

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993

Frame	: 71	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3T
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>	: 11.8 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0008 kgm <sup>2</sup>
Design	: N		

Output [kW]	0.37	0.37	0.37	0.37
Poles	4	4	4	4
Frequency [Hz]	50	50	50	60
Rated voltage [V]	220/380	230/400	240/415	460
Rated current [A]	1.74/1.01	1.72/0.990	1.71/0.990	0.910
L. R. Amperes [A]	7.85/4.55	8.26/4.75	8.56/4.95	4.82
LRC [A]	4.5	4.8	5.0	5.3
No load current [A]	1.16/0.670	1.29/0.740	1.40/0.810	0.700
Rated speed [RPM]	1370	1390	1400	1710
Slip [%]	8.67	7.33	6.67	5.00
Rated torque [kgfm]	0.263	0.259	0.257	0.211
Locked rotor torque [%]	260	290	320	350
Breakdown torque [%]	250	280	310	340
Service factor	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	99s (cold) 55s (hot)
Noise level <sup>2</sup>	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)
Efficiency (%)	25%			
	50%	73.0	73.0	70.0
	75%	75.0	75.0	75.0
	100%	77.3	77.3	78.5
Power Factor	25%			
	50%	0.53	0.50	0.47
	75%	0.64	0.60	0.57
	100%	0.72	0.70	0.65

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	28.6	28.6	28.6	26.7
	P2 (0,5;1,0)	26.9	26.9	26.9	25.1
	P3 (0,25;1,0)	27.4	27.4	27.4	25.5
	P4 (0,9;0,5)	14.7	14.7	14.7	13.7
	P5 (0,5;0,5)	11.4	11.4	11.4	10.7
	P6 (0,5;0,25)	8.5	8.5	8.5	7.9
	P7 (0,25;0,25)	6.6	6.6	6.6	6.2

	Drive end	Non drive end	Foundation loads
Bearing type	: 6202 ZZ	6202 ZZ	Max. traction : 19 kgf
Sealing	: V'Ring	V'Ring	Max. compression : 31 kgf
Lubrication interval	: -	-	
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.
- (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				
Date	17/09/2025			
			Page	Revision
			1 / 19	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	17/09/2025				
			2 / 19		

# 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

Space heater information

Voltage: 110 - 127 V

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 19		Revision
Checked by				
Date	17/09/2025			

# TORQUE AND CURRENT VS SPEED CURVE

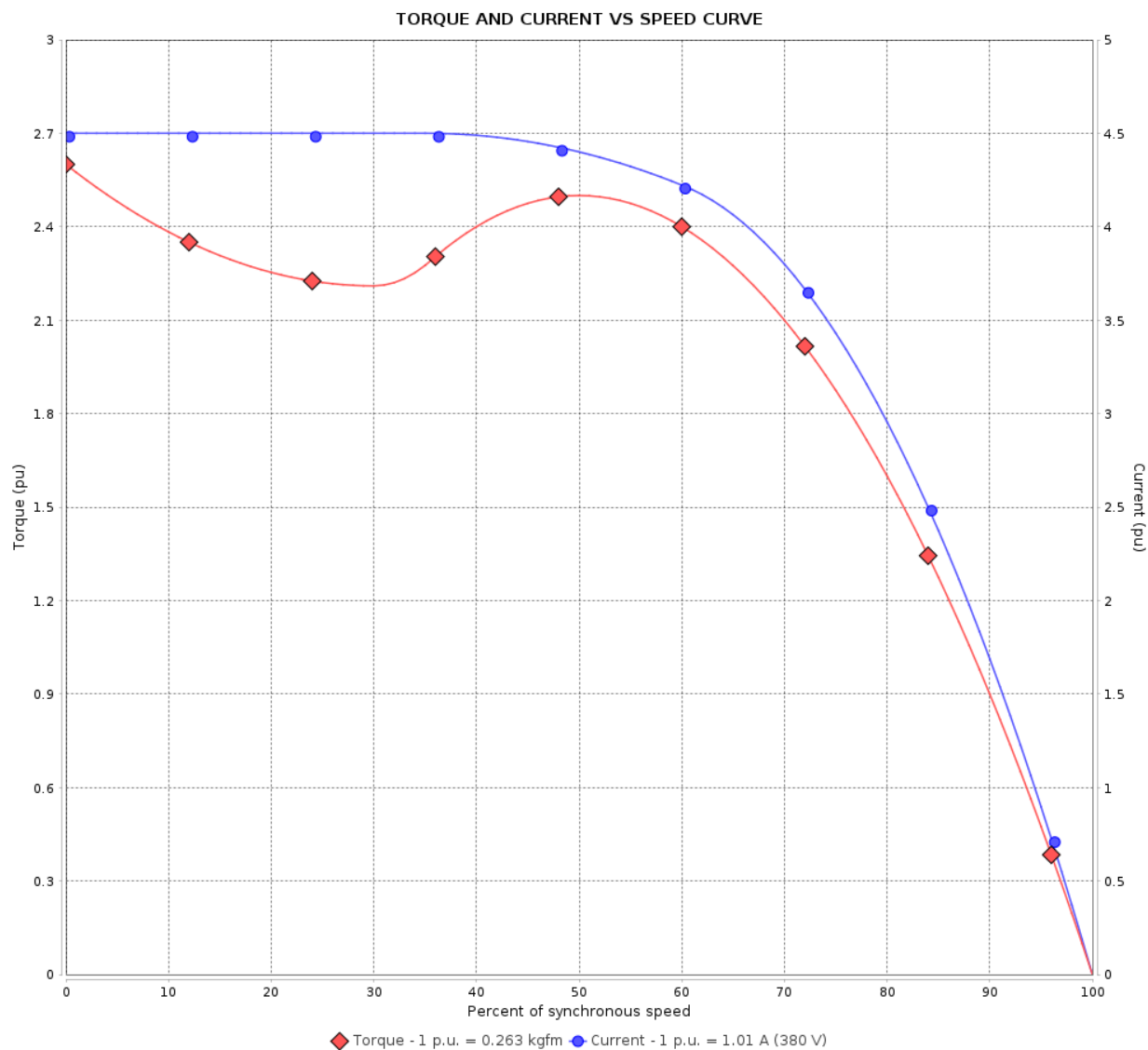
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 220/380 V 50 Hz 4P

Rated current : 1.74/1.01 A  
LRC : 4.5  
Rated torque : 0.263 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 250 %  
Rated speed : 1370 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : N

Locked rotor time : 54s (cold) 30s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 4 / 19Revision		
Checked by				
Date	17/09/2025			

# TORQUE AND CURRENT VS SPEED CURVE

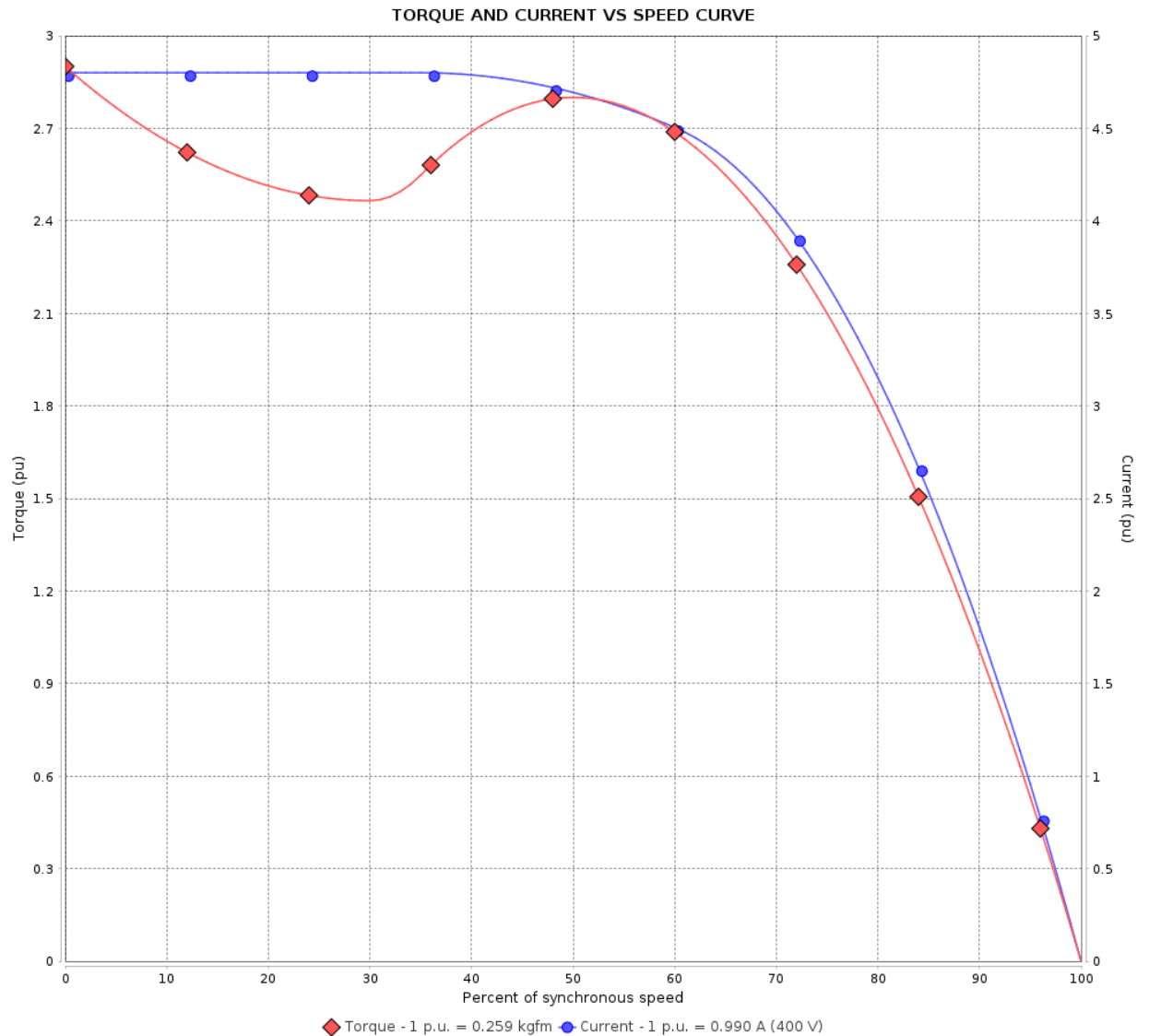
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 230/400 V 50 Hz 4P

