ABB BALDOR RELIANCE

Customer information packet

EJMM2542T

50HP, 3550RPM, 3PH, 60HZ, 324JM, 4248M, OPSB, F

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Specifications

Enclosure	OPSB
Frame	324JM
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA EEV
	UR
	CSA
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	116.000 A @ 230.0 V
	58.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	58.0 a
Insulation Class	F

Part Detail

Revision	N
Type	AC
Mech. spec.	42F59
Base	
Status	PRD/A
Elec. spec.	42WGW284
Layout	42LYF059
Eff. date	11-29-2023
CD Diagram	CD0180
Poles	02
Leads	9#6
Proprietary	False
Created date	05-14-2012

Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	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	4248M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	26.94 IN
Power Factor	87
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Tapped & Key
Rodent Screen	Included
Service Factor	1.15
Shaft Diameter	1.250 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3550 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

NP2138LUA												
CAT.NO.	EJMM2542T		**P/N**				**ENCLOSURE**	OPSB				
SPEC.	42F059W284G1	**CC**	010A		**FRAME**	324JM	**S/N**					
HP	50		**CLASS**	F		**HZ**	60					
RPM	3550		**PH**	3	**DES**	A						
VOLT	230/460			**KVA-CODE**	H		**ODE BRG**	6311	**DE BRG**	6312		
AMP	116/58											
RATING	40C AMB-CONT			**GREASE**	POLYREX EM							
NEMA-NOM-EFF	93	**PF**	87	**SER.F.**	1.15							
	50HZ 50HP 190/380V 138/69A						SF1.0					
HTR-VOLTS		**HTR-AMPS**										

AC Induction Motor Performance Data
Record # 85565
Typical performance - not guaranteed values

Winding: 42WGW284-R002	**Type:** 4248M	**Enclosure:** OPSB

Nameplate Data			
Rated Output (HP)			50
Volts			230/460
Full Load Amps			116/58
R.P.M.			3550
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	H
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	93	**Power Factor**	87
Rating - Duty			40C AMB-CONT
S.F. Amps			

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	73.94 LB-FT
Start Configuration	direct on line
Breakdown Torque	191 LB-FT
Pull-up Torque	99 LB-FT
Locked-rotor Torque	111 LB-FT
Starting Current	414 A
No-load Current	18 A
Line-line Res. @ 25ºC	0.13749 Ω
Temp. Rise @ Rated Load	32°C
Temp. Rise @ S.F. Load	39°C
Locked-rotor Power Factor	23.4

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	58	78	85	88	89	89	89
Efficiency	90.7	93.8	94.3	94.2	93.7	92.9	93.9
Speed	3587.7	3577.2	3567.7	3556	3544.5	3531.2	3549
Line amperes	22.8	32.2	43.7	56.5	70	84.3	64.6

