Technical Documentation

XH05045C

Optim TEXP | AEHHXF

Date: May 28, 2018

TECO Westinghouse MOTORS (CANADA) INC.	
	Date: May 28, 2018

Technical Data Sheet

Motor Type: AEHHXF	Catalogue No: XH05045C

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
50	4	1775	326TC	575	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEXP	F	1.15	Continuous	C	-40 to 40°C °C	<3300 ft

Typical Performance

Efficiency (%)				Power Factor (%)		
Full Load		3/4 Load	1/2 Load	Full Load	3/4 Load	1/2 Load
Nom.	Min.					
94.5	93.6	95.0	95.0	85.5	84.5	79.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
147.9	240.0	185.0	210.0	11.2	46.4	290
NEMA KVA Code	Inertia (WR^2)			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor ($lb\text{-}ft^2$)	NEMA Load ($lb\text{-}ft^2$)	Max. Allowable ($lb\text{-}ft^2$)	Cold	Hot	
G	10.1	232.0	366.0	17.0	12.0	70.0

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-60Hz	3-60Hz	60-90Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6312	6212	781

Hazardous Locations Information

CSA/UL Certified	
Class I, Div 1, Groups D; Class II, Div 1, Groups E, F & G Class I, Zone 1, Groups IIA; Class II, Div 1, Groups E, F & G	
Temp Code (Sinewave / VFD)	T3B / T3B

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Nameplate Drawing

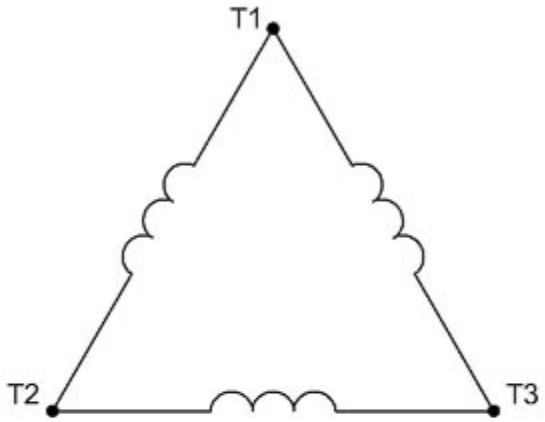
Optim TEXP

TYPE	AEHHXF	CAT. NO.	XH05045C		
OUTPUT	50 HP 37 kW	FRAME	326TC	TEXP	
R.P.M.	1775	POLE	4	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	46.4	CODE	G	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 94.5		MIN. EFF. 93.6	
BEARINGS	6312 / 6212			RATING Cont.	

