

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: Multimounting IE3 Three-Phase	Product code :	13984666	
		Catalog # :	00209ET3YAL132S-W22	
Frame	: 132S	Cooling method	: IC411 - TEFC	
Insulation class	: F	Mounting	: B3L(E)	
Duty cycle	: 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>3</sup>	: 136 lb	
Protection degree	: IP55	Moment of inertia (J)	: 1.64 sq.ft.lb	
Design	: N			
Output [HP]	3	3	3	
Poles	8	8	8	
Frequency [Hz]	50	50	60	
Rated voltage [V]	380	415	460	
Rated current [A]	5.52	5.35	4.75	
L. R. Amperes [A]	34.2	38.5	35.1	
LRC [A]	6.2	7.2	7.4	
No load current [A]	3.10	3.50	3.10	
Rated speed [RPM]	715	720	875	
Slip [%]	4.67	4.00	2.78	
Rated torque [ft.lb]	22.0	21.9	18.0	
Locked rotor torque [%]	200	270	250	
Breakdown torque [%]	229	330	290	
Service factor	1.00	1.00	1.25	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	48s (cold) 27s (hot)	48s (cold) 27s (hot)	57s (cold) 32s (hot)	
Noise level <sup>2</sup>	48.0 dB(A)	48.0 dB(A)	52.0 dB(A)	
Efficiency (%)	25%			
	50%	81.0	81.2	
	75%	81.5	82.3	
	100%	81.9	82.9	
Power Factor	25%			
	50%	0.54	0.48	
	75%	0.67	0.61	
	100%	0.74	0.69	
Losses at normative operating points (speed;torque), in percentage of rated output power				
Losses (%)	P1 (0,9;1,0)	20.9	19.5	16.0
	P2 (0,5;1,0)	17.3	16.1	13.2
	P3 (0,25;1,0)	16.5	15.4	12.7
	P4 (0,9;0,5)	12.5	11.6	9.6
	P5 (0,5;0,5)	8.9	8.3	6.8
	P6 (0,5;0,25)	7.1	6.6	5.4
	P7 (0,25;0,25)	5.4	5.1	4.2
Bearing type	: Drive end : 6308 ZZ	Non drive end : 6207 ZZ	Foundation loads	
Sealing	: V'Ring	V'Ring	Max. traction : 226 lb	
Lubrication interval	: -	-	Max. compression : 362 lb	
Lubricant amount	: -	-		
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). (3) Approximate weight subject to changes after manufacturing process.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
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## Three Phase Induction Motor - Squirrel Cage



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

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

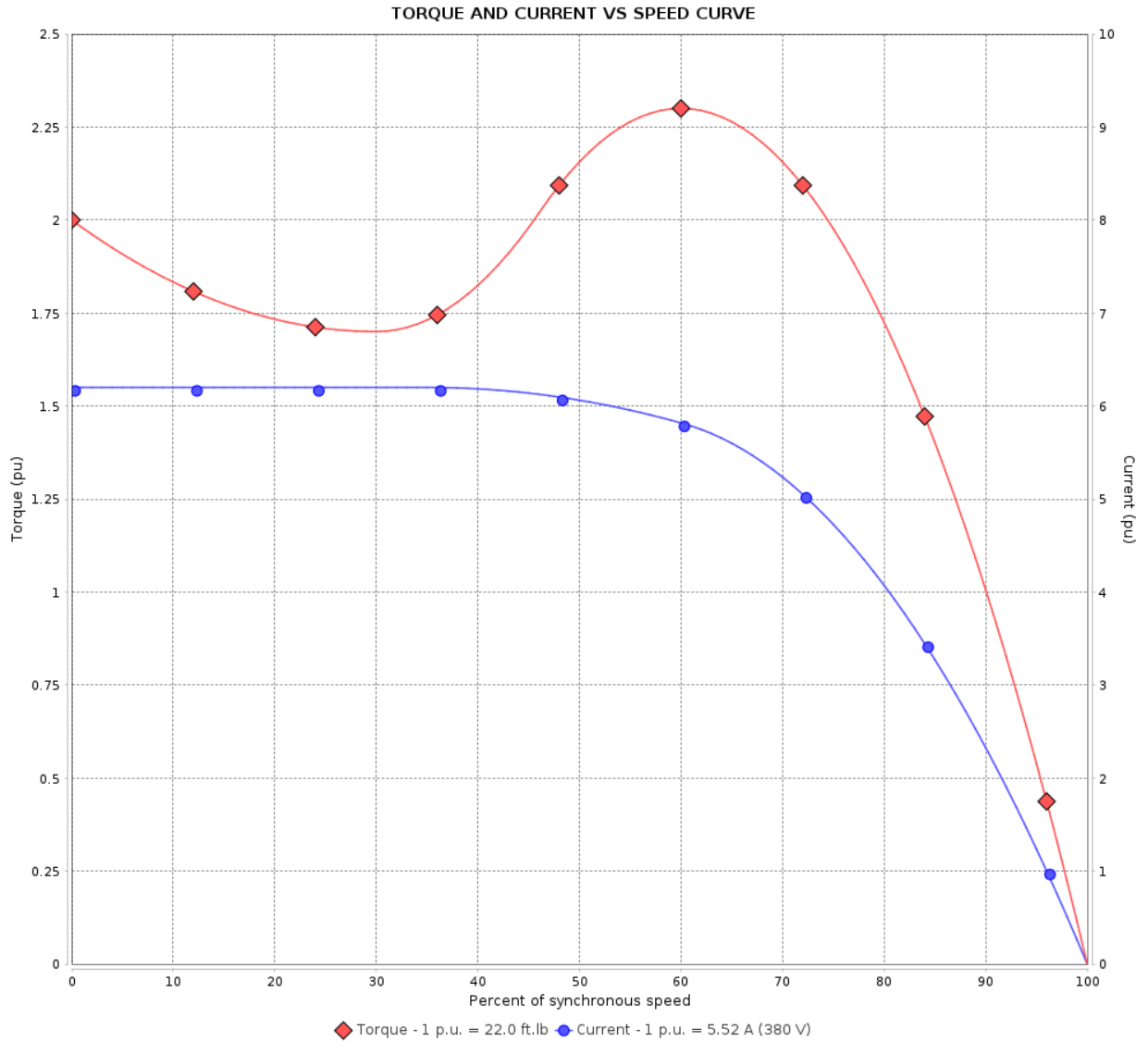
Product line : Multimounting IE3 Three-Phase

Product code :

13984666

Catalog # :