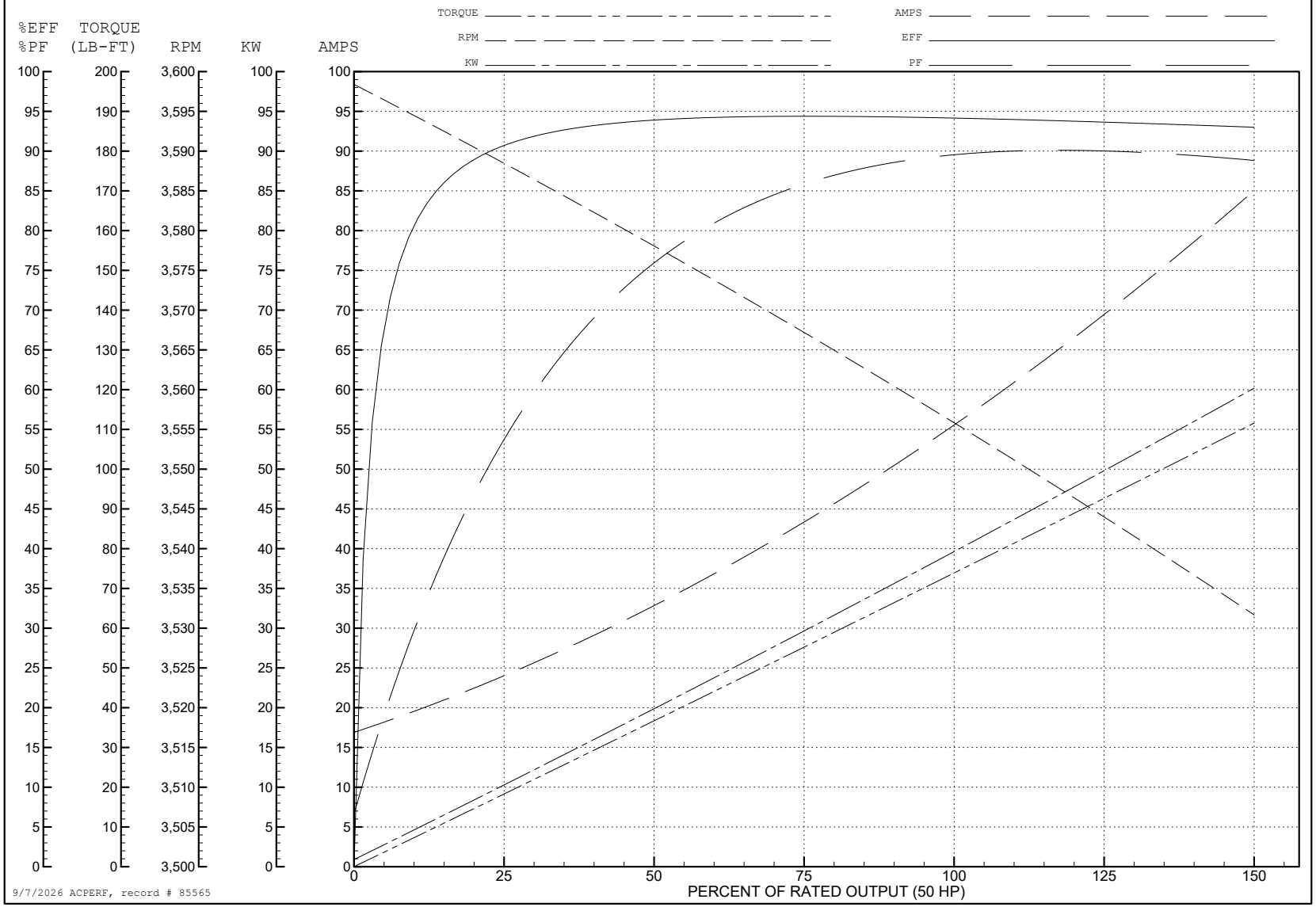
ABB Motors and Mechanical Inc.

