

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase	Product code :	14503702	
			Catalog # :	02518OT3E284T-W40G	
Frame	: 284T	Cooling method	: IC01 - ODP		
Insulation class	: F	Mounting	: F-1		
Duty cycle	: Cont.(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 ²	: 159 kg		
Protection degree	: IP23	Moment of inertia (J)	: 0.1563 kgm ²		
Design	: B				
Output [HP]	25	20	20	20	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	59.0/29.5	29.5	28.7	28.0	
L. R. Amperes [A]	372/186	171	192	190	
LRC [A]	6.3x(Code G)	5.8x(Code G)	6.7x(Code H)	6.8x(Code H)	
No load current [A]	22.0/11.0	10.0	11.0	12.0	
Rated speed [RPM]	1765	1465	1470	1475	
Slip [%]	1.94	2.33	2.00	1.67	
Rated torque [kgfm]	10.3	9.91	9.87	9.84	
Locked rotor torque [%]	250	229	250	270	
Breakdown torque [%]	270	250	290	300	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	64s (cold) 36s (hot)	70s (cold) 39s (hot)	64s (cold) 36s (hot)	61s (cold) 34s (hot)	
Noise level ²	64.0 dB(A)				
Efficiency (%)	25%	92.8	91.5	91.5	
	50%	93.0	91.7	91.7	
	75%	93.6	92.1	92.1	
	100%	93.6	92.1	92.1	
Power Factor	25%	0.45	0.46	0.42	
	50%	0.69	0.69	0.65	
	75%	0.80	0.79	0.77	
	100%	0.84	0.84	0.82	
Bearing type	: <u>Drive end</u> 6311 Z C3	<u>Non drive end</u> 6211 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction		
	Bearing Seal	Bearing Seal	Max. compression		
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 18 g	11 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 65.2A SF 1.15 SFA 75.0A					
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 NEMA MG-1.		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

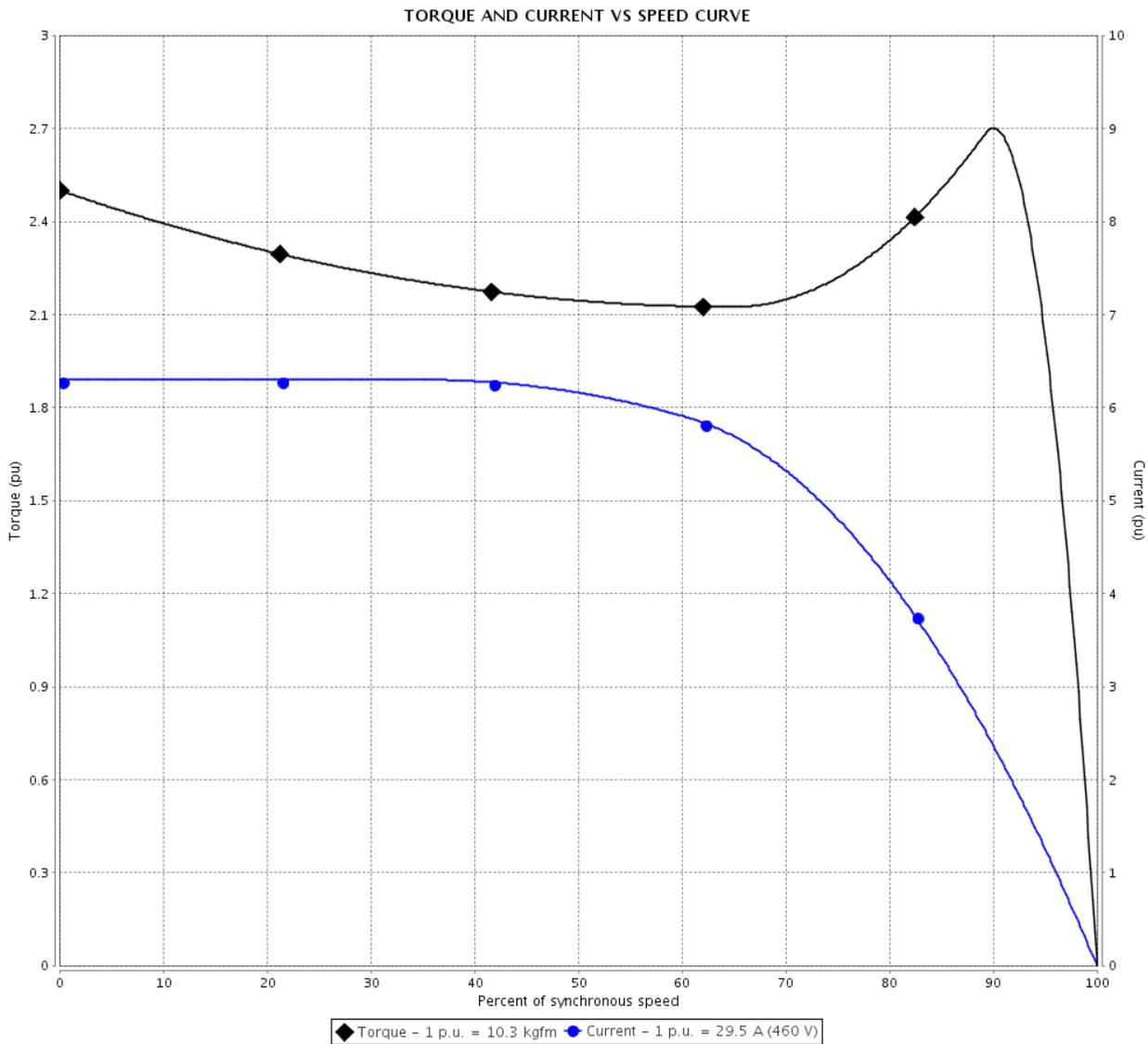


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503702

Catalog # : 02518OT3E284T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A
LRC : 6.3
Rated torque : 10.3 kgfm
Locked rotor torque : 250 %
Breakdown torque : 270 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.1563 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 64s (cold) 36s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



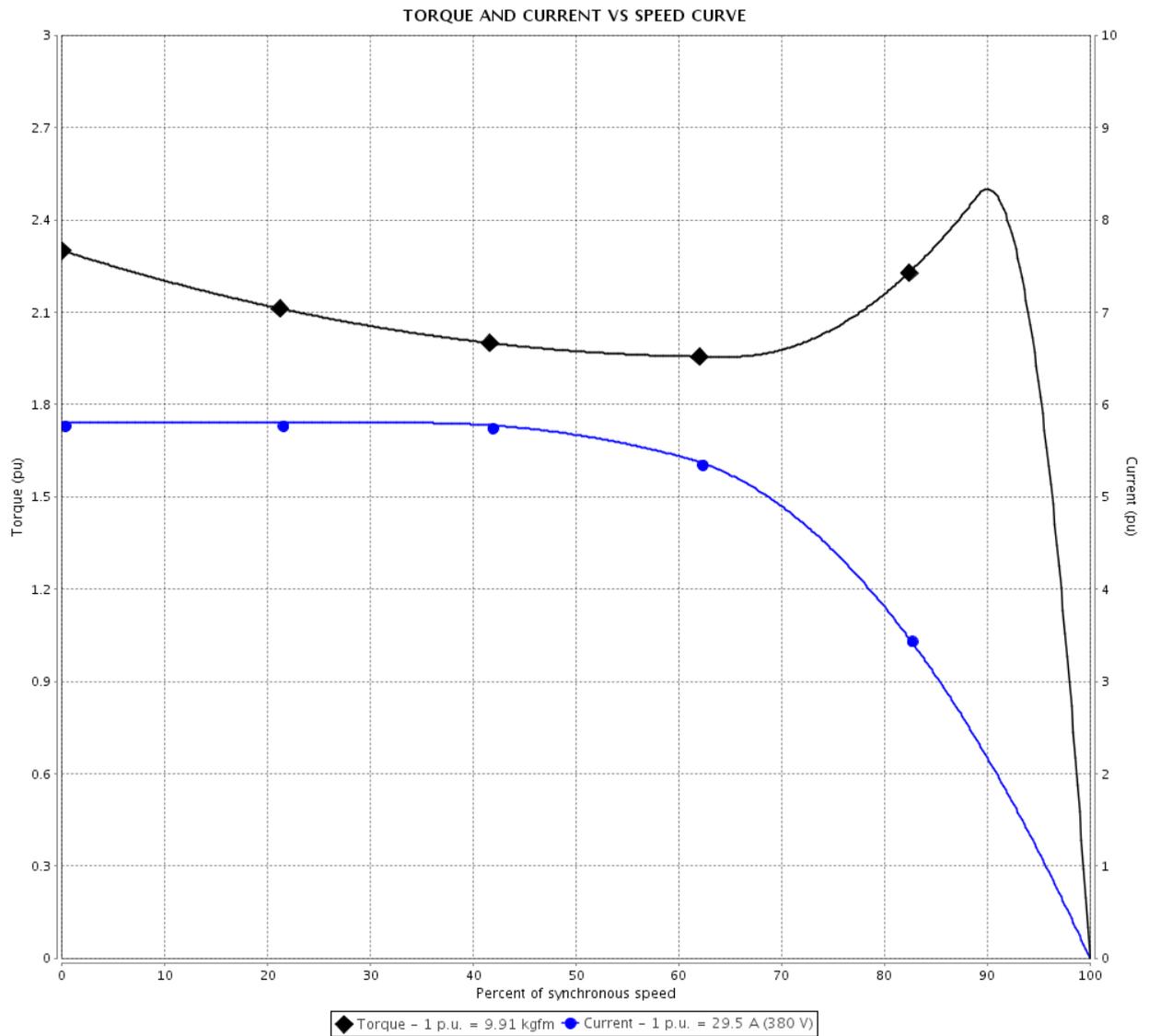
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503702

