

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code :	14485010
				Catalog # :	01512OT3E284JP-W40
Frame		: 284JP		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	: 334 lb
Protection degree		: IP23		Moment of inertia (J)	: 4.80 sq.ft.lb
Design		: B			
Output [HP]	15	10	10	10	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	36.8/18.4	15.8	15.4	15.4	
L. R. Amperes [A]	232/116	115	116	122	
LRC [A]	6.3x(Code G)	7.3x(Code J)	7.5x(Code K)	7.9x(Code K)	
No load current [A]	15.6/7.80	7.80	8.40	8.90	
Rated speed [RPM]	1180	980	985	985	
Slip [%]	1.67	2.00	1.50	1.50	
Rated torque [ft.lb]	66.8	53.6	53.3	53.3	
Locked rotor torque [%]	260	290	330	360	
Breakdown torque [%]	260	320	350	380	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	28s (cold) 16s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)	
Noise level ²	59.0 dB(A)				
Efficiency (%)	25%	90.8	88.3	88.4	88.4
	50%	91.0	88.6	88.6	88.6
	75%	91.7	89.0	89.0	89.0
	100%	91.7	89.1	89.1	89.1
Power Factor	25%	0.42	0.37	0.33	0.31
	50%	0.67	0.62	0.58	0.55
	75%	0.77	0.75	0.71	0.68
	100%	0.82	0.81	0.79	0.76
Bearing type	: Drive end	6311 Z C3	Non drive end	6211 Z C3	Foundation loads Max. traction Max. compression
Sealing	: Without		Without		
		Bearing Seal		Bearing Seal	
Lubrication interval	: 20000 h		20000 h		
Lubricant amount	: 18 g		11 g		
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 40.7A SF 1.15 SFA 46.8A					
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



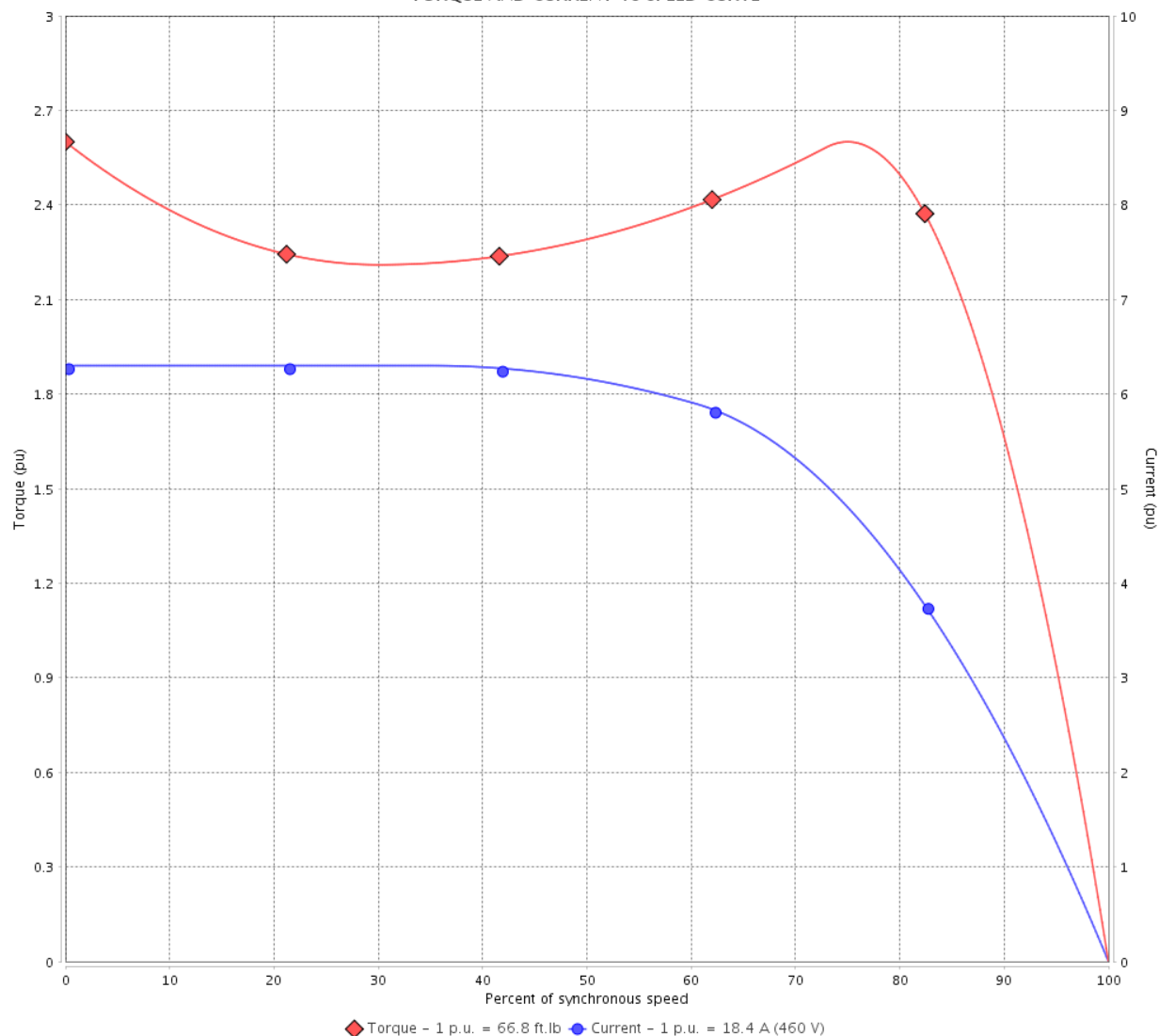
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14485010

Catalog # : 015120T3E284JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 36.8/18.4 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 66.8 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1180 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



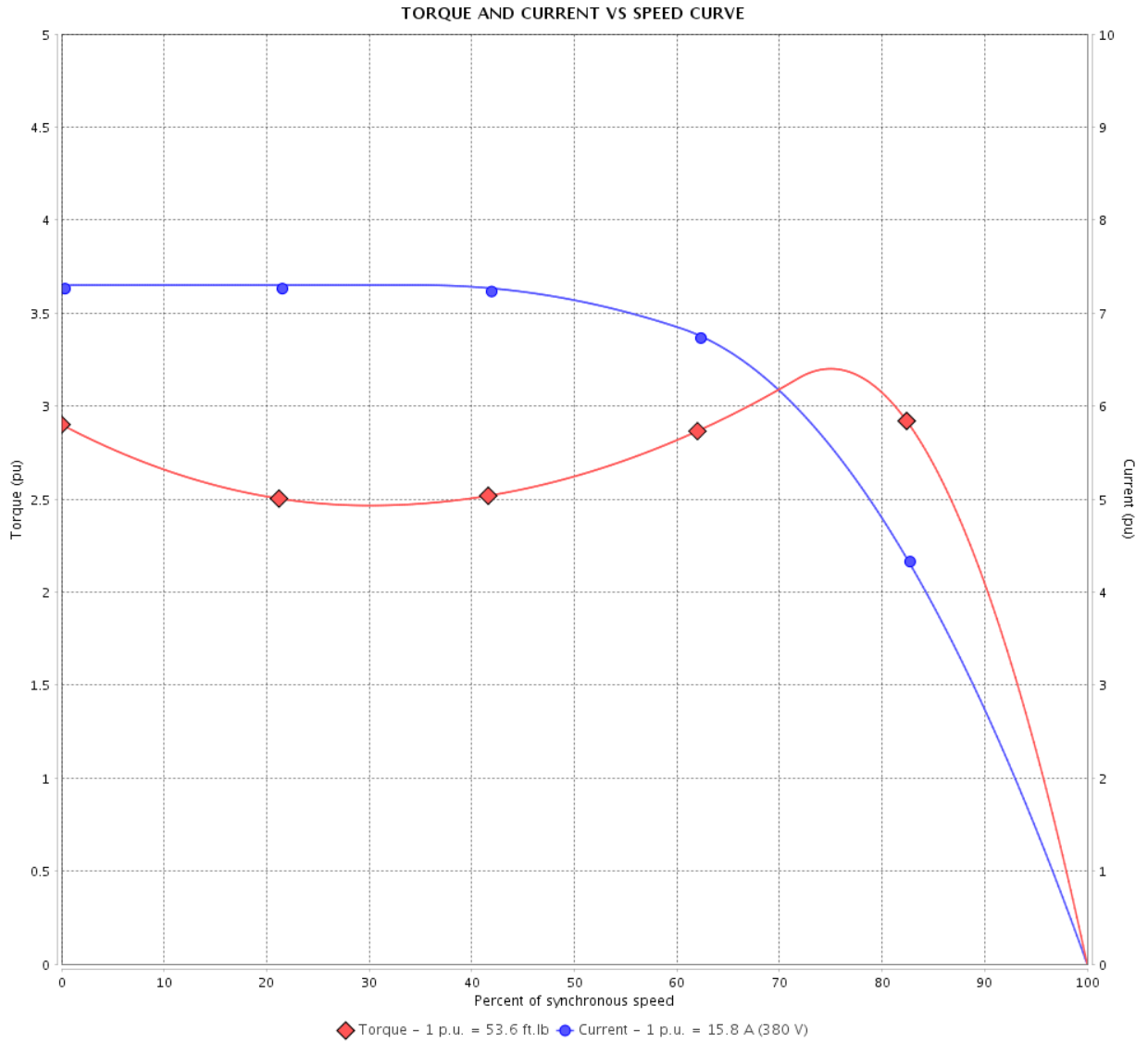
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14485010

