

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14503809	
				Catalog # : 03018OT3E286T-W40G	
Frame		: 284/6T		Cooling method	
Insulation class		: F		: IC01 - ODP	
Duty cycle		: Cont.(S1)		Mounting	
Ambient temperature		: -20°C to +40°C		: F-1	
Altitude		: 1000 m.a.s.l.		Rotation ¹	
Protection degree		: IP23		: Both (CW and CCW)	
Design		: B		Starting method	
				: Direct On Line	
				Approx. weight ²	
				: 181 kg	
				Moment of inertia (J)	
				: 0.1906 kgm ²	
Output [HP]	30	25	25	25	25
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	69.8/34.9	35.7	34.7	34.3	34.3
L. R. Amperes [A]	461/230	246	250	244	244
LRC [A]	6.6x(Code G)	6.9x(Code H)	7.2x(Code H)	7.1x(Code H)	7.1x(Code H)
No load current [A]	27.0/13.5	13.0	14.0	14.5	14.5
Rated speed [RPM]	1765	1465	1470	1470	1470
Slip [%]	1.94	2.33	2.00	2.00	2.00
Rated torque [kgfm]	12.3	12.4	12.3	12.3	12.3
Locked rotor torque [%]	280	229	260	280	280
Breakdown torque [%]	270	240	270	300	300
Service factor	1.25	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	28s (cold) 16s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)
Noise level ²	64.0 dB(A)				
Efficiency (%)	25%	93.4	92.0	92.0	92.0
	50%	93.6	92.2	92.2	92.2
	75%	94.1	92.6	92.6	92.6
	100%	94.1	92.6	92.6	92.6
Power Factor	25%	0.45	0.46	0.42	0.39
	50%	0.70	0.70	0.66	0.63
	75%	0.80	0.80	0.78	0.75
	100%	0.84	0.85	0.83	0.81
Bearing type	: Drive end 6311 Z C3	: Non drive end 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 77.2A SF 1.15 SFA 88.8A					
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

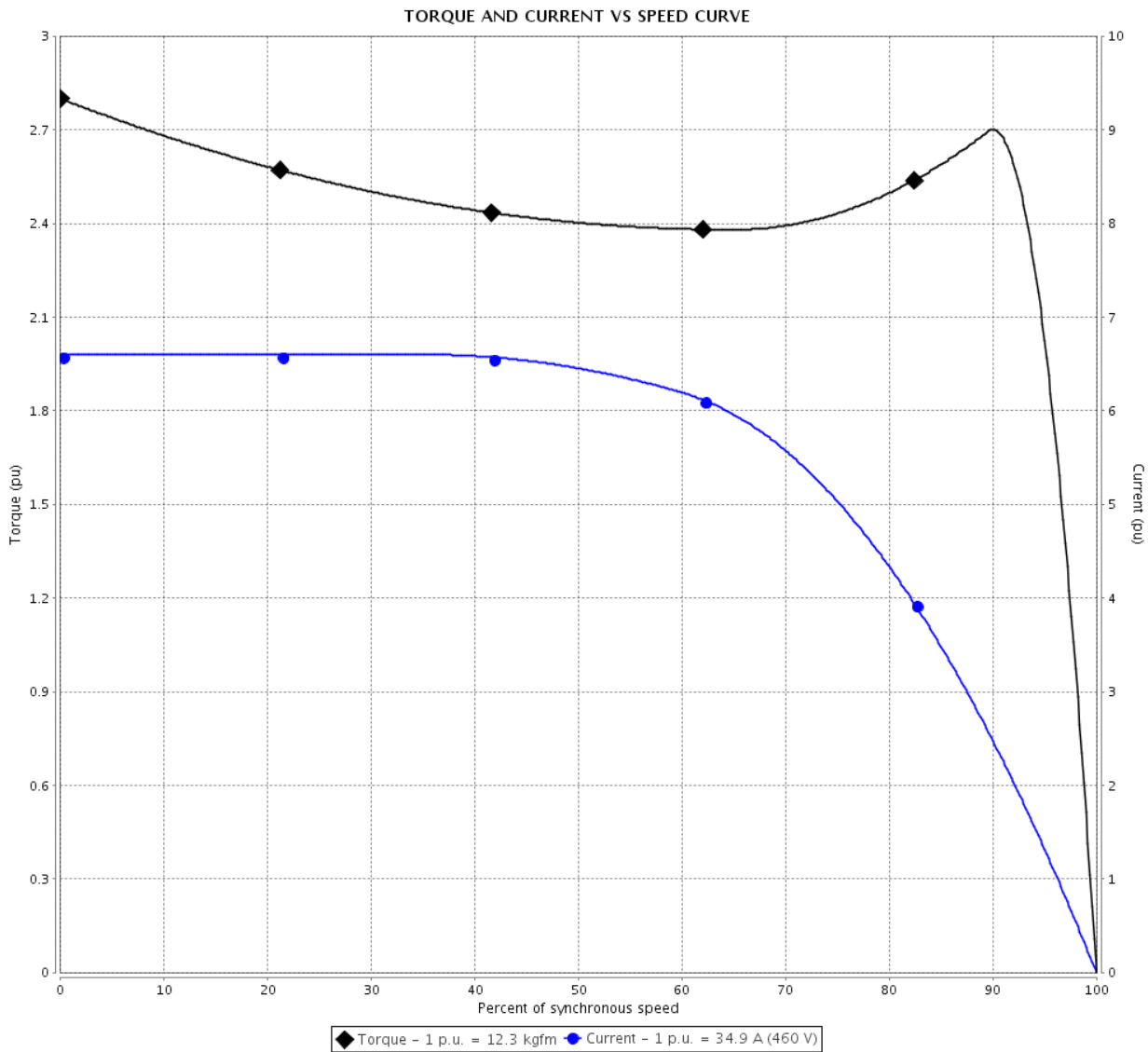


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
LRC : 6.6
Rated torque : 12.3 kgfm
Locked rotor torque : 280 %
Breakdown torque : 270 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.1906 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



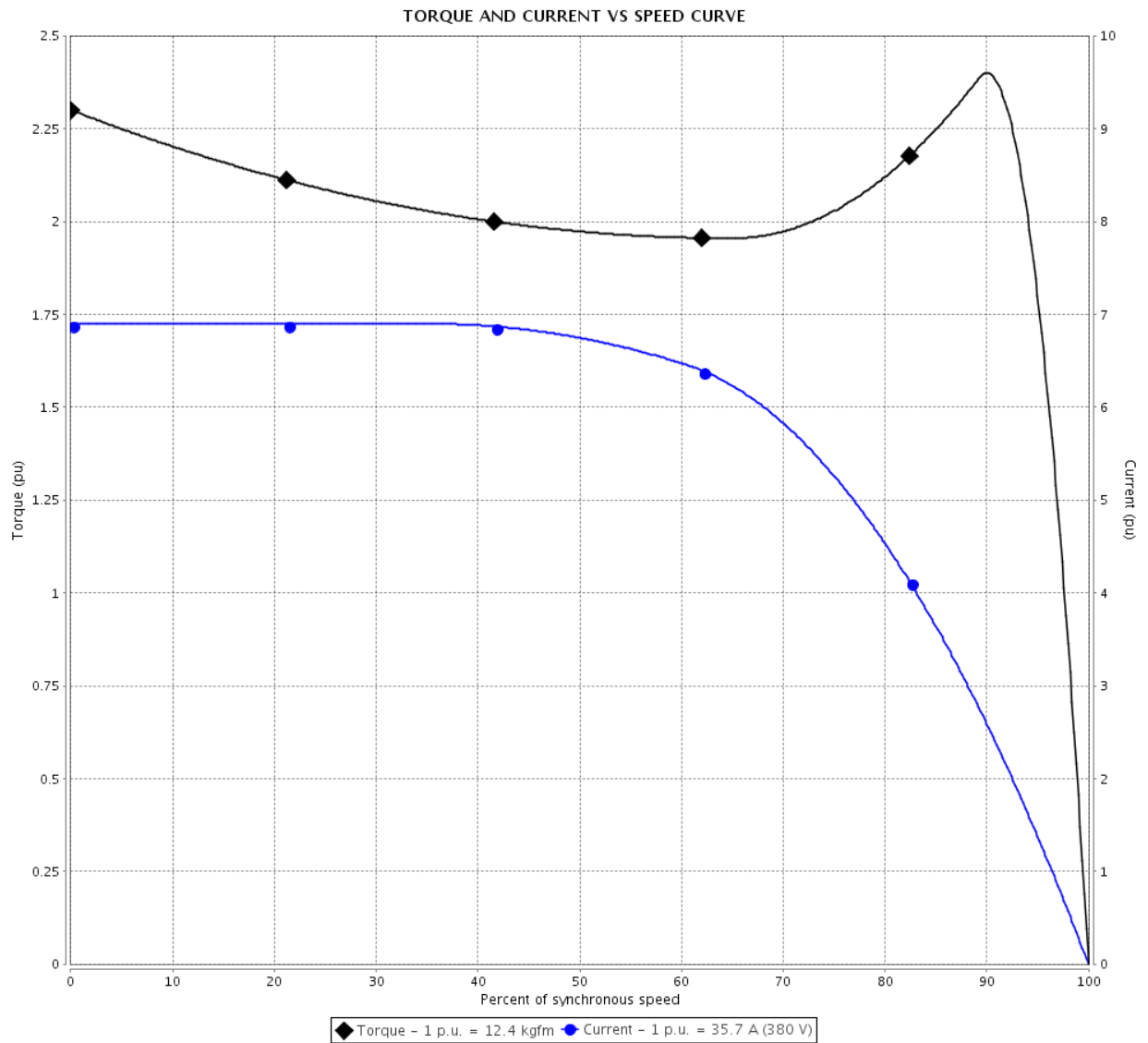
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current	: 35.7 A	Moment of inertia (J)	: 0.1906 kgm ²
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 12.4 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



