

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :	
Product line : IE3 Three-Phase	Product code : 12862901
Frame : 160L Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N	Cooling method : IC411 - TEFC Mounting : B5T Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ² : 160 kg Moment of inertia (J) : 0.1931 kgm ²
Output [kW]	11
Poles	6
Frequency [Hz]	50
Rated voltage [V]	380/660
Rated current [A]	23.1/13.3
L. R. Amperes [A]	157/90.4
LRC [A]	6.8
No load current [A]	12.5/7.20
Rated speed [RPM]	975
Slip [%]	2.50
Rated torque [kgfm]	11.0
Locked rotor torque [%]	250
Breakdown torque [%]	270
Service factor	1.00
Temperature rise	80 K
Locked rotor time	21s (cold) 12s (hot)
Noise level ²	57.0 dB(A)
Efficiency (%)	25%
	50%
	75%
	100%
Power Factor	25%
	50%
	75%
	100%
Losses at normative operating points (speed;torque), in percentage of rated output power	
Losses (%)	P1 (0,9;1,0)
	P2 (0,5;1,0)
	P3 (0,25;1,0)
	P4 (0,9;0,5)
	P5 (0,5;0,5)
	P6 (0,5;0,25)
	P7 (0,25;0,25)
Bearing type : Drive end 6309 ZZ C3 Non drive end 6209 ZZ C3 Sealing : Oil Seal Lip Seal Lubrication interval : - - Lubricant amount : - - Lubricant type : Mobil Polyrex EM	Foundation loads Max. traction : 447 kgf Max. compression : 608 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.	
Rev.	Changes Summary
Performed by	Performed
Checked by	Checked
Date	30/09/2022
Page	
Revision	
1 / 19	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



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Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	30/09/2022		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

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 3 / 19
Checked by				
Date	30/09/2022			
			Revision	

TORQUE AND CURRENT VS SPEED CURVE

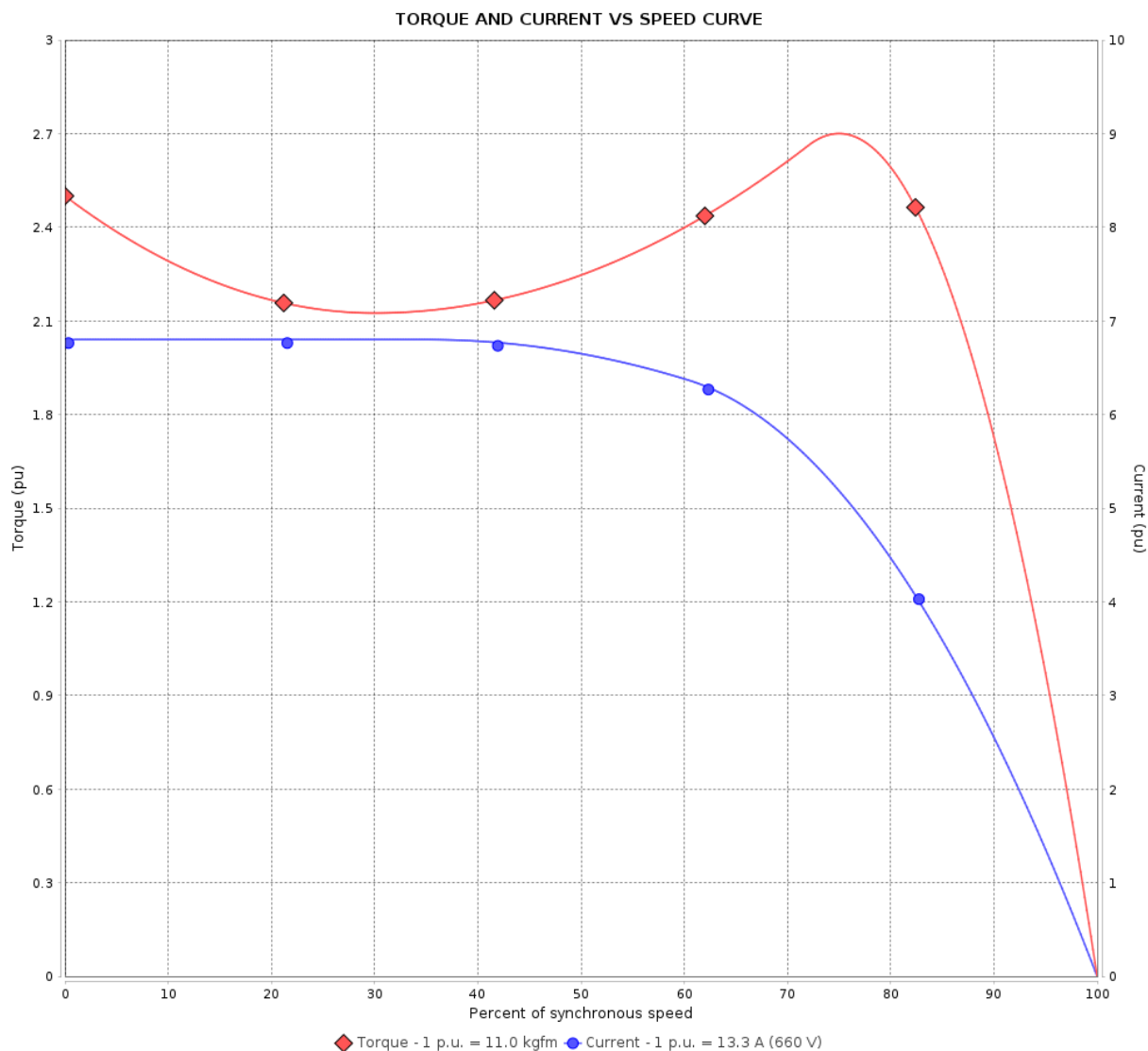
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12862901



Performance : 380/660 V 50 Hz 6P

Rated current	: 23.1/13.3 A	Moment of inertia (J)	: 0.1931 kgm ²
LRC	: 6.8	Duty cycle	: S1
Rated torque	: 11.0 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: N