Catalog # : 02518OT3E284T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current	: 29.5 A	Moment of inertia (J)	: 0.1563 kgm ²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 9.91 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

Locked rotor time : 70s (cold) 39s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

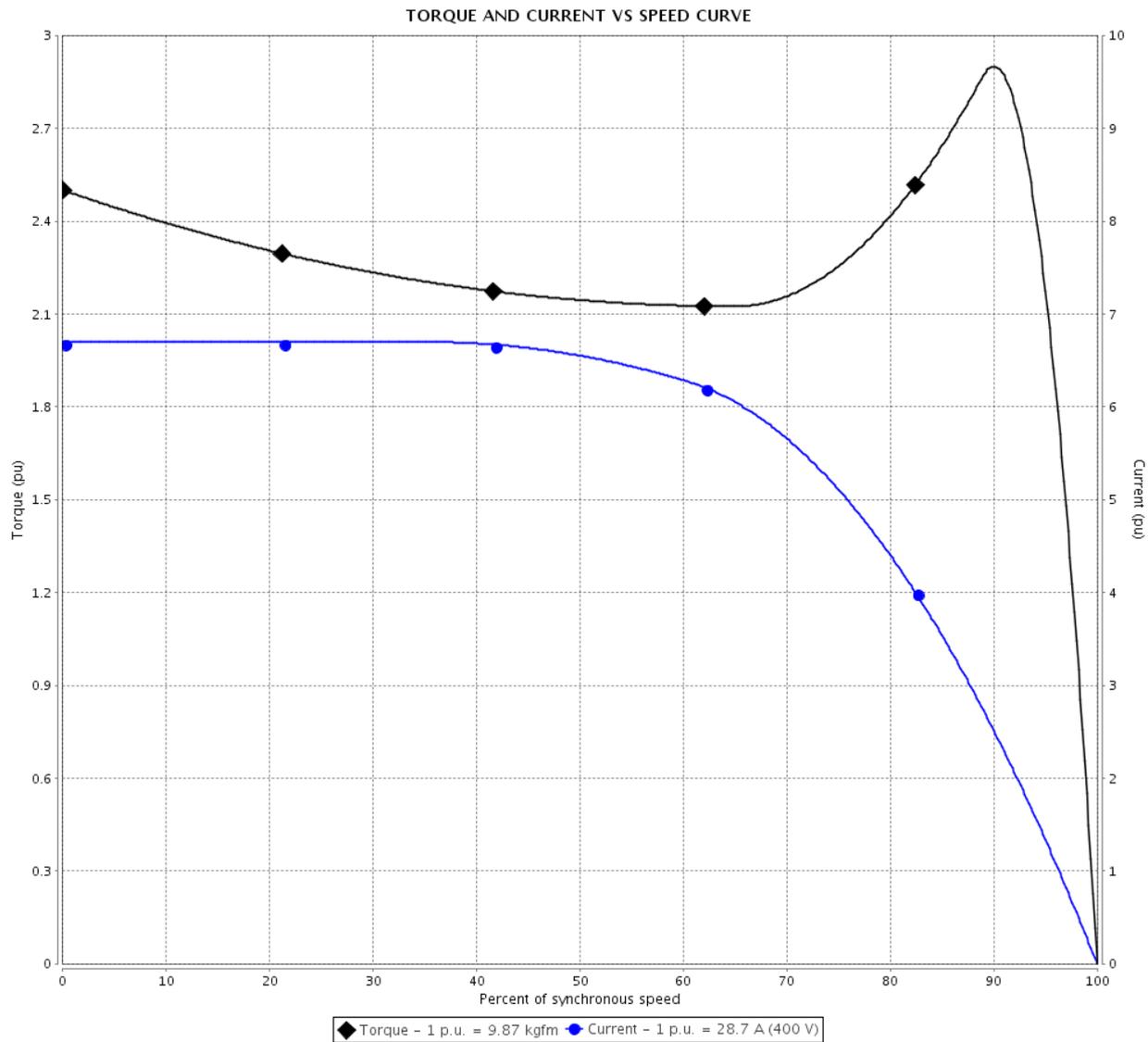


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503702

Catalog # : 02518OT3E284T-W40G



Performance : 400 V 50 Hz 4P IE3

Rated current	: 28.7 A	Moment of inertia (J)	: 0.1563 kgm ²
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 9.87 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Locked rotor time : 64s (cold) 36s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



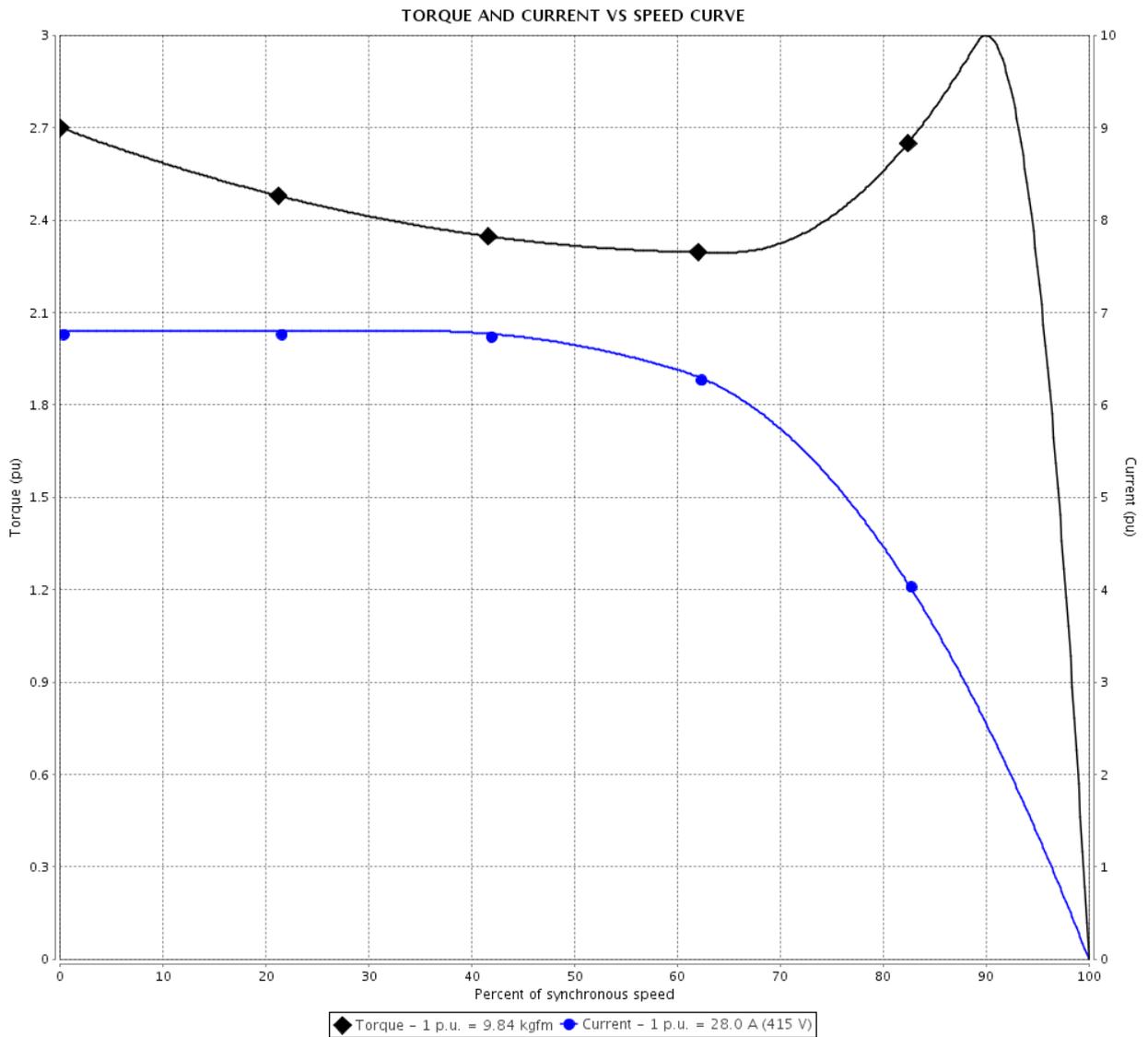
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503702

