

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W22 IEEE 841 NEMA Premium Efficiency Three-Phase	Product code :	16689665		
		Catalog # :	02518ST3QAP284T-W22		
Frame	: 284/6T	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: W-8		
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>	: 401 lb		
Protection degree	: IP56	Moment of inertia (J)	: 5.11 sq.ft.lb		
Design	: B				
Output [HP]	25	25	25	25	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	29.5	35.9	34.3	33.2	
L. R. Amperes [A]	183	190	189	196	
LRC [A]	6.2x(Code G)	5.3x(Code F)	5.5x(Code F)	5.9x(Code G)	
No load current [A]	11.0	11.0	11.7	12.4	
Rated speed [RPM]	1770	1455	1460	1465	
Slip [%]	1.67	3.00	2.67	2.33	
Rated torque [ft.lb]	74.2	90.2	89.9	89.6	
Locked rotor torque [%]	240	180	200	220	
Breakdown torque [%]	270	210	240	260	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	43s (cold) 24s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level <sup>2</sup>	63.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)	
Efficiency (%)	25%	91.7	92.9	92.8	92.2
	50%	92.4	92.4	92.4	92.4
	75%	93.0	91.7	92.4	92.4
	100%	93.6	91.0	91.7	92.4
Power Factor	25%	0.45	0.52	0.48	0.45
	50%	0.70	0.76	0.73	0.70
	75%	0.80	0.84	0.82	0.80
	100%	0.84	0.86	0.85	0.84
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	6.8	6.8	6.8	6.8
	P2 (0,5;1,0)	5.8	5.8	5.8	5.8
	P3 (0,25;1,0)	5.3	5.3	5.3	5.3
	P4 (0,9;0,5)	3.1	3.1	3.1	3.1
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.4	1.4	1.4	1.4
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0
Bearing type	: Drive end : NU-311 C3 Non drive end : 6211 C3	Foundation loads			
Sealing	: Inpro/Seal Inpro/Seal	Max. traction : 815 lb			
Lubrication interval	: 12000 h 17000 h	Max. compression : 1217 lb			
Lubricant amount	: 18 g 11 g				
Lubricant type	: Mobil Polyrex EM				
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).			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes

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# TORQUE AND CURRENT VS SPEED CURVE



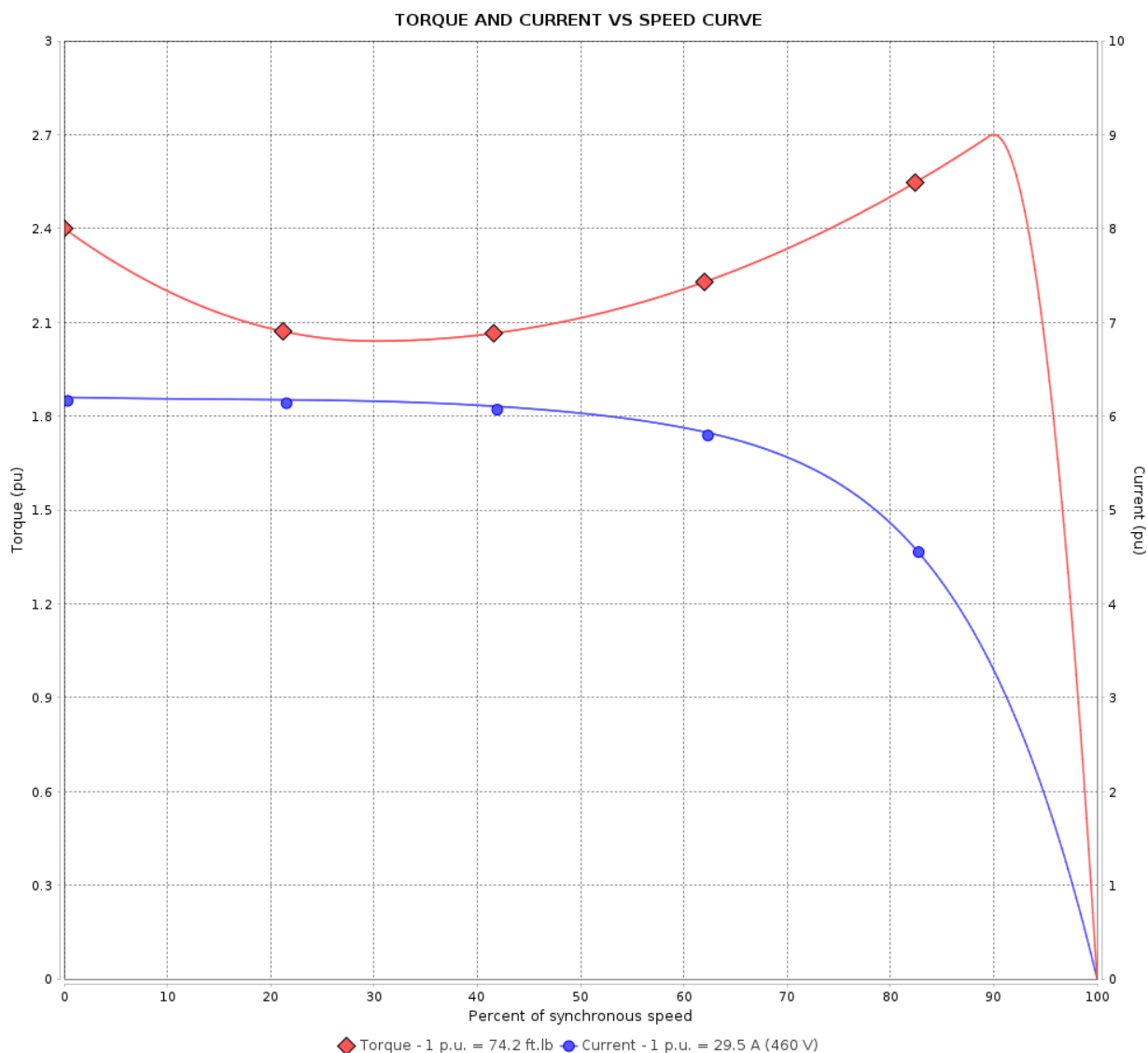
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 16689665

Catalog # : 02518ST3QAP284T-W22



Performance : 460 V 60 Hz 4P

Rated current	: 29.5 A	Moment of inertia (J)	: 5.11 sq.ft.lb
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 74.2 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 43s (cold) 24s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



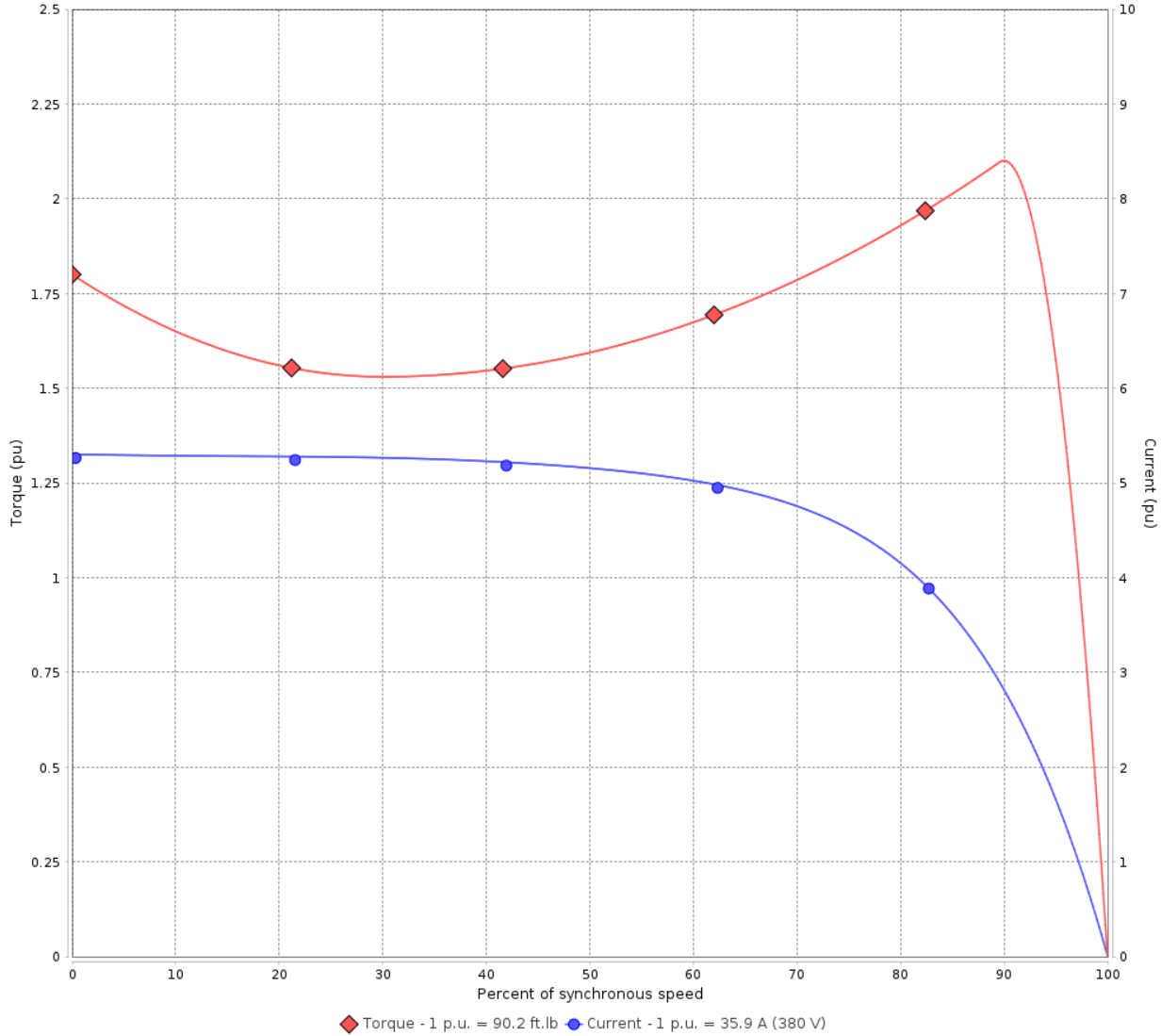
Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency  
Three-Phase

