ABB BALDOR RELIANCE

Customer information packet

EM2543T-5

50HP, 1775RPM, 3PH, 60HZ, 326T, 4256M, OPSB, F1

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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	NEMA PREMIUM NEMA PREMIUM (OLD LOGO) CURUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary 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
KVA Code	G

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

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	P1

AC Induction Motor Performance Data
Record # 13695
Typical performance - not guaranteed values

Winding: 42WGW476-R001	**Type:** 4256M	**Enclosure:** OPSB

Nameplate Data			
Rated Output (HP)			50
Volts			575
Full Load Amps			46
R.P.M.			1775
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	G
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	94.5	**Power Factor**	87
Rating - Duty			40C AMB-CONT
S.F. Amps			

575 V, 60 Hz: Single Voltage Motor	
Full Load Torque	148 LB-FT
Start Configuration	direct on line
Breakdown Torque	423 LB-FT
Pull-up Torque	234 LB-FT
Locked-rotor Torque	282 LB-FT
Starting Current	305 A
No-load Current	16.5 A
Line-line Res. @ 25ºC	0.194 Ω
Temp. Rise @ Rated Load	36°C
Temp. Rise @ S.F. Load	42°C
Locked-rotor Power Factor	27.1
Rotor inertia	7.46 LB-FT2

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

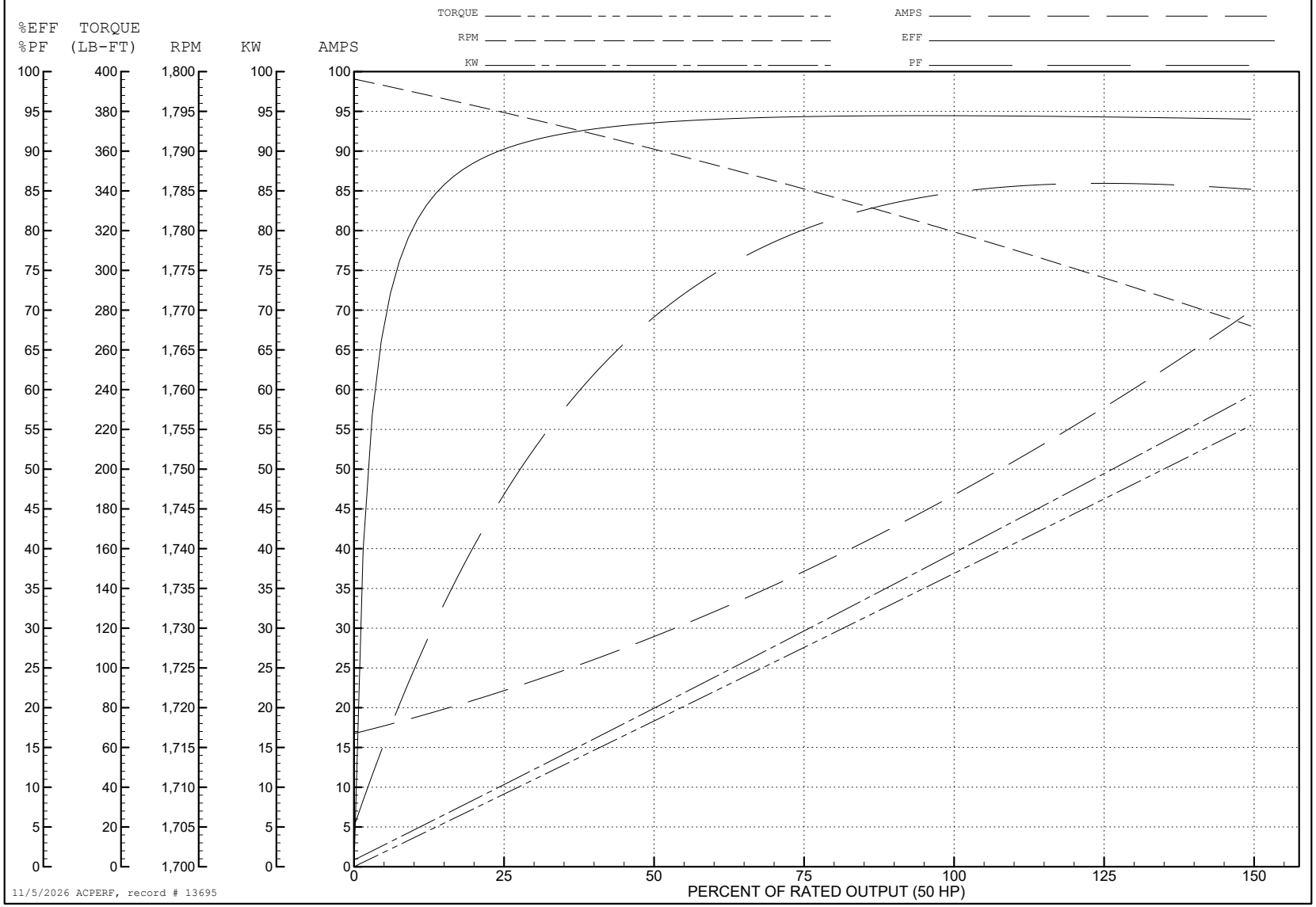
ABB Motors and Mechanical Inc.

