DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :

Frame	: 200L	Cooling method	: IC411 - TEFC
Insulation class	: H	Mounting	: B5L(D)
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]	: 274 kg
Protection degree	: IP66	Moment of inertia (J)	: 0.3202 kgm²
Design	: N		

Output [kW]		30	30	30	30
Poles		4	4	4	4
Frequency [Hz]		50	50	50	60
Rated voltage [V]		380/660	400/690	415	460
Rated current [A]		58.0/33.4	57.1/33.1	56.4	50.0
L. R. Amperes [A]		423/244	428/248	440	415
LRC [A]		7.3	7.5	7.8	8.3
No load current [A]		24.5/14.1	27.0/15.7	29.3	25.6
Rated speed [RPM]		1480	1480	1485	1785
Slip [%]		1.33	1.33	1.00	0.83
Rated torque [kgfm]		19.7	19.7	19.7	16.4
Locked rotor torque [%]		250	280	300	340
Breakdown torque [%]		280	310	340	350
Service factor		1.15	1.15	1.15	1.15
Temperature rise		80 K	80 K	80 K	80 K
Locked rotor time		21s (cold) 12s (hot)	21s (cold) 12s (hot)	19s (cold) 10s (hot)	26s (cold) 14s (hot)
Noise level[2]		63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	66.0 dB(A)
Efficiency (%)	25%				
	50%	93.4	92.9	92.3	92.6
	75%	93.6	93.6	93.3	93.7
	100%	93.6	93.6	93.6	94.1
Power Factor	25%				
	50%	0.68	0.63	0.59	0.62
	75%	0.79	0.75	0.72	0.74
	100%	0.84	0.81	0.79	0.80

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

Losses (%)	P1 (0,9;1,0)	6.6	6.6	6.6	6.1
	P2 (0,5;1,0)	5.8	5.8	5.8	5.3
	P3 (0,25;1,0)	5.4	5.4	5.4	5.0
	P4 (0,9;0,5)	3.1	3.1	3.1	2.9
	P5 (0,5;0,5)	2.3	2.3	2.3	2.1
	P6 (0,5;0,25)	1.5	1.5	1.5	1.4
	P7 (0,25;0,25)	1.1	1.1	1.1	1.0

		Drive end	Non drive end
Bearing type	:	6312 C3	6212 C3
Sealing	:	00069	
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	21 g	13 g
Lubricant type	:	Mobil Polyrex EM	

Foundation loads

Max. traction : 583 kgf

Max. compression : 857 kgf

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	20/09/2025	1 / 19	

This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer :

Notes

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		2 / 19	

This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

Customer :

Thermal protection

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

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		3 / 19	

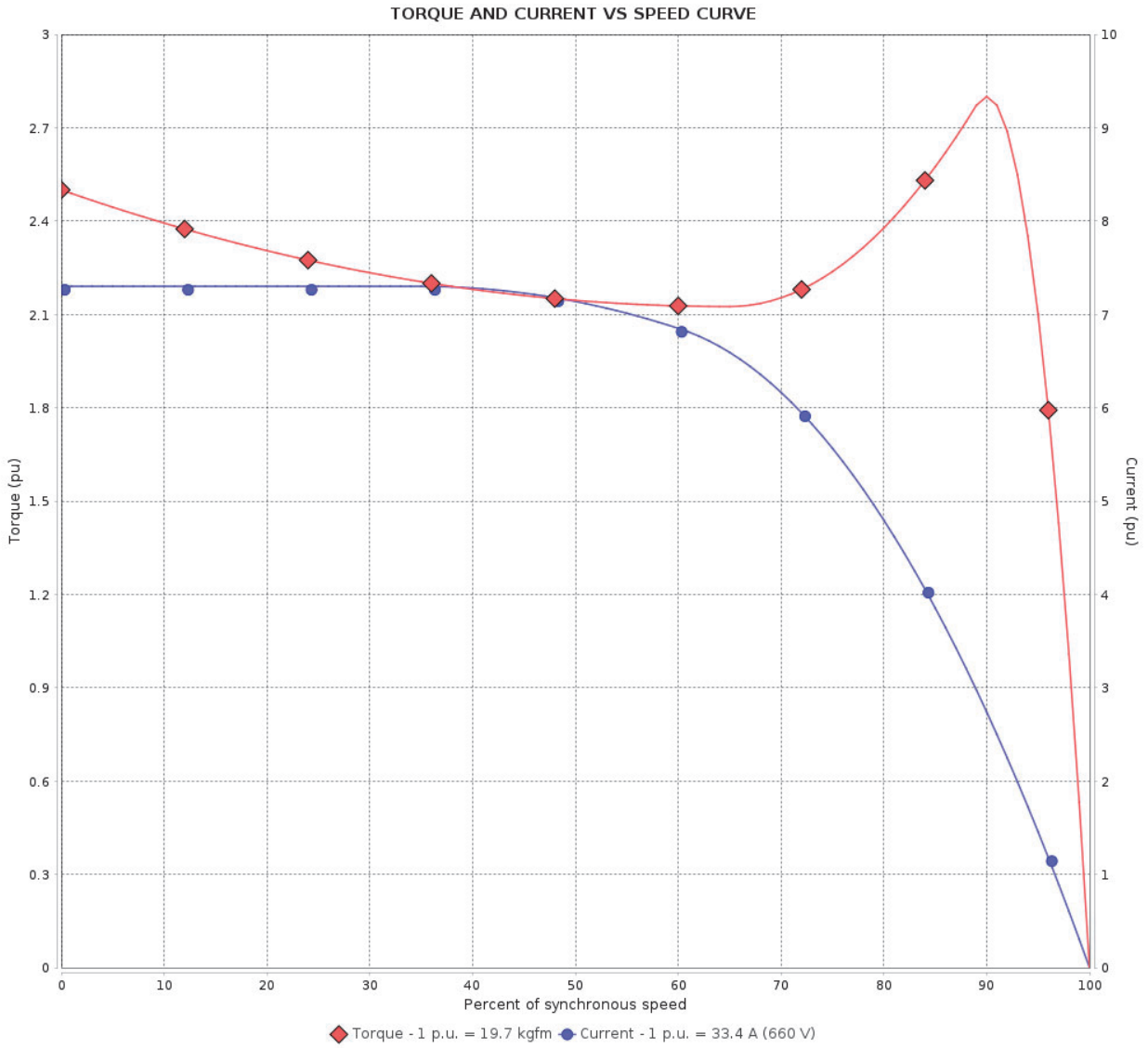
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 380/660 V 50 Hz 4P		
Rated current	: 58.0/33.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N
Locked rotor time	: 21s (cold) 12s (hot)		