Product code : 16689665

Catalog # : 02518ST3QAP284T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE1

Rated current	: 35.9 A	Moment of inertia (J)	: 5.11 sq.ft.lb
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 90.2 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



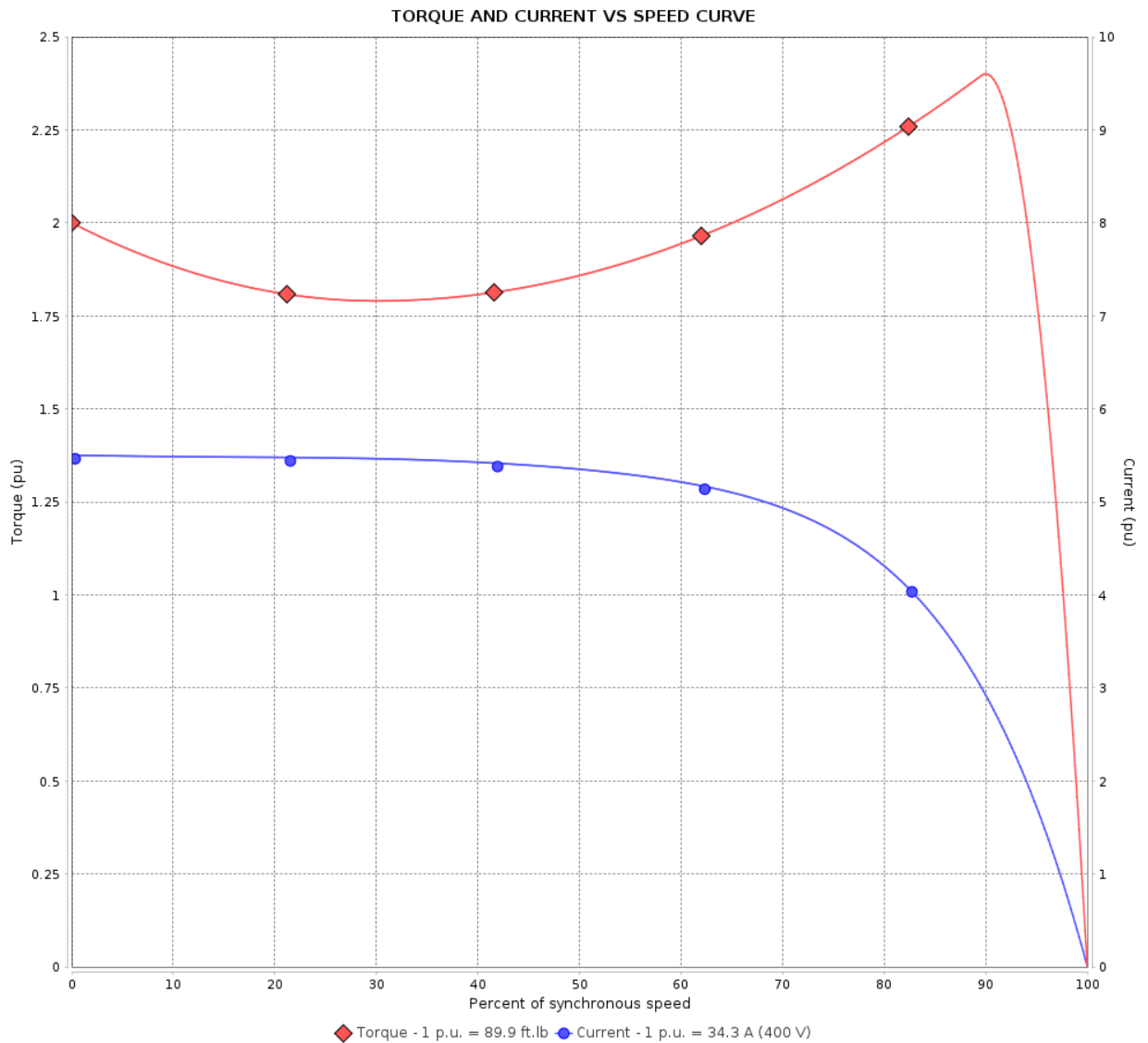
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 16689665

Catalog # : 02518ST3QAP284T-W22



Performance : 400 V 50 Hz 4P IE2

Rated current	: 34.3 A	Moment of inertia (J)	: 5.11 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 89.9 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

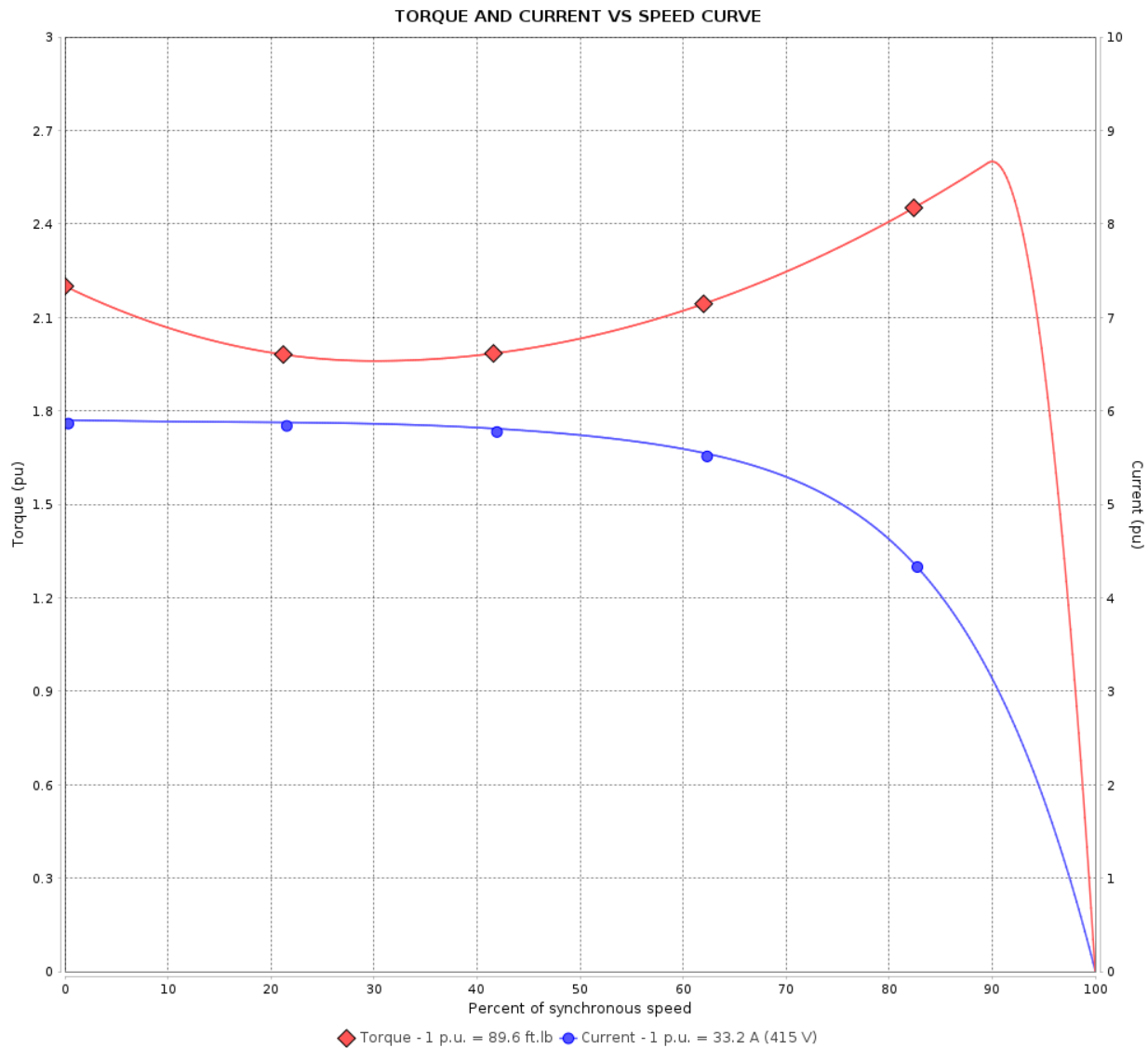


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Product code : 16689665

Catalog # : 02518ST3QAP284T-W22



Performance : 415 V 50 Hz 4P IE2

Rated current	: 33.2 A	Moment of inertia (J)	: 5.11 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 89.6 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

