

Technical Documentation

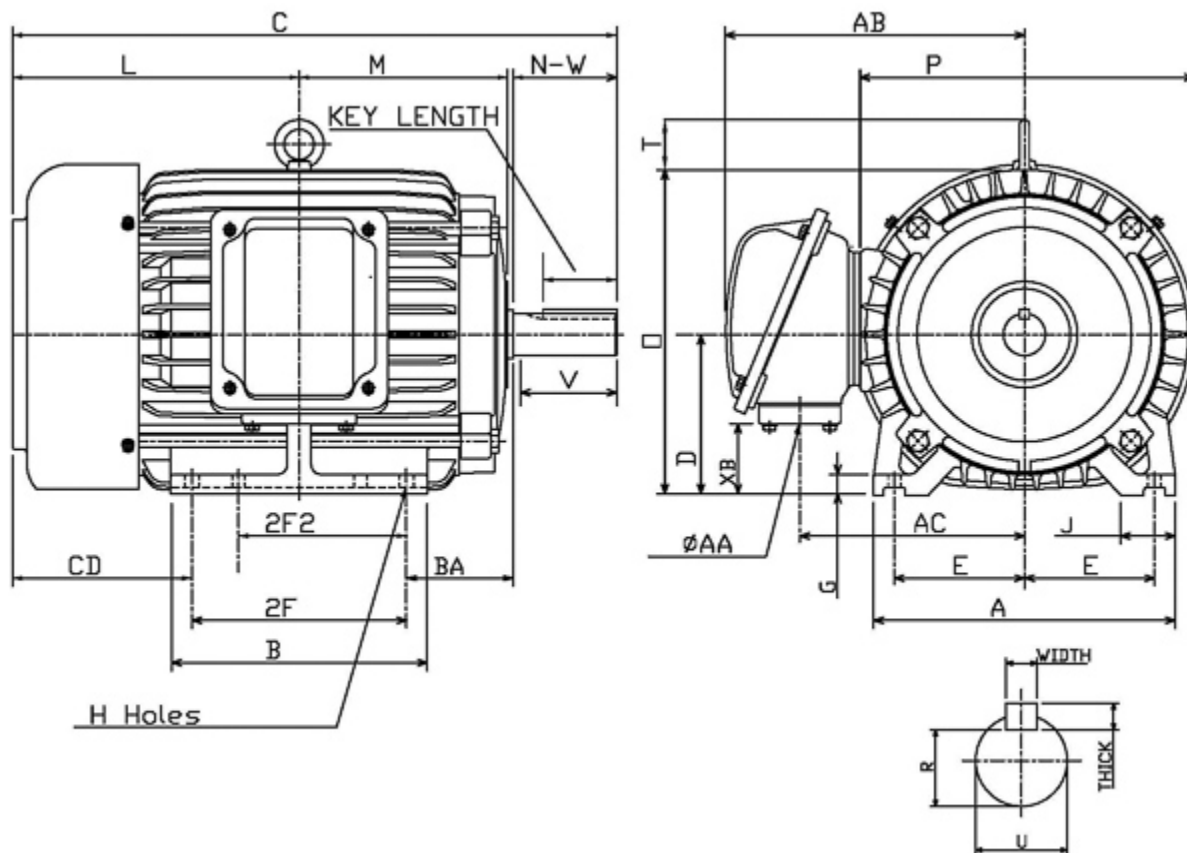
PDH0104

Optim TEFC | AEHH8N

Date: November 30, 2016

Dimensional Drawing

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
PDH0104	AEHH8N	10	4	7.5	Continuous	230 / 460 V	60	1800



Frame Size		Mounting					A	B	C	CD	D
		E	2F	2F2	H	BA					
215T		4.25	7	5.5	0.41	3.5	9.85	8.35	19.48		5.25

G	J	K	L	M	O	P	T	Key			Keyseat
								Width	Thick	Length	R
0.7	1.75		9.1	6.81	10.8	11.1	1.46	0.312	0.312	2.41	1.201

Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
1 NPT	9.78	7.34	2.34								

Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions
N-W	U	V	DE	NDE						
3.38	1.375	3.3	6308ZZ	6306ZZ	200	60	F	1.15	Direct Coupling / Belt Drive	Inches

Technical Data Sheet

Motor Type: AEHH8N

Catalogue No: PDH0104

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
10	4	1755	215T	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1.15	Continuous	B	-40 to 40 °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.					
91.7	90.2	91.0	91.0	88.0	84.0	75.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
29.92	250	145	260	6.7 / 3.4	23.3 / 11.6	162 / 81
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	
H	1.082	51.0	175.0	40	28	60

VFD Duty Information

Speed Range			VFD		S.F.
Constant Torque	Variable Torque	Constant Power	Carrier	Type	
6-60Hz	3-60Hz	60-120Hz	≤ 5 kHz	VPWM or CPWM	1.0 Only

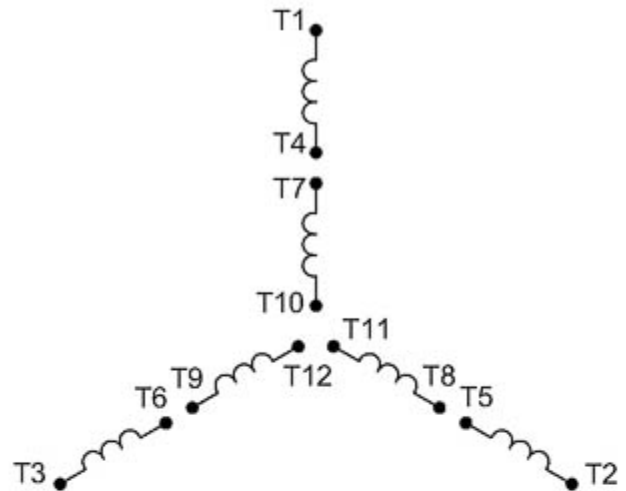
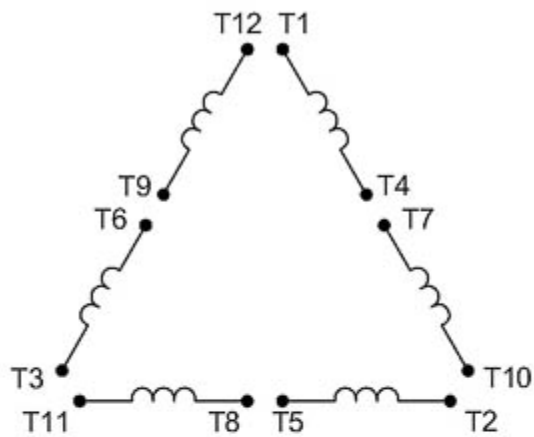
Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6308ZZ	6306ZZ	200

Hazardous Locations Information

CSA Certified	
Class I, Div 2, Groups B, C & D Class I, Zone 2, Groups IIB+H2, IIB & IIA	
Temp Code (Sinewave / VFD)	T3C / T3B

