

BALDOR • RELIANCE

Customer information packet

EM2543T-5

50HP, 1775RPM, 3PH, 60HZ, 326T, 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	575.0 V @ 60 HZ
Agency Approvals	CSA EEV UR NEMA_PREMIUM NEMA PREMIUM
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	46.000 A @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	46.0 a
Insulation Class	F
Inverter Code	Inverter Ready

Part detail

Revision	AK
Type	AC
Mech. spec.	42F56
Base	
Status	PRD/A
Elec. spec.	42WGW476
Layout	42LYF056
Eff. date	06-27-2024
CD Diagram	CD0006
Poles	04
Leads	3#8
Proprietary	False
Created date	01-01-0001

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 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	No Shaft Grounding
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

NP3554L

CAT.NO.	EM2543T-5	P/N				ENCL	OPSB
SPEC.	42F056W476	CC	010A	FRAME	326T	SER.NO.	
HP	50	CLASS	F	HZ	60		
RPM	1775	PH	3	DES	A		
VOLTS	575	CODE	G	ODE BRG	6311	DE BRG	6312
AMPS	46						
RATING	40C AMB-CONT	NEMA-NOM-EFF	94.5	GREASE	POLYREX EM		
PF	87	SER.F.	1.15	VPWM INVERTER READY			
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.					

Accessories

Part number	Description	Multiplier
42-1300	C FACE KIT	A8
42EP1601A01	SP'L D-FLANGE MTD. PU. E.P. MDL.42 W/BFL	

AC Induction Motor Performance Data

Record # 13695

Typical performance - not guaranteed values

Winding: 42WGW476-R001		Type: 4256M		Enclosure: OPSB	
Nameplate Data			575 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)	50	Full Load Torque	148 LB-FT		
Volts	575	Start Configuration	direct on line		
Full Load Amps	46	Breakdown Torque	423 LB-FT		
R.P.M.	1775	Pull-up Torque	234 LB-FT		
Hz	60	Locked-rotor Torque	282 LB-FT		
NEMA Design Code	A	Starting Current	305 A		
Service Factor (S.F.)	1.15	No-load Current	16.5 A		
NEMA Nom. Eff.	94.5	Line-line Res. @ 25°C	0.194 Ω		
Rating - Duty	40C	Temp. Rise @ Rated Load	36°C		
S.F. Amps	AMB-CONT	Temp. Rise @ S.F. Load	42°C		
		Locked-rotor Power Factor	27.1		
		Rotor inertia	7.46 LB-FT ²		

Load Characteristics 575 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	47	69	79	86	86	85	86
Efficiency	90	93.5	94.4	94.5	94.3	94	94.4
Speed	1795	1790	1785	1780	1774	1768	1776
Line amperes	22.5	29.2	37.7	46	58	70	53.2