Catalog # : 02518OT3E284T-W40G



Performance : 415 V 50 Hz 4P IE3

Rated current : 28.0 A
LRC : 6.8
Rated torque : 9.84 kgfm
Locked rotor torque : 270 %
Breakdown torque : 300 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.1563 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Locked rotor time : 61s (cold) 34s (hot)

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LOAD PERFORMANCE CURVE

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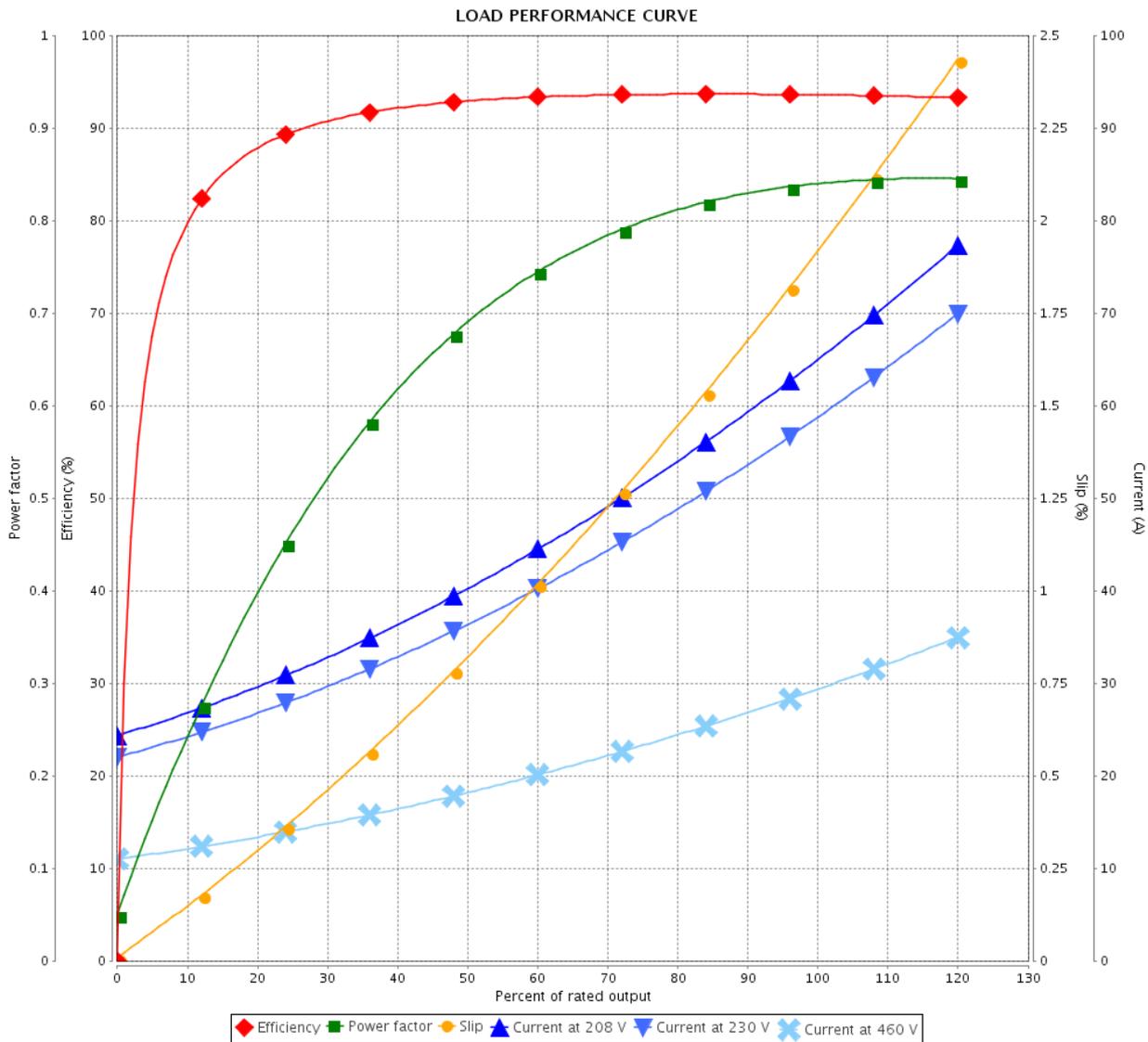


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Product code : 14503702

Catalog # : 02518OT3E284T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A
 LRC : 6.3
 Rated torque : 10.3 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 1765 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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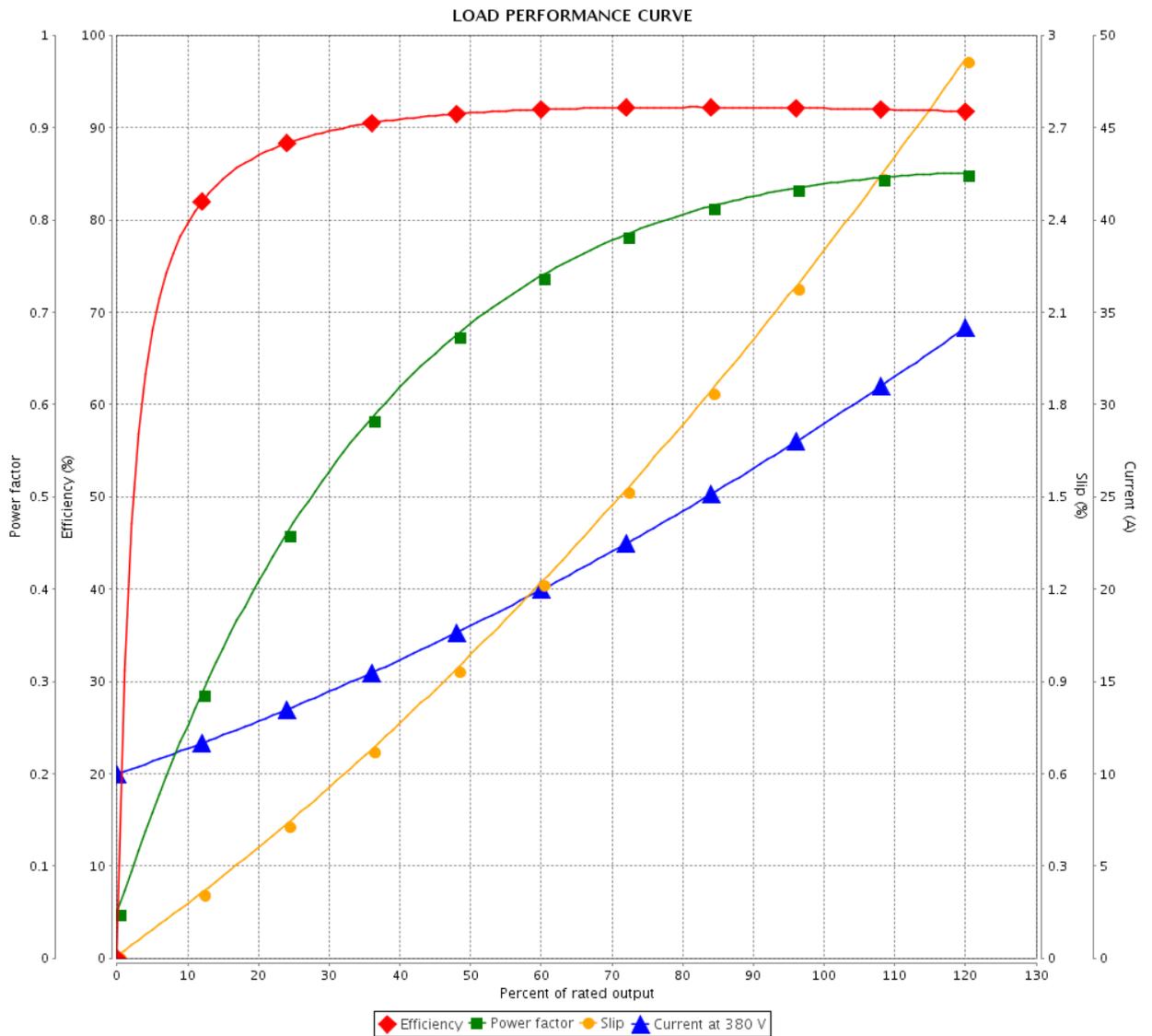


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Performance : 380 V 50 Hz 4P IE3

