

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		14276569
			Catalog # :		00518XT3ER184TC
Frame		: 182/4TC	Cooling method		: IC411 - TEFC
Insulation class		: F	Mounting		: W-6
Duty cycle		: Cont.(S1)	Rotation <sup>1</sup>		: Both (CW and CCW)
Ambient temperature		: -20°C to +40°C	Starting method		: Direct On Line
Altitude		: 1000 m.a.s.l.	Approx. weight <sup>2</sup>		: 132 lb
Protection degree		: IP55	Moment of inertia (J)		: 0.3695 sq.ft.lb
Design		: B			
Output [HP]	5	5	5	5	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	13.1/6.57	7.83	7.54	7.45	
L. R. Amperes [A]	93.3/46.6	47.8	51.3	53.6	
LRC [A]	7.1x(Code J)	6.1x(Code G)	6.8x(Code J)	7.2x(Code J)	
No load current [A]	6.20/3.10	3.10	3.40	3.80	
Rated speed [RPM]	1750	1435	1440	1445	
Slip [%]	2.78	4.33	4.00	3.67	
Rated torque [ft.lb]	15.0	18.3	18.2	18.2	
Locked rotor torque [%]	250	210	229	250	
Breakdown torque [%]	330	229	270	290	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	30s (cold) 17s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level <sup>2</sup>	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	
Efficiency (%)	25%	85.3	85.7	85.8	85.8
	50%	86.5	86.0	86.5	86.5
	75%	88.5	86.5	87.0	87.0
	100%	89.5	86.5	87.5	87.5
Power Factor	25%	0.36	0.43	0.39	0.35
	50%	0.59	0.67	0.63	0.59
	75%	0.71	0.77	0.74	0.72
	100%	0.79	0.83	0.81	0.79
Bearing type		Drive end : 6307 2RS	Non drive end : 6206 2RS	Foundation loads	
Sealing		: Oil Seal	: Lip Seal	Max. traction : 271 lb	
Lubrication interval		: -	: -	Max. compression : 403 lb	
Lubricant amount		: -	: -		
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 14.5A SF 1.15 SFA 16.7A					
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 : \_\_\_\_\_

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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

# TORQUE AND CURRENT VS SPEED CURVE



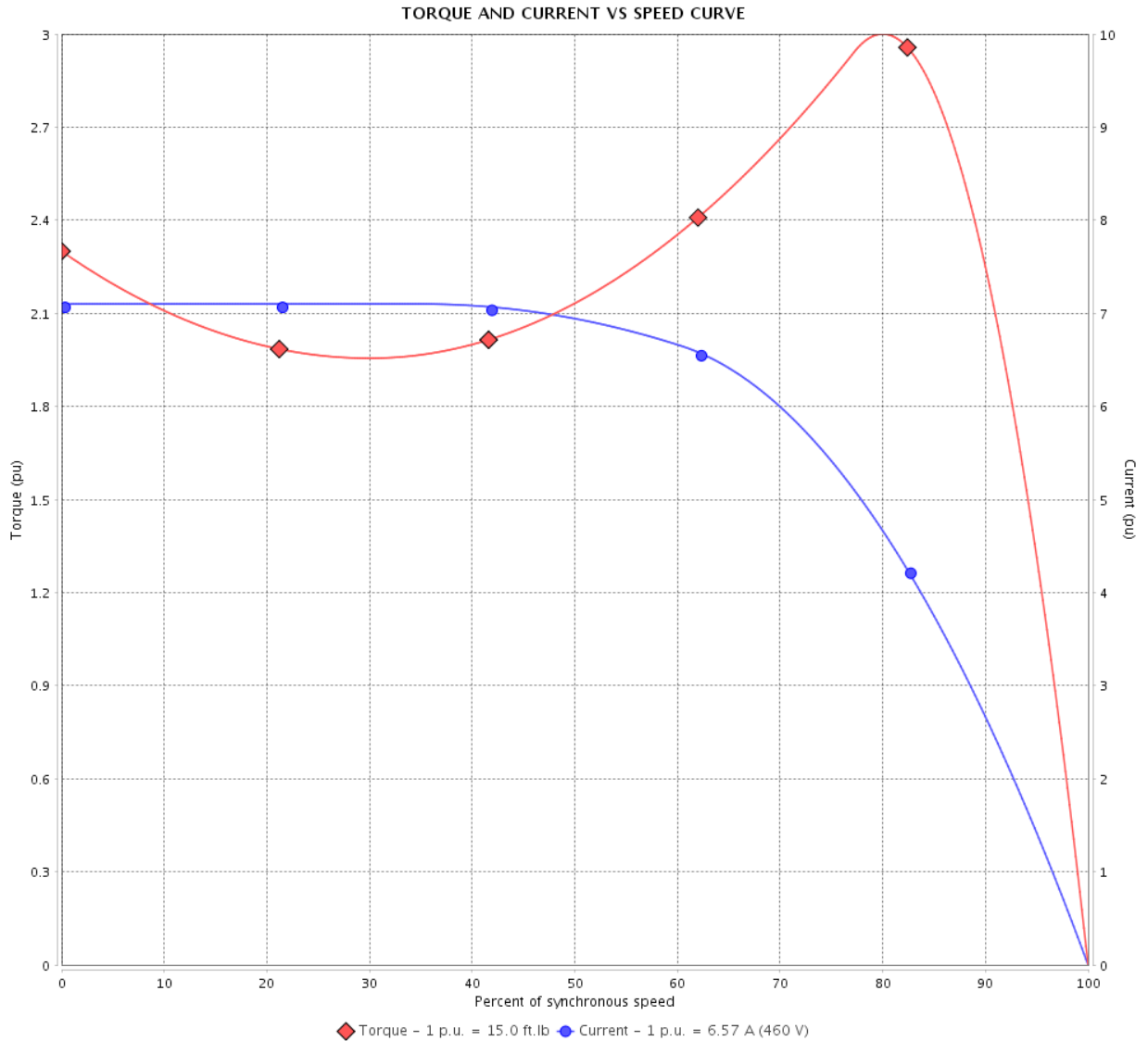
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC



Performance : 230/460 V 60 Hz 4P

Rated current : 13.1/6.57 A  
 LRC : 7.1  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 330 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 30s (cold) 17s (hot)

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

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



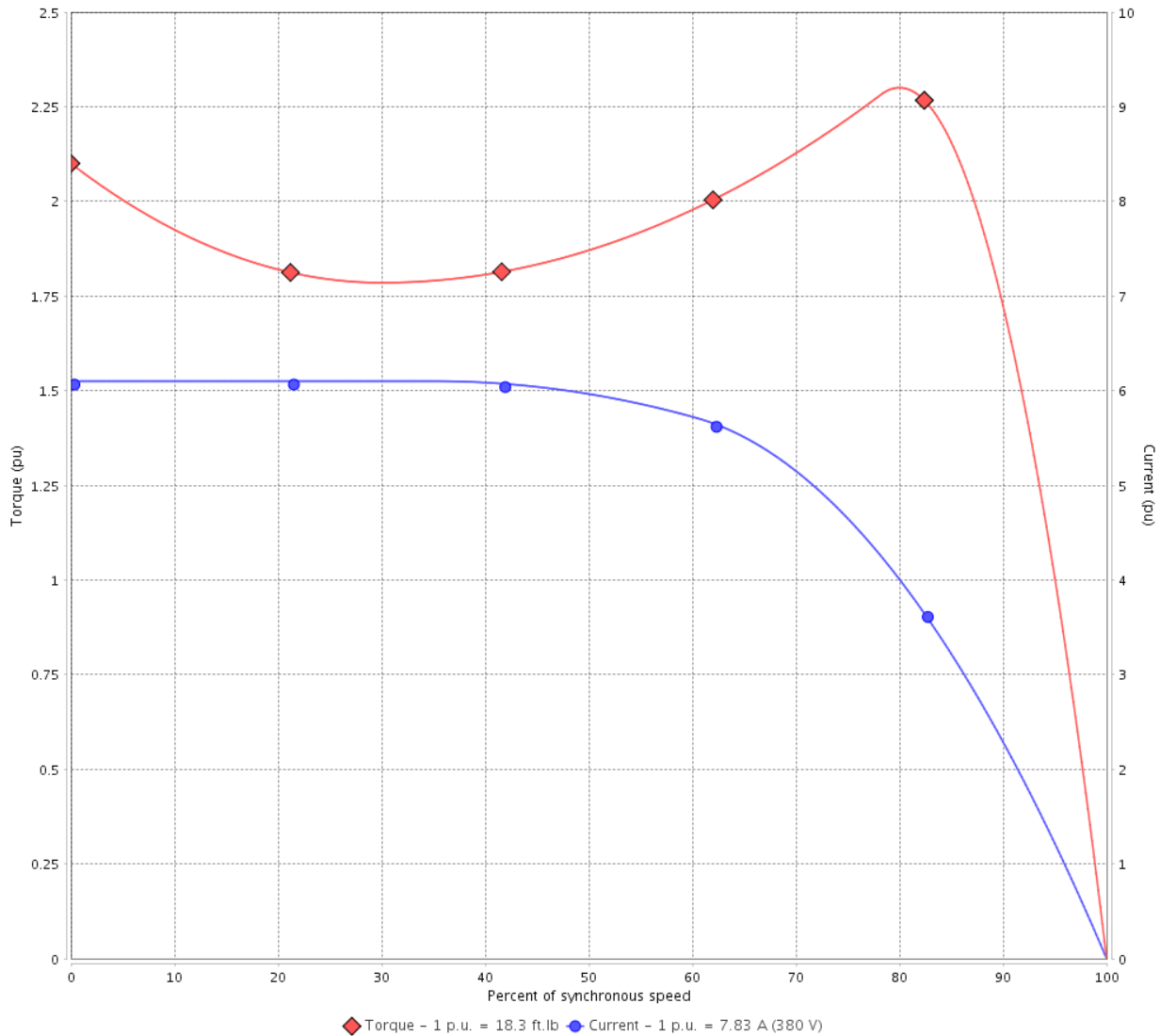
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current	: 7.83 A	Moment of inertia (J)	: 0.3695 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 18.3 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1435 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (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



