

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: IE3 Three-Phase	Product code :	13924341		
Frame	: 132S	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: B14T		
Duty cycle	: S1	Rotation ¹	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight ³	: 140 lb		
Protection degree	: IP55	Moment of inertia (J)	: 1.16 sq.ft.lb		
Design	: N				
Output [kW]	5.5	5.5	5.5	5.5	
Poles	4	4	4	4	
Frequency [Hz]	50	50	50	60	
Rated voltage [V]	380/660	400/690	415	460	
Rated current [A]	10.8/6.22	10.5/6.09	10.4	9.18	
L. R. Amperes [A]	81.0/46.6	87.2/50.5	91.5	82.6	
LRC [A]	7.5	8.3	8.8	9.0	
No load current [A]	4.70/2.71	5.20/3.01	5.60	4.70	
Rated speed [RPM]	1460	1465	1470	1770	
Slip [%]	2.67	2.33	2.00	1.67	
Rated torque [ft.lb]	26.5	26.5	26.4	21.9	
Locked rotor torque [%]	210	229	250	250	
Breakdown torque [%]	300	330	360	390	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	28s (cold) 16s (hot)	
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	58.0 dB(A)	
Efficiency (%)	25%				
	50%	89.0	89.0	89.4	90.2
	75%	89.6	89.6	89.6	91.0
	100%	89.6	89.7	89.8	91.7
Power Factor	25%				
	50%	0.71	0.66	0.63	0.65
	75%	0.81	0.78	0.75	0.76
	100%	0.86	0.84	0.82	0.82
Bearing type	: Drive end : 6308 ZZ Non drive end : 6207 ZZ	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 412 lb		
Lubrication interval	: - -	Max. compression	: 551 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
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 IEC 60034-1.			
Rev.	Changes Summary	Performed	Checked	Date	
Performed by					
Checked by			Page	Revision	
Date	06/05/2022		1 / 18		

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Thermal protection

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	06/05/2022		2 / 18	

TORQUE AND CURRENT VS SPEED CURVE

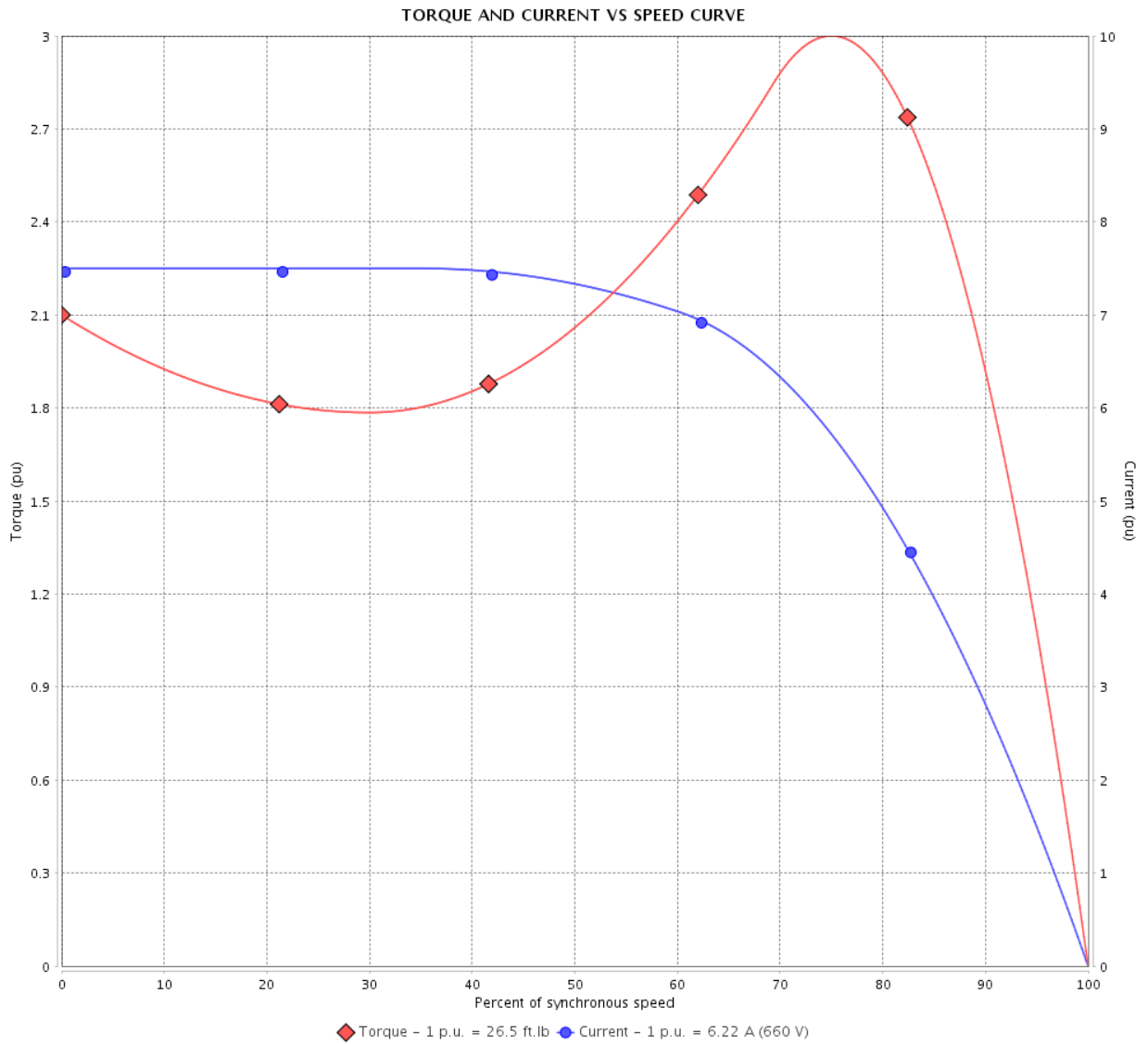
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 380/660 V 50 Hz 4P

Rated current : 10.8/6.22 A
 LRC : 7.5
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 300 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			3 / 18	
Date	06/05/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