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 Locked rotor torque : 229 %
 Breakdown torque : 250 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1563 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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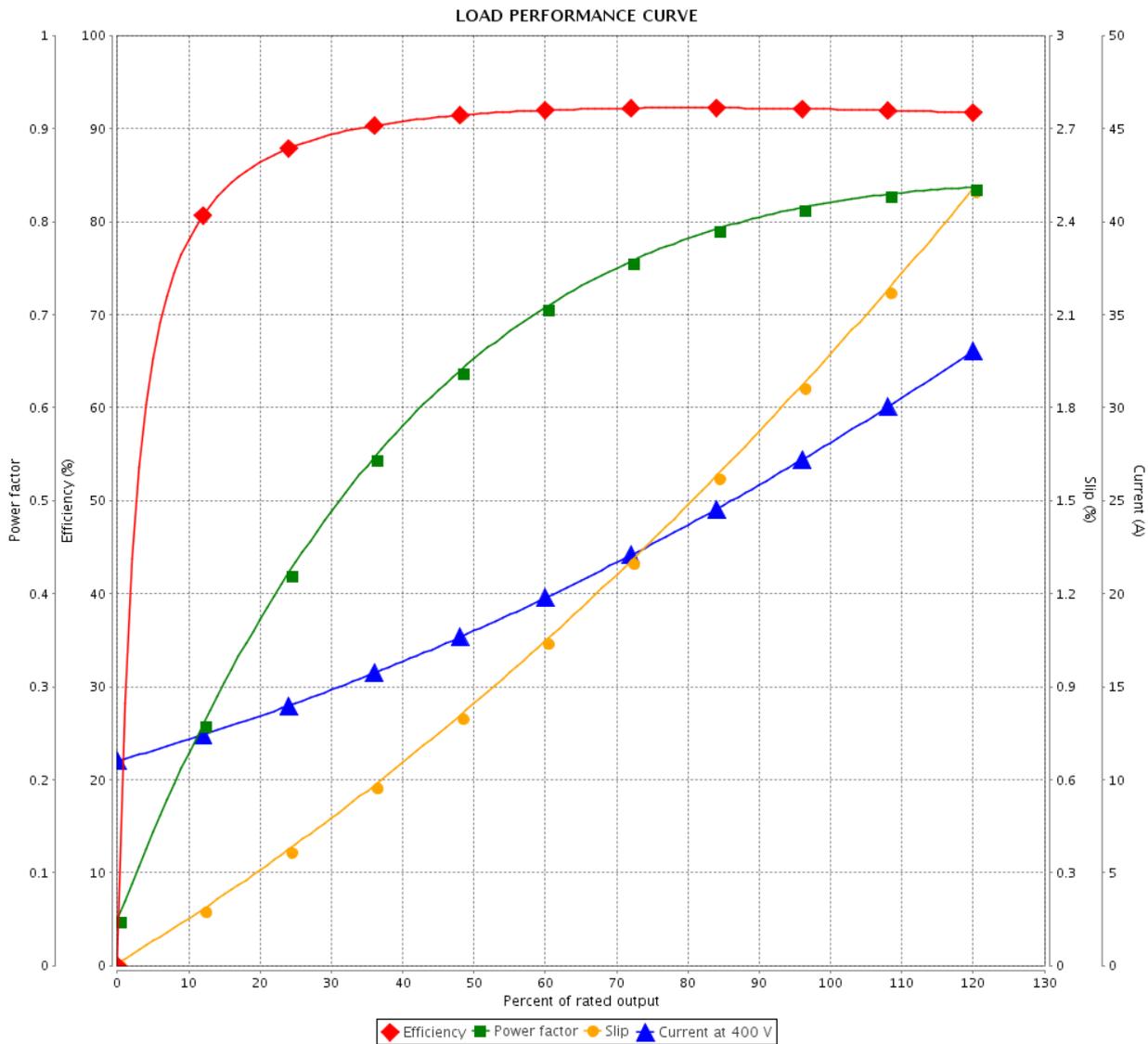


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 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 1470 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

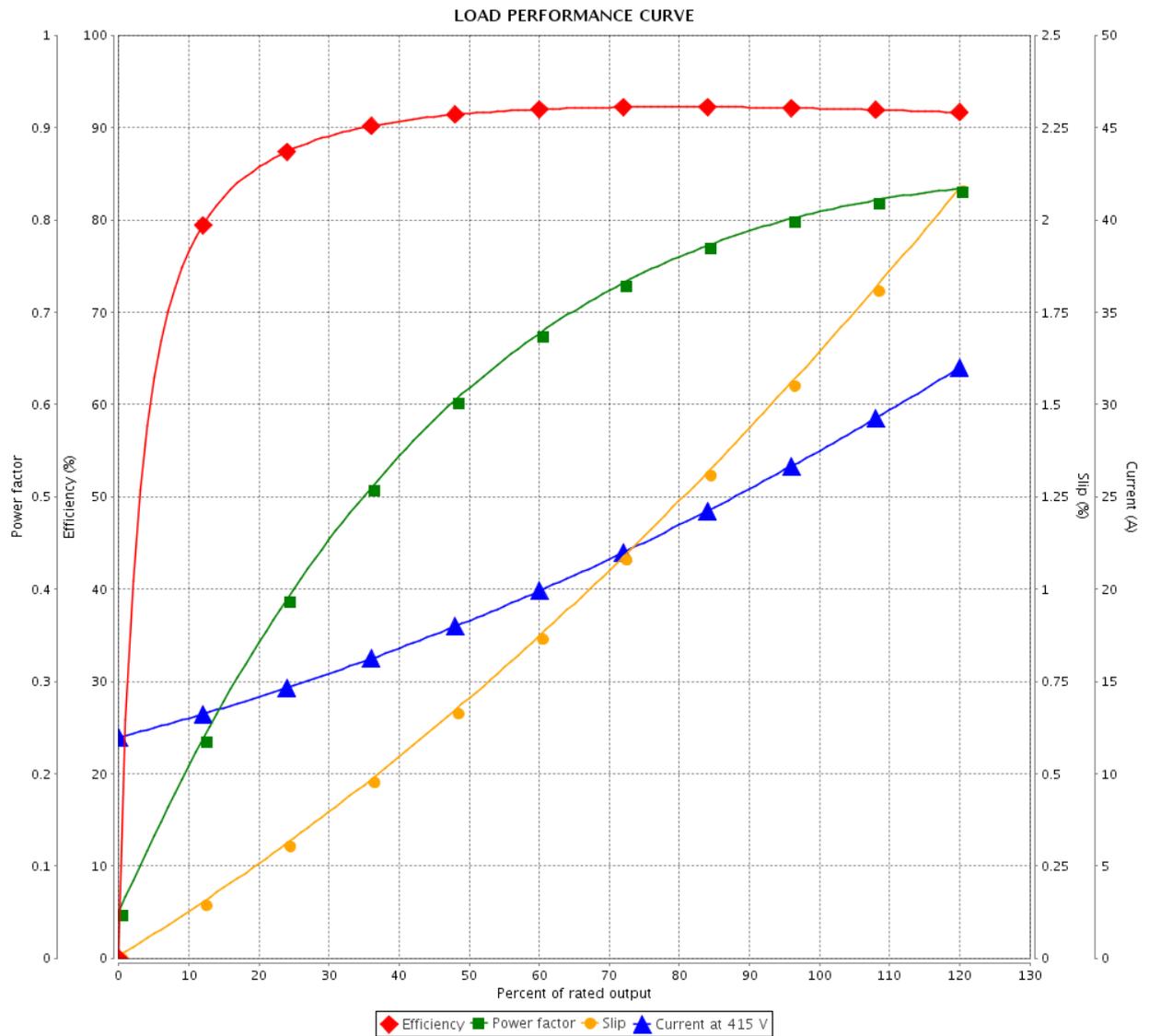


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Performance : 415 V 50 Hz 4P IE3

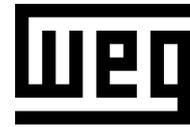
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 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1475 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE

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Duty cycle : Cont.(S1)
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Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