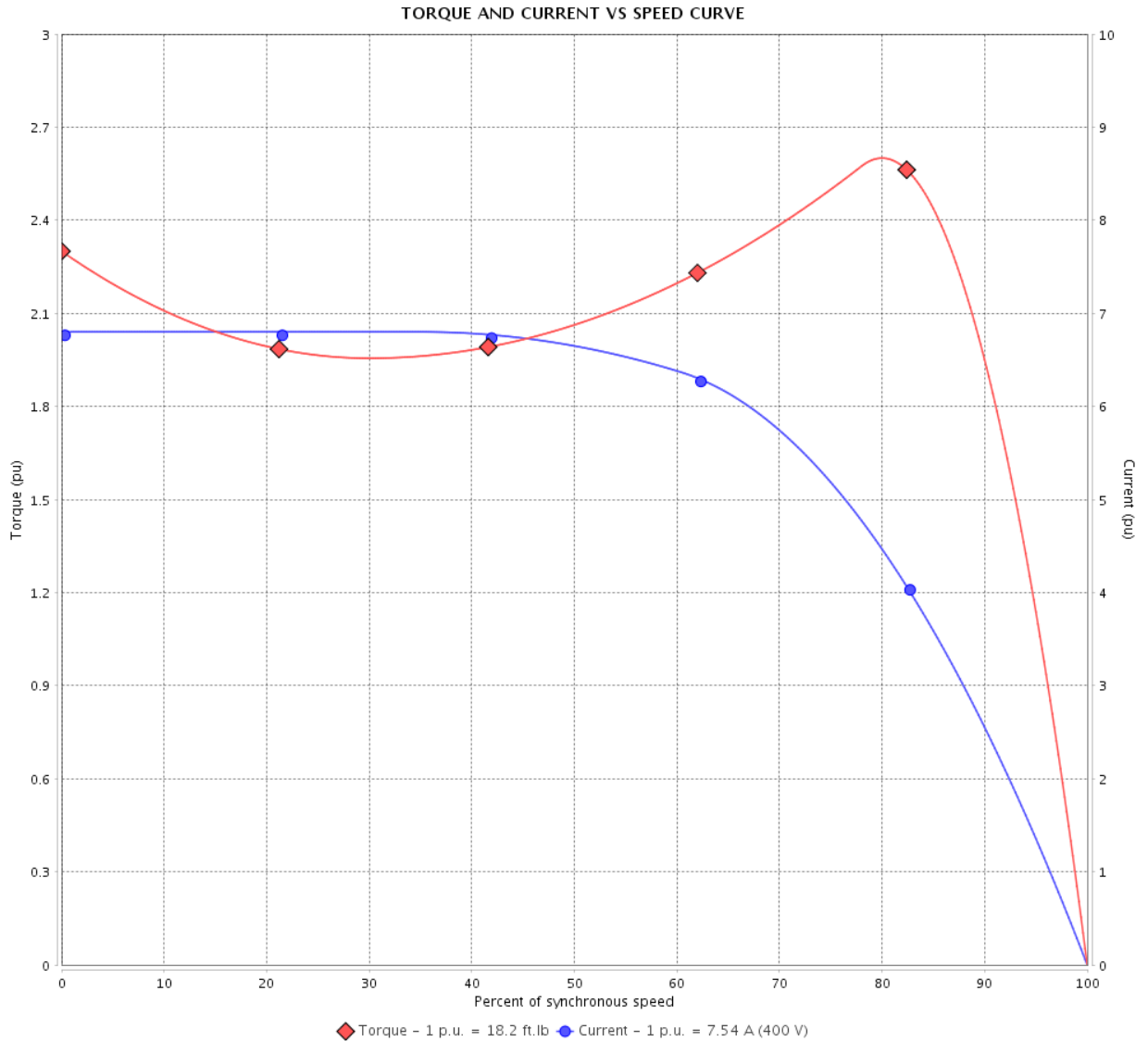
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC



Performance : 400 V 50 Hz 4P IE2

Rated current : 7.54 A  
 LRC : 6.8  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 270 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 36s (cold) 20s (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



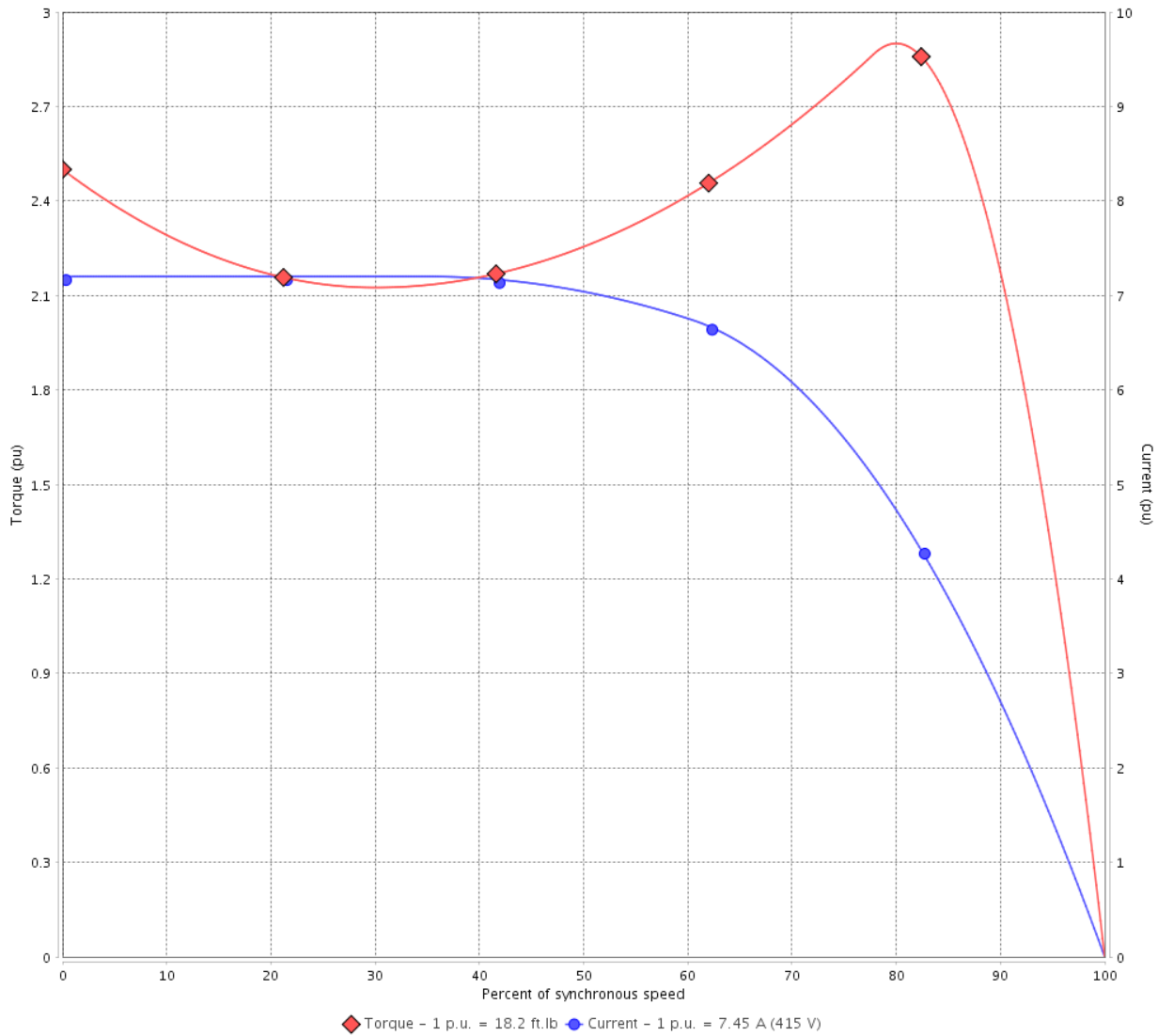
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE2

Rated current	: 7.45 A	Moment of inertia (J)	: 0.3695 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 18.2 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (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