Rated current : 1.72/0.990 A  
LRC : 4.8  
Rated torque : 0.259 kgfm  
Locked rotor torque : 290 %  
Breakdown torque : 280 %  
Rated speed : 1390 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : N

Locked rotor time : 54s (cold) 30s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 19Revision		
Checked by				
Date	17/09/2025			

# TORQUE AND CURRENT VS SPEED CURVE

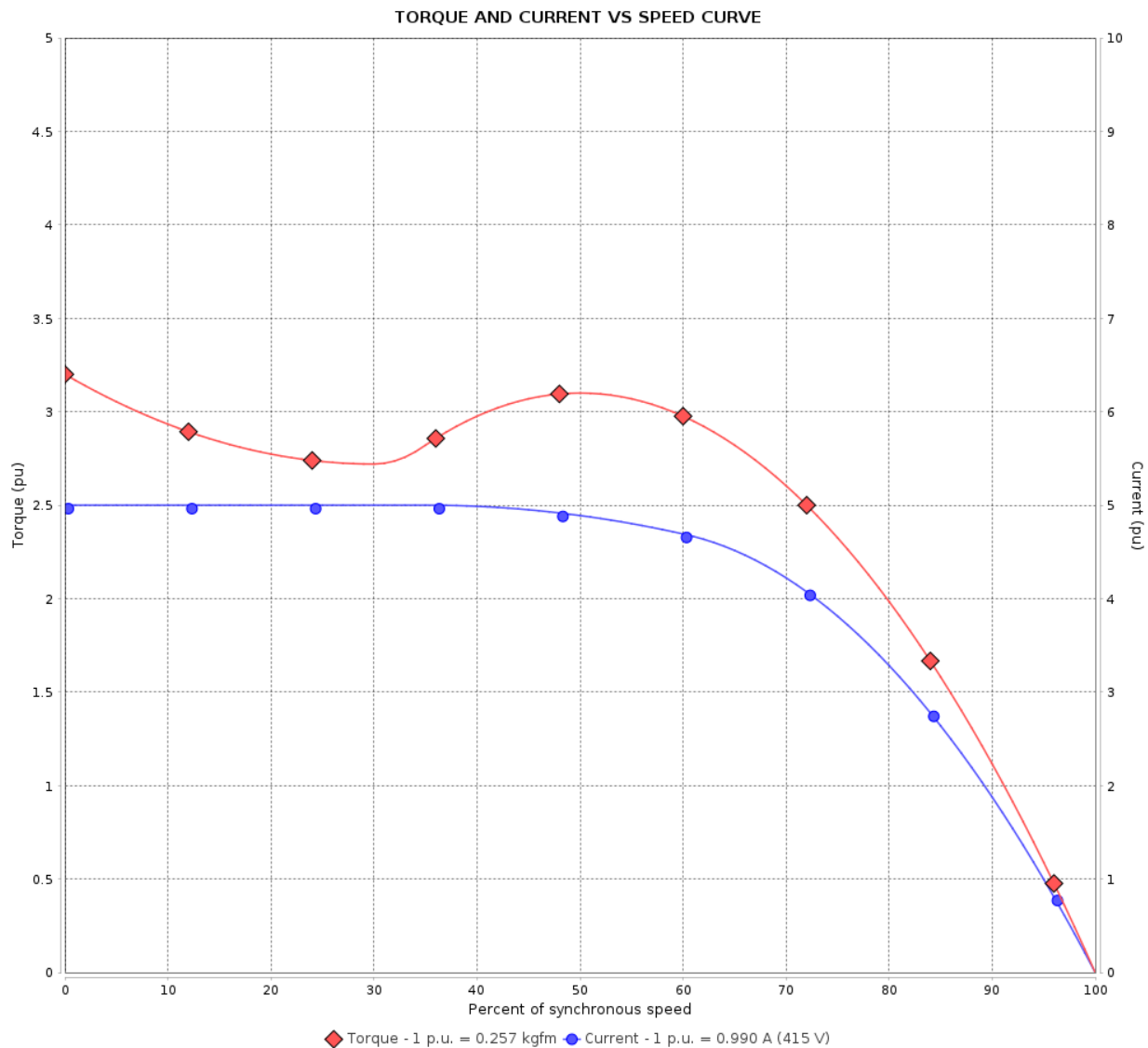
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 240/415 V 50 Hz 4P

Rated current : 1.71/0.990 A  
LRC : 5.0  
Rated torque : 0.257 kgfm  
Locked rotor torque : 320 %  
Breakdown torque : 310 %  
Rated speed : 1400 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : N

Locked rotor time : 54s (cold) 30s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 6 / 19Revision		
Checked by				
Date	17/09/2025			

# TORQUE AND CURRENT VS SPEED CURVE

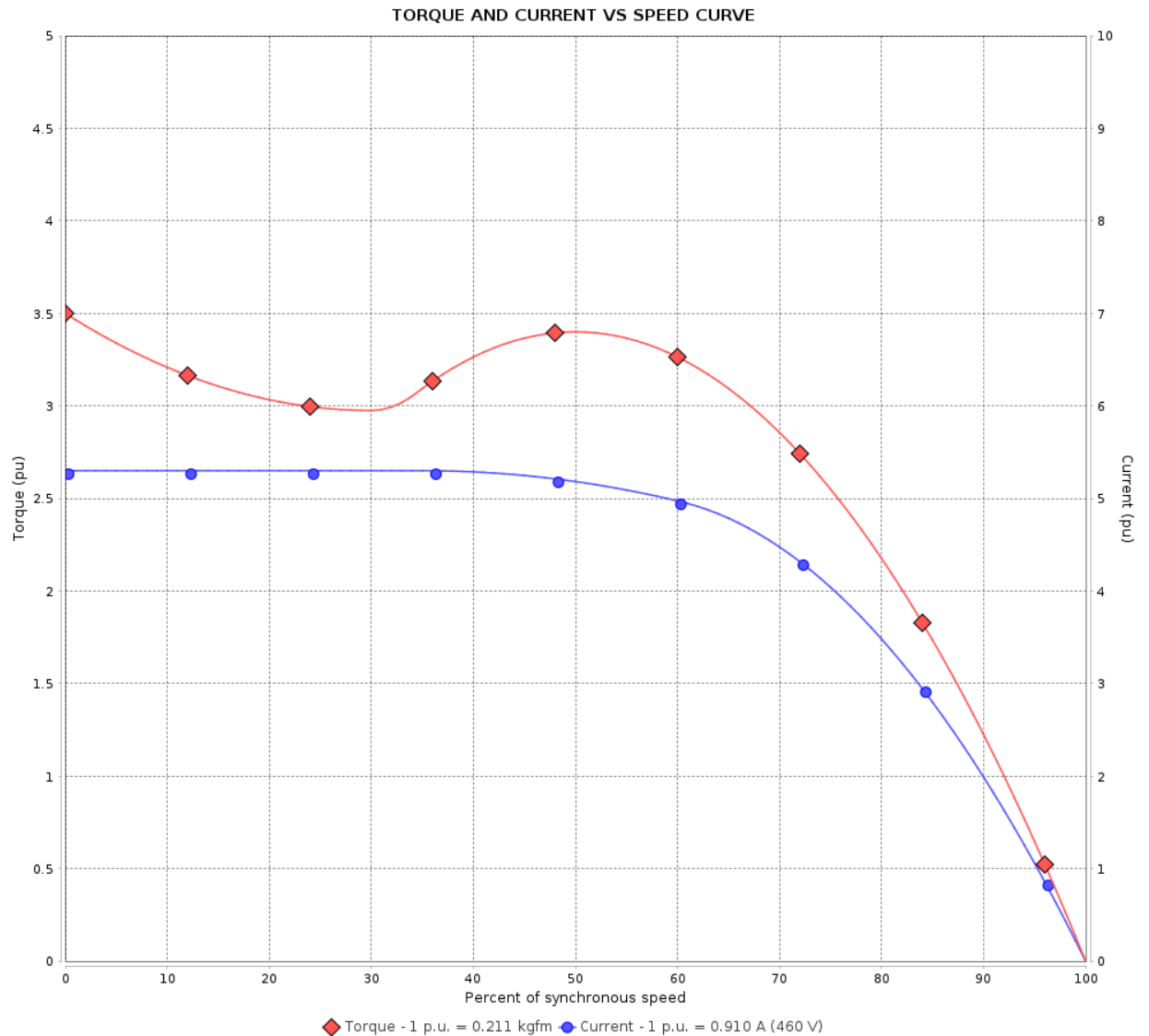
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 460 V 60 Hz 4P