00209ET3YAL132S-W22



Performance : 380 V 50 Hz 8P

Rated current	: 5.52 A	Moment of inertia (J)	: 1.64 sq.ft.lb
LRC	: 6.2	Duty cycle	: S1
Rated torque	: 22.0 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: N

Locked rotor time : 48s (cold) 27s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Multimounting IE3 Three-Phase

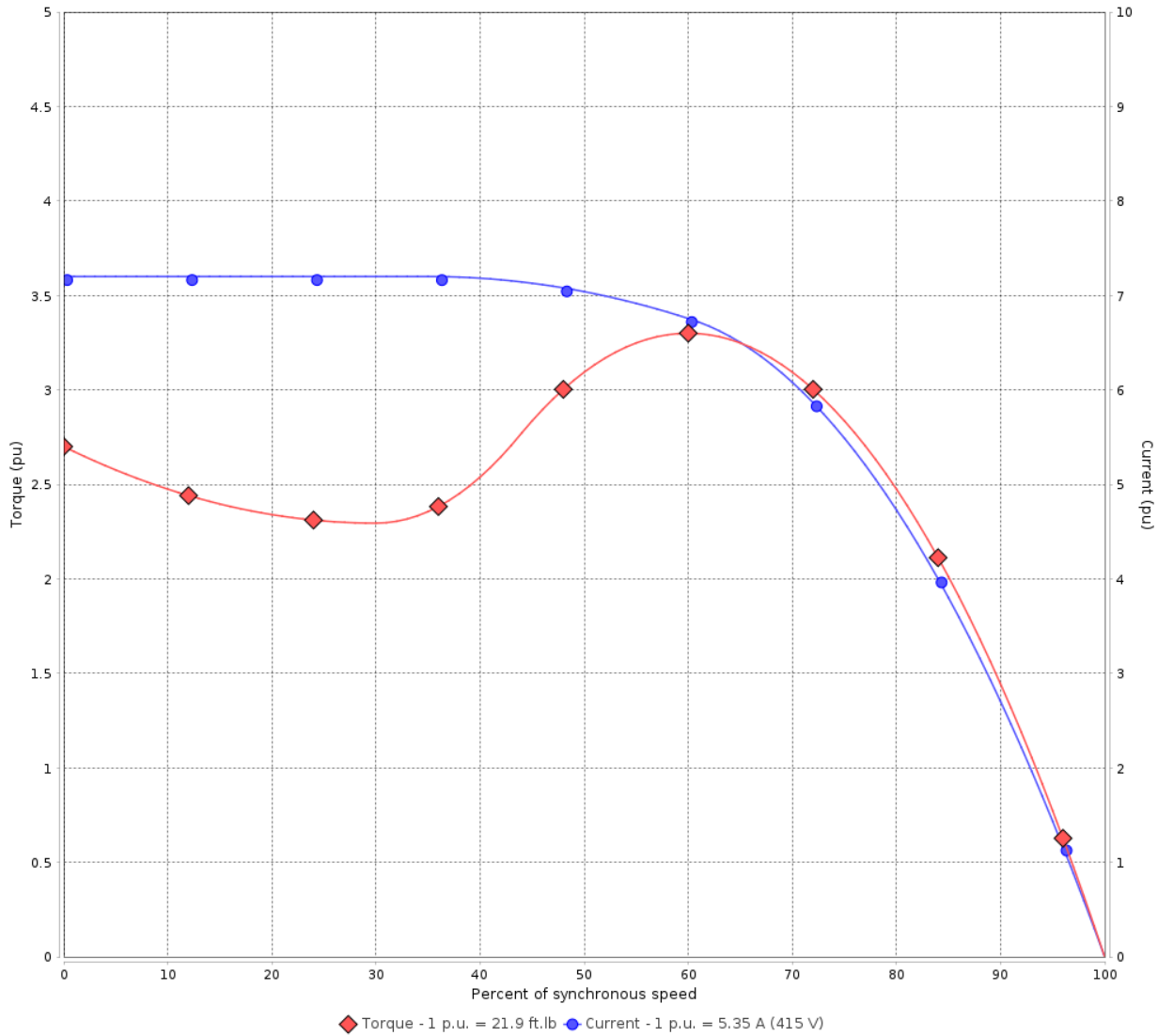
Product code :

13984666

Catalog # :

00209ET3YAL132S-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 8P

Rated current	: 5.35 A	Moment of inertia (J)	: 1.64 sq.ft.lb
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 21.9 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 720 rpm	Design	: N

Locked rotor time : 48s (cold) 27s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

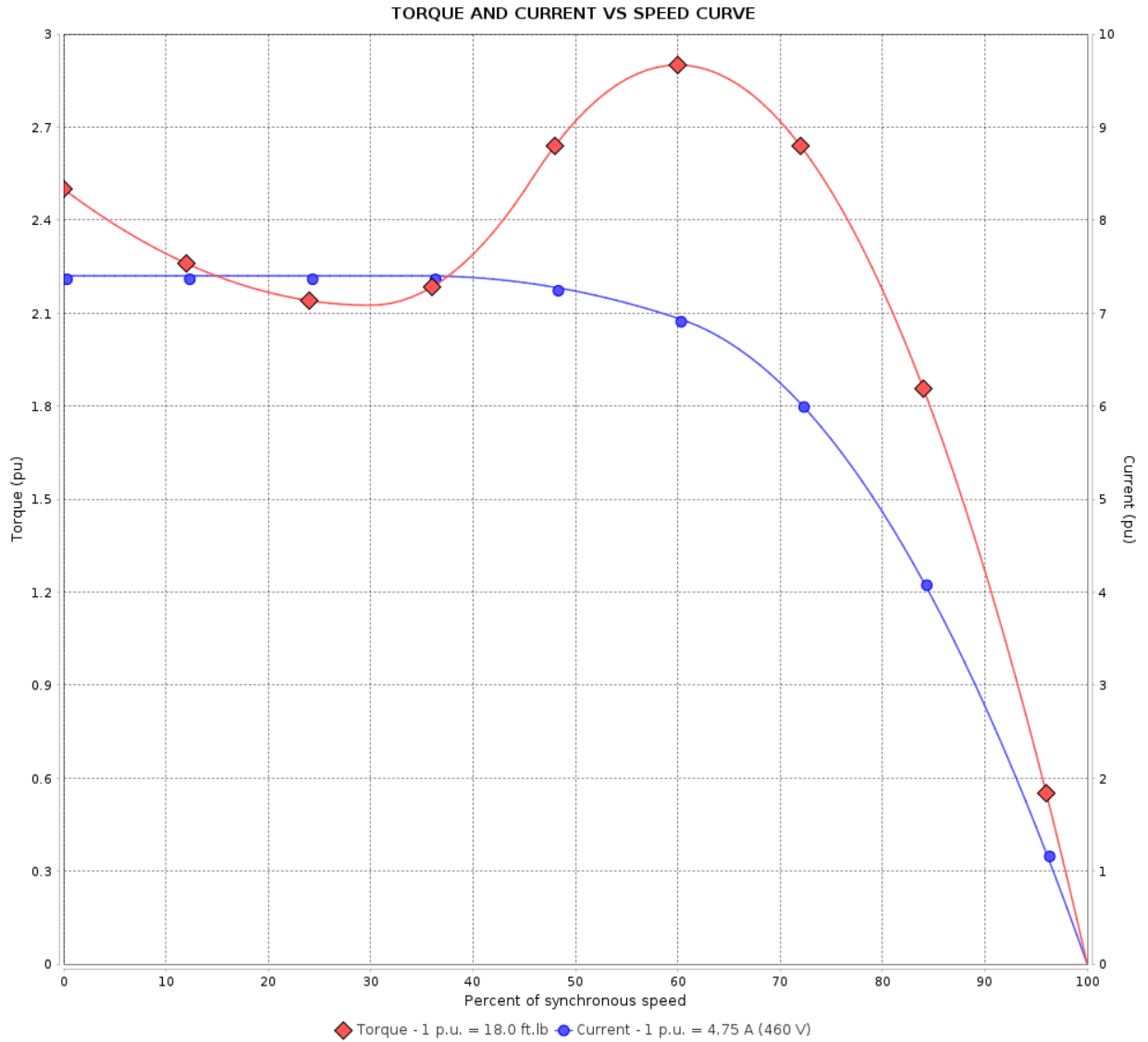
Product line : Multimounting IE3 Three-Phase