SER. NO.	TBD	DESIGN	C	WT. 781 LBS

PWM VFD DUTY	VT	CT	CP	S.F.
	3-60Hz	6-60Hz	60-90Hz	1.0 Only

Connection Diagram



3 LEAD SINGLE VOLTAGE DELTA					
VOLTAGE	CONN.	L1	L2	L3	
-	DELTA	1	2	3	

WD_3D

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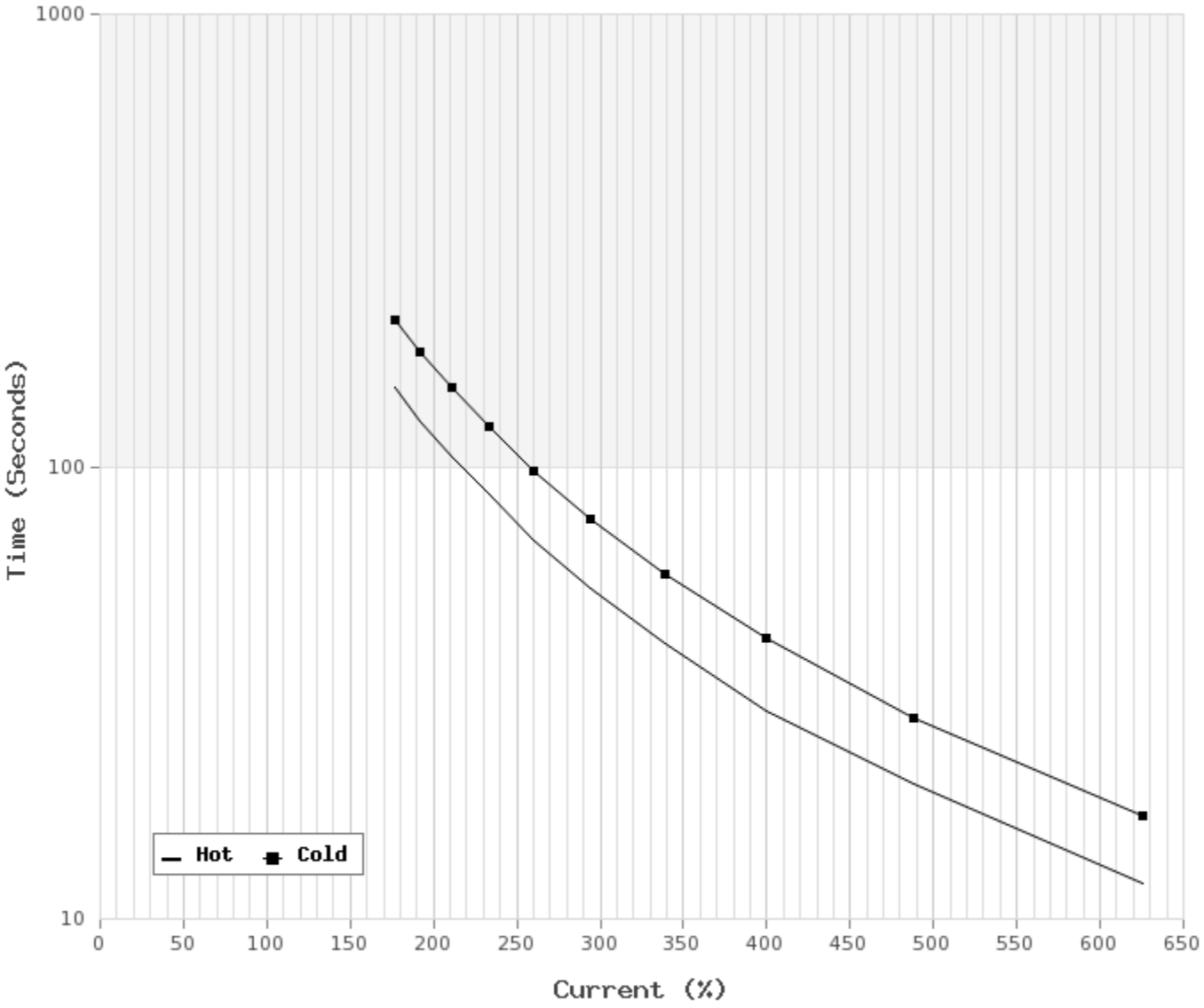
Thermal Limit Curves

Motor Type: AEHHXF		Catalogue No: XH05045C		Family: Optim TEXP	
HP	50	Safe Stall Time		Full Load A	0.0 / 46.4 A
Voltage	0 / 575V 60Hz	Hot	12.0 s	Locked Rotor A	626 %
RPM	1800	Cold	17.0 s	Locked Rotor A	0.0 / 290 A