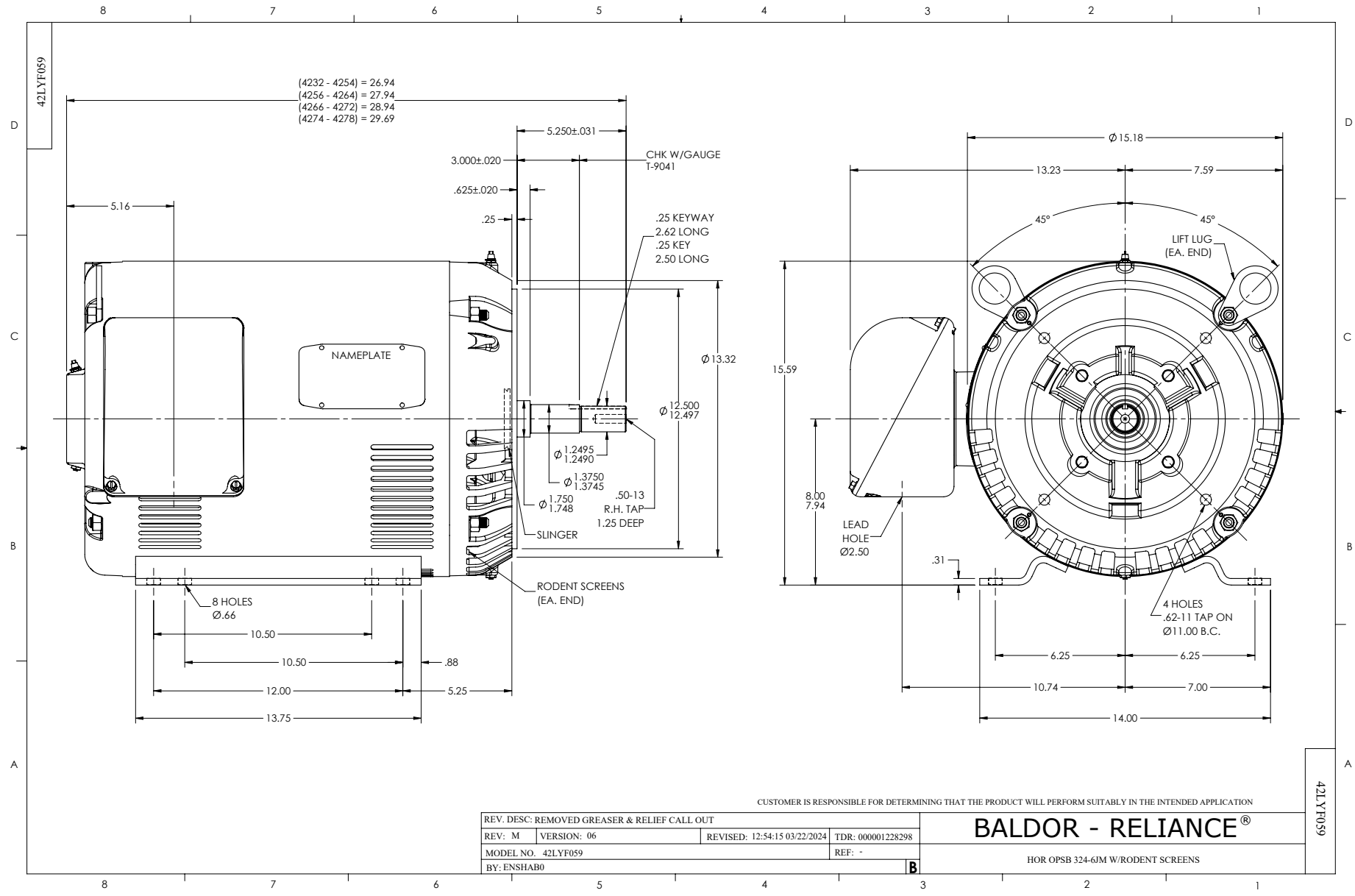
WINDING # 42WGW284

50 HP 3 PH 60 HZ 3550 RPM 460 V 4248M

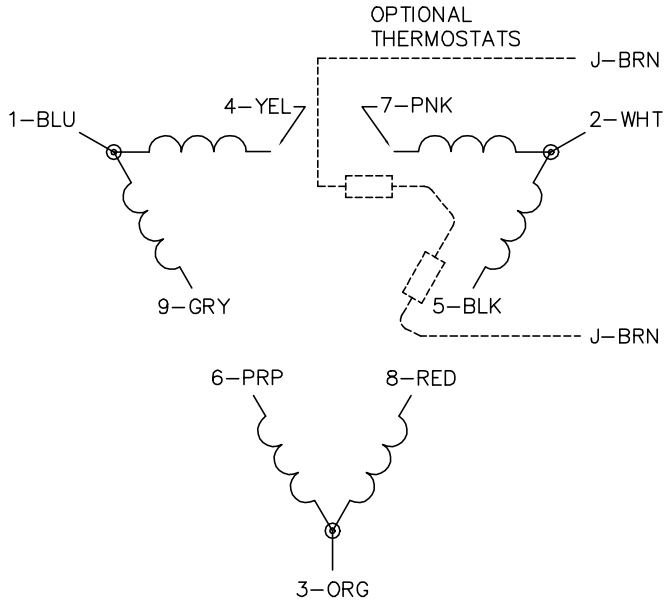
Typical performance - not guaranteed values.

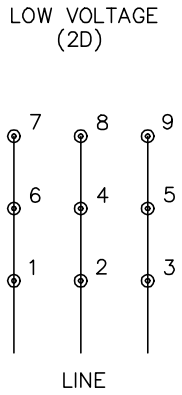
TORQUES(LB-FT): PO=191 PU=99 LR=111 LRA=414

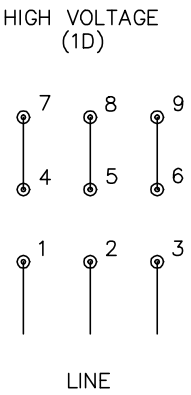



42LYF059
(4232 - 4254) = 26.94
(4256 - 4264) = 27.94
(4266 - 4272) = 28.94
(4274 - 4278) = 29.69
5.250±.031
3.000±.020
CHK W/GAUGE T-9041
.625±.020
.25
.25 KEYWAY 2.62 LONG
.25 KEY 2.50 LONG
5.16
NAMEPLATE
Ø13.32
Ø12.500 12.497
Ø1.2495 1.2490
Ø1.3750 1.3745
Ø1.750 1.748
.50-13 R.H. TAP 1.25 DEEP
SLINGER
RODENT SCREENS (EA. END)
8 HOLES Ø.66
10.50
10.50
.88
12.00
5.25
13.75
Ø15.18
13.23
7.59
45°
45°
LIFT LUG (EA. END)
15.59
8.00 7.94
LEAD HOLE Ø2.50
.31
4 HOLES .62-11 TAP ON Ø11.00 B.C.
6.25
6.25
10.74
7.00
14.00
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REMOVED GREASER & RELIEF CALL OUT
REV: M
VERSION: 06
REVISED: 12:54:15 03/22/2024
TDR: 000001228298
MODEL NO. 42LYF059
REF: -
BY: ENSHAB0
B
BALDOR - RELIANCE®
HOR OPSB 324-6JM W/RODENT SCREENS
42LYF059

CD0180







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: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1