Product code :

13984666

Catalog # :

00209ET3YAL132S-W22



Performance : 460 V 60 Hz 8P

Rated current	: 4.75 A	Moment of inertia (J)	: 1.64 sq.ft.lb
LRC	: 7.4	Duty cycle	: S1
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 875 rpm	Design	: N

Locked rotor time : 57s (cold) 32s (hot)

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# LOAD PERFORMANCE CURVE

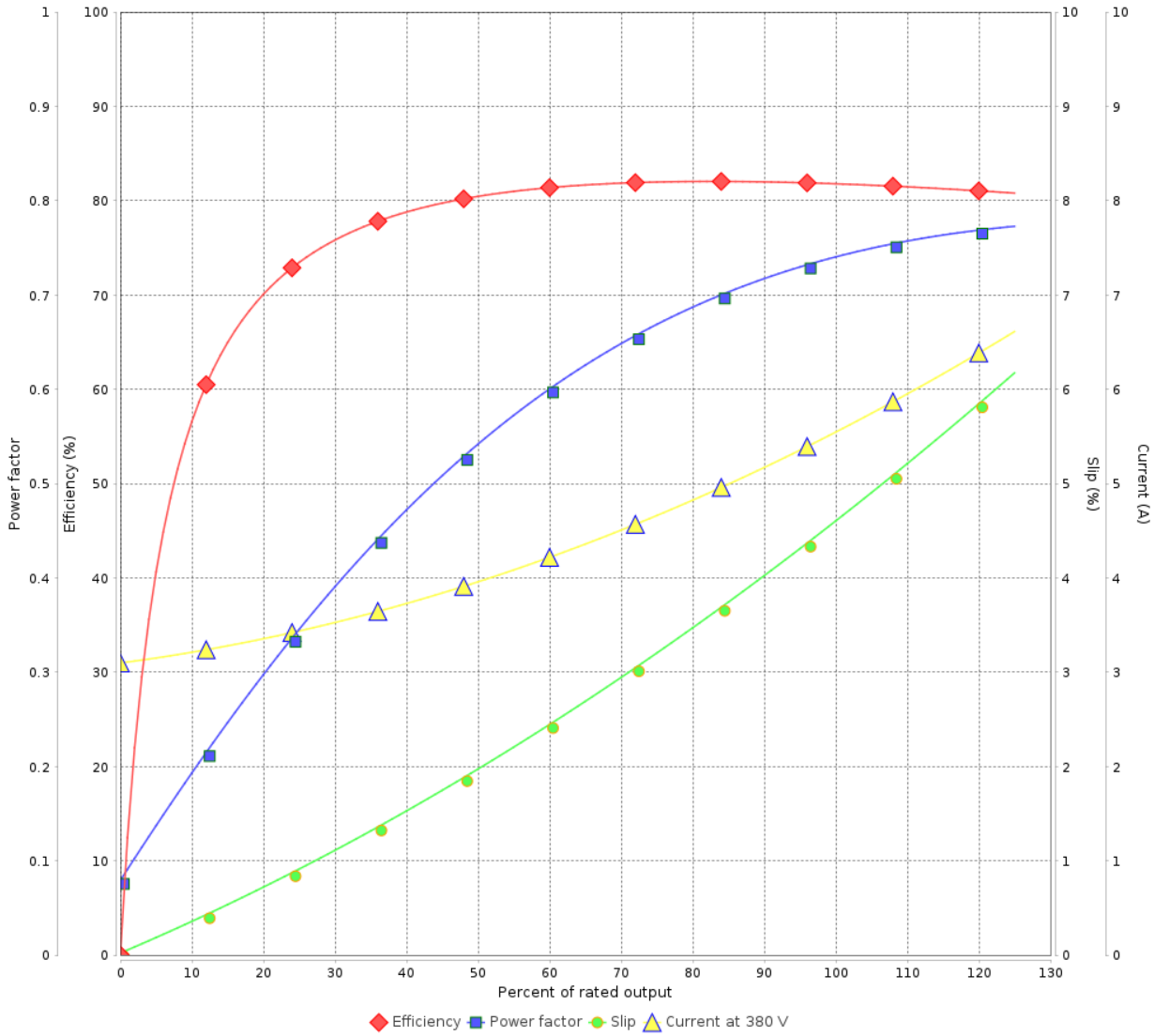
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Multimounting IE3 Three-Phase      Product code : 13984666  
 Catalog # : 00209ET3YAL132S-W22

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 8P

Rated current	: 5.52 A	Moment of inertia (J)	: 1.64 sq.ft.lb
LRC	: 6.2	Duty cycle	: S1
Rated torque	: 22.0 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: N