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		4 / 19	

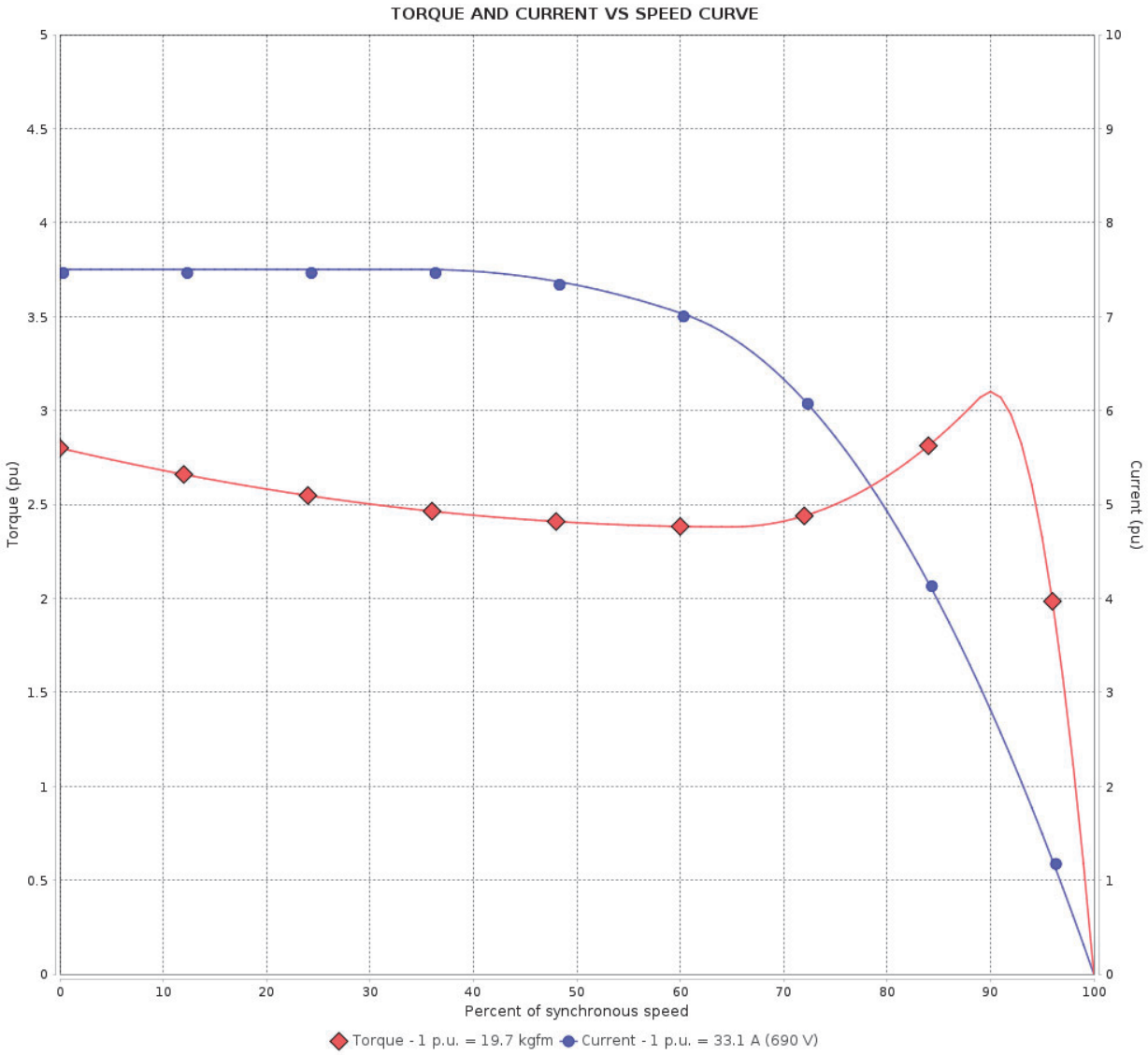
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 400/690 V 50 Hz 4P		
Rated current	: 57.1/33.1 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N
Locked rotor time	: 21s (cold) 12s (hot)		

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		5 / 19	

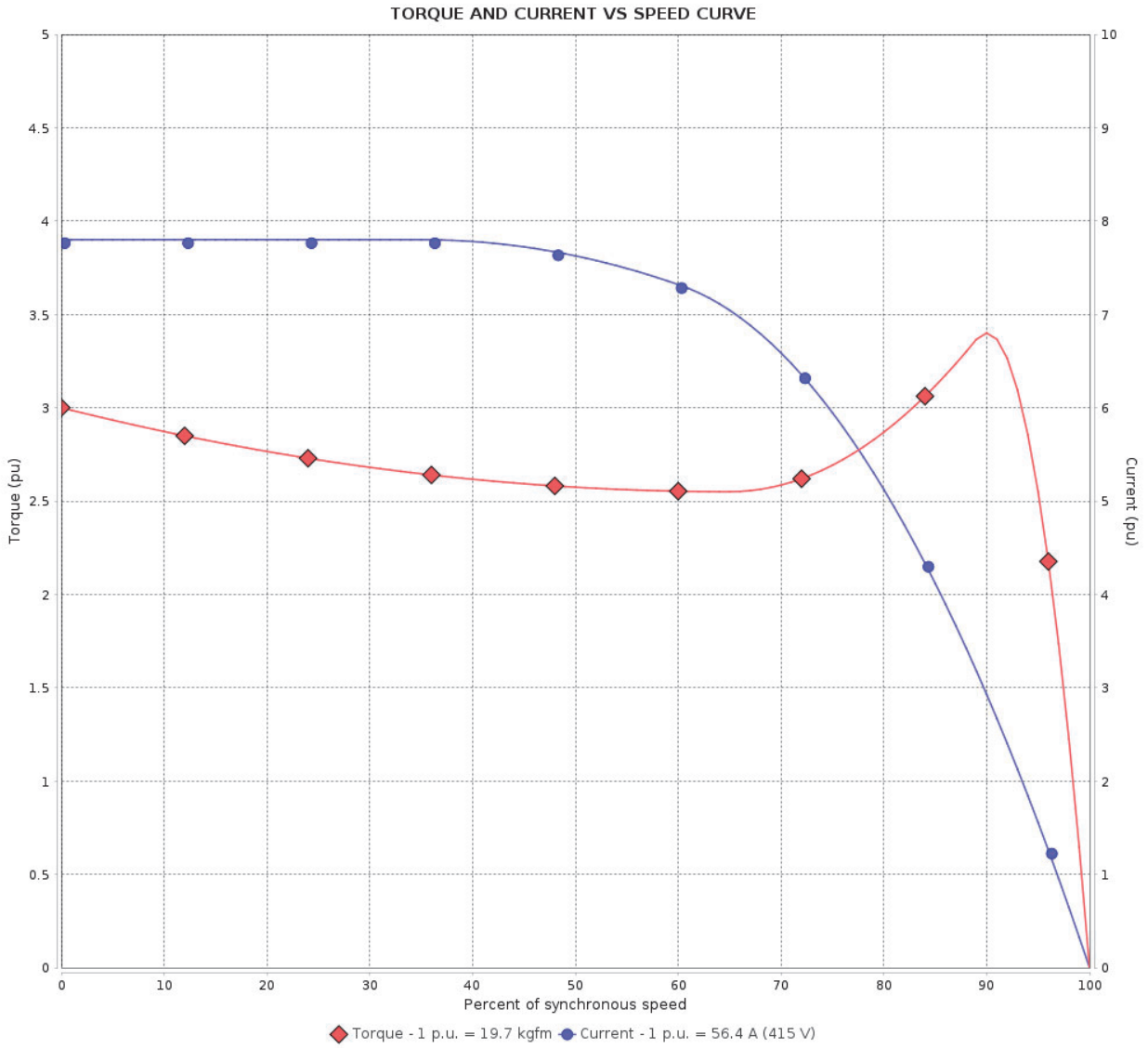
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 415 V 50 Hz 4P		
Rated current	: 56.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.8	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 300 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N

Locked rotor time : 19s (cold) 10s (hot)

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		6 / 19	

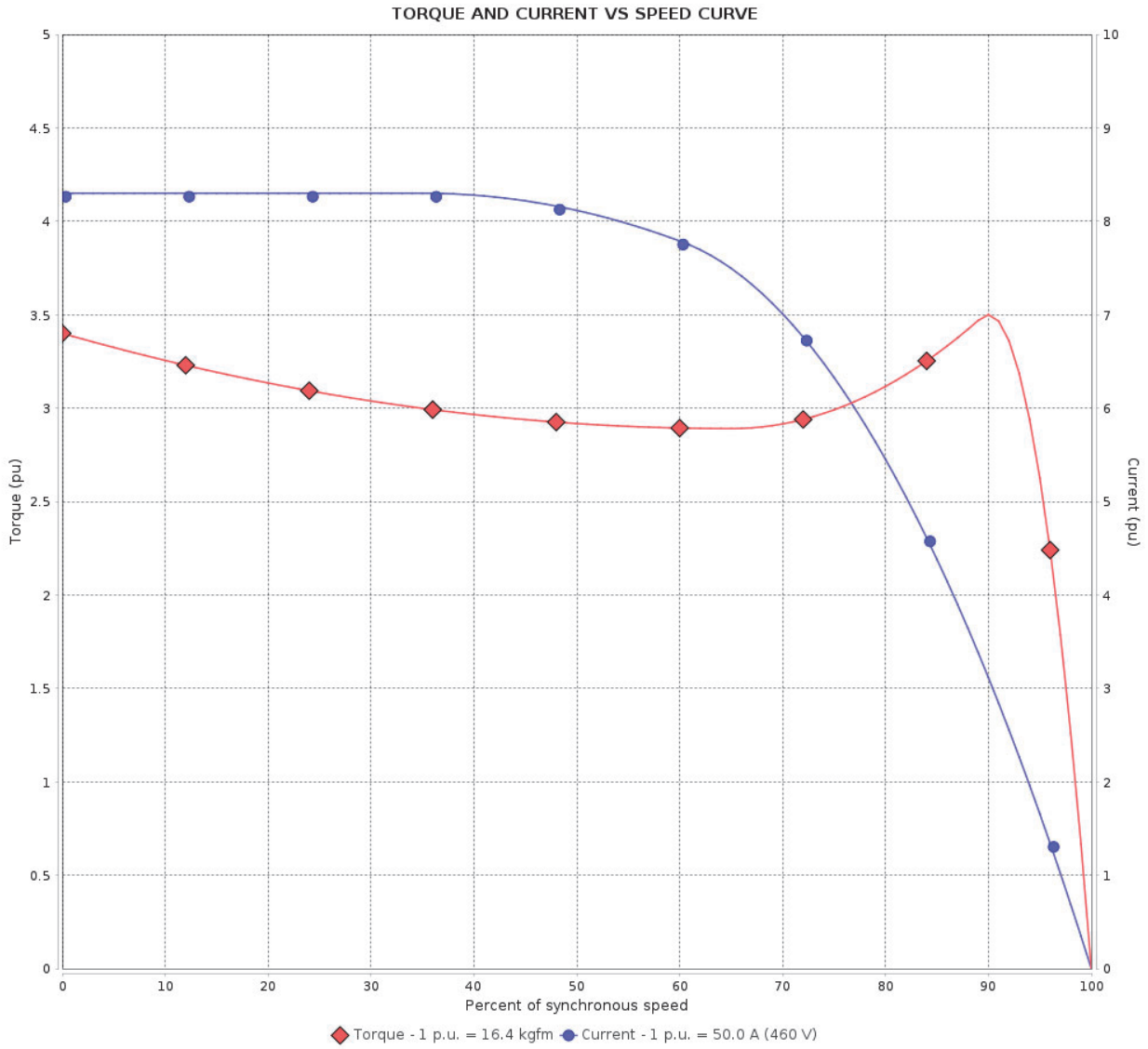
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 460 V 60 Hz 4P		
Rated current	: 50.0 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 8.3	Duty cycle	: S1
Rated torque	: 16.4 kgfm	Insulation class	: H
Locked rotor torque	: 340 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: N
Locked rotor time	: 26s (cold) 14s (hot)		