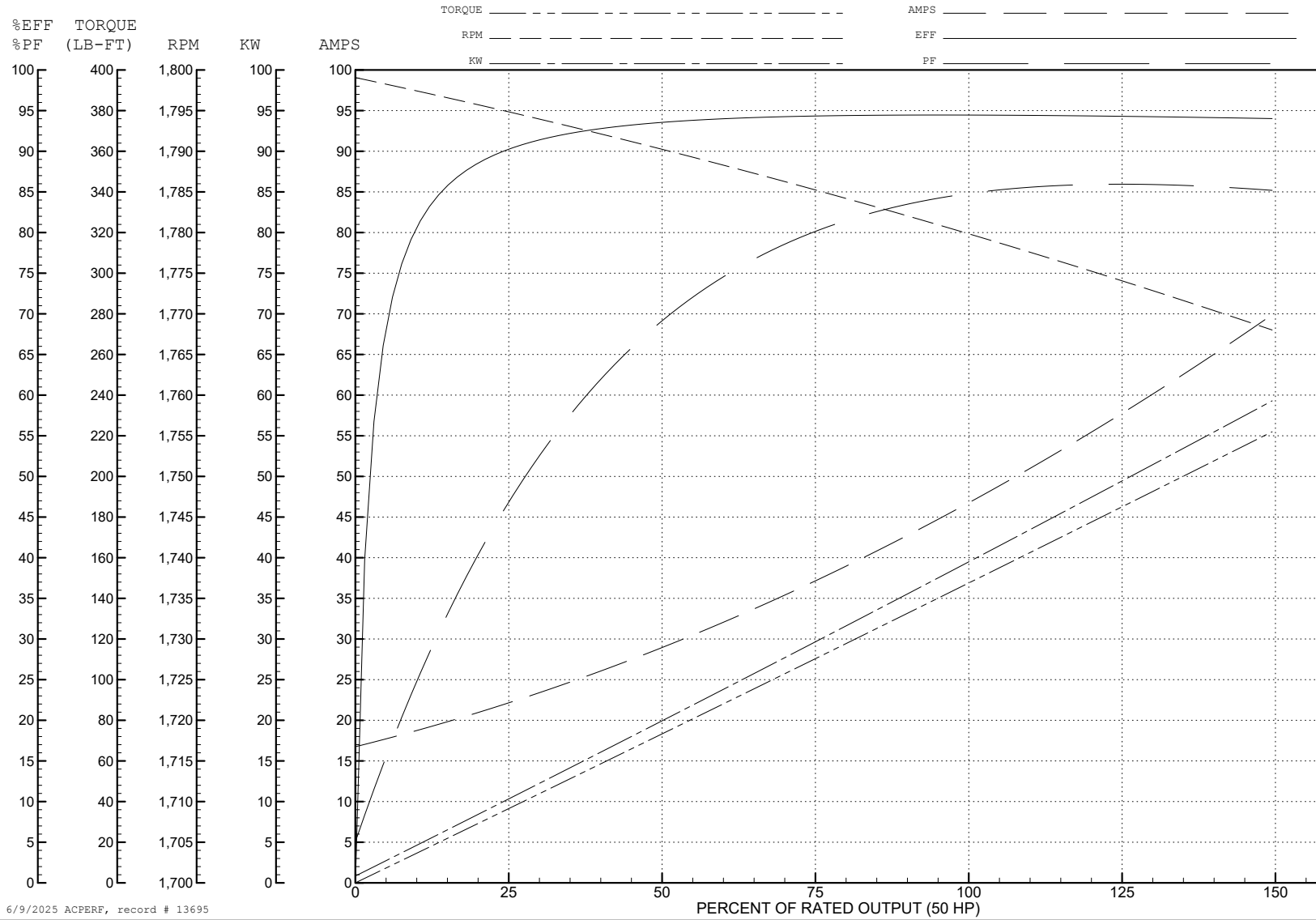
ABB Motors and Mechanical Inc.