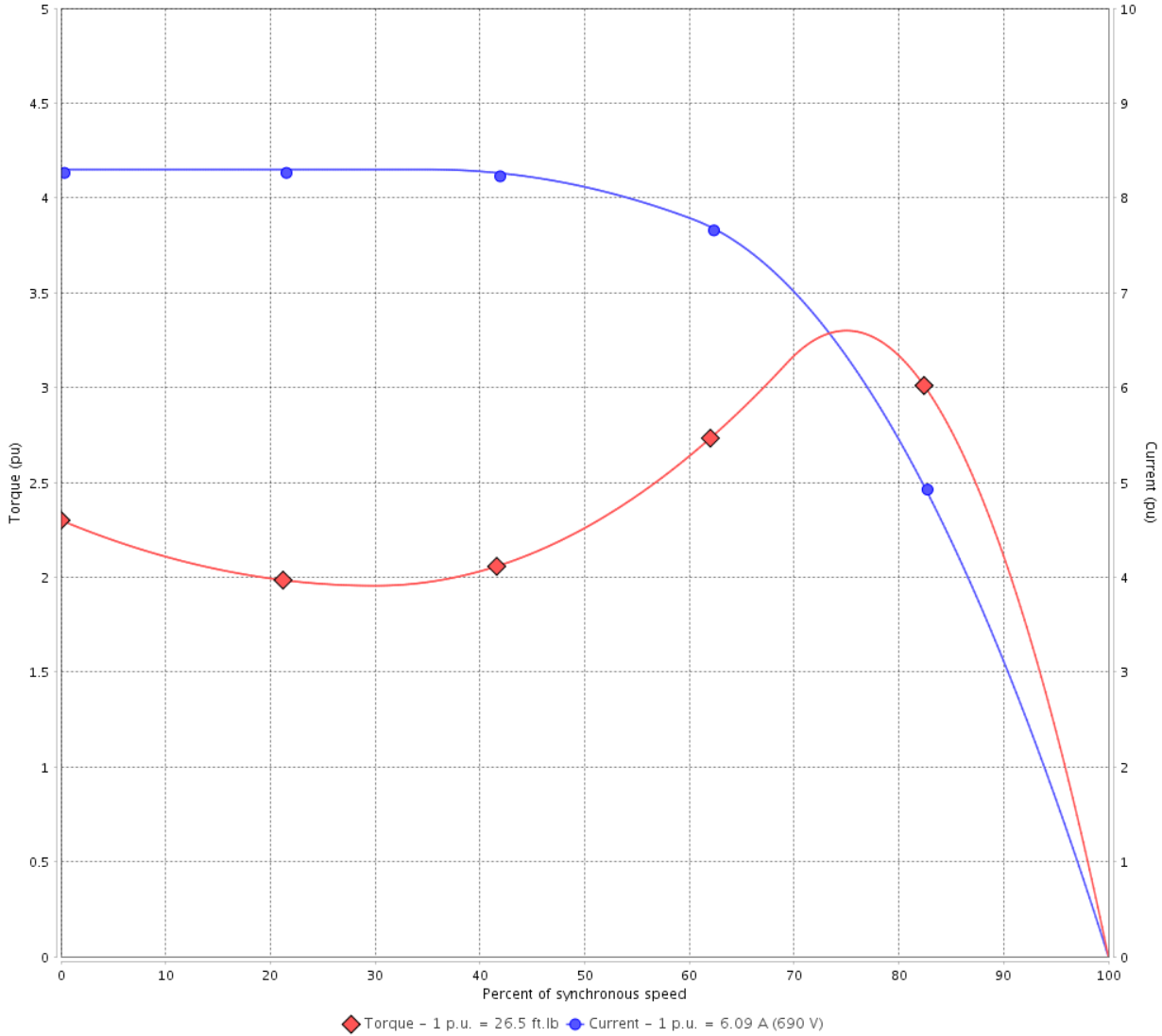


Customer :

Product line : IE3 Three-Phase

Product code : 13924341

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400/690 V 50 Hz 4P

Rated current	: 10.5/6.09 A	Moment of inertia (J)	: 1.16 sq.ft.lb
LRC	: 8.3	Duty cycle	: S1
Rated torque	: 26.5 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: N

Locked rotor time : 21s (cold) 12s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 18		
Date	06/05/2022			

TORQUE AND CURRENT VS SPEED CURVE

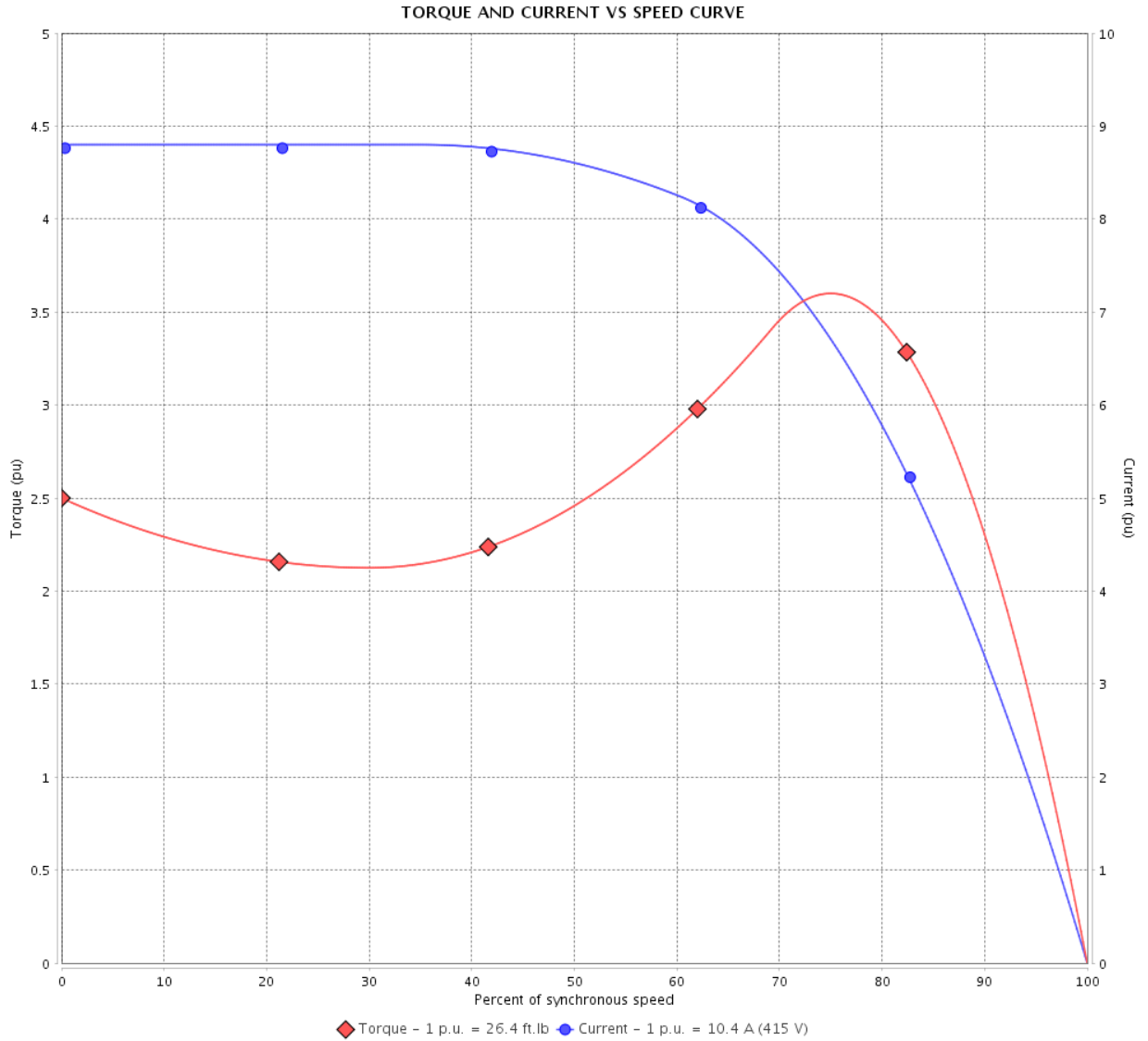
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 415 V 50 Hz 4P

Rated current	: 10.4 A	Moment of inertia (J)	: 1.16 sq.ft.lb
LRC	: 8.8	Duty cycle	: S1
Rated torque	: 26.4 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: N

Locked rotor time : 21s (cold) 12s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		5 / 18		
Date	06/05/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

