



Beaver Electrical Machinery Ltd.

Date: August 11, 2022



Technical Documentation

PDH00125

Optim TEFC | AEHH8N

Beaver Electrical Machinery Ltd.

Date: August 11, 2022



Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
PDH00125	AEHH8N	1	3600	575	60	143T

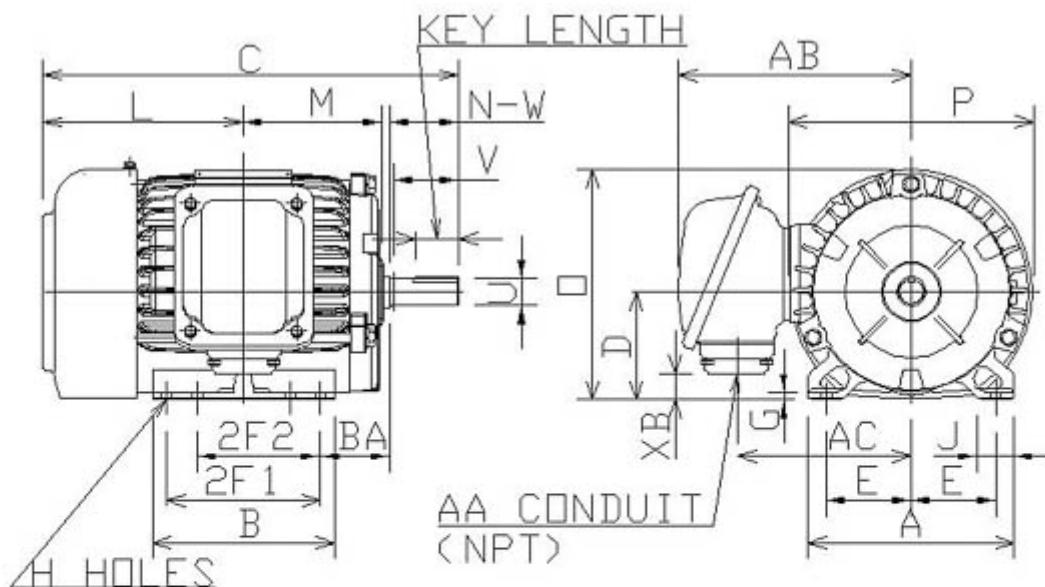


Fig. 1



Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
2.75	4		0.34	2.25	6.7	5.1	12.56			3.5	0.25

J	K	L	M	O	P	T
1.18		6.06	4.03	7.53	8.05	

Terminal Housing			
AA	AB	AC	XB
3/4	7.56	5.63	0.86

Shaft Extension			Key			Keyseat
N-W	U	V	Width	Thick	Length	R
2.25	0.875	2.2	0.188	0.188	1.41	0.771

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6205ZZ	6205ZZ	47	Direct Coupling / Belt Drive	Inches

	Beaver Electrical Machinery Ltd.	
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Technical Data Sheet

Motor Type: AEHH8N	Catalogue No: PDH00125
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1	2	3465	143T	575	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	<1000 m

Typical Performance

Efficiency (%)				Power Factor (%)		
Full Load		3/4 Load	1/2 Load	Full Load	3/4 Load	1/2 Load
Nom.	Min.					
82.5	80	81.5	78.5	85	79.5	68.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
1.52	350	365	400	0.6	1.1	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	0.046	1.2	7.75	24	17	49

VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
1	1.07	6-60Hz	3-60Hz	3-6kHz	VPWM or CPWM	1

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 / T3C

Additional Certifications

Other Certification

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6205ZZ	6205ZZ	47

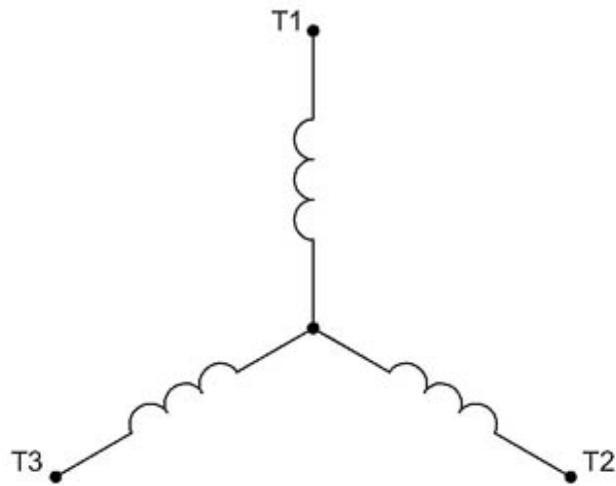
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Nameplate Drawing

Optim TEFC					
TYPE	AEHH8N	CAT. NO.	PDH00125		
OUTPUT	1 HP 0.75 kW	FRAME	143T	TEFC	
R.P.M.	3465	POLE	2	INS.	F
VOLTS	575	PHASE	3	Hz	60
AMPS	1.1	CODE	N	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 82.5		MIN. EFF. 80	
BEARINGS	6205ZZ / 6205ZZ			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 47 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1	



