DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : NEMA Premium Efficiency Three-Product code: 11975508

Catalog #: 20018ET3G447TC-W22

Frame : 445/7TC Cooling method : IC411 - TEFC

Insulation class Mounting : F-1

Duty cycle : Cont.(S1) Rotation¹ : Both (CW and CCW) : -20°C to +40°C Starting method Ambient temperature : Direct On Line

Altitude : 1000 m.a.s.l. Approx. weight³ : 2333 lb : IP55 Protection degree Moment of inertia (J) : 76.2 sq.ft.lb

Design		: B		. ,	·
Output [HP]		200	200	4 0 50 0 400	
Poles		4	4	4 4 50 50 50 380 400 279 264 1423 1478 1x(Code E) 5.6x(Code F) 69.0 75.0	
Frequency [Hz]		60	50	50	50
Rated voltage [V]	Rated voltage [V]		380	400	415
Rated current [A]		230	279	264	257
L. R. Amperes [A]		1564	1423	1478	1568
LRC [A]		6.8x(Code G)	5.1x(Code E)	5.6x(Code F)	6.1x(Code G)
No load current [A]	70.0	69.0	75.0	79.0
Rated speed [RPN	/ 1]	1785	1475	1480	1480
Slip [%]		0.83	1.67	1.33	1.33
Rated torque [ft.lb]		588	712	710	710
Locked rotor torque [%]		229	170	190	210
Breakdown torque	Breakdown torque [%]		200	220	240
Service factor		1.15	1.00	1.00	1.00
Temperature rise		80 K	105 K	105 K	105 K
Locked rotor time		28s (cold) 16s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level ²		73.0 dB(A)			
	25%	95.7	94.3	94.9	94.9
Efficiency (%)	50%	95.8	94.5	95.0	95.0
Liliciency (70)	75%	96.2	95.0	95.4	95.4
	100%	96.2	95.0	95.4	95.4
	25%	0.50	0.56	0.53	0.50
Power Factor	50%	0.73	0.78	0.76	0.73
1 OWELL ACIOI	75%	0.82	0.85	0.84	0.82
	100%	0.85	0.86	0.86	0.85

Drive end Non drive end Foundation loads

Bearing type 6319 C3 6316 C3 Max. traction : 3373 lb Sealing WSeal WSeal Max. compression : 5707 lb

10000 h

Lubricant amount 34 g 45 g Mobil Polyrex EM Lubricant type

8000 h

Notes

Lubrication interval

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	14/04/2022				1 / 21	

Three Phase Induction Motor - Squirrel Cage



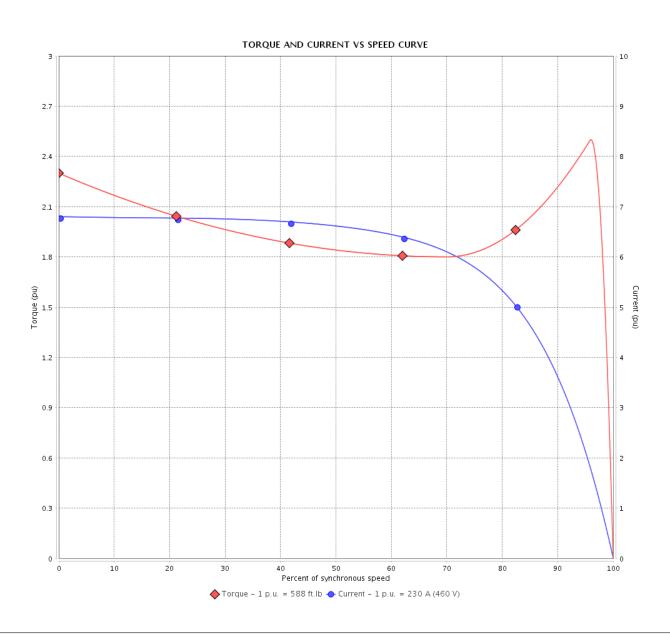
Customer :

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Product code: 11975508

Catalog #: 20018ET3G447TC-W22



Performance : 460 V 60 Hz 4P Rated current : 230 A Moment of inertia (J) : 76.2 sq.ft.lb **LRC** : 6.8 Duty cycle : Cont.(S1) : F Insulation class Rated torque : 588 ft.lb Locked rotor torque : 229 % Service factor : 1.15 Breakdown torque : 250 % Temperature rise : 80 K

Rated speed : 1785 rpm Design : B

Locked rotor time : 28s (cold) 16s (hot)

Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	14/04/2022			2 / 21	



Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 11975508 Catalog #: 20018ET3G447TC-W22 TORQUE AND CURRENT VS SPEED CURVE 2.25 1.75 1.5 Current Torque (pu) 0.5 0.25 Percent of synchronous speed ◆ Torque - 1 p.u. = 712 ft.lb ◆ Current - 1 p.u. = 279 A (380 V) Performance : 380 V 50 Hz 4P IE2 Rated current : 279 A Moment of inertia (J) : 76.2 sq.ft.lb **LRC** : 5.1 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 712 ft.lb Locked rotor torque : 170 % Service factor : 1.00 : 105 K Breakdown torque : 200 % Temperature rise Rated speed : 1475 rpm Design : B Locked rotor time : 18s (cold) 10s (hot) Date Rev. Performed Checked **Changes Summary**

Checked by Revision Page Date 14/04/2022 3/21 This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A. Subject to change without notice

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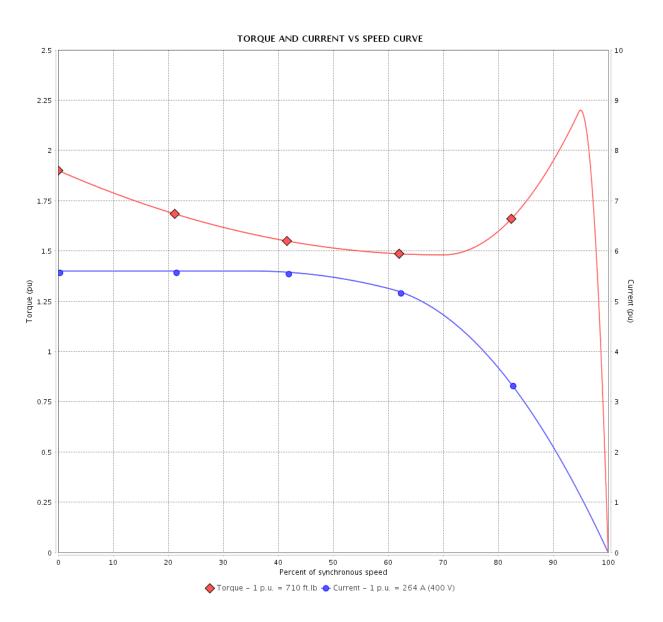
Customer :

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog # : 20018ET3G447TC-W22

11975508



Performance : 400 V 50 Hz 4P IE2 Rated current : 264 A Moment of inertia (J) : 76.2 sq.ft.lb **LRC** : 5.6 Duty cycle : Cont.(S1) : 710 ft.lb Insulation class Rated torque : F Service factor Locked rotor torque : 190 % : 1.00 Breakdown torque : 220 % Temperature rise : 105 K Rated speed : 1480 rpm Design : B

Locked rotor time : 18s (cold) 10s (hot)

Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	14/04/2022			4 / 21	



Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 11975508 Catalog #: 20018ET3G447TC-W22 TORQUE AND CURRENT VS SPEED CURVE 2.25 1.75 (pd) 1.25 0.5 0.25 40 50 00 Percent of synchronous speed ◆ Torque – 1 p.u. = 710 ft.lb ◆ Current – 1 p.u. = 257 A (415 V) Performance : 415 V 50 Hz 4P IE2 : 76.2 sq.ft.lb Rated current : 257 A Moment of inertia (J)

Locked rotor torque : 21 Breakdown torque : 24 Rated speed : 14		0 ft.lb 0 % 0 % 80 rpm	Ins Se Te	Duty cycle Insulation class Service factor Temperature rise Design		: Cont.(S1) : F : 1.00 : 105 K : B	
Locked rotor time	: 18	Bs (cold) 10s (hot))				
Rev.		Changes Summa	ary		Performed	Checked	Date
Performed by							
Checked by						Page	Revision
Date	14/04/2022					5 / 21	

Three Phase Induction Motor - Squirrel Cage



Revision

Page 6 / 21

Customer :