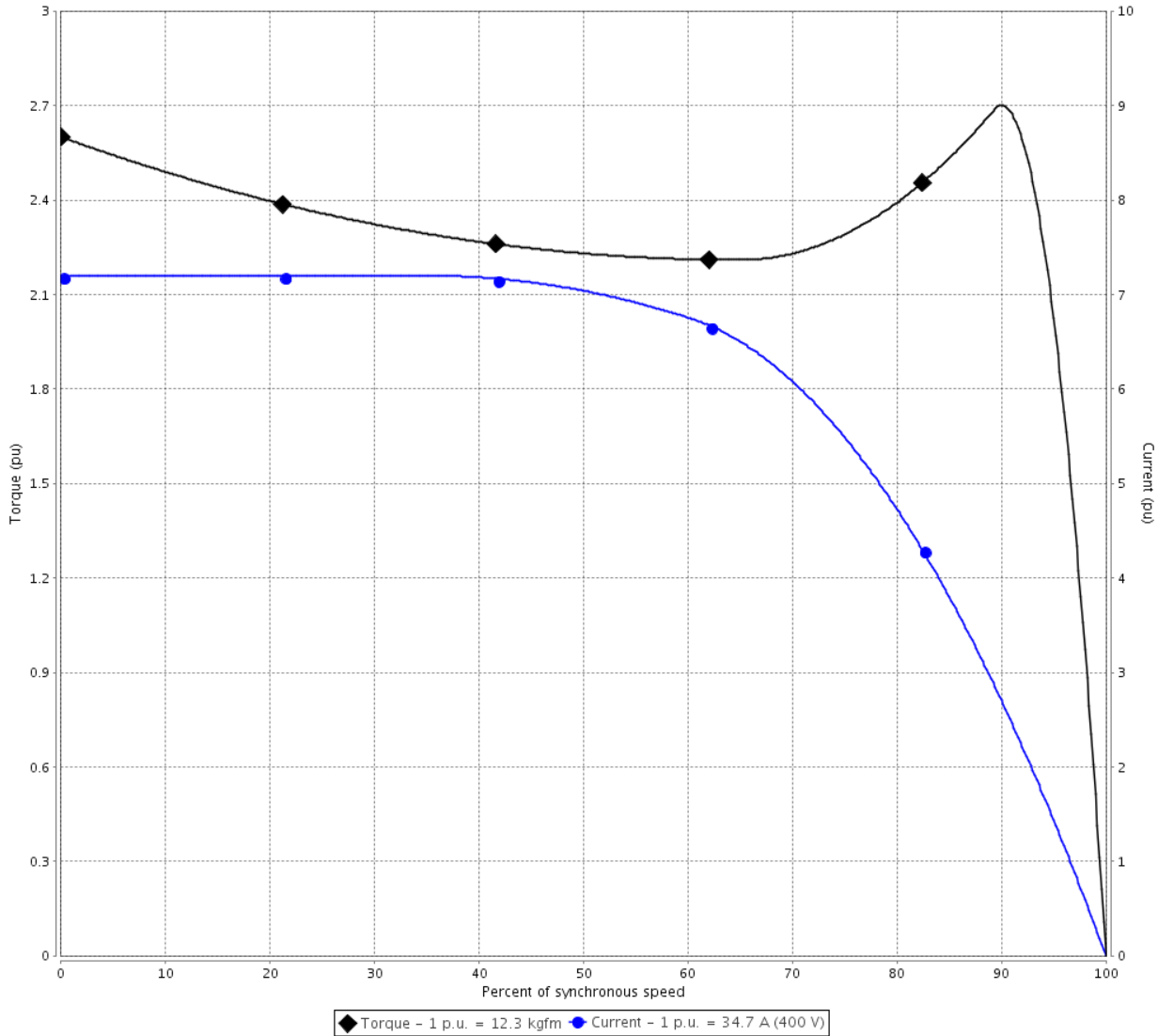
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 34.7 A	Moment of inertia (J)	: 0.1906 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



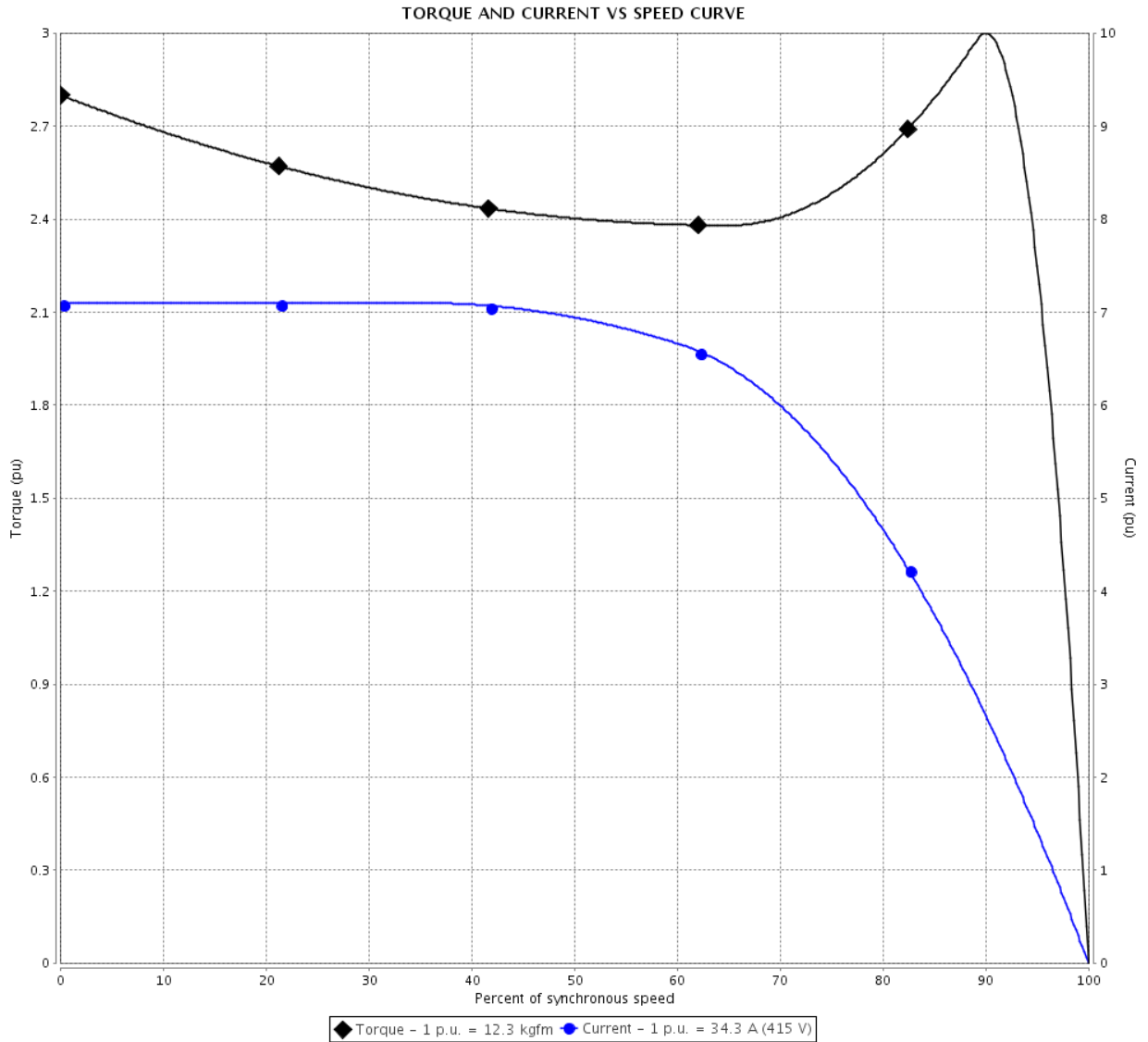
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 030180T3E286T-W40G



Performance : 415 V 50 Hz 4P IE3

Rated current : 34.3 A
LRC : 7.1
Rated torque : 12.3 kgfm
Locked rotor torque : 280 %
Breakdown torque : 300 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.1906 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Locked rotor time : 30s (cold) 17s (hot)