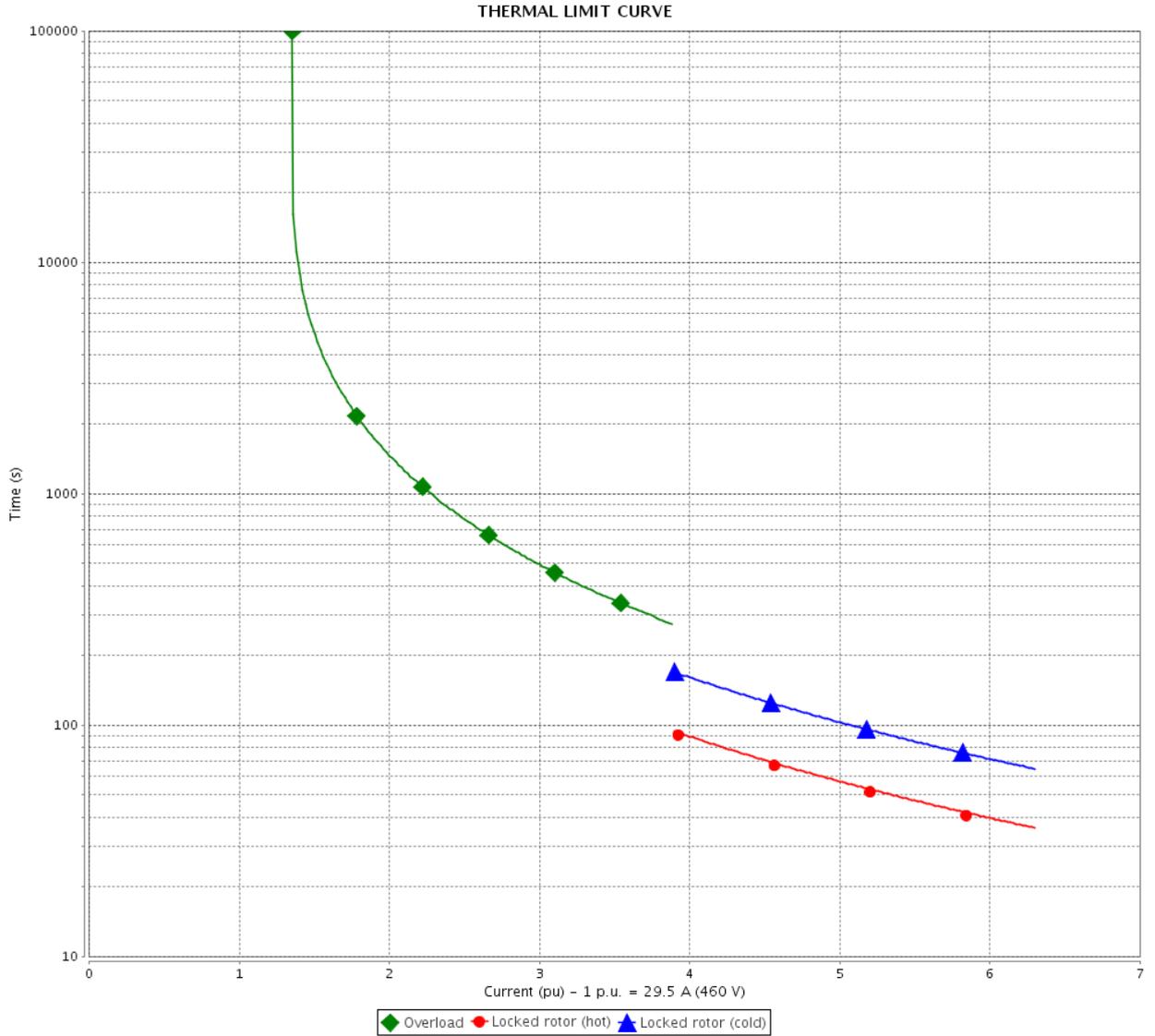
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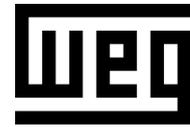


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LRC : 5.8
Rated torque : 9.91 kgfm
Locked rotor torque : 229 %
Breakdown torque : 250 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.1563 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

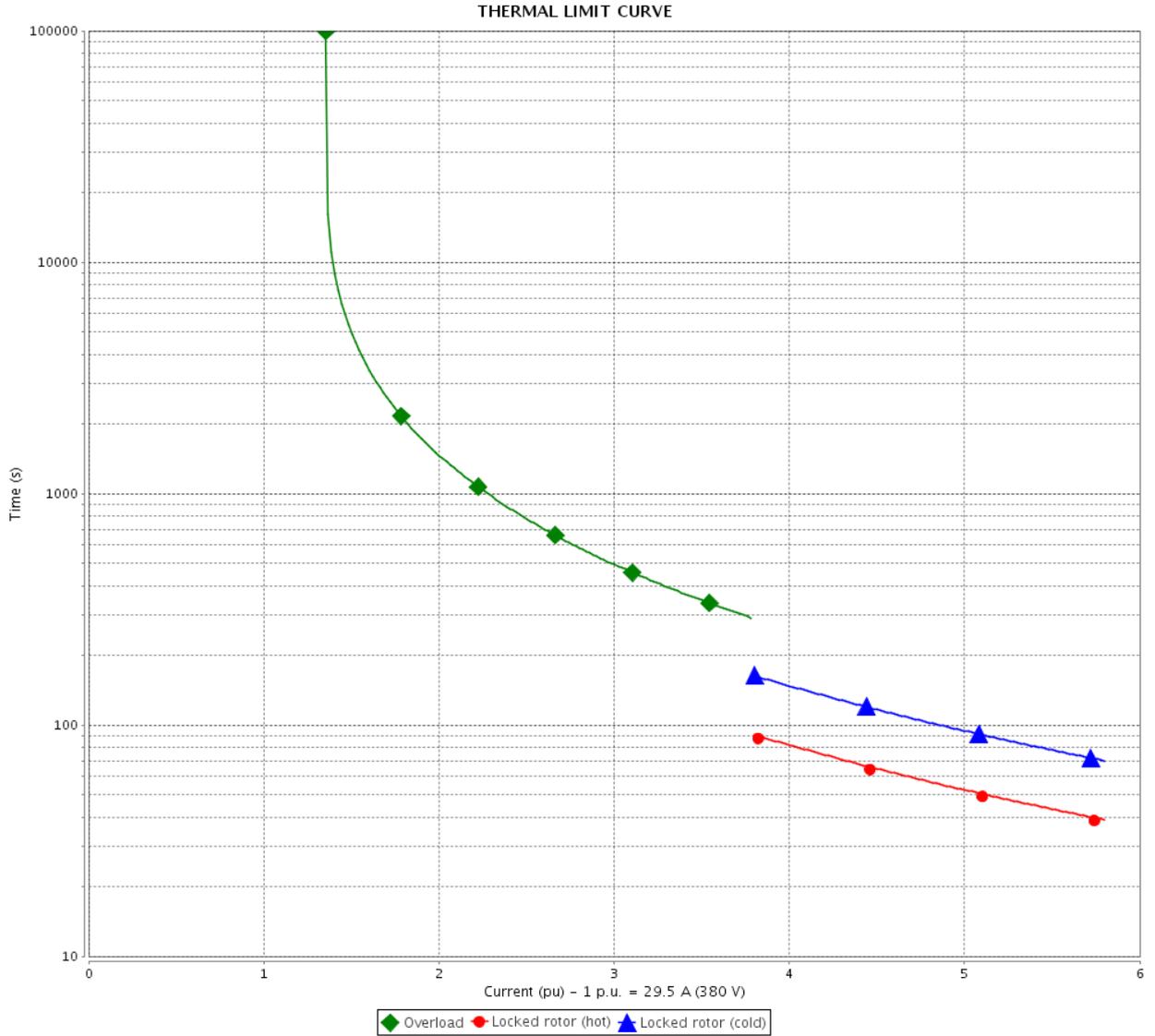
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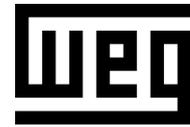
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LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 9.87 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

Cooling constant

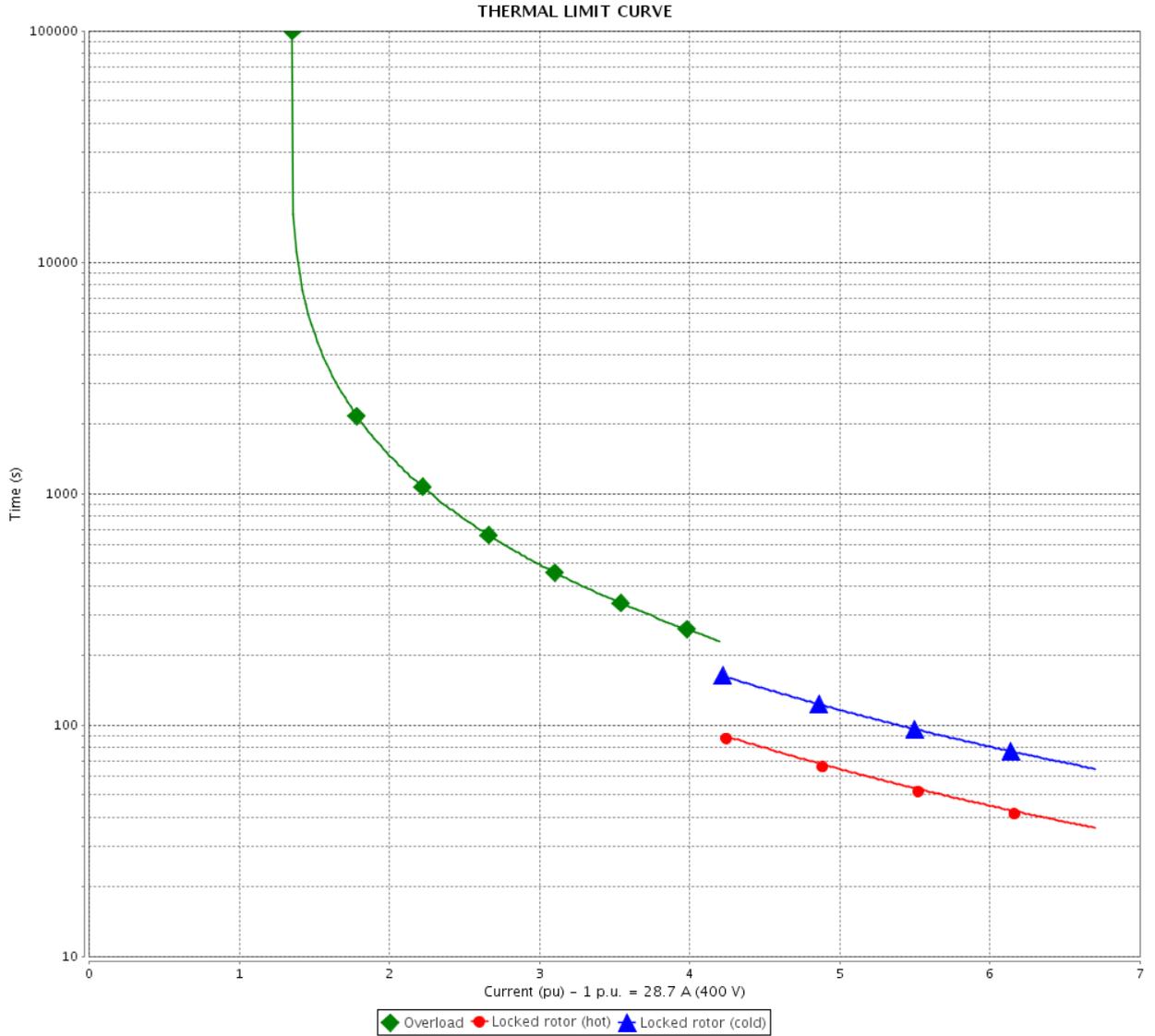
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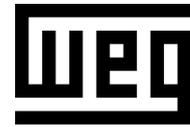
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Rated current	: 28.0 A	Moment of inertia (J)	: 0.1563 kgm ²
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 9.84 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