Checked by

Date

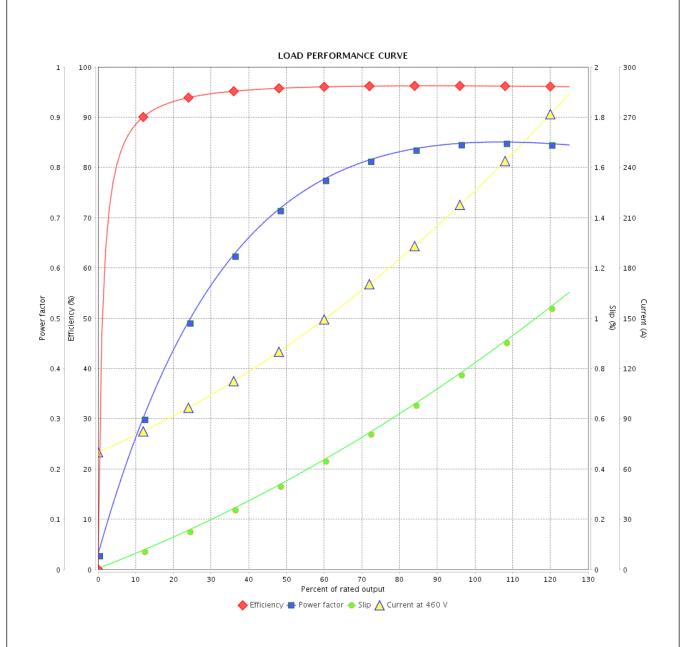
14/04/2022

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Product code: 11975508

Catalog #: 20018ET3G447TC-W22



Performance : 460 V 60 Hz 4P : 230 A Rated current Moment of inertia (J) : 76.2 sq.ft.lb **LRC** : 6.8 Duty cycle : Cont.(S1) Insulation class Rated torque : 588 ft.lb : F Locked rotor torque : 229 % Service factor : 1.15 Breakdown torque : 250 % Temperature rise : 80 K Rated speed : 1785 rpm Design : B Rev. Performed Checked Date **Changes Summary** Performed by

Three Phase Induction Motor - Squirrel Cage

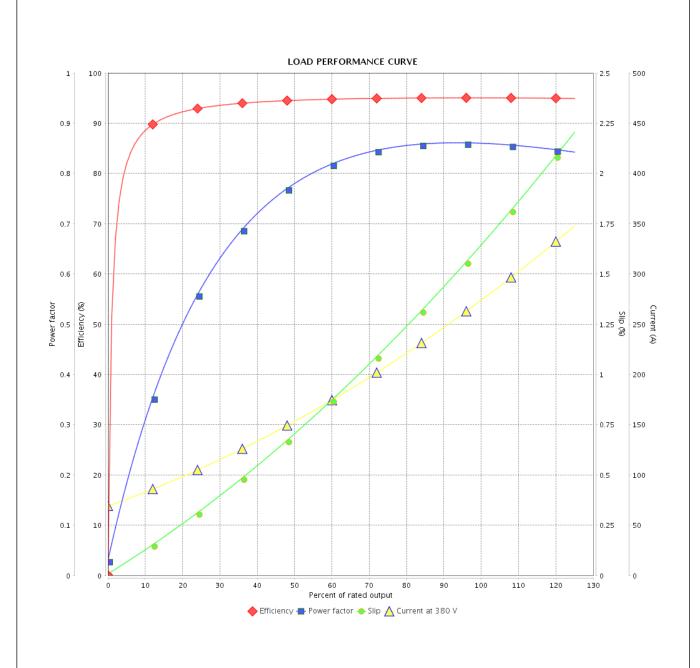


Customer

Product line : NEMA Premium Efficiency Three- Product code : 11975508

Phase

Catalog #: 20018ET3G447TC-W22



Performance	: :	380 V 50 Hz 4P IE2				
Rated current	: 2	279 A	Moment o	f inertia (J)	: 76.2 sq.ft.lb	
LRC	:	5.1	Duty cycle	;	: Cont.(S1)	
Rated torque	:	712 ft.lb	Insulation	class	: F	
Locked rotor torque : 1		170 %	Service fa	ctor	: 1.00	
Breakdown torque		200 %	Temperati	Temperature rise : 105 K		
Rated speed	: '	1475 rpm	Design		: B	
Rev.		Changes Summar	у	Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	14/04/2022				7 / 21	

Three Phase Induction Motor - Squirrel Cage



Customer :