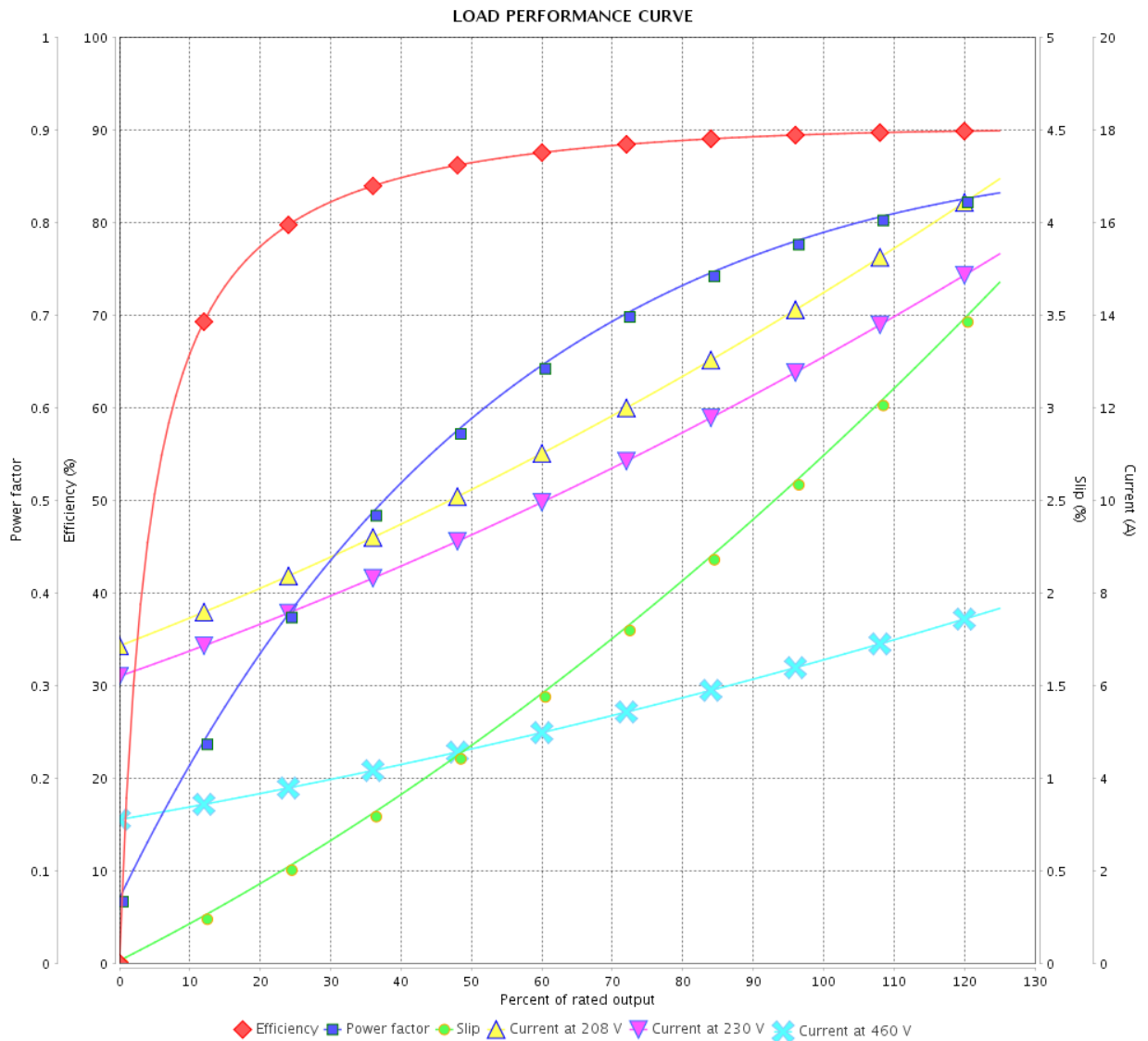


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC



Performance : 230/460 V 60 Hz 4P

Rated current : 13.1/6.57 A  
 LRC : 7.1  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 330 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		7 / 22		
Date		12/04/2022		

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



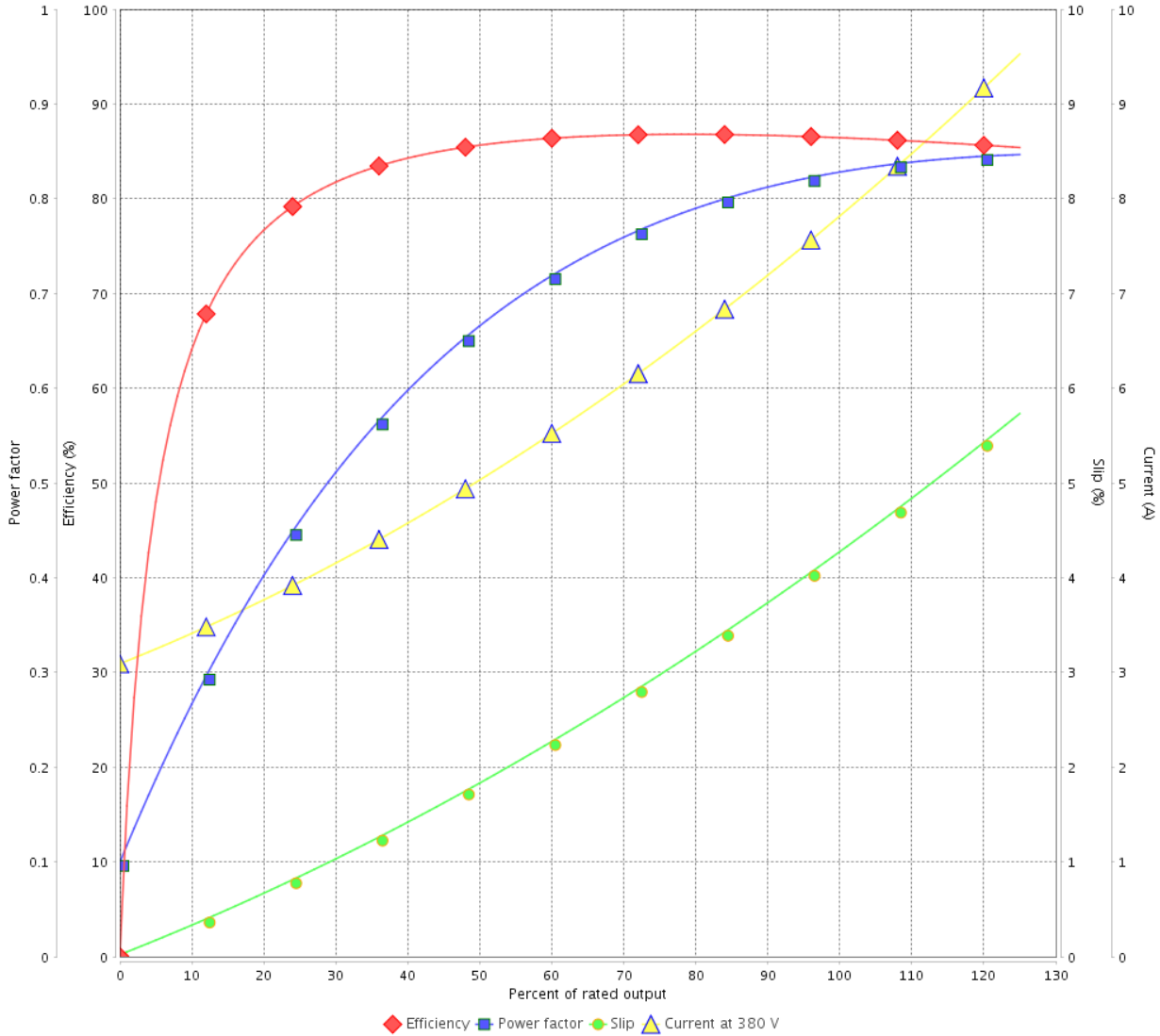
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current : 7.83 A  
 LRC : 6.1  
 Rated torque : 18.3 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 229 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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