Heating constant

Cooling constant

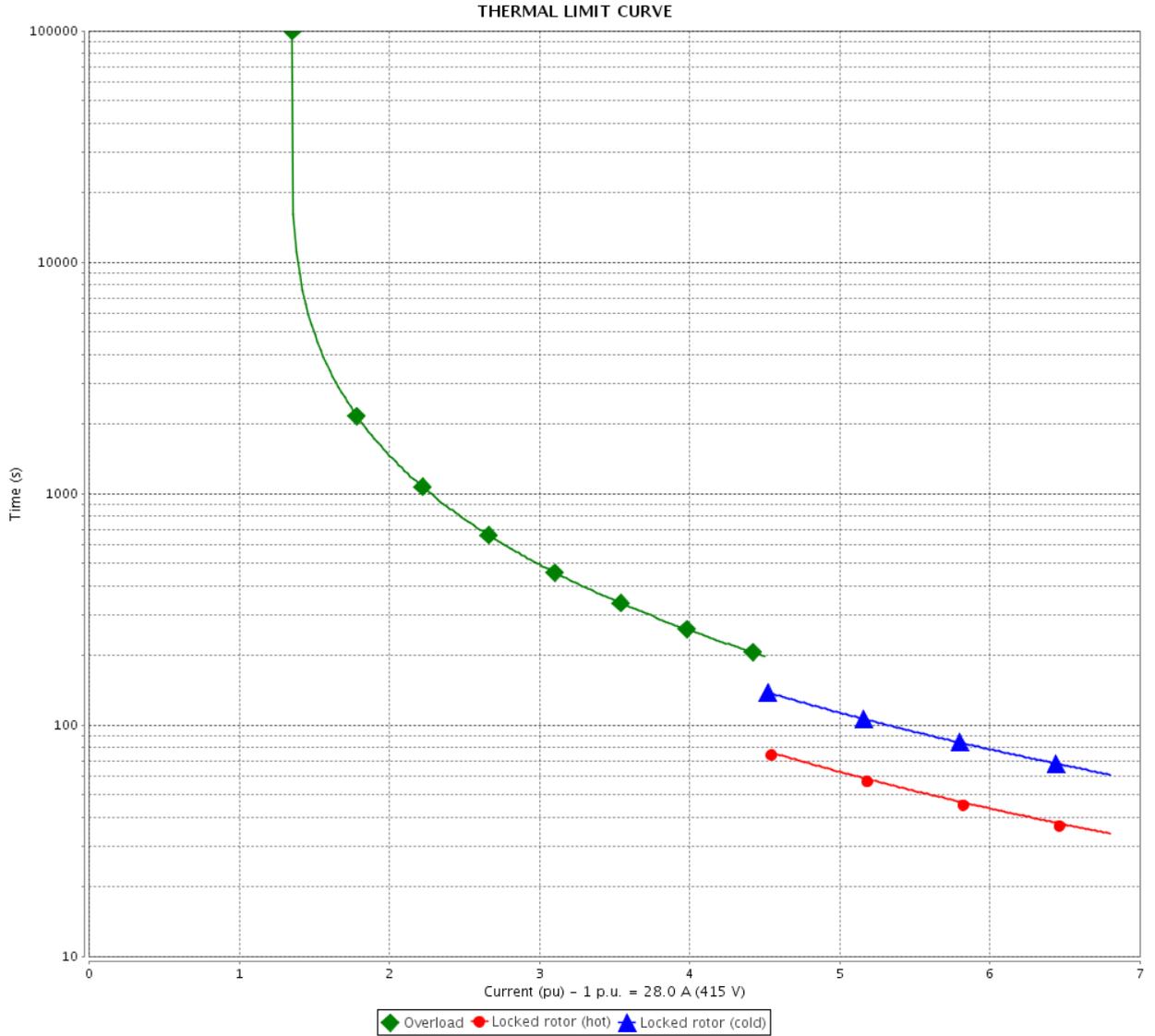
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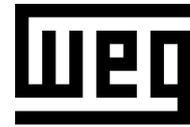
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

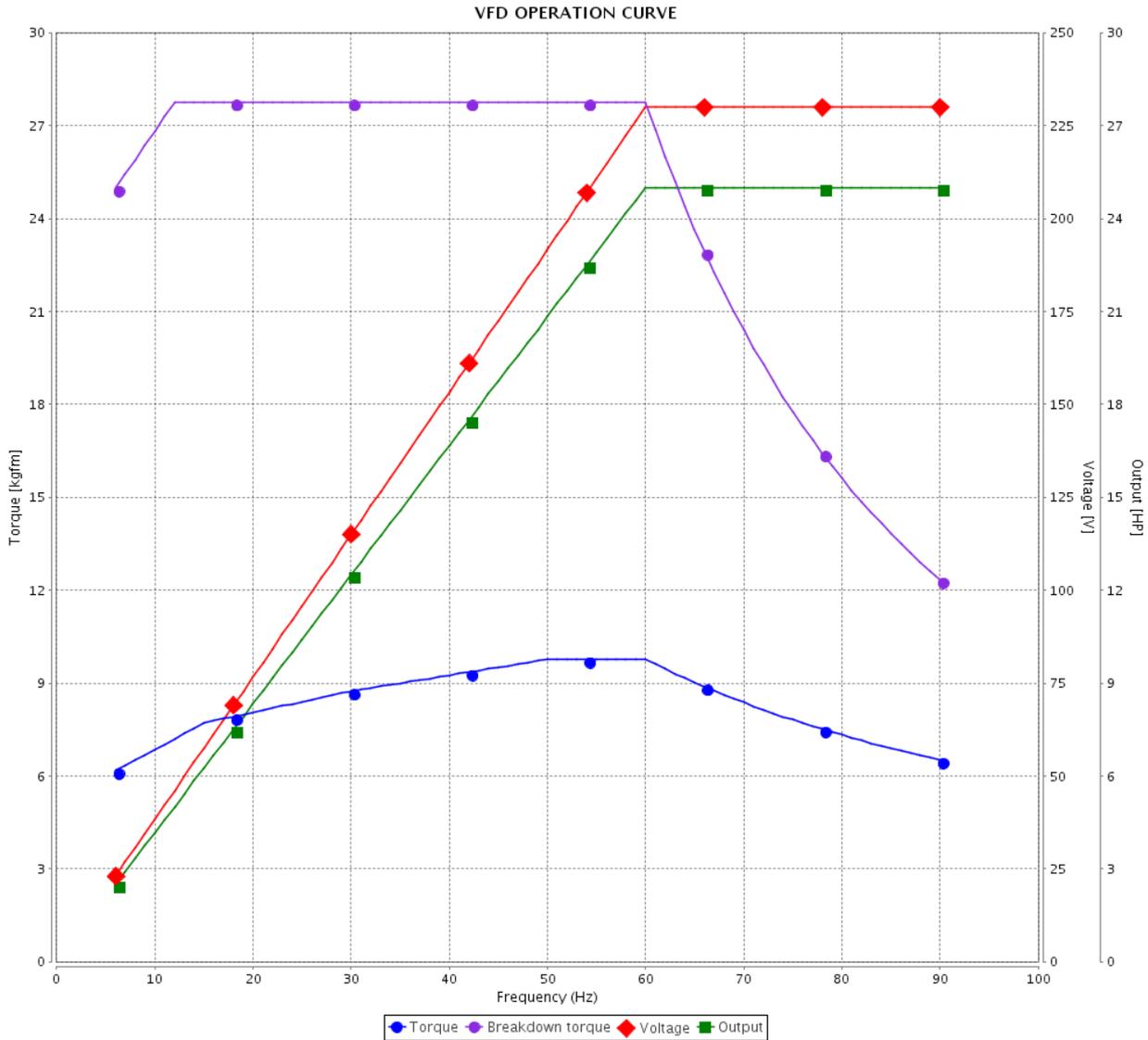


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503702

Catalog # : 02518OT3E284T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 59.0/29.5 A
LRC : 6.3
Rated torque : 10.3 kgfm
Locked rotor torque : 250 %
Breakdown torque : 270 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.1563 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