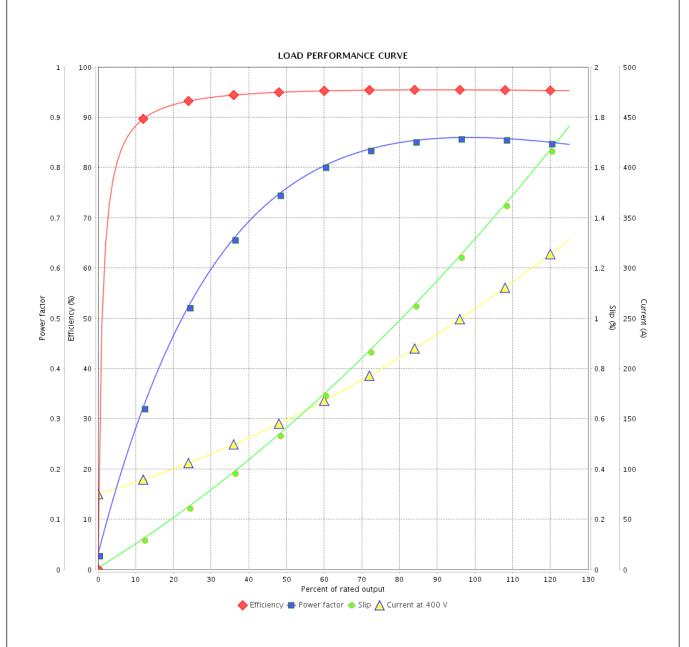
Product line : NEMA Premium Efficiency Three- Product code :

Phase

Product code: 11975508

Catalog #: 20018ET3G447TC-W22

8 / 21



Performance	: 400 V 50 Hz 4P IE2					
Rated current	ated current : 264 A		inertia (J)	: 76.2 sq.ft.lb		
LRC	RC : 5.6 Duty cycl			: Cont.(S1)		
Rated torque	: 710 ft.lb	Insulation class : F Service factor : 1.00 Temperature rise : 105 K		: F	•	
Locked rotor torque	: 190 %					
Breakdown torque	: 220 %					
Rated speed	: 1480 rpm	Design		: B		
Rev.	Changes Summary		Performed	Checked	Date	
5 ()						
Performed by						
Checked by				Page	Revision	

14/04/2022

Date

Three Phase Induction Motor - Squirrel Cage

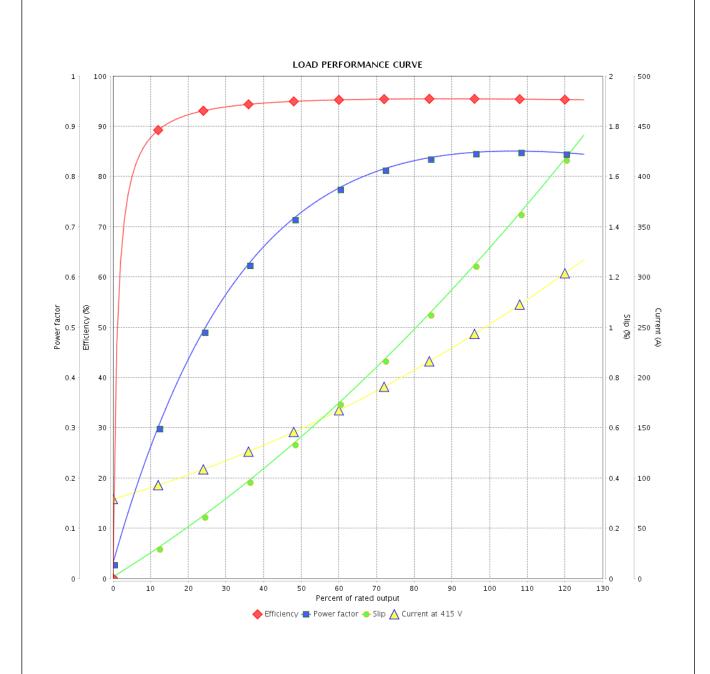


Customer

Product line : NEMA Premium Efficiency Three- Product code : 11975508

Phase

Catalog #: 20018ET3G447TC-W22



Performance	:	415 V 50 Hz 4P IE2				
Rated current	:	257 A	Moment o	f inertia (J)	: 76.2 sq.ft.lb	
LRC	:	6.1	Duty cycle)	: Cont.(S1)	
Rated torque	:	710 ft.lb	Insulation	class	: F	
Locked rotor torque		210 %	Service fa	ctor	: 1.00	
Breakdown torque	:	240 %	Temperati	ıre rise	: 105 K	
Rated speed	:	1480 rpm	Design		: B	
Rev.		Changes Summary		Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	14/04/2022				0 / 21	

