

Technical Documentation

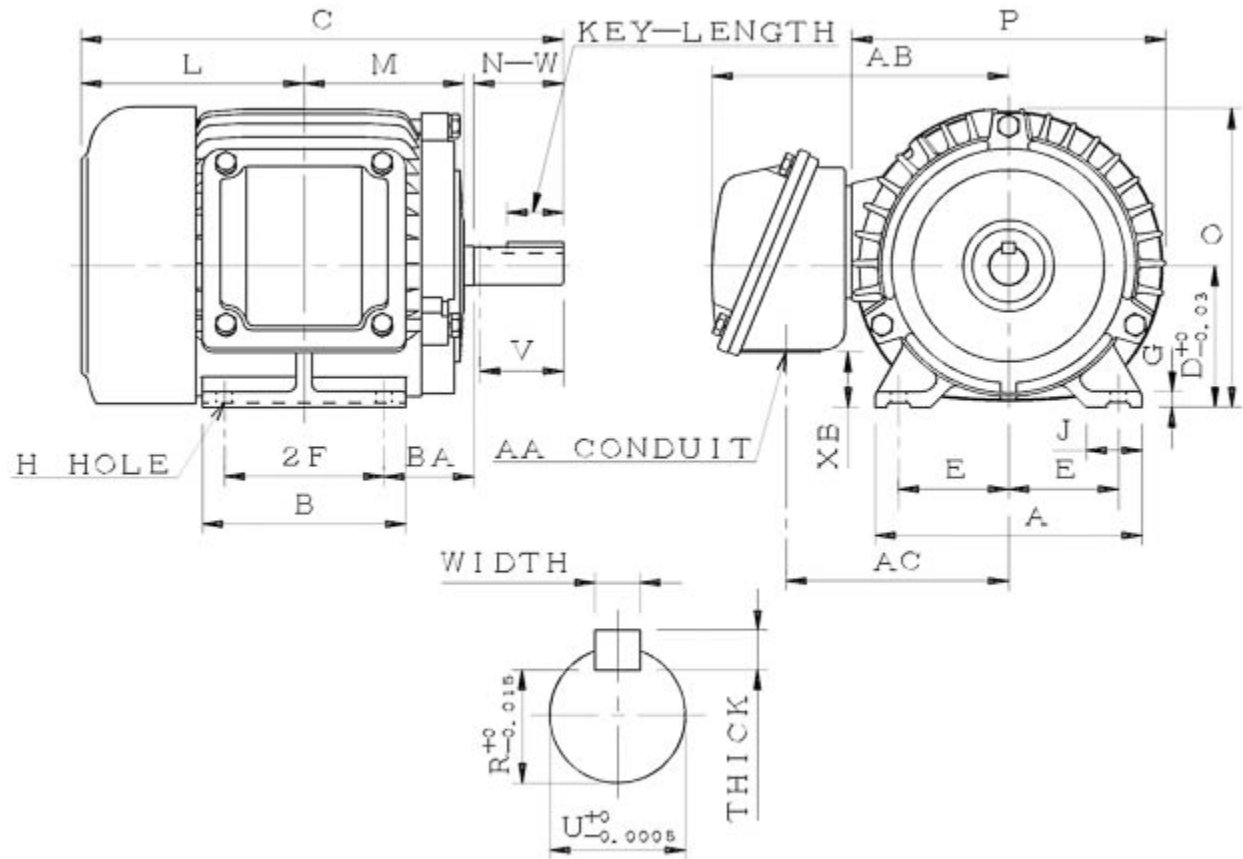
XC00145

Optim TEXP | AEHHXV

Date: December 1, 2016

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
XC00145	AEHHXV	1	4	0.75	Continuous	575 V	60	1800



AEHHXV-SMP-1 1 0

Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
143T		2.75	4		0.34	2.25	6.7	5.1	12.56		3.5
G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
0.35	1.4		6.06	4.05	7.5	8.03		0.188	0.188	1.41	0.771
Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
NPT3/4"	8.03	5.7	1.33								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
2.25	0.875	2.2	6205ZZ	6205ZZ	62	53.0	F	1.15	Direct Coupling / Belt Drive	Inches	

Technical Data Sheet

Motor Type: AEHHXV

Catalogue No: XC00145

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1	4	1755	143T	575	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEXP	F	1.15	Continuous	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.					
85.5	82.5	84.0	80.5	68.0	58.5	45.0
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
3.0	350.0	325.0	450.0	0.9	1.3	12
NEMA KVA Code	Inertia (WR ²)			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft ²)	NEMA Load (lb-ft ²)	Max. Allowable (lb-ft ²)	Cold	Hot	
N	0.1	5.8	25.3	40.0	28.0	53.0

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

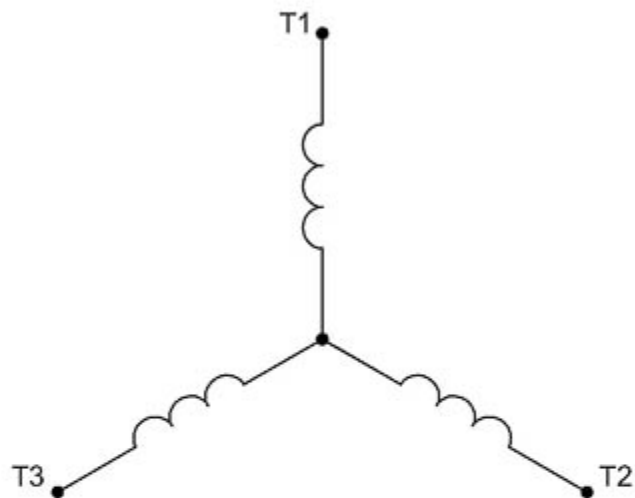
Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6205ZZ	6205ZZ	62

