

Technical Documentation

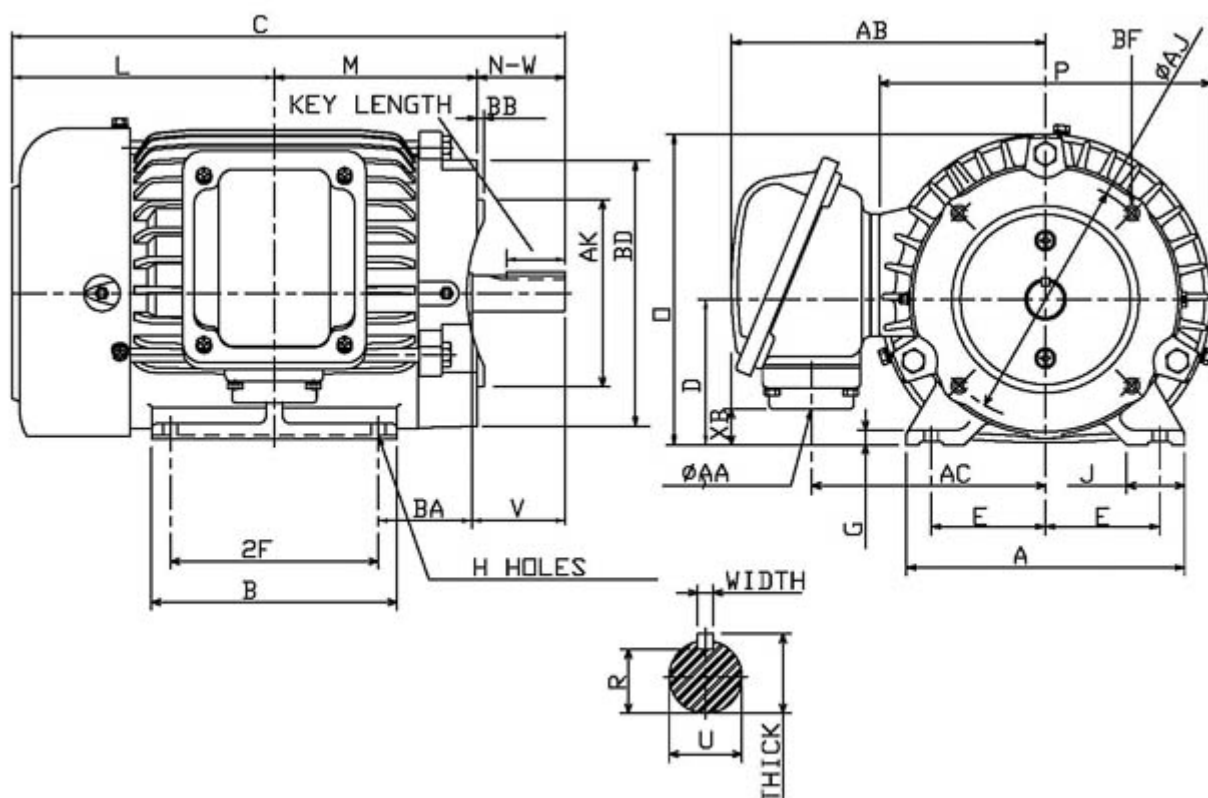
PDH0014C

Optim TEFC | AEHH8N

Date: September 22, 2021

Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
PDH0014C	AEHH8N	1	1800	230 / 460	60	143TC



Mounting					A	B	C	CL1	CL2	D	G
E	2F1	2F2	H	BA							
2.75	4		0.34	2.25	6.7	5.1	12.34			3.5	0.35

J	K	AK	AJ	L	M	O	P	T	BD	BB
1.4		4.5	5.875	5.84	4.03	7.48	7.97		6.4	0.16

Terminal Housing			
AA	AB	AC	XB
3/4 NPT	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	52	Direct Coupling / Belt Drive	Inches

	
	Date: September 22, 2021

Technical Data Sheet

Motor Type: AEHH8N	Catalogue No: PDH0014C
--------------------	------------------------

Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
1	4	1745	143TC	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
TEFC	F	1.15	Continuous	C	-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.					
85.50	82.50	84.00	81.50	73.00	64.50	51.50
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
3.01	310	280	410	1.9 / 0.9	3.0 / 1.5	30.00 / 15.00
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	0.086	5.80	50.44	44	31	49.0

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

Hazardous Locations Information

Additional Certifications

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

Additional Information

Bearings		Approx. Weight
DE	NDE	lbs
6205ZZ	6205ZZ	52

Nameplate Drawing

Optim TEFC

TYPE	AEHH8N	CAT. NO.	PDH0014C		
OUTPUT	1 HP 0.75 kW	FRAME	143TC	TEFC	
R.P.M.	1745	POLE	4	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	3.0 / 1.5	CODE	N	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 85.50		MIN. EFF. 82.50	
BEARINGS	6205ZZ / 6205ZZ			RATING Cont.	
SER. NO.	TBD		DESIGN	C	WT. 52 LBS
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1.0 Only	

Avec modification suivante:

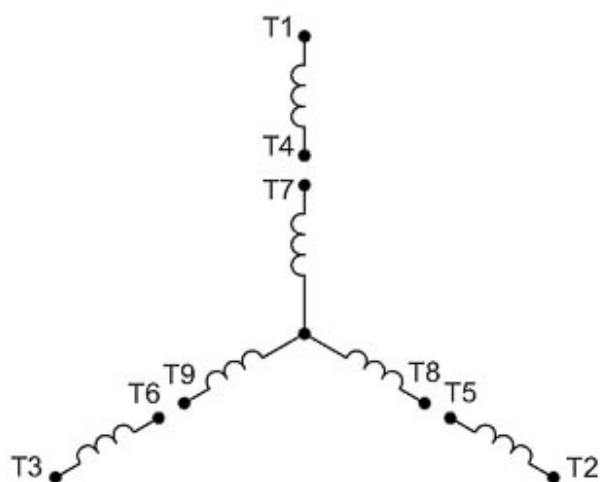
- Enlevé les pattes / remove feet
- Drain Hole DE (No Threads/breather drains)