Three Phase Induction Motor - Squirrel Cage

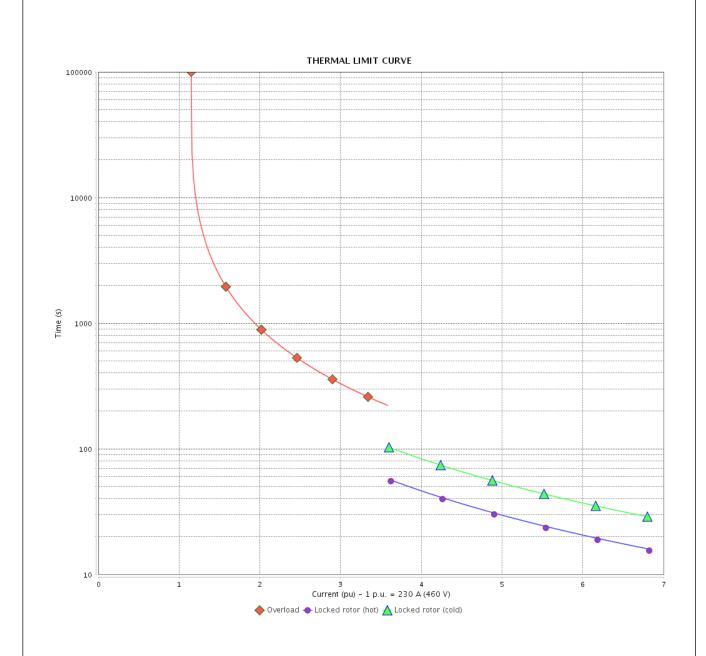


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Product line	1:	NEMA Premium Efficiency	Γhree- I	Product code :	11975508	
	PI	nase		Catalog # :	20018ET3G4	47TC-W22
					2001011304	+110-1122
Performance	: 46	60 V 60 Hz 4P				
Rated current		30 A	Moment of	f inertia (J)	: 76.2 sq.ft.lb	
LRC Rated torque	: 6. : 58	8 38 ft.lb	Duty cycle Insulation	e class	: Cont.(S1) : F	
Locked rotor tord	jue : 22	29 %	Service fa	ctor	: 1.15	
Breakdown torqu Rated speed		50 % 785 rpm	Temperatu Design	ıre rise	: 80 K : B	
		ООТРИП	Design		. U	
Heating constant						
Cooling constant Rev.		Changes Summary		Performed	Checked	Date
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Performed by						
Checked by	<u> </u>				Page	Revision
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Three Phase Induction Motor - Squirrel Cage



Customer



Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	14/04/2022			11 / 21	

Three Phase Induction Motor - Squirrel Cage

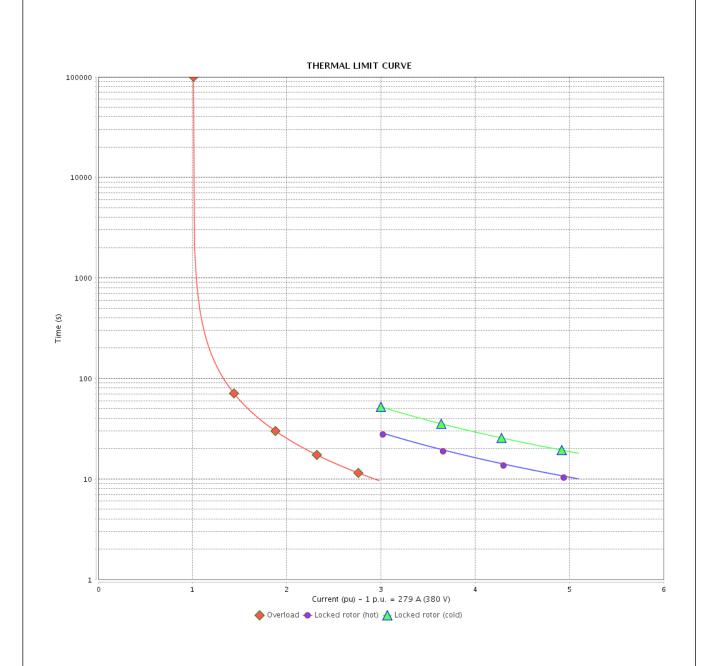


Customer		:				
Product line		: NEMA Premium Efficiency Phase		Product code : Catalog # :	11975508 20018ET3G44	47TC-W22
Performance		: 380 V 50 Hz 4P IE2				
Rated current LRC		: 279 A : 5.1	Duty cycle		: 76.2 sq.ft.lb : Cont.(S1)	
Rated torque Locked rotor tord		: 712 ft.lb : 170 %	Insulation Service fa		: F : 1.00	
Breakdown torqu	ue	: 200 %	Temperat		: 105 K	
Rated speed		: 1475 rpm	Design		: B	
Heating constant						
Cooling constant	l .	Changes Summary		Performed	Checked	Date
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Performed by						
Checked by					Page	Revision
Date	14/04/2022				12 / 21	