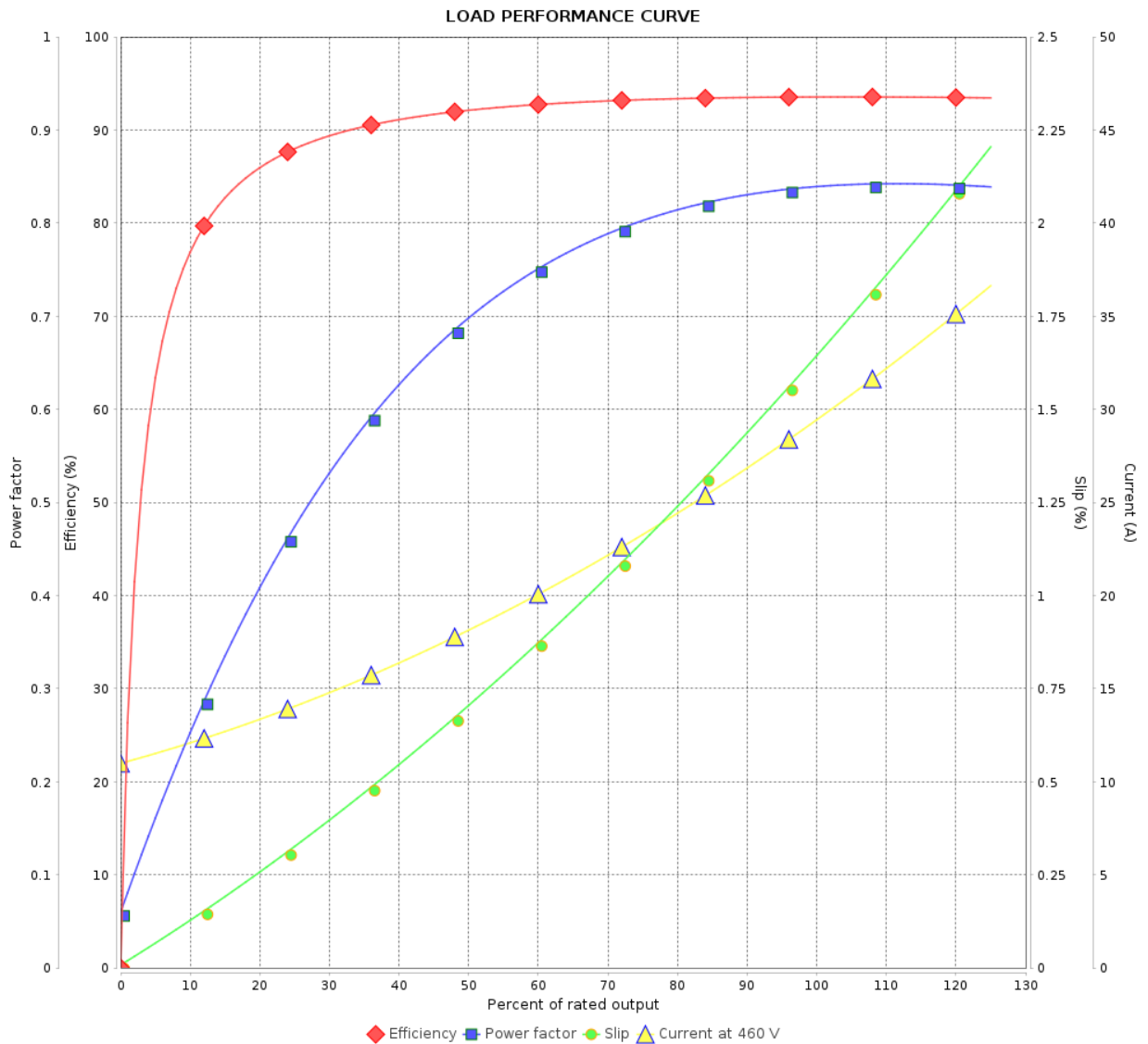


Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency  
Three-Phase

Product code : 16689665

Catalog # : 02518ST3QAP284T-W22



Performance : 460 V 60 Hz 4P

Rated current : 29.5 A  
 LRC : 6.2  
 Rated torque : 74.2 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

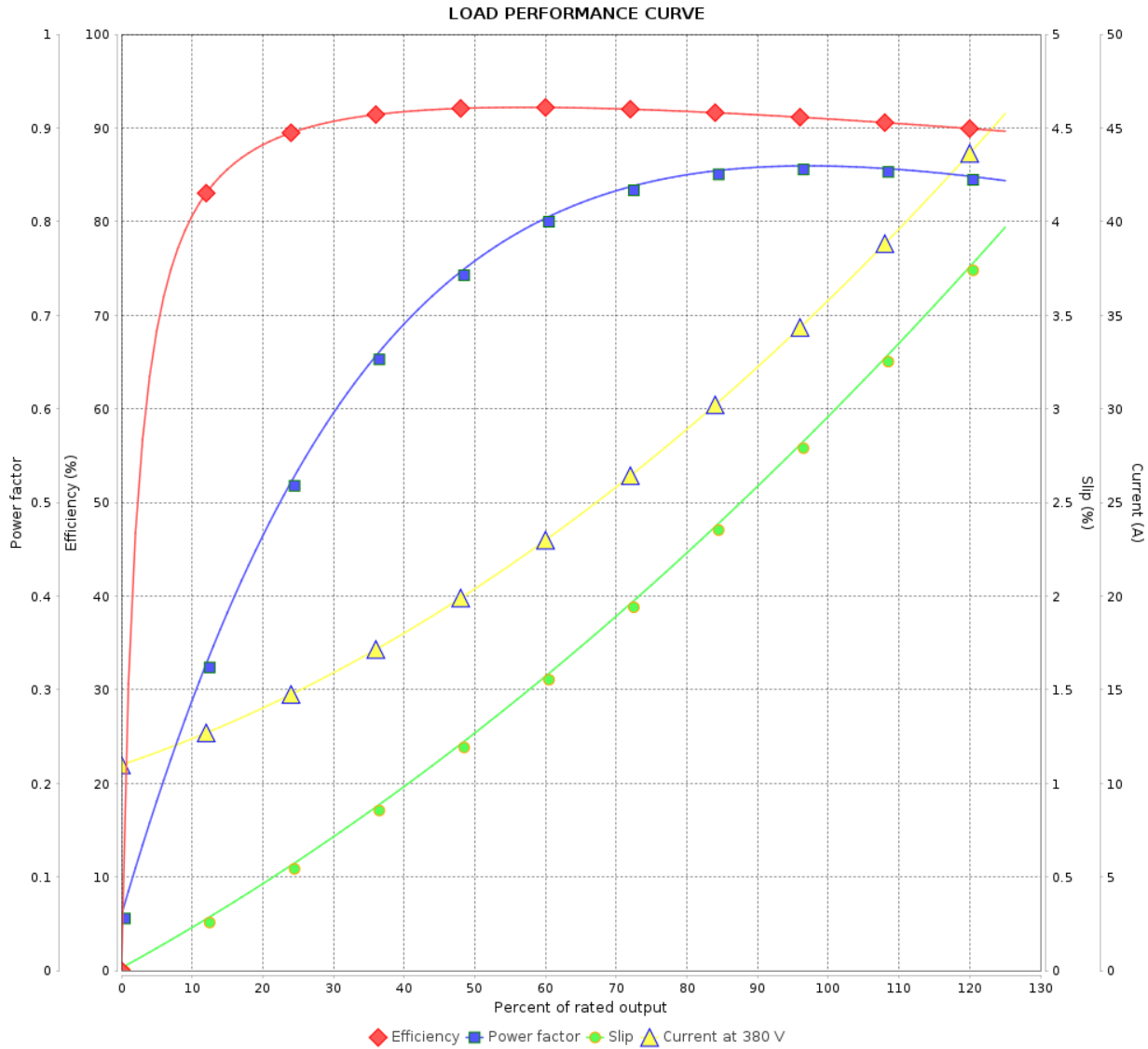


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Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 16689665

Catalog # : 02518ST3QAP284T-W22



Performance : 380 V 50 Hz 4P IE1

Rated current : 35.9 A  
 LRC : 5.3  
 Rated torque : 90.2 ft.lb  
 Locked rotor torque : 180 %  
 Breakdown torque : 210 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