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 19		
Date	30/09/2022			

TORQUE AND CURRENT VS SPEED CURVE

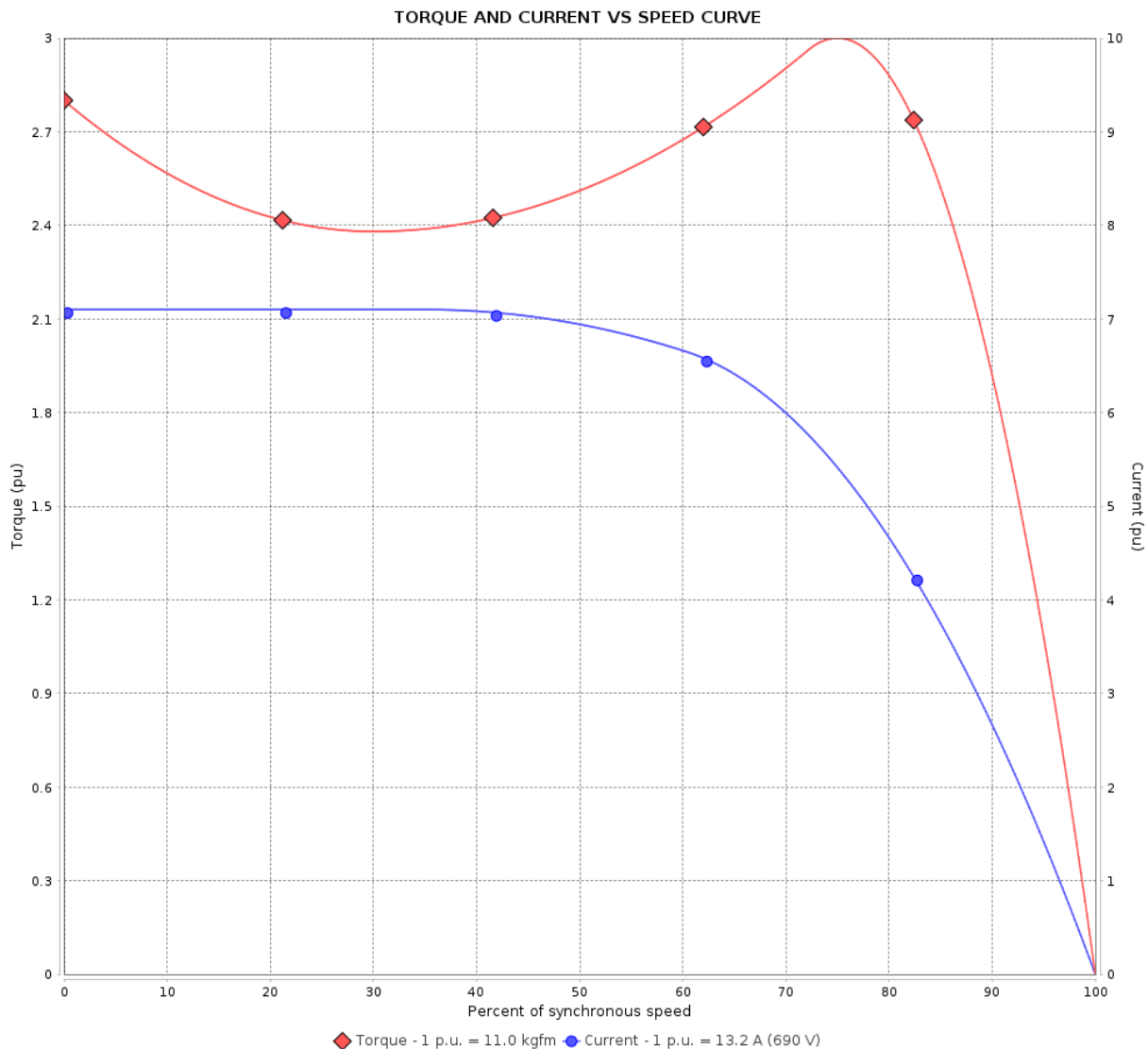


Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 12862901



Performance : 400/690 V 50 Hz 6P

Rated current	: 22.8/13.2 A	Moment of inertia (J)	: 0.1931 kgm ²
LRC	: 7.1	Duty cycle	: S1
Rated torque	: 11.0 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 978 rpm	Design	: N

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 19	Revision
Checked by				
Date	30/09/2022			

TORQUE AND CURRENT VS SPEED CURVE

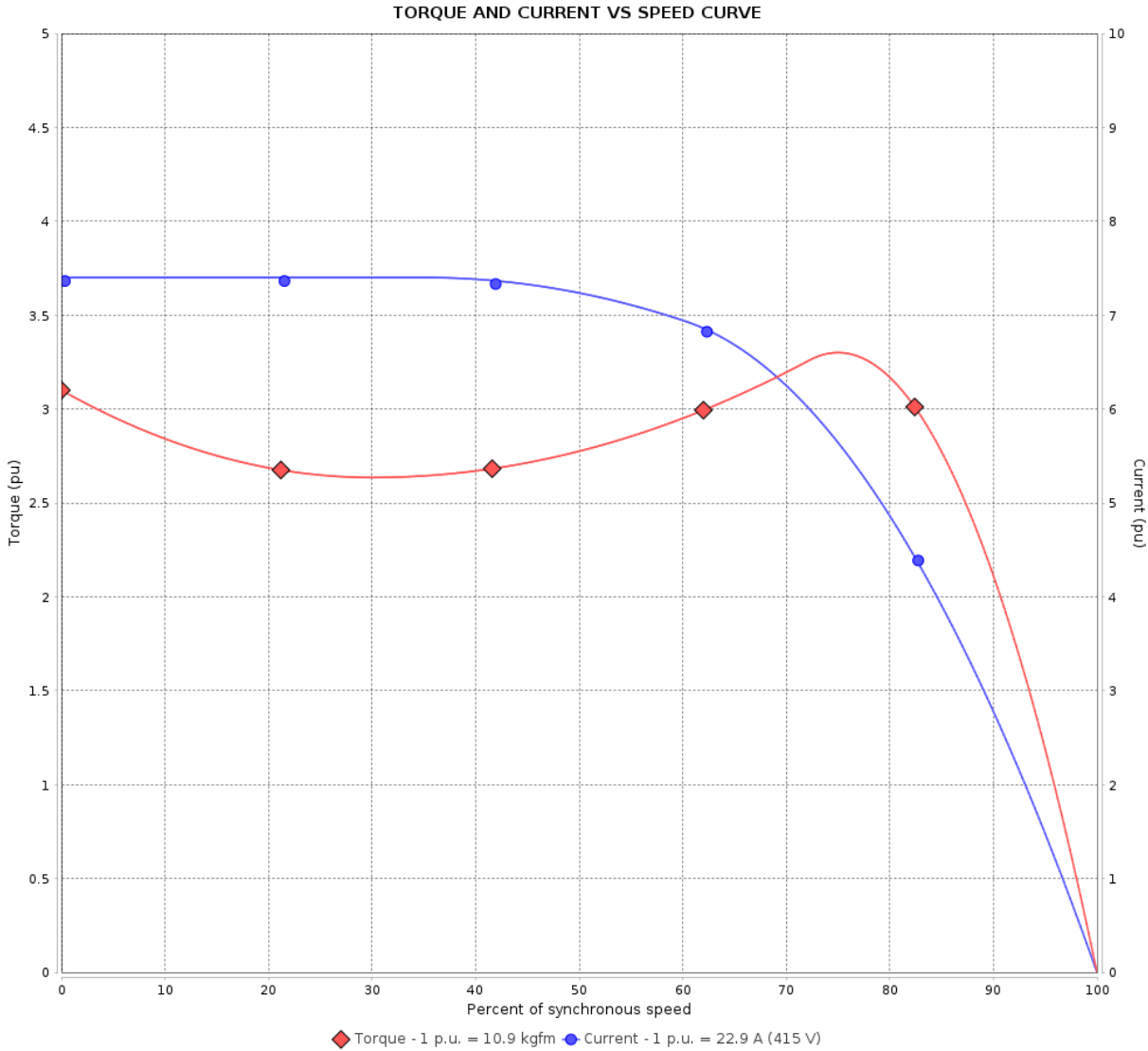
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12862901



Performance : 415 V 50 Hz 6P

Rated current	: 22.9 A	Moment of inertia (J)	: 0.1931 kgm ²
LRC	: 7.4	Duty cycle	: S1
Rated torque	: 10.9 kgfm	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: N

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		6 / 19		
Date	30/09/2022			

TORQUE AND CURRENT VS SPEED CURVE

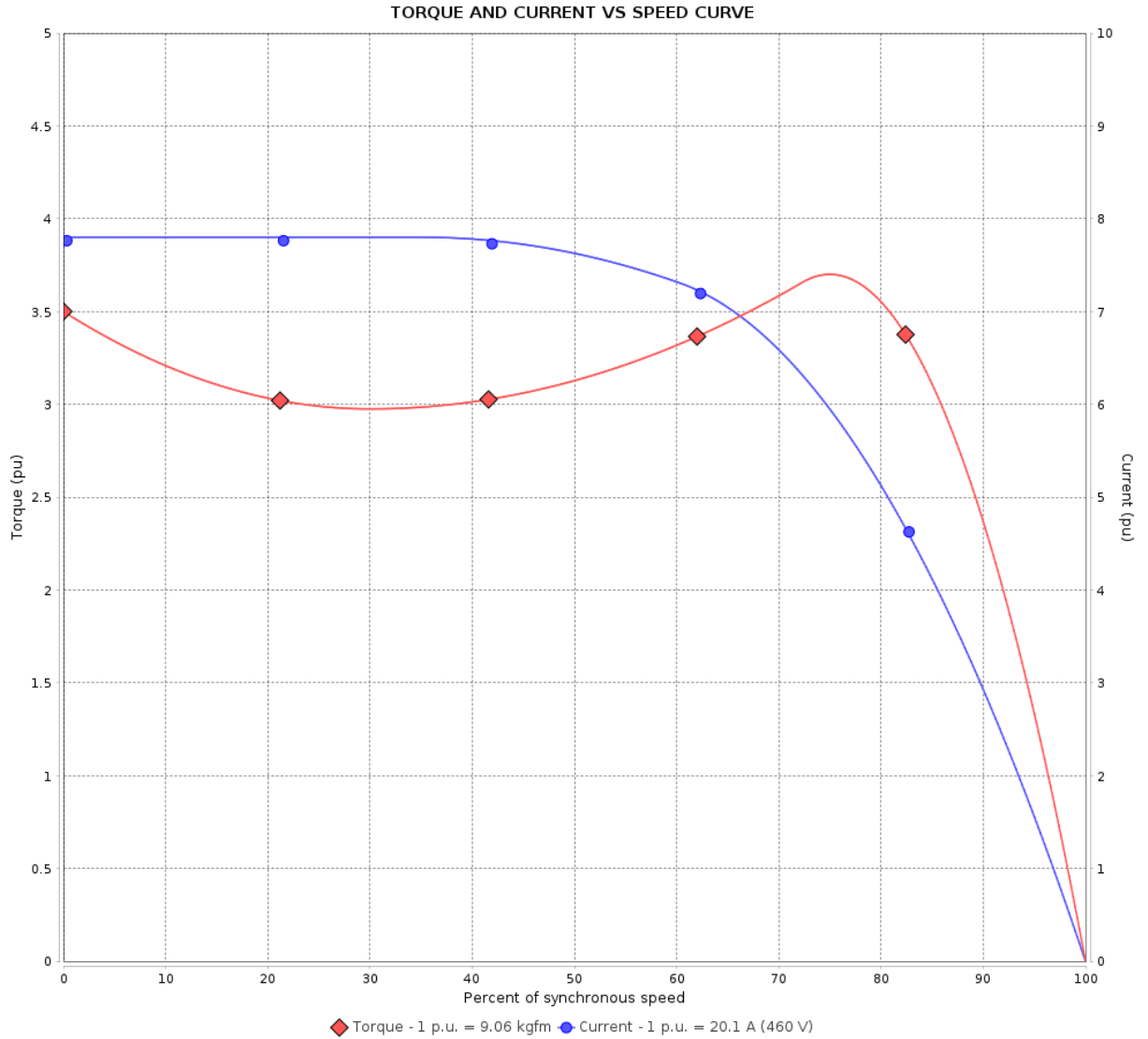
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12862901