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

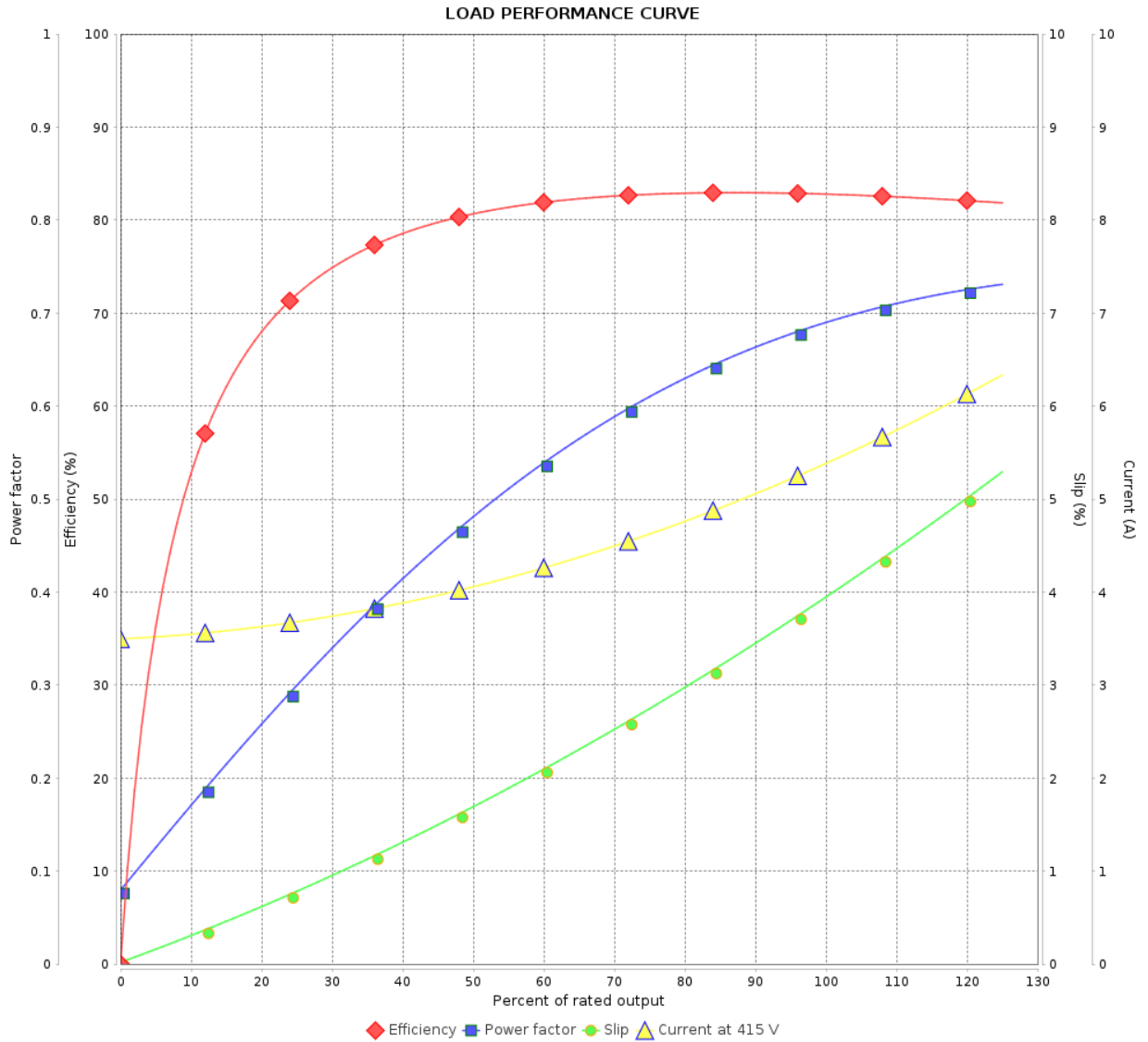
Product line : Multimounting IE3 Three-Phase

Product code :

13984666

Catalog # :

00209ET3YAL132S-W22



Performance : 415 V 50 Hz 8P

Rated current : 5.35 A  
 LRC : 7.2  
 Rated torque : 21.9 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 720 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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Date				

# LOAD PERFORMANCE CURVE

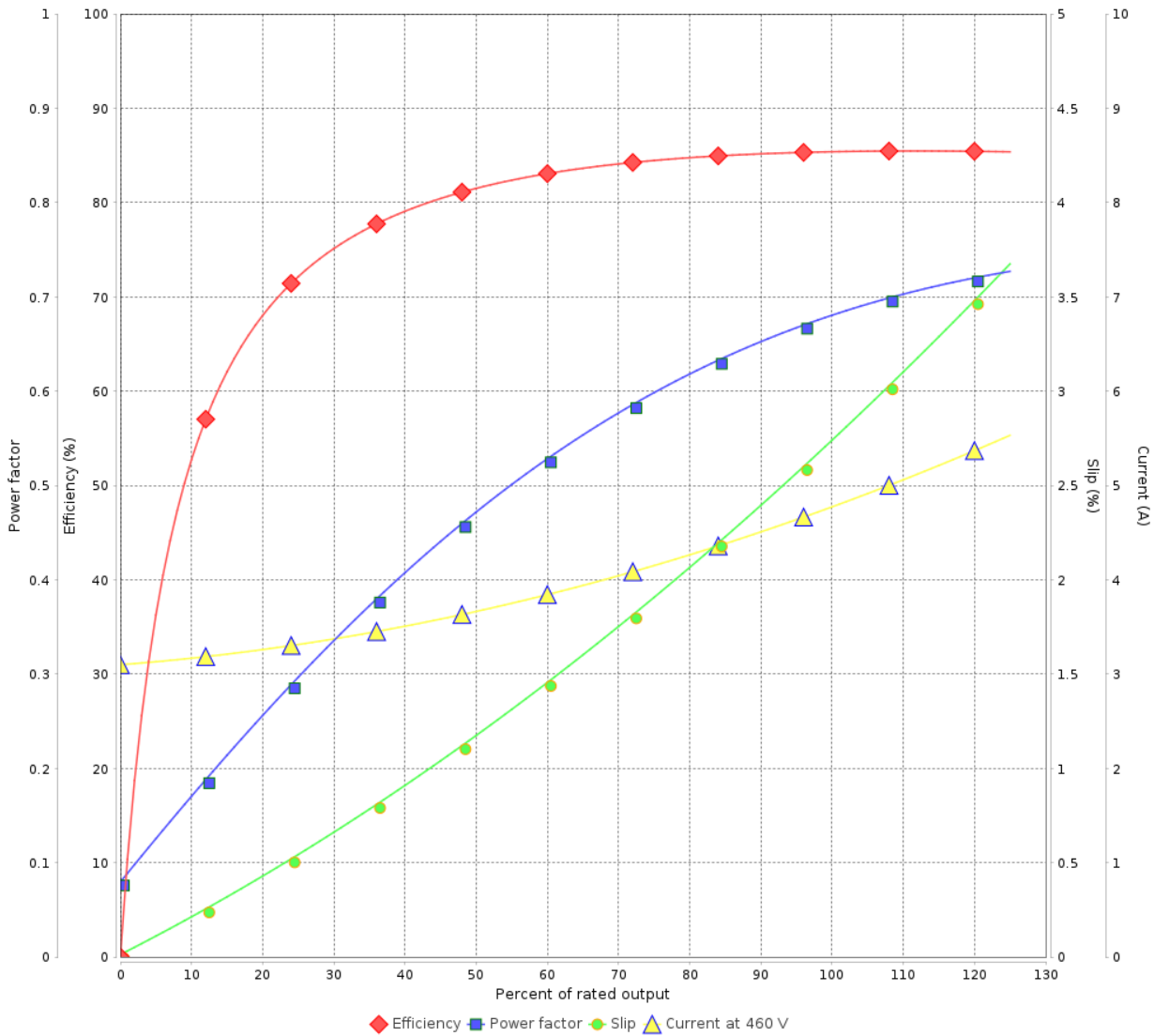
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Customer :