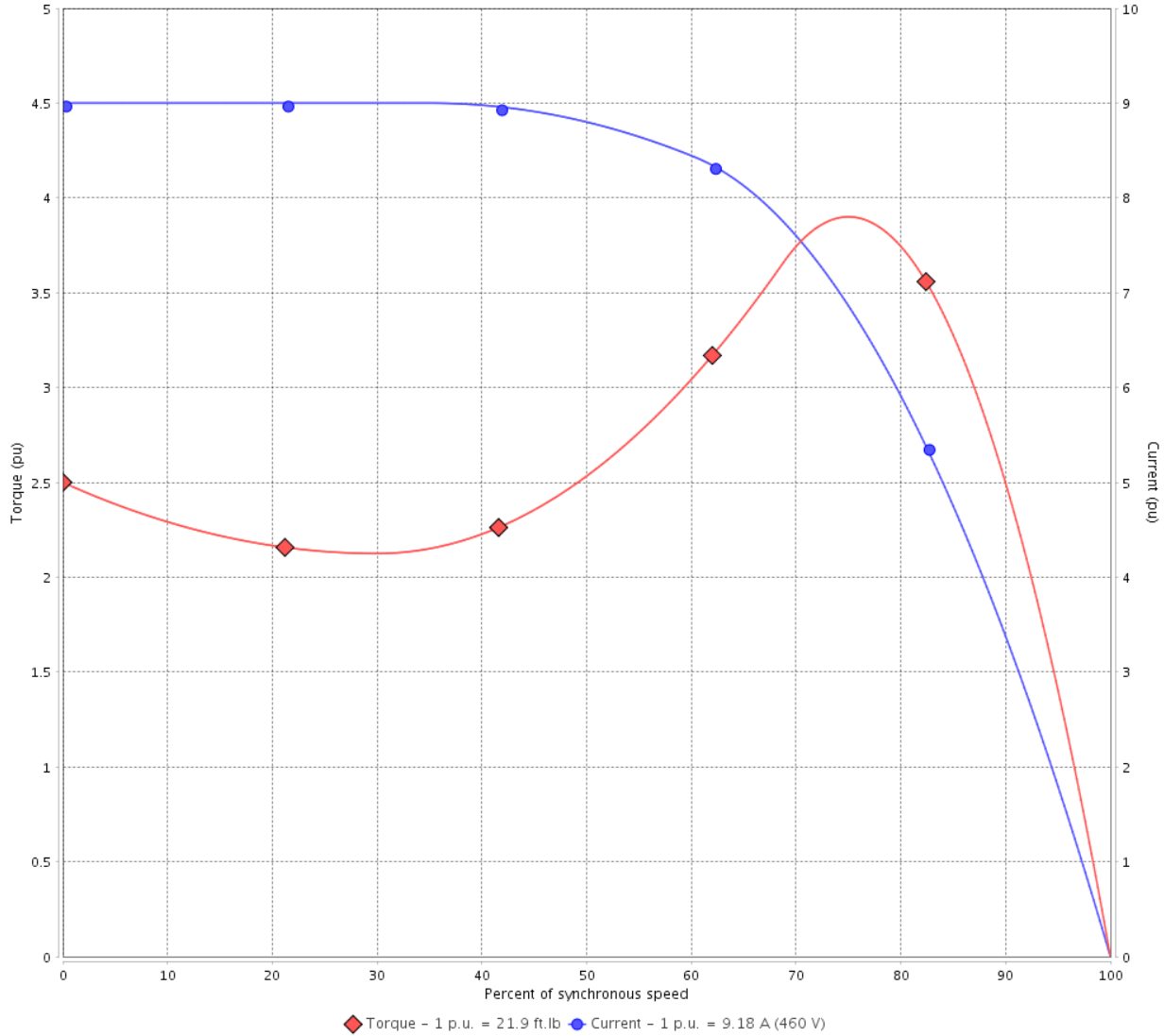


Customer :

Product line : IE3 Three-Phase

Product code : 13924341

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 4P

Rated current	: 9.18 A	Moment of inertia (J)	: 1.16 sq.ft.lb
LRC	: 9.0	Duty cycle	: S1
Rated torque	: 21.9 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: N

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		6 / 18		
Date	06/05/2022			

LOAD PERFORMANCE CURVE

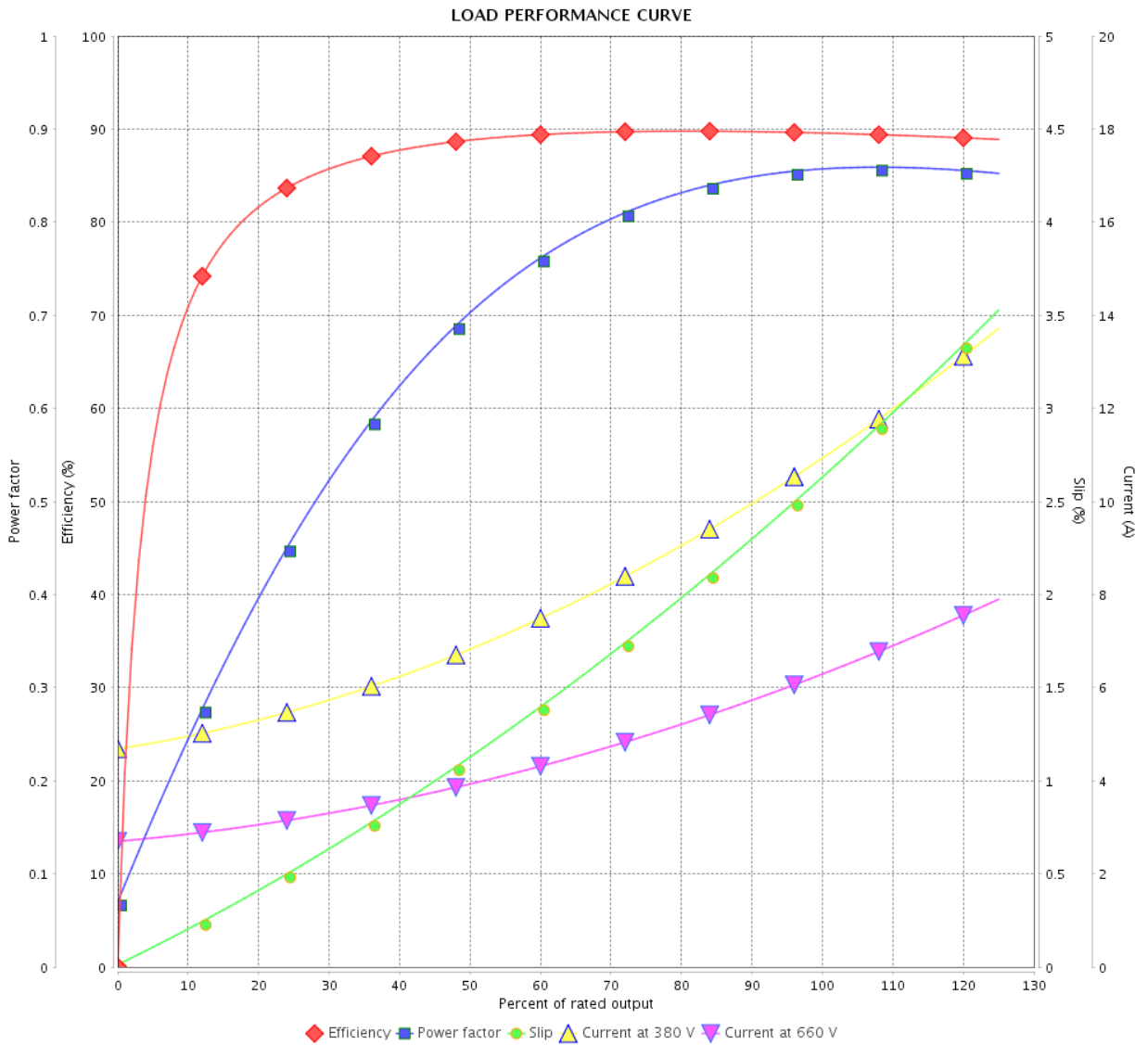
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 380/660 V 50 Hz 4P

Rated current : 10.8/6.22 A
 LRC : 7.5
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 300 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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

LOAD PERFORMANCE CURVE

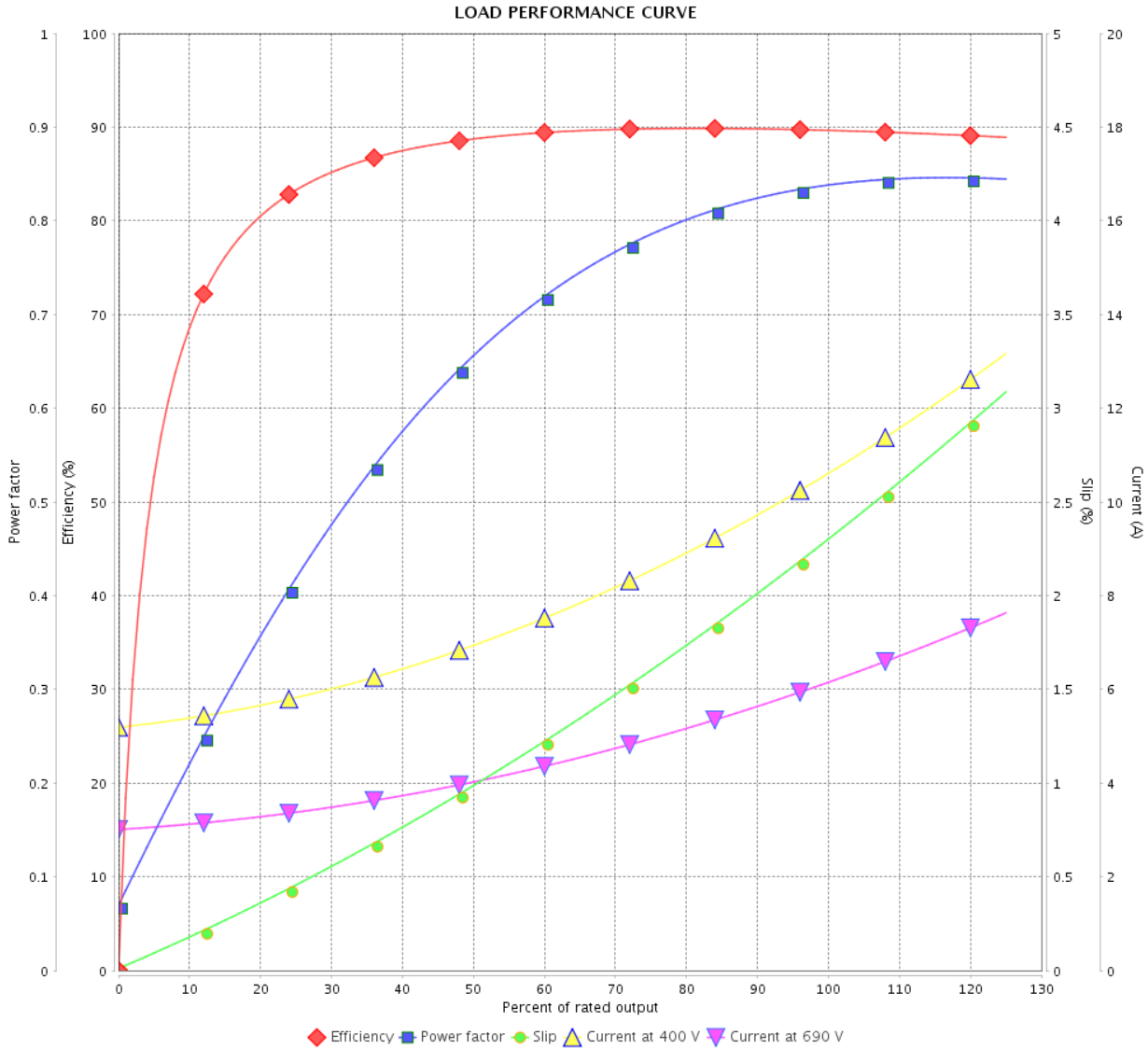
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 400/690 V 50 Hz 4P