Performance : 460 V 60 Hz 6P

Rated current	: 20.1 A	Moment of inertia (J)	: 0.1931 kgm ²
LRC	: 7.8	Duty cycle	: S1
Rated torque	: 9.06 kgfm	Insulation class	: F
Locked rotor torque	: 350 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 1182 rpm	Design	: N

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 7 / 19	Revision
Checked by				
Date	30/09/2022			

LOAD PERFORMANCE CURVE

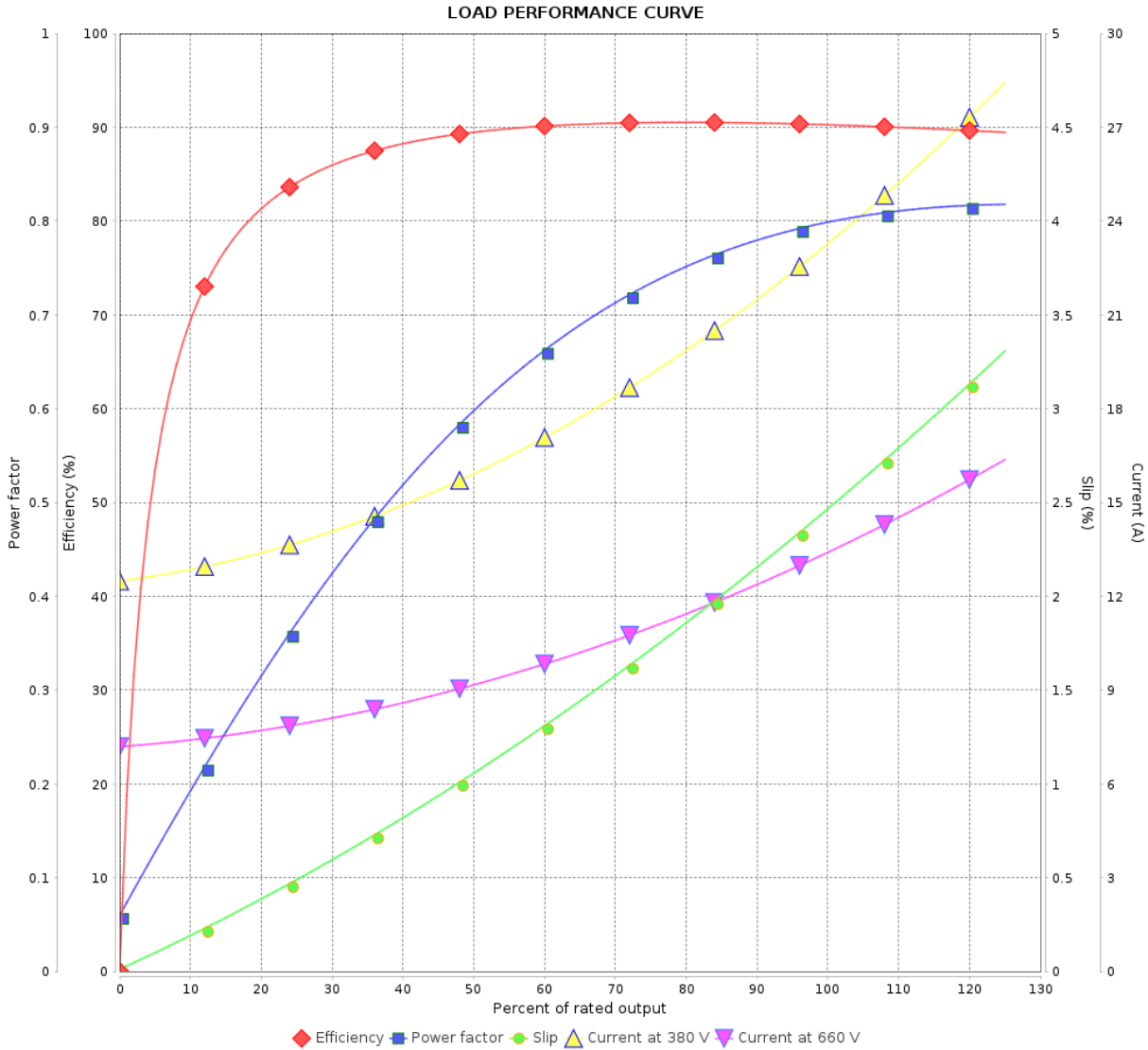
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Performance : 380/660 V 50 Hz 6P

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 LRC : 6.8
 Rated torque : 11.0 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 975 rpm

Moment of inertia (J) : 0.1931 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by	30/09/2022	Page		Revision
Checked by		8 / 19		
Date				

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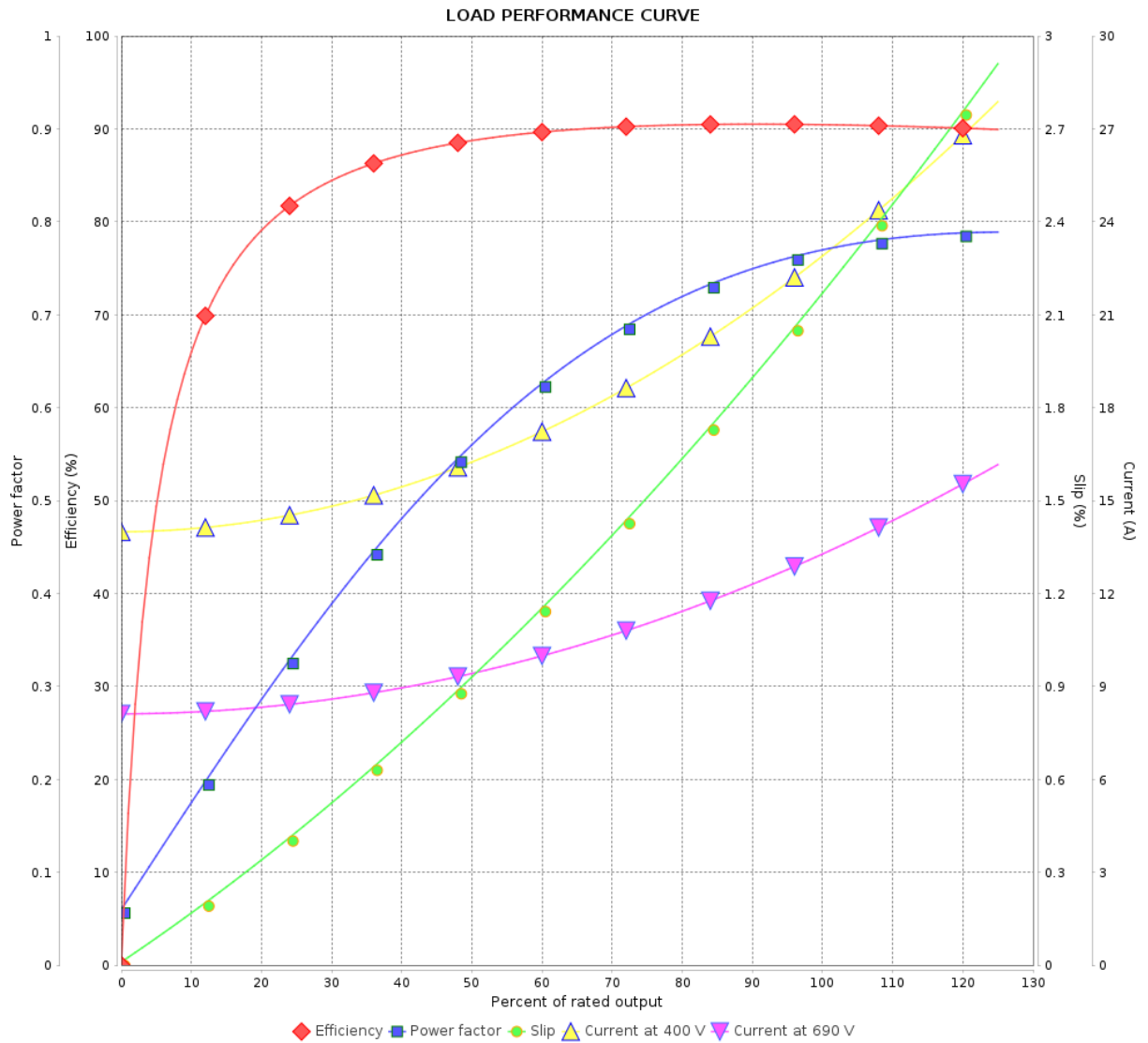
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Performance : 400/690 V 50 Hz 6P