Connection Diagram

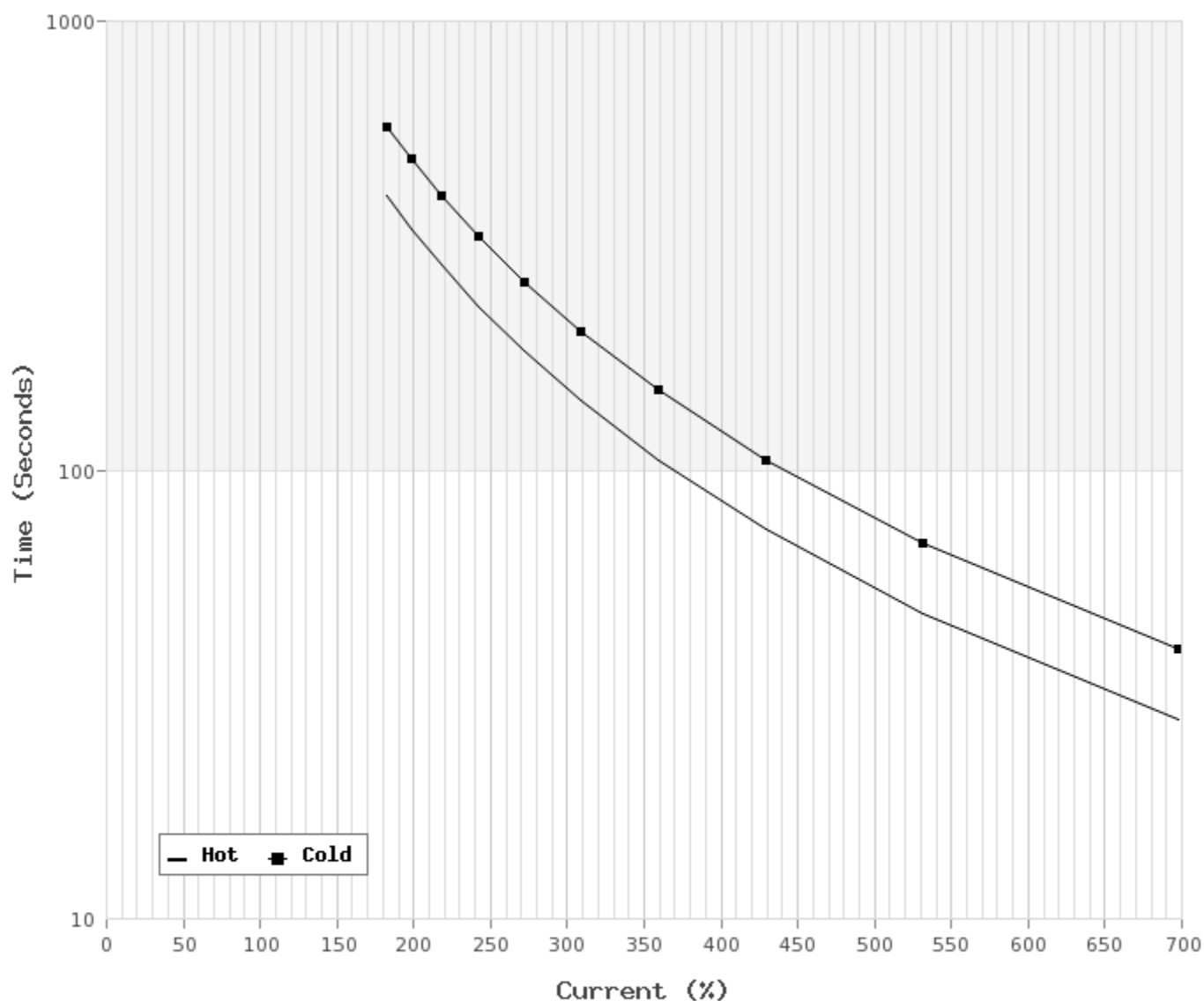


12 LEAD DUAL VOLTAGE WYE/DELTA						
VOLTAGE	CONNECTION		L1	L2	L3	JOIN
HIGH	START	WYE	1	2	3	4&7,5&8,6&9 10&11&12
	RUN	DELTA	1,12	2,10	3,11	4&7,5&8,6&9
LOW	START	2 WYE	1,7	2,8	3,9	4&5&6 10&11&12
	RUN	2 DELTA	1,6,7 12	2,4,8 10	3,5,9 11	

WD_12YD

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH0104		Family: Optim TEFC	
HP	10	Safe Stall Time		Full Load A	23.3 / 11.6 A
Voltage	230 / 460V 60Hz	Hot	28 s	Locked Rotor A	695 / 698 %
RPM	1800	Cold	40 s	Locked Rotor A	162.0 / 81 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH0104		Family: Optim TEFC	
HP	10	Full Load T	29.92 lb-ft	Full Load A	23.3 / 11.6 A
Voltage	230 / 460V 60Hz	Locked Rotor T	250 %	Locked Rotor A	162.0 / 81.0 A
RPM	1800	Pull Up T	145 %	Break Down T	260 %