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		7 / 19	

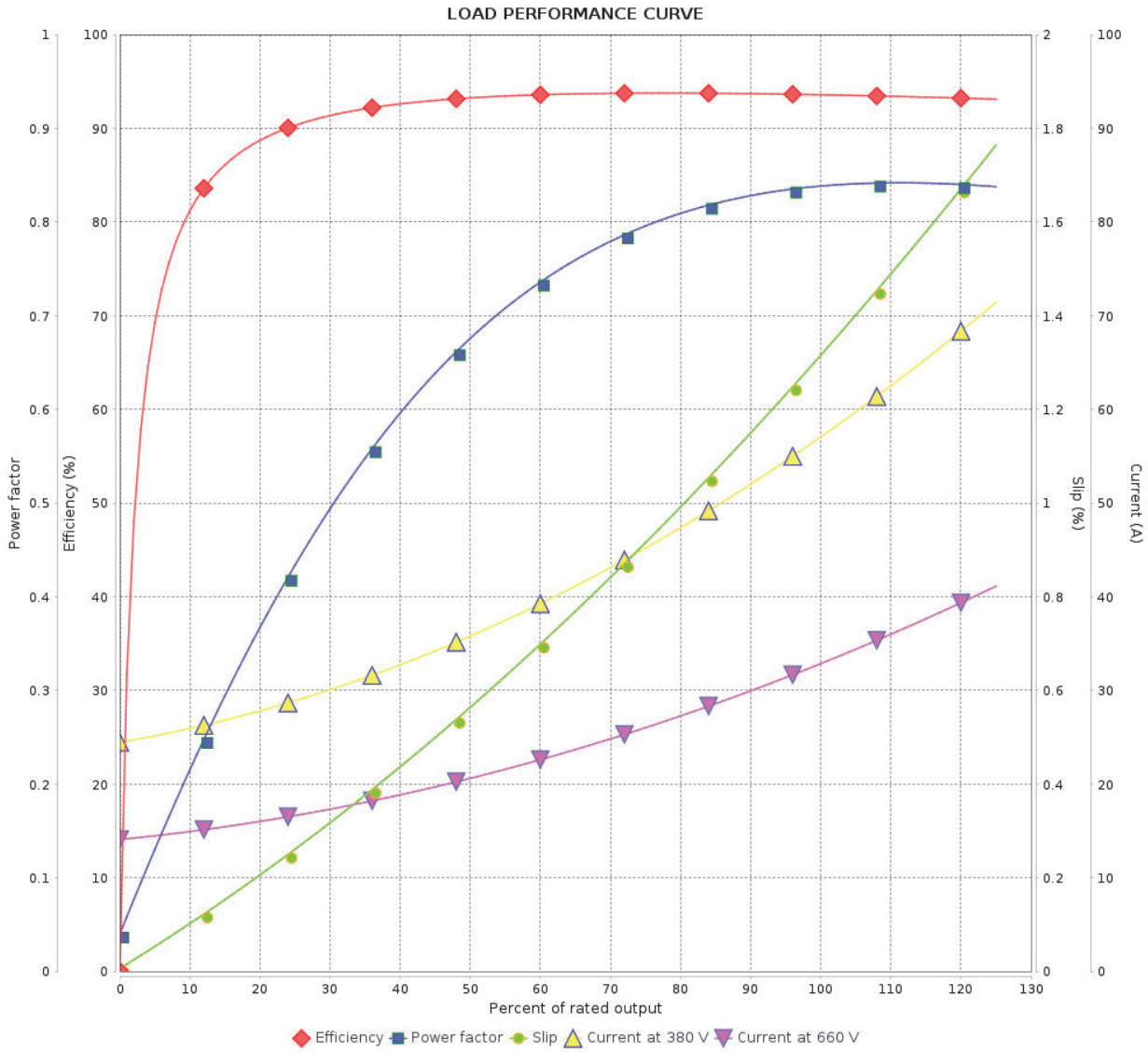
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 380/660 V 50 Hz 4P		
Rated current	: 58.0/33.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		8 / 19	

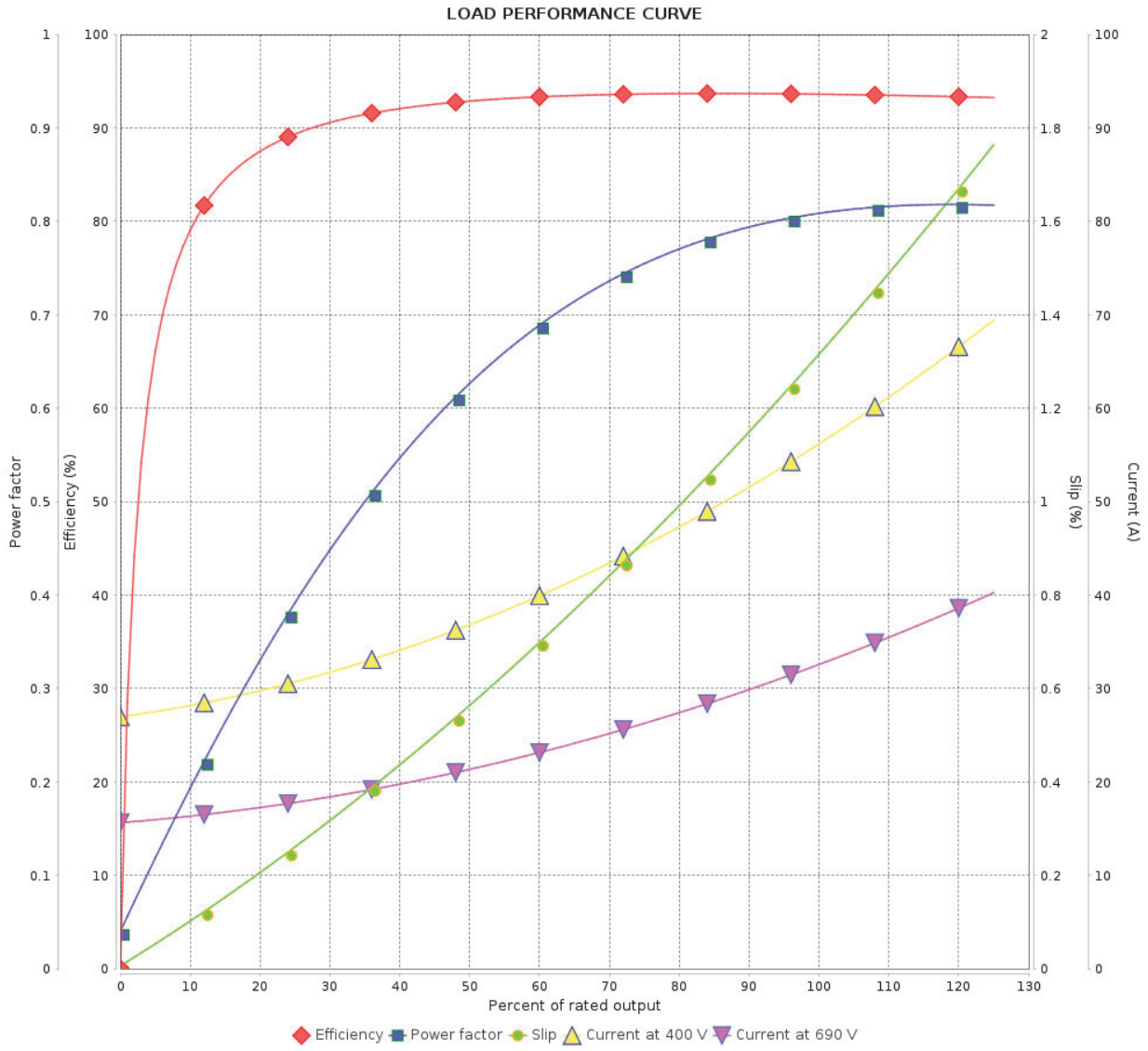
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 400/690 V 50 Hz 4P		
Rated current	: 57.1/33.1 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		9 / 19	