Rated current : 22.8/13.2 A
 LRC : 7.1
 Rated torque : 11.0 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 978 rpm

Moment of inertia (J) : 0.1931 kgm²
 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				

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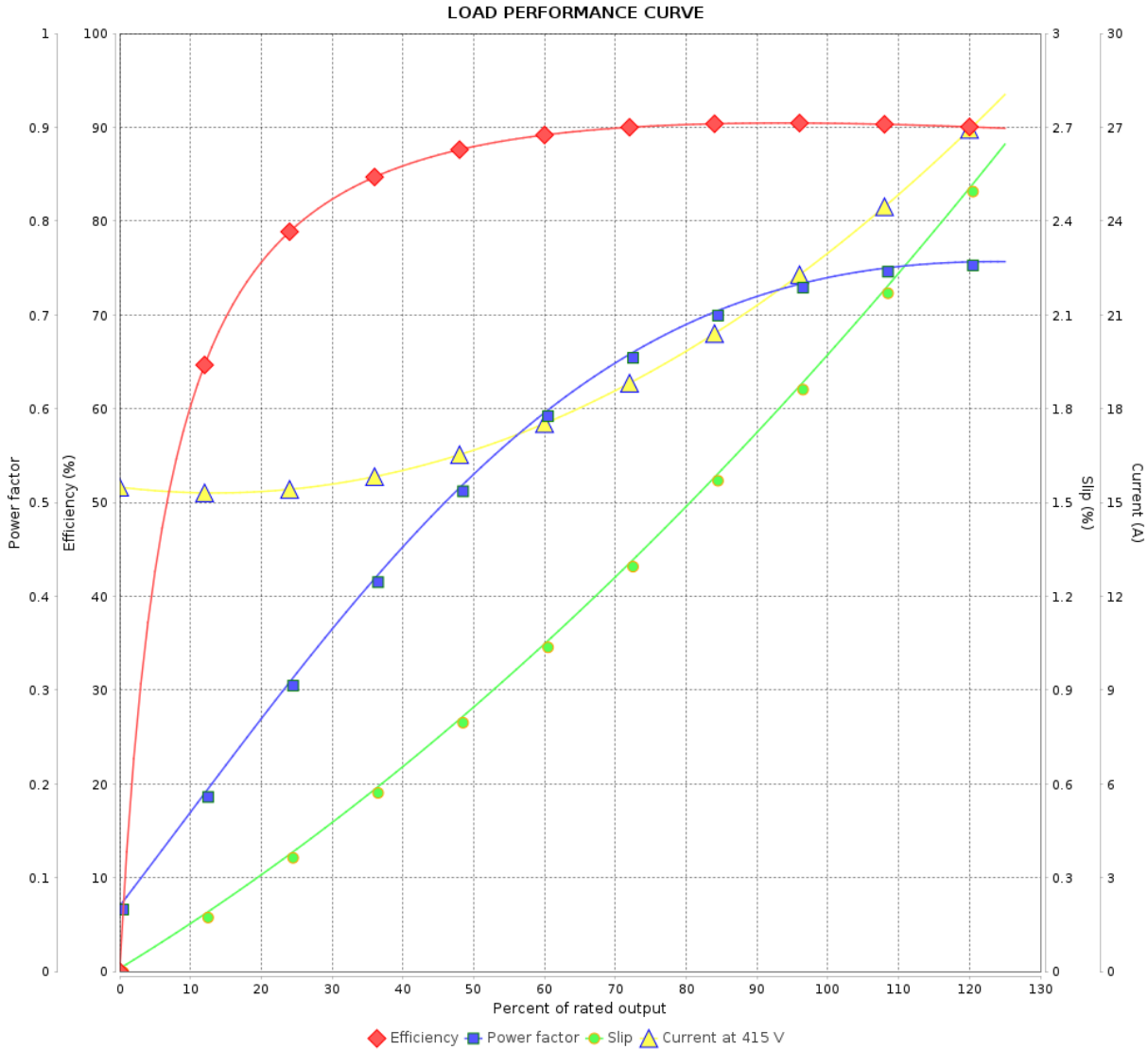
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 Service factor : 1.00
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		10 / 19		
Date		30/09/2022		

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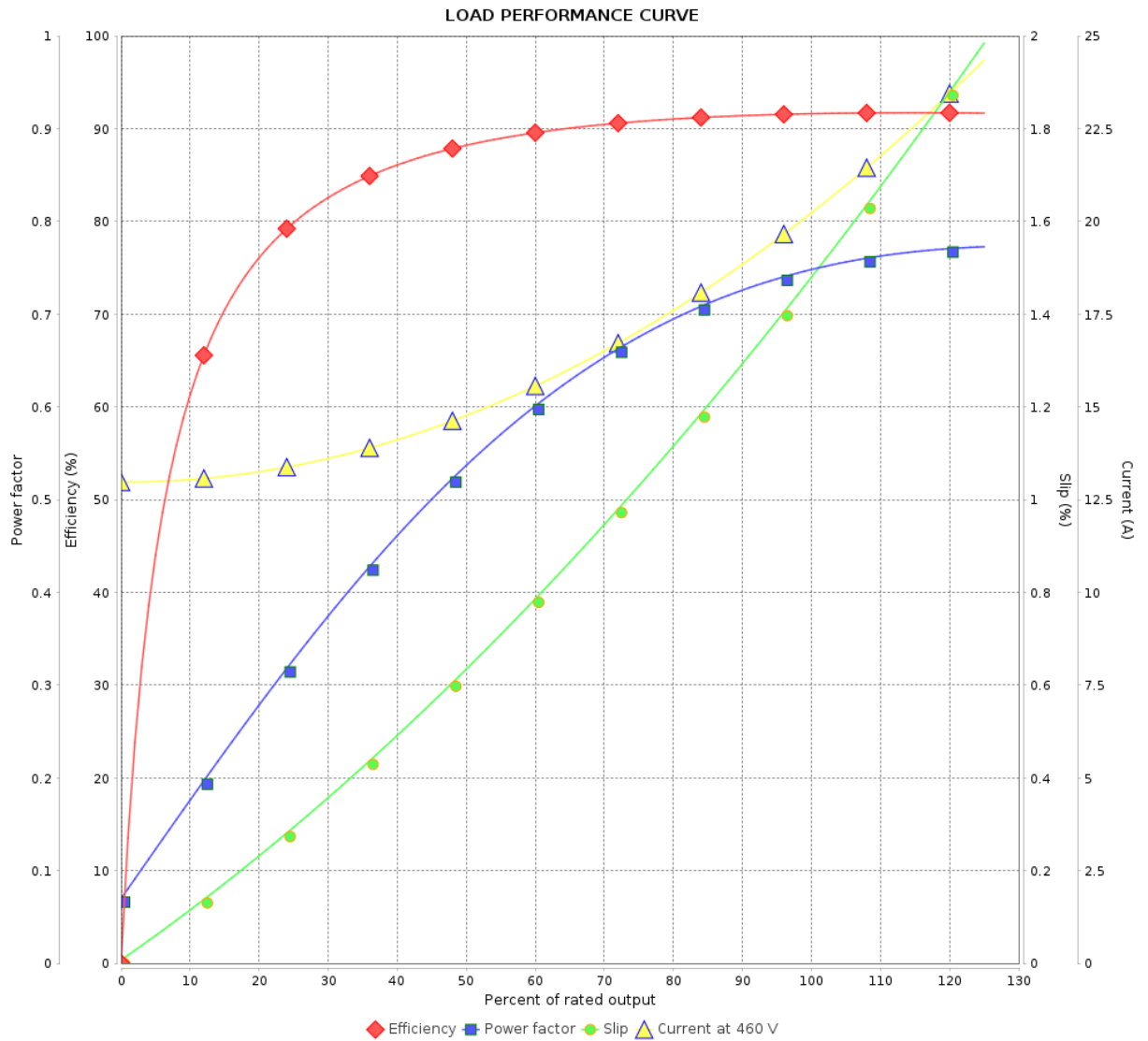
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			11 / 19	
Date	30/09/2022			