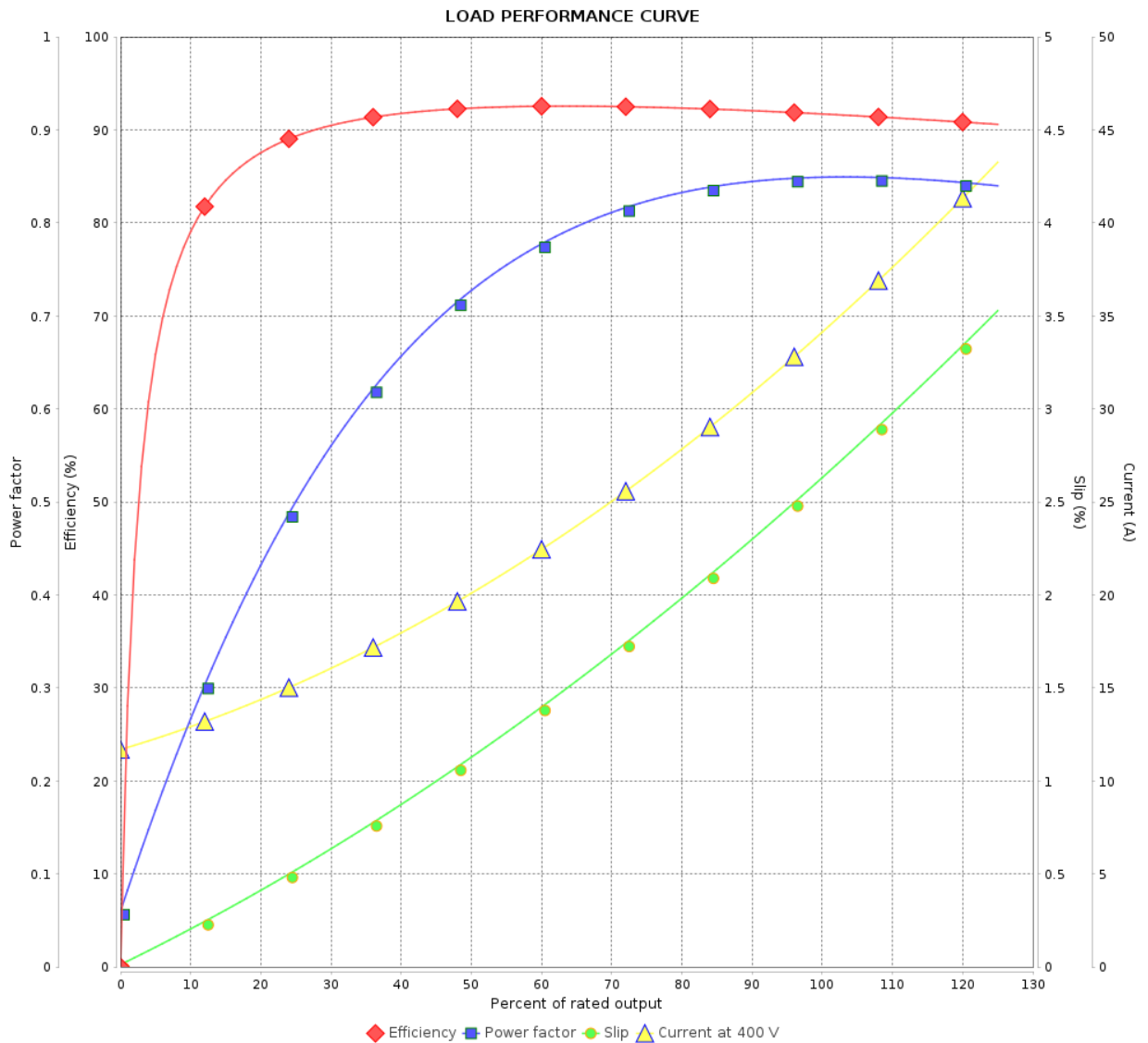


Customer :

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Product code : 16689665

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Performance : 400 V 50 Hz 4P IE2

Rated current : 34.3 A  
 LRC : 5.5  
 Rated torque : 89.9 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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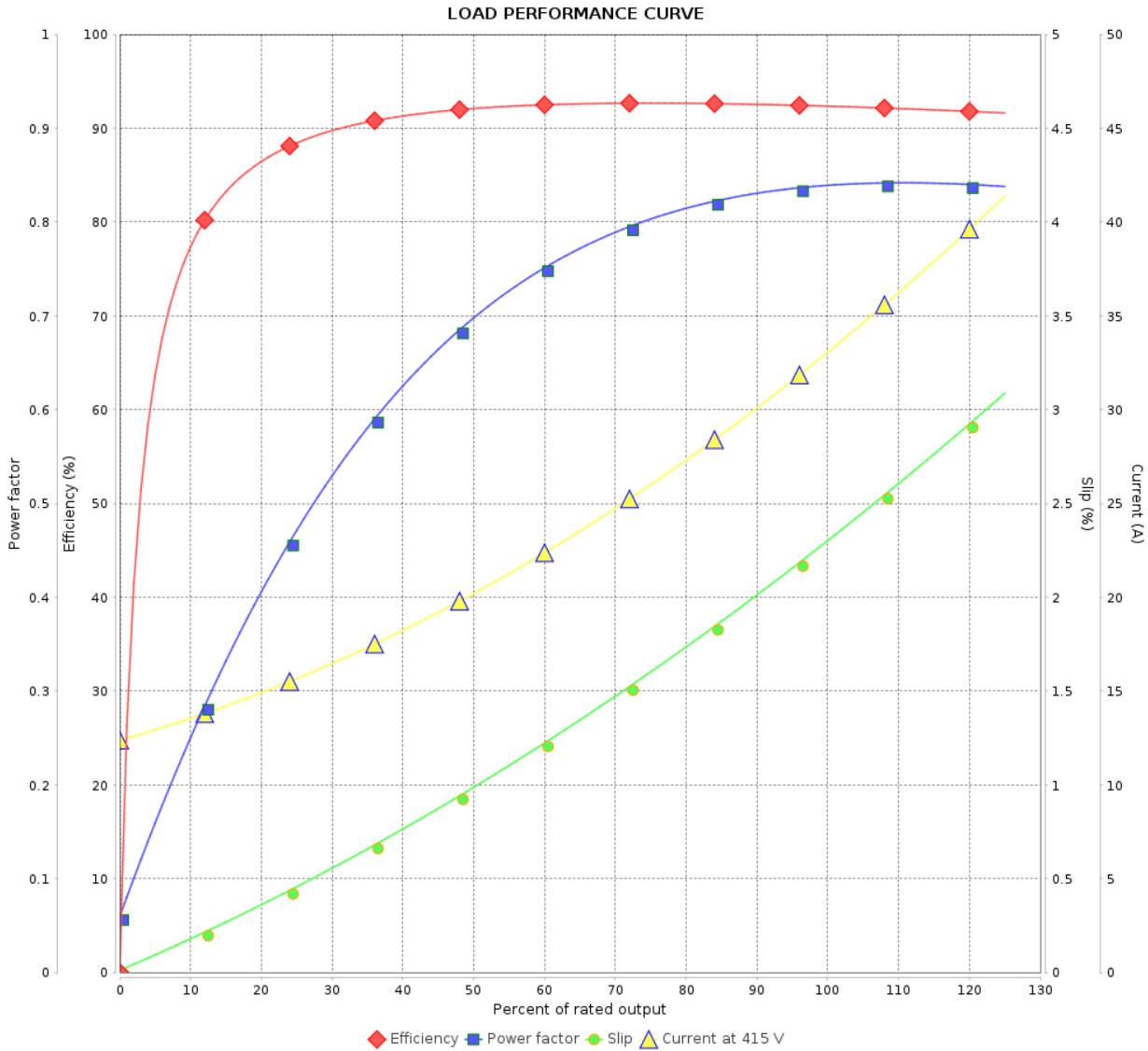


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Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase

Product code : 16689665

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Performance : 415 V 50 Hz 4P IE2

Rated current : 33.2 A  
 LRC : 5.9  
 Rated torque : 89.6 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# THERMAL LIMIT CURVE



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Performance : 460 V 60 Hz 4P

Rated current : 29.5 A	Moment of inertia (J) : 5.11 sq.ft.lb
LRC : 6.2	Duty cycle : Cont.(S1)
Rated torque : 74.2 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.15
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 1770 rpm	Design : B