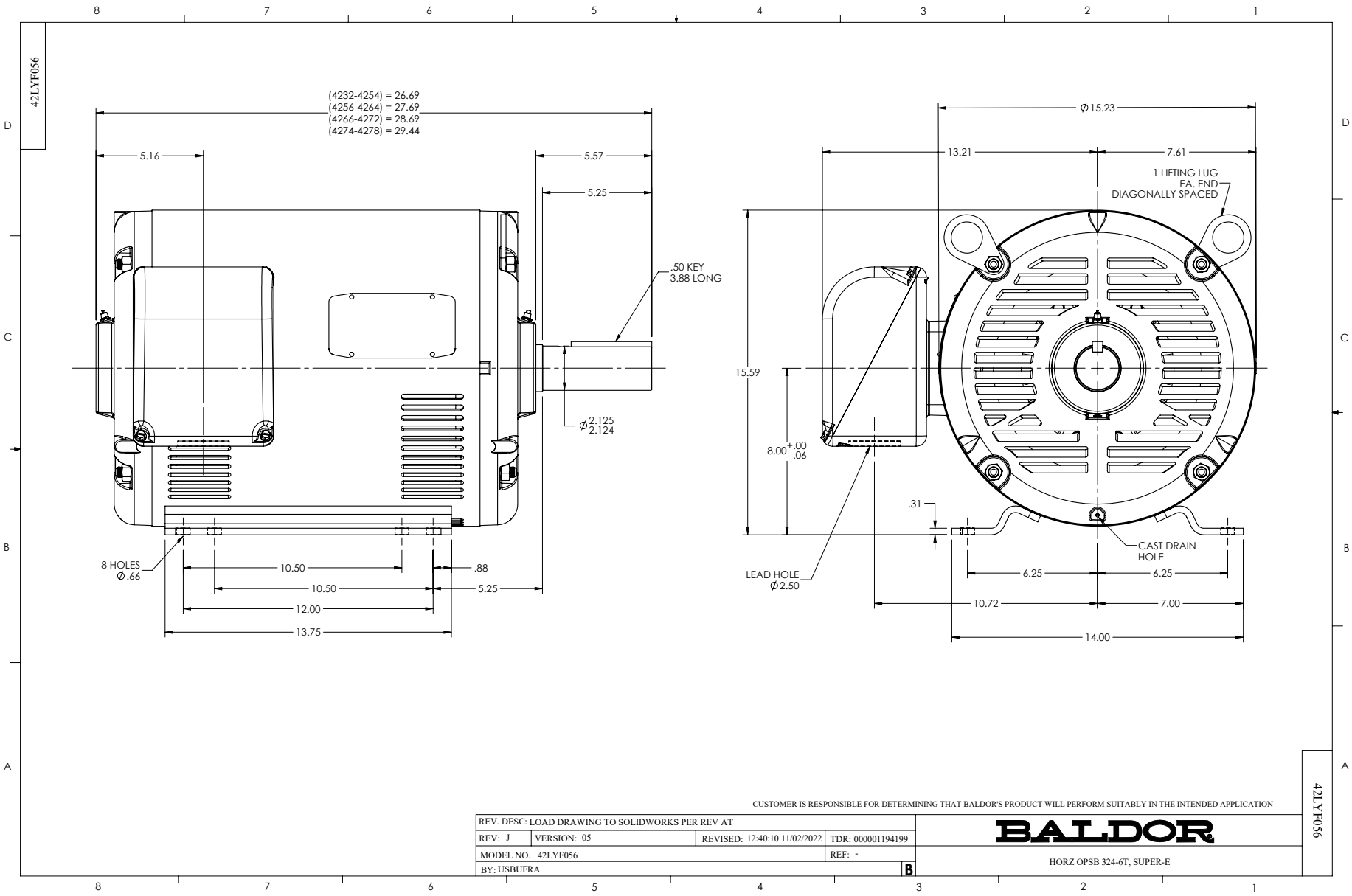
WINDING # 42WGW476

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

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

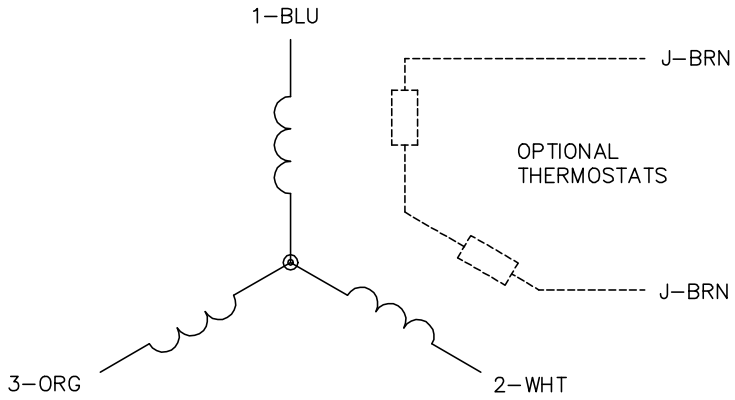
Typical performance - not guaranteed values.

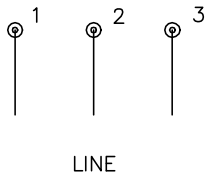



42LYF056
(4232-4254) = 26.69
(4256-4264) = 27.69
(4266-4272) = 28.69
(4274-4278) = 29.44
5.16
5.57
5.25
.50 KEY
3.88 LONG
Ø2.125
2.124
8 HOLES
Ø.66
10.50
.88
10.50
5.25
12.00
13.75
Ø15.23
13.21
7.61
1 LIFTING LUG
EA. END
DIAGONALLY SPACED
15.59
8.00 +.00 -.06
.31
CAST DRAIN
HOLE
LEAD HOLE
Ø2.50
6.25
6.25
10.72
7.00
14.00
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS PER REV AT
REV: J
VERSION: 05
REVISED: 12:40:10 11/02/2022
TDR: 000001194199
MODEL NO. 42LYF056
REF: -
BY: USBUFRA
B
BALDOR
HORZ OPSB 324-6T, SUPER-E
42LYF056

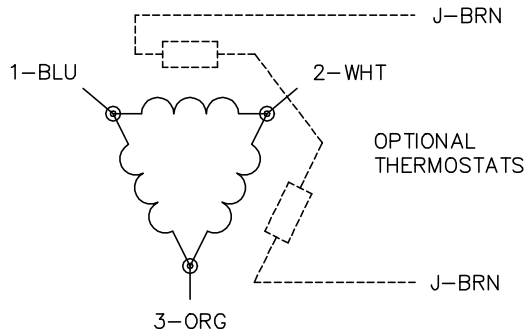
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



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		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

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

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