Rated current	: 0.910 A	Moment of inertia (J)	: 0.0008 kgm <sup>2</sup>
LRC	: 5.3	Duty cycle	: S1
Rated torque	: 0.211 kgfm	Insulation class	: F
Locked rotor torque	: 350 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1710 rpm	Design	: N

Locked rotor time : 99s (cold) 55s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 19Revision		
Checked by				
Date	17/09/2025			

# LOAD PERFORMANCE CURVE

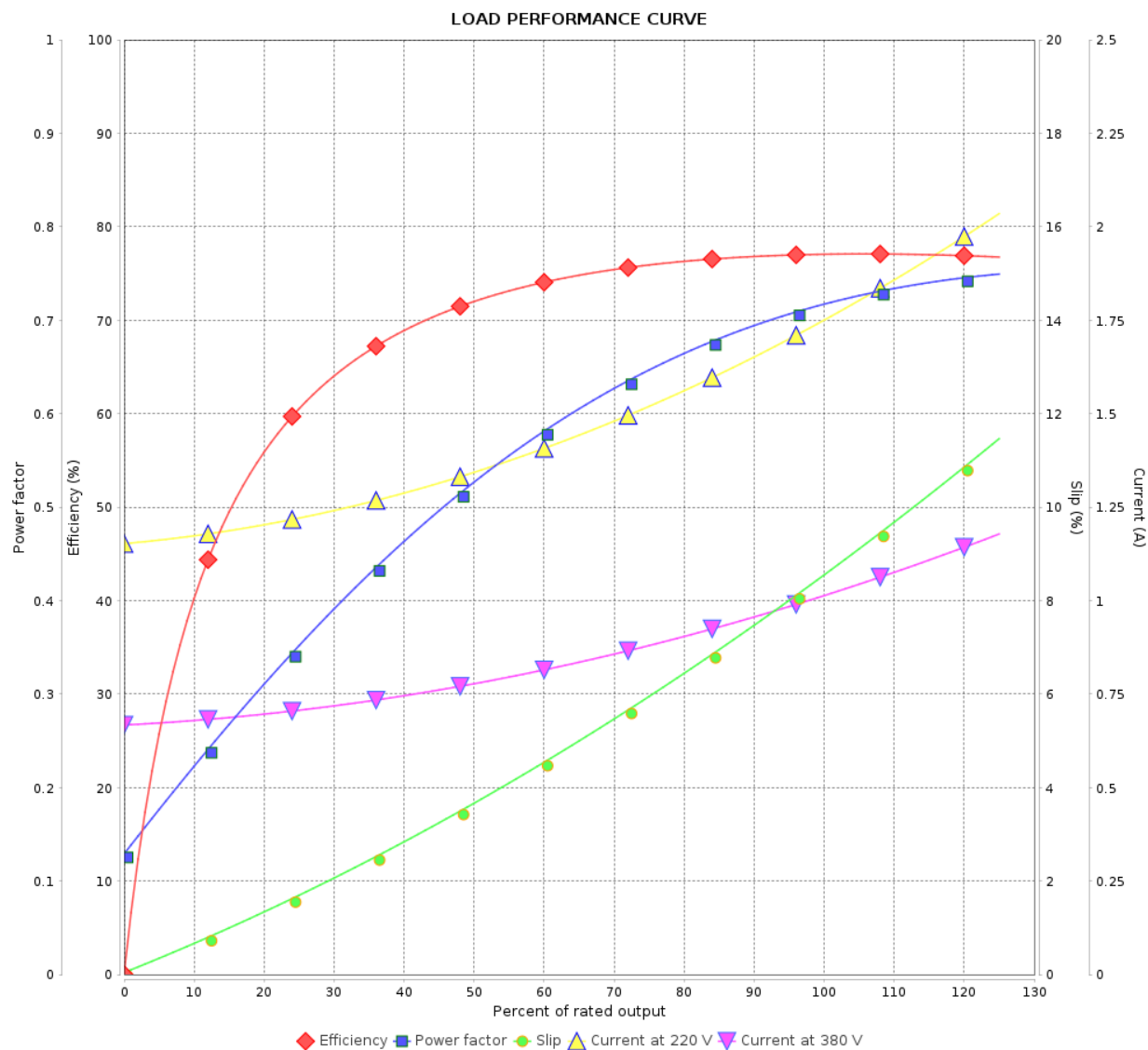
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 220/380 V 50 Hz 4P

Rated current : 1.74/1.01 A  
LRC : 4.5  
Rated torque : 0.263 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 250 %  
Rated speed : 1370 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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				8 / 19	
Date					



# LOAD PERFORMANCE CURVE

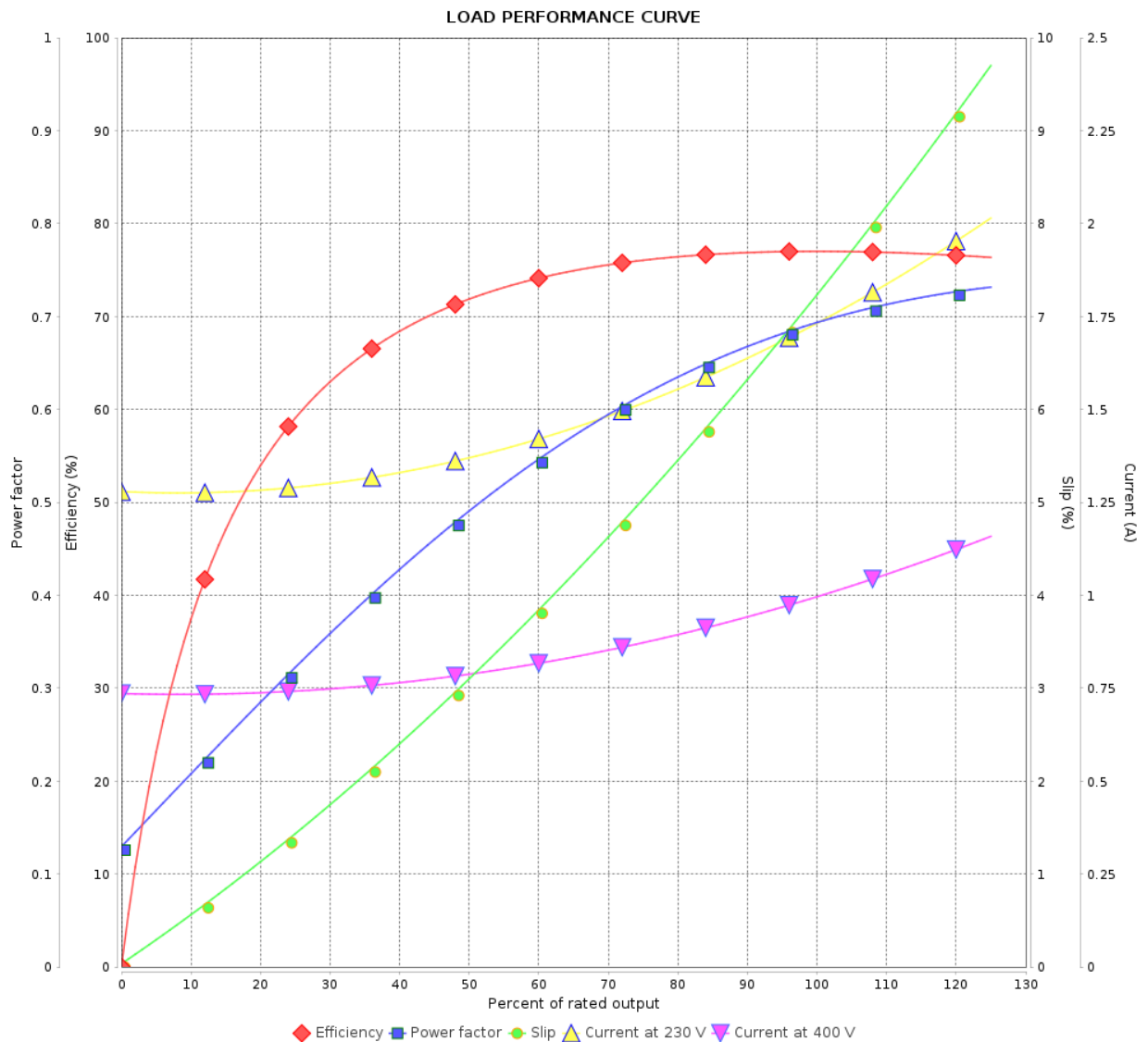
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 230/400 V 50 Hz 4P