Catalog # : 01512OT3E284JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 15.8 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 53.6 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	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



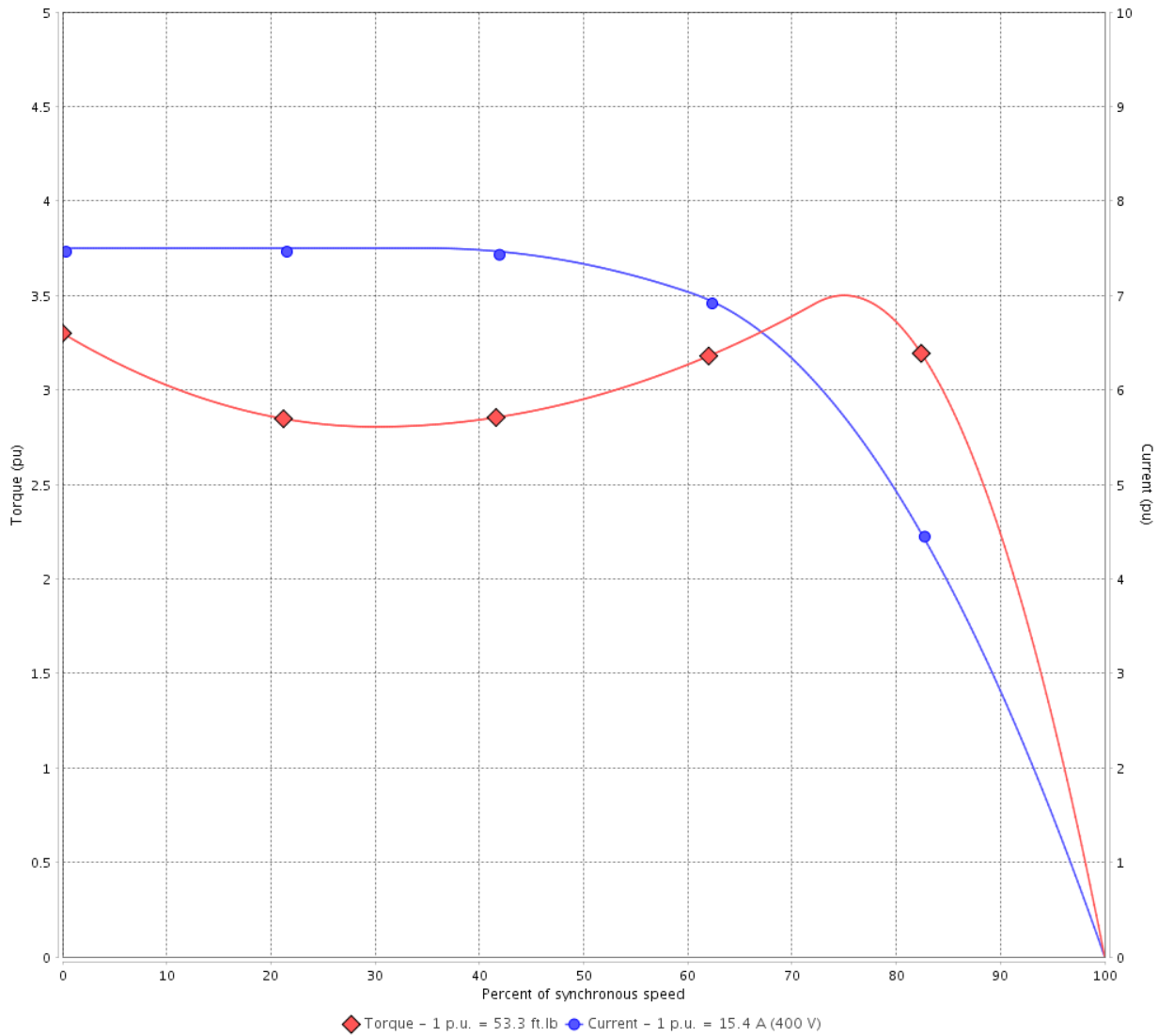
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14485010

Catalog # : 015120T3E284JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 15.4 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



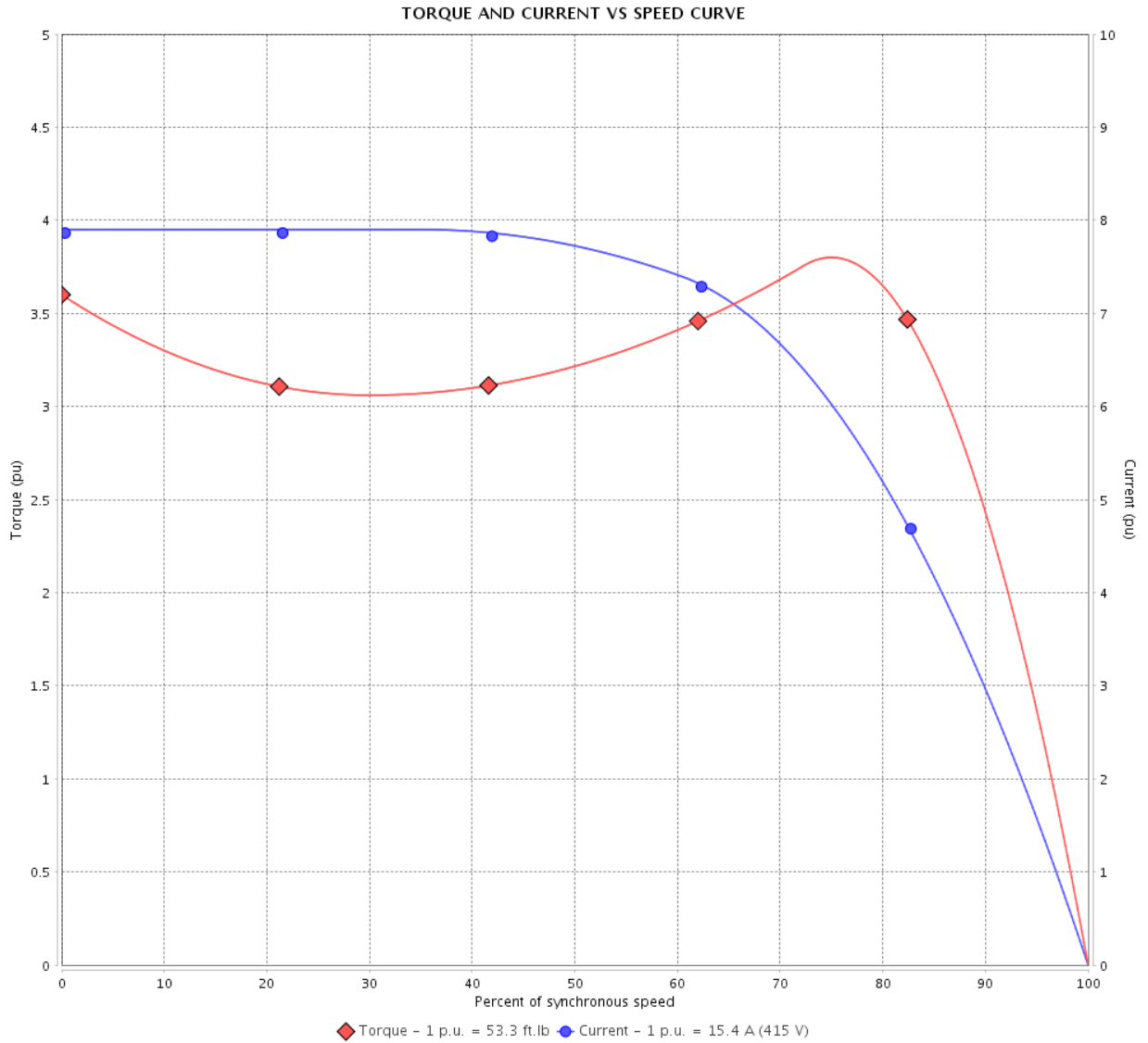
Three Phase Induction Motor - Squirrel Cage

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Catalog # : 01512OT3E284JP-W40