Rated current : 10.5/6.09 A
 LRC : 8.3
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 330 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 18	Revision
Checked by				
Date	06/05/2022			

LOAD PERFORMANCE CURVE

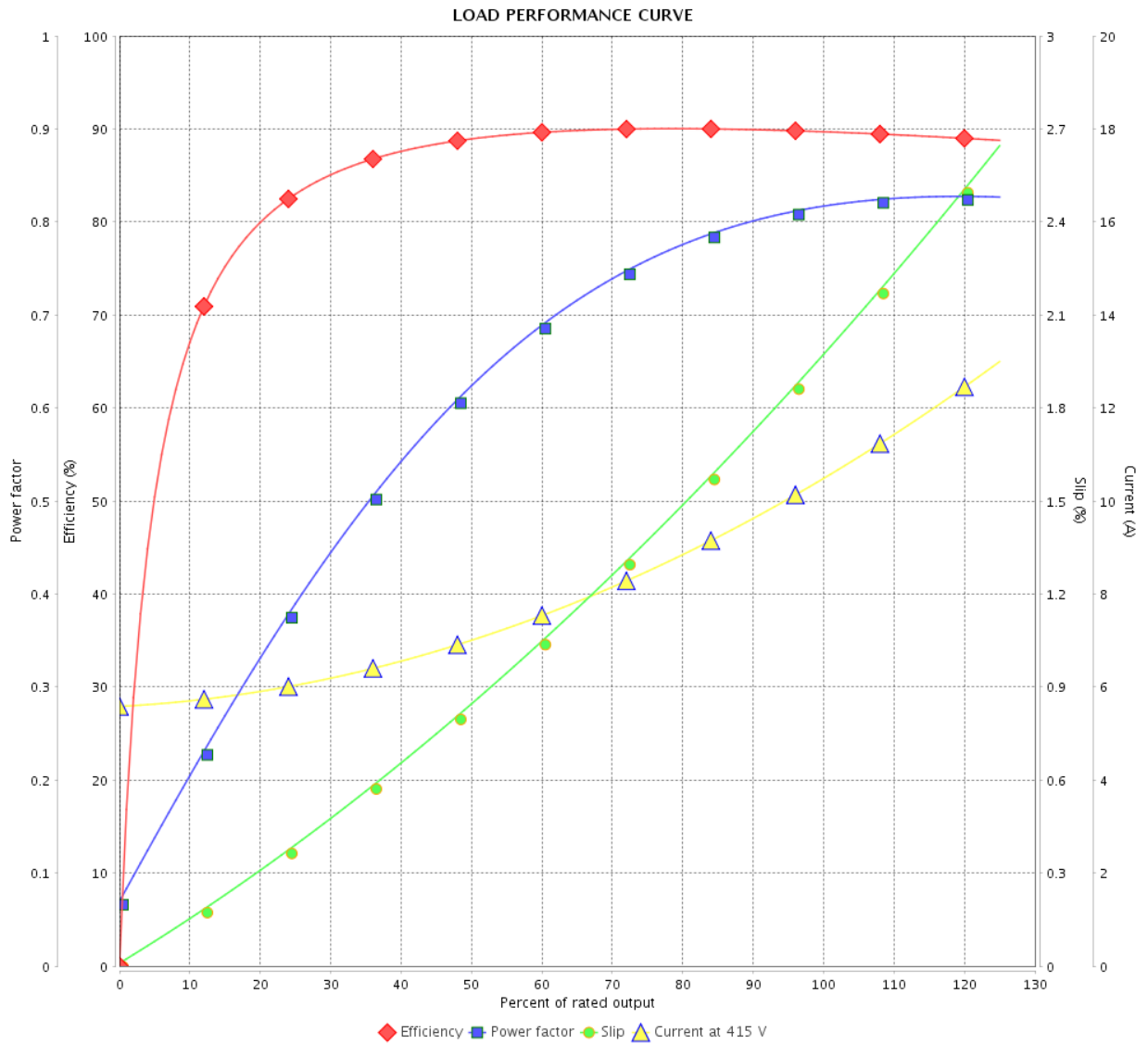
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 415 V 50 Hz 4P

Rated current : 10.4 A
 LRC : 8.8
 Rated torque : 26.4 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 360 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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

LOAD PERFORMANCE CURVE

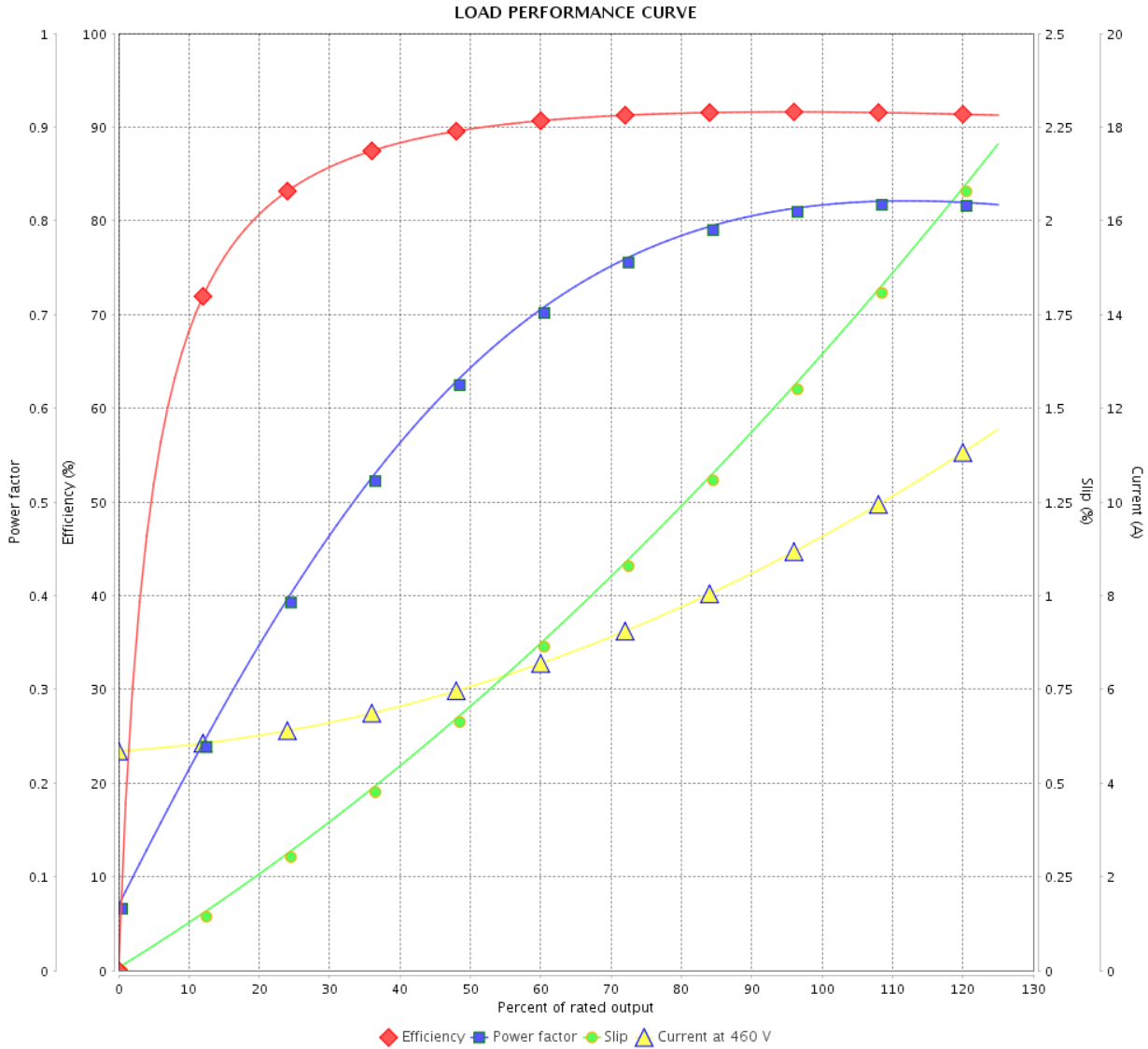
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 460 V 60 Hz 4P