Rated current : 1.72/0.990 A  
LRC : 4.8  
Rated torque : 0.259 kgfm  
Locked rotor torque : 290 %  
Breakdown torque : 280 %  
Rated speed : 1390 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	17/09/2025			

Page	Revision
9 / 19	

# LOAD PERFORMANCE CURVE

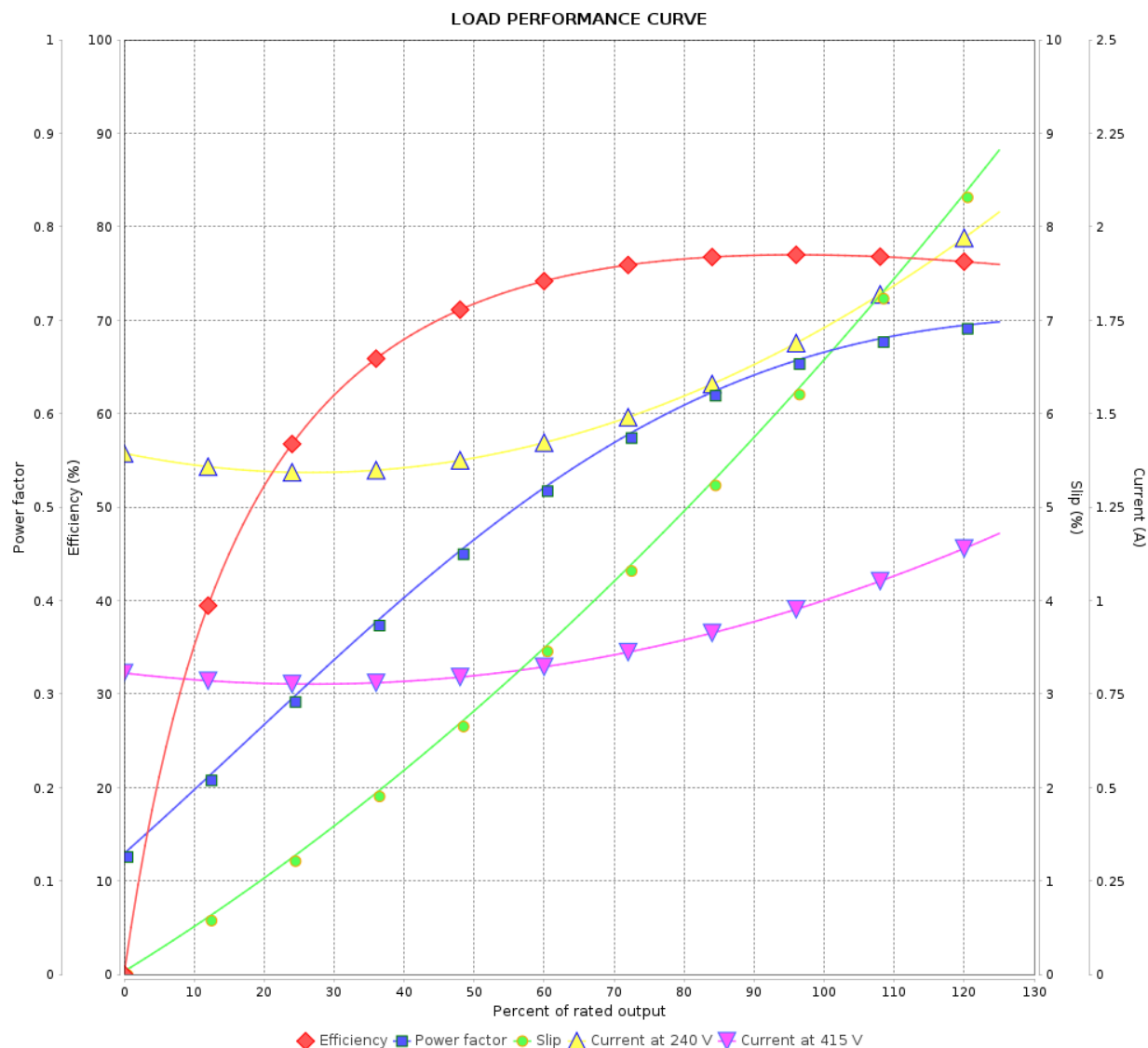
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 240/415 V 50 Hz 4P

Rated current : 1.71/0.990 A  
LRC : 5.0  
Rated torque : 0.257 kgfm  
Locked rotor torque : 320 %  
Breakdown torque : 310 %  
Rated speed : 1400 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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				10 / 19	
Date					

# LOAD PERFORMANCE CURVE

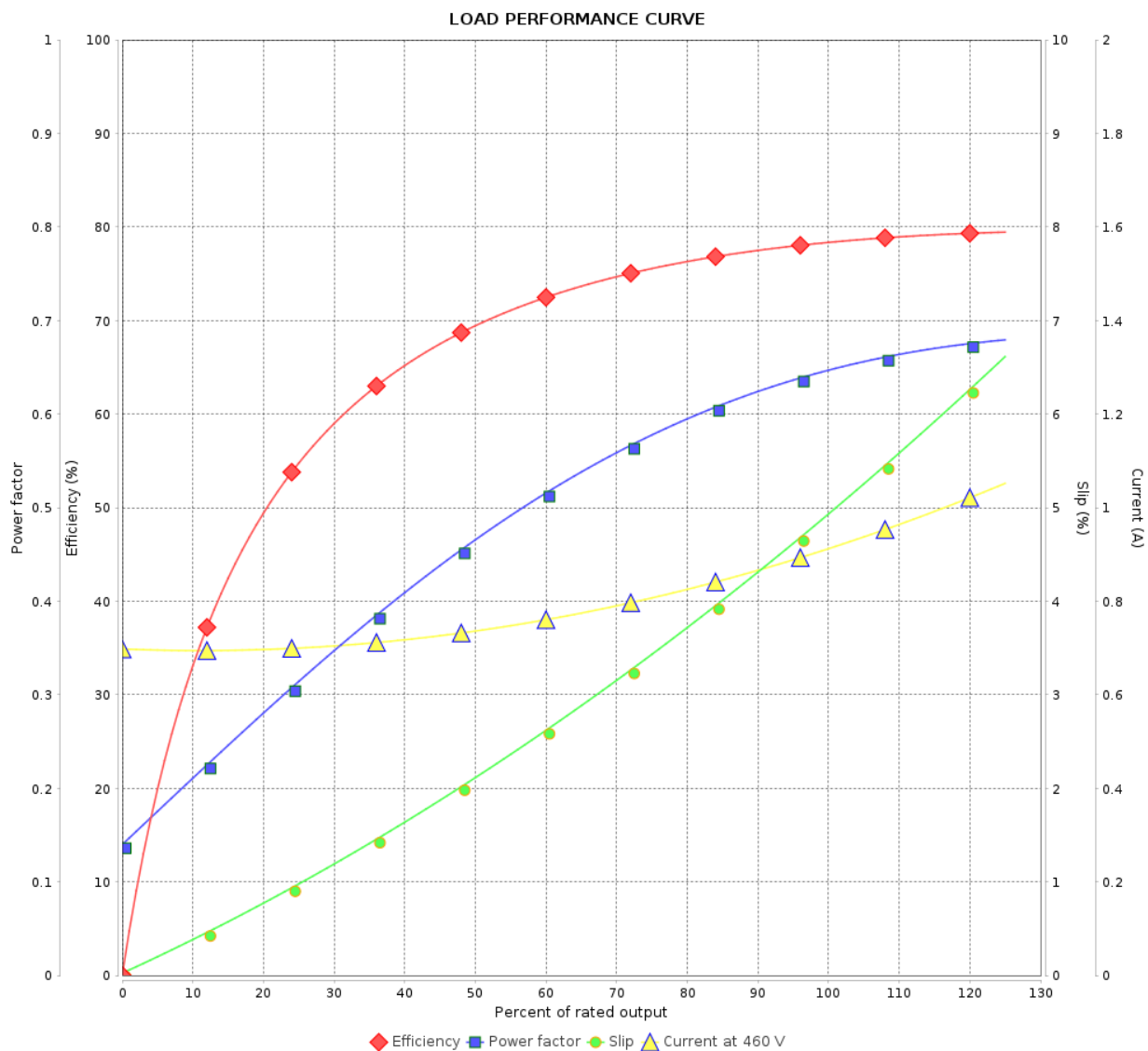
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 460 V 60 Hz 4P