Performance : 415 V 50 Hz 6P IE3

Rated current	: 15.4 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 360 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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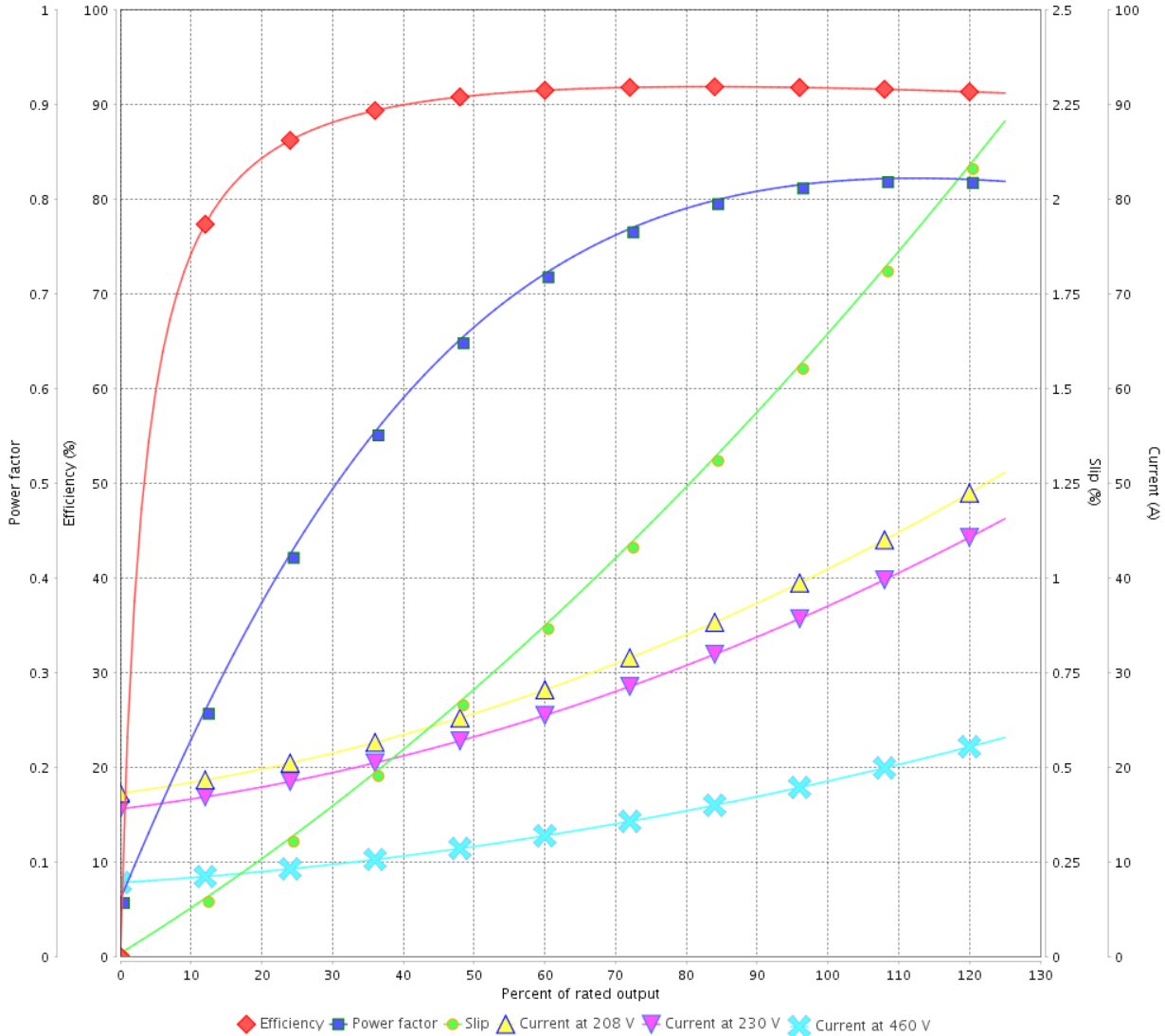
Customer :

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Product code : 14485010

Catalog # : 015120T3E284JP-W40

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 36.8/18.4 A
 LRC : 6.3
 Rated torque : 66.8 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 260 %
 Rated speed : 1180 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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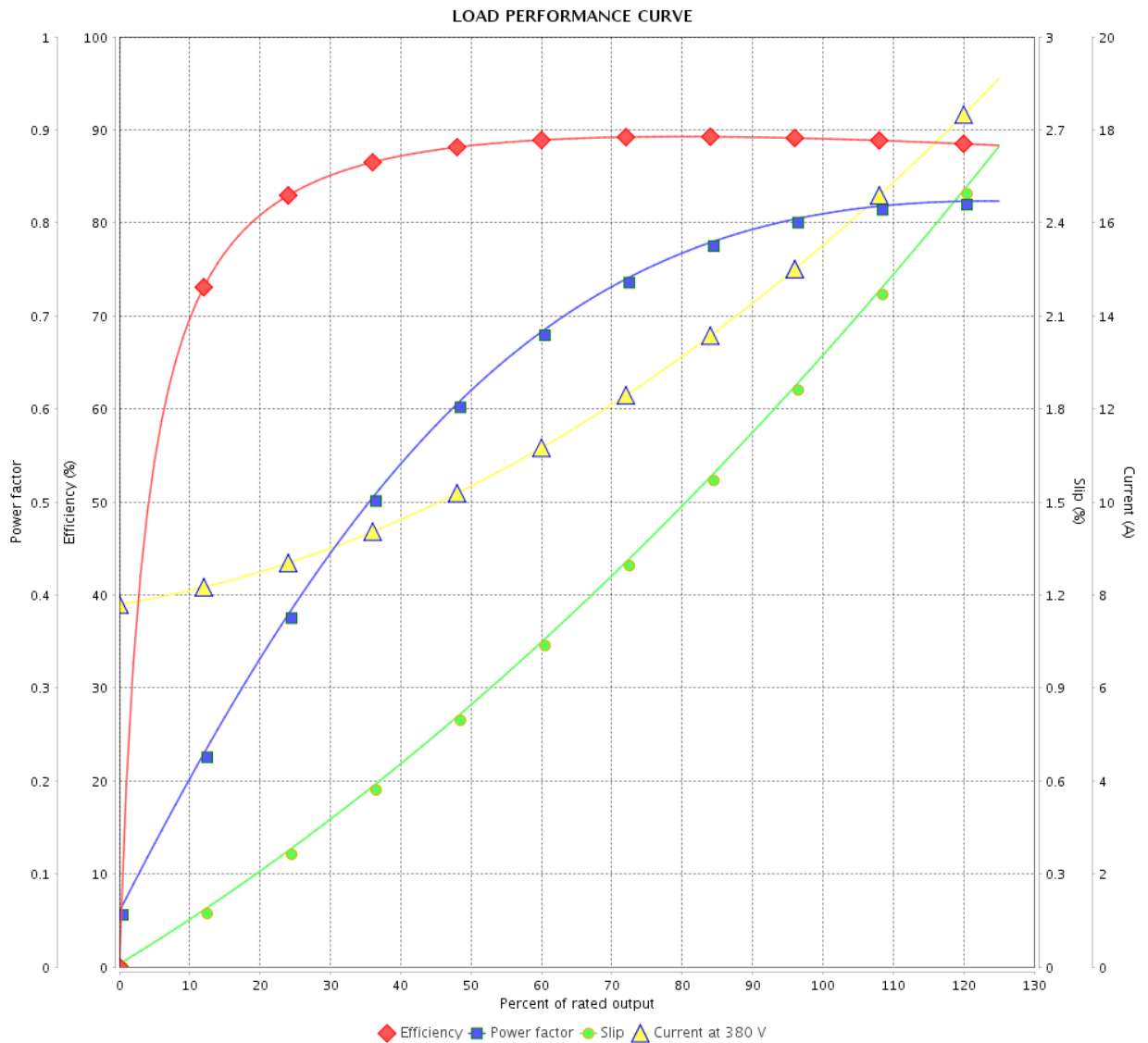


Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14485010

Catalog # : 01512OT3E284JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.8 A
 LRC : 7.3
 Rated torque : 53.6 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 320 %
 Rated speed : 980 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 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