Heating constant

Cooling constant

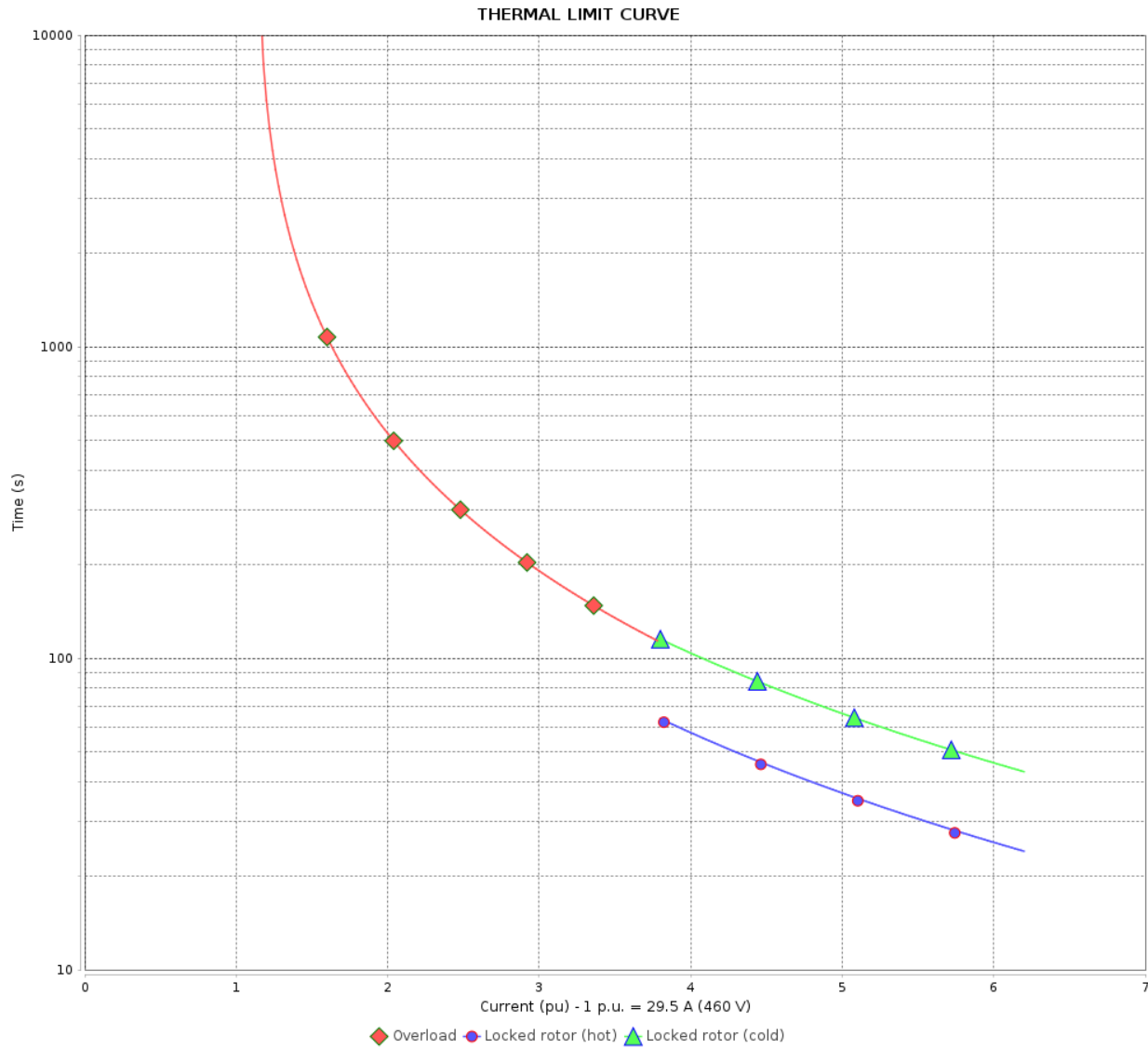
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Performance : 380 V 50 Hz 4P IE1

Rated current : 35.9 A	Moment of inertia (J) : 5.11 sq.ft.lb
LRC : 5.3	Duty cycle : Cont.(S1)
Rated torque : 90.2 ft.lb	Insulation class : F
Locked rotor torque : 180 %	Service factor : 1.00
Breakdown torque : 210 %	Temperature rise : 105 K
Rated speed : 1455 rpm	Design : B

Heating constant

Cooling constant

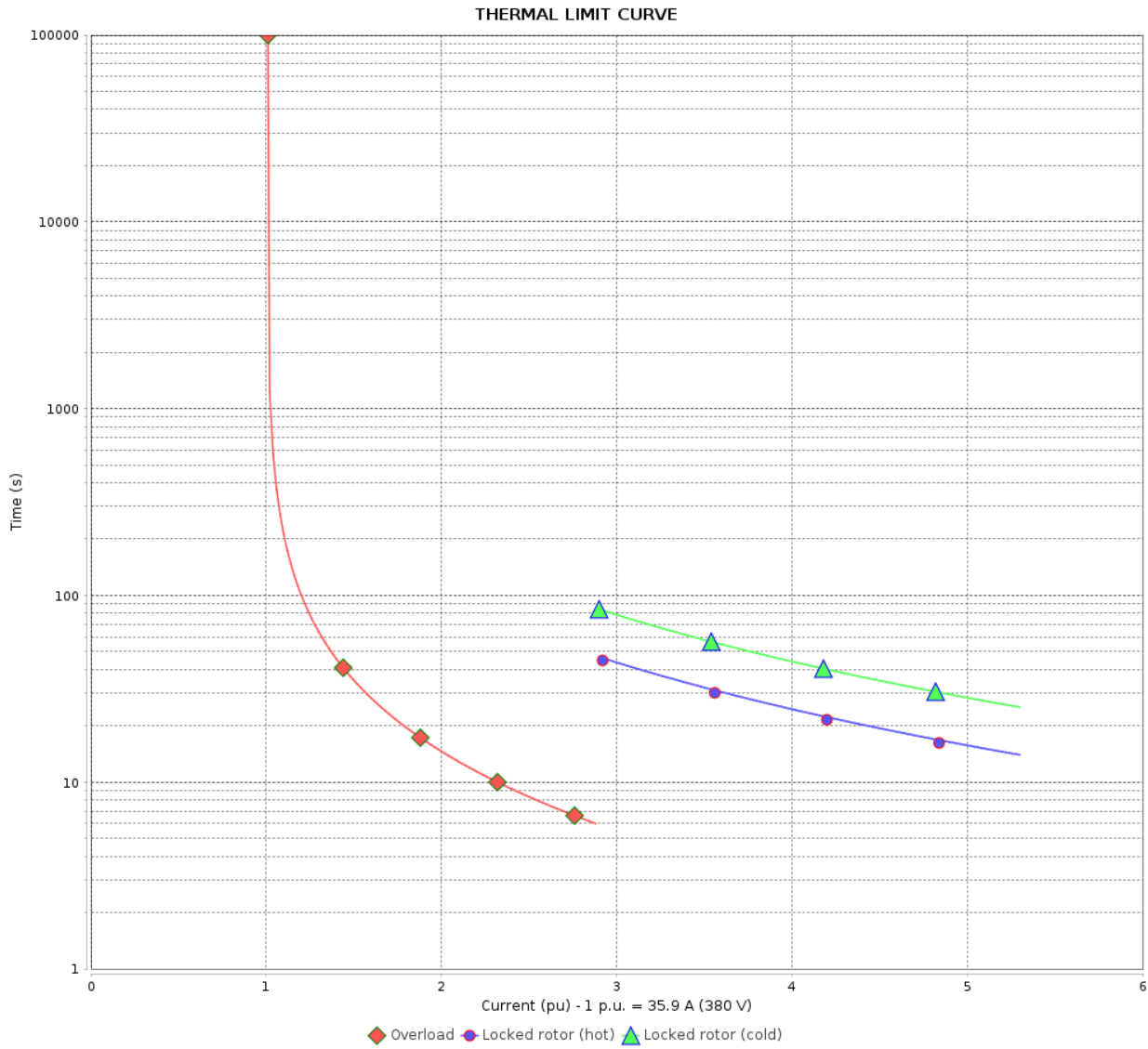
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## Three Phase Induction Motor - Squirrel Cage

Customer :

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 Product code : 16689665  
 Catalog # : 02518ST3QAP284T-W22

Performance : 400 V 50 Hz 4P IE2

Rated current : 34.3 A	Moment of inertia (J) : 5.11 sq.ft.lb
LRC : 5.5	Duty cycle : Cont.(S1)
Rated torque : 89.9 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 240 %	Temperature rise : 105 K
Rated speed : 1460 rpm	Design : B