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LOAD PERFORMANCE CURVE

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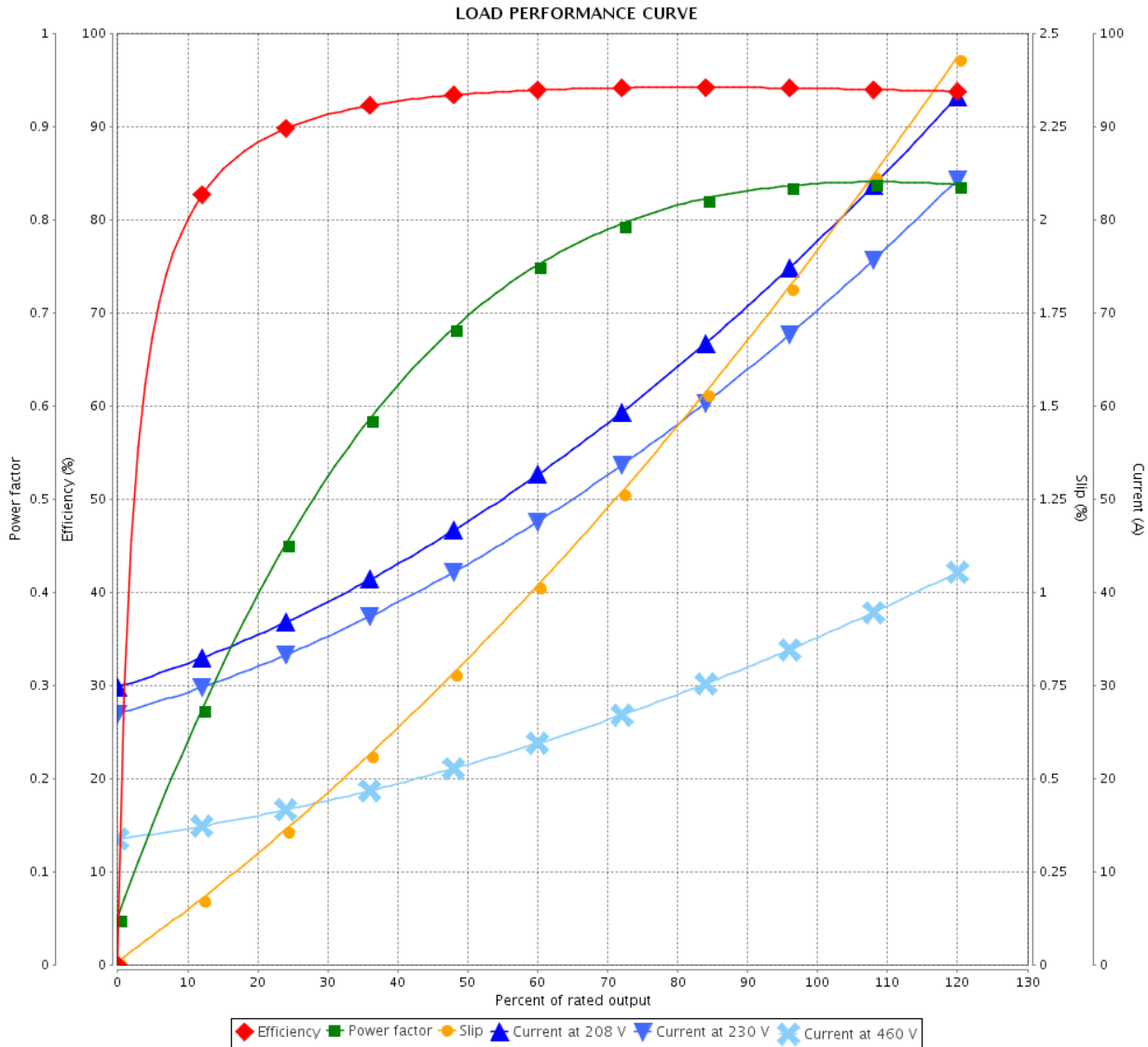


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
 LRC : 6.6
 Rated torque : 12.3 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 270 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.1906 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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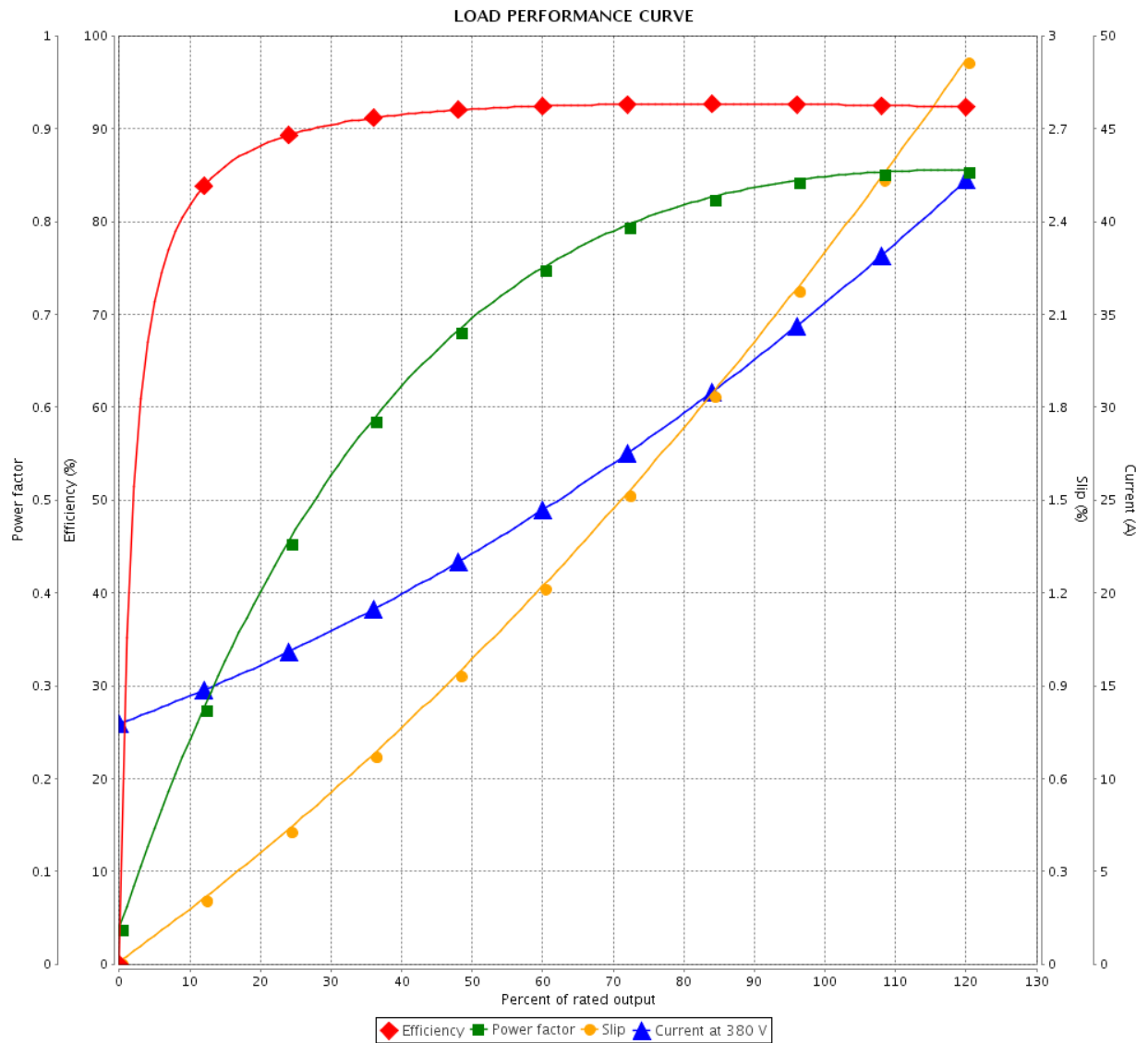