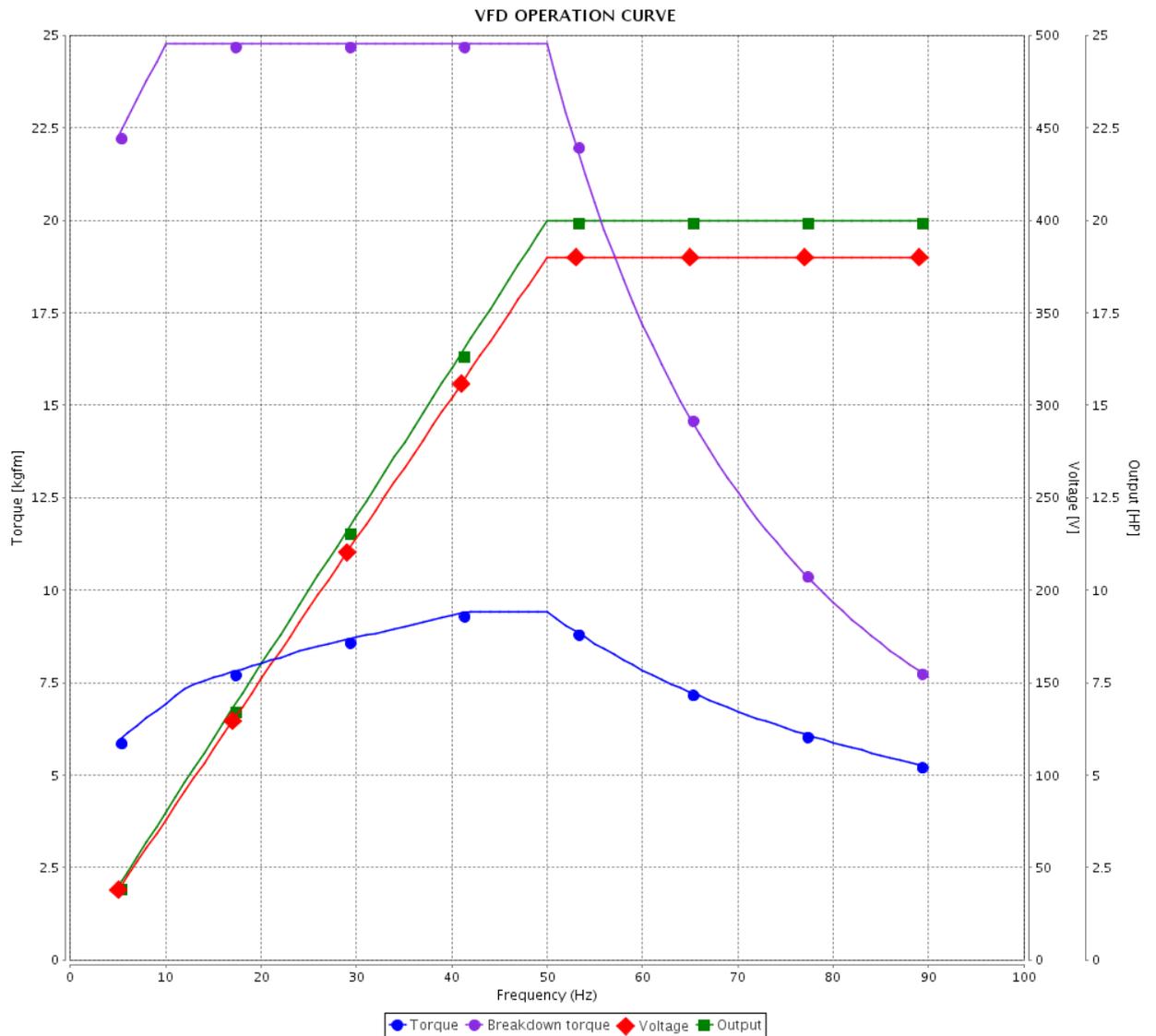


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Performance : 380 V 50 Hz 4P IE3

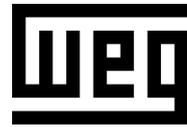
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Rated torque : 9.91 kgfm
Locked rotor torque : 229 %
Breakdown torque : 250 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.1563 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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VFD OPERATION CURVE

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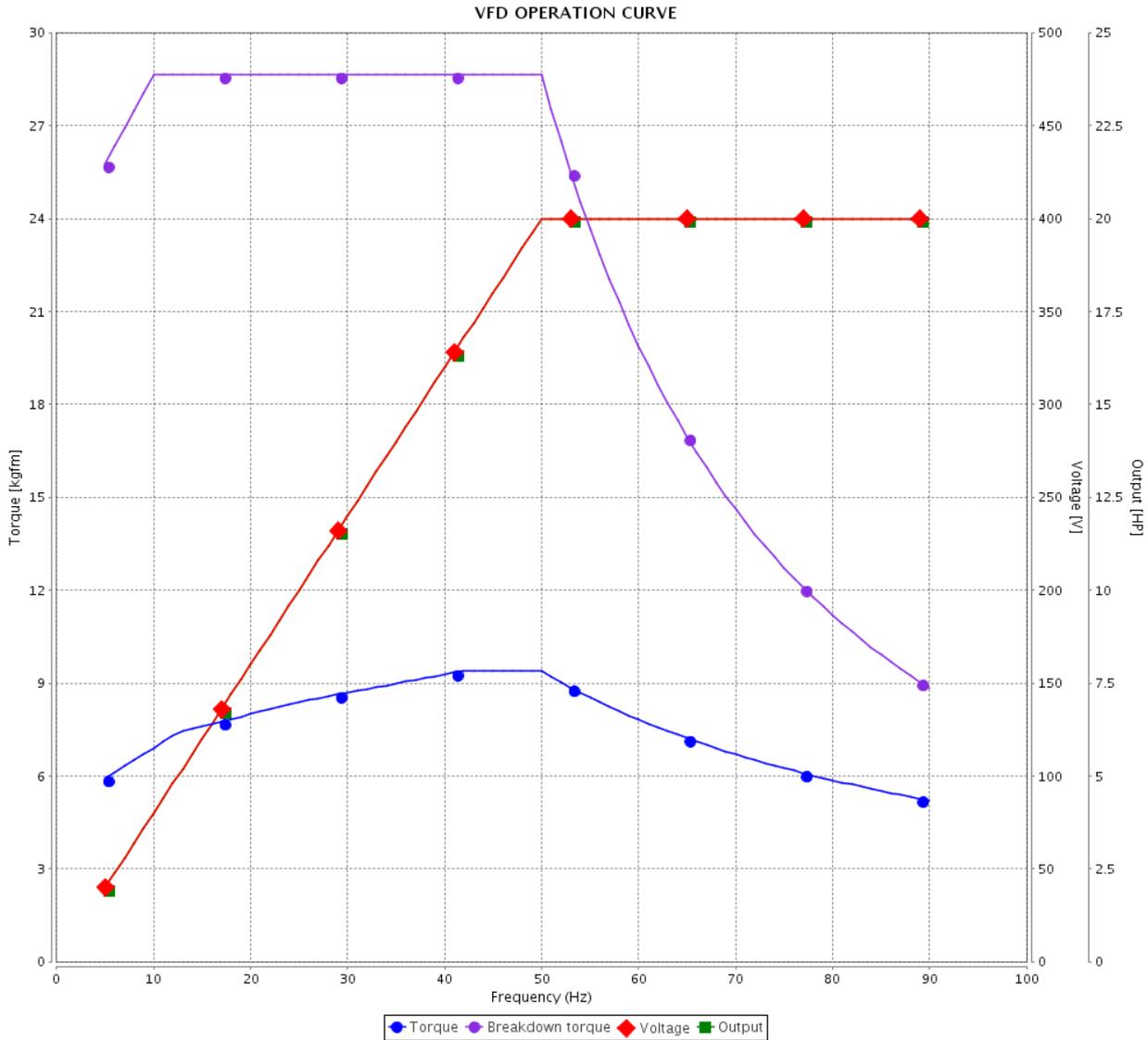