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 Catalog # : 00209ET3YAL132S-W22

LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 8P

Rated current	: 4.75 A	Moment of inertia (J)	: 1.64 sq.ft.lb
LRC	: 7.4	Duty cycle	: S1
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 875 rpm	Design	: N

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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

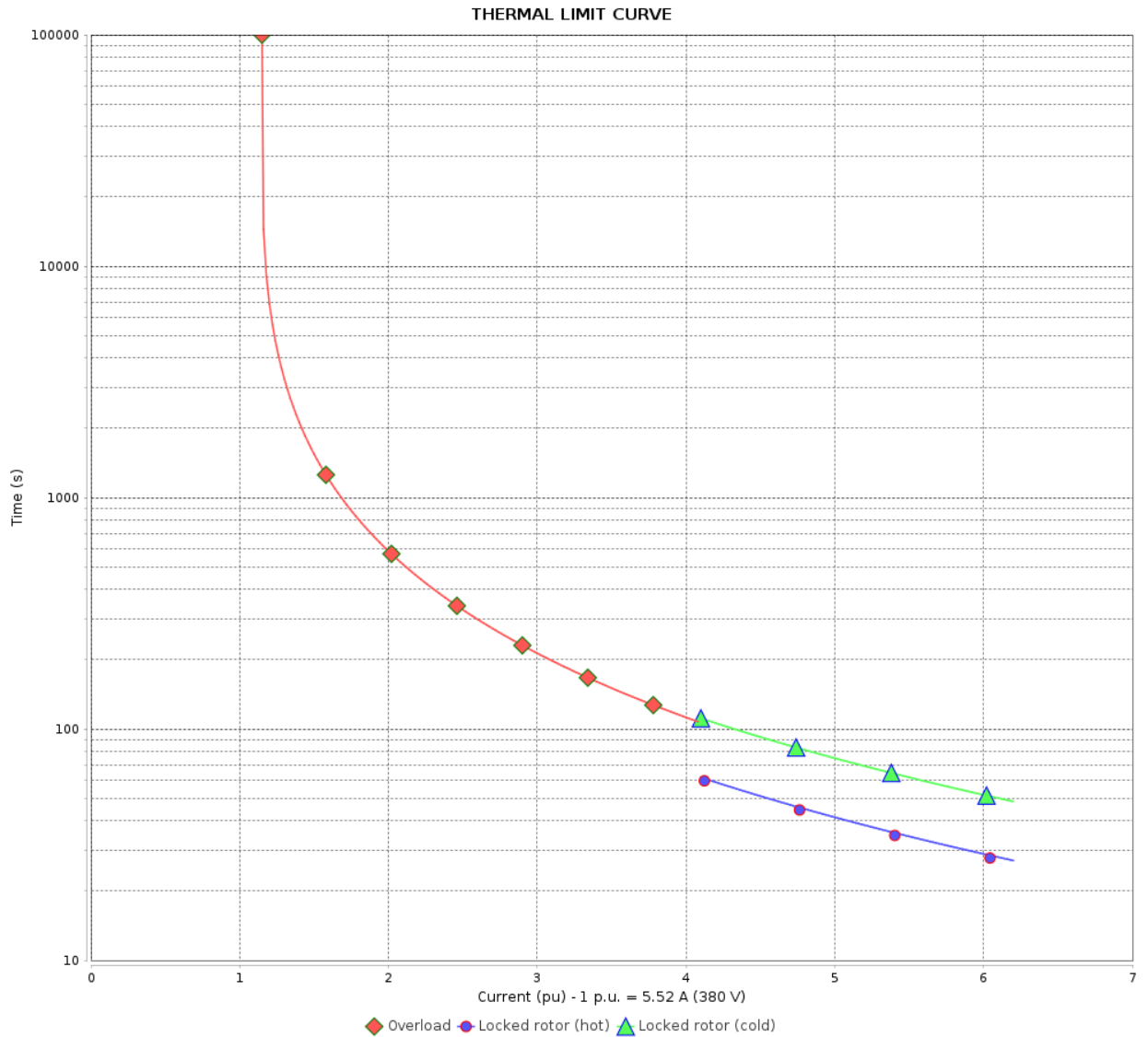
Product line : Multimounting IE3 Three-Phase

Product code :

13984666

Catalog # :

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Performance : 380 V 50 Hz 8P

Rated current : 5.52 A  
 LRC : 6.2  
 Rated torque : 22.0 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 715 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