Heating constant

Cooling constant

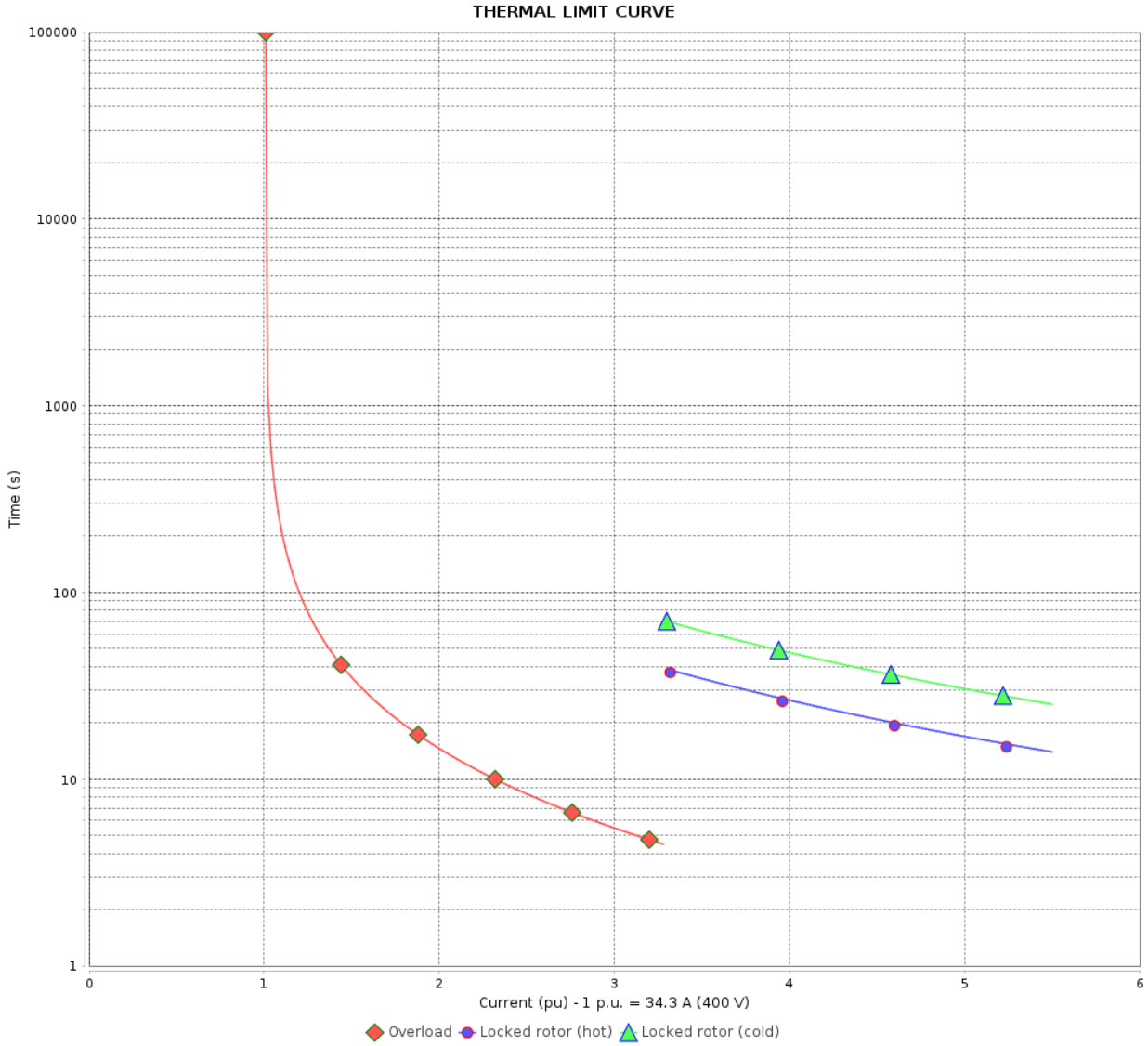
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Performance : 415 V 50 Hz 4P IE2

Rated current : 33.2 A	Moment of inertia (J) : 5.11 sq.ft.lb
LRC : 5.9	Duty cycle : Cont.(S1)
Rated torque : 89.6 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 105 K
Rated speed : 1465 rpm	Design : B

Heating constant

Cooling constant

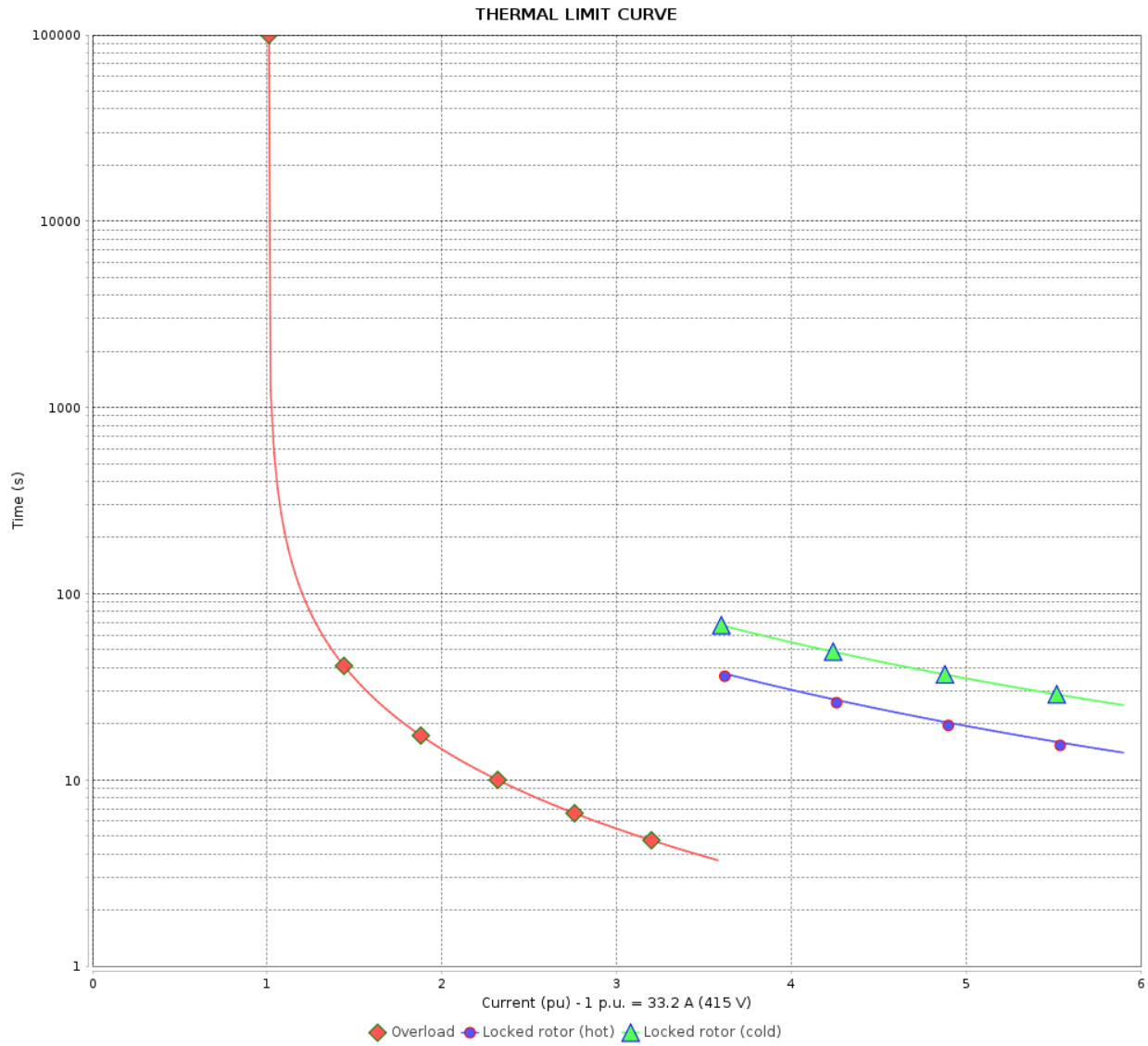
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