Rated current : 9.18 A
 LRC : 9.0
 Rated torque : 21.9 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 390 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 10 / 18	Revision
Checked by				
Date	06/05/2022			

THERMAL LIMIT CURVE

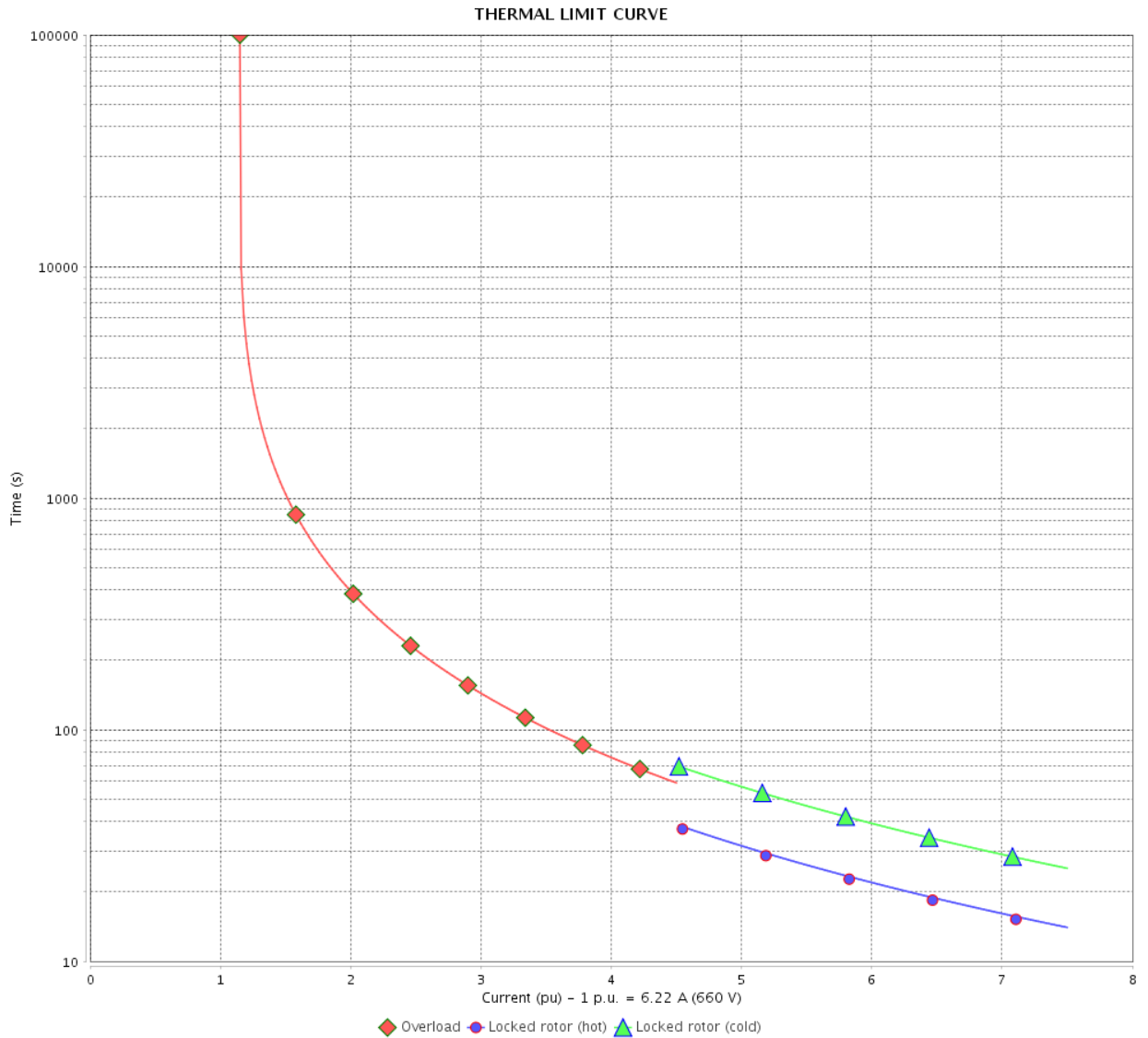


Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 380/660 V 50 Hz 4P

Rated current : 10.8/6.22 A
 LRC : 7.5
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 300 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		11 / 18		

THERMAL LIMIT CURVE

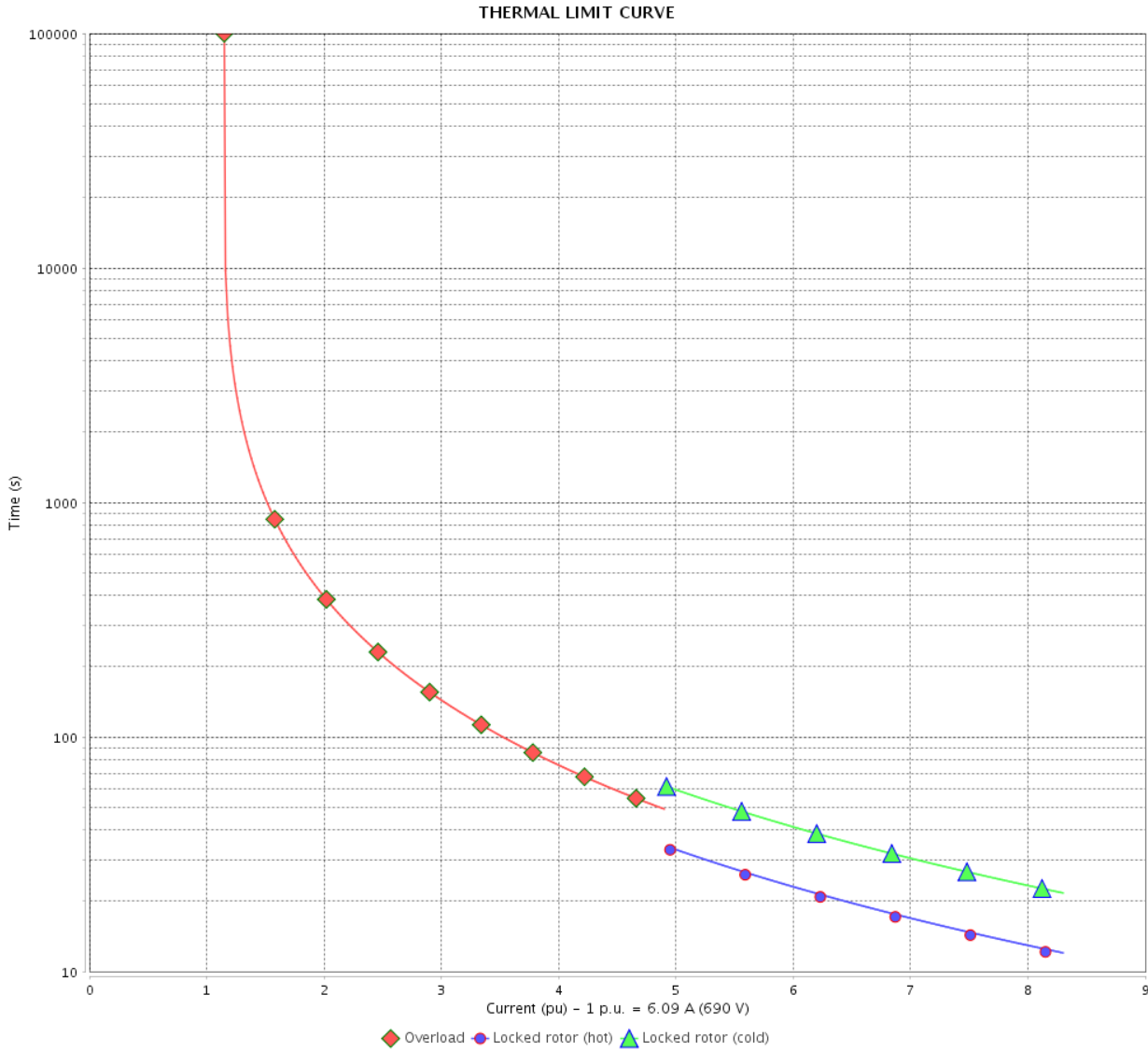
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 400/690 V 50 Hz 4P