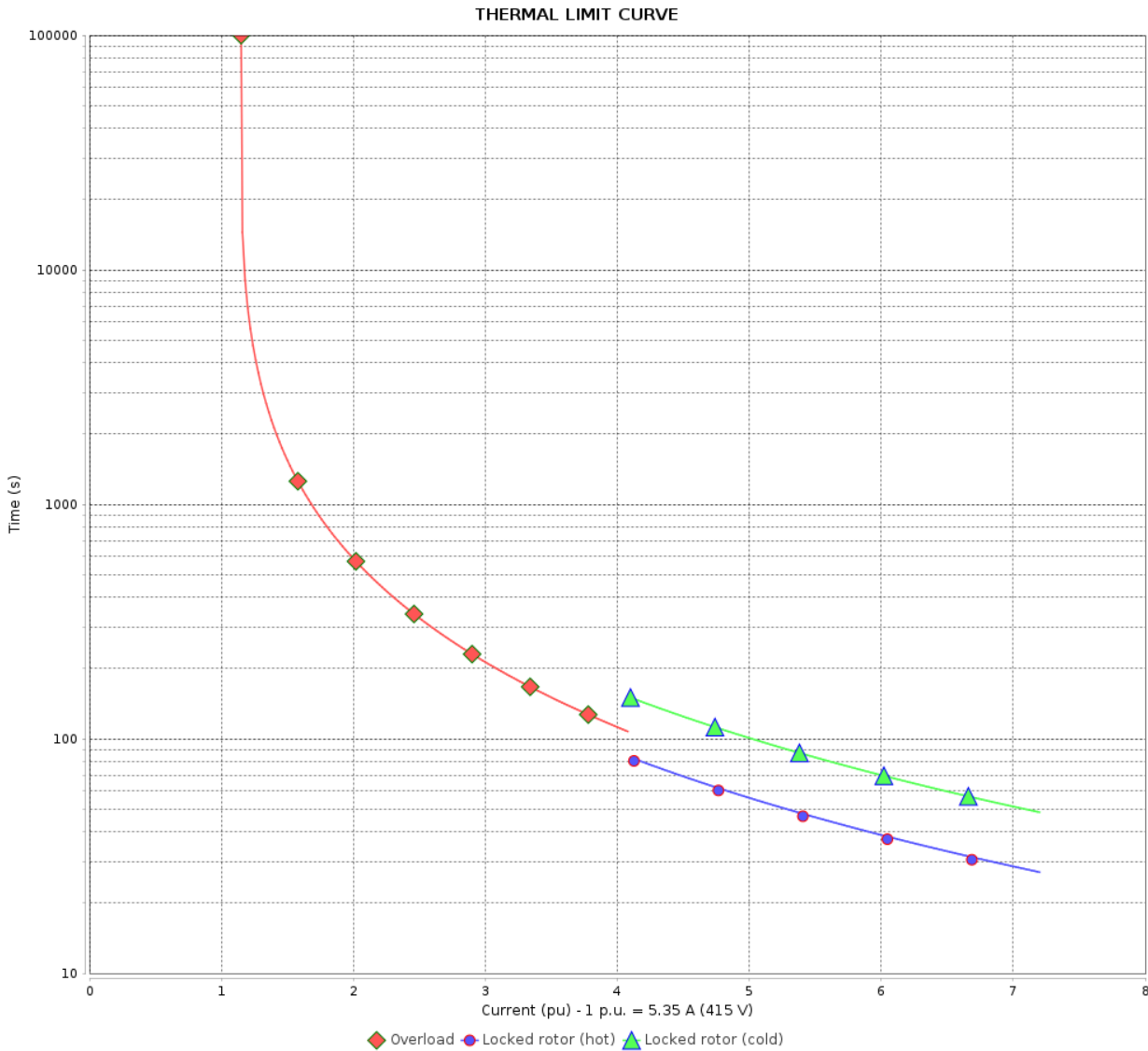
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Performance : 415 V 50 Hz 8P

Rated current : 5.35 A  
 LRC : 7.2  
 Rated torque : 21.9 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 720 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

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Customer :

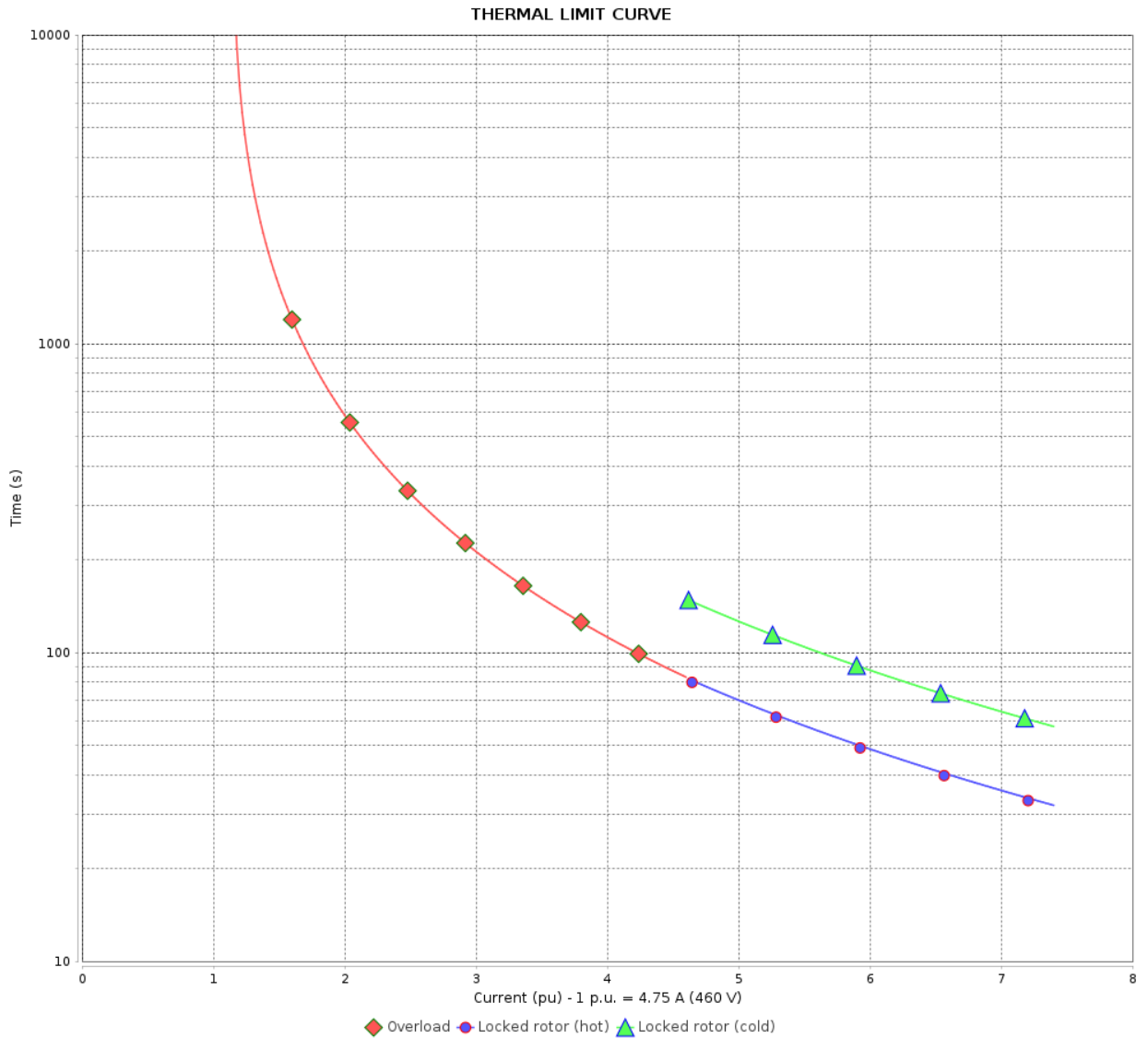
Product line : Multimounting IE3 Three-Phase