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 Breakdown torque : 290 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1563 kgm²
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 Insulation class : F
 Service factor : 1.00
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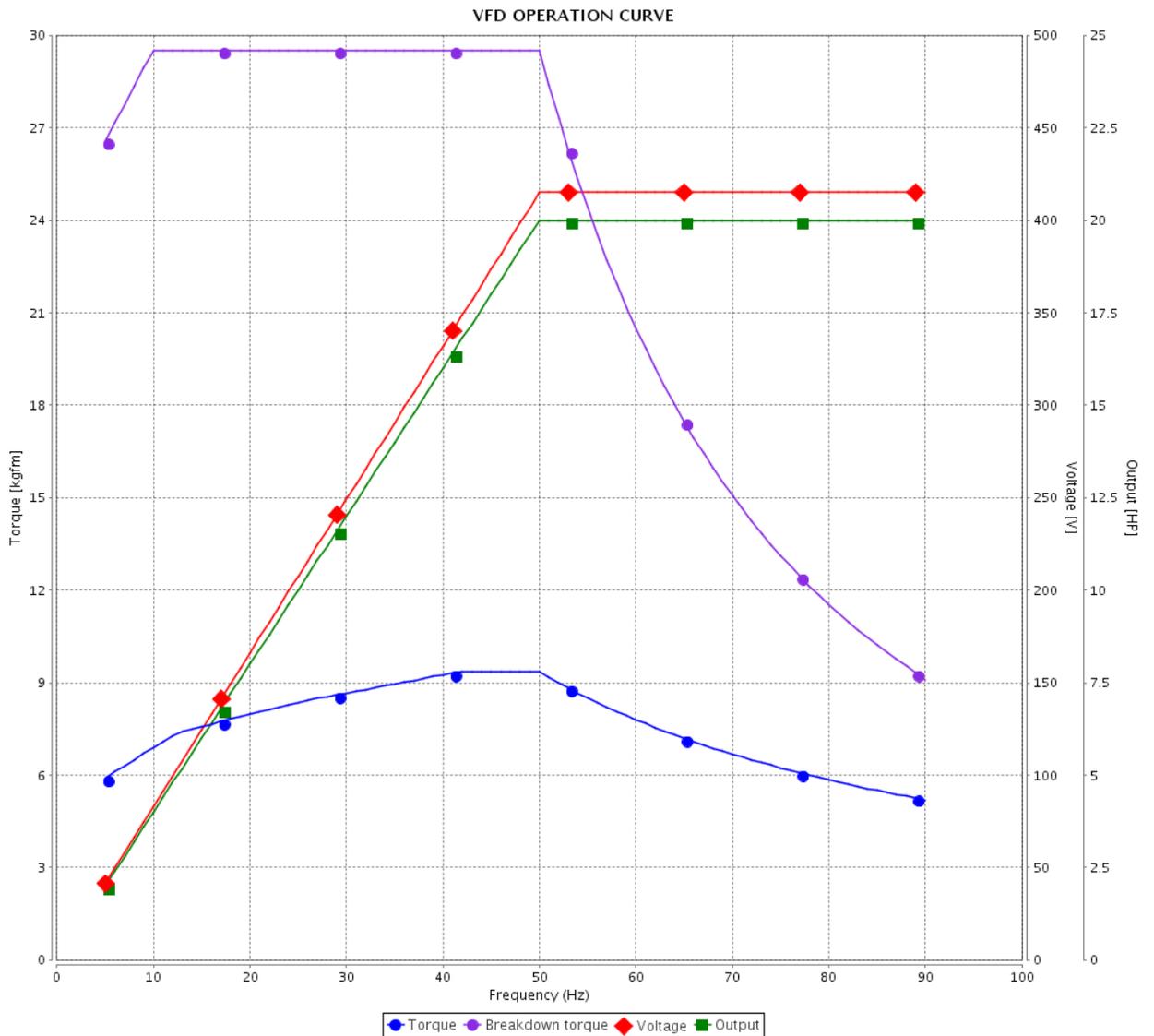


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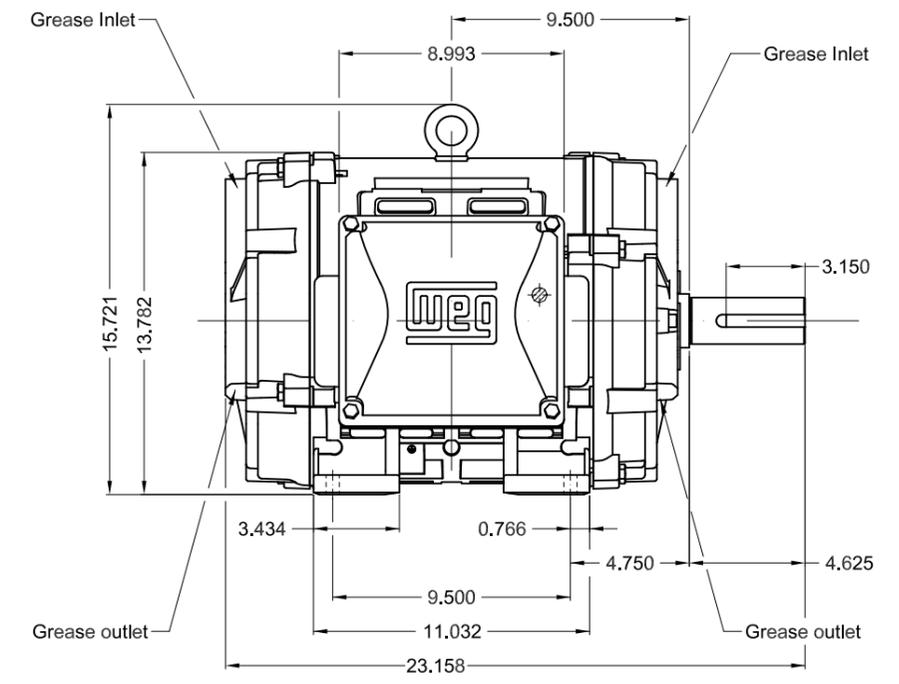
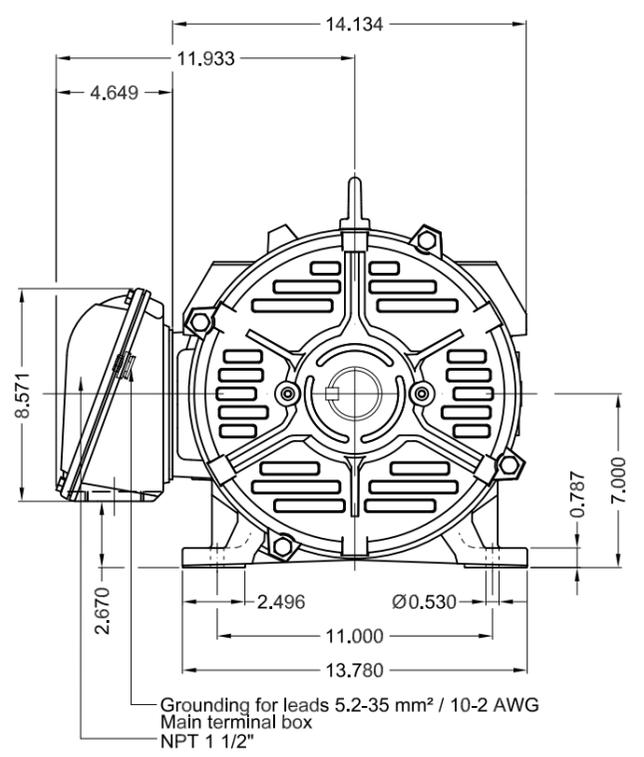


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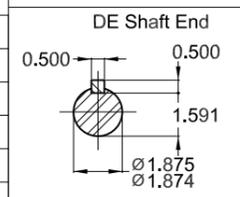


25 HP 04 Poles 60Hz A

1:7

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PHASE W40 MOTOR NEMA PREMIUM EFF					
CHECKED		FRAME 284T IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

- Bearing cap
- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



Dimensions in inches

XME A3



WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor



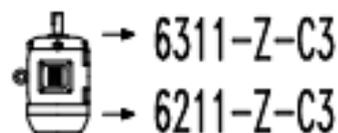
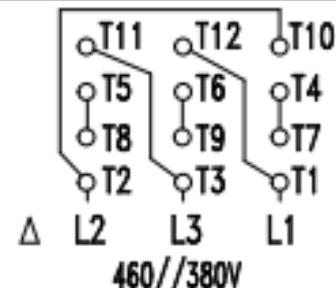
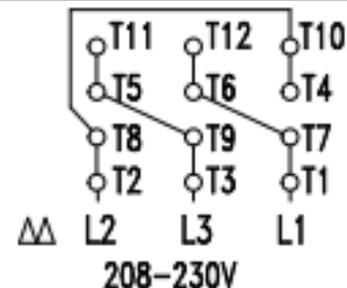
IEC 60034-1
 MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 3:1, 1.0SF

MODEL 025180T3E284T-W40G
 MADE IN BRAZIL
 14503702

PH 3	FR 284T	HP(kW) 25.0(18.5)		Hz 60	
V 230/460		A 59.0/29.5		RPM 1765	DES B
NEMA NOM EFF 93.6 %		INS. CL. F ΔT 80 K		IP23	
ENCL ODP		DUTY CONT.		AMB. 40°C	
CODE G	PF 0.84	SF 1.25	SFA 73.8/36.9		
USABLE @208V 65.2 A		SF 1.15	SFA 75.0		
20HP 15kW 50Hz 380V 29.5A 1465RPM SF1.00 EFF 92.1% (IE3)				ALT 1000	m.a.s.l.



MOBIL POLYREX EM
 18 g 20000 h

ALT 1000 m.a.s.l. 351 Lbs