

BALDOR • RELIANCE

Customer information packet

EHM2543T

50HP, 1775RPM, 3PH, 60HZ, 324T, 4256M, OPSB, F1

Specifications

Enclosure	OPSB
Frame	326T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	114.000 A @ 230.0 V 121.000 A @ 208.0 V 57.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	57.0 a
Insulation Class	F
Inverter Code	Inverter Ready

Part detail

Revision	Y
Type	AC
Mech. spec.	42H068
Base	
Status	PRD/A
Elec. spec.	42WGW387
Layout	42LYH068
Eff. date	07-10-2024
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	06-22-2006

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4256M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.69 IN
Power Factor	87
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Mounting Provisions Only
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP2094E06B03							
CAT.NO.	EHM2543T						
SPEC.	42H068W387G1						
HP	50						
VOLTS	230/460						
AMPS	114/57						
RPM	1775						
FRAME	326T	HZ	60	PH	3		
SER.F.	1.15	CODE	G	DES	A	CL	F
NEMA-NOM-EFF	94.5	PF	87				
RATING	40C AMB-CONT						
CC	010A	USABLE AT 208V				N/A	
DE	6312	ODE	6311				
AUTO	MANUAL		NONE				
ENCL	OPSB	SN					
BLANK							

Parts list

Part number	Description	Quantity
SA144850	SA 42H068W387G1	1.000 ea
RA134024	RA 42H068W387G1	1.000 ea
HA6360	LIFTING LUG FOR 42 FRAME MOTORS.	2.000 ea
42CB4000A01	CONDUIT BOX 40, STAMPED	1.000 ea
51XF2520A08	SCREW,1/4-20X1/2 TAPTITE-II OR ROLOC 91	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
418199008A	N/P GRD I/D	1.000 ea
42EP3200A01	FR ENDPLATE, MACH	1.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
42EP3200B13	PUEP, MACH FOR 1/2 SH GND MTG	1.000 ea
84XN0632J08	#6-32 X .50 SOCK HD, BK OX	2.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	8.000 ea
42CB4500A01	CONDUIT BOX LID 42, STAMPED, W/ PRIMER	1.000 ea
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	2.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
84XN0540J08	5-40 X 1/2" SHCS, BLACK OXIDE	3.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.030 lb
HW4500A20	1/8NPT SL PIPE PLUG	2.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.080 ga
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 ea
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP2094E06B03	NP LABEL W/BARCODE (PREM EFF HVAC MTR)	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea

AC Induction Motor Performance Data

Record # 53755

Typical performance - not guaranteed values

Winding: 42WGW387-R001		Type: 4256M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	50	Full Load Torque	149 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	114/57	Breakdown Torque	420 LB-FT		
R.P.M.	1775	Pull-up Torque	217 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	311 LB-FT	
NEMA Design Code	A KVA Code	G	Starting Current	373 A	
Service Factor (S.F.)		1.15	No-load Current	20.2 A	
NEMA Nom. Eff.	94.5 Power Factor	87	Line-line Res. @ 25°C	0.12266 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load	39°C	
S.F. Amps			Temp. Rise @ S.F. Load	47°C	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	75	83	87	88	88	88
Efficiency	92	94.5	94.9	94.7	94.2	93.4	94.4
Speed	1791	1786.1	1781.1	1775.2	1769.2	1762.1	1772
Line amperes	24.4	33.4	44.7	57.4	71	85.6	65.6