Rated current : 0.910 A  
LRC : 5.3  
Rated torque : 0.211 kgfm  
Locked rotor torque : 350 %  
Breakdown torque : 340 %  
Rated speed : 1710 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	17/09/2025		Page 11 / 19	Revision

# THERMAL LIMIT CURVE

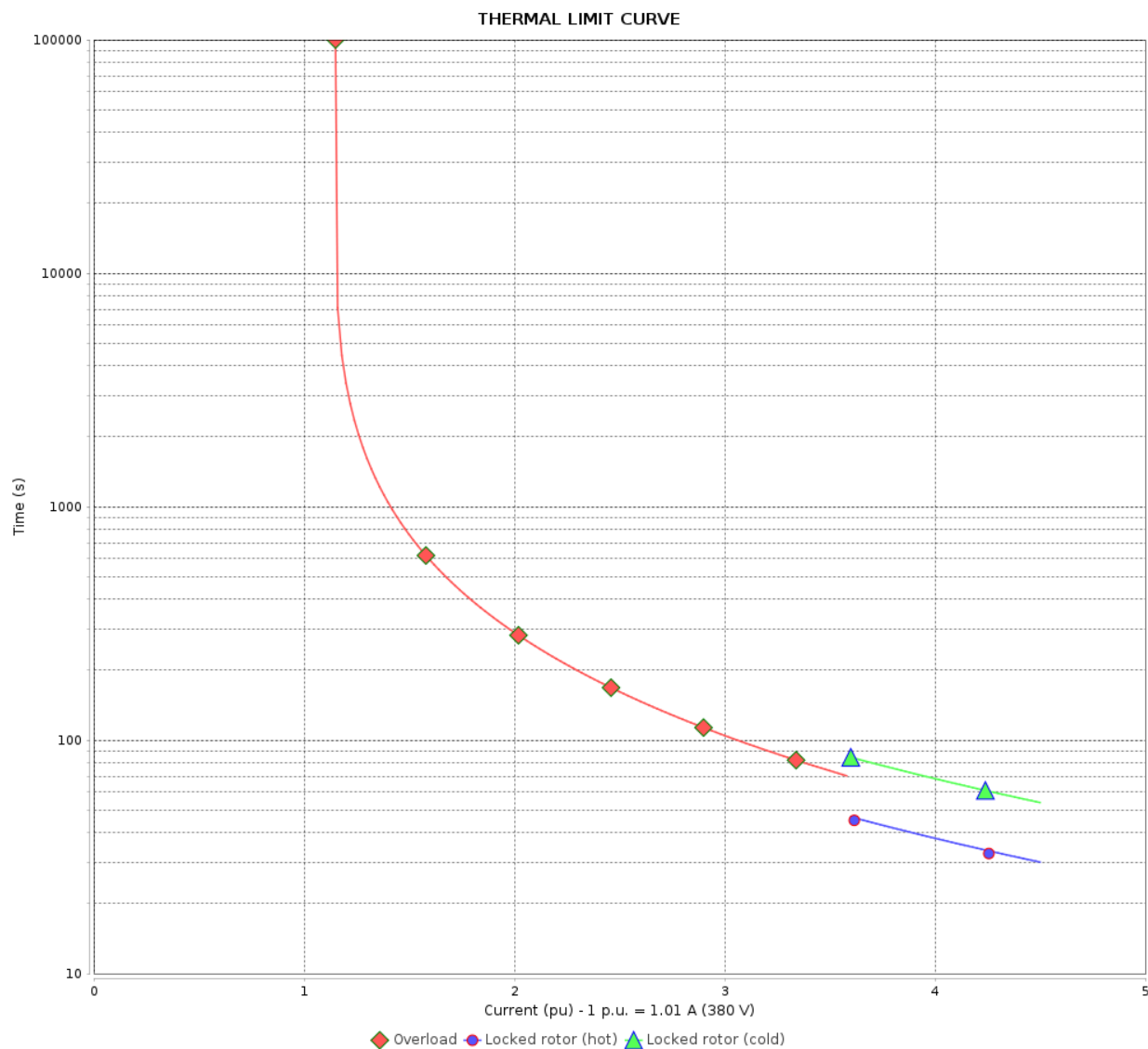
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 220/380 V 50 Hz 4P

Rated current : 1.74/1.01 A  
LRC : 4.5  
Rated torque : 0.263 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 250 %  
Rated speed : 1370 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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		Page 12 / 19Revision			
Checked by					
Date	17/09/2025				

# THERMAL LIMIT CURVE

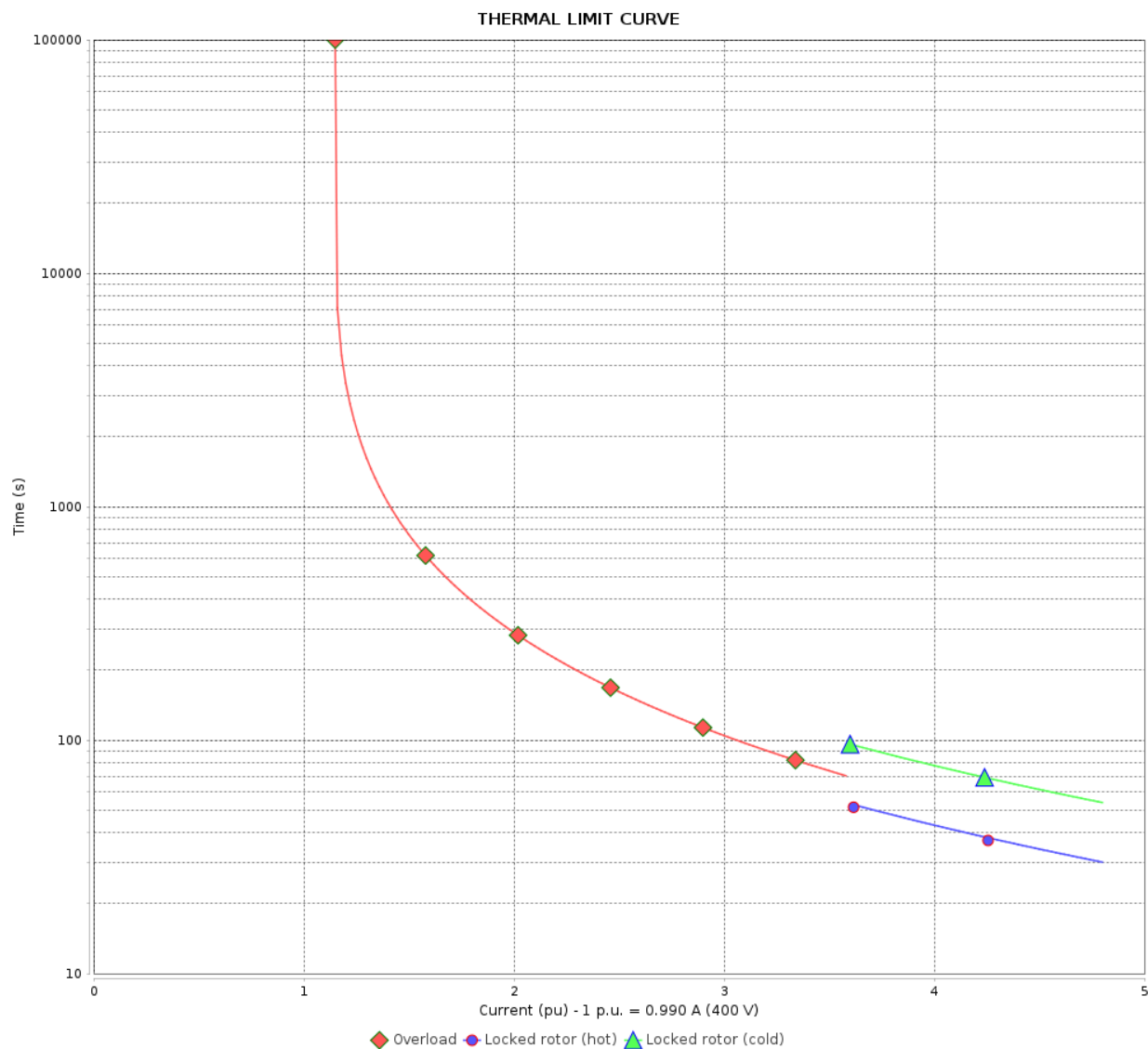
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 230/400 V 50 Hz 4P