WINDING # 42WGW476

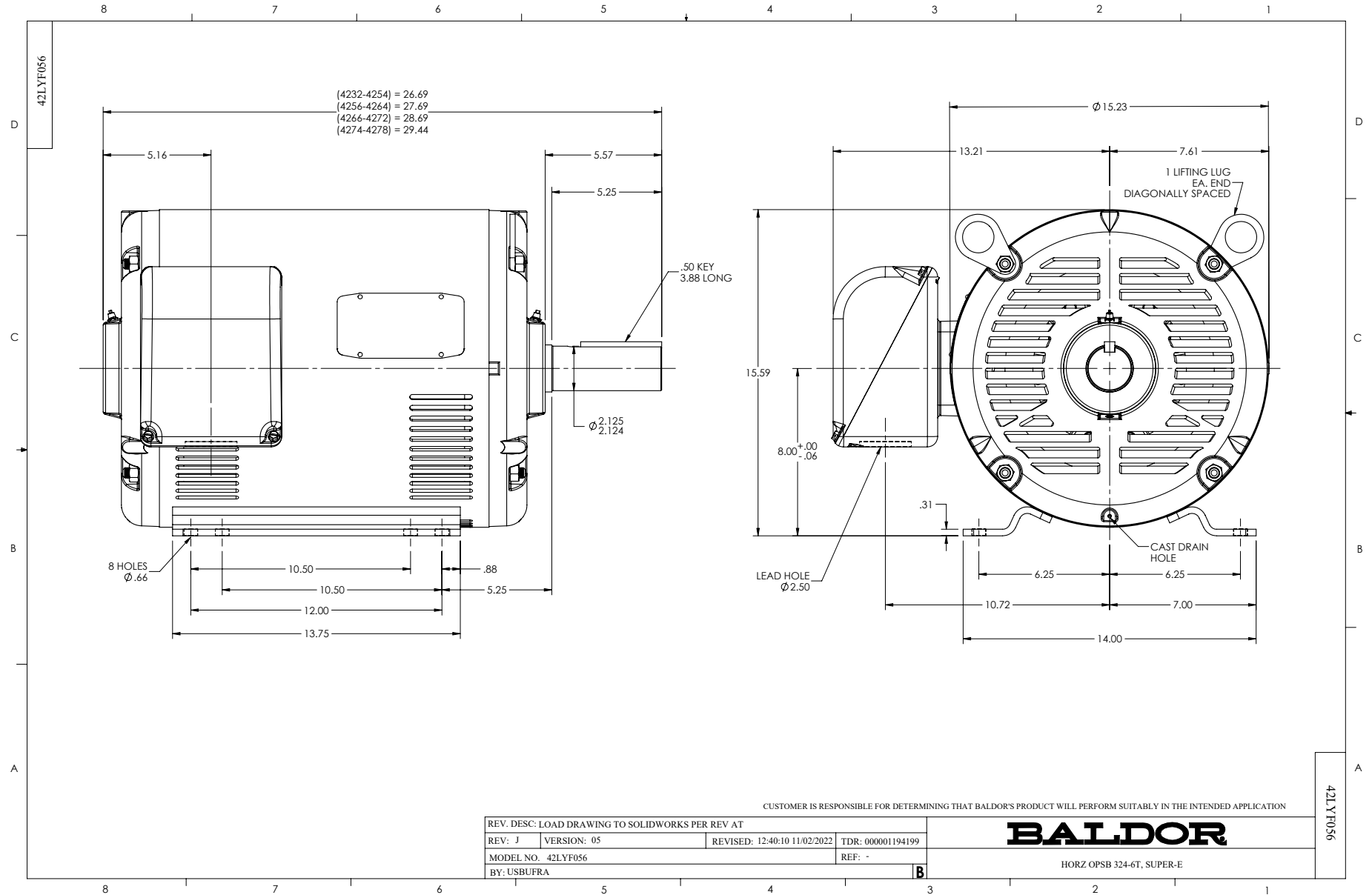
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1775 RPM 575 V 4256M

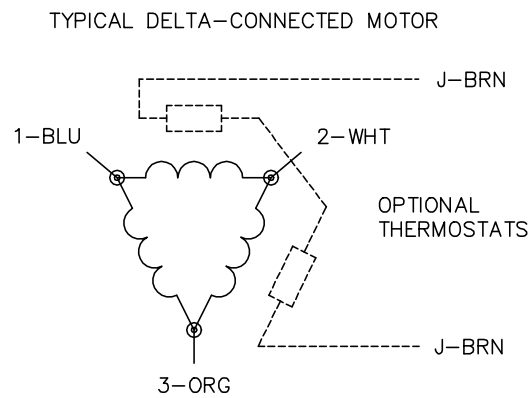
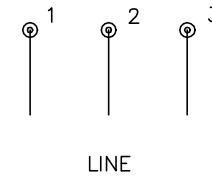
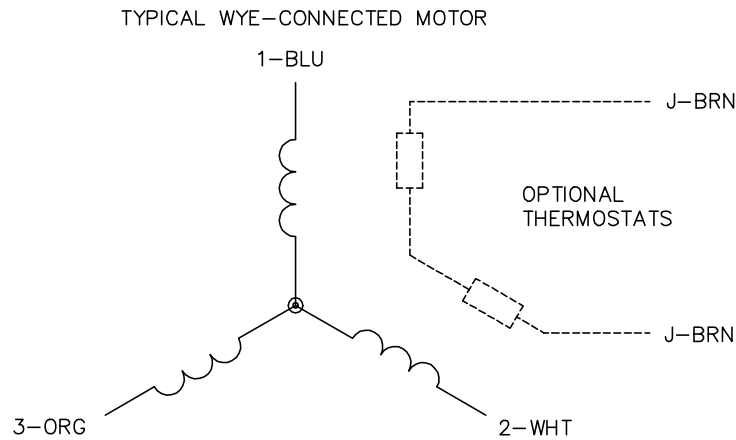
TORQUES (LB-FT): PO=423 PU=234 LR=282 LRA=305



6/9/2025 ACPERF, record # 13695



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
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FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIRO
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BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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