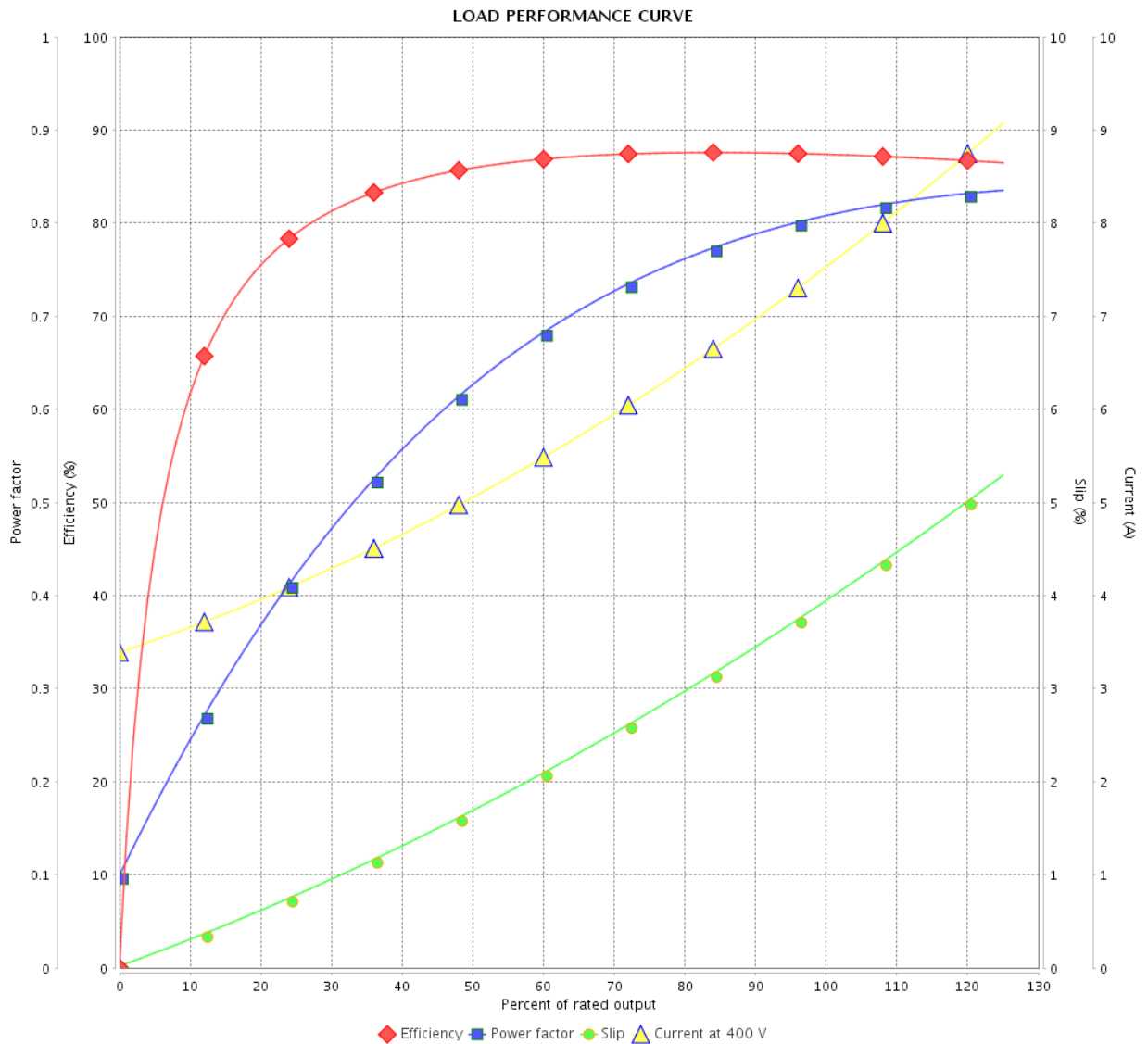


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC



Performance : 400 V 50 Hz 4P IE2

Rated current : 7.54 A  
 LRC : 6.8  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 270 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



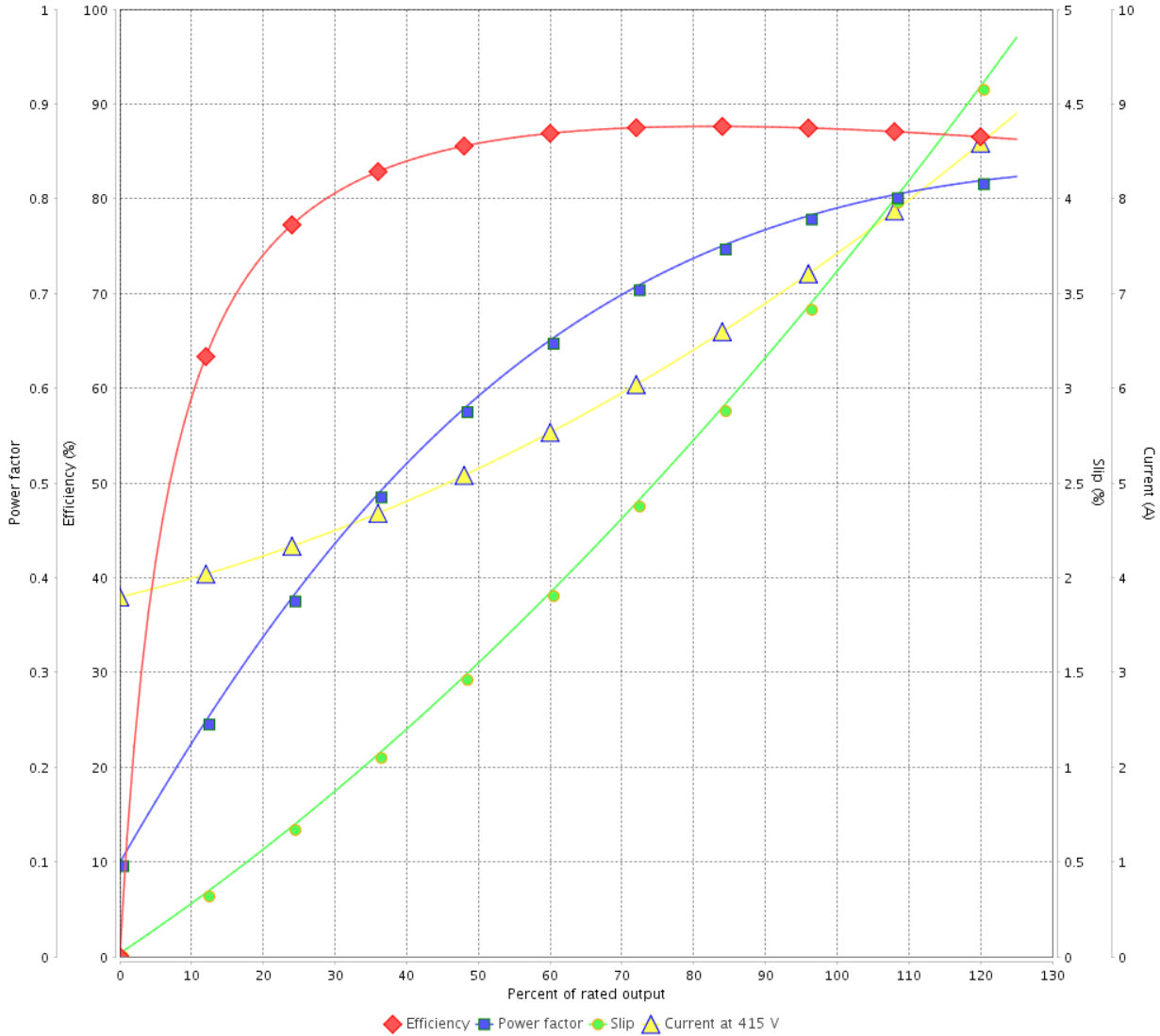
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE2

Rated current : 7.45 A  
 LRC : 7.2  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 290 %  
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 14276569  
 Catalog # : 00518XT3ER184TC

Performance : 230/460 V 60 Hz 4P

Rated current : 13.1/6.57 A	Moment of inertia (J) : 0.3695 sq.ft.lb
LRC : 7.1	Duty cycle : Cont.(S1)
Rated torque : 15.0 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.15
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 1750 rpm	Design : B

Heating constant

Cooling constant

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

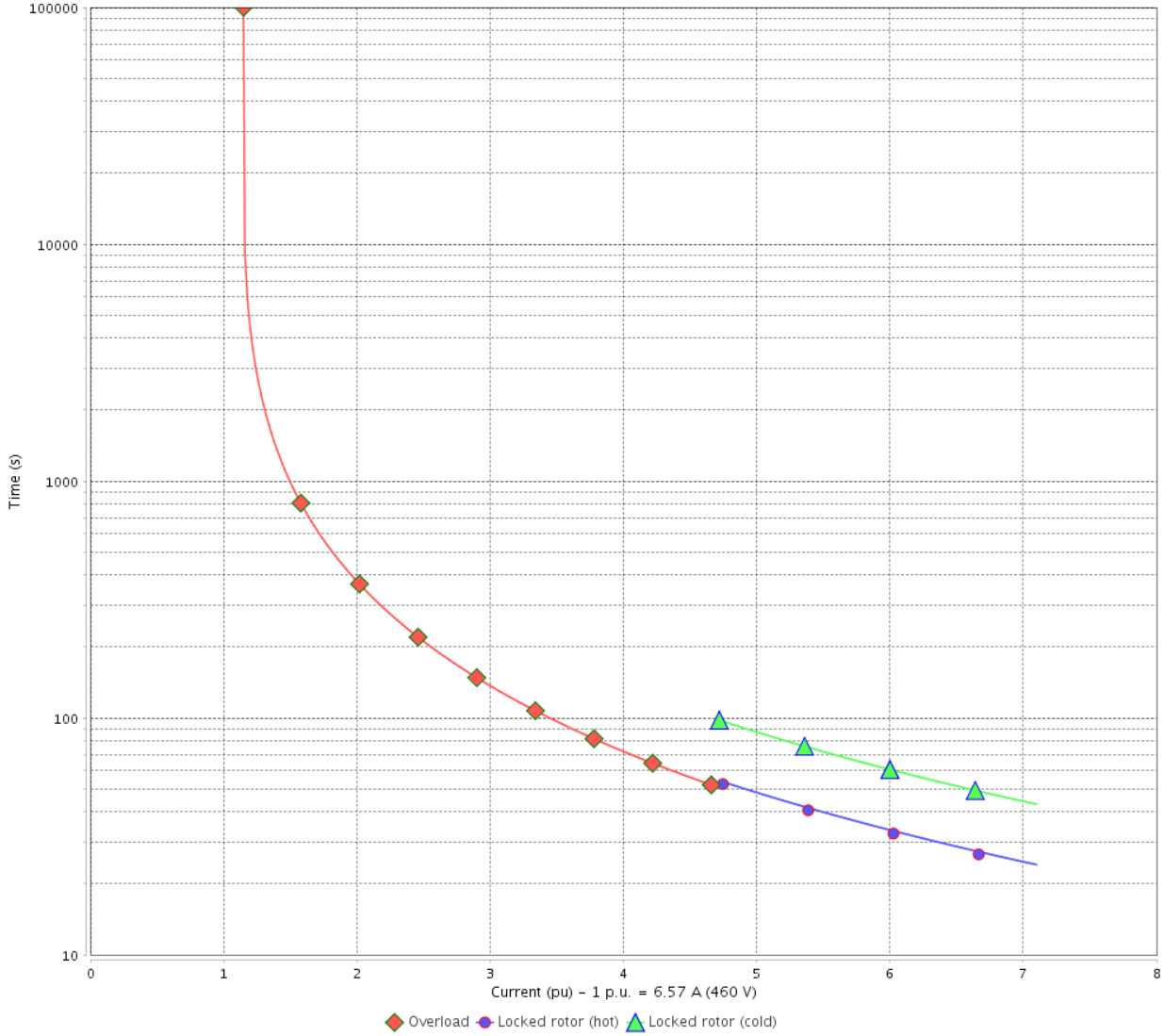
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