Rated current : 1.72/0.990 A  
LRC : 4.8  
Rated torque : 0.259 kgfm  
Locked rotor torque : 290 %  
Breakdown torque : 280 %  
Rated speed : 1390 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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		Page 13 / 19Revision		
Checked by				
Date	17/09/2025			

# THERMAL LIMIT CURVE

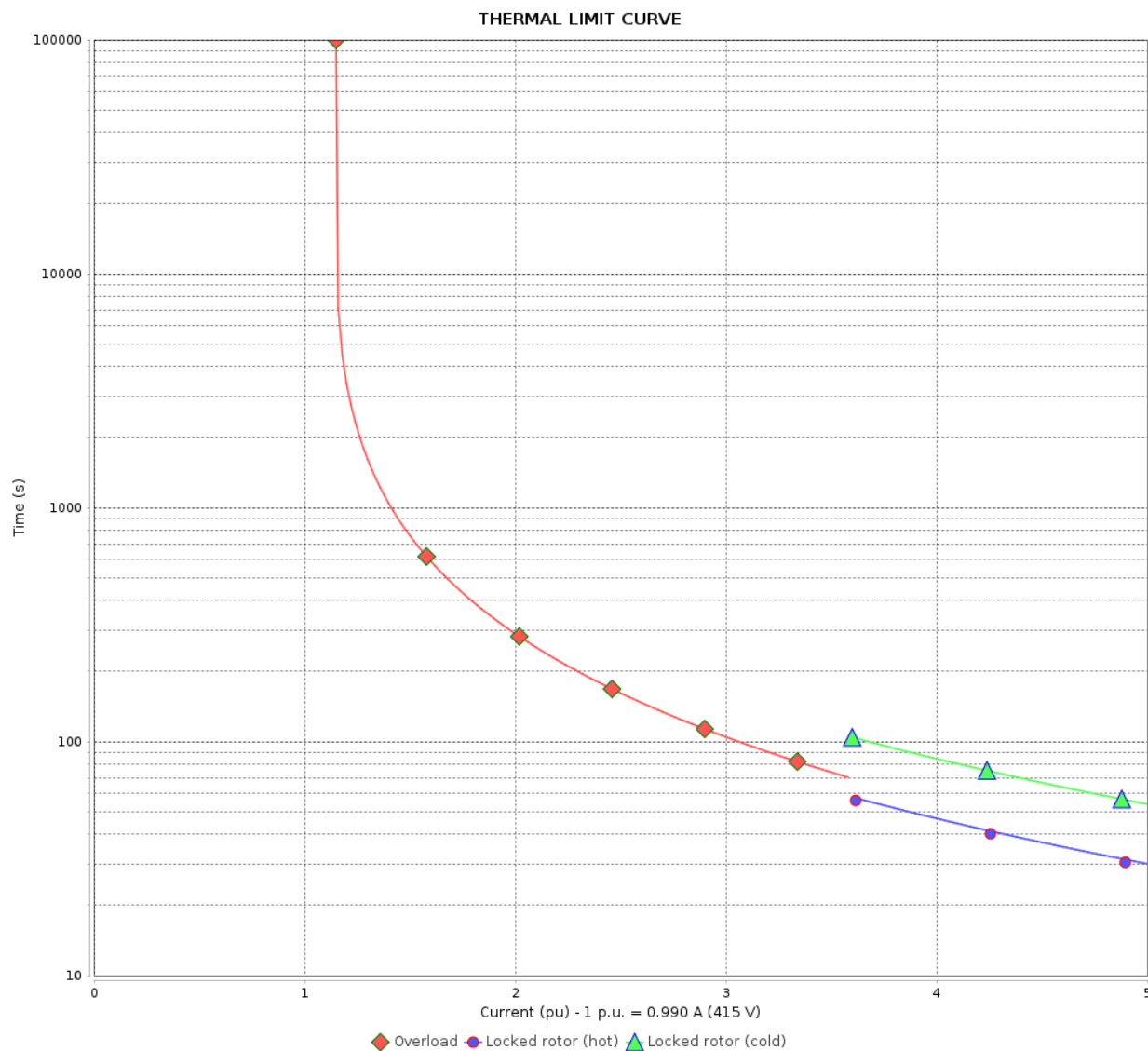
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 240/415 V 50 Hz 4P

Rated current : 1.71/0.990 A  
LRC : 5.0  
Rated torque : 0.257 kgfm  
Locked rotor torque : 320 %  
Breakdown torque : 310 %  
Rated speed : 1400 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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				Page	Revision
Checked by				14 / 19	
Date	17/09/2025				

# THERMAL LIMIT CURVE

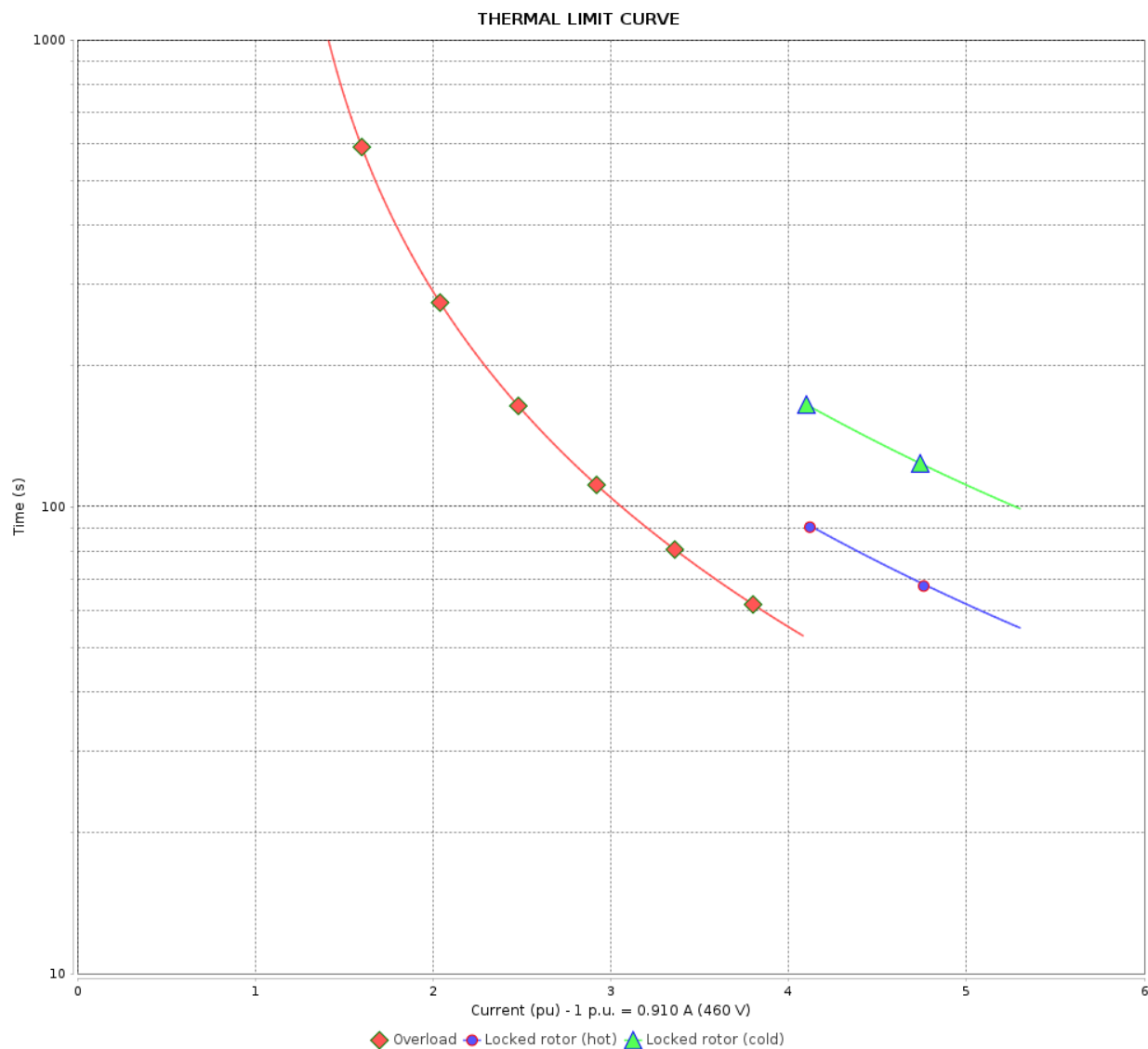
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 460 V 60 Hz 4P