Rated current : 10.5/6.09 A
 LRC : 8.3
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 330 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		12 / 18		

THERMAL LIMIT CURVE

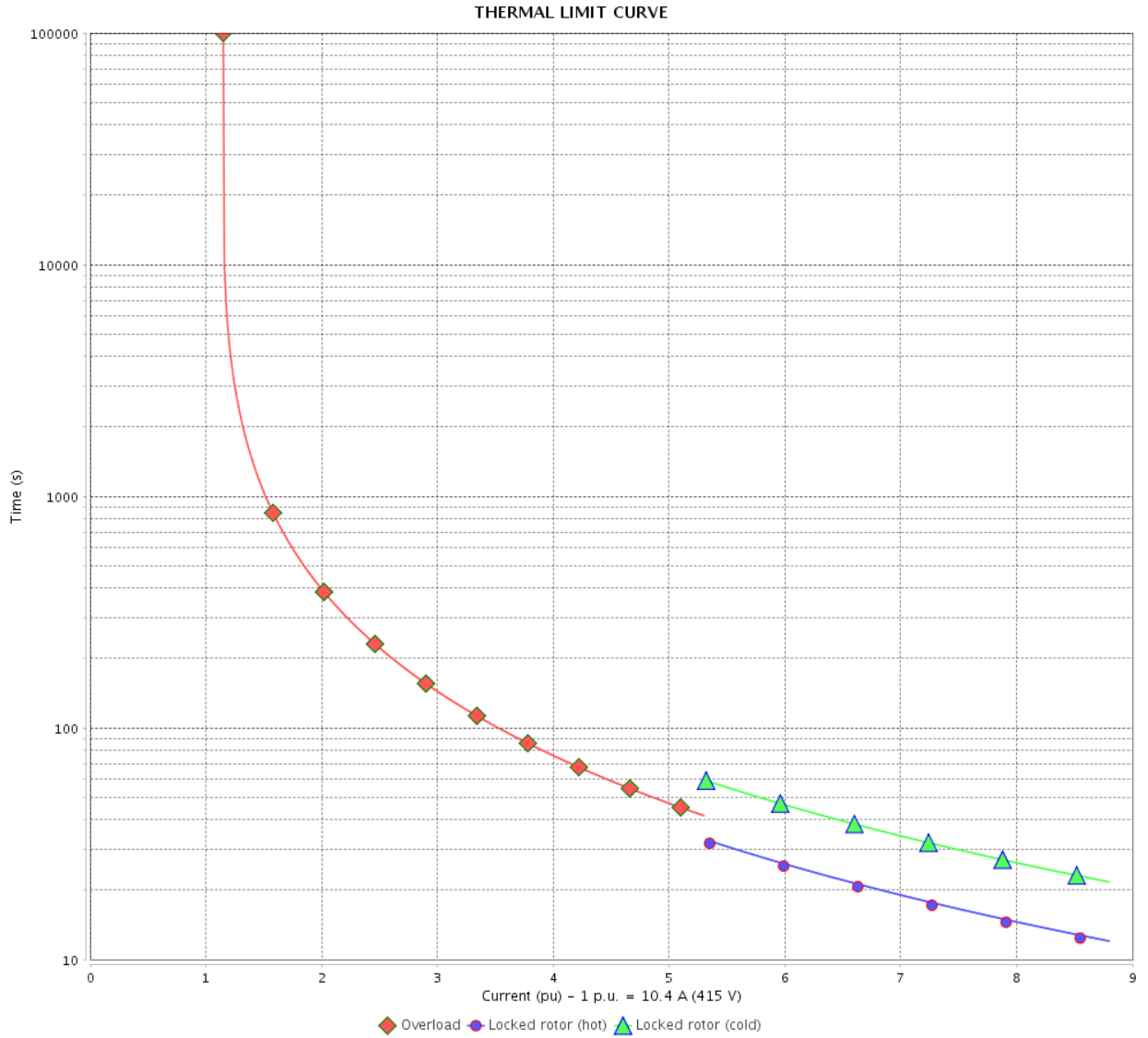
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 415 V 50 Hz 4P

Rated current : 10.4 A
 LRC : 8.8
 Rated torque : 26.4 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 360 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		13 / 18		

THERMAL LIMIT CURVE

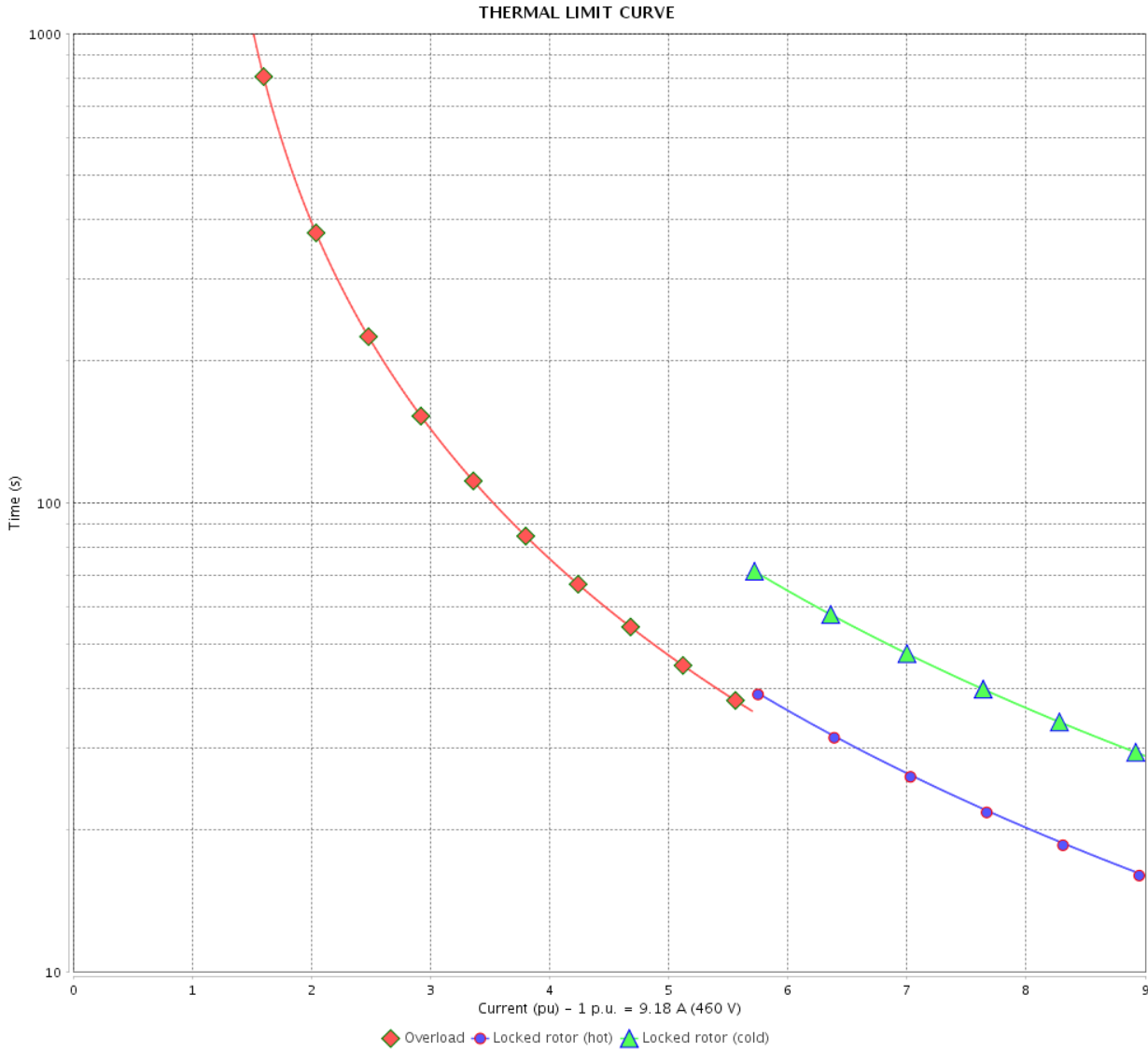
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 460 V 60 Hz 4P