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
 LRC : 6.9
 Rated torque : 12.4 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1906 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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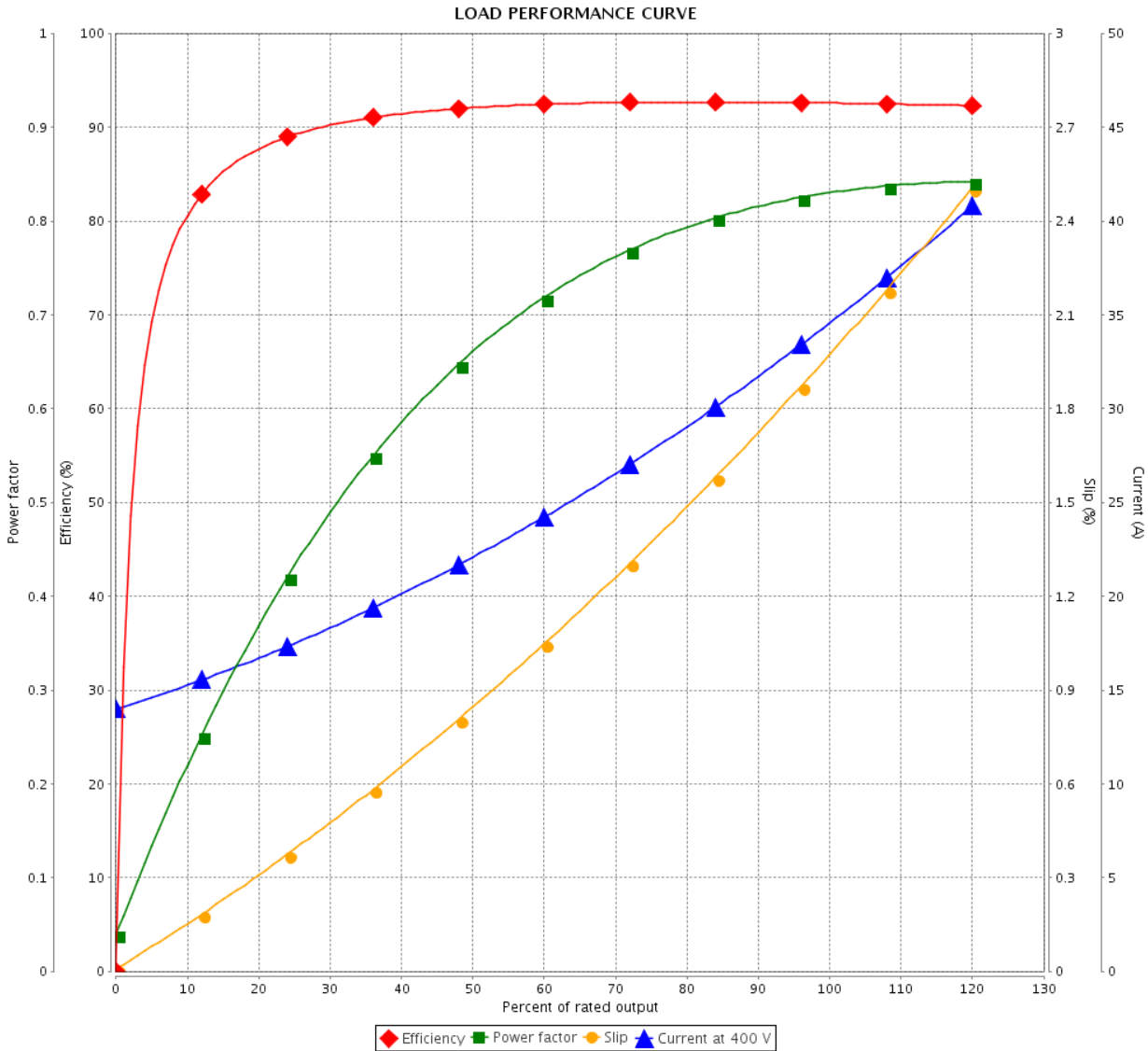


Customer :

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Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.7 A
 LRC : 7.2
 Rated torque : 12.3 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1906 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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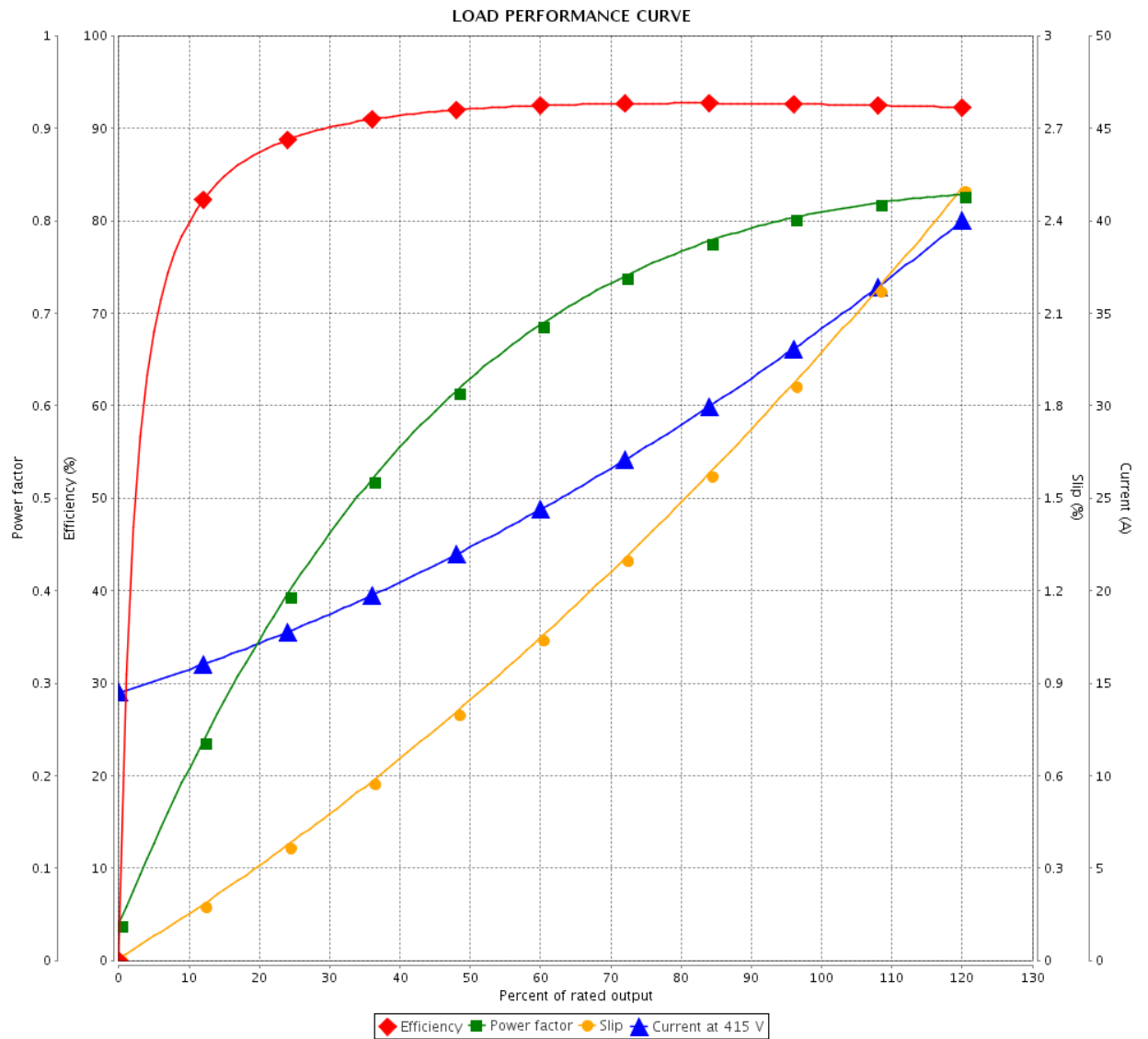


Customer :

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Performance : 415 V 50 Hz 4P IE3

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 Rated torque : 12.3 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1906 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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THERMAL LIMIT CURVE