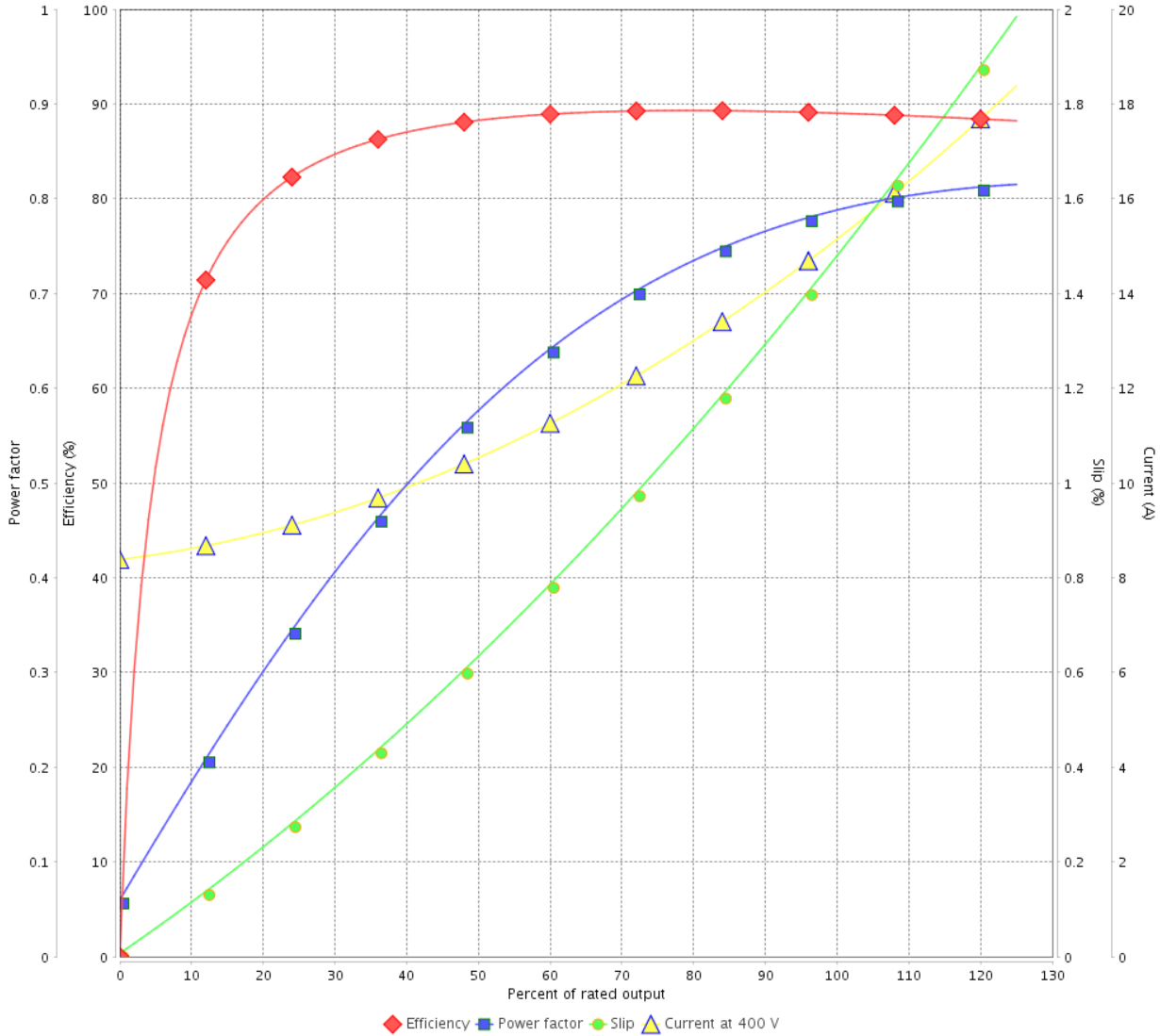
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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current : 15.4 A
 LRC : 7.5
 Rated torque : 53.3 ft.lb
 Locked rotor torque : 330 %
 Breakdown torque : 350 %
 Rated speed : 985 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 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

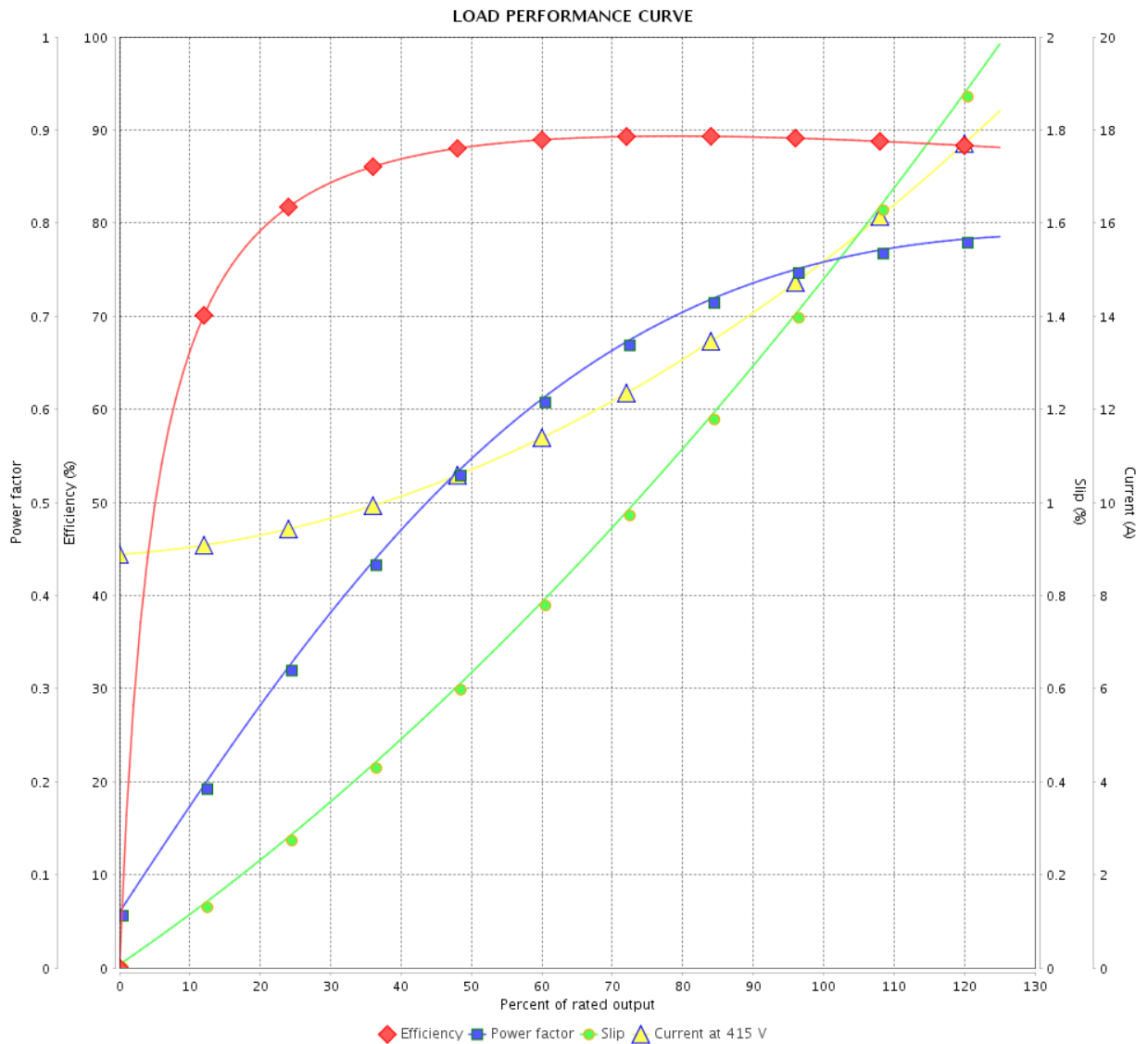


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Product code : 14485010

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 LRC : 7.9
 Rated torque : 53.3 ft.lb
 Locked rotor torque : 360 %
 Breakdown torque : 380 %
 Rated speed : 985 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 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)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

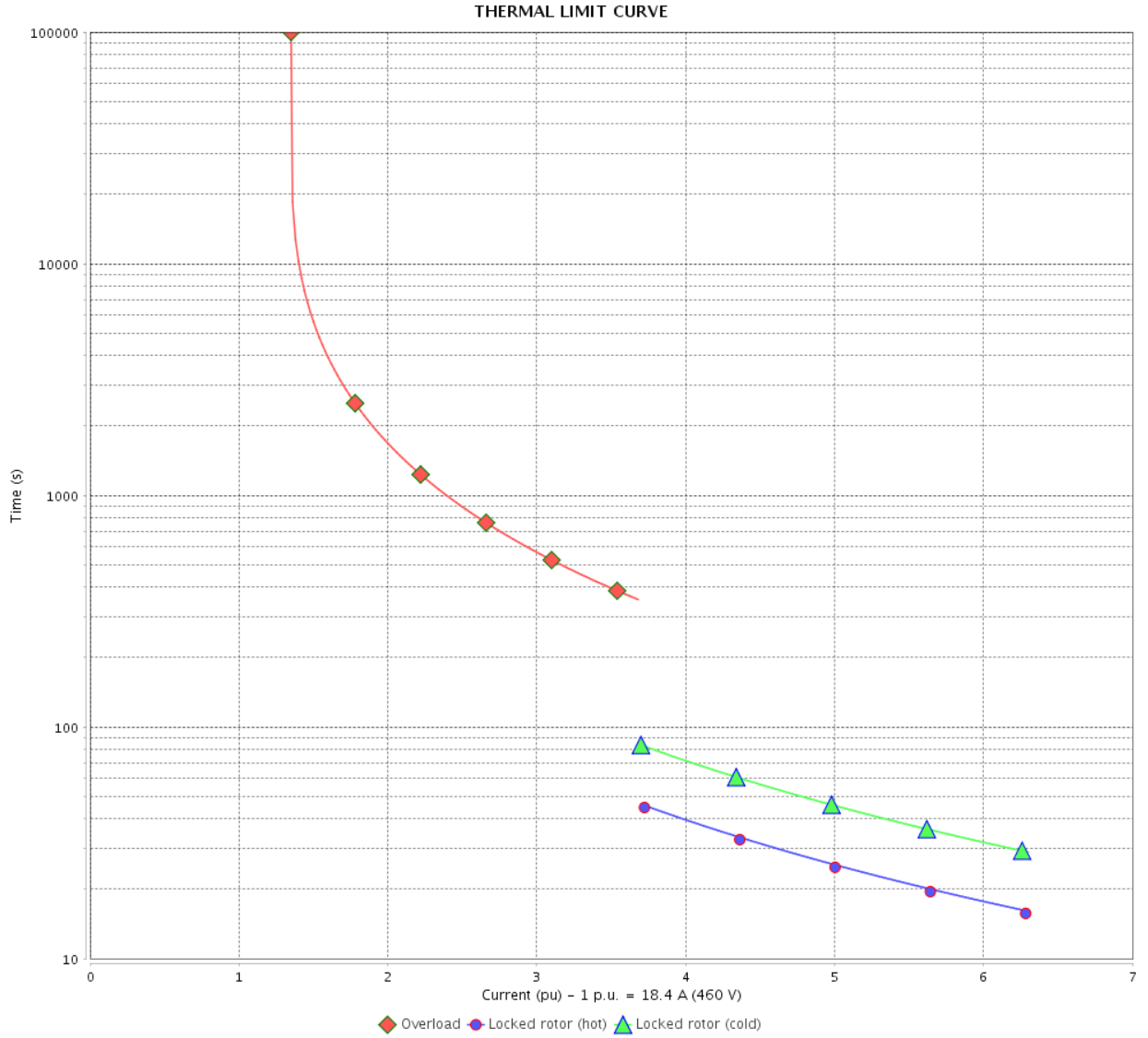
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THERMAL LIMIT CURVE

