

Technical Documentation

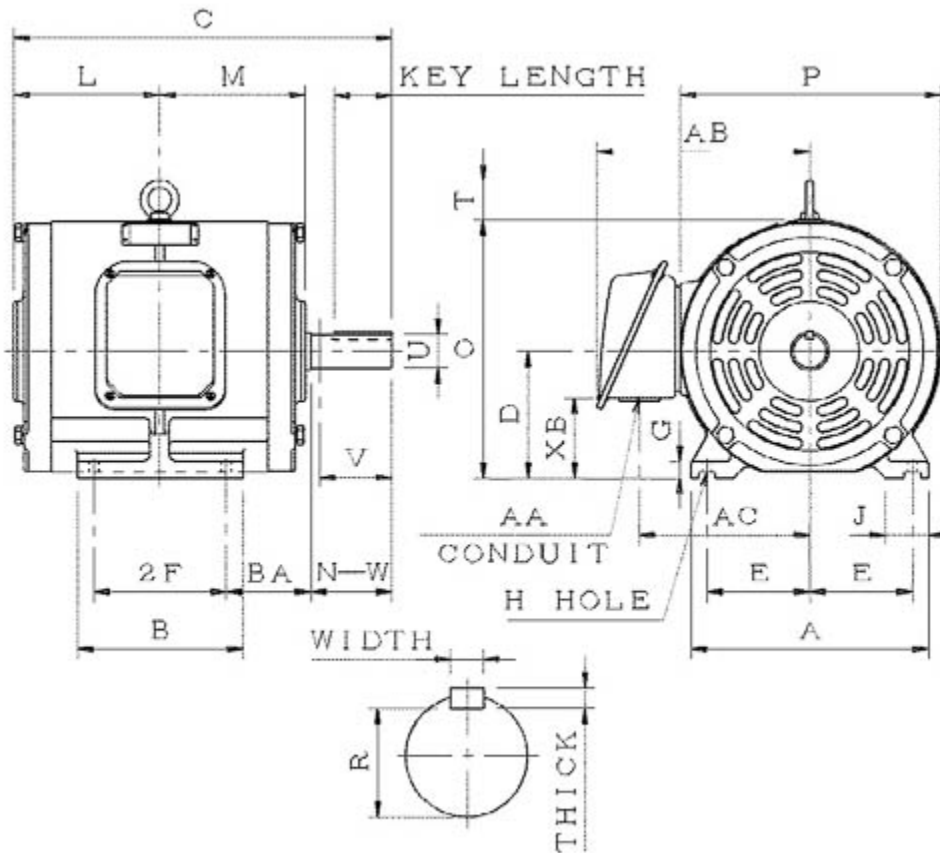
# **SDP0054**

## **Optim ODP | ASHH**

Date: December 1, 2016

**Dimensional Drawing**

Catalogue	Model	HP	Pole	kW	Rating	Voltage	Hz	RPM
SDP0054	ASHH	5	4	3.7	Continuous	230 / 460 V	60	1800



ASHH-SMP-2

Frame Size	Mounting					A	B	C	CD	D	
	E	2F	2F2	H	BA						
184T	3.75	5.5		0.41	2.75	8.8	6.9	13.75		4.5	
G	J	K	L	M	O	P	T	Key			Keyseat
0.65	1.75		5.5	5.35	9.25	9.37	1.3	Width	Thick	Length	R
								0.25	0.25	1.78	0.986
Terminal Housing				Aux Box		C/D Flange					
AA	AB	AC	XB	AE	AX	BB	AH	AK	BD	AJ	BF
1.1	7.45	6.05	3.3								
Shaft Extension			Bearings		Approx. Weight Lbs	SPL dBA/3ft	Ins. Class	S.F.	Drive Method	Dimensions	
N-W	U	V	DE	NDE							
2.75	1.125	2.7	6306ZZ	6306ZZ	106	53	F	1.15	Direct Coupling / Belt Drive	Inches	

### Technical Data Sheet

Motor Type: ASHH

Catalogue No: SDP0054

#### Nameplate Information

HP	Pole	RPM	Frame	Voltage	Hz	Phase
5	4	1740	184T	230 / 460	60	3
Enclosure	Ins. Class	Service Factor	Time Rating	NEMA Design	Rated Amb.	Rated Altitude
ODP	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.					
89.5	87.5	90.2	90.2	84.5	81.0	71.5
Torque				Current (A)		
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	No Load	Full Load	Locked Rotor
15.09	195	190	300	5.1 / 2.6	12.4 / 6.2	92 / 46
NEMA KVA Code	Inertia (WR <sup>2</sup> )			Safe Stall Time (s)		Noise Level Sound Press. dB(A)
	Rotor (lb-ft <sup>2</sup> )	NEMA Load (lb-ft <sup>2</sup> )	Max. Allowable (lb-ft <sup>2</sup> )	Cold	Hot	
J	0.404	27	70	30	21	53