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

Heating constant

Cooling constant

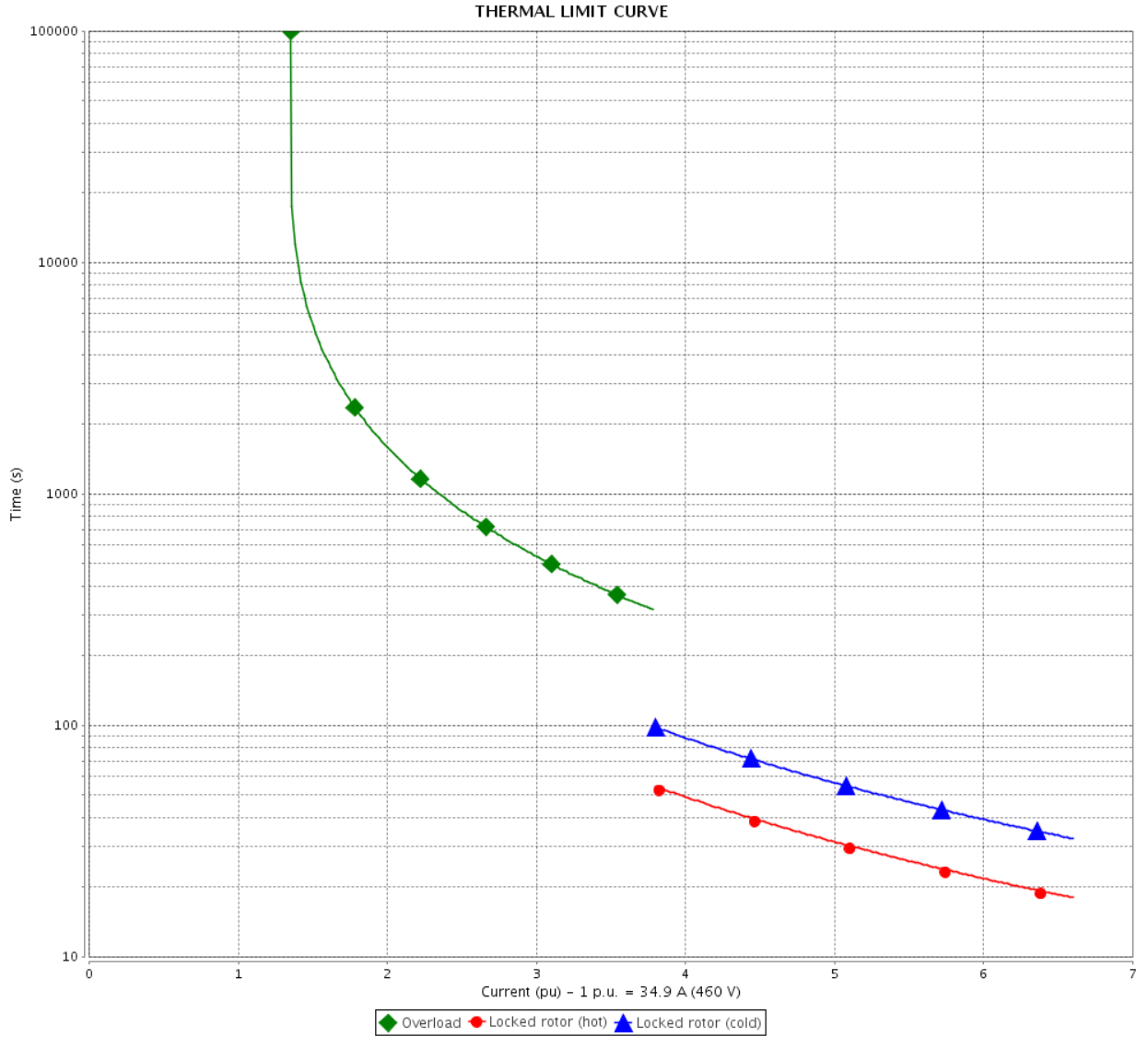
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 35.7 A	Moment of inertia (J)	: 0.1906 kgm ²
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 12.4 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

Heating constant

Cooling constant

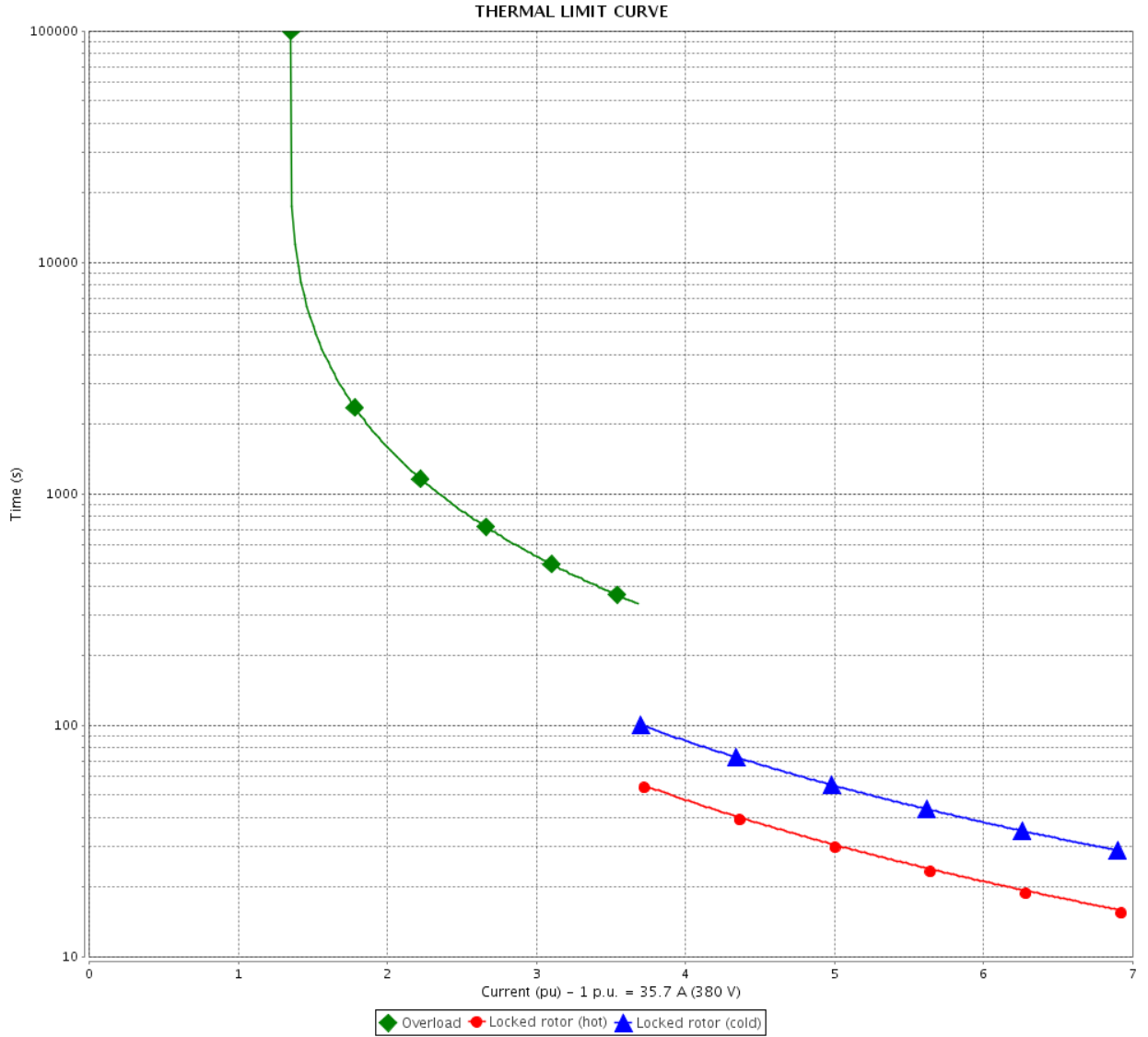
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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G

Performance : 400 V 50 Hz 4P IE3

Rated current	: 34.7 A	Moment of inertia (J)	: 0.1906 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

Cooling constant

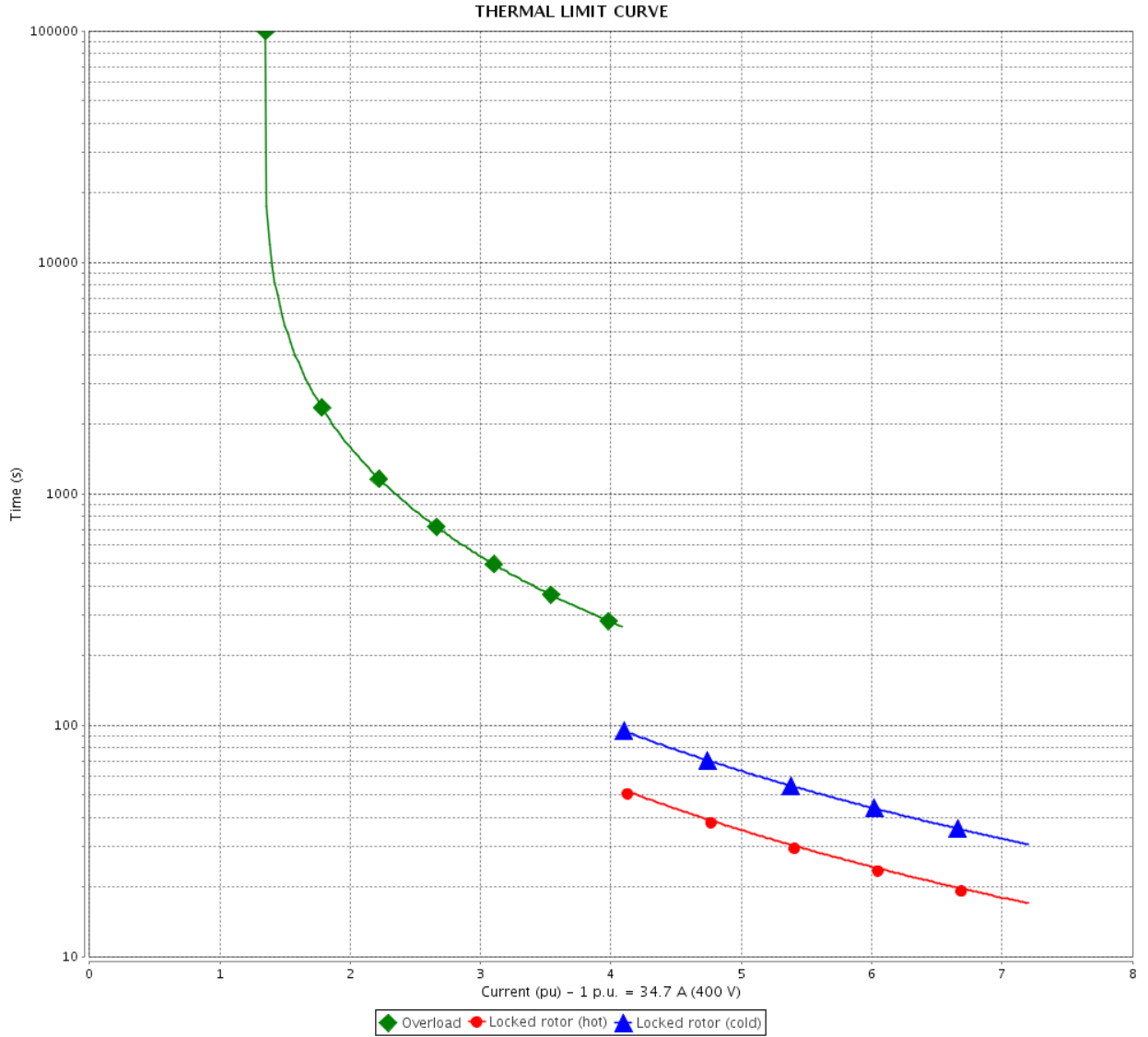
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G