THERMAL LIMIT CURVE

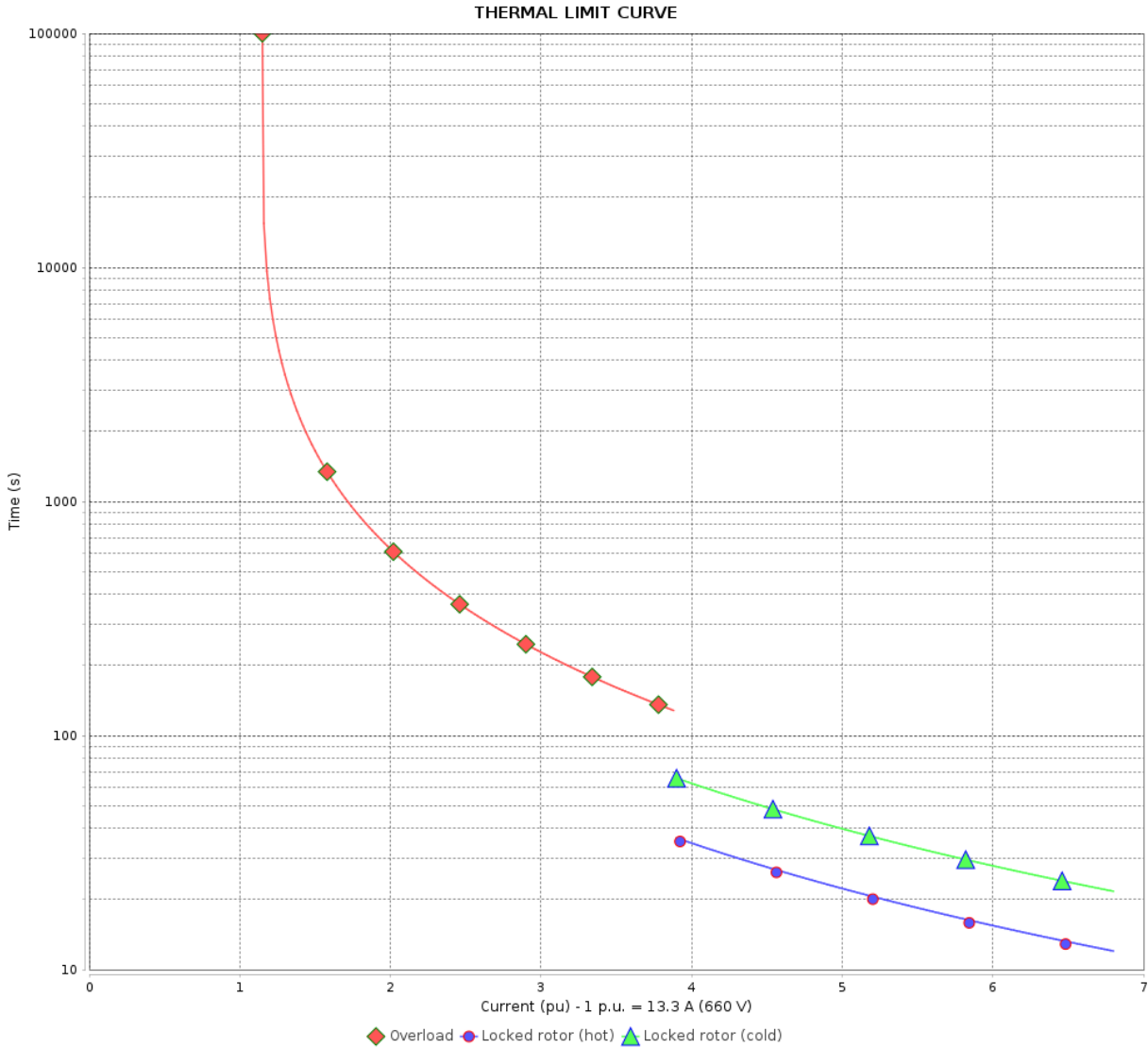
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		12 / 19		

THERMAL LIMIT CURVE

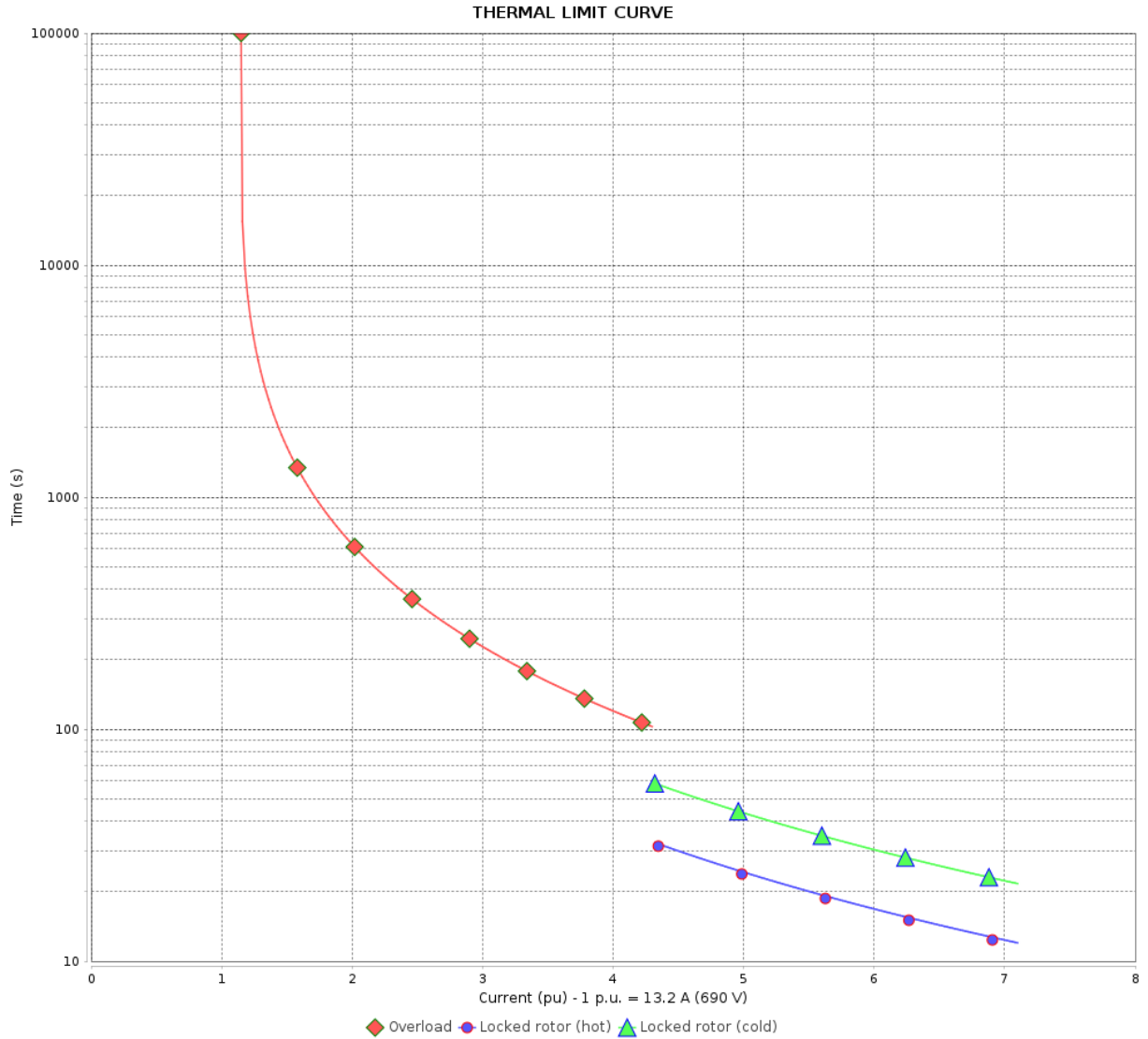
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