#### 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
6306ZZ	6306ZZ	106

#### Hazardous Locations Information

N/A	
Temp Code (Sinewave / VFD)	/

**Connection Diagram**

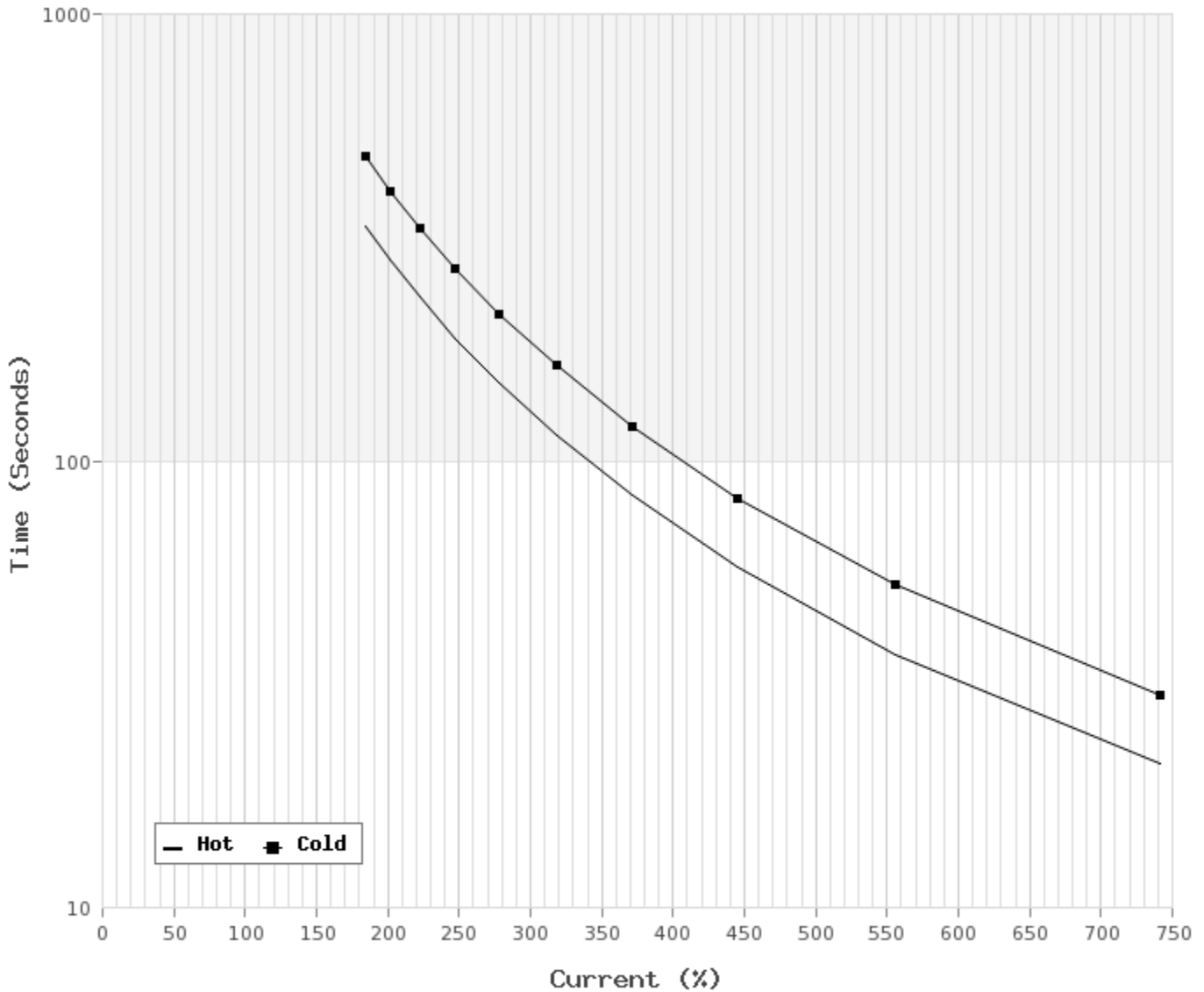


9 LEAD DUAL VOLTAGE WYE					
VOLTAGE	CONN.	L1	L2	L3	JOIN
HIGH	WYE	1	2	3	4&7,5&8,6&9
LOW	2 WYE	1,7	2,8	3,9	4&5&6

WD\_9Y

**Thermal Limit Curves**

Motor Type: ASHH		Catalogue No: SDP0054		Family: Optim ODP	
HP	5	Safe Stall Time		Full Load A	12.4 / 6.2 A
Voltage	230 / 460V 60Hz	Hot	21 s	Locked Rotor A	743 / 743 %
RPM	1800	Cold	30 s	Locked Rotor A	92.0 / 46 A



**T-N and I-N Curves**

Motor Type: ASHH		Catalogue No: SDP0054		Family: Optim ODP	
HP	5	Full Load T	15.09 lb-ft	Full Load A	12.4 / 6.2 A
Voltage	230 / 460V 60Hz	Locked Rotor T	195 %	Locked Rotor A	92.0 / 46.0 A
RPM	1800	Pull Up T	190 %	Break Down T	300 %