Performance : 415 V 50 Hz 4P IE3

Rated current	: 34.3 A	Moment of inertia (J)	: 0.1906 kgm ²
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Heating constant

Cooling constant

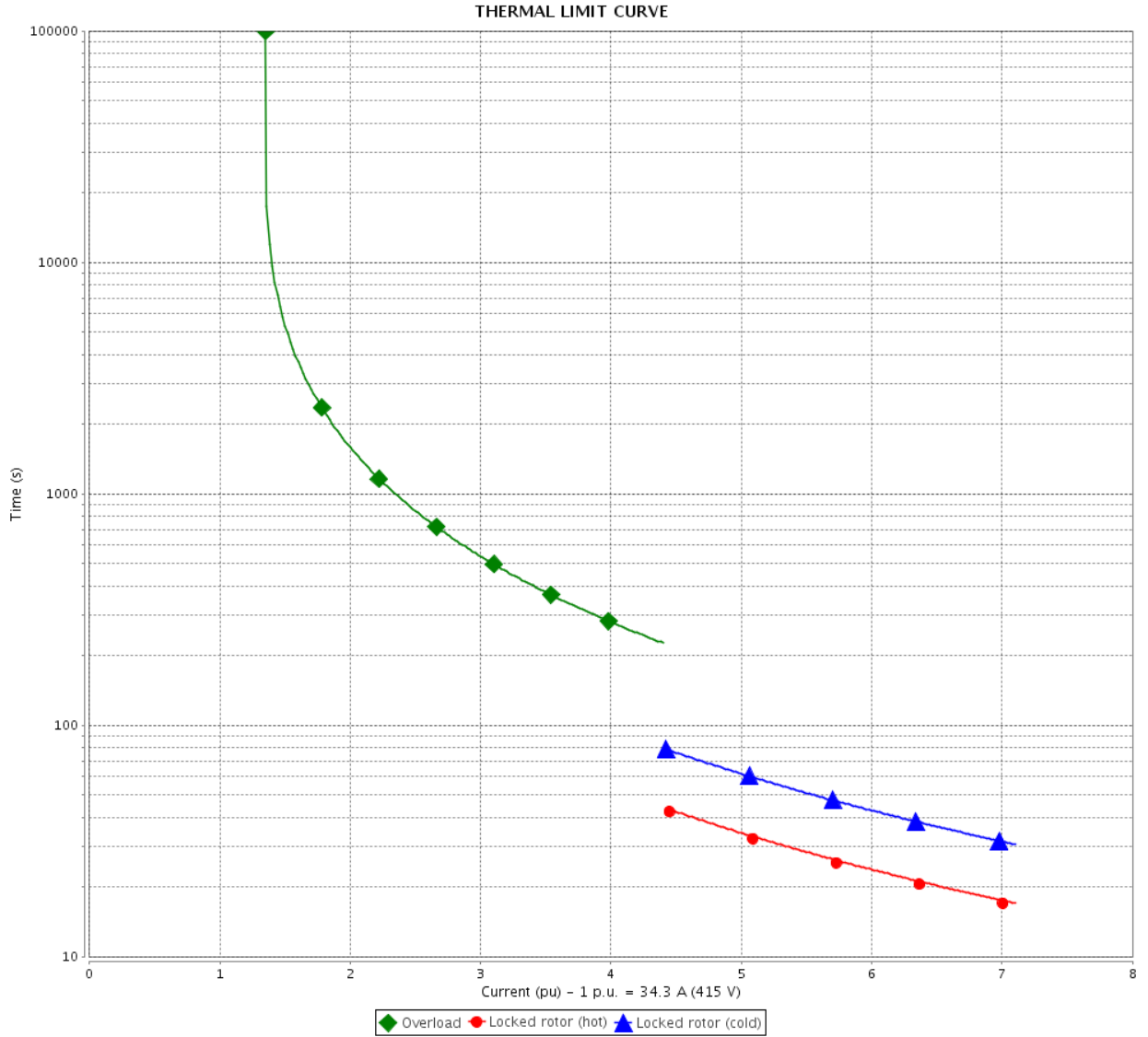
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

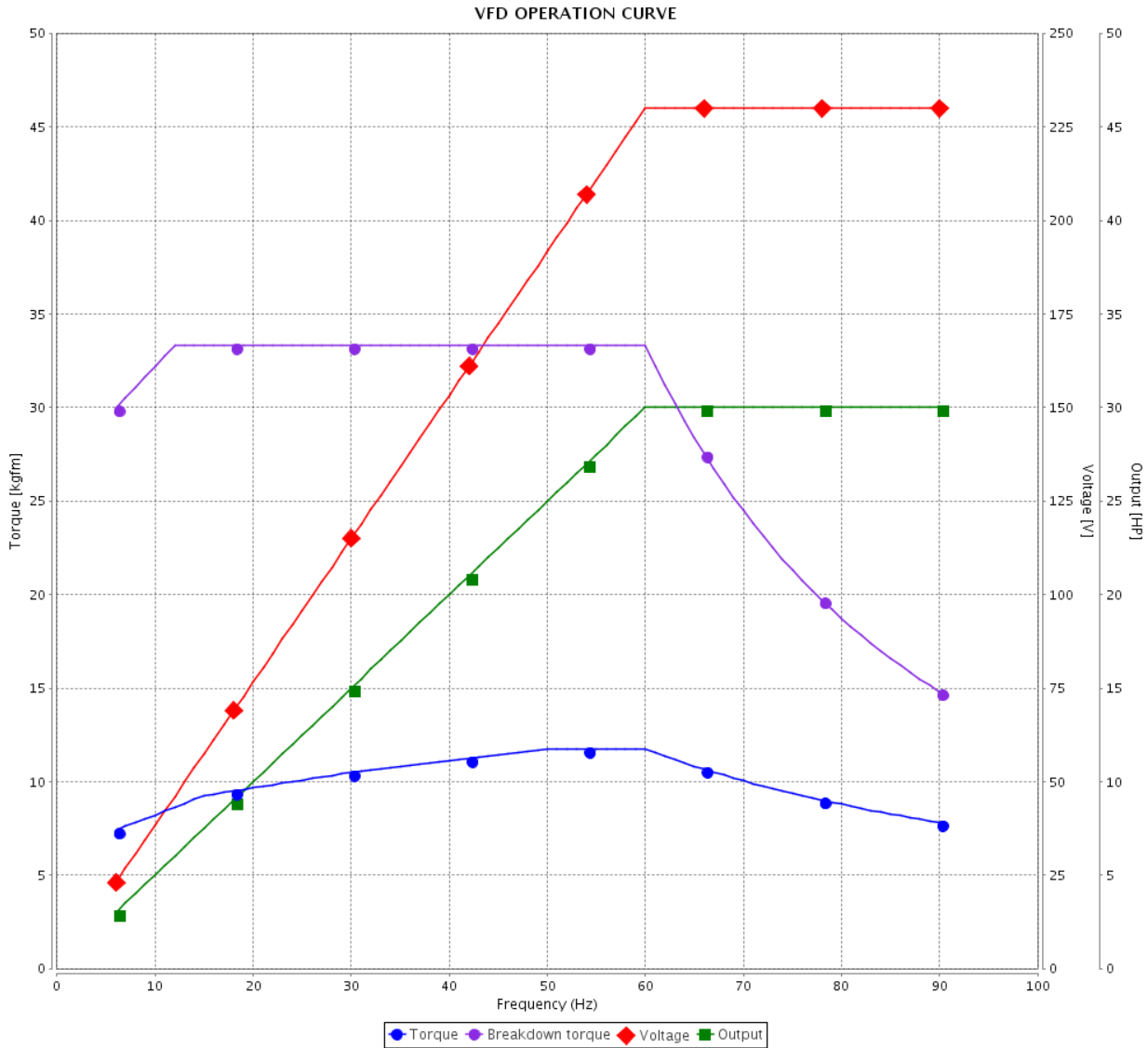


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 230/460 V 60 Hz 4P

Rated current : 69.8/34.9 A
 LRC : 6.6
 Rated torque : 12.3 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 270 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.1906 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