THERMAL LIMIT CURVE



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

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 14276569  
 Catalog # : 00518XT3ER184TC

Performance : 380 V 50 Hz 4P IE2

Rated current : 7.83 A	Moment of inertia (J) : 0.3695 sq.ft.lb
LRC : 6.1	Duty cycle : Cont.(S1)
Rated torque : 18.3 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 229 %	Temperature rise : 80 K
Rated speed : 1435 rpm	Design : B

Heating constant

Cooling constant

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

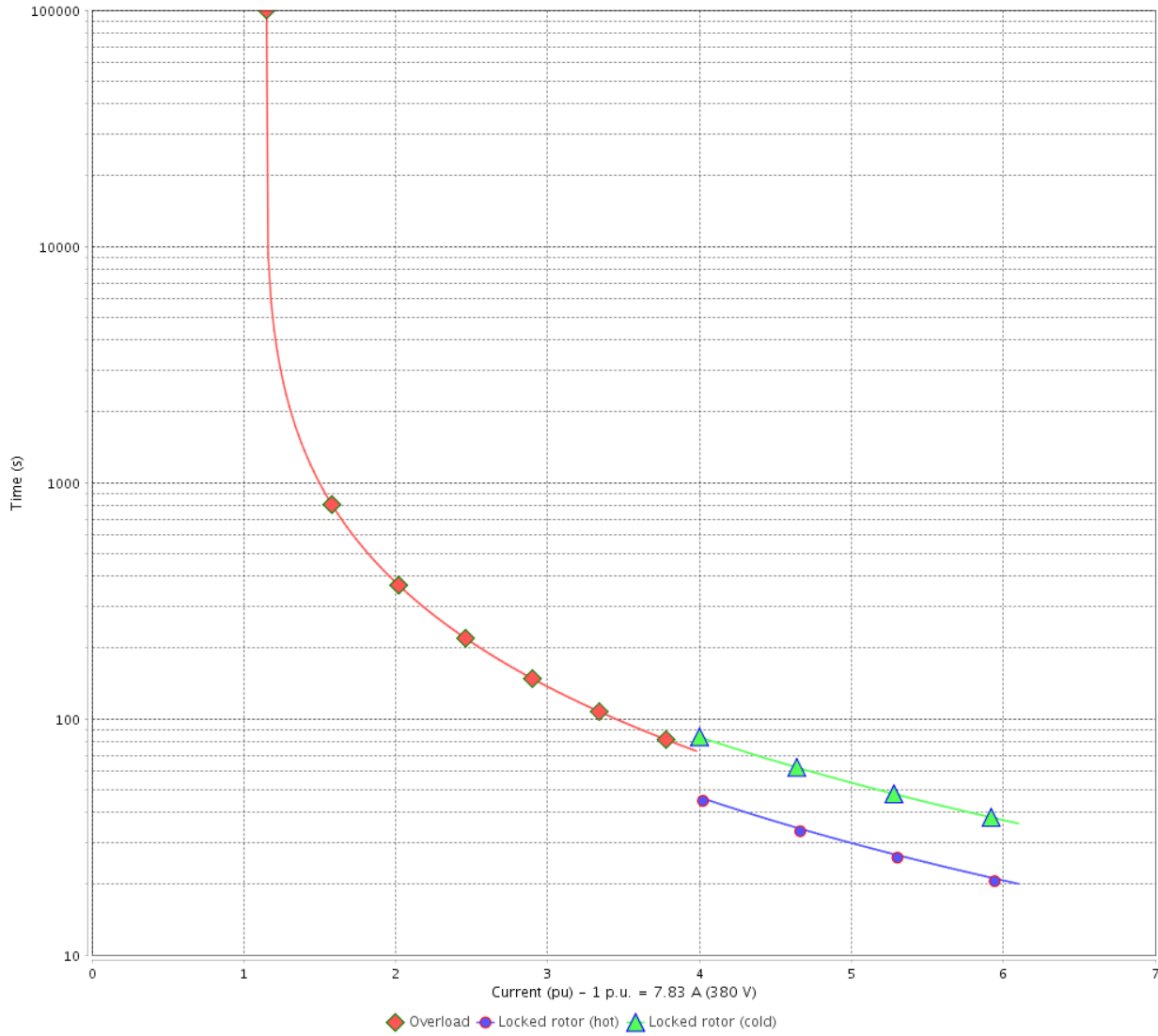
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

THERMAL LIMIT CURVE



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

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 14276569  
 Catalog # : 00518XT3ER184TC

Performance : 400 V 50 Hz 4P IE2

Rated current : 7.54 A	Moment of inertia (J) : 0.3695 sq.ft.lb
LRC : 6.8	Duty cycle : Cont.(S1)
Rated torque : 18.2 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 1440 rpm	Design : B

Heating constant

Cooling constant

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

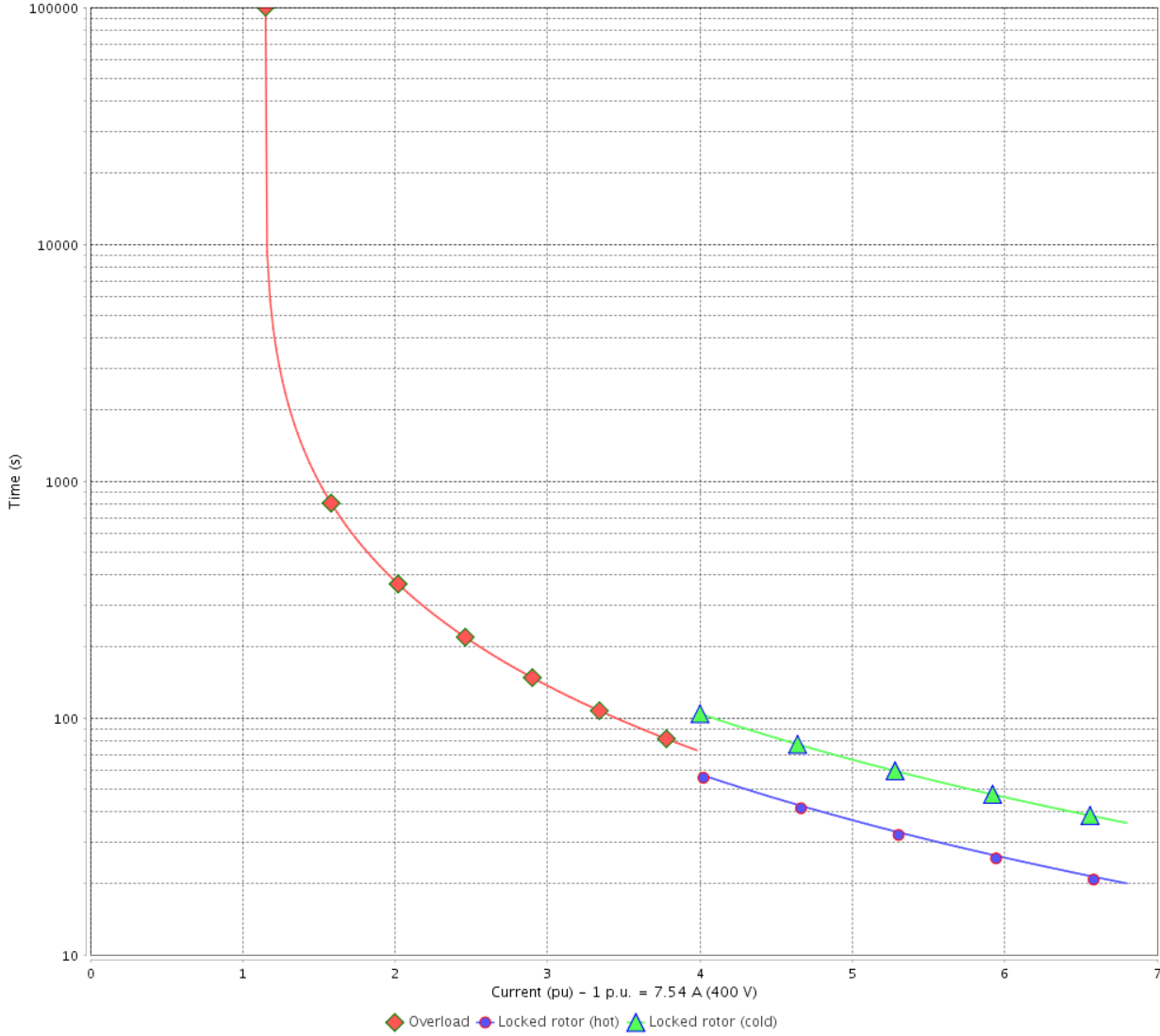
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

THERMAL LIMIT CURVE



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 : 14276569  
 Catalog # : 00518XT3ER184TC