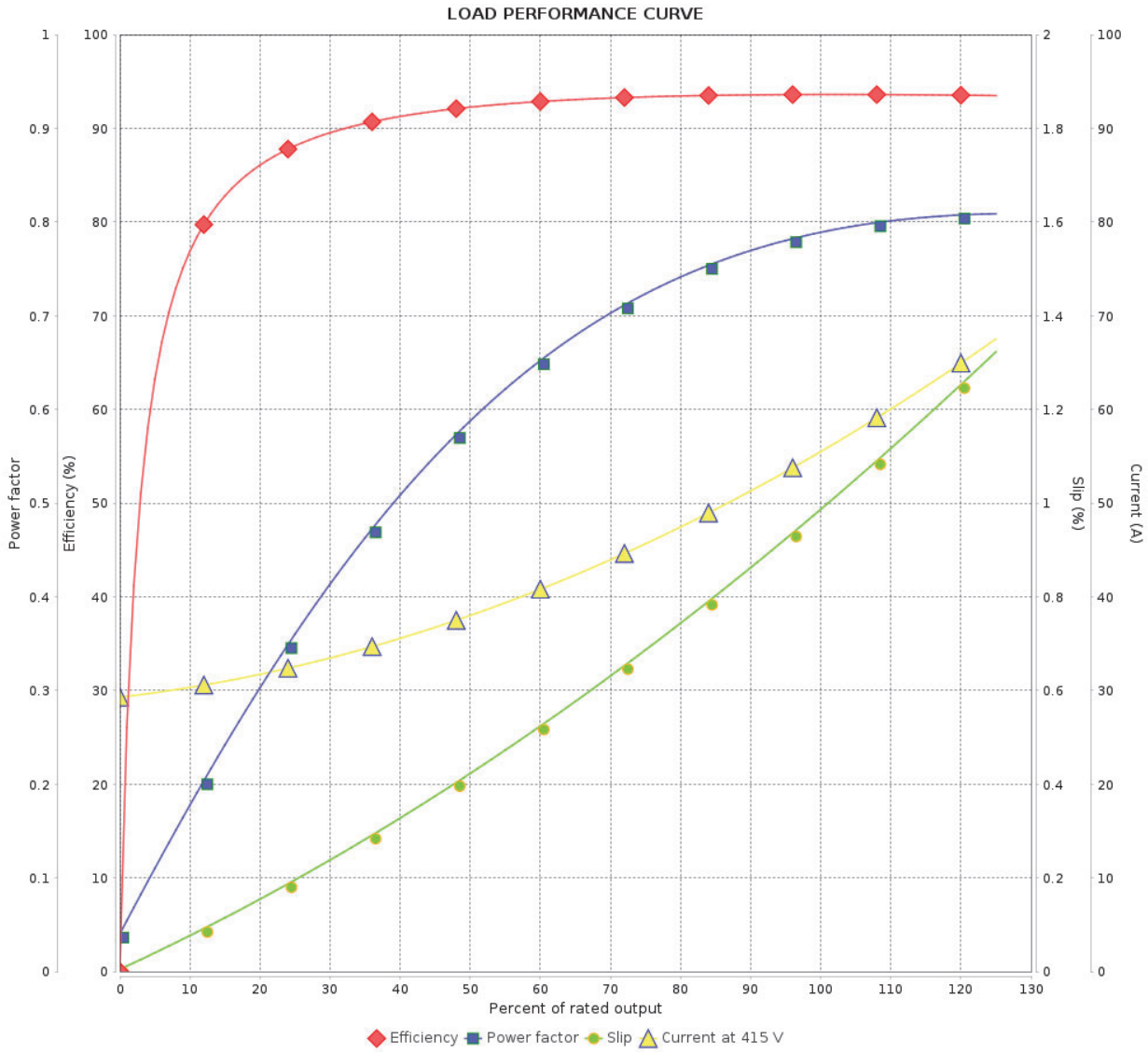
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 415 V 50 Hz 4P		
Rated current	: 56.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.8	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 300 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		10 / 19	

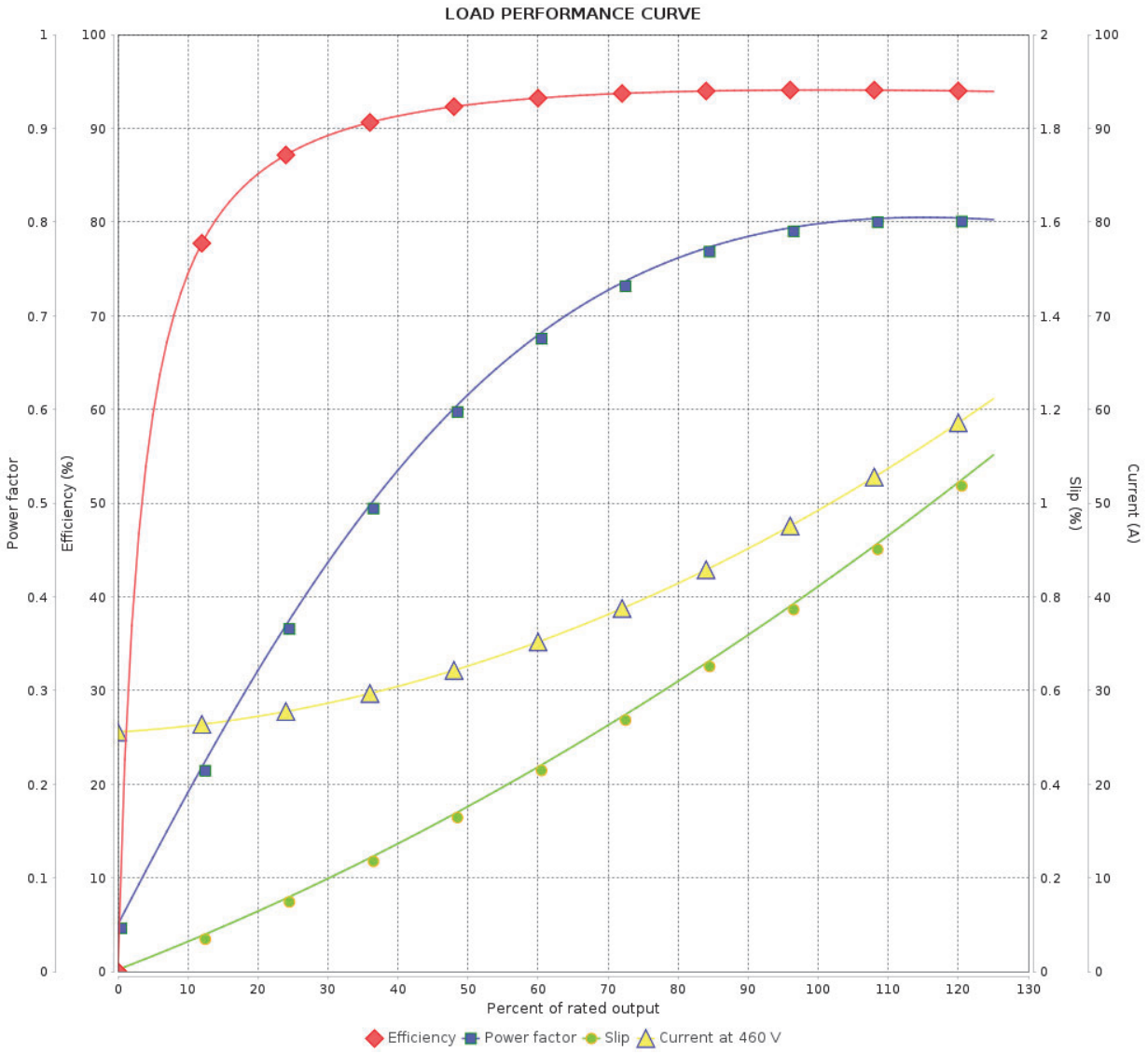
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 460 V 60 Hz 4P		
Rated current	: 50.0 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 8.3	Duty cycle	: S1
Rated torque	: 16.4 kgfm	Insulation class	: H
Locked rotor torque	: 340 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		11 / 19	