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Performance : 380 V 50 Hz 6P IE3

Rated current	: 15.8 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 53.6 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

Heating constant

Cooling constant

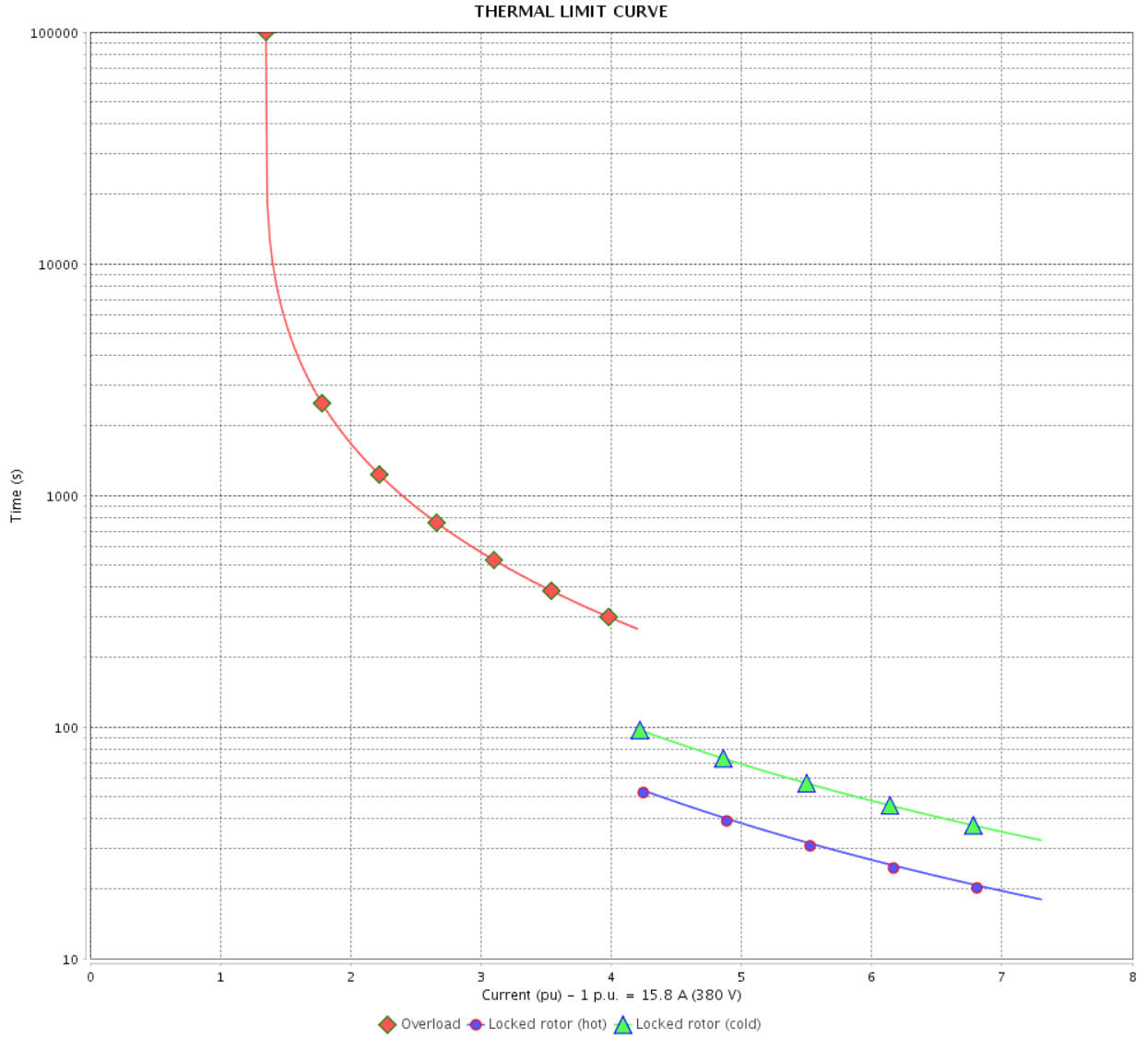
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Performance : 400 V 50 Hz 6P IE3

Rated current	: 15.4 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

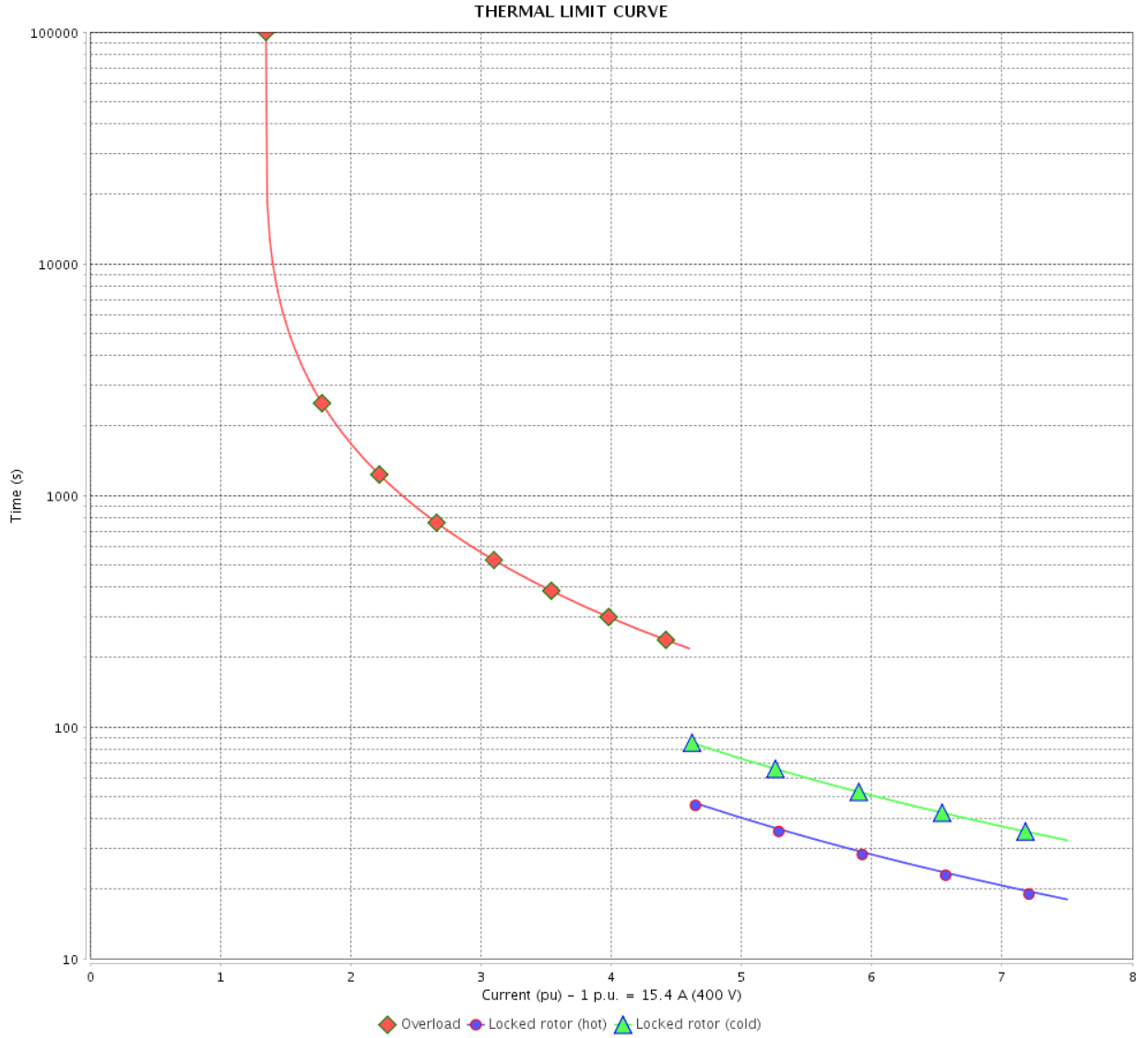
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Efficiency Three-Phase