Performance : 415 V 50 Hz 4P IE2

Rated current : 7.45 A	Moment of inertia (J) : 0.3695 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 18.2 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1445 rpm	Design : B

Heating constant

Cooling constant

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

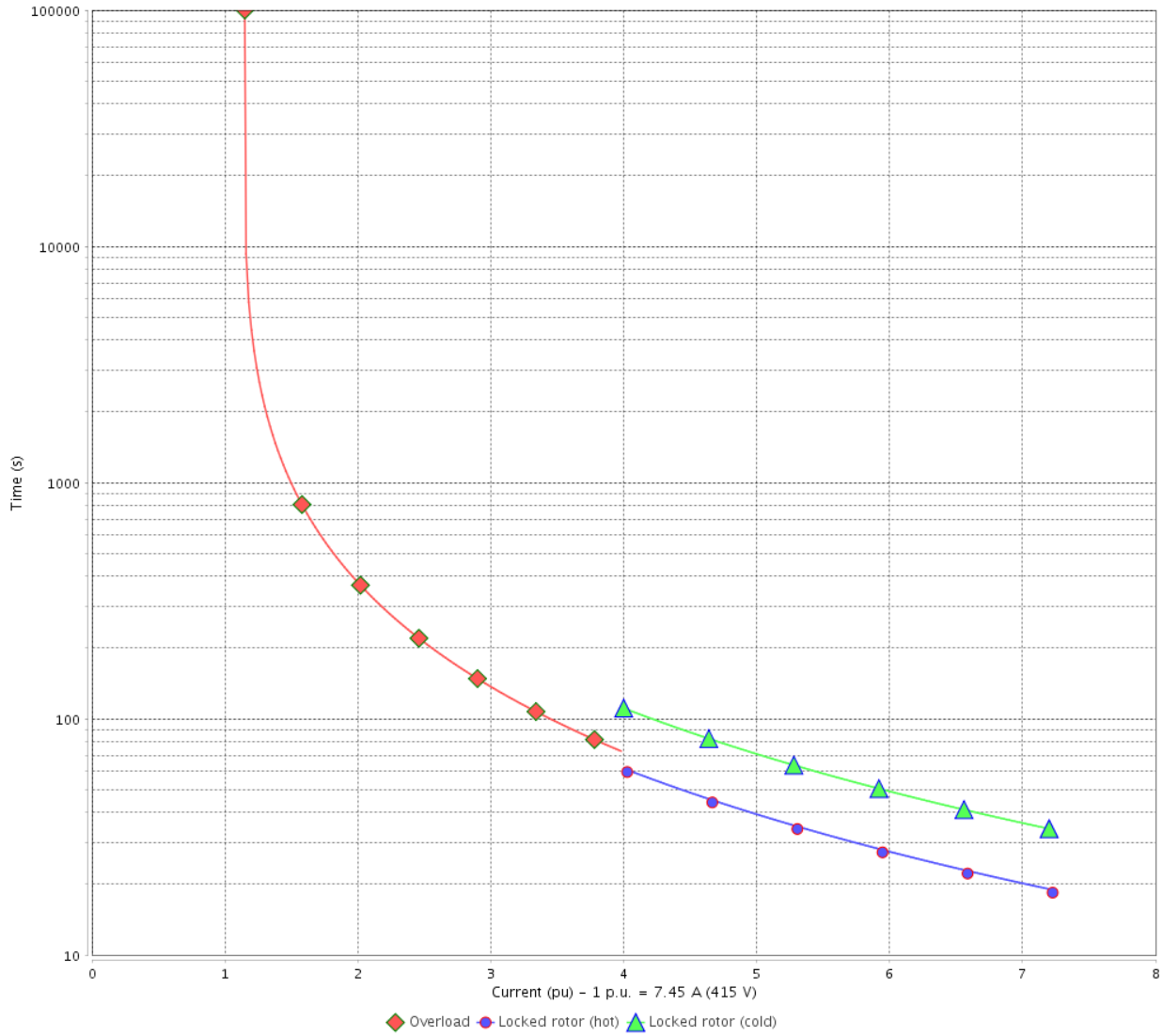
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

THERMAL LIMIT CURVE



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

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

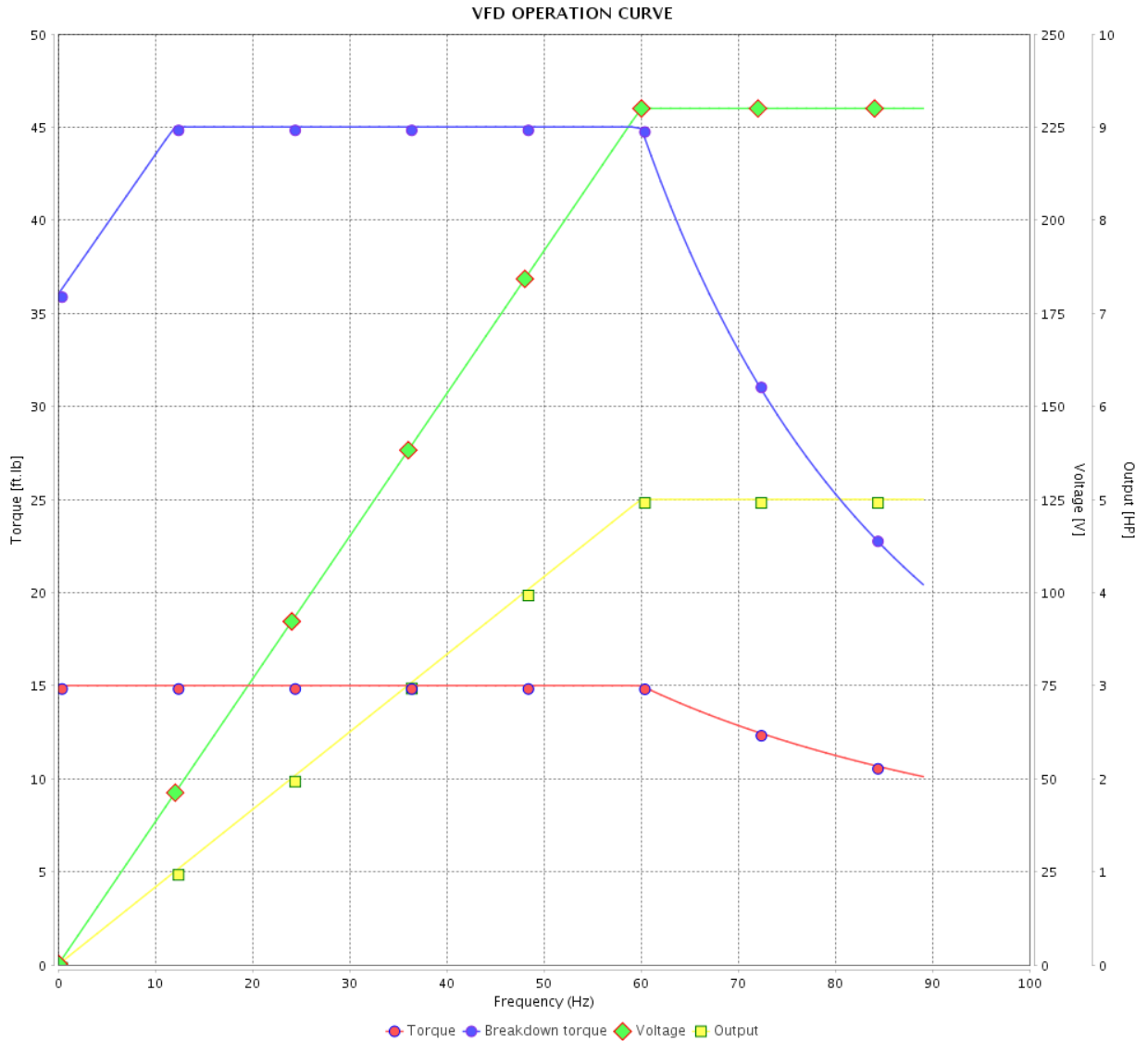


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC



Performance : 230/460 V 60 Hz 4P

Rated current : 13.1/6.57 A  
 LRC : 7.1  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 330 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



