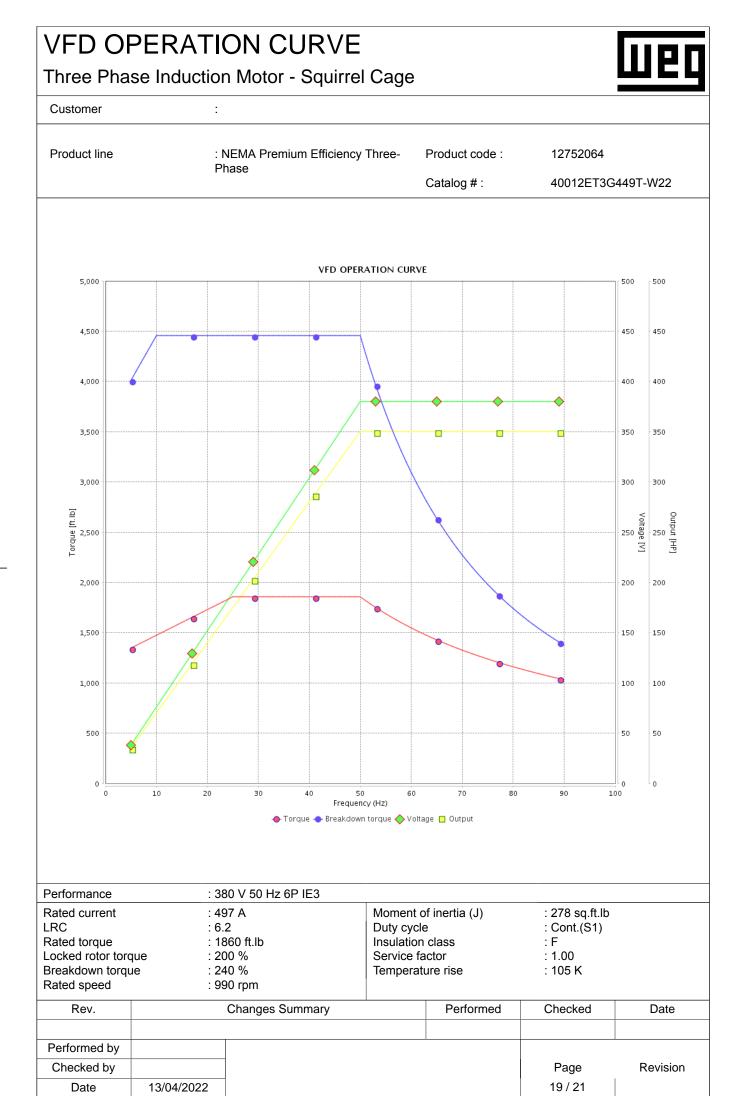
Heating constant Cooling constant Rev.

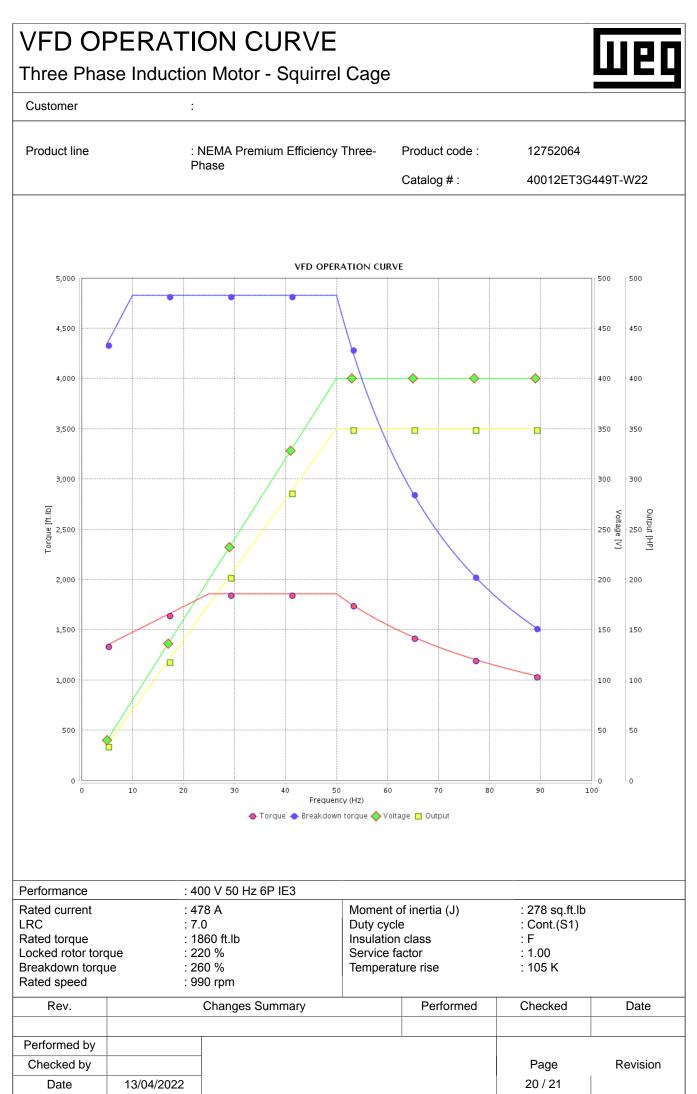
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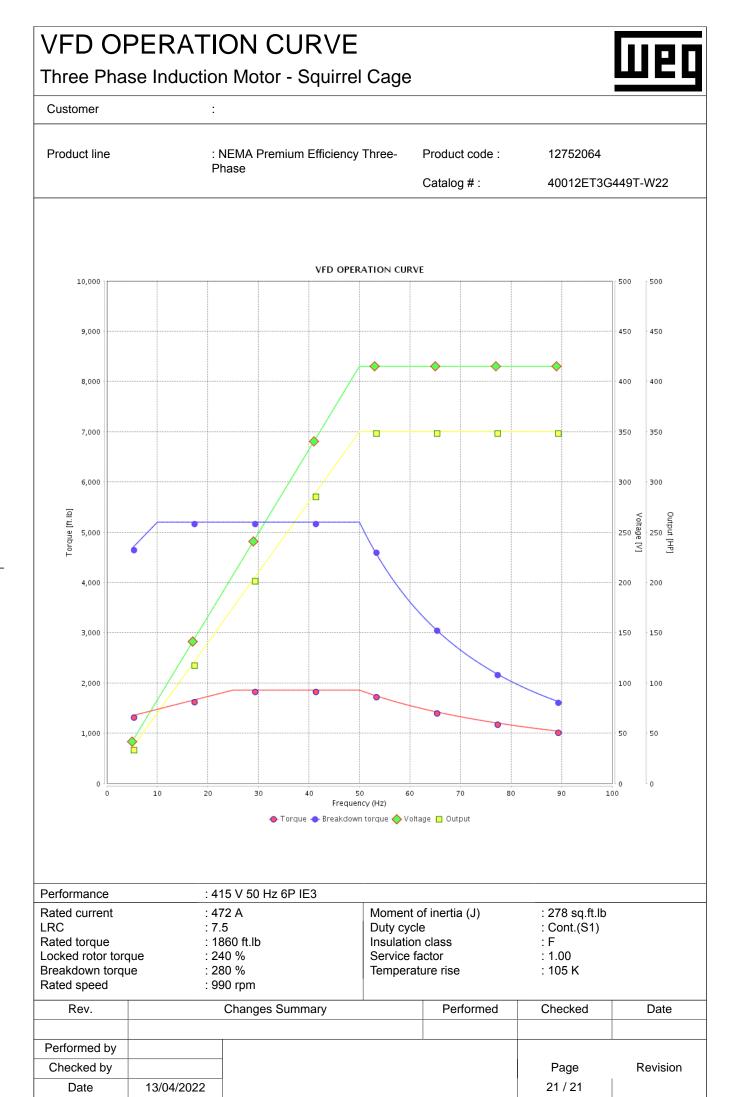
Date

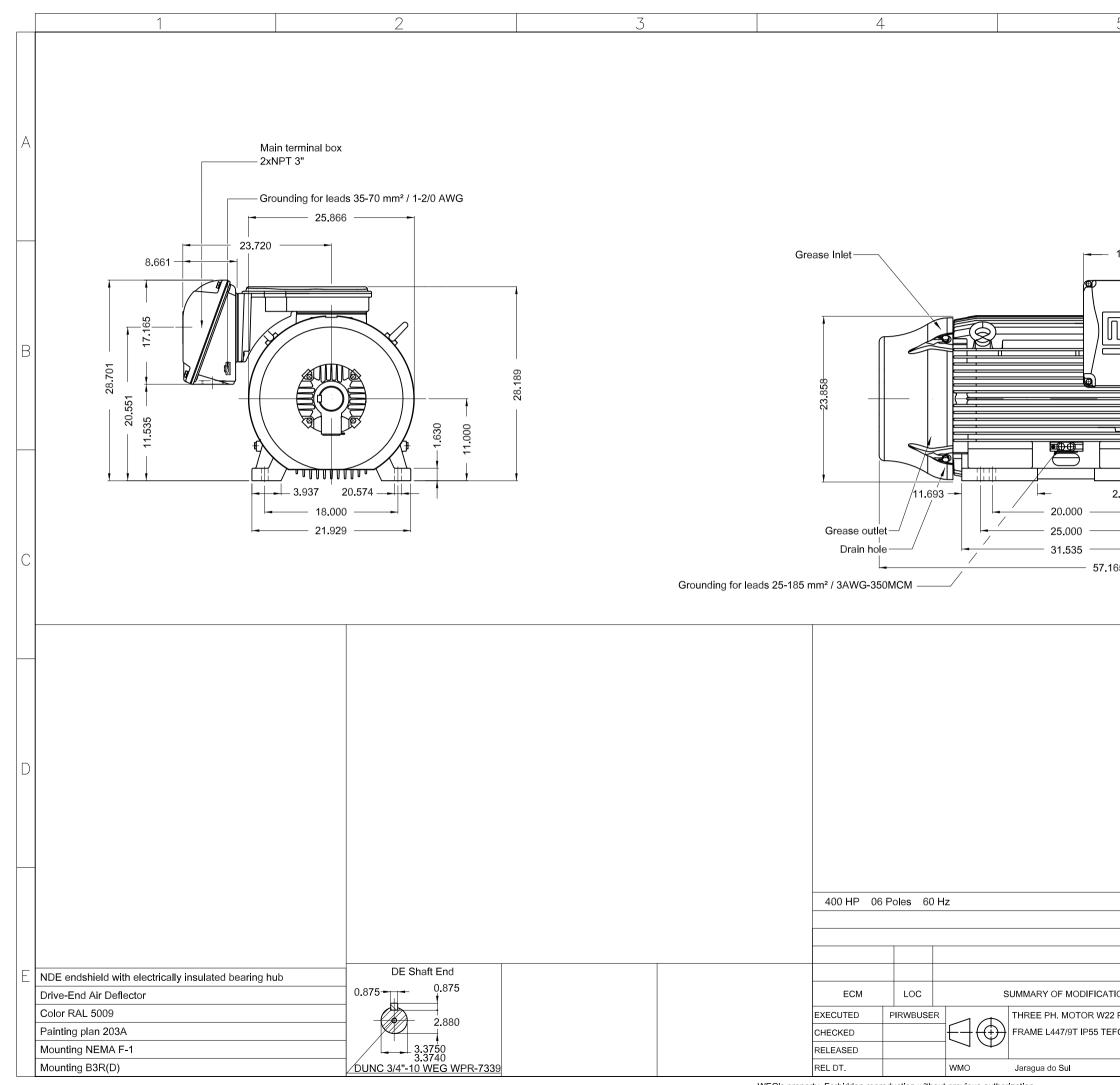












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•		Premium W22					PT9 STED	FOR SAFE ARE/ Mod.TE1BF0X0M		Class US Class Class	I, Div 2, Gr A, I, Zone 2, IIC II, Div 2, Gr F	B, C and D – T2D - T2D and G – T4
	MODEL 40012ET3	G449T–W22										
ZIL	Electric Motor Severe Duty									-		
BRA 064	PH3 60Hz	Fr. L447/9T	1000m.a.s.l.	IP55	TEFC	3632lb			_	START 01120110011	- WINDING RUN 1 0T120T100T11	WYE-DELTA START RUN 0 <sup>12</sup> 0 <sup>110</sup> 0 <sup>111</sup> 0 <sup>12</sup> 0 <sup>110</sup> 0 <sup>111</sup>
IN 52(	V 460			a 477						JT7 JT8 JT9		016 014 015 016 014 015
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MADE 12	SF 1.00			SFA –						6322-C3		
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	AMB 40°C		INS cl	.F		NEMA NOM EFF	95.8%		≞→	6319-C3	(45g)	
	DUTY CONT.		DES -	- Code	e H				¥	MOBIL PO	LYREX EM (1	1000h)
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