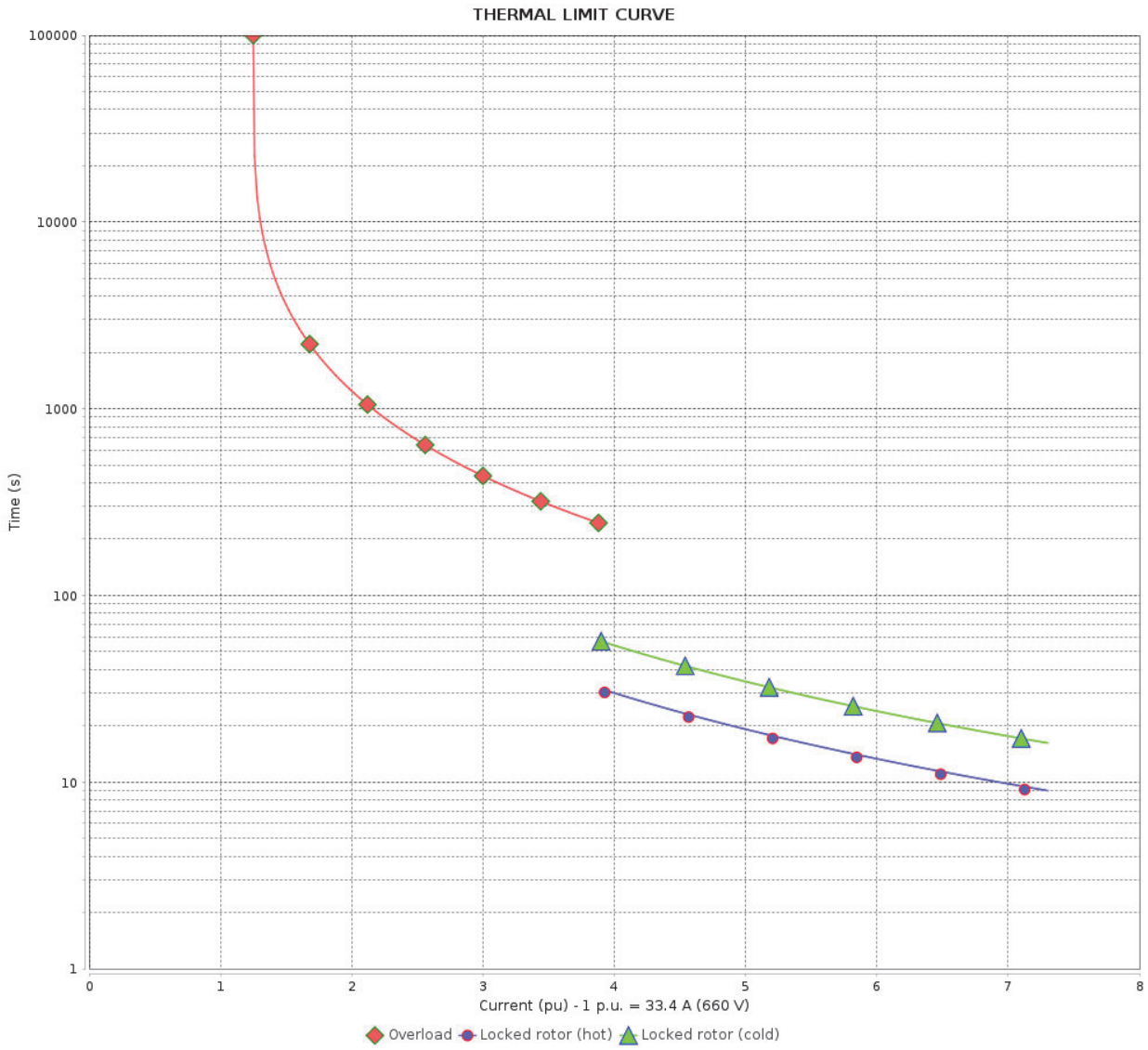
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 380/660 V 50 Hz 4P		
Rated current	: 58.0/33.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N
Heating constant			
Cooling constant			

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		12 / 19	

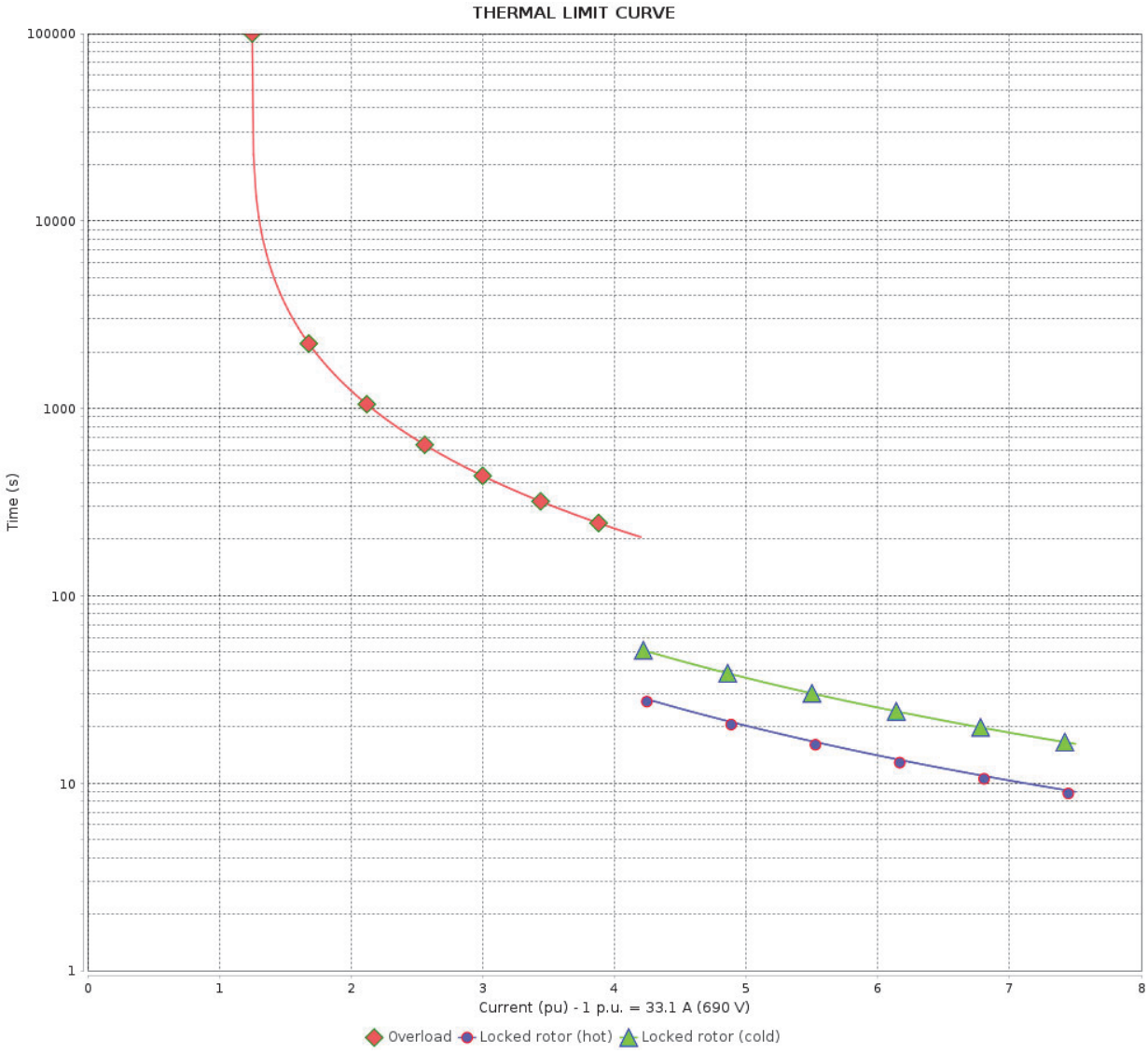
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 400/690 V 50 Hz 4P		
Rated current	: 57.1/33.1 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N
Heating constant			
Cooling constant			