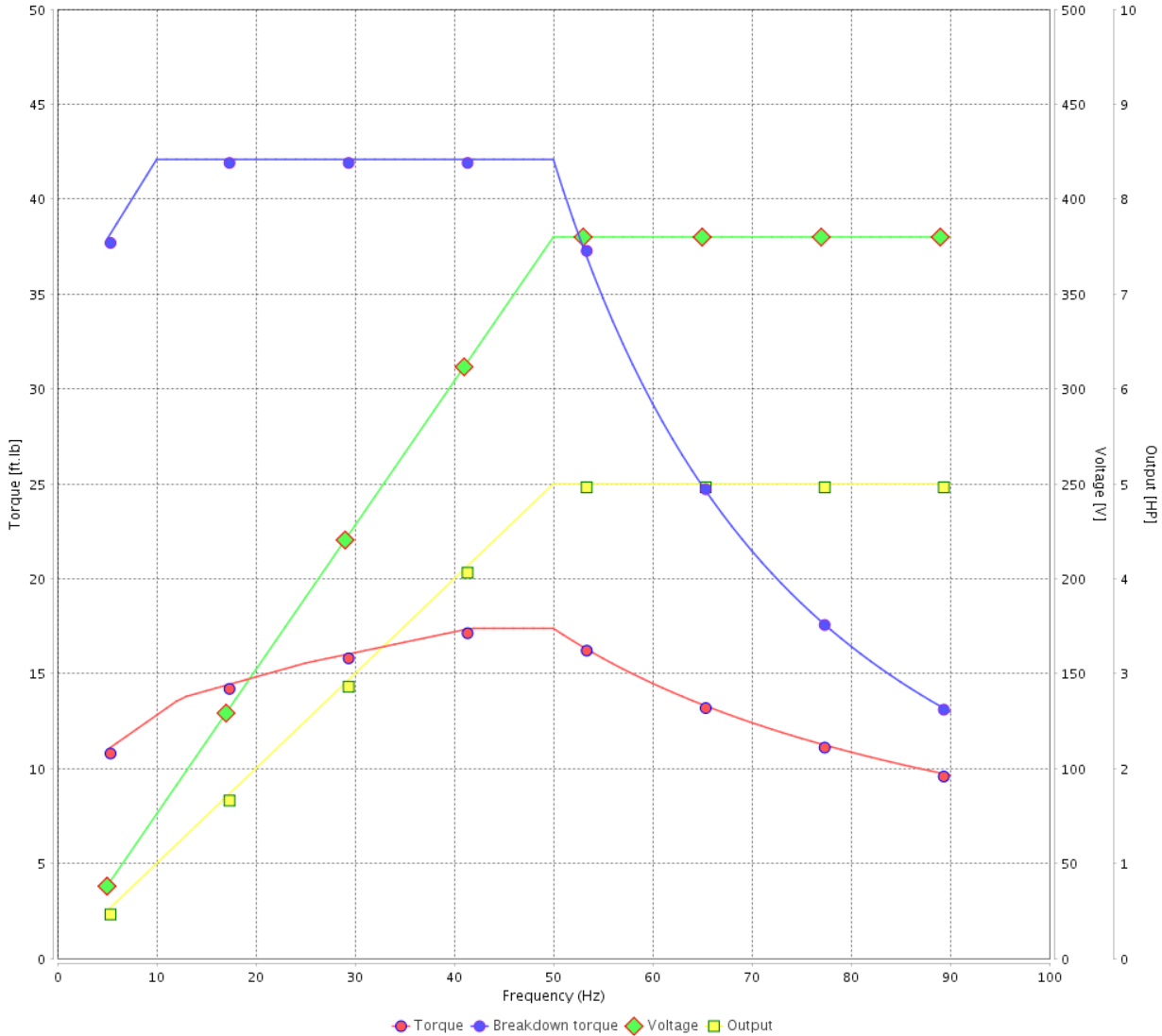
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC

VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current : 7.83 A  
 LRC : 6.1  
 Rated torque : 18.3 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 229 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 20 / 22	Revision
Checked by				
Date	12/04/2022			

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

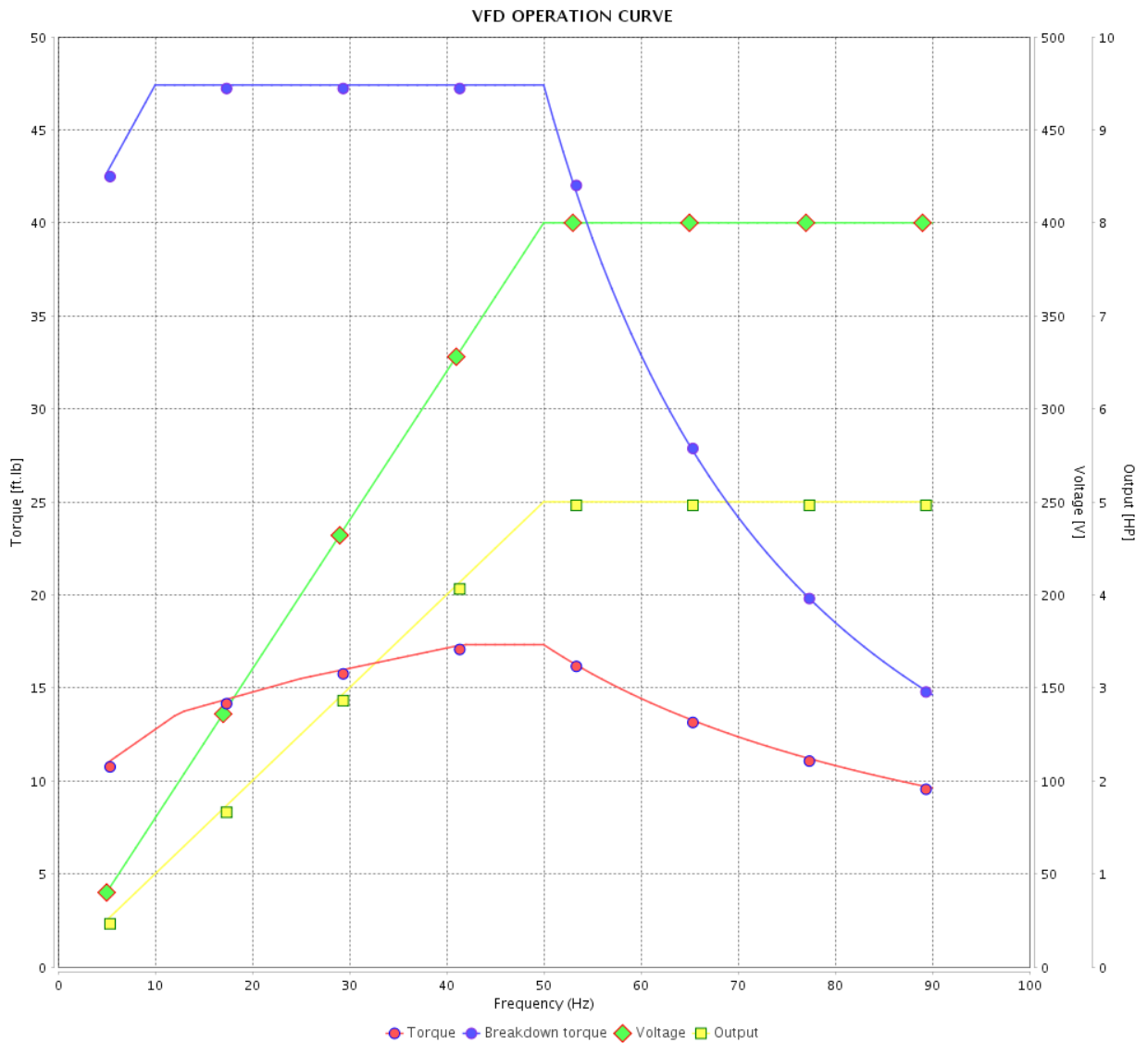


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC



Performance : 400 V 50 Hz 4P IE2

Rated current : 7.54 A  
 LRC : 6.8  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 270 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



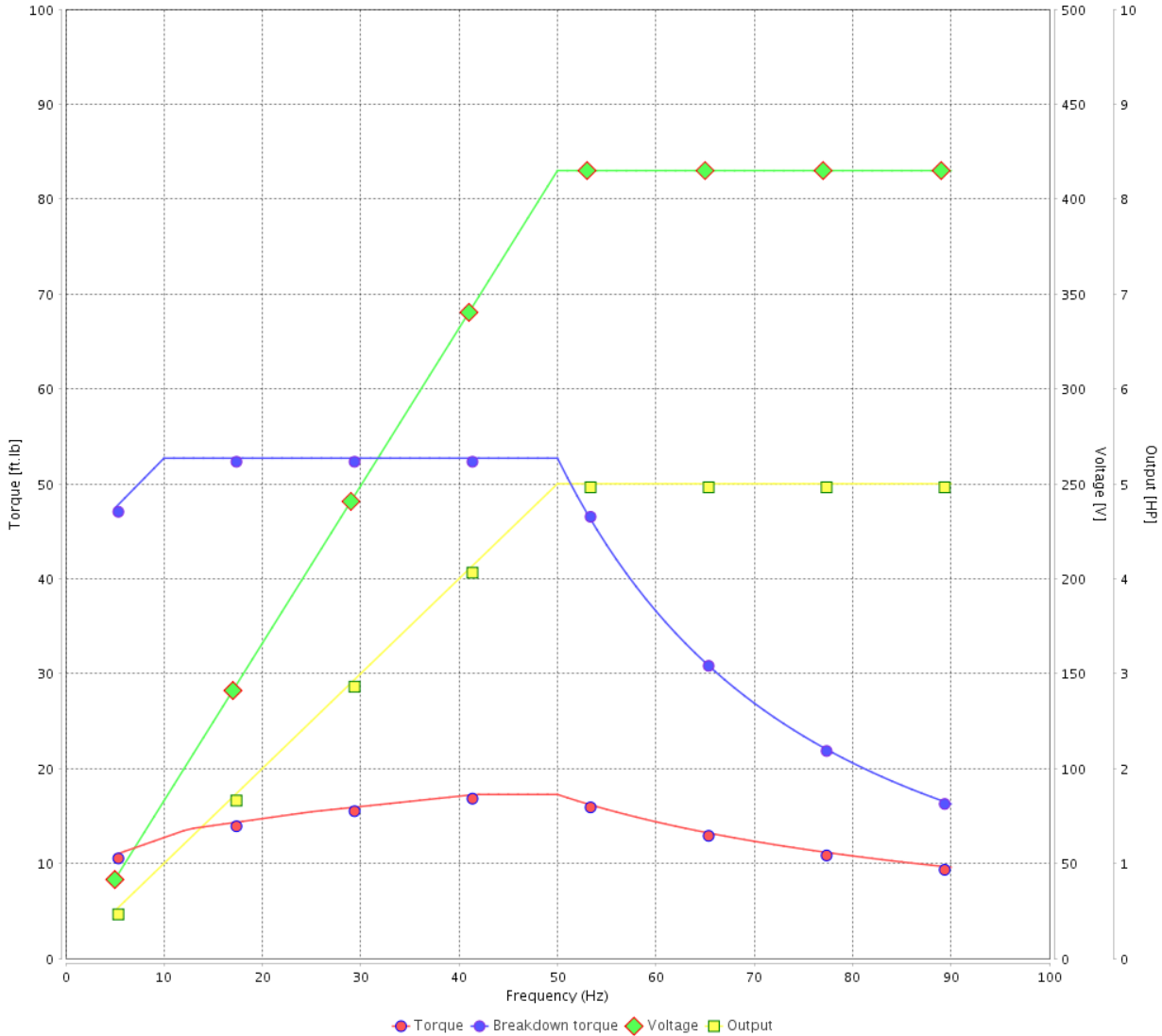
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14276569