Rated current : 0.910 A  
LRC : 5.3  
Rated torque : 0.211 kgfm  
Locked rotor torque : 350 %  
Breakdown torque : 340 %  
Rated speed : 1710 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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		Page 15 / 19Revision			
Checked by					
Date	17/09/2025				

# VFD OPERATION CURVE

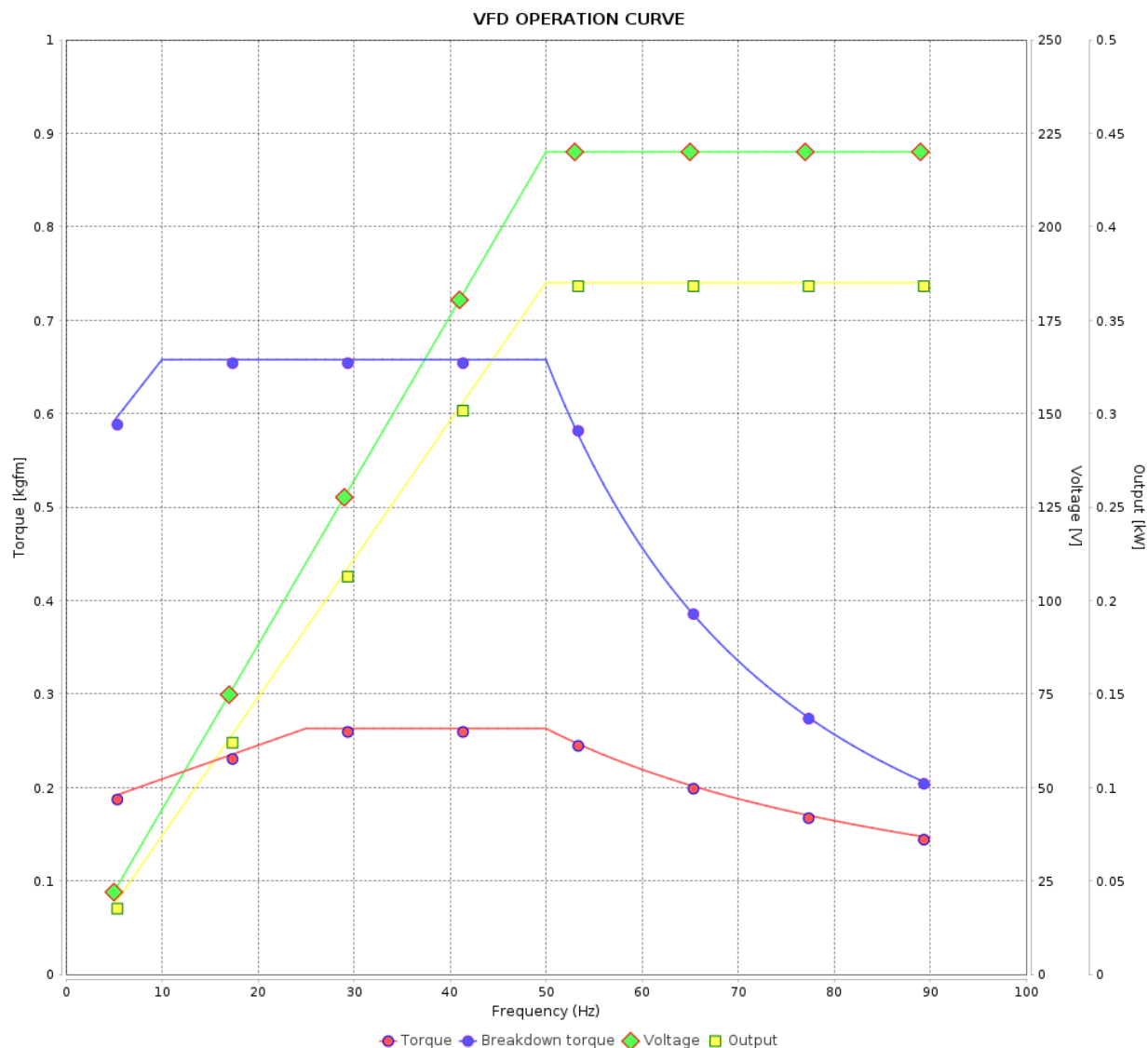
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 220/380 V 50 Hz 4P

Rated current : 1.74/1.01 A  
LRC : 4.5  
Rated torque : 0.263 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 250 %  
Rated speed : 1370 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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				16 / 19	
Date					



# VFD OPERATION CURVE

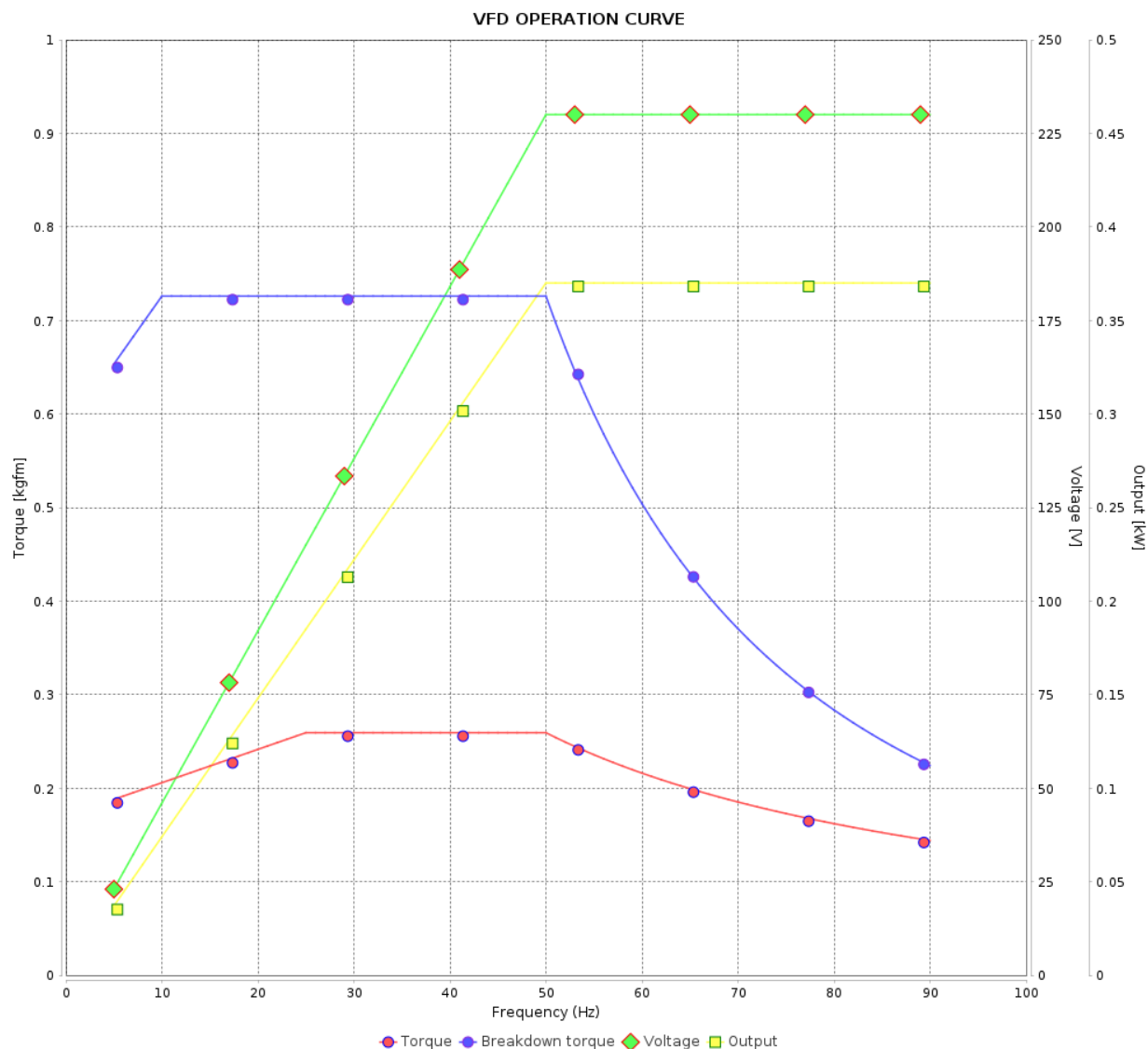
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 230/400 V 50 Hz 4P