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Performance : 415 V 50 Hz 6P IE3

Rated current	: 15.4 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 360 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Heating constant

Cooling constant

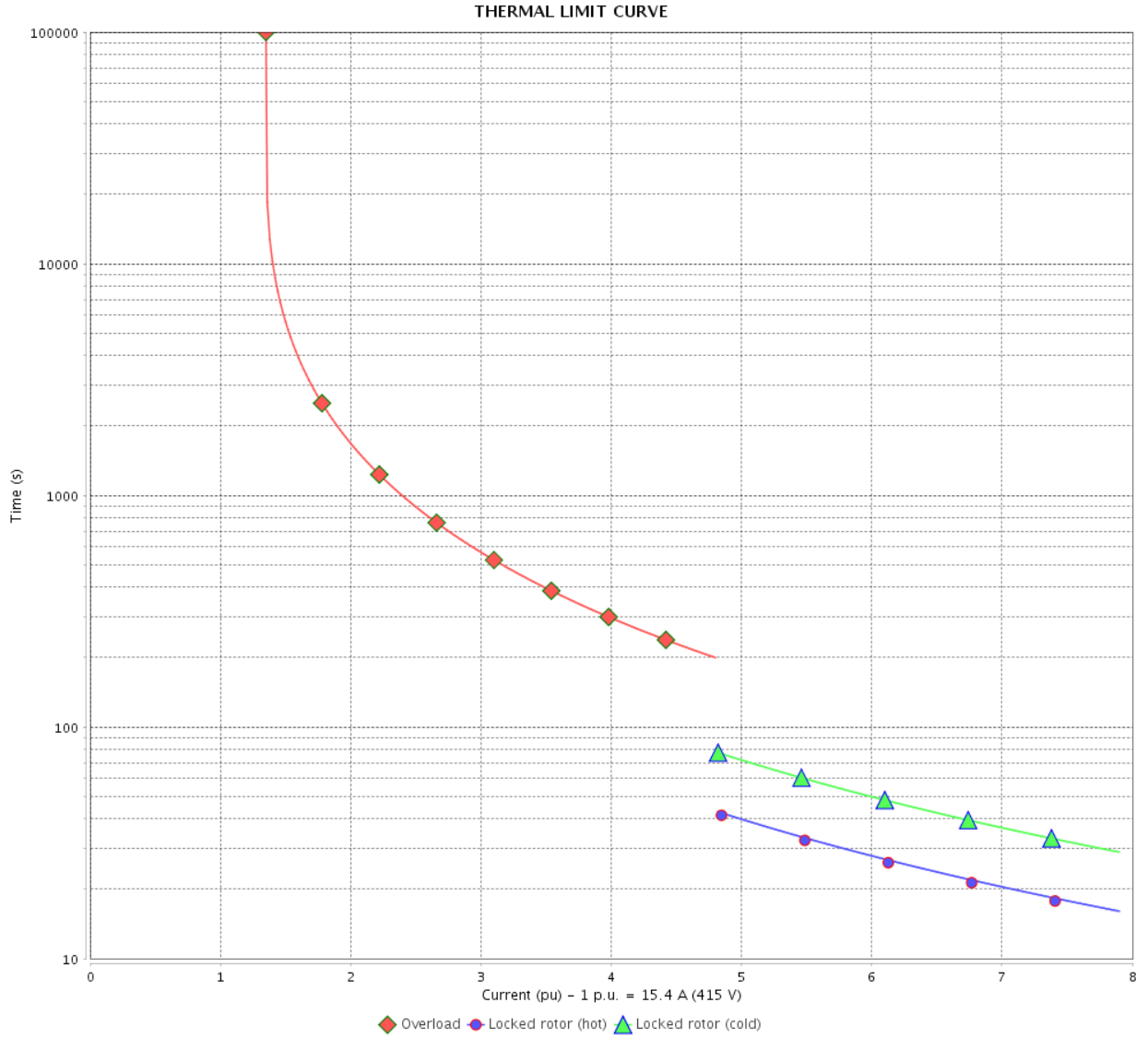
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

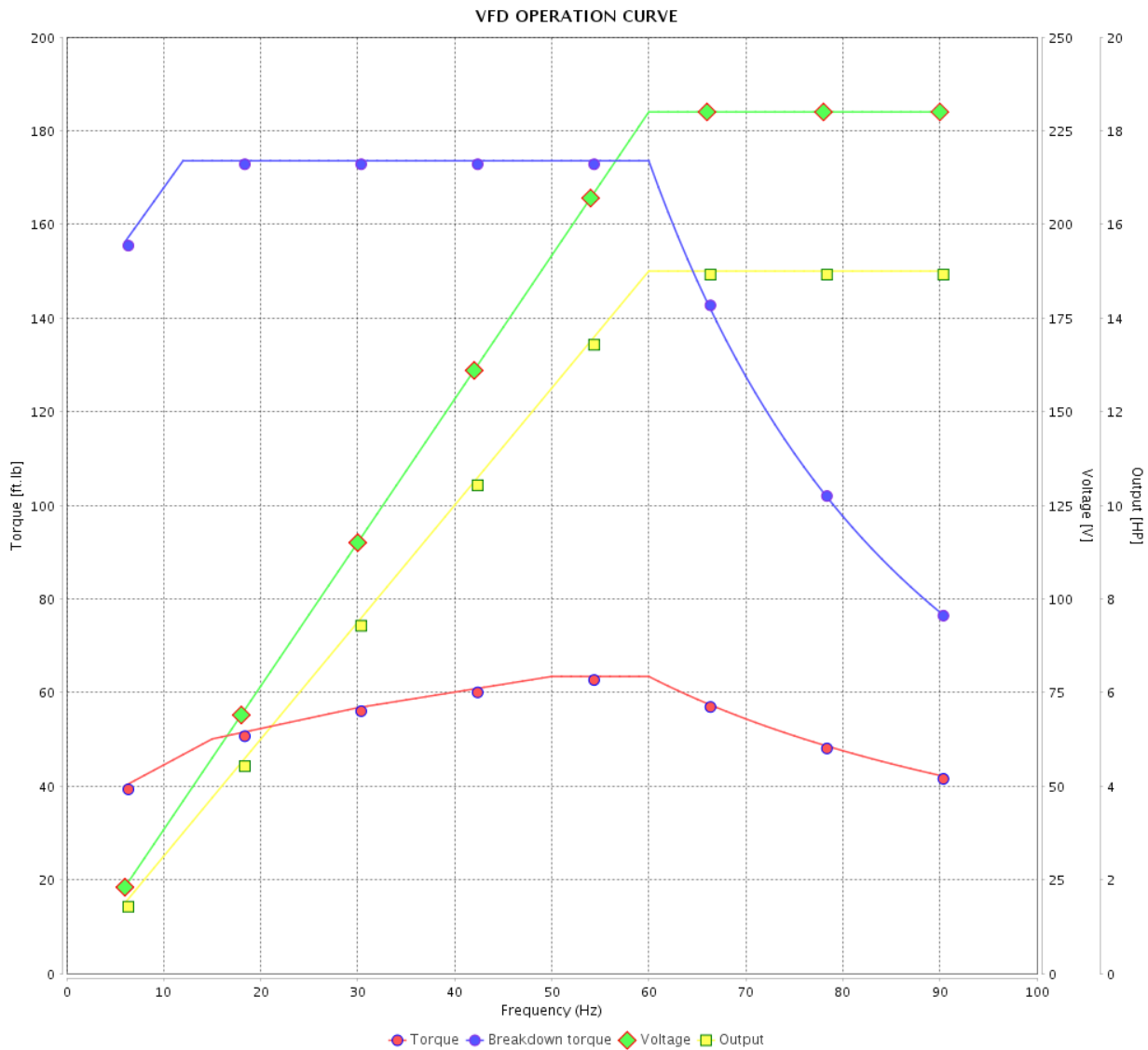


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Performance : 230/460 V 60 Hz 6P

Rated current : 36.8/18.4 A
 LRC : 6.3
 Rated torque : 66.8 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 260 %
 Rated speed : 1180 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 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