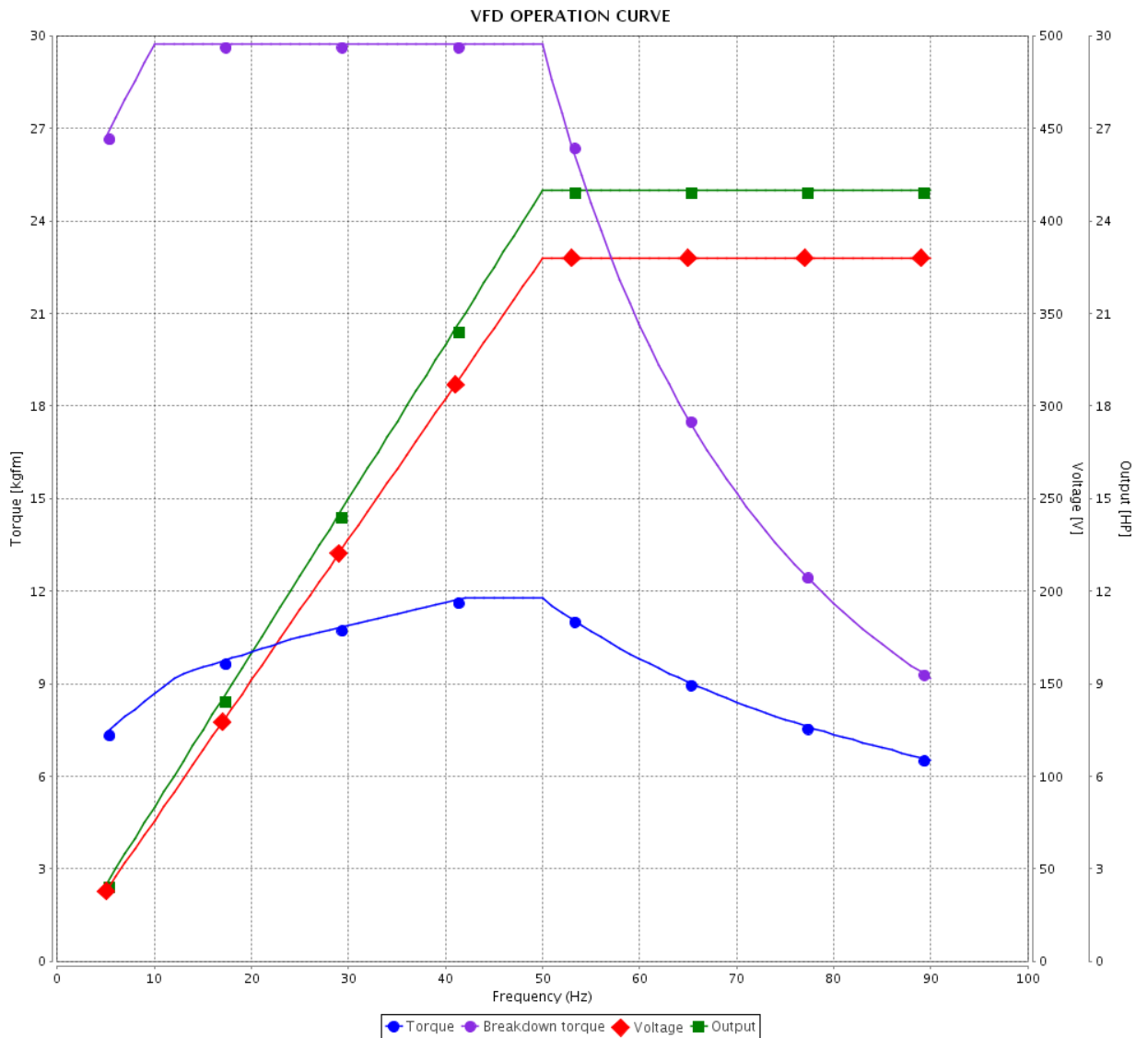


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 380 V 50 Hz 4P IE3

Rated current : 35.7 A
 LRC : 6.9
 Rated torque : 12.4 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1906 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

Three Phase Induction Motor - Squirrel Cage

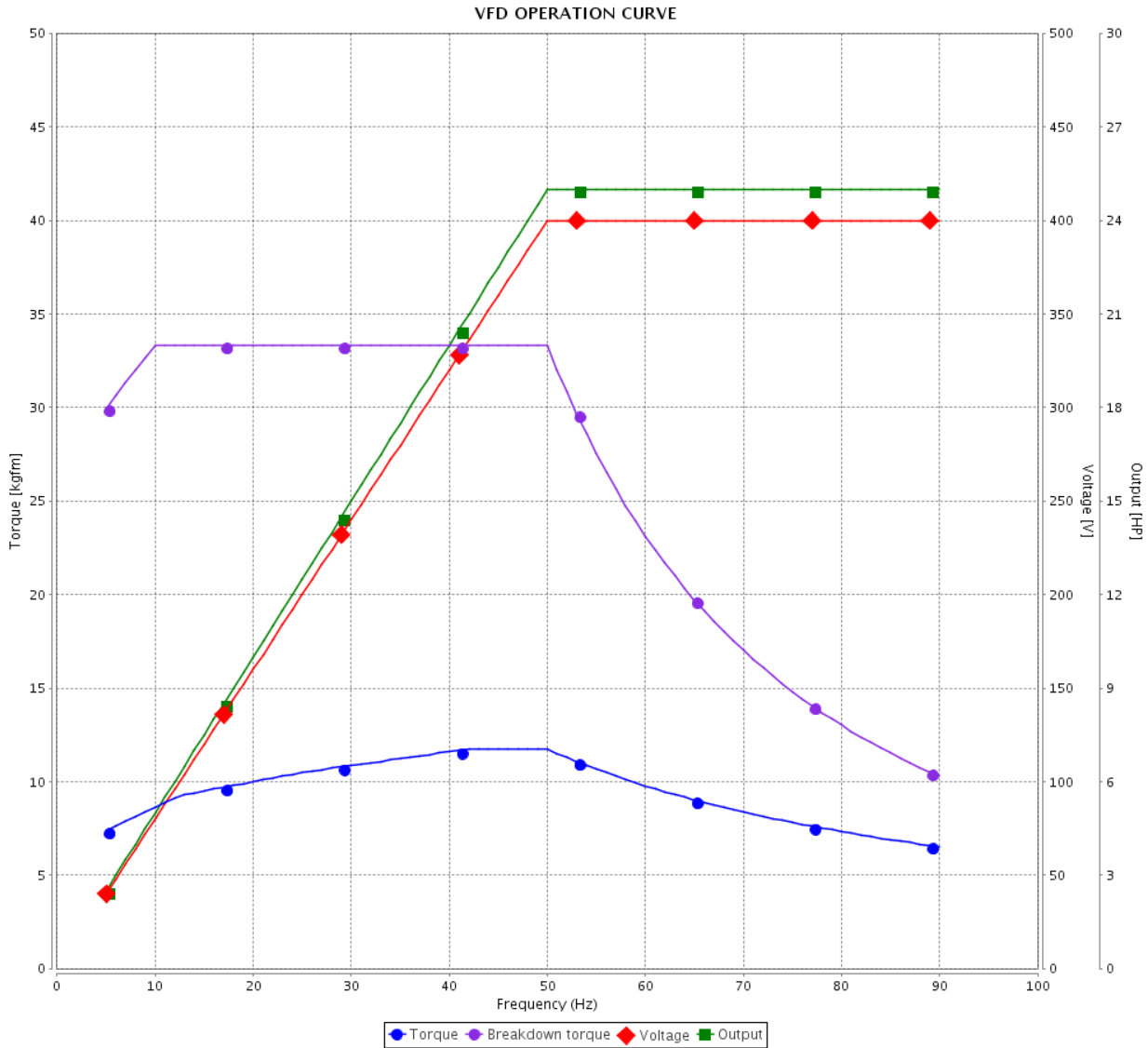


Customer : _____

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14503809

Catalog # : 03018OT3E286T-W40G



Performance : 400 V 50 Hz 4P IE3

Rated current : 34.7 A
 LRC : 7.2
 Rated torque : 12.3 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1906 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

