



Beaver Electrical Machinery Ltd.

Date: August 11, 2022

Technical Documentation

CJM0054

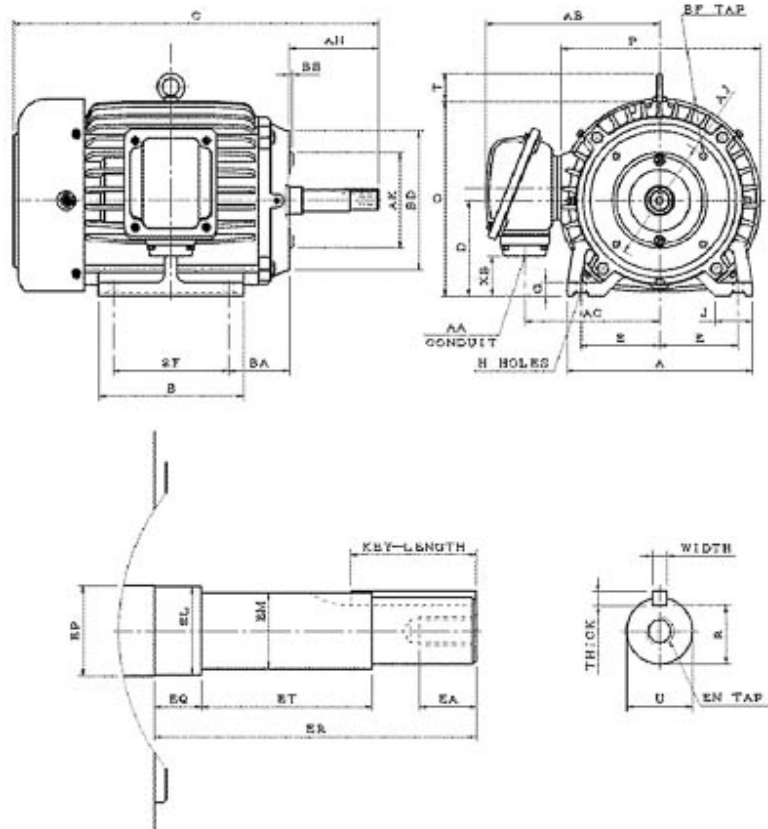
Optim JM | AEHH8N_JM

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Dimensional Drawing

Catalogue	Type	HP	RPM	Voltage	Hz	Frame Size
CJM0054	AEHH8N_JM	5	1800	230 / 460	60	184JM



AEHH8N-JM-SMP-2

Mounting			A	B	C	D	G	H	J	O	P
E	2F	BA									
3.75	5.5	2.88	8.82	6.89	17.54	4.5	0.44	1.57		9.31	9.61

T	AH	Aj	AK	BB	BD	BF
1.3	4.25	5.875	4.5	0.156	6.61	4-3/8"-16UNC

Terminal Housing			
AA	AB	AC	XB
3/4"	8.31	6.38	1.86

Key			Keyseat
Width	Thick	Length	R
0.188	0.188	1.65	0.771

Shaft Extension									
EA	EL	EM	EN		EP	EQ	ER	ET	U
0.75	1.25	1	3/8"-16UNC		1.37	0.625	4.25	2.875	0.875

Bearings		Weight Lbs	Drive Method	Dimensions
DE	NDE			
6307ZZ	6306ZZ	110	Direct Coupling	Inches

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Technical Data Sheet

Motor Type: AEHH8N_JM	Catalogue No: CJM0054
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Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
5	4	1745	184JM	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 °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.					
89.5	87.5	88.5	88.5	85.5	81.5	71.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
15.04	185	140	285	4.4 / 2.2	12.2 / 6.1	92 / 46
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	
J	0.422	27	88	35	25	54

VFD Duty Information

Max HP	Current (A)	Speed Range		VFD		S.F.
		Constant Torque	Variable Torque	Carrier Hz	Type	
5	6.12	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
6307ZZ	6306ZZ	110



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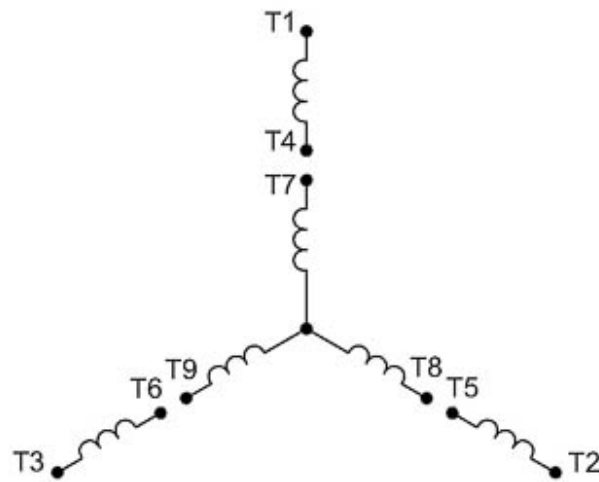
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Nameplate Drawing

Optim JM

TYPE	AEHH8N_JM	CAT. NO.	CJM0054		
OUTPUT	5 HP 3.73 kW	FRAME	184JM	TEFC	
R.P.M.	1745	POLE	4	INS.	F
VOLTS	230 / 460	PHASE	3	Hz	60
AMPS	12.2 / 6.1	CODE	J	S.F.	1.15
AMBIENT	40 °C	NOM. EFF. 89.5		MIN. EFF. 87.5	
BEARINGS	6307ZZ / 6306ZZ			RATING Cont.	
SER. NO.	TBD	DESIGN	B	WT. 110 LBS	
PWM VFD DUTY	VT	CT	CP	S.F.	
	3-60Hz	6-60Hz	60-120Hz	1	