Three Phase Induction Motor - Squirrel Cage



Customer



Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	14/04/2022			13 / 21	

Three Phase Induction Motor - Squirrel Cage

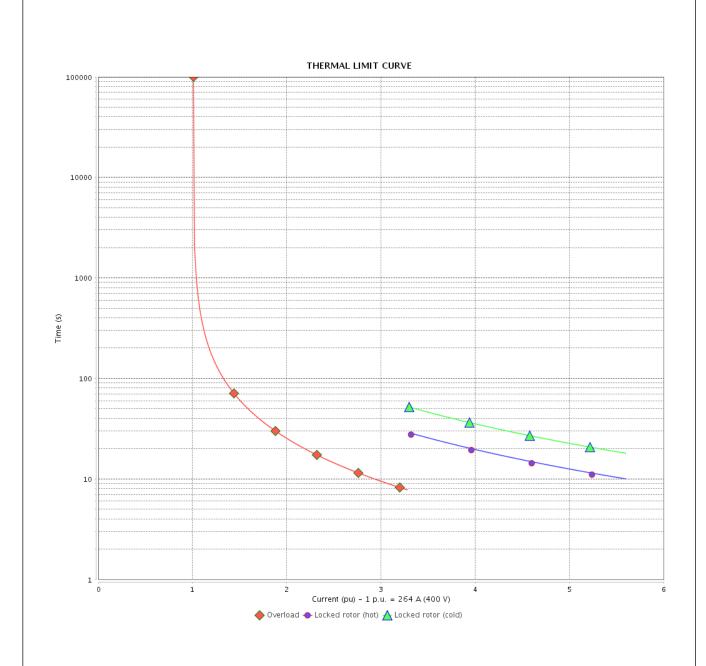


Customer	:				
Product line	: NEMA Premium Efficienc Phase		Product code : Catalog # :	11975508 20018ET3G4	147TC-W22
Performance	: 400 V 50 Hz 4P IE2				
Rated current LRC	: 264 A : 5.6	Duty cycle		: 76.2 sq.ft.lb : Cont.(S1)	
Rated torque Locked rotor torqu	: 710 ft.lb ne : 190 %	Insulation Service fa		: F : 1.00	
Breakdown torque Rated speed		Temperati Design		: 105 K : B	
Heating constant		+ -			
Cooling constant					
Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by			1	Page	Revision

Three Phase Induction Motor - Squirrel Cage



Customer



Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	14/04/2022			15 / 21	

Three Phase Induction Motor - Squirrel Cage

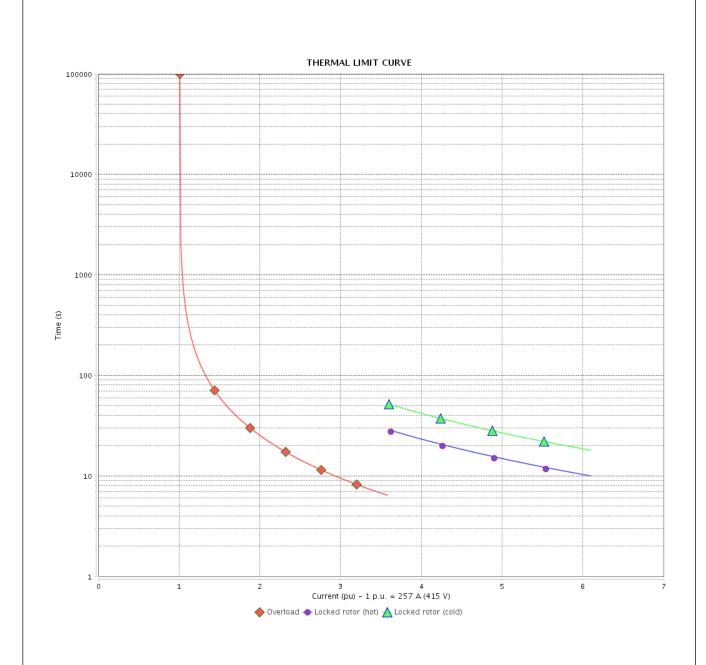


Customer	:			,	
Product line	: NEMA Premium Phase		Product code : Catalog # :	11975508 20018ET3G4	47TC \W22
Performance	: 415 V 50 Hz 4P IE				
Rated current LRC Rated torque	: 257 A : 6.1 : 710 ft.lb	Moment of Duty cycle Insulation	of inertia (J) e class	: 76.2 sq.ft.lb : Cont.(S1) : F	
Locked rotor torque Breakdown torque Rated speed	: 210 % : 240 % : 1480 rpm	Service fa Temperati Design	actor	: 1.00 : 105 K : B	
Heating constant					
Cooling constant Rev.	Changes Summ	nary	Performed	Checked	Date
Performed by					
Checked by	110.110.000			Page	Revision

