

**BALDOR • RELIANCE**

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# 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

<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	3 @ 8 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	4256M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	27.69 IN
<b>Power Factor</b>	87
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	2.125 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1775 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

**NP3554L**

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

**Accessories**

<b>Part number</b>	<b>Description</b>	<b>Multiplier</b>
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

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

**Load Characteristics 575 V, 60 Hz, 50 HP**

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

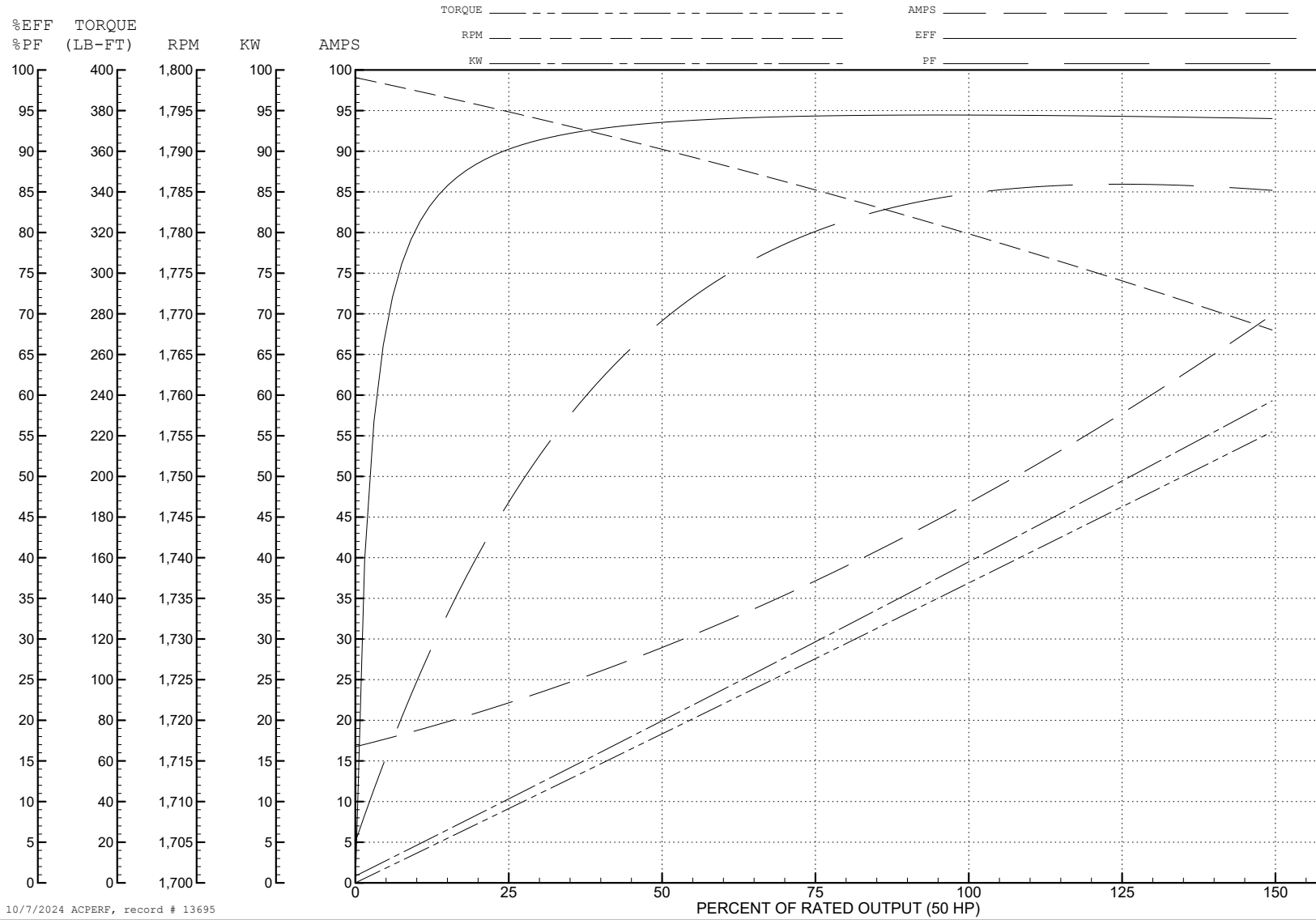
ABB Motors and Mechanical Inc.