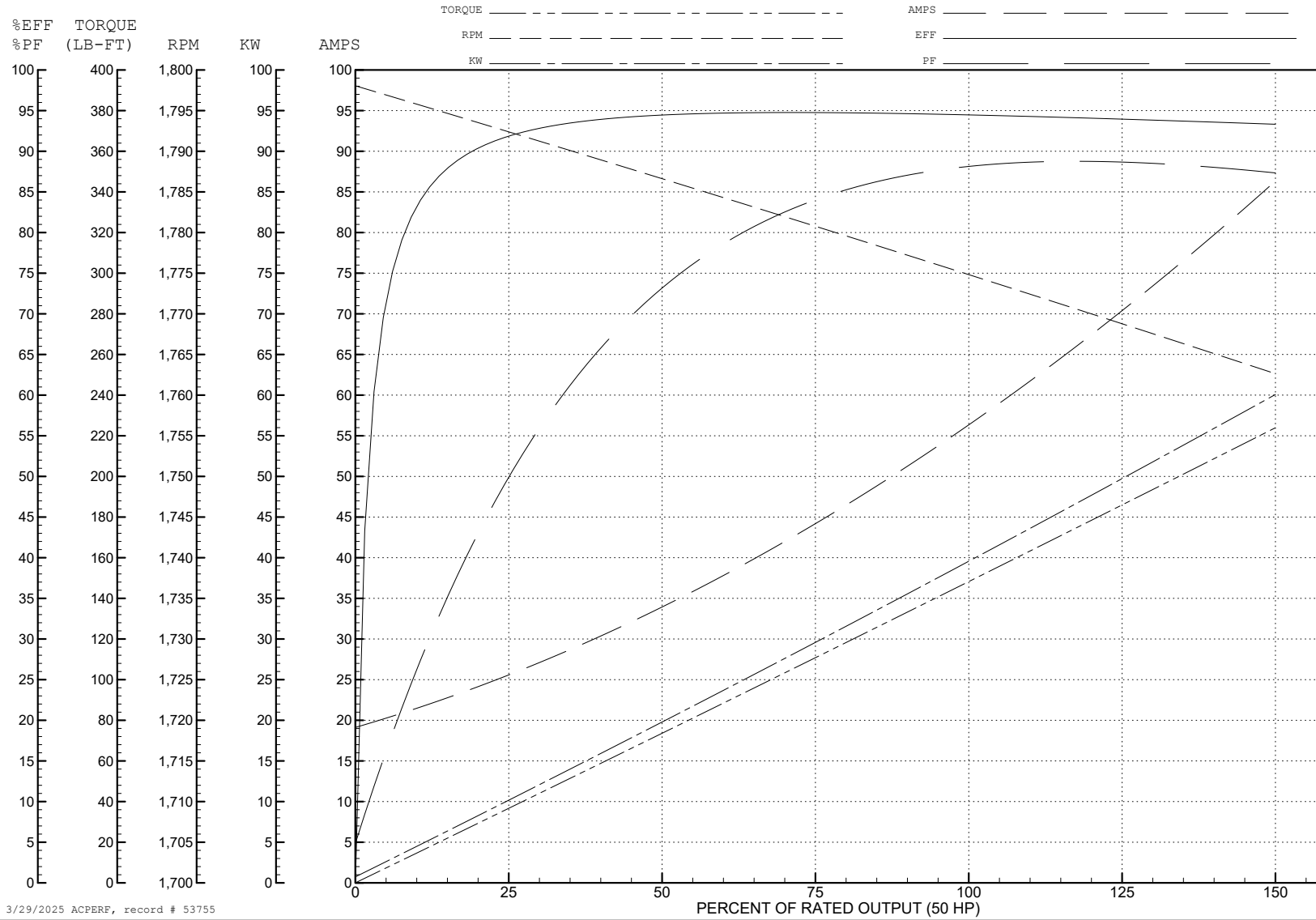
ABB Motors and Mechanical Inc.