Three Phase Induction Motor - Squirrel Cage



Customer :



Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	14/04/2022			17 / 21	

Three Phase Induction Motor - Squirrel Cage



Customer :

Checked by

Date

14/04/2022

Product line : NEMA Premium Efficiency Three- F

Phase

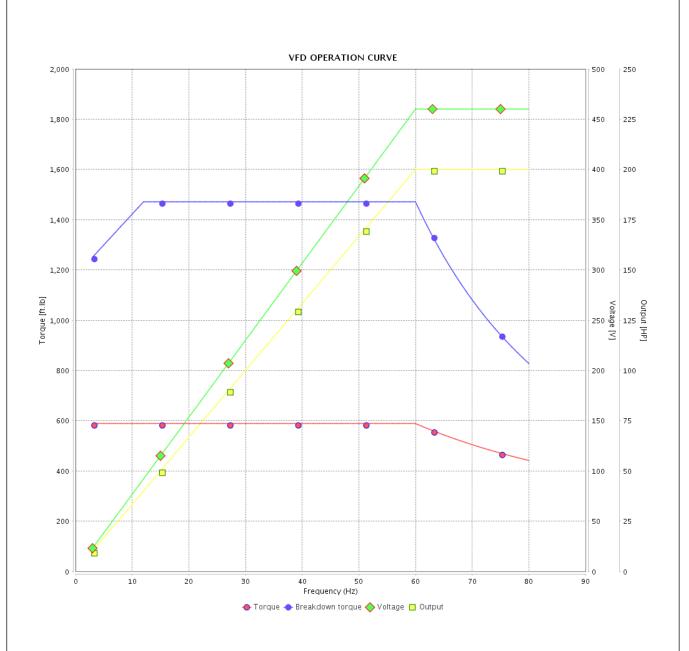
Product code: 11975508

Catalog #: 20018ET3G447TC-W22

Page

18/21

Revision



Performance	: 460 V 60 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 230 A : 6.8 : 588 ft.lb : 229 % : 250 % : 1785 rpm	Moment of Duty cycle Insulation Service fa Temperat Design	class ector	: 76.2 sq.ft.lb : Cont.(S1) : F : 1.15 : 80 K : B	
Rev.	Changes Summary	1	Performed	Checked	Date
Performed by					

Three Phase Induction Motor - Squirrel Cage



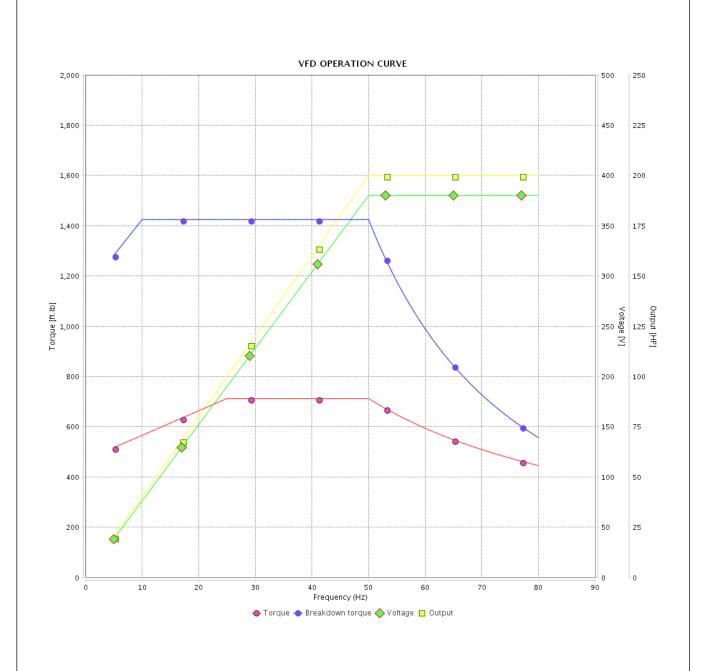
Customer

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 20018ET3G447TC-W22

11975508



Performance : 380 V 50 Hz 4P IE2						
Rated current		279 A	Moment of inertia (J)		: 76.2 sq.ft.lb	
LRC : 5		5.1	Duty cycle)	: Cont.(S1)	
Rated torque		712 ft.lb	Insulation	class	: F	
Locked rotor torque		170 %	Service fa	ctor	: 1.00	
Breakdown torque	::	200 %	Temperati	Temperature rise		
Rated speed	:	1475 rpm	Design	Design		
Rev.		Changes Summary		Performed	Checked	Date
Performed by						
Checked by					Page	Revision
Date	14/04/2022				19 / 21	