Connection Diagram

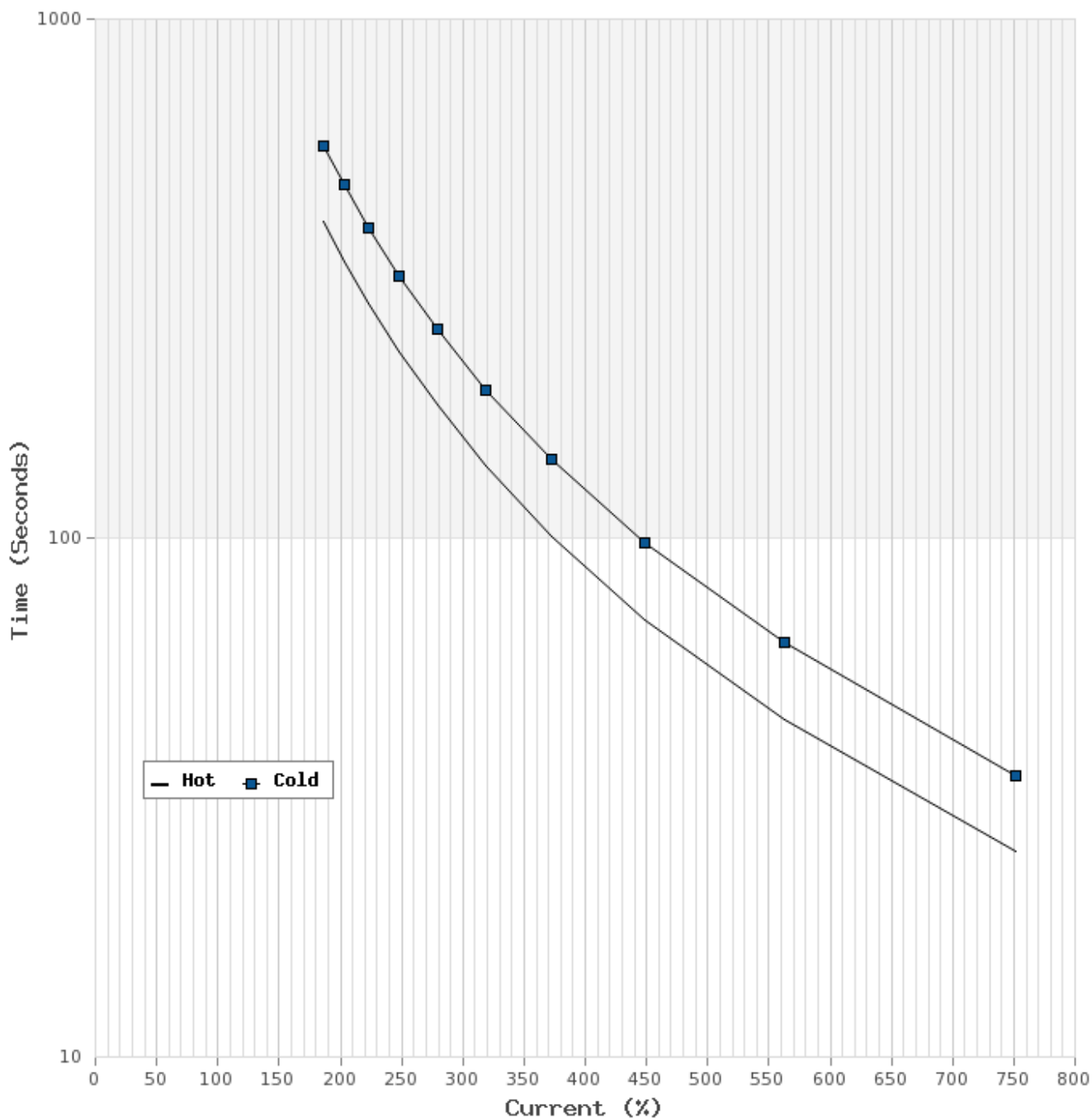


9 LEAD DUAL VOLTAGE WYE					
VOLTAGE	CONN.	L1	L2	L3	JOIN
HIGH	WYE	1	2	3	4&7,5&8,6&9
LOW	2 WYE	1,7	2,8	3,9	4&5&6

WD_9Y

Thermal Limit Curves

Motor Type: AEHH8N_JM		Catalogue No: CJM0054		Family: Optim JM	
HP	5	Safe Stall Time		Full Load A	12.2 / 6.1 A
Voltage	230 / 460V 60Hz	Hot	25 s	% Inrush	752 / 752 %
RPM	1800	Cold	35 s	Locked Rotor A	92 / 46 A



T-N and I-N Curves

Motor Type: AEHH8N_JM		Catalogue No: CJM0054		Family: Optim JM	
HP	5	Full Load T	15.04 lb-ft	Full Load A	12.2 / 6.1 A
Voltage	230 / 460V 60Hz	Locked Rotor T	185 %	Locked Rotor A	92.0 / 46.0 A
RPM	1800	Pull Up T	140 %	Break Down T	285 %