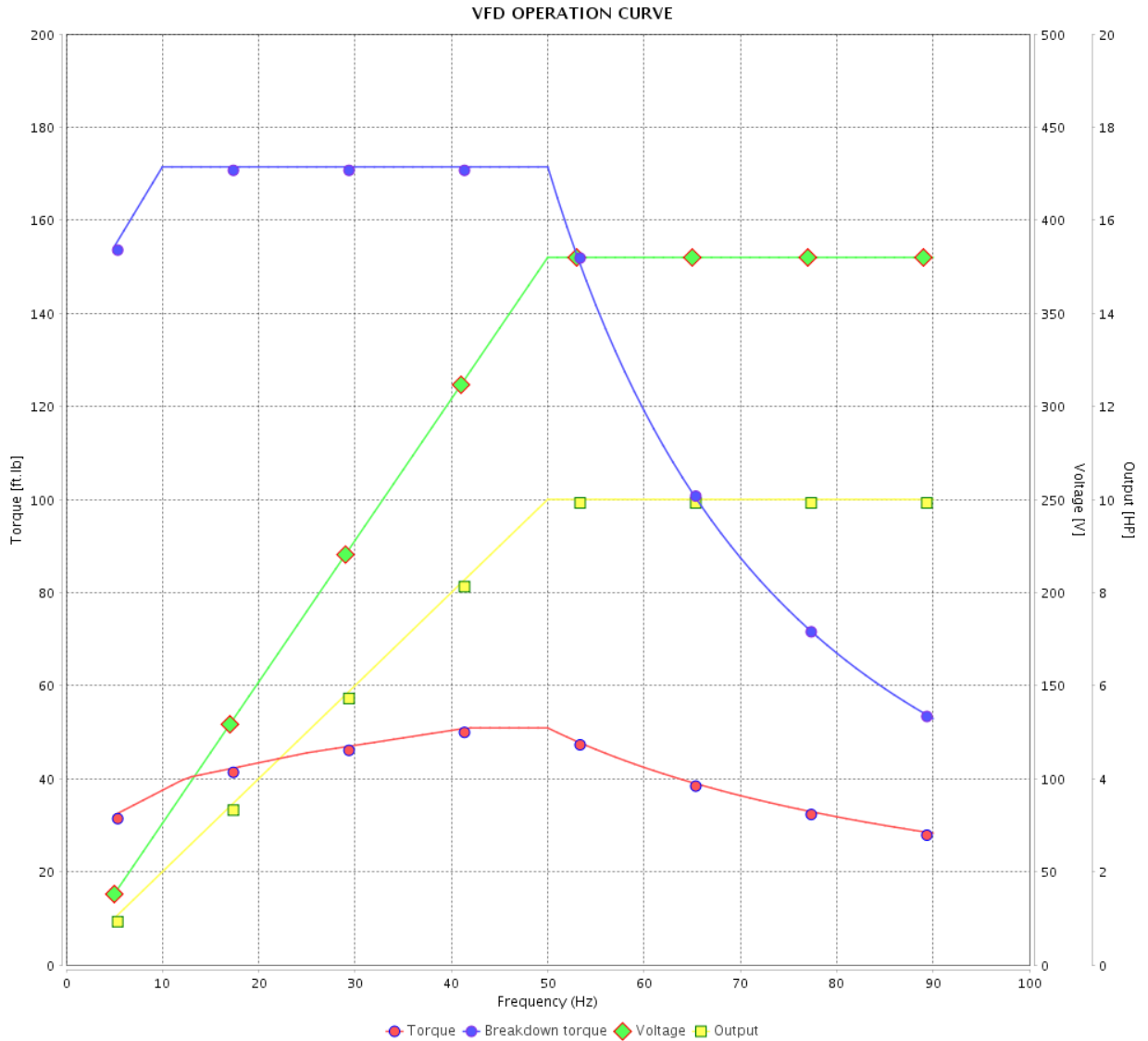


Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14485010

Catalog # : 01512OT3E284JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.8 A
 LRC : 7.3
 Rated torque : 53.6 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 320 %
 Rated speed : 980 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 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

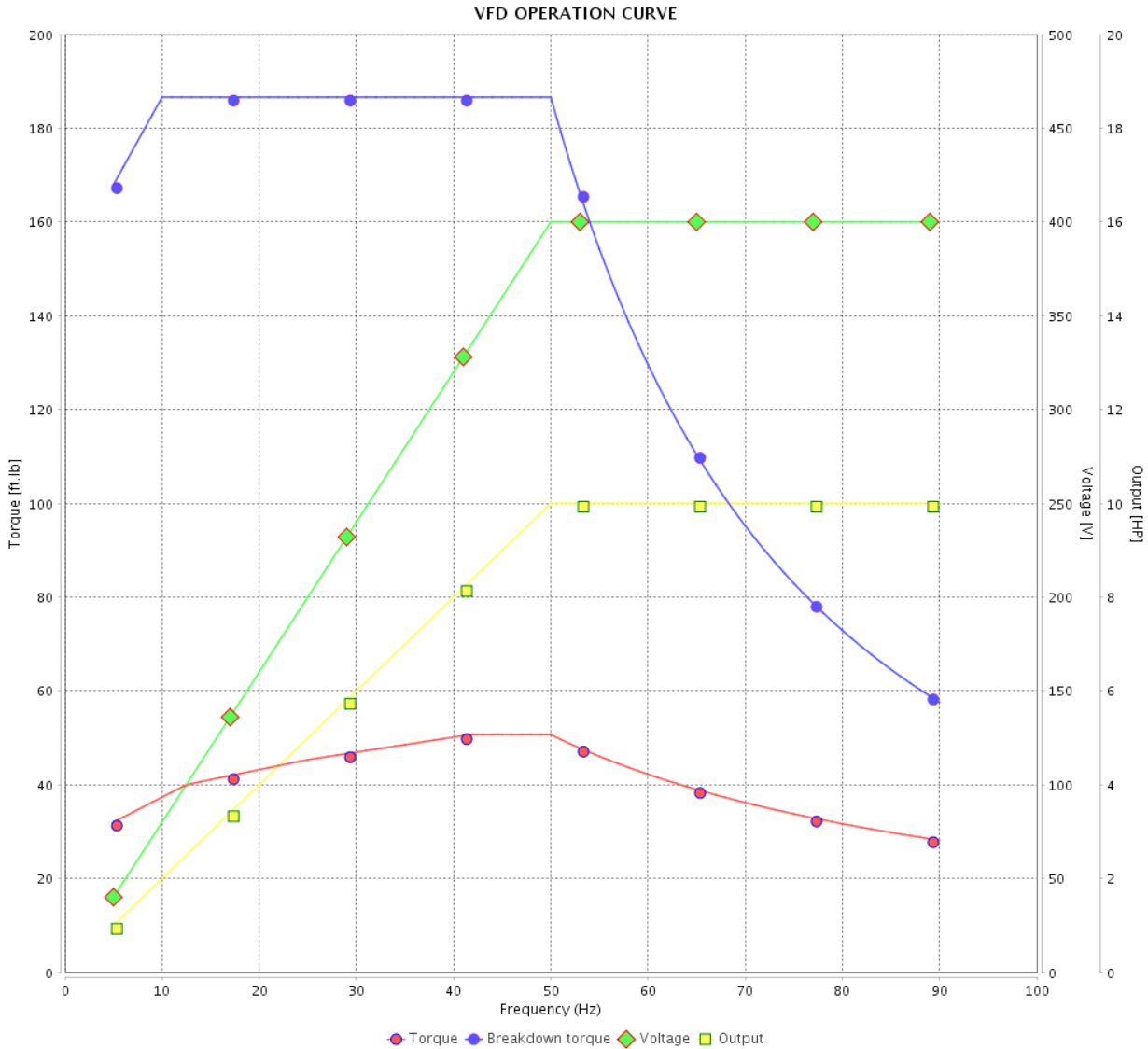


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 Breakdown torque : 350 %
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

