

Technical Documentation

**XC0052C**  
**Optim TEXP | AEHHXF**

Date: May 28, 2018

### Technical Data Sheet

Motor Type: AEHHXF

Catalogue No: XC0052C

#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
5	2	3490	184TC	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEXP	F	1.15	Continuous	B	-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.					
88.5	86.5	90.0	90.0	91.0	89.5	83.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
8	260	210	305	3.0 / 1.5	11.6 / 5.8	92 / 46
NEMA KVA Code	Inertia (WR <sup>2</sup> )			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft <sup>2</sup> )	NEMA Load (lb-ft <sup>2</sup> )	Max. Allowable (lb-ft <sup>2</sup> )	Cold	Hot	
J	0.249	6	13	17	12	68

#### VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
12-60Hz	3-60Hz	60-90Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

#### Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6306ZZ	6306ZZ	120

#### Hazardous Locations Information

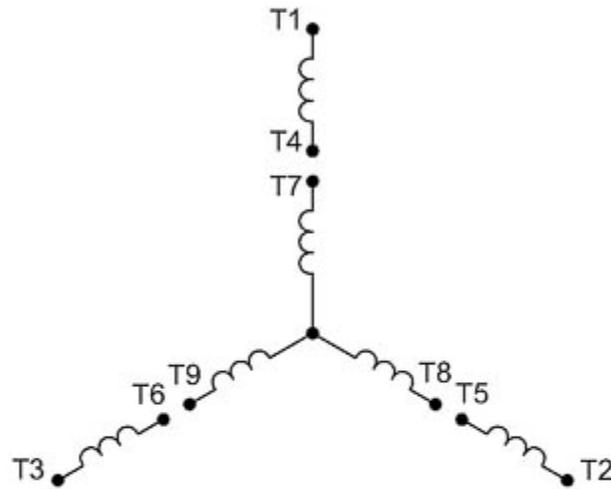
CSA/UL Certified	
Class I, Div 1, Groups C & D; Class II, Div 1, Groups E, F & G Class I, Zone 1, Groups IIB & IIA; Class II, Div 1, Groups E, F & G	
Temp Code (Sinewave / VFD)	T3B / T3B

**Nameplate Drawing**

# Optim TEXP

TYPE	AEHHXF	CAT. NO.	XC0052C		
OUTPUT	5 HP 3.7 kW	FRAME	184TC	TEXP	
R.P.M.	3490	POLE	2	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	11.6 / 5.8	CODE	J	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 88.5		MIN. EFF. 86.5	
BEARINGS	6306ZZ / 6306ZZ			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 120 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	12-60Hz	60-90Hz	1.0 Only	

**Connection Diagram**

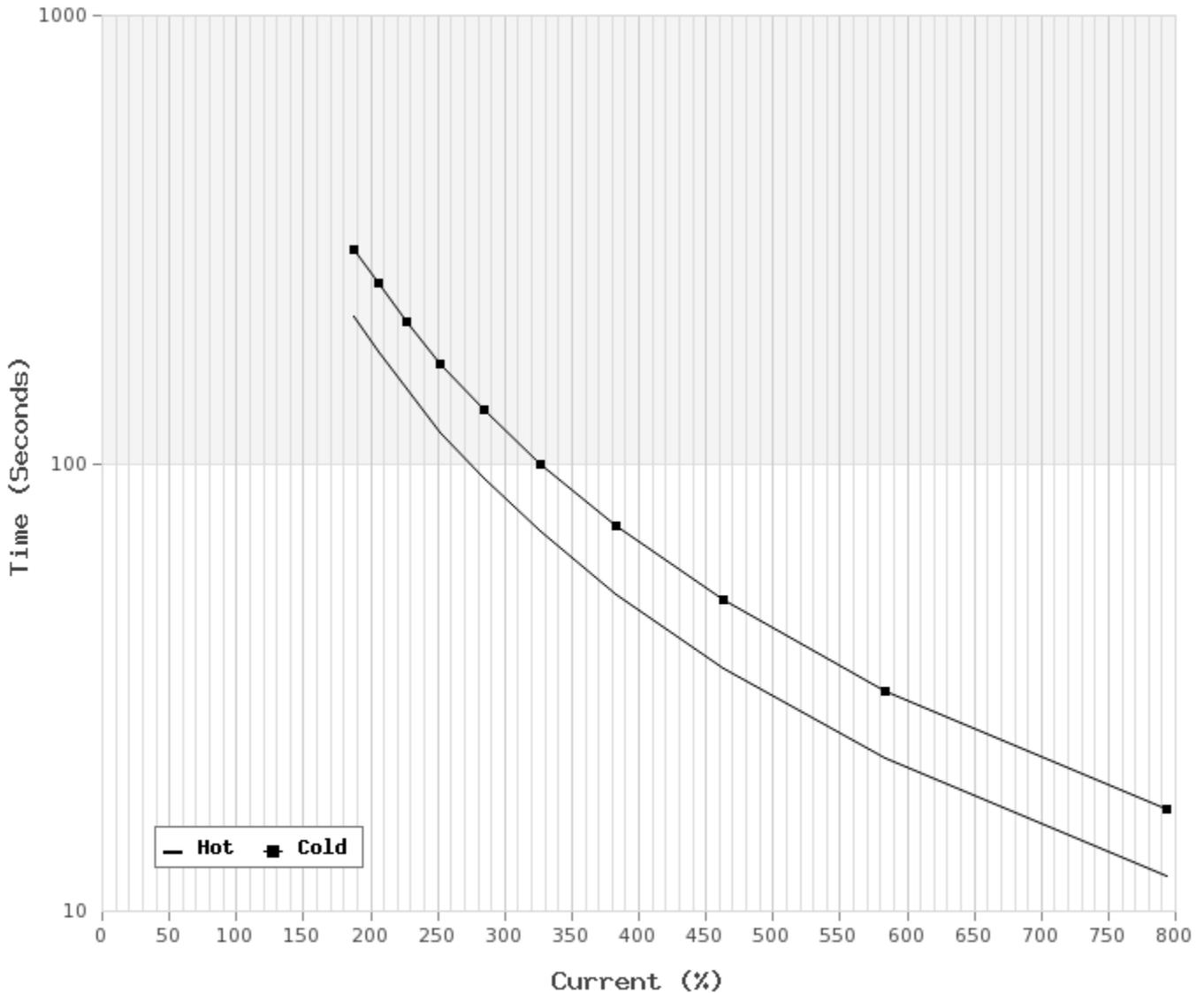


9 LEAD DUAL VOLTAGE WYE					
VOLTAGE	CONN.	L1	L2	L3	JOIN
HIGH	WYE	1	2	3	4&7,5&8,6&9
LOW	2 WYE	1,7	2,8	3,9	4&5&6

WD\_9Y

**Thermal Limit Curves**

Motor Type: AEHHXF		Catalogue No: XC0052C		Family: Optim TEXP	
HP	5	Safe Stall Time		Full Load A	11.6 / 5.8 A
Voltage	230 / 460V 60Hz	Hot	12 s	Locked Rotor A	793 / 792 %
RPM	3600	Cold	17 s	Locked Rotor A	92.0 / 46 A



**T-N and I-N Curves**

Motor Type: AEHHXF		Catalogue No: XC0052C		Family: Optim TEXP	
HP	5	Full Load T	8 lb-ft	Full Load A	11.6 / 5.8 A
Voltage	230 / 460V 60Hz	Locked Rotor T	260 %	Locked Rotor A	92.0 / 46.0 A
RPM	3600	Pull Up T	210 %	Break Down T	305 %