Three Phase Induction Motor - Squirrel Cage

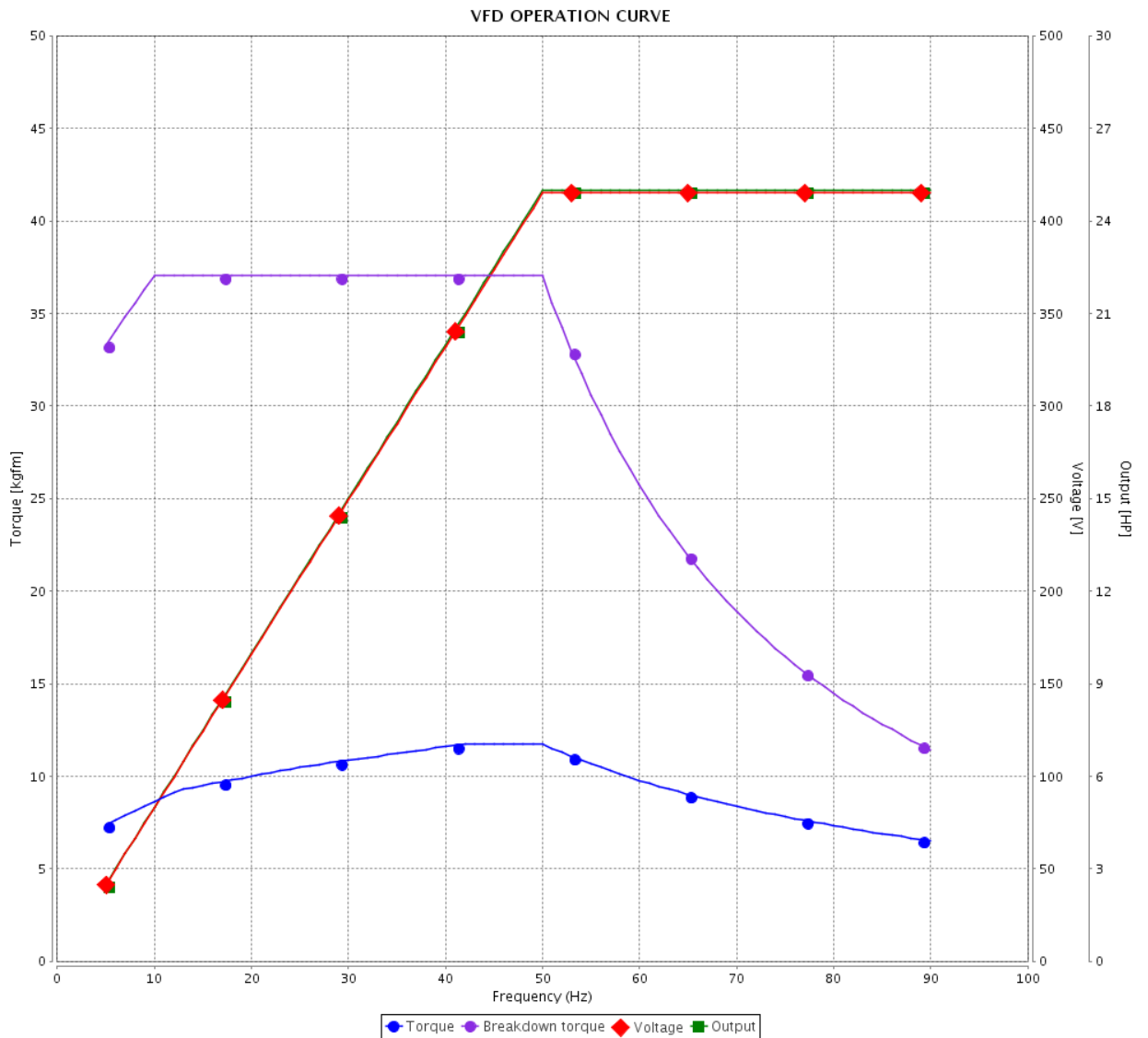


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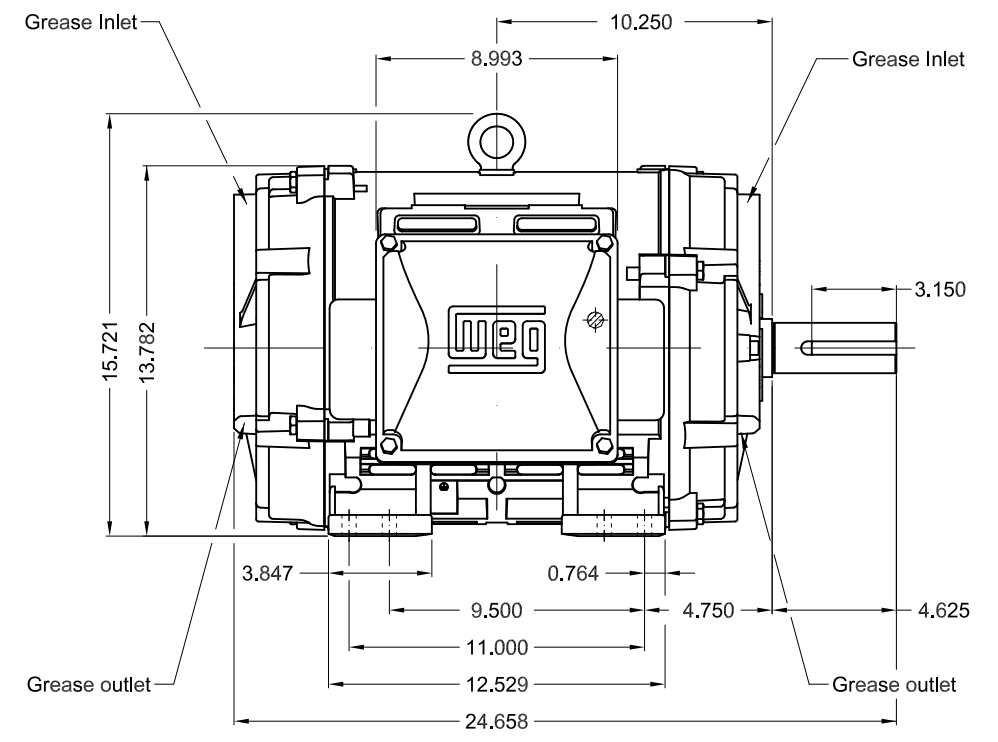
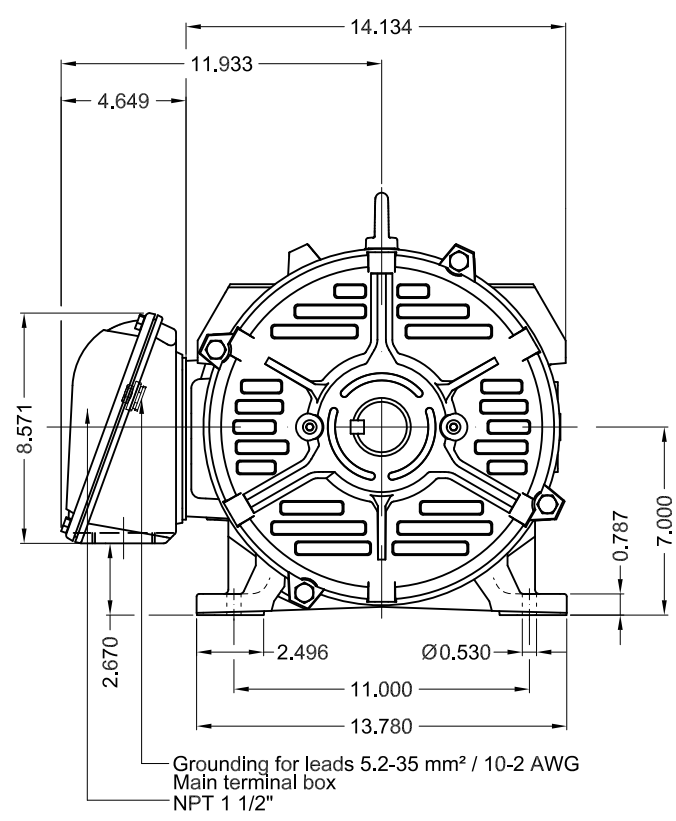


Performance : 415 V 50 Hz 4P IE3

Rated current : 34.3 A
LRC : 7.1
Rated torque : 12.3 kgfm
Locked rotor torque : 280 %
Breakdown torque : 300 %
Rated speed : 1470 rpm

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
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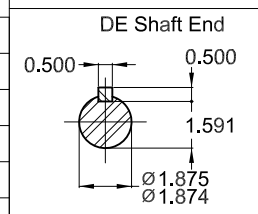
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30 HP 04 Poles 60Hz A

1:7

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PHASE W40 MOTOR NEMA PREMIUM EFF					
CHECKED		FRAME 284/6T 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



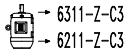
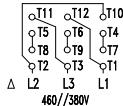
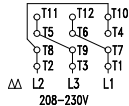
IEC 60034-1
 MOD.T01#FOXON



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

MODEL 030180T3E286T-W40G
 MADE IN BRAZIL
 14503809

PH 3	FR 284/6T	HP(kW) 30.0(22.0)	Hz 60
V 230/460	A 69.8/34.9	RPM 1765	DES B
NEMA NOM EFF 94.1 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.84	SF 1.25	SFA 87.3/43.6
USABLE @208V 77.2 A	SF 1.15	SFA 88.8	
25HP 18.5kW 50Hz 380V 35.7A 1465RPM SF1.00 EFF 92.6% (IE3)	ALT 1000 m.a.s.l.	399 Lbs	



MOBIL POLYREX EM
 18 g 20000 h