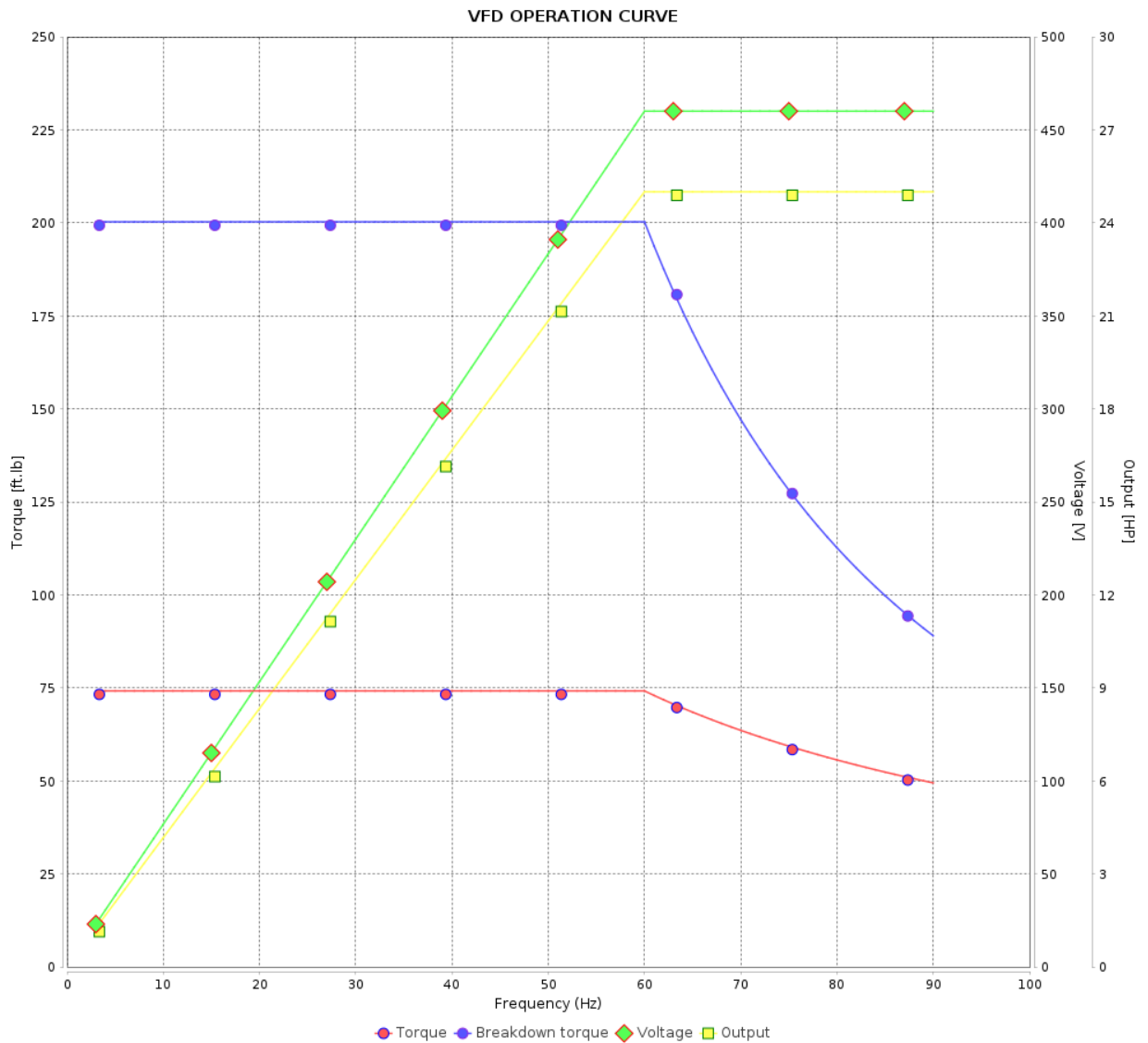


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Performance : 460 V 60 Hz 4P

Rated current : 29.5 A  
 LRC : 6.2  
 Rated torque : 74.2 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

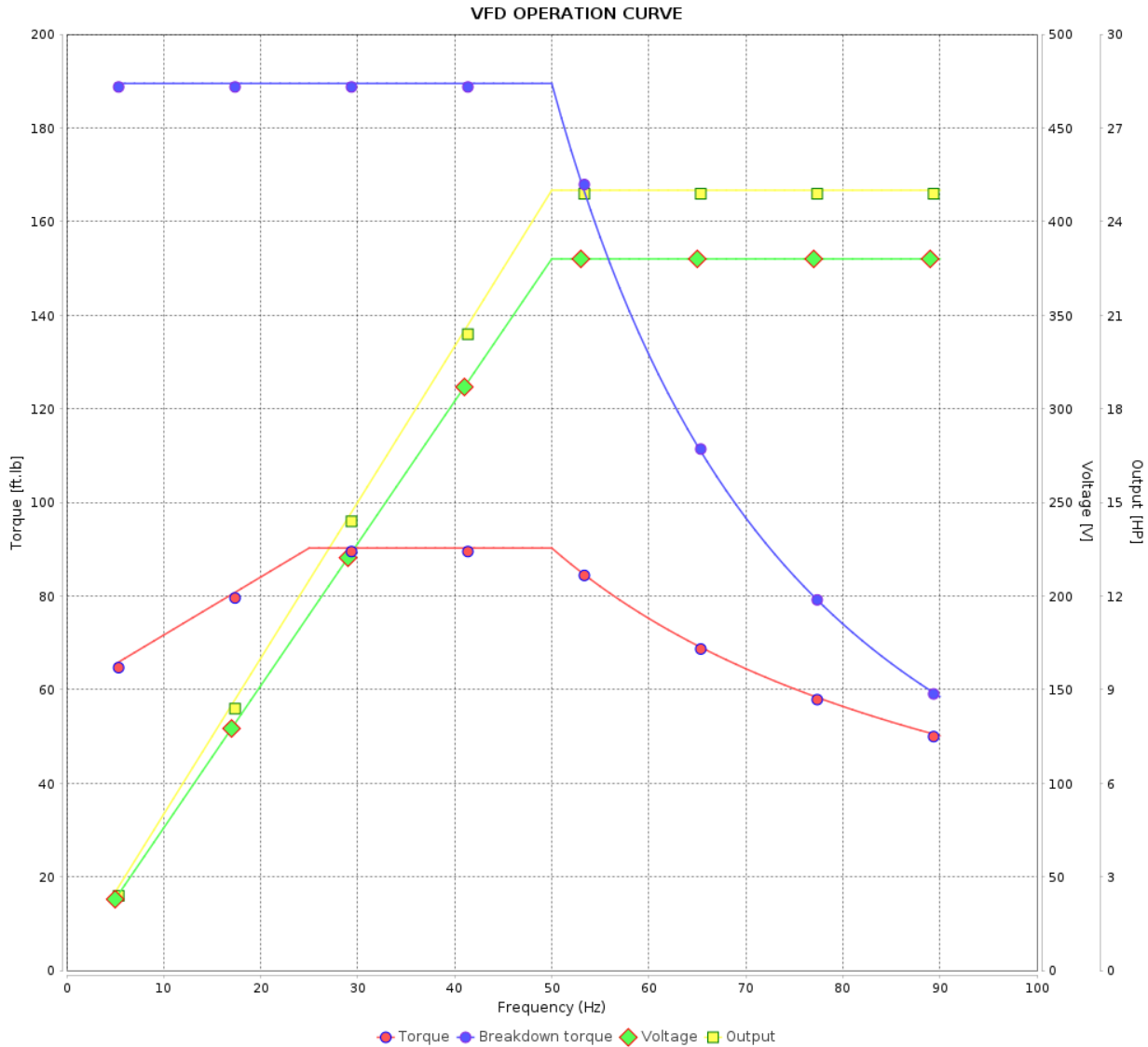


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Performance : 380 V 50 Hz 4P IE1

Rated current : 35.9 A  
LRC : 5.3  
Rated torque : 90.2 ft.lb  
Locked rotor torque : 180 %  
Breakdown torque : 210 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