Rated current : 1.72/0.990 A  
LRC : 4.8  
Rated torque : 0.259 kgfm  
Locked rotor torque : 290 %  
Breakdown torque : 280 %  
Rated speed : 1390 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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 17 / 19Revision			
Checked by					
Date	17/09/2025				

# VFD OPERATION CURVE

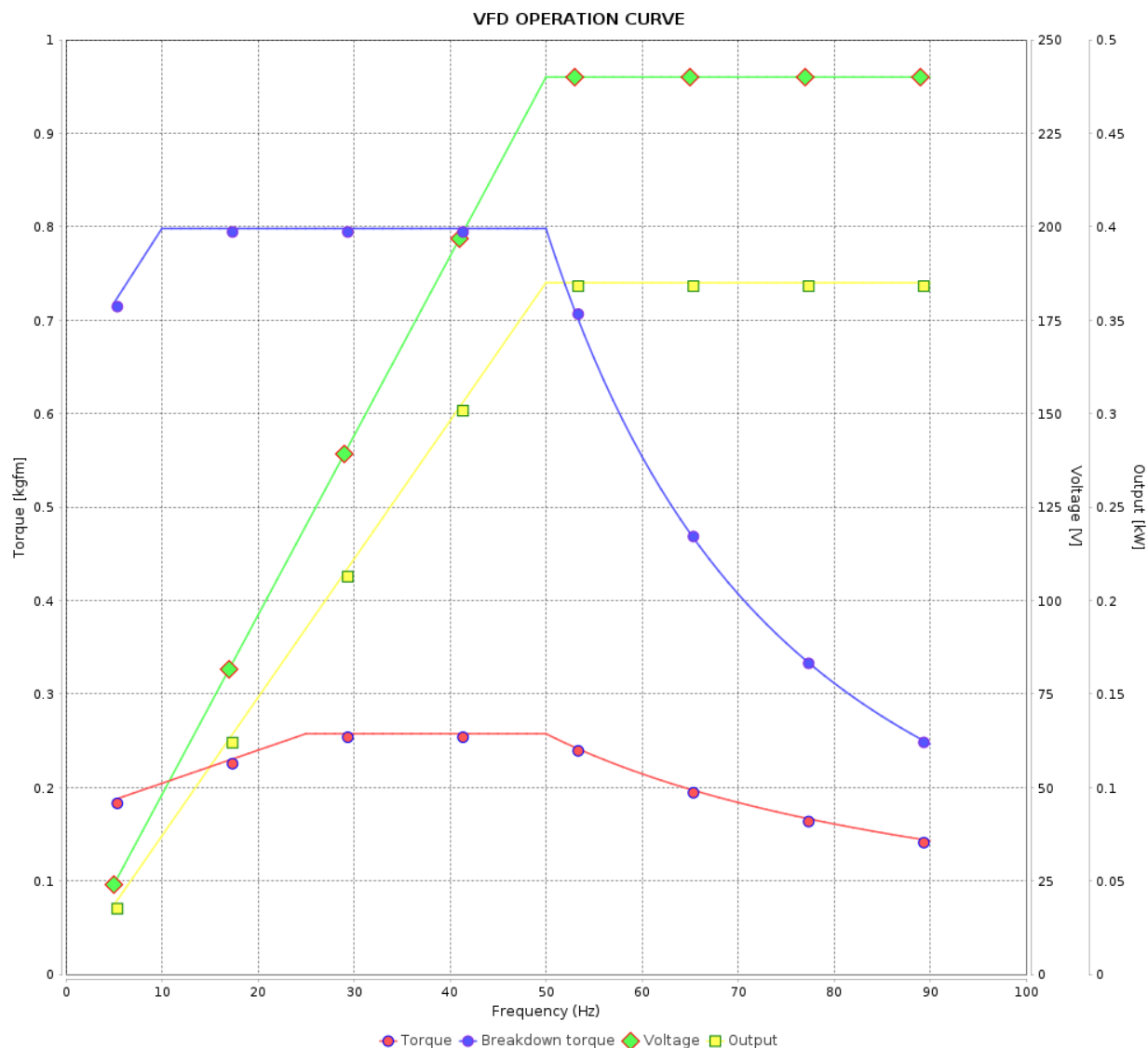
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 240/415 V 50 Hz 4P

Rated current : 1.71/0.990 A  
LRC : 5.0  
Rated torque : 0.257 kgfm  
Locked rotor torque : 320 %  
Breakdown torque : 310 %  
Rated speed : 1400 rpm

Moment of inertia (J) : 0.0008 kgm<sup>2</sup>  
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				18 / 19	
Date					

# VFD OPERATION CURVE

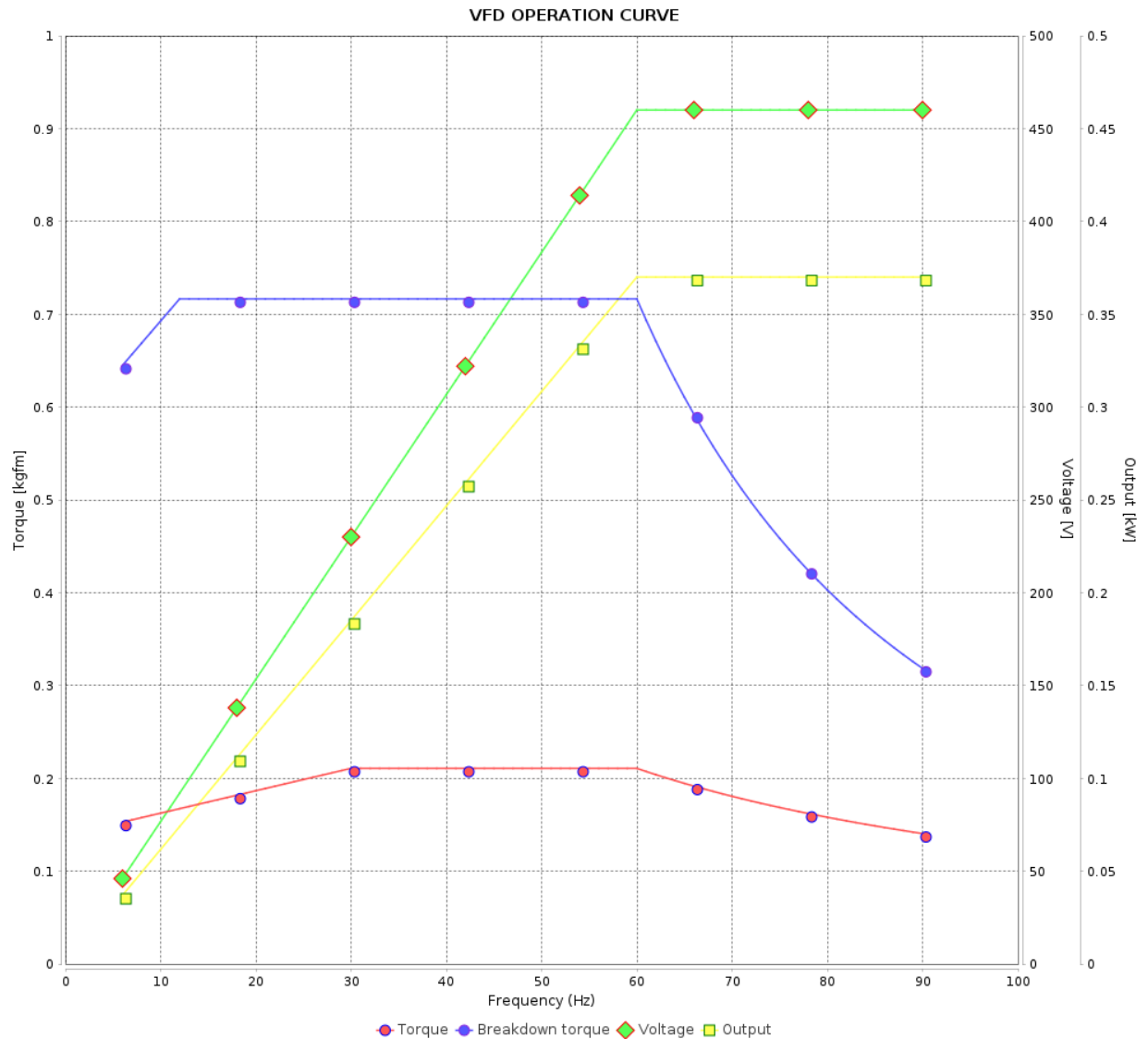
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833993



Performance : 460 V 60 Hz 4P

Rated current	: 0.910 A	Moment of inertia (J)	: 0.0008 kgm <sup>2</sup>
LRC	: 5.3	Duty cycle	: S1
Rated torque	: 0.211 kgfm	Insulation class	: F
Locked rotor torque	: 350 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1710 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 19 / 19Revision		
Checked by				
Date	17/09/2025			