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Catalog # :

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Performance : 460 V 60 Hz 8P

Rated current : 4.75 A  
 LRC : 7.4  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 290 %  
 Rated speed : 875 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

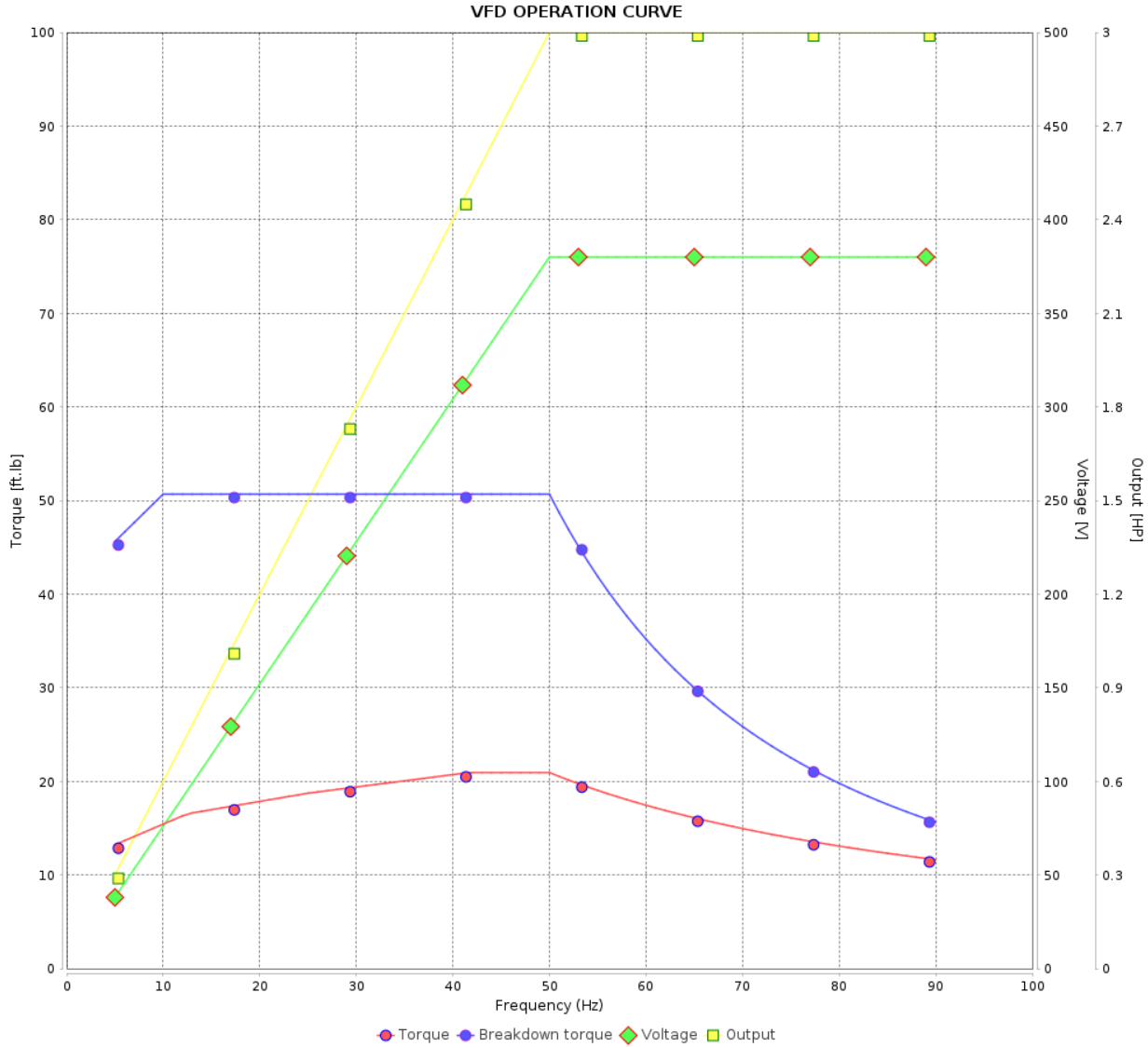
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Performance : 380 V 50 Hz 8P

Rated current : 5.52 A  
 LRC : 6.2  
 Rated torque : 22.0 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 715 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