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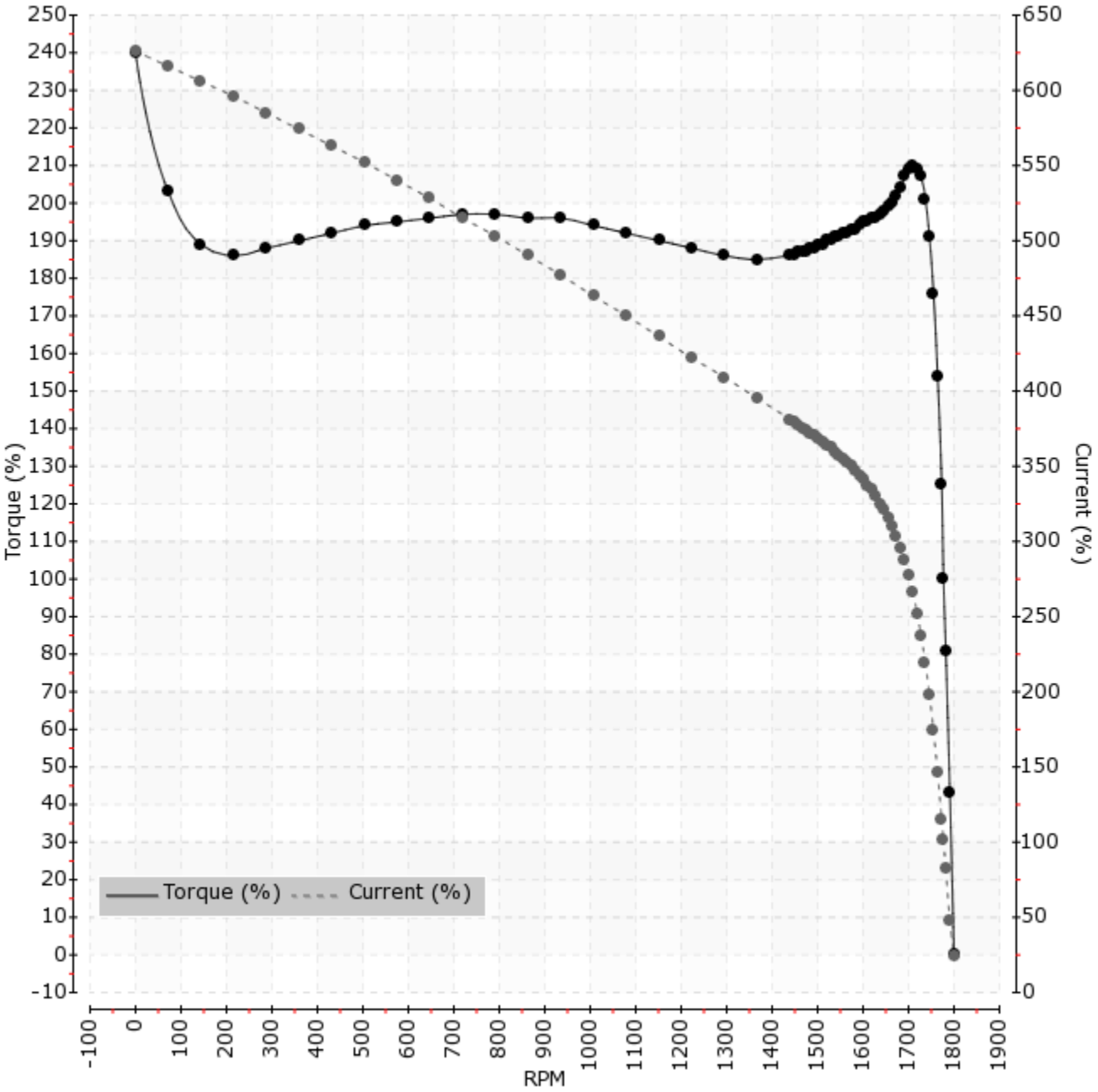
T-N and I-N Curves

Motor Type: AEHHXF		Catalogue No: XH05045C		Family: Optim TEXP	
HP	50	Full Load T	147.9 lb-ft	Full Load A	46.4 A
Voltage	575V 60Hz	Locked Rotor T	240.0 %	Locked Rotor A	290.0 A
RPM	1800	Pull Up T	185.0 %	Break Down T	210.0 %