Rated current	: 9.18 A	Moment of inertia (J)	: 1.16 sq.ft.lb
LRC	: 9.0	Duty cycle	: S1
Rated torque	: 21.9 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 14 / 18	Revision
Checked by				
Date	06/05/2022			

VFD OPERATION CURVE

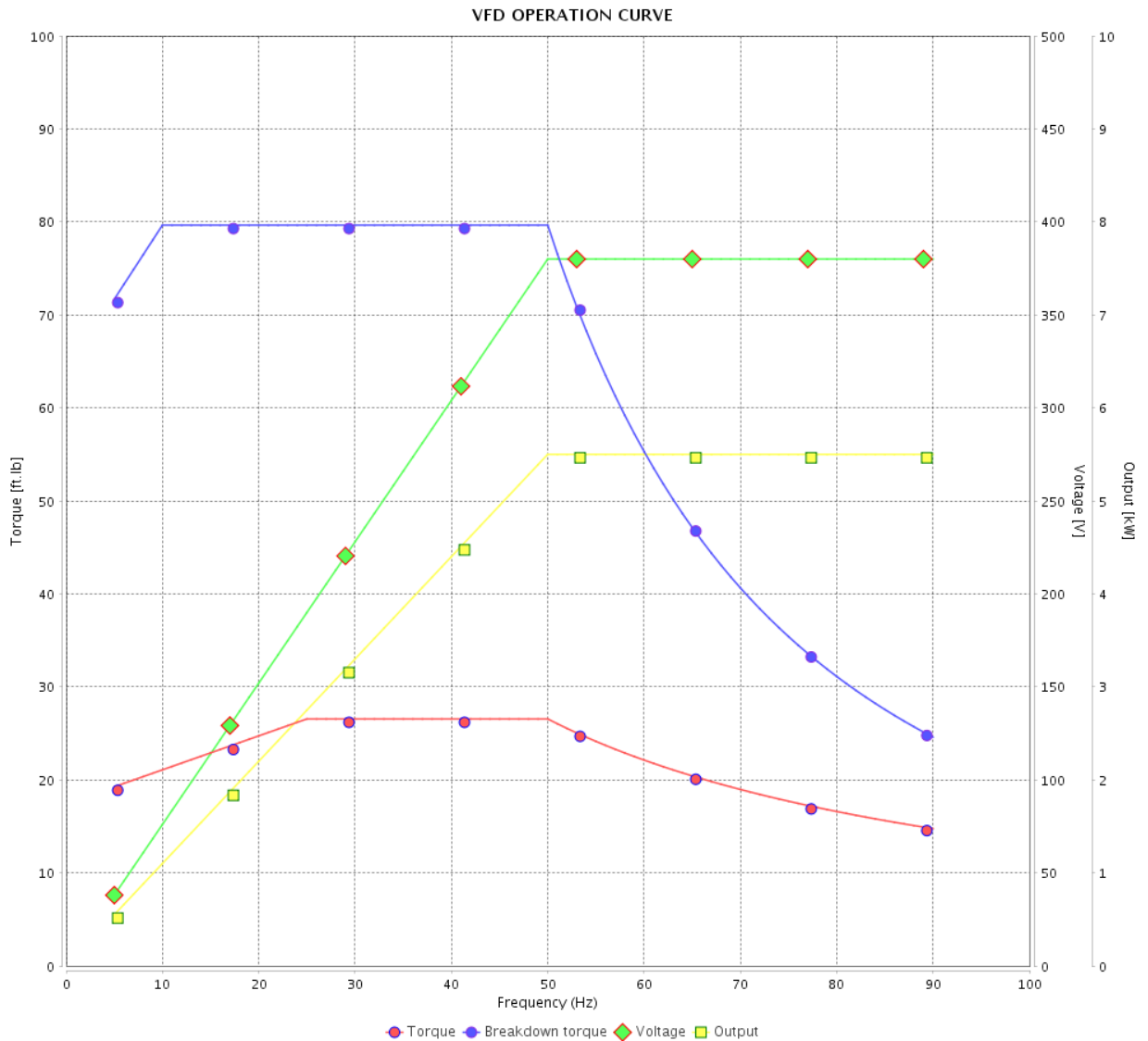
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 380/660 V 50 Hz 4P

Rated current : 10.8/6.22 A
 LRC : 7.5
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 300 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 18		
Date		06/05/2022		

VFD OPERATION CURVE

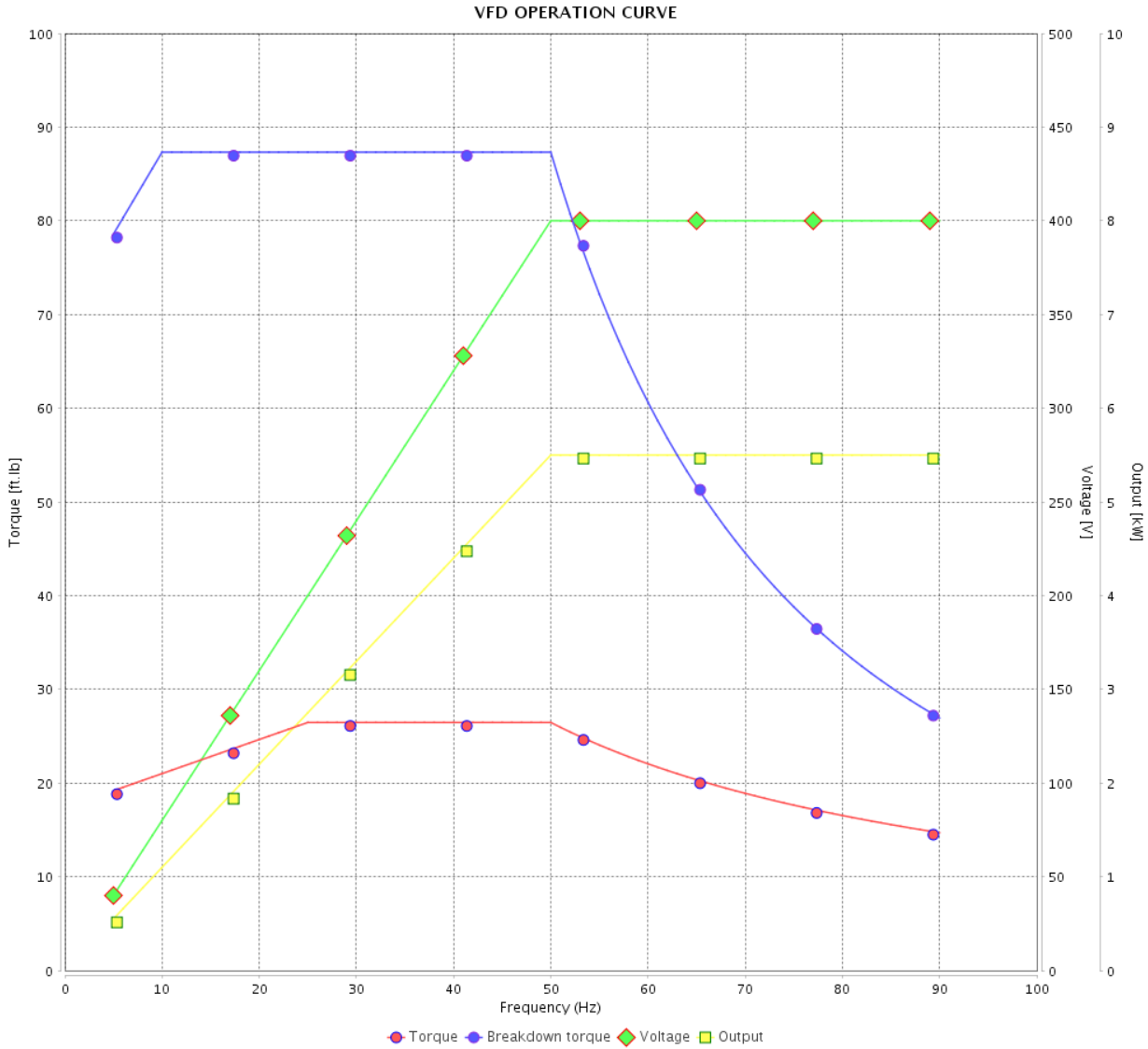
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 400/690 V 50 Hz 4P