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		13 / 19	

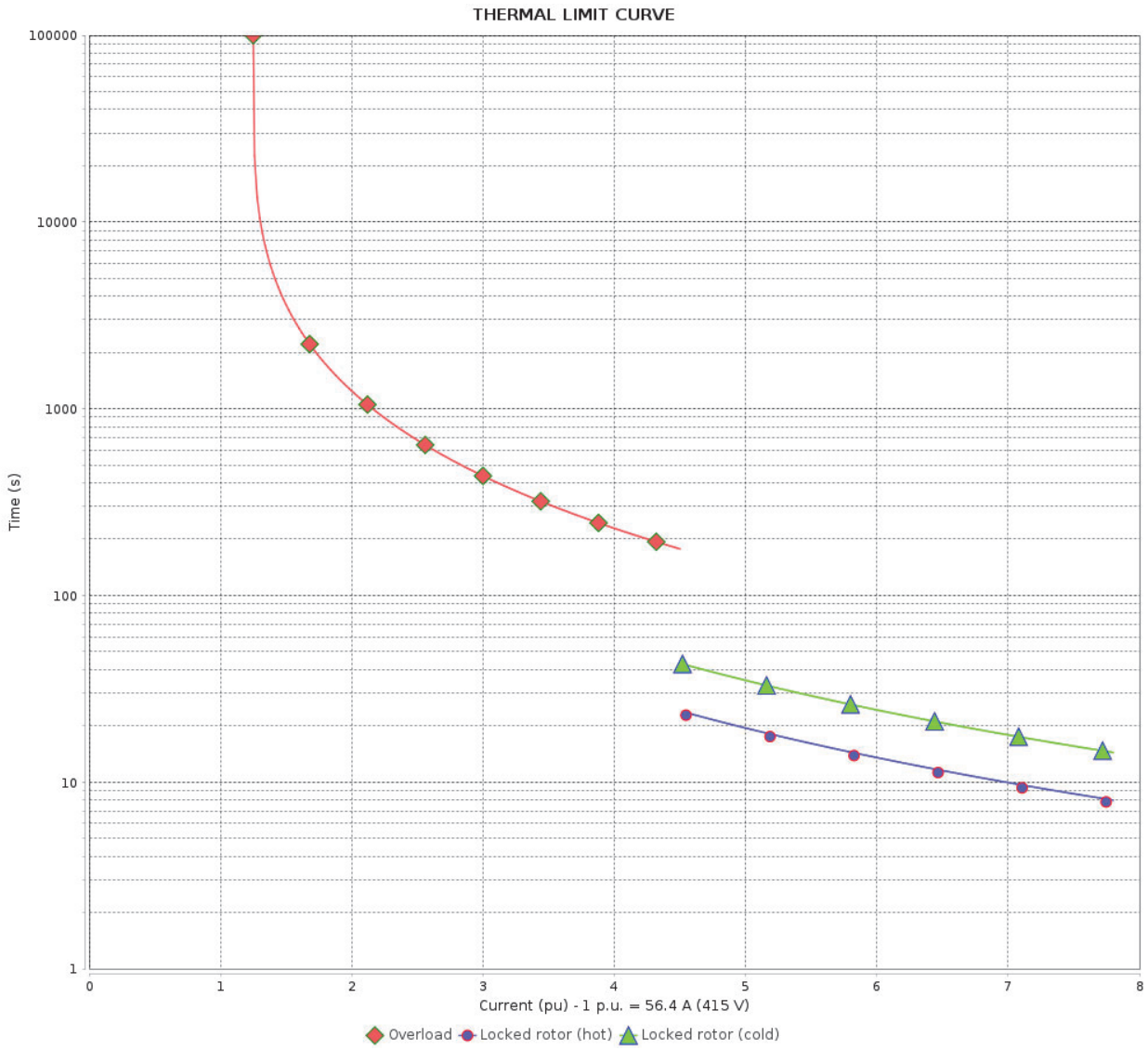
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 415 V 50 Hz 4P		
Rated current	: 56.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.8	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 300 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N
Heating constant			
Cooling constant			

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		14 / 19	

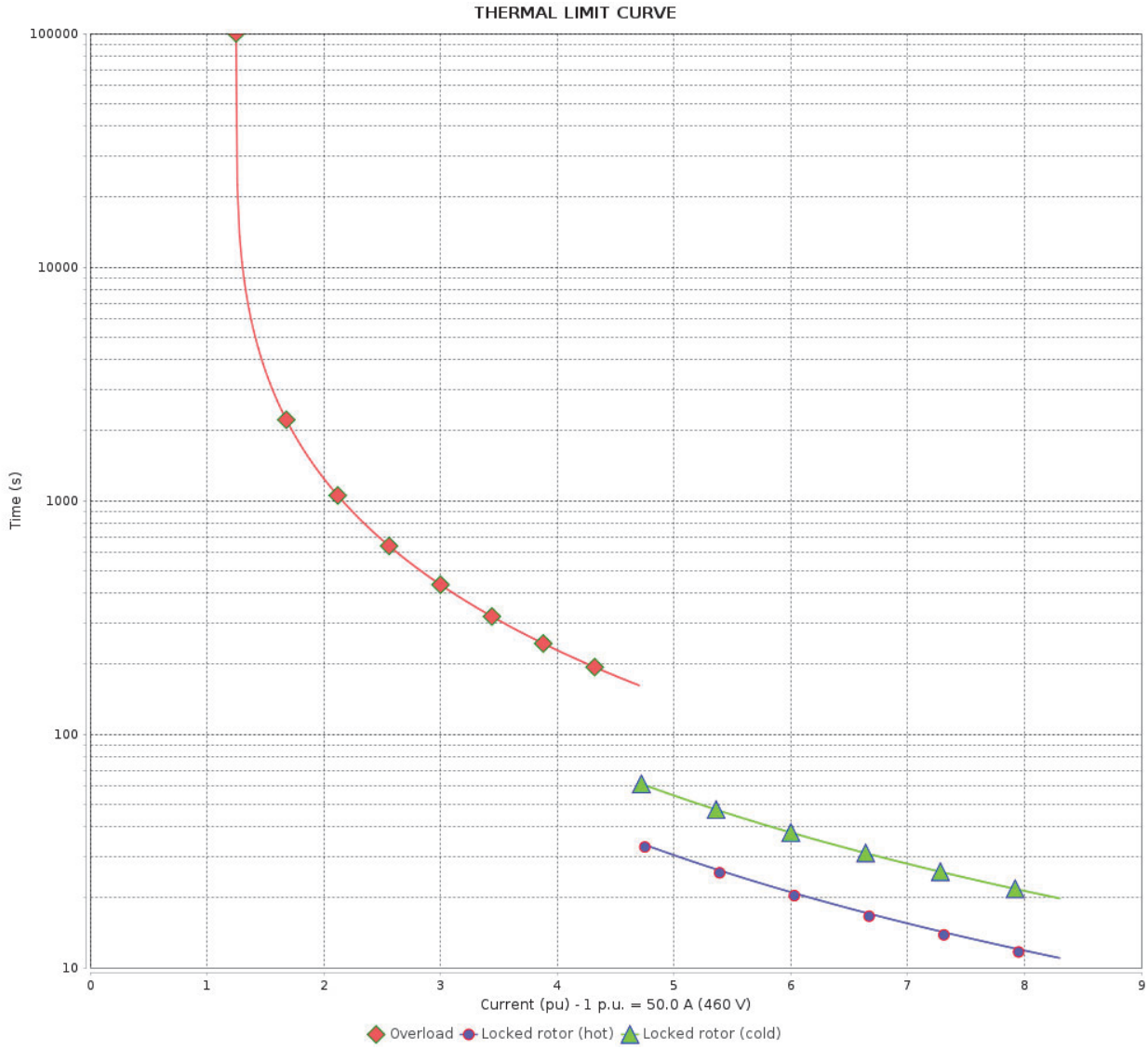
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 460 V 60 Hz 4P		
Rated current	: 50.0 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 8.3	Duty cycle	: S1
Rated torque	: 16.4 kgfm	Insulation class	: H
Locked rotor torque	: 340 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: N
Heating constant			
Cooling constant			