Catalog # : 00518XT3ER184TC

VFD OPERATION CURVE

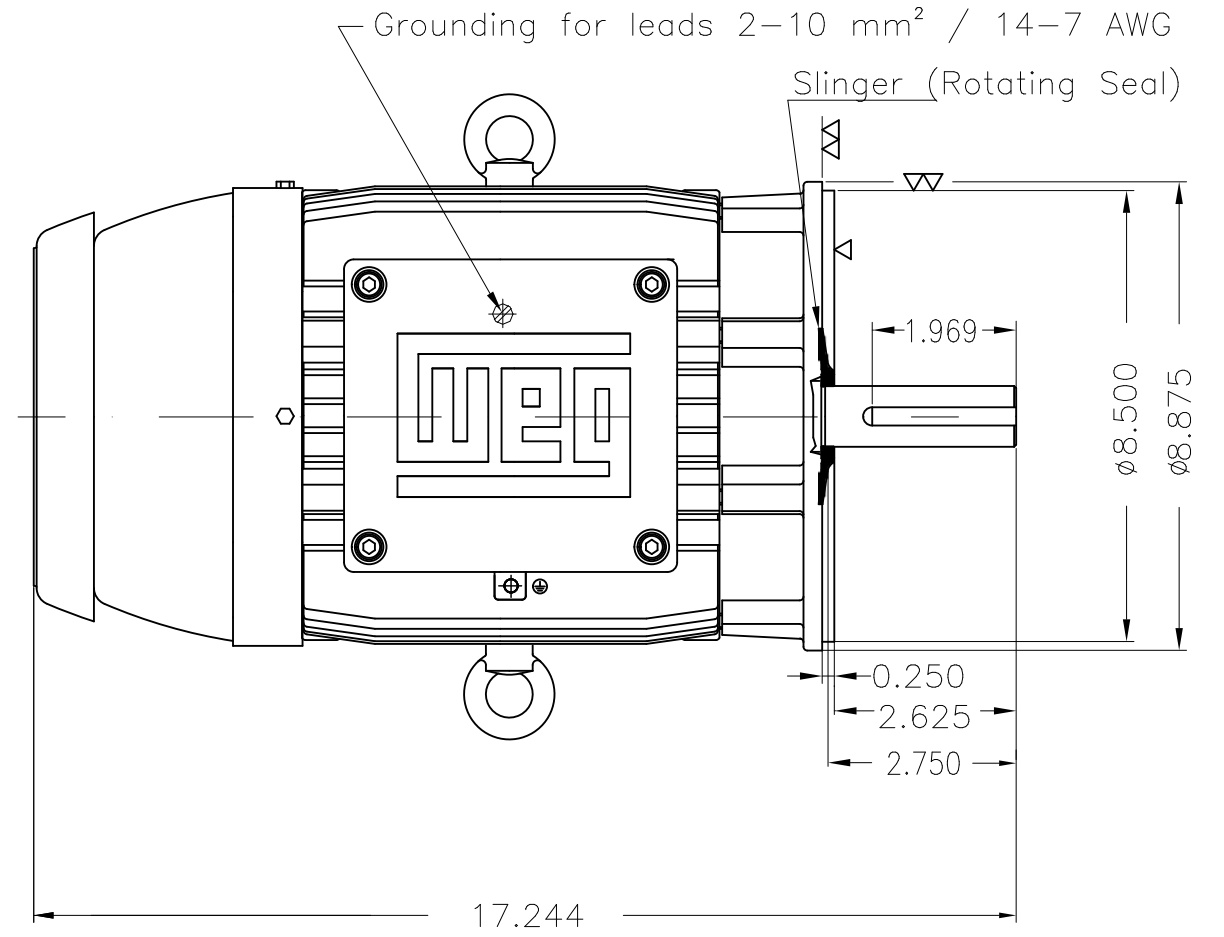
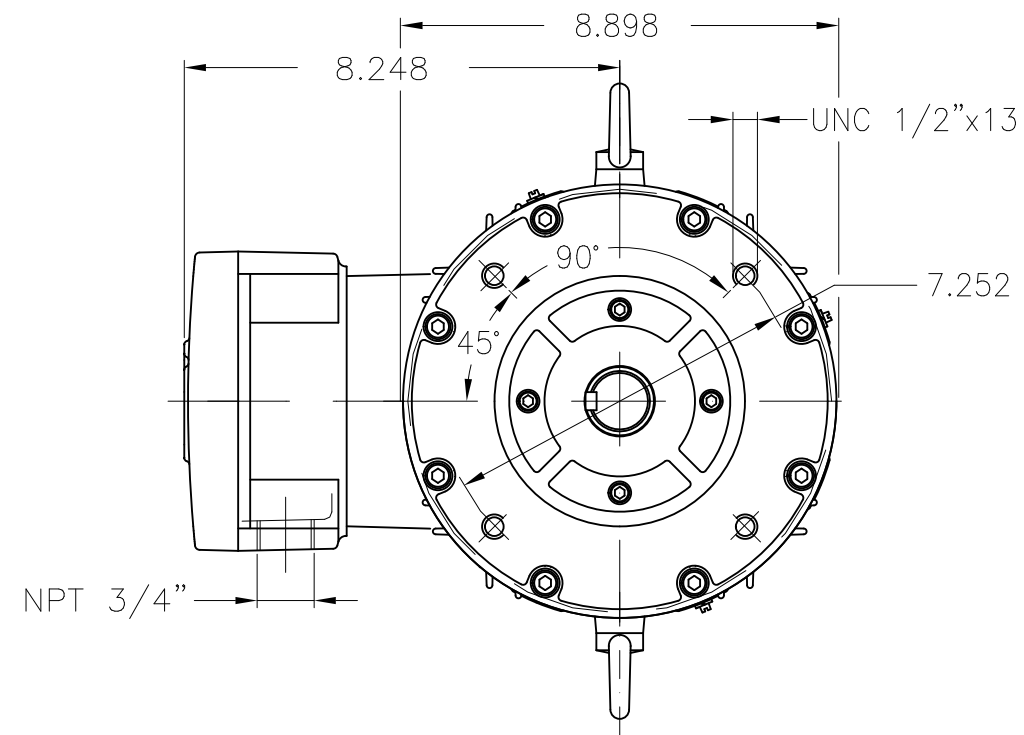


Performance : 415 V 50 Hz 4P IE2

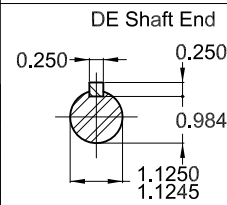
Rated current : 7.45 A  
 LRC : 7.2  
 Rated torque : 18.2 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 290 %  
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.3695 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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



Color RAL 5009  
 Painting plan 202P  
 Mounting NEMA W-6  
 Mounting V18



5 HP 04 Poles 60 Hz

Dimensions in inches

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 182/4TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

**PREVIEW**  
 WDD



SHEET 1 / 1

MADE IN BRAZIL


**W21X NEMA**  
**Premium**

14276569

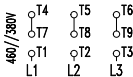
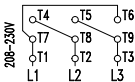
CC029A

 Inverter Duty Motor  
 Severe Duty


LISTED

MODEL 00518XT3ER184TC

PH 3	FR 182/4TC		
HP(kW) 5.0(3.7)		HZ 60	IP55
V 230/460		A 13.1/6.57	
RPM 1750		NEMA NOM EFF 89.5%	
PF 0.79		SFA 15.1/7.56	DES B
INS CL F $\Delta$ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE J	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	14.5 A	SF 1.15 SFA 16.7
AMB 55°C SF1.0			
5.0HP 3.7kW 50Hz 380V 7.83A 1435RPM SF1.00 EFF 86.5% (IE2)			


 → 6307-2RS MOBIL POLYREX EM  
 → 6206-2RS

134 Lbs


 TEMP CODE T3C  
 CSA/UL: Class I - Div. 1 - Groups C and D  
 CSA: Class II - Div. 1 - Groups F and G  
 CSA: Class I - Zone 1 - IIB  
**EXPLOSION PROOF MOTOR**

FOR USE ON VPWM VFD 1000:1VT, 20:1CT, 1.0SF, T3C, AMB 40°C.