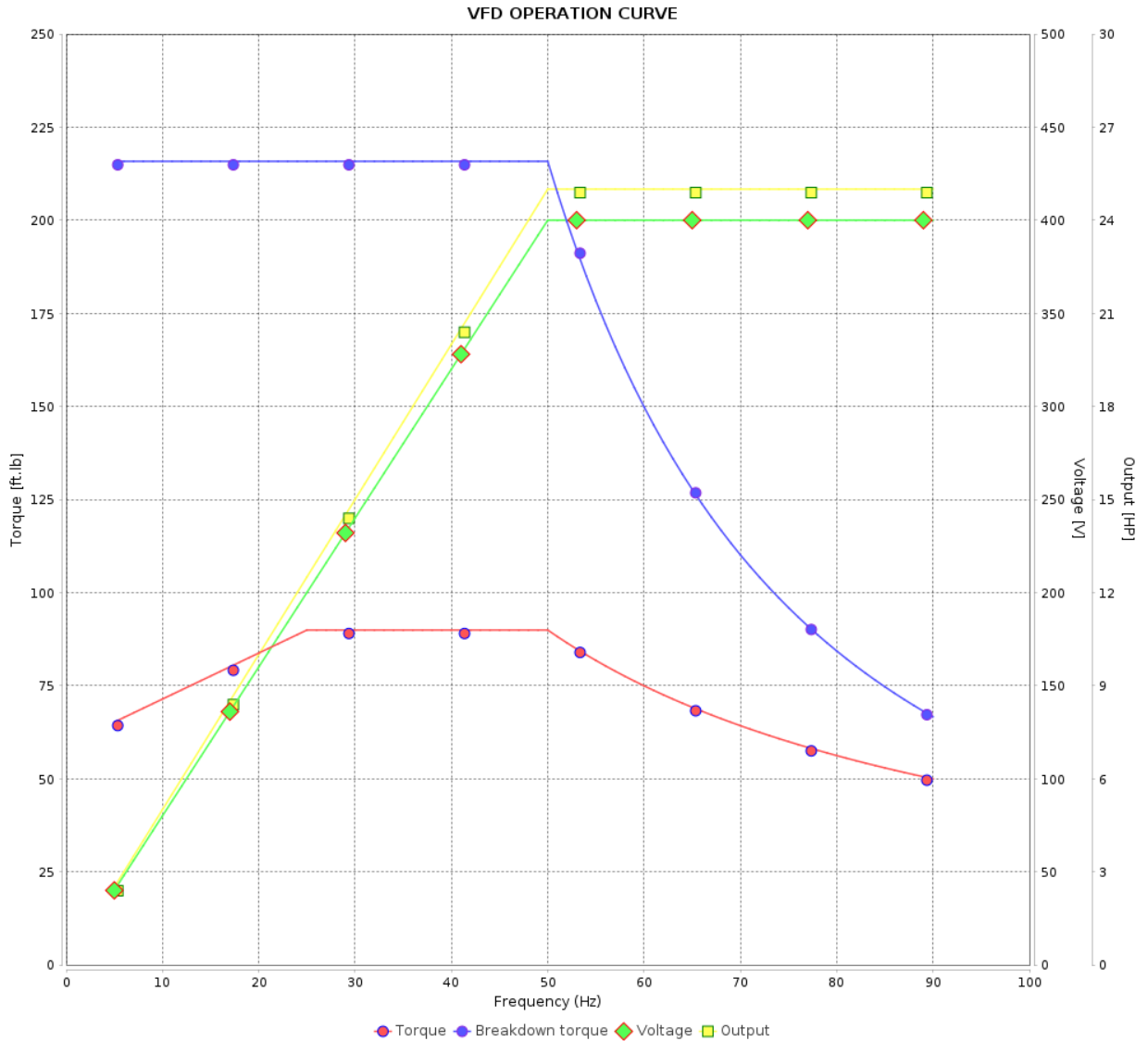


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 Breakdown torque : 240 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 5.11 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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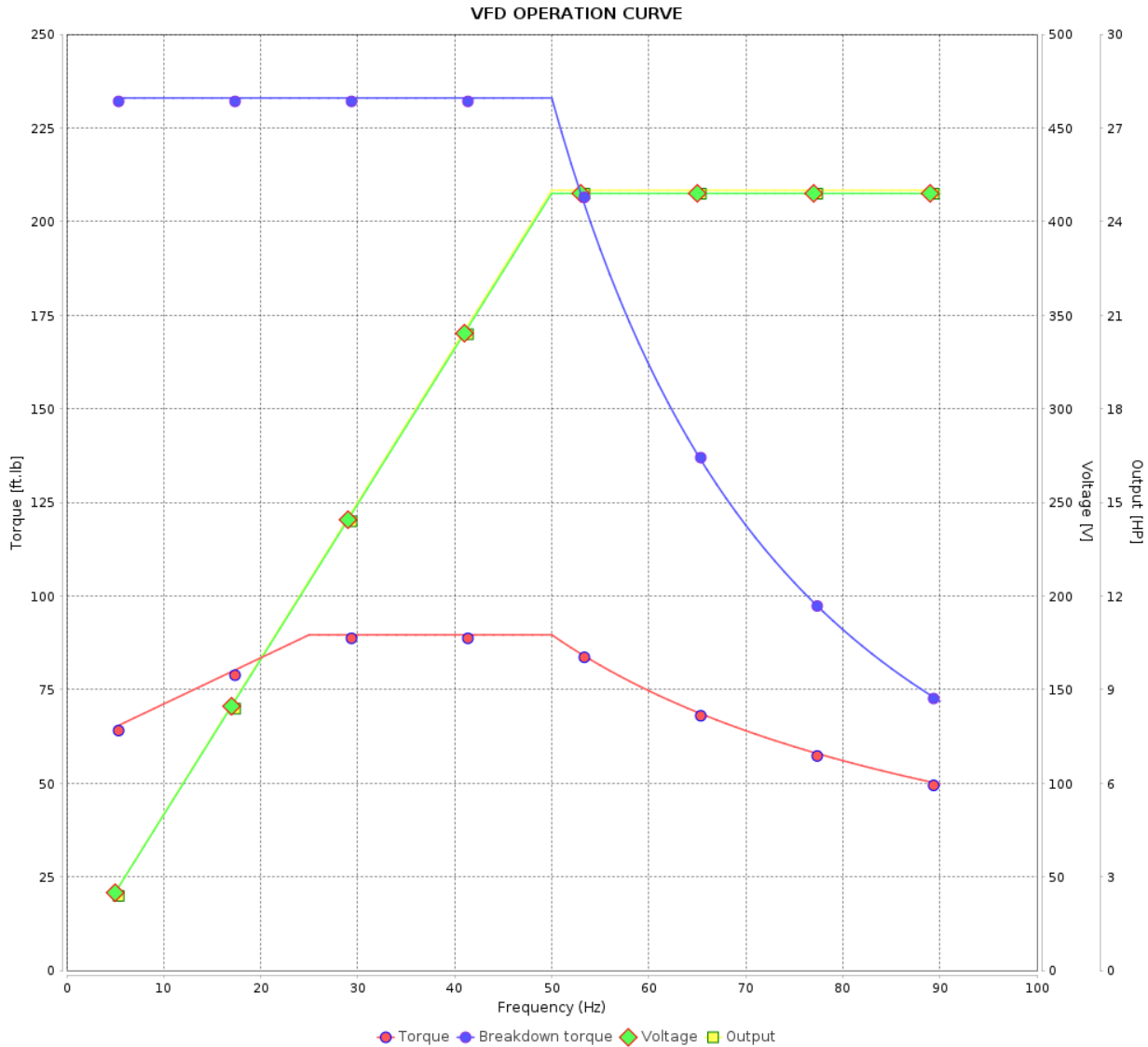


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Product code : 16689665

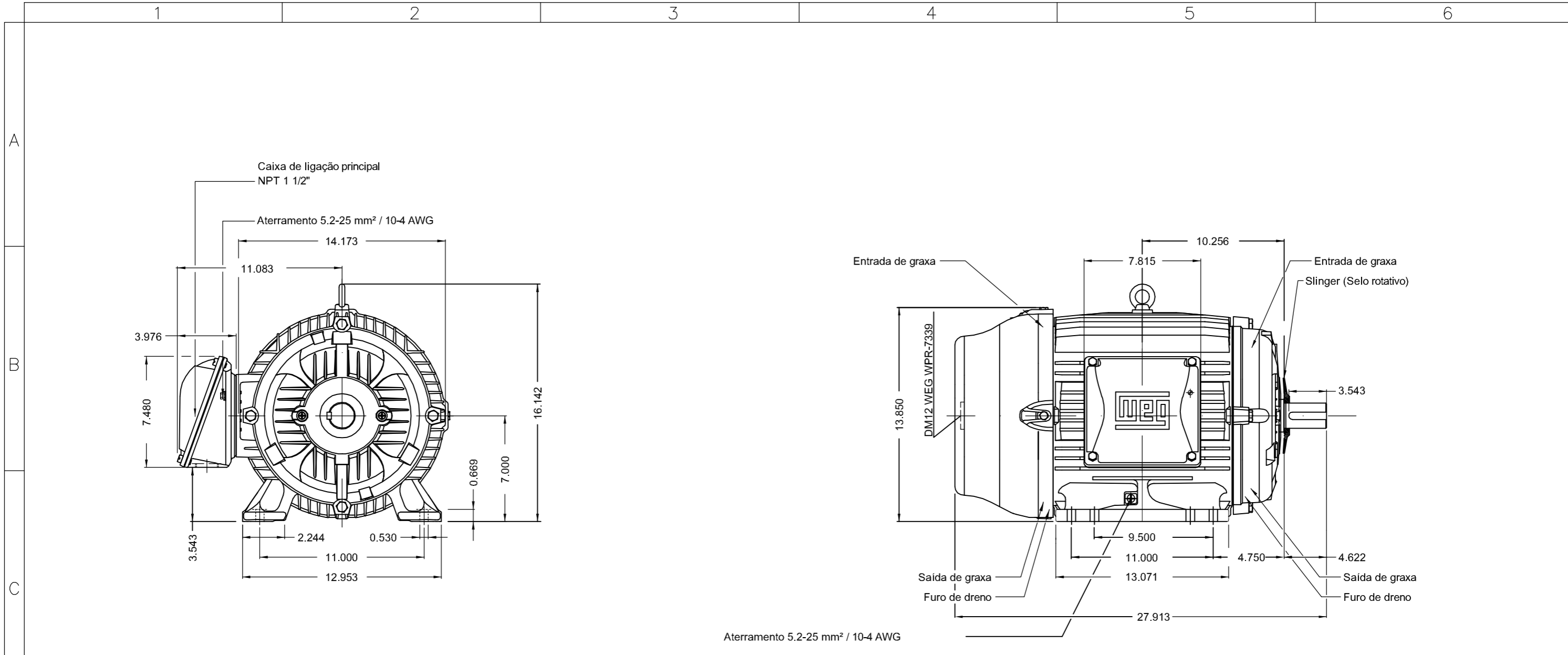
Catalog # : 02518ST3QAP284T-W22



Performance : 415 V 50 Hz 4P IE2

Rated current	: 33.2 A	Moment of inertia (J)	: 5.11 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 89.6 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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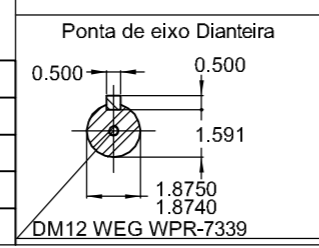


420104067  
421801240 PLACAS

25 HP 04 Polos 60 Hz

WEC HOUSE ACCOUNT MOTORS

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ECM	LOC	RESUMO MODIFICAÇÃO			EXECUTADO	VERIFICADO	LIBERADO	DATA	VER
EXECUTOR	DANIELAW	MOTOR TRIF. W22 NEMA P. EFF. IEEEE841			10009788826				
VERIFICADOR	DANIELAW	CARÇAÇA 284/6T IP56 TEFC			000	04			
LIBERADOR	MARLONN								
DATA LB.	09.06.2022	WMO	JARAGUA DO SUL	Engenharia de Produto	FOLHA	1 / 1			



- Placa de identificação com a marcação API 661
- Placa de identificação com marcação especial
- Saída de graxa conforme IEEEE841
- Forma construtiva NEMA W-8
- Forma construtiva V6D

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Dimensões em polegadas

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ZME A3