WINDING # 42WGW387

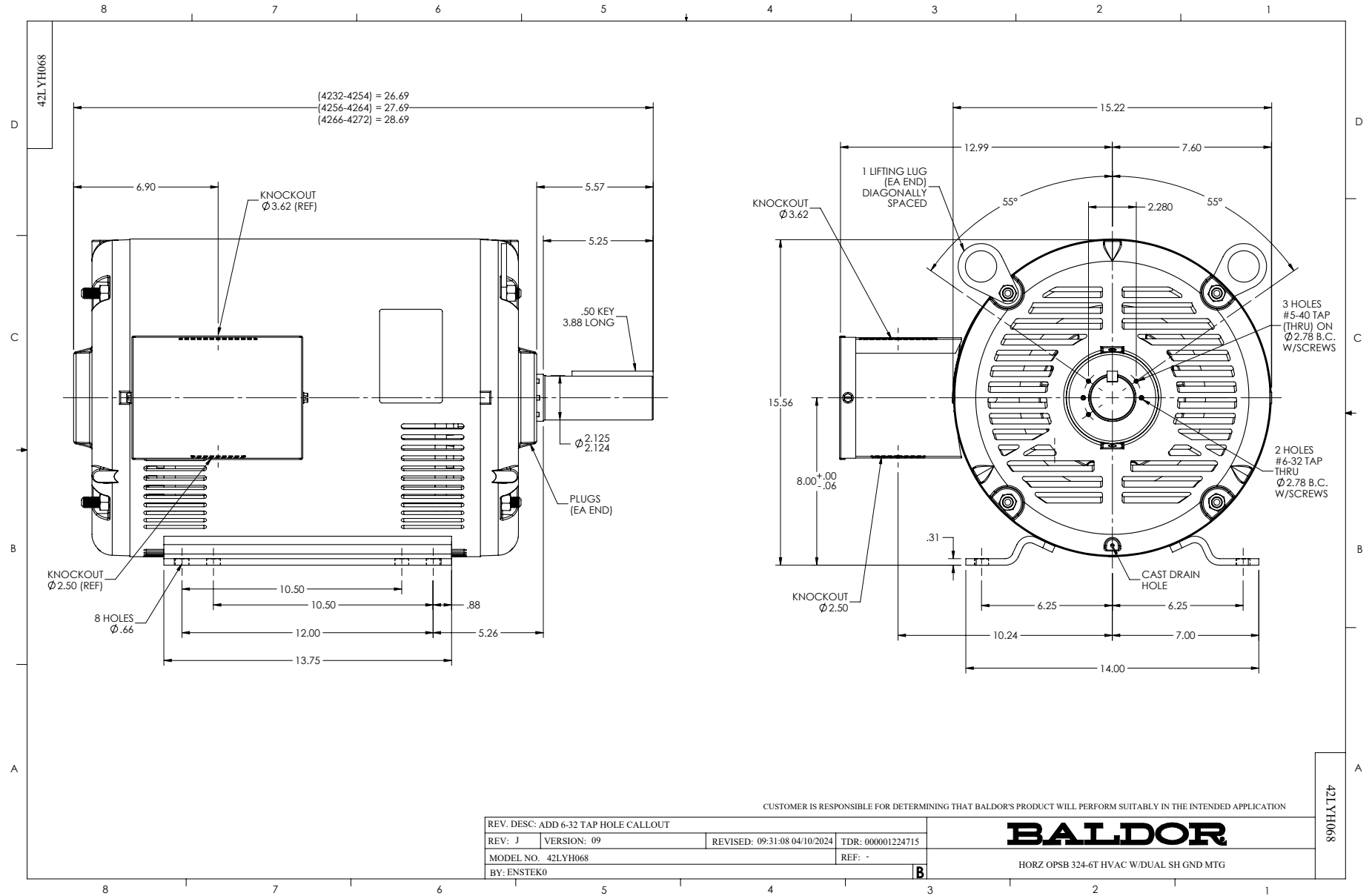
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1775 RPM 460 V 4256M

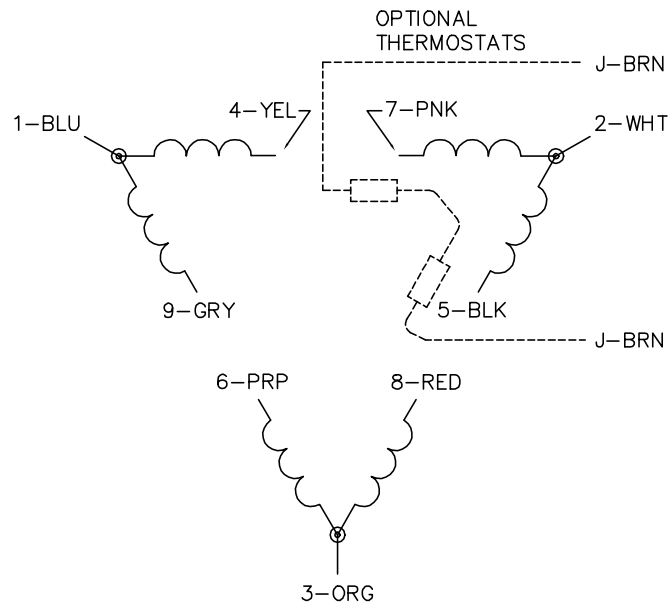
TORQUES (LB-FT): PO=420 PU=217 LR=311 LRA=373



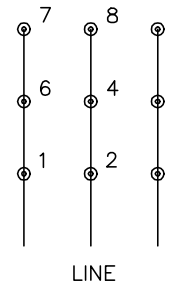
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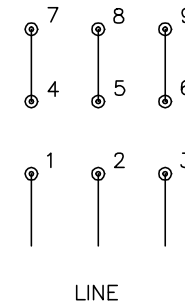
CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIRO
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BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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