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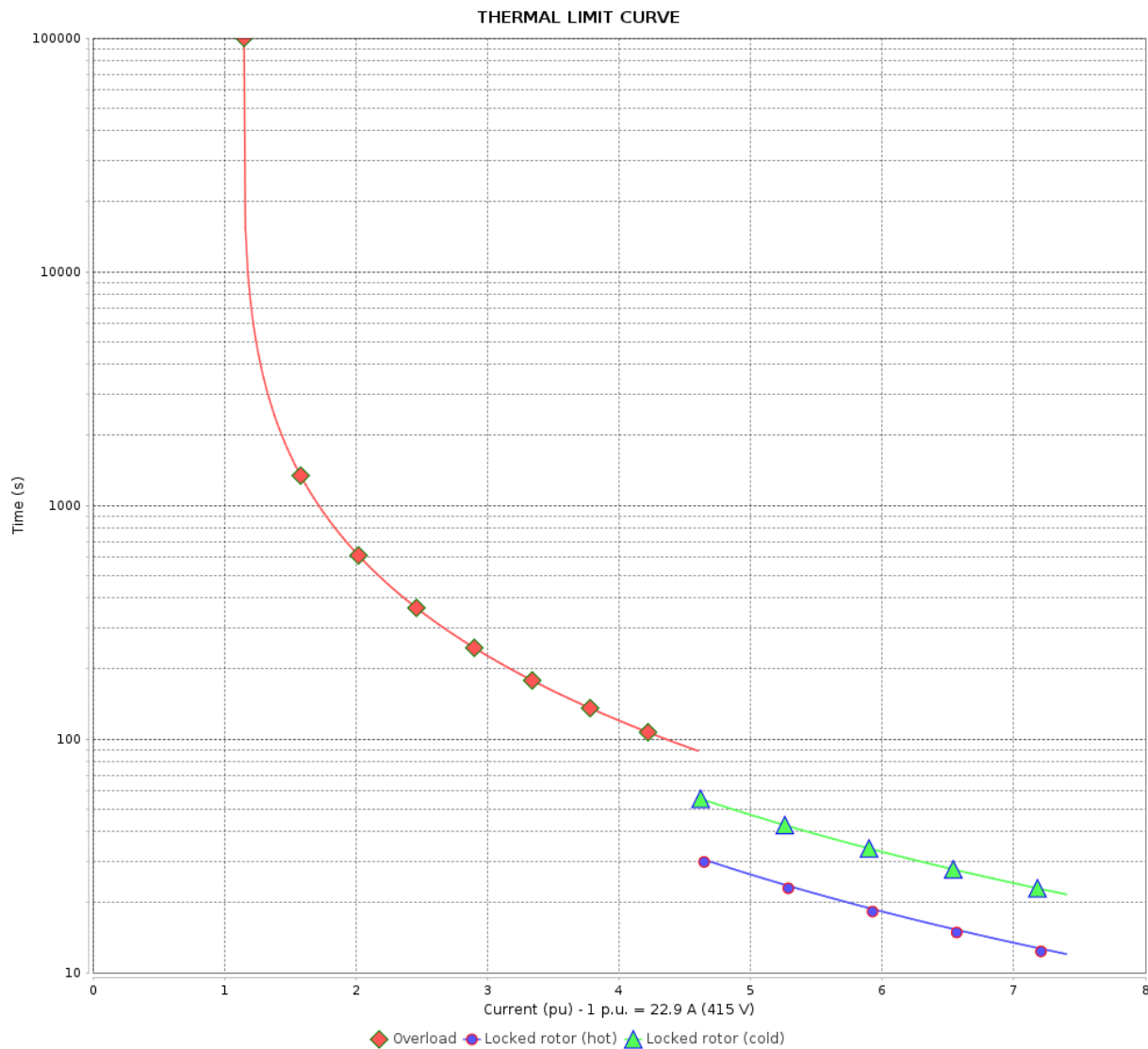
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Rated torque	: 10.9 kgfm	Insulation class	: F
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Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: N

Heating constant
Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 14 / 19	Revision
Checked by				
Date	30/09/2022			

THERMAL LIMIT CURVE

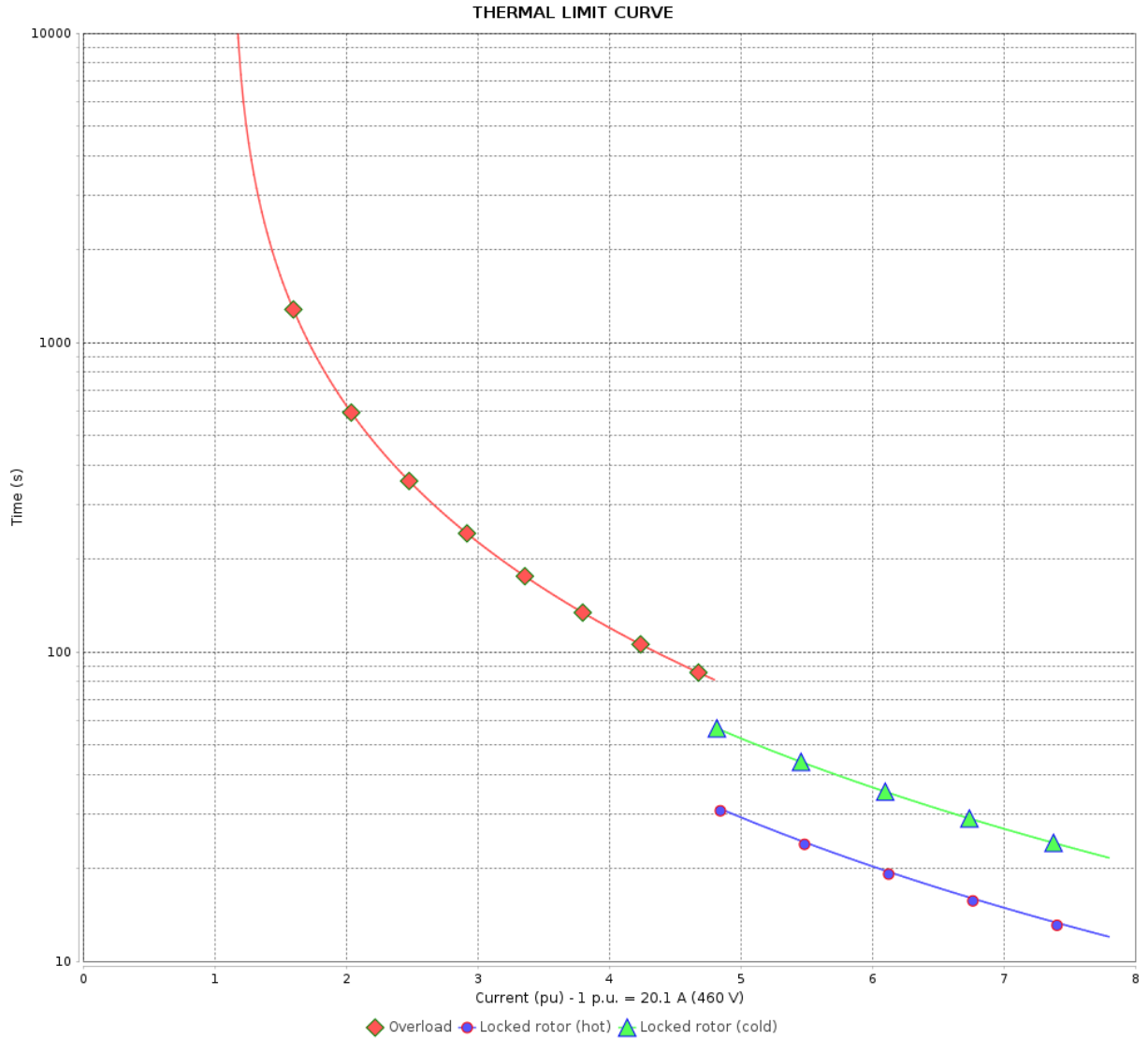
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Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		15 / 19		