Drain situé coté opposé à F1

F1 mounting with feet removed

Le moteur sera installé tourné pour que le boîtier soit en position F3

Connection Diagram

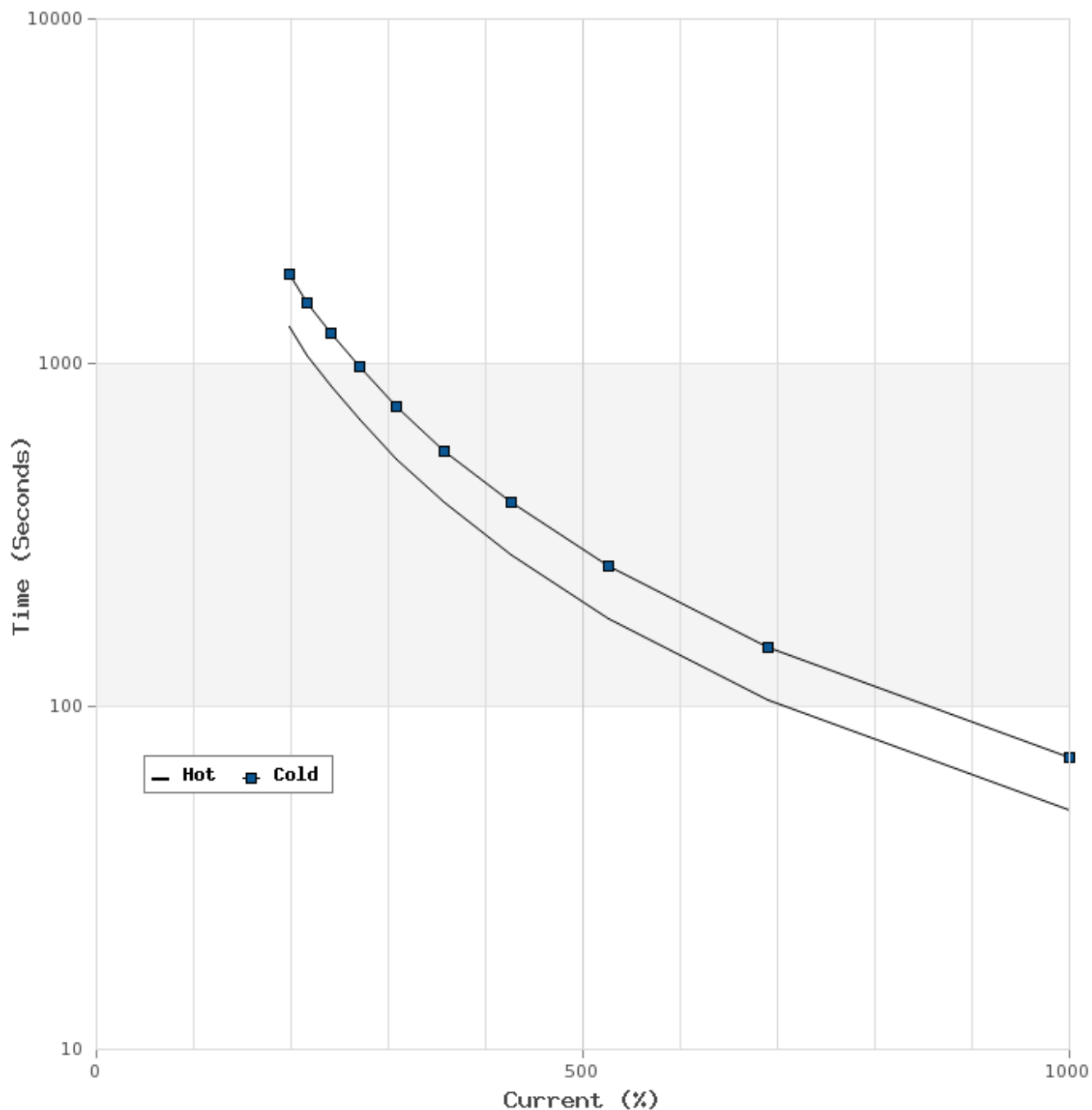


9 LEAD		DUAL VOLTAGE			WYE
VOLTAGE	CONN.	L1	L2	L3	JOIN
HIGH	WYE	1	2	3	4&7,5&8,6&9
LOW	2 WYE	1,7	2,8	3,9	4&5&6

WD_9Y

Thermal Limit Curves

Motor Type: AEHH8N		Catalogue No: PDH0014C		Family: Optim TEFC	
HP	1	Safe Stall Time		Full Load A	3.0 / 1.5 A
Voltage	230 / 460V 60Hz	Hot	31 s	% Inrush	1,000 / 1,000 %
RPM	1800	Cold	44 s	Locked Rotor A	30.00 / 15.00 A



T-N and I-N Curves

Motor Type: AEHH8N		Catalogue No: PDH0014C		Family: Optim TEFC	
HP	1	Full Load T	3.01 lb-ft	Full Load A	3.0 / 1.5 A
Voltage	230 / 460V 60Hz	Locked Rotor T	310 %	Locked Rotor A	30.0 / 15.0 A
RPM	1800	Pull Up T	280 %	Break Down T	410 %