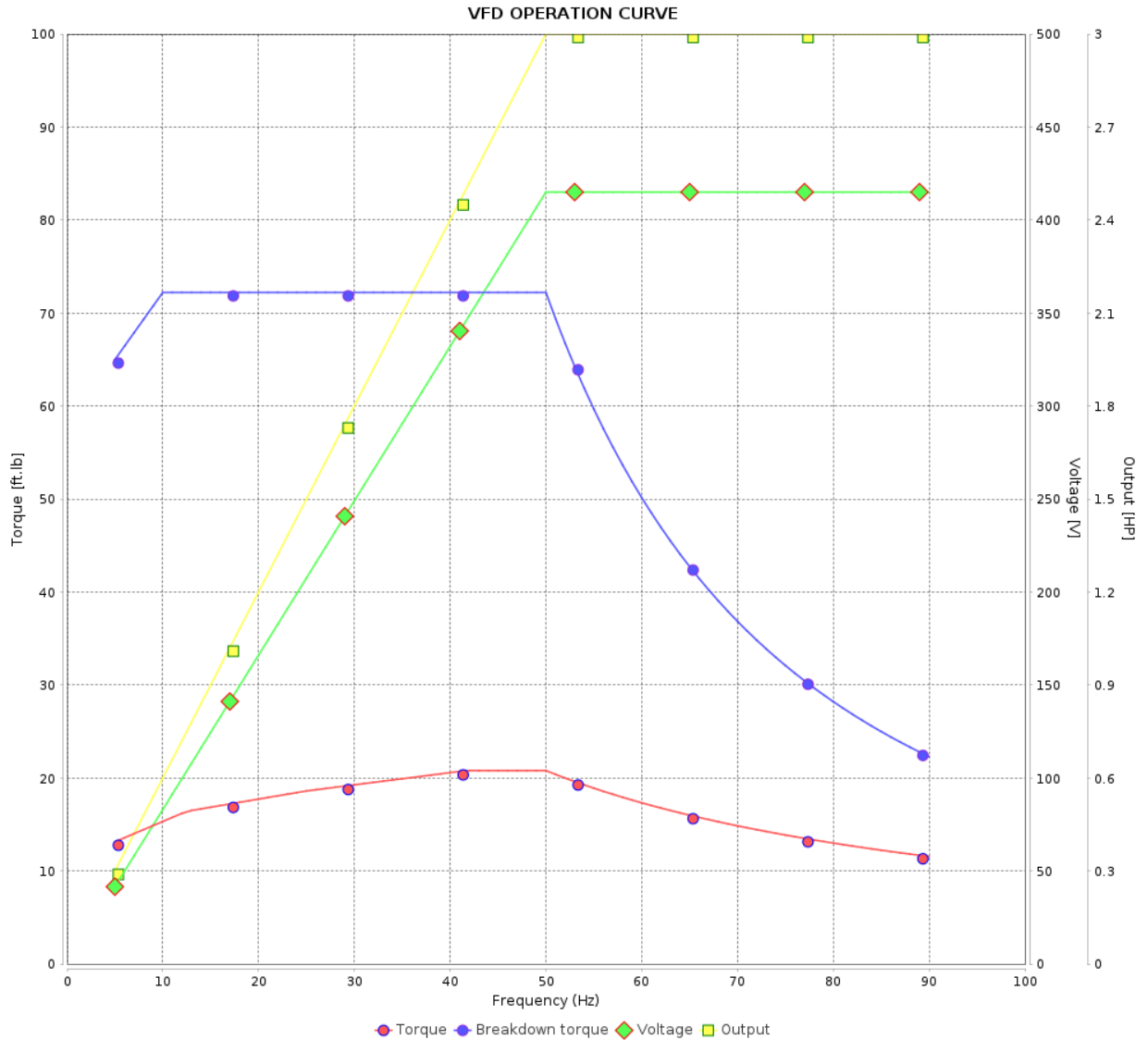
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Performance : 415 V 50 Hz 8P

Rated current : 5.35 A  
 LRC : 7.2  
 Rated torque : 21.9 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 720 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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

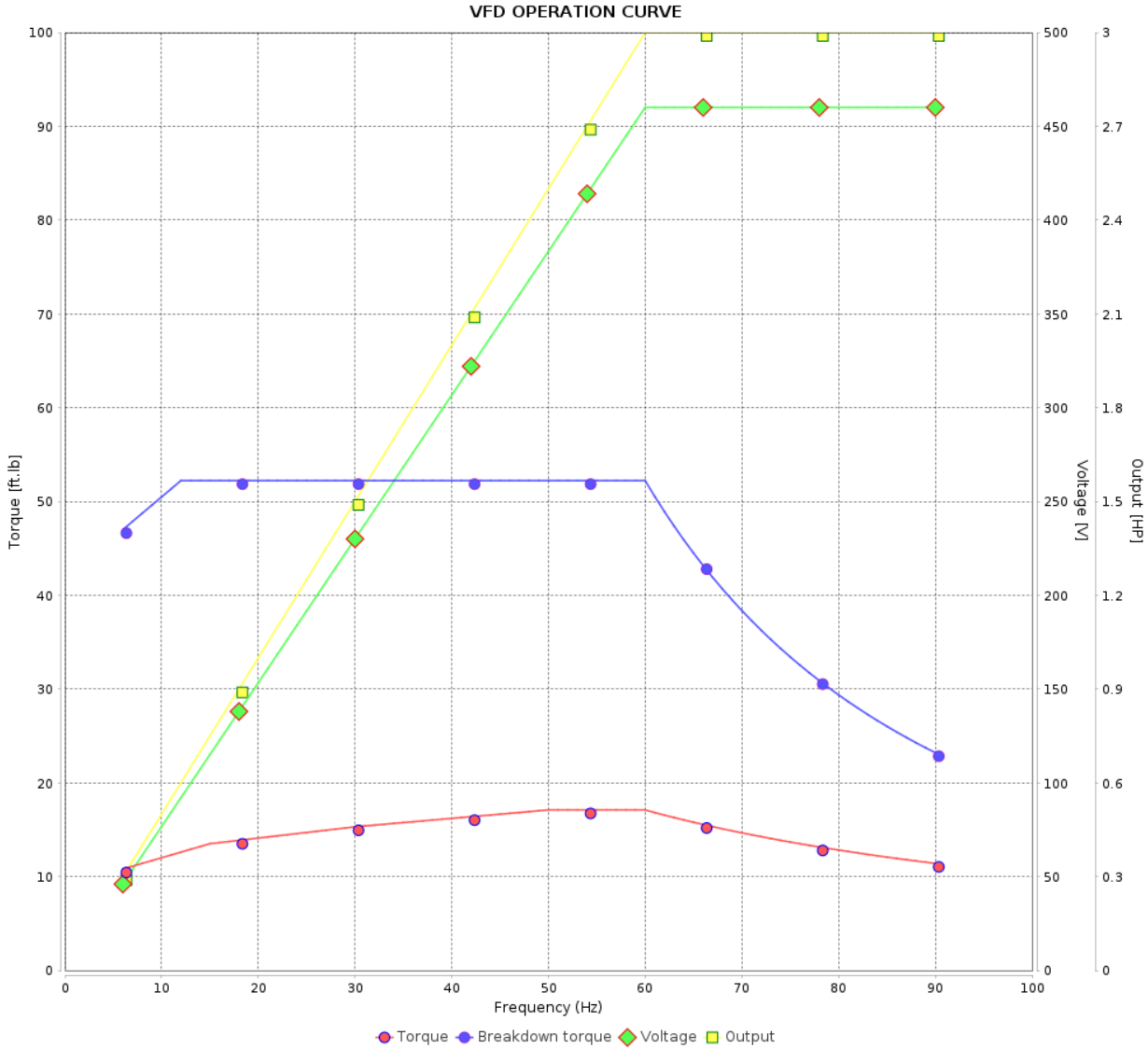
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Performance : 460 V 60 Hz 8P

Rated current : 4.75 A  
 LRC : 7.4  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 290 %  
 Rated speed : 875 rpm

Moment of inertia (J) : 1.64 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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