VFD OPERATION CURVE

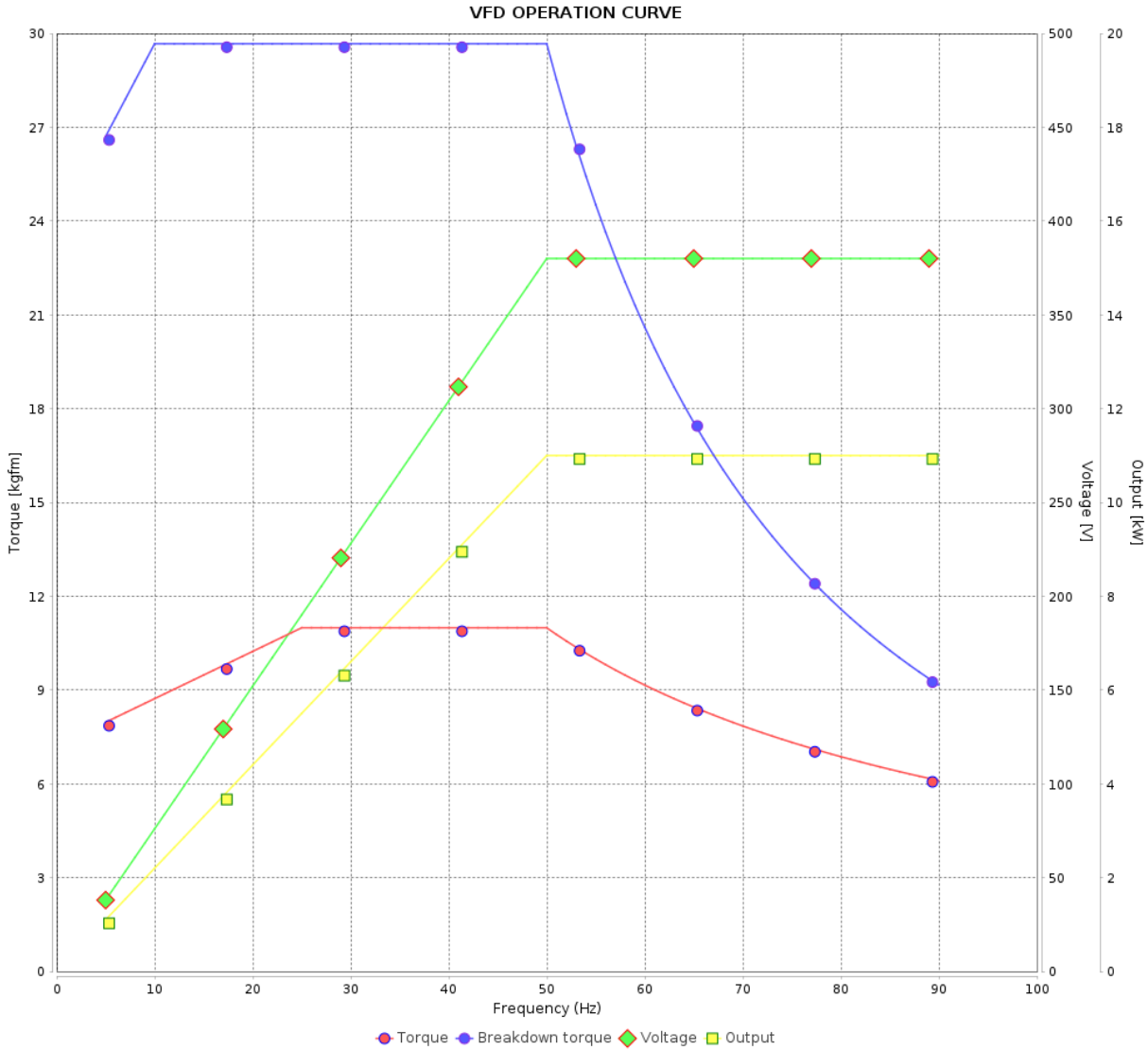
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 Duty cycle : S1
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 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 19	Revision
Checked by				
Date	30/09/2022			

VFD OPERATION CURVE

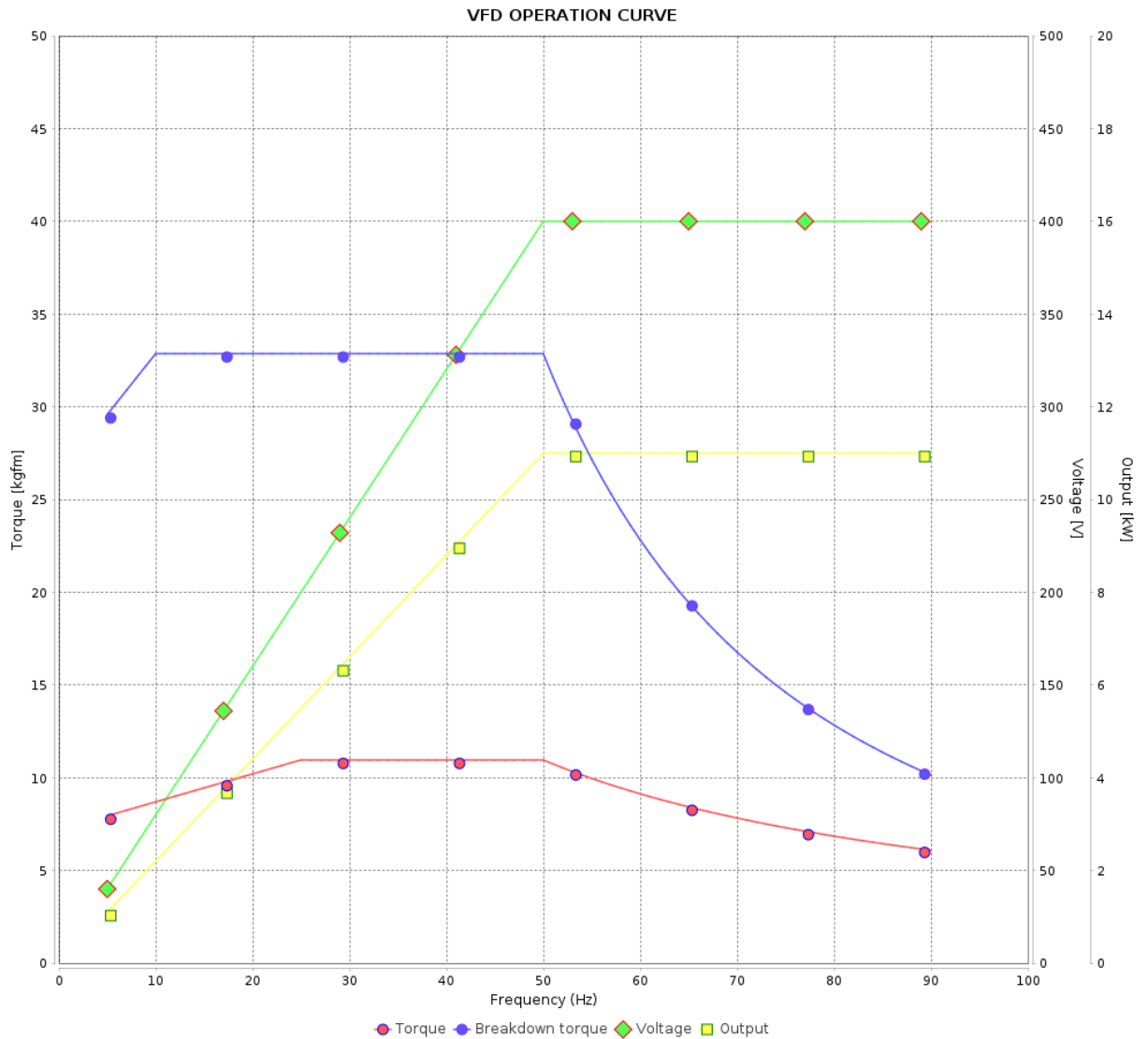
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 Service factor : 1.00
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 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 17 / 19	Revision
Checked by				
Date	30/09/2022			