Connection Diagram



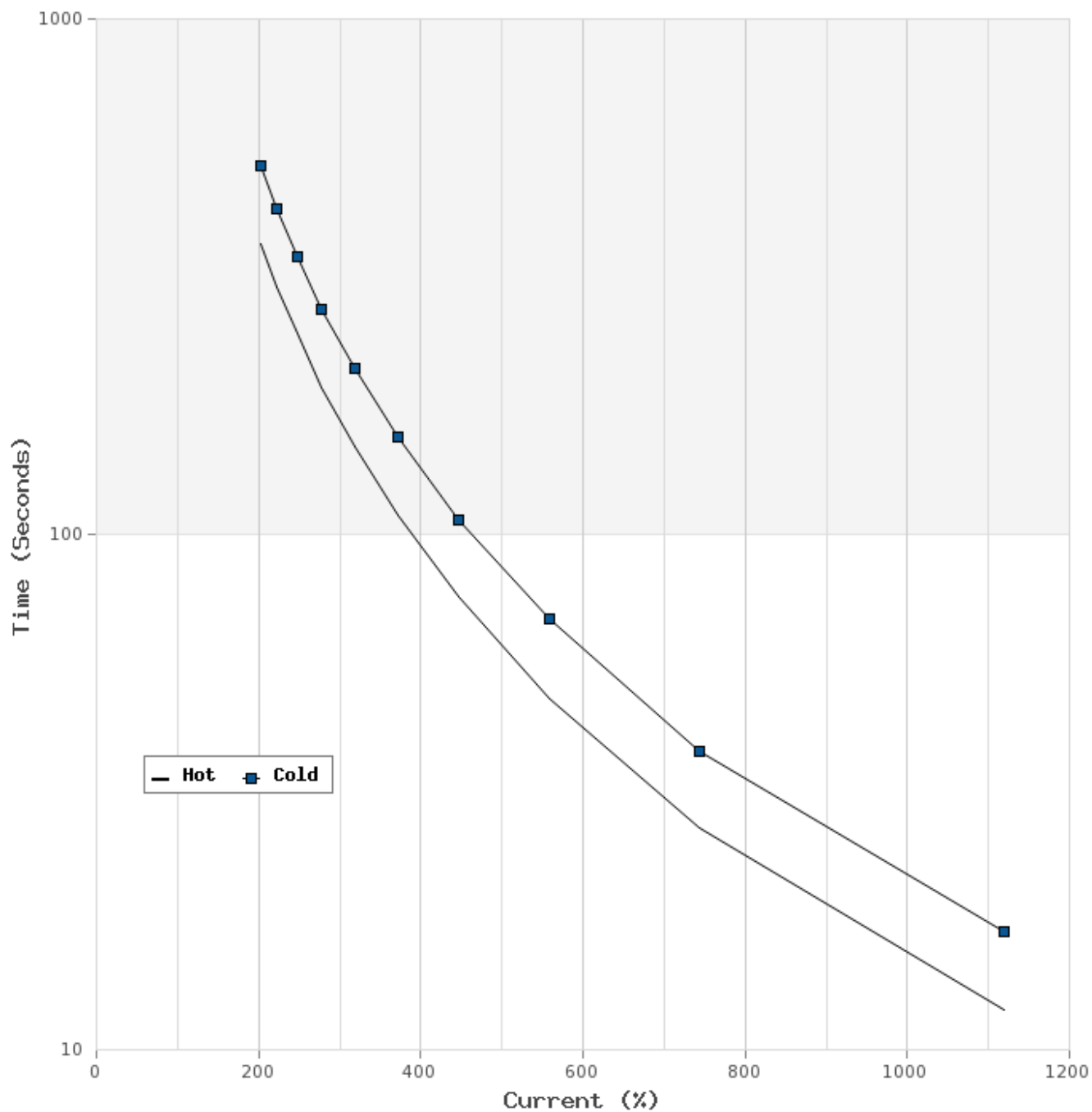
3 LEAD		SINGLE VOLTAGE			WYE
VOLTAGE	CONN.	L1	L2	L3	
-	WYE	1	2	3	

WD_3Y



Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH00125		Family: Optim TEFC	
HP	1	Safe Stall Time		Full Load A	1.1 A
Voltage	575V 60Hz	Hot	17 s	% Inrush	1,121 %
RPM	3600	Cold	24 s	Locked Rotor A	12 A





T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH00125		Family: Optim TEFC	
HP	1	Full Load T	1.52 lb-ft	Full Load A	1.1 A
Voltage	575V 60Hz	Locked Rotor T	350 %	Locked Rotor A	12.0 A
RPM	3600	Pull Up T	365 %	Break Down T	400 %