Rated current : 10.5/6.09 A
 LRC : 8.3
 Rated torque : 26.5 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 330 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 18	Revision
Checked by				
Date	06/05/2022			

VFD OPERATION CURVE

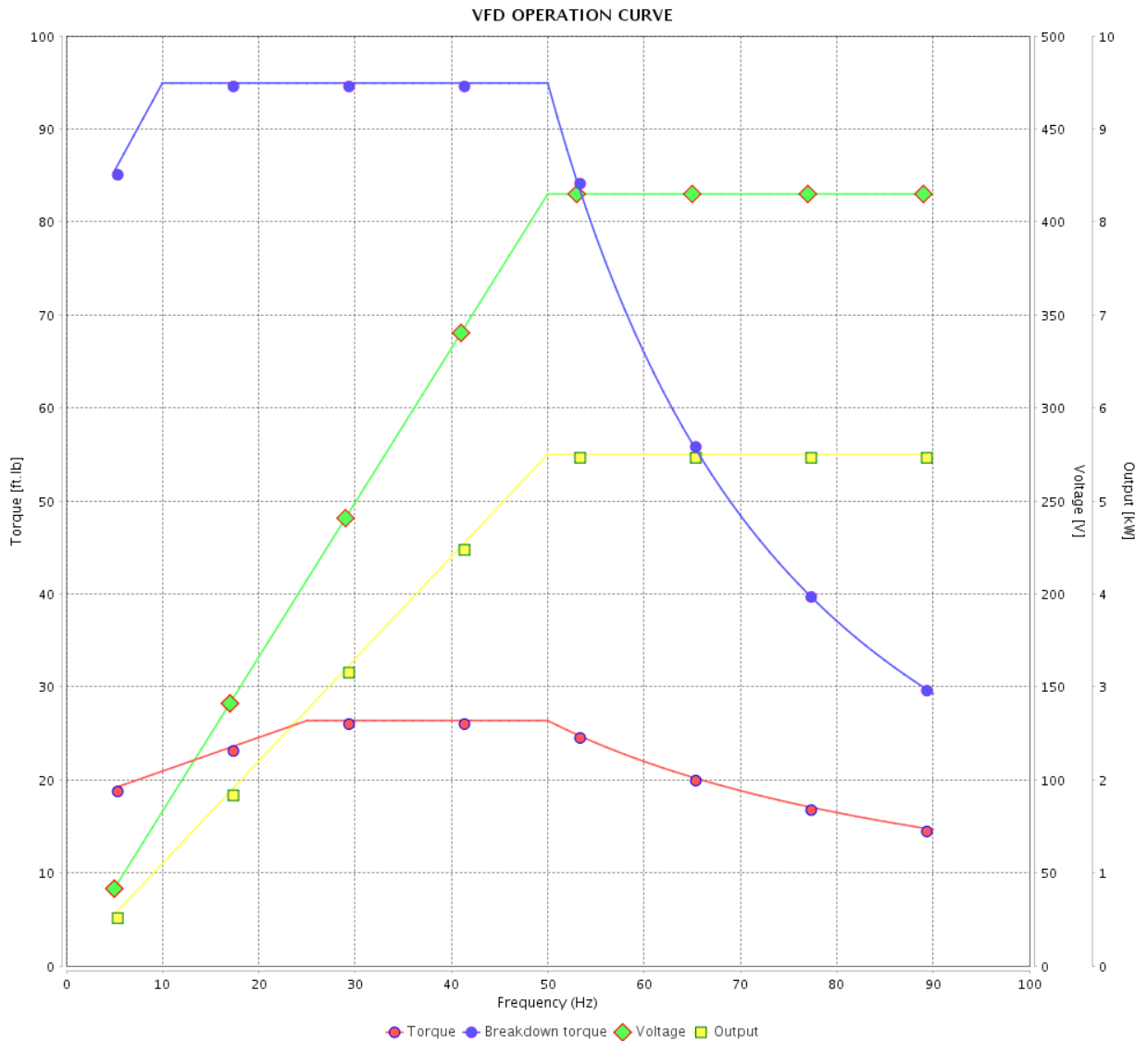
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 415 V 50 Hz 4P

Rated current : 10.4 A
 LRC : 8.8
 Rated torque : 26.4 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 360 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			17 / 18	

VFD OPERATION CURVE

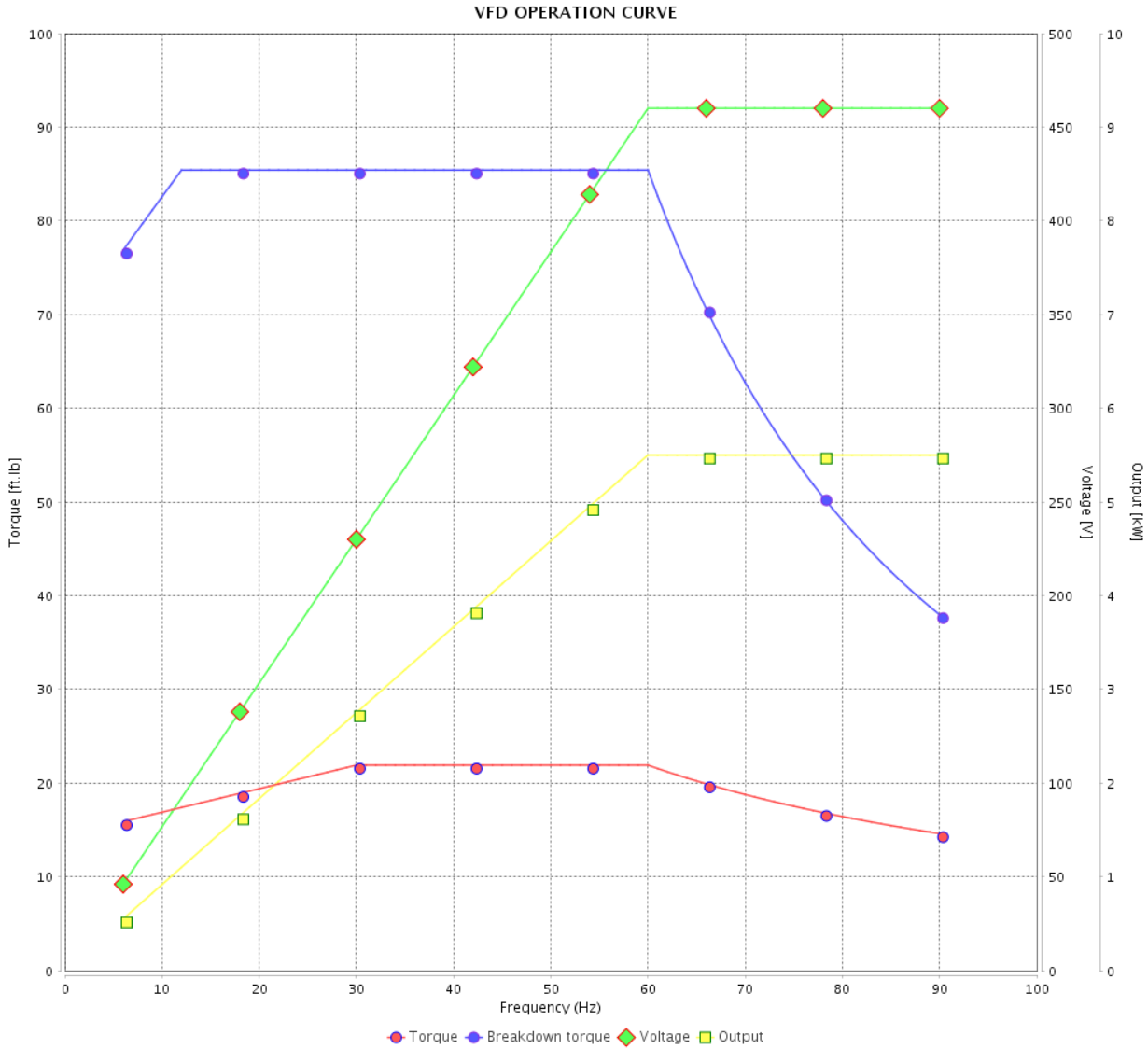
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13924341



Performance : 460 V 60 Hz 4P

Rated current : 9.18 A
 LRC : 9.0
 Rated torque : 21.9 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 390 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.16 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 18	Revision
Checked by				
Date	06/05/2022			