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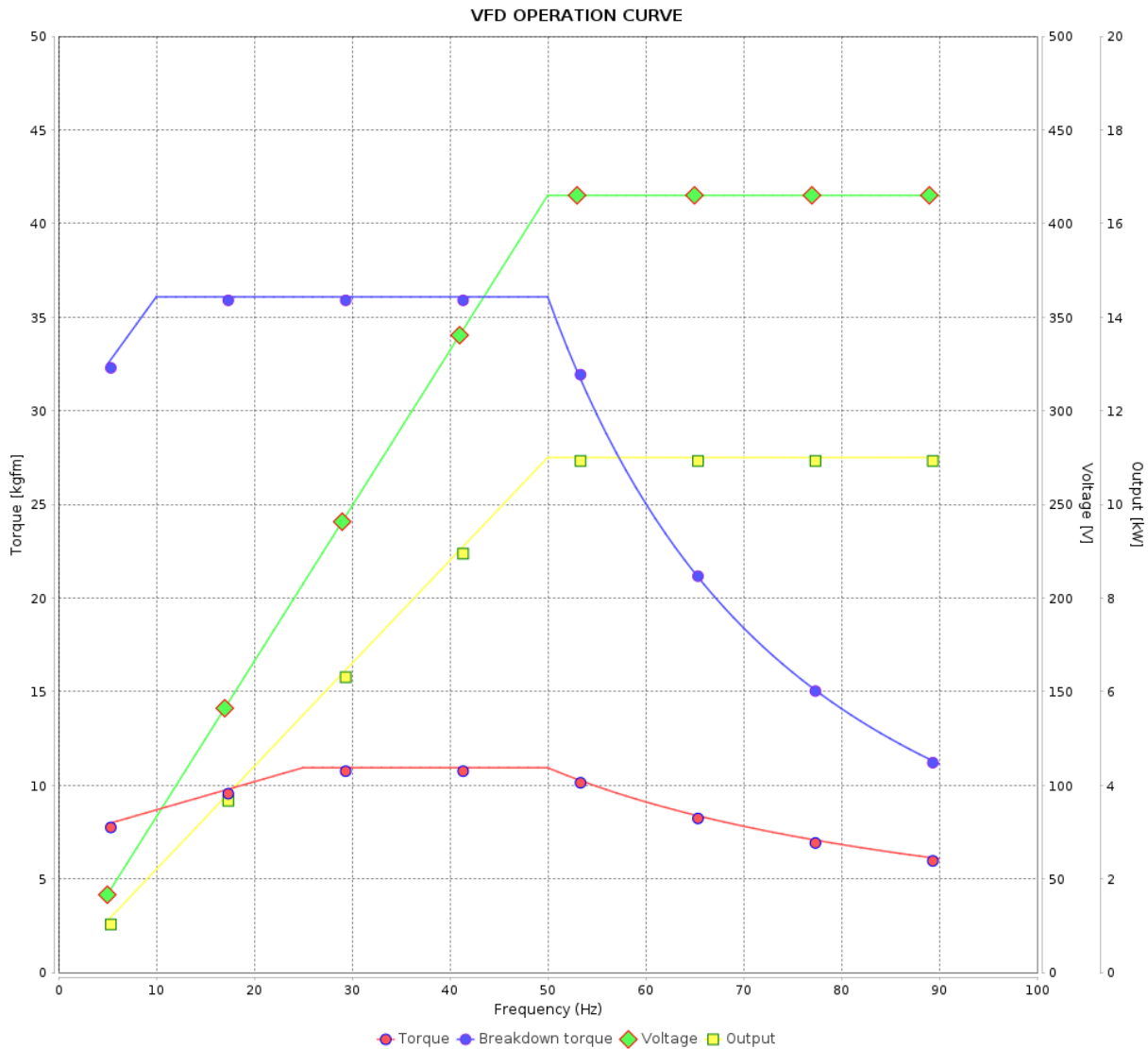
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 19	Revision
Checked by				
Date	30/09/2022			

VFD OPERATION CURVE

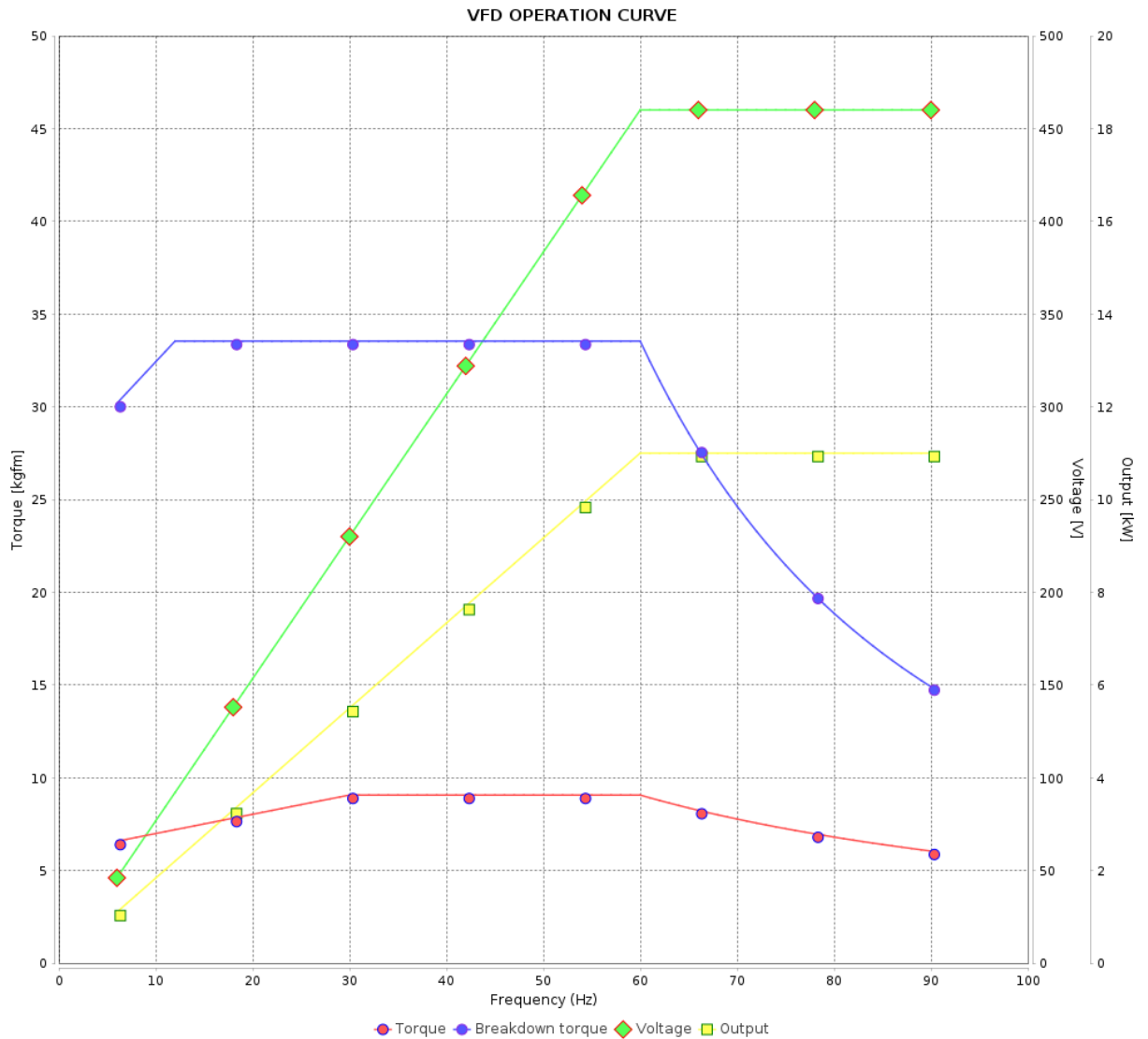
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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		19 / 19		
Date		30/09/2022		