Three Phase Induction Motor - Squirrel Cage



Customer :

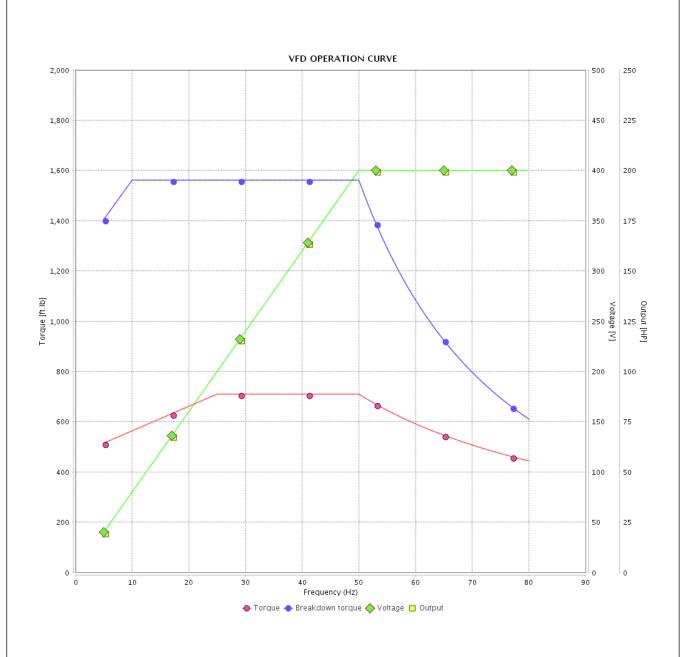
Product line : NEMA Premium Efficiency Three-

Phase

Product code: 11975508

Catalog #: 20018ET3G447TC-W22

20 / 21



Performance	: 400 V 50 Hz 4P IE2						
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 264 A : 5.6 : 710 ft.lb : 190 % : 220 % : 1480 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: 76.2 sq.ft.lb : Cont.(S1) : F : 1.00 : 105 K : B			
Rev.	Changes Summary		Performed	Checked	Date		
Performed by							
Checked by				Page	Revision		

14/04/2022

Date

Three Phase Induction Motor - Squirrel Cage



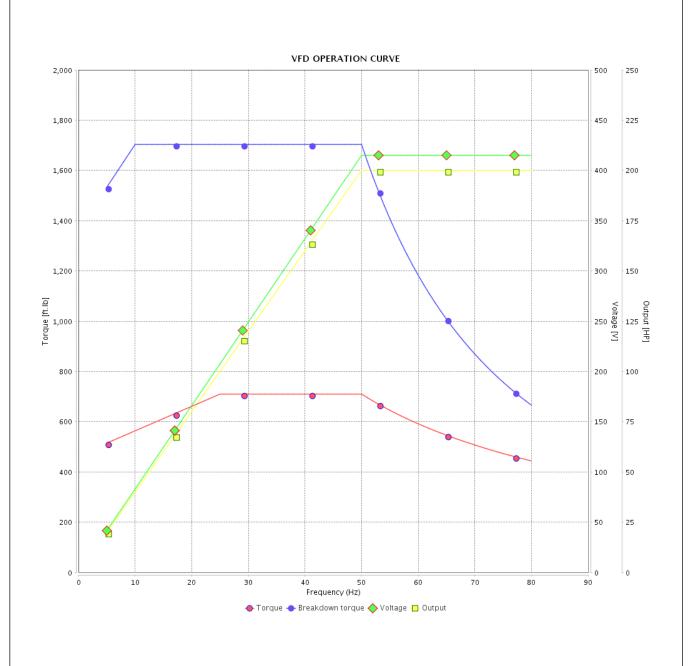
Customer

Product line : NEMA Premium Efficiency Three- Product code :

Phase

Catalog #: 20018ET3G447TC-W22

11975508



Performance	: 415 V 50 Hz 4P IE2					
Rated current	: 2	57 A	Moment of inertia (J)		: 76.2 sq.ft.lb	
LRC	: 6	.1	Duty cycle	Duty cycle		
Rated torque	: 7	10 ft.lb	Insulation	class	: F	
Locked rotor torque	e : 2	10 %	Service fa	ctor	: 1.00	
Breakdown torque	: 2	40 %	Temperature rise		: 105 K	
Rated speed	: 1	480 rpm	Design	Design		
Rev.		Changes Summary		Performed	Checked	Date
Performed by						
Checked by		1			Page	Revision
Date	14/04/2022	1			21 / 21	