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		15 / 19	

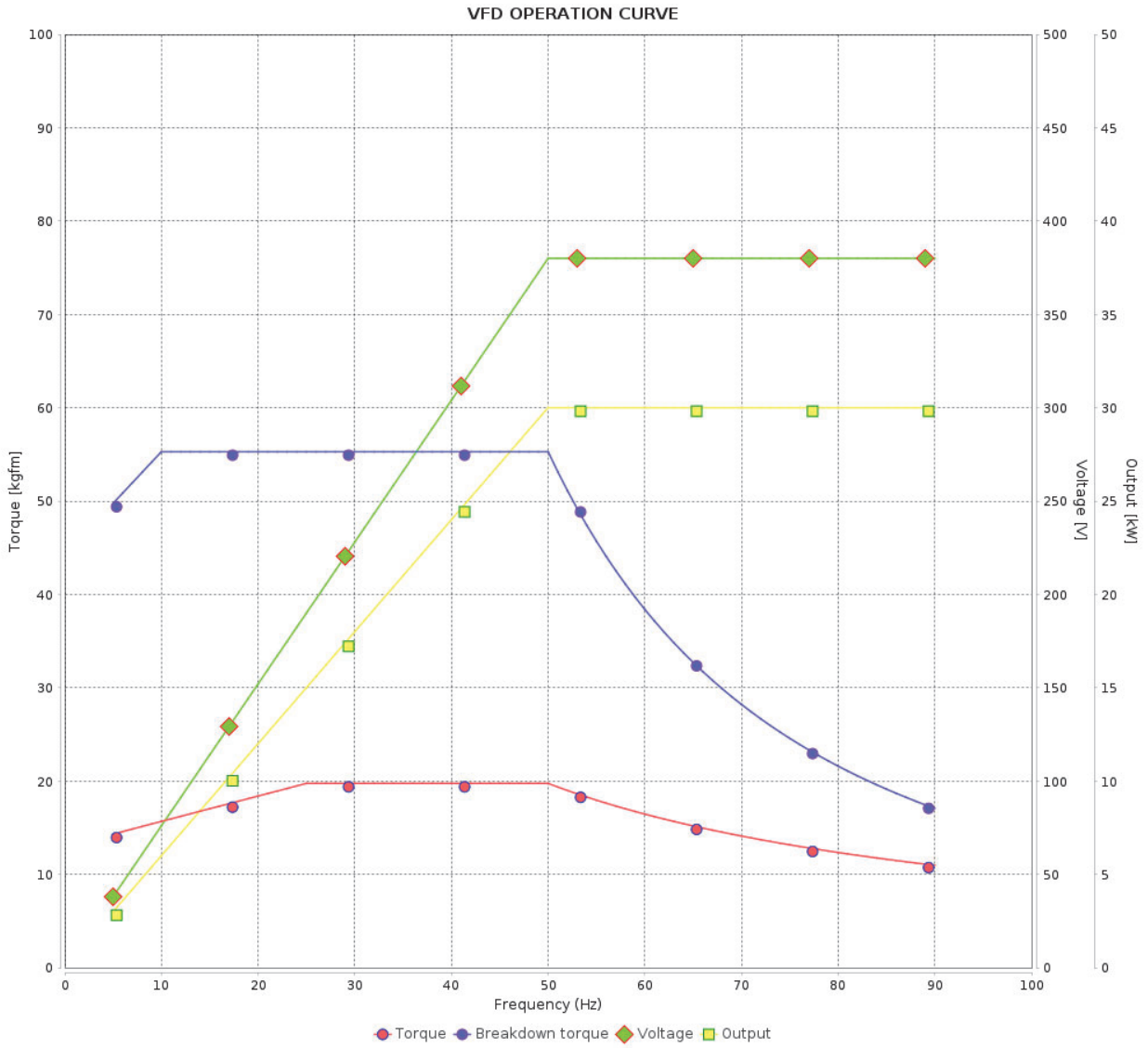
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 380/660 V 50 Hz 4P		
Rated current	: 58.0/33.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		16 / 19	

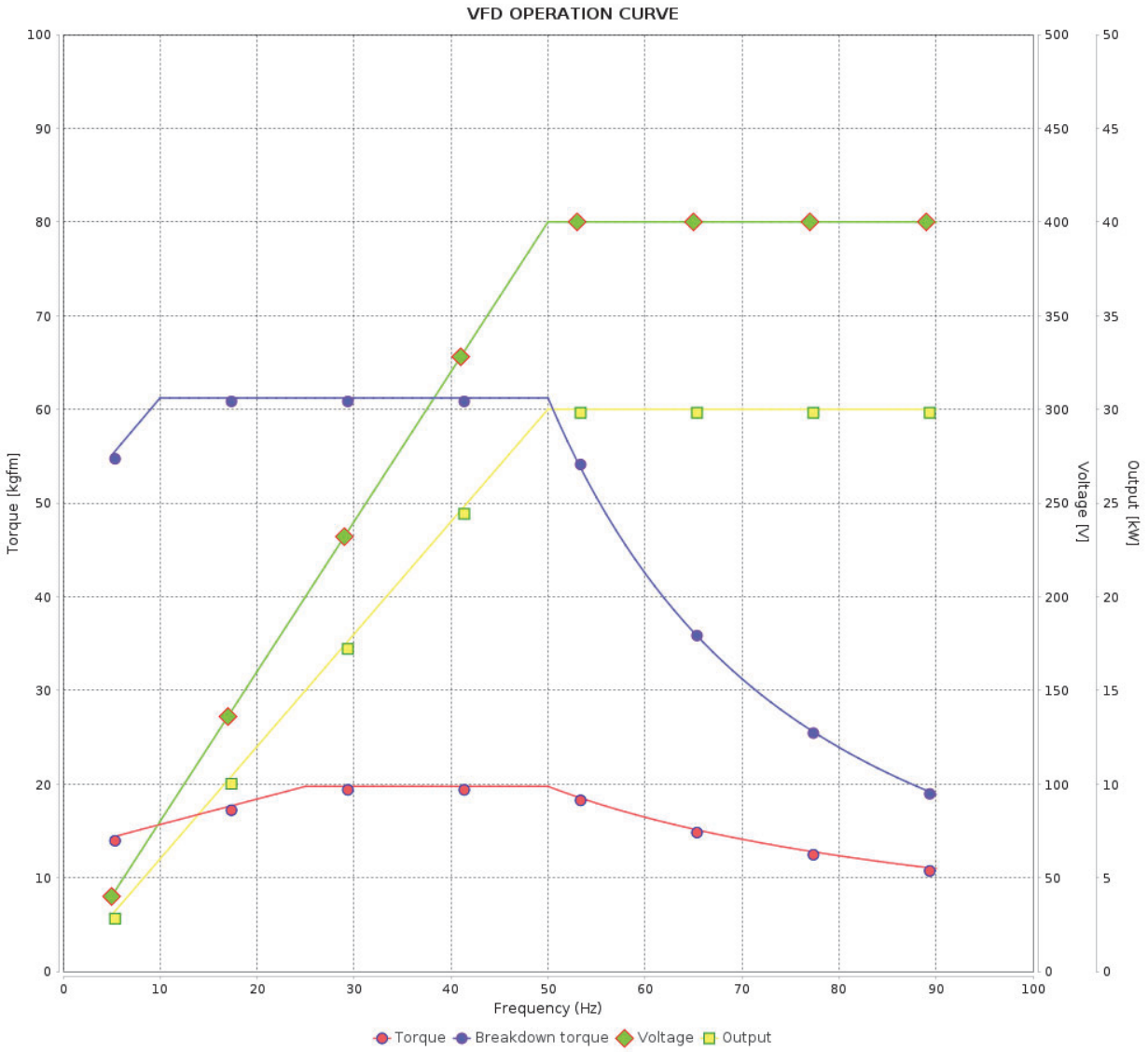
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 400/690 V 50 Hz 4P		
Rated current	: 57.1/33.1 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.5	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		17 / 19	