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

Connection Diagram

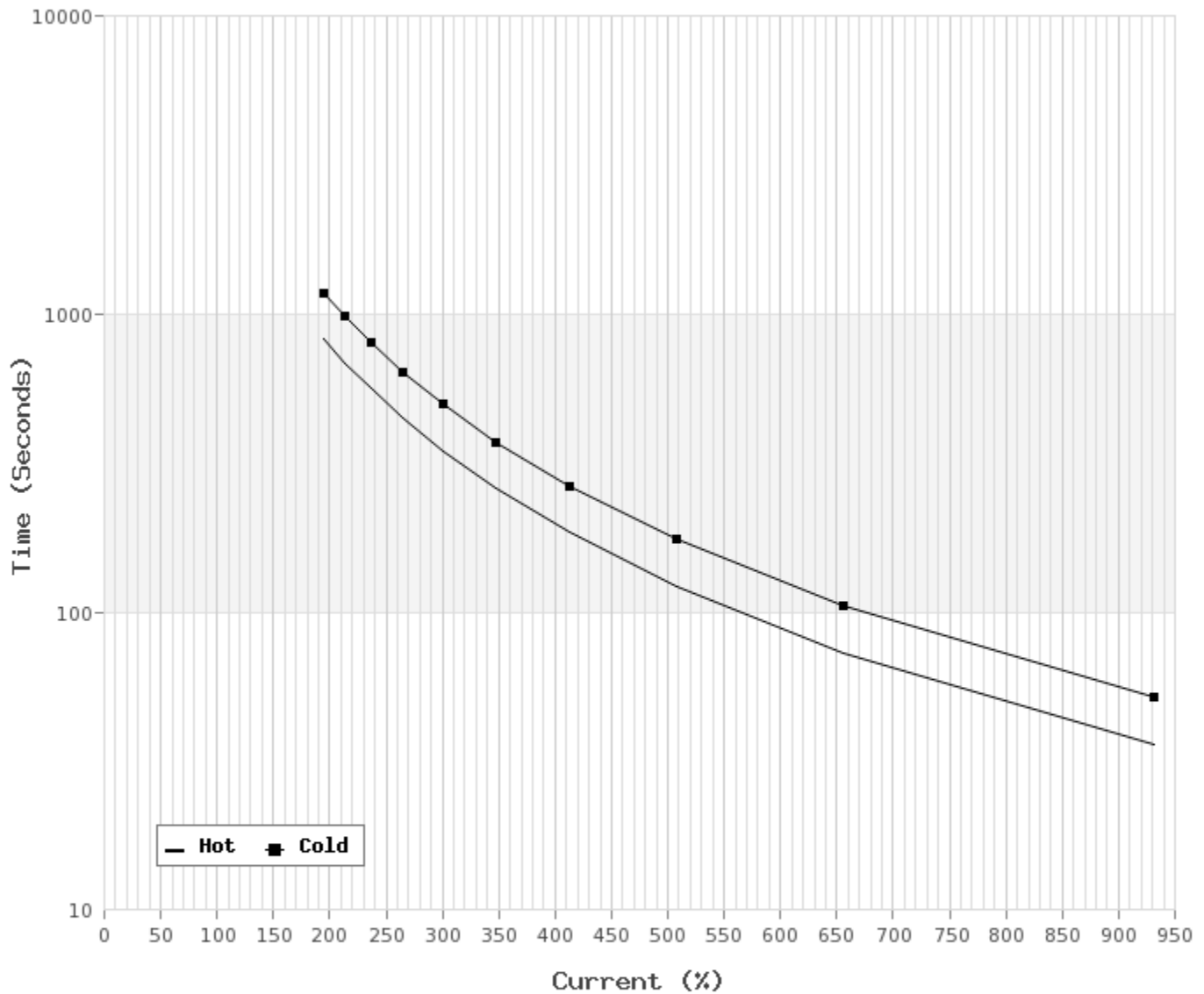


3 LEAD		SINGLE VOLTAGE			WYE
VOLTAGE	CONN.	L1	L2	L3	
-	WYE	1	2	3	

WD_3Y

Thermal Limit Curves

Motor Type: AEHHXV		Catalogue No: XC00145		Family: Optim TEXP	
HP	1	Safe Stall Time		Full Load A	0.0 / 1.3 A
Voltage	0 / 575V 60Hz	Hot	28.0 s	Locked Rotor A	930 %
RPM	1800	Cold	40.0 s	Locked Rotor A	0.0 / 12 A



T-N and I-N Curves

Motor Type: AEHHXV		Catalogue No: XC00145		Family: Optim TEXP	
HP	1	Full Load T	3.0 lb-ft	Full Load A	1.3 A
Voltage	575V 60Hz	Locked Rotor T	350.0 %	Locked Rotor A	12.0 A
RPM	1800	Pull Up T	325.0 %	Break Down T	450.0 %