WINDING # 42WGW476

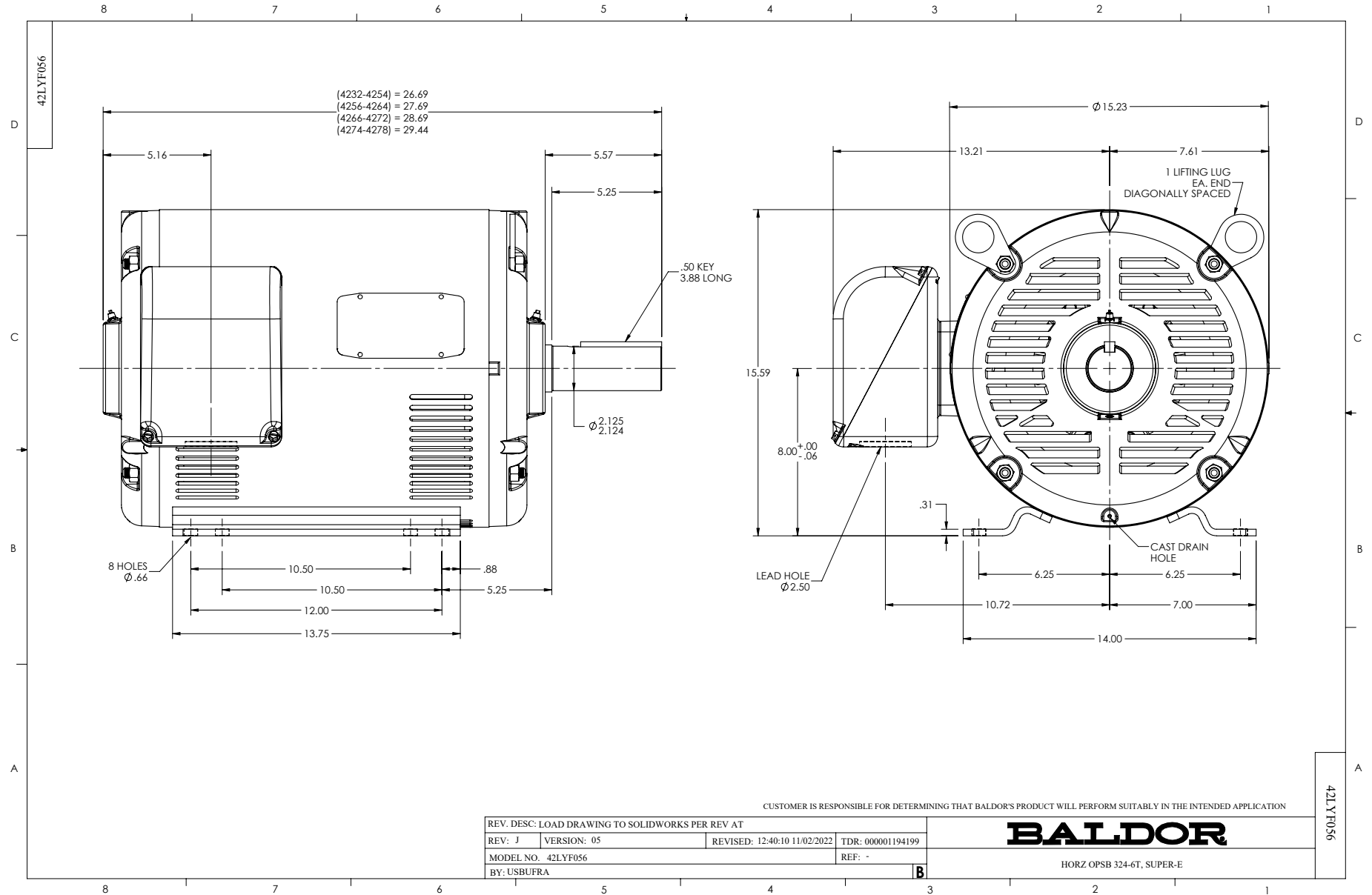
Typical performance - not guaranteed values.

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

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

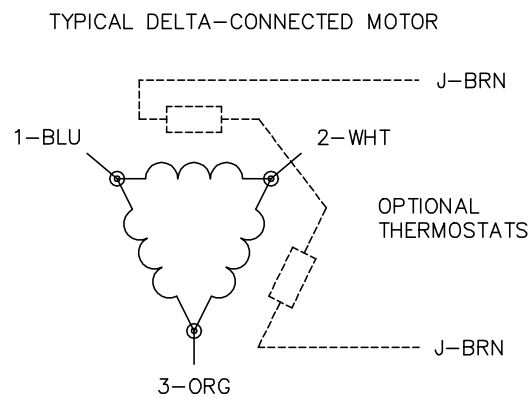
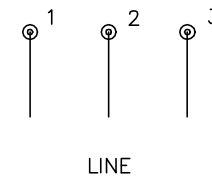
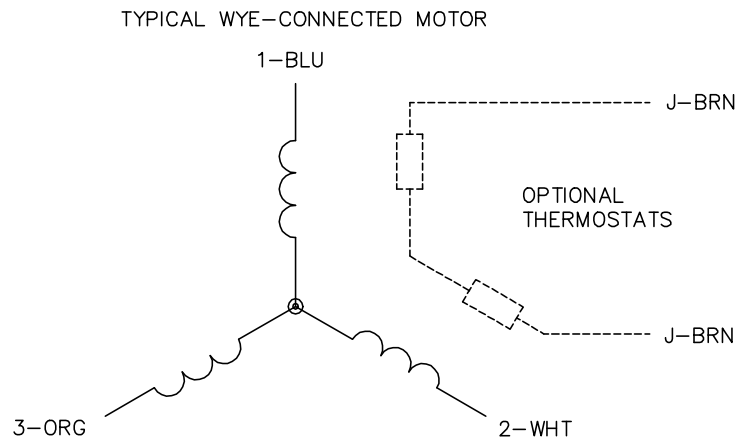


10/7/2024 ACPERF, record # 13695





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

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

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