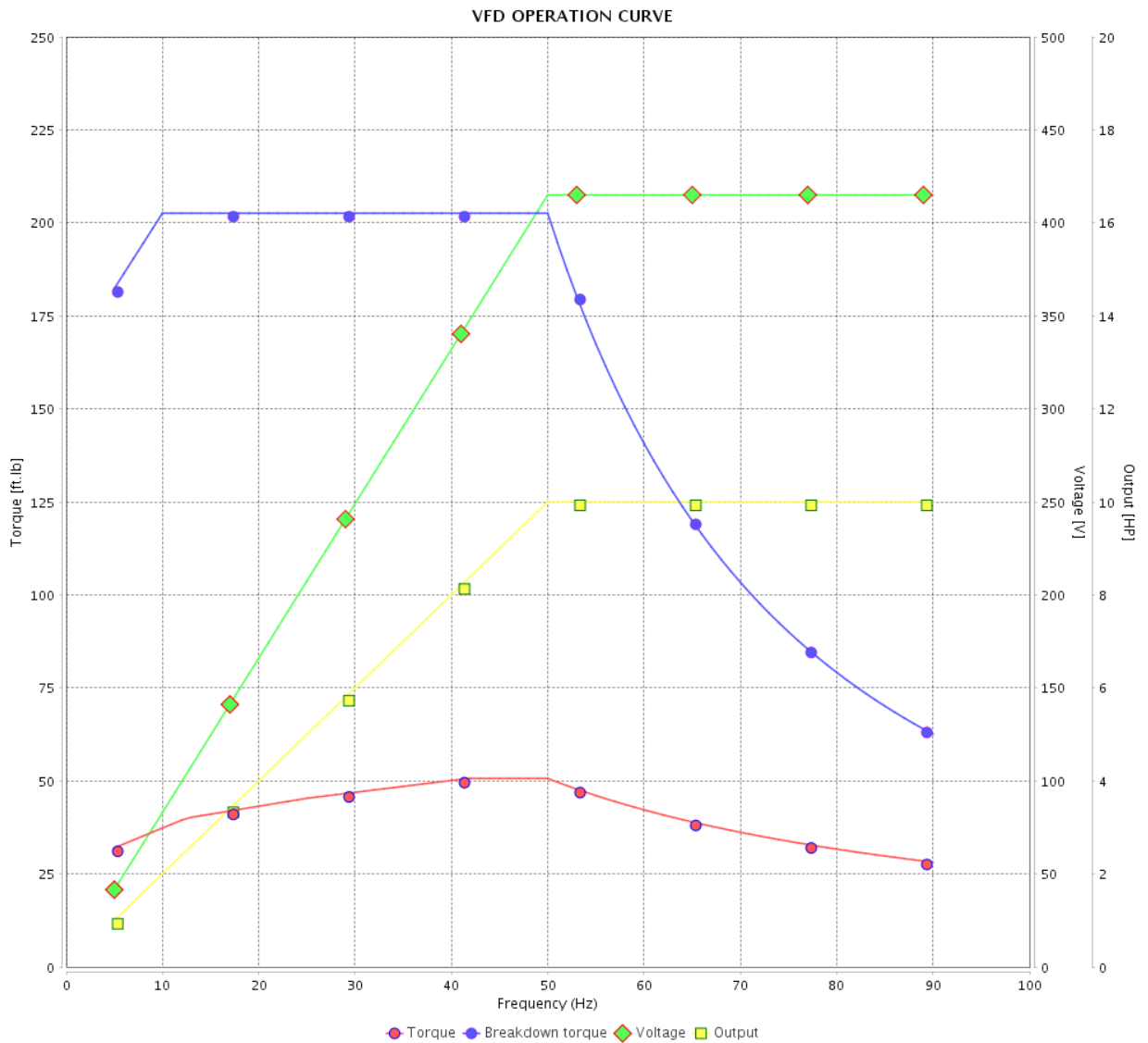


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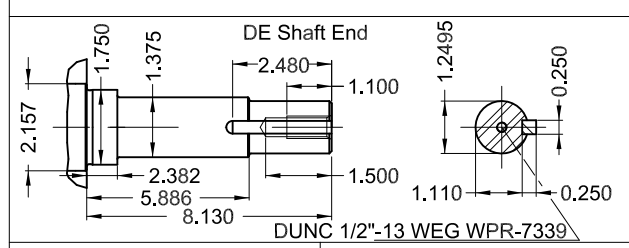
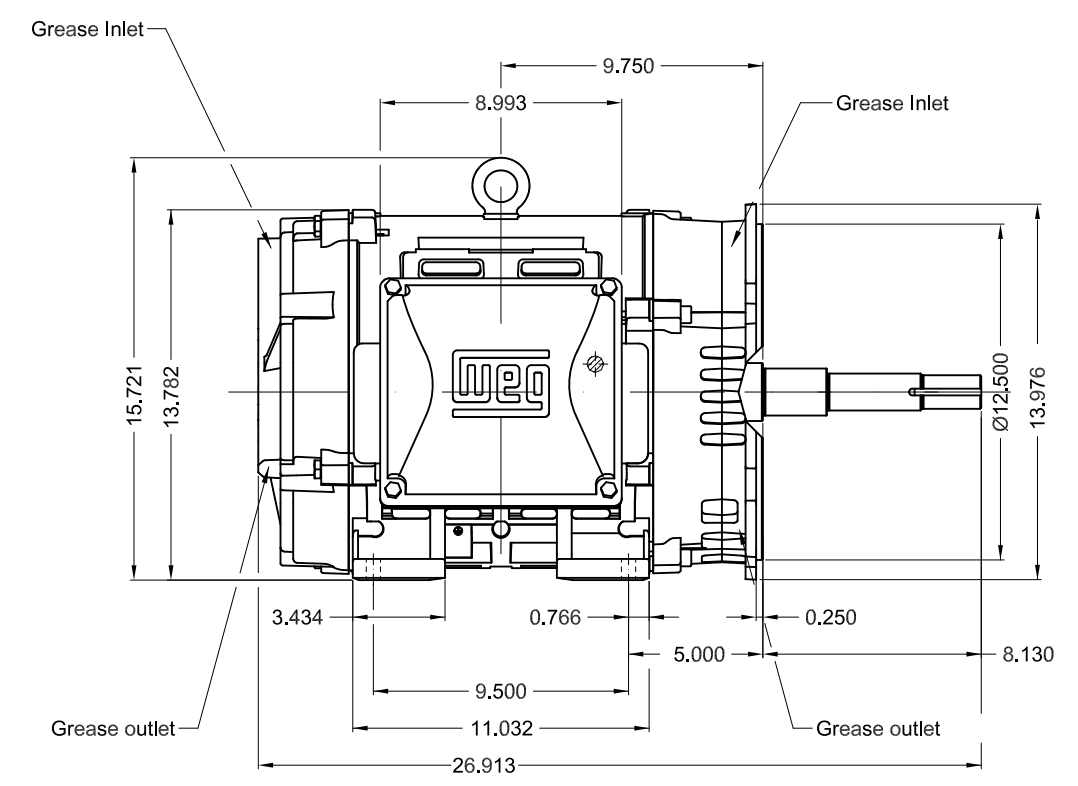
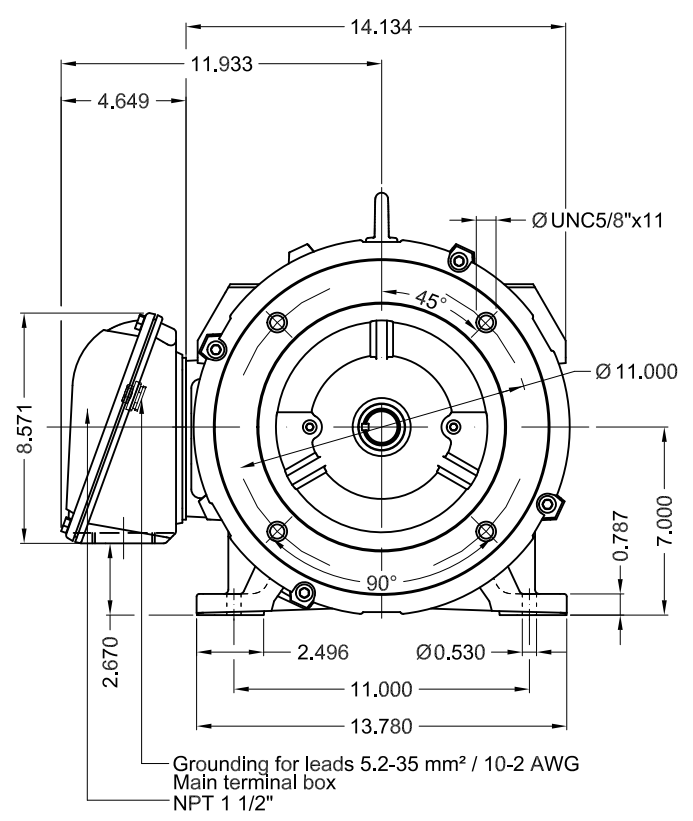


Performance : 415 V 50 Hz 6P IE3

Rated current : 15.4 A
 LRC : 7.9
 Rated torque : 53.3 ft.lb
 Locked rotor torque : 360 %
 Breakdown torque : 380 %
 Rated speed : 985 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
 Duty cycle : Cont.(S1)
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 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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15 HP 06 Poles 60 Hz A

1:7

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JP TYPE PREM. FT.					
CHECKED		FRAME 284JP IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul					

Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34R(D)

PREVIEW
WDD



SHEET 1 / 1

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



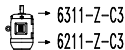
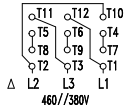
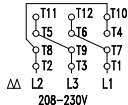
IEC 60034-1
 MOD.T01#FOXON



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

MODEL 015120T3E284JP-W40
 MADE IN BRAZIL
 14485010

PH 3	FR 284JP	HP(kW) 15.0(11.0)	Hz 60
V 230/460	A 36.8/18.4	RPM 1180	DES B
NEMA NOM EFF 91.7 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.82	SF 1.25	SFA 46.0/23.0
USABLE @208V	40.7 A	SF 1.15	SFA 46.8
10HP 7.5kW 50Hz 380V 15.8A 980RPM SF1.00 EFF 89.1% (IE3)	ALT 1000 m.a.s.l.		



MOBIL POLYREX EM
 18 g 20000 h

ALT 1000 m.a.s.l. 333 Lbs