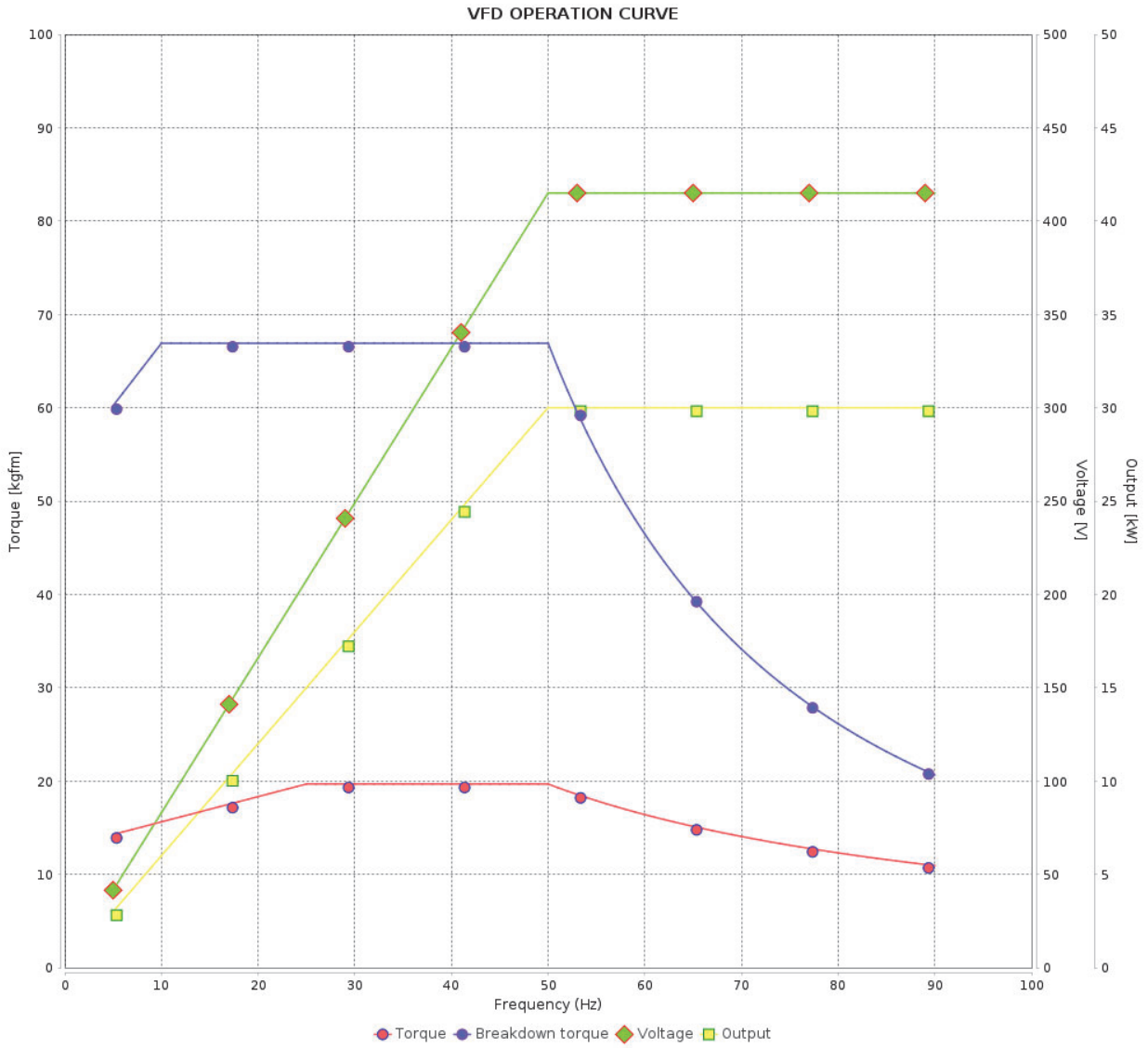
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 415 V 50 Hz 4P		
Rated current	: 56.4 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 7.8	Duty cycle	: S1
Rated torque	: 19.7 kgfm	Insulation class	: H
Locked rotor torque	: 300 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		18 / 19	

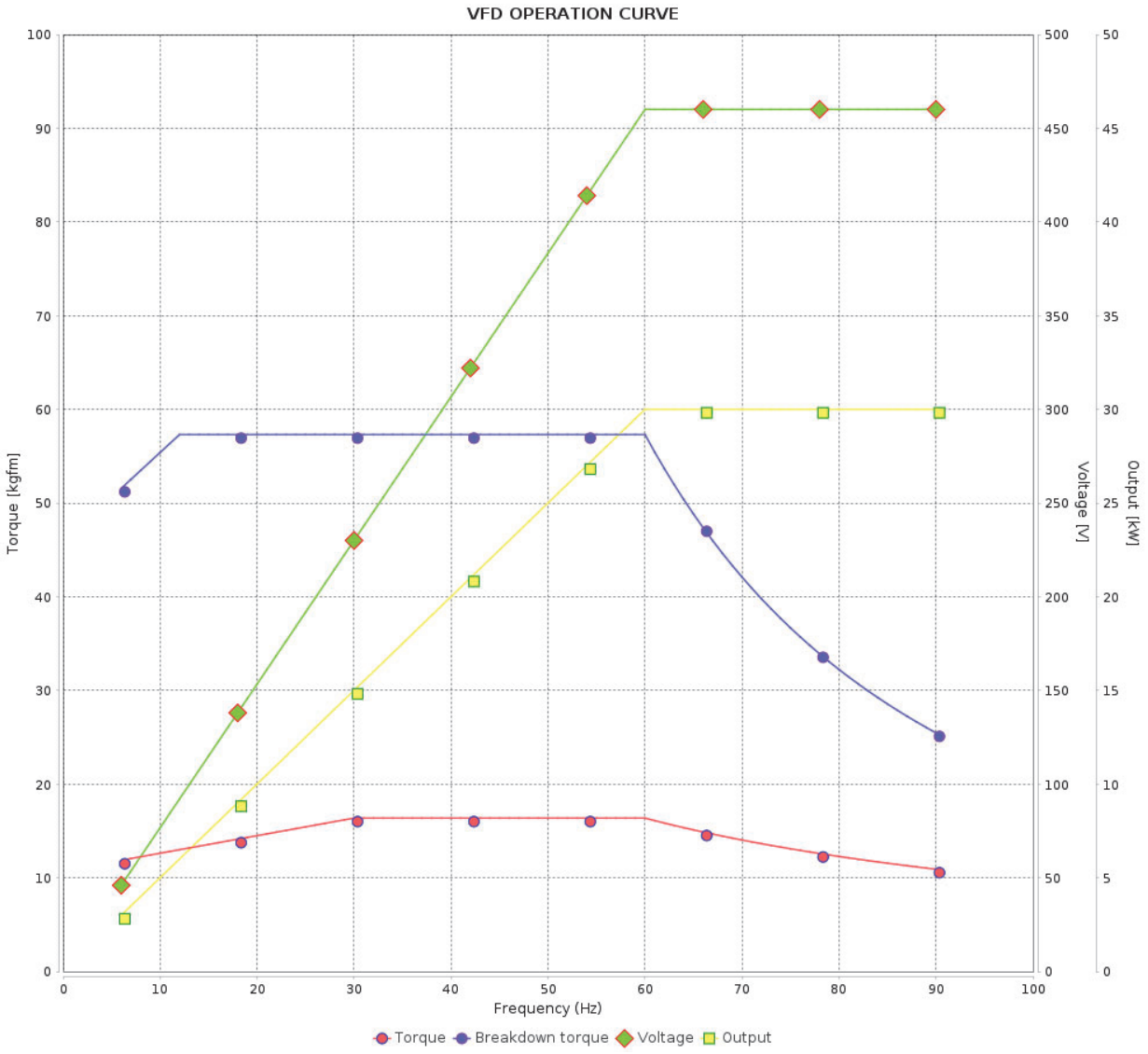
This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Mining IE3 Three-Phase Product code :



Performance	: 460 V 60 Hz 4P		
Rated current	: 50.0 A	Moment of inertia (J)	: 0.3202 kgm²
LRC	: 8.3	Duty cycle	: S1
Rated torque	: 16.4 kgfm	Insulation class	: H
Locked rotor torque	: 340 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date

Performed by				
Checked by			Page	Revision
Date	20/09/2025		19 / 19	

This document is exclusive property of WEG S/A. Reprinting is not allowed without written authorization of WEG S/A.
Subject to change without notice