ABB BALDOR RELIANCE

Customer information packet

EM2540T

40HP, 1180RPM, 3PH, 60HZ, 364T, 4278M, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	364T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM
	NEMA PREMIUM (OLD LOGO)
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	51.000 A @ 460.0 V
	110.000 A @ 208.0 V
	104.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	51.0 a
Insulation Class	F

Part Detail

Revision	E
Type	AC
Mech. spec.	42F100
Base	
Status	PRD/A
Elec. spec.	42WGW920
Layout	42LYF100
Eff. date	11-29-2023
CD Diagram	CD0005
Poles	06
Leads	9#8
Proprietary	False
Created date	03-30-2022

Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4278M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	30.69 IN
Power Factor	79
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	2.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1180 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.	EM2540T			**P/N**				**ENCLOSURE**	OPSB			
SPEC.	42F100W920G1	**CC**	010A		**FRAME**	364T		**S/N**				
HP	40			**CLASS**	F		**HZ**	60				
RPM	1180			**PH**	3		**DES**	A				
VOLT	230/460				**KVA-CODE**	H		**ODE BRG**	6311	**DE BRG**	6313	
AMP	104/51											
RATING	40C AMB-CONT				**GREASE**	POLYREX EM						
NEMA-NOM-EFF	94.1	**PF**	79	**SER.F.**	1.15							
	50HZ 40HP 190/380V 120/60A							SF 1.0				
HTR-VOLTS		**HTR-AMPS**										

AC Induction Motor Performance Data
Record # 34461
Typical performance - not guaranteed values

Winding: 42WGW920-R001	**Type:** 4278M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	178 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			104/51	**Breakdown Torque**	521 LB-FT
R.P.M.			1180	**Pull-up Torque**	232 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	317 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	337 A
Service Factor (S.F.)			1.15	**No-load Current**	21.9 A
NEMA Nom. Eff.	94.1	**Power Factor**	79	**Line-line Res. @ 25ºC**	0.154 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	41°C
S.F. Amps				**Temp. Rise @ S.F. Load**	50°C
				Locked-rotor Power Factor	28
				Rotor inertia	14.9 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	43	64	74	79	81	82	80
Efficiency	89.3	93.1	94.1	94.1	93.3	92.2	93.6
Speed	1195	1191	1187	1183	1177	1170	1179
Line amperes	24.8	31.6	40.5	50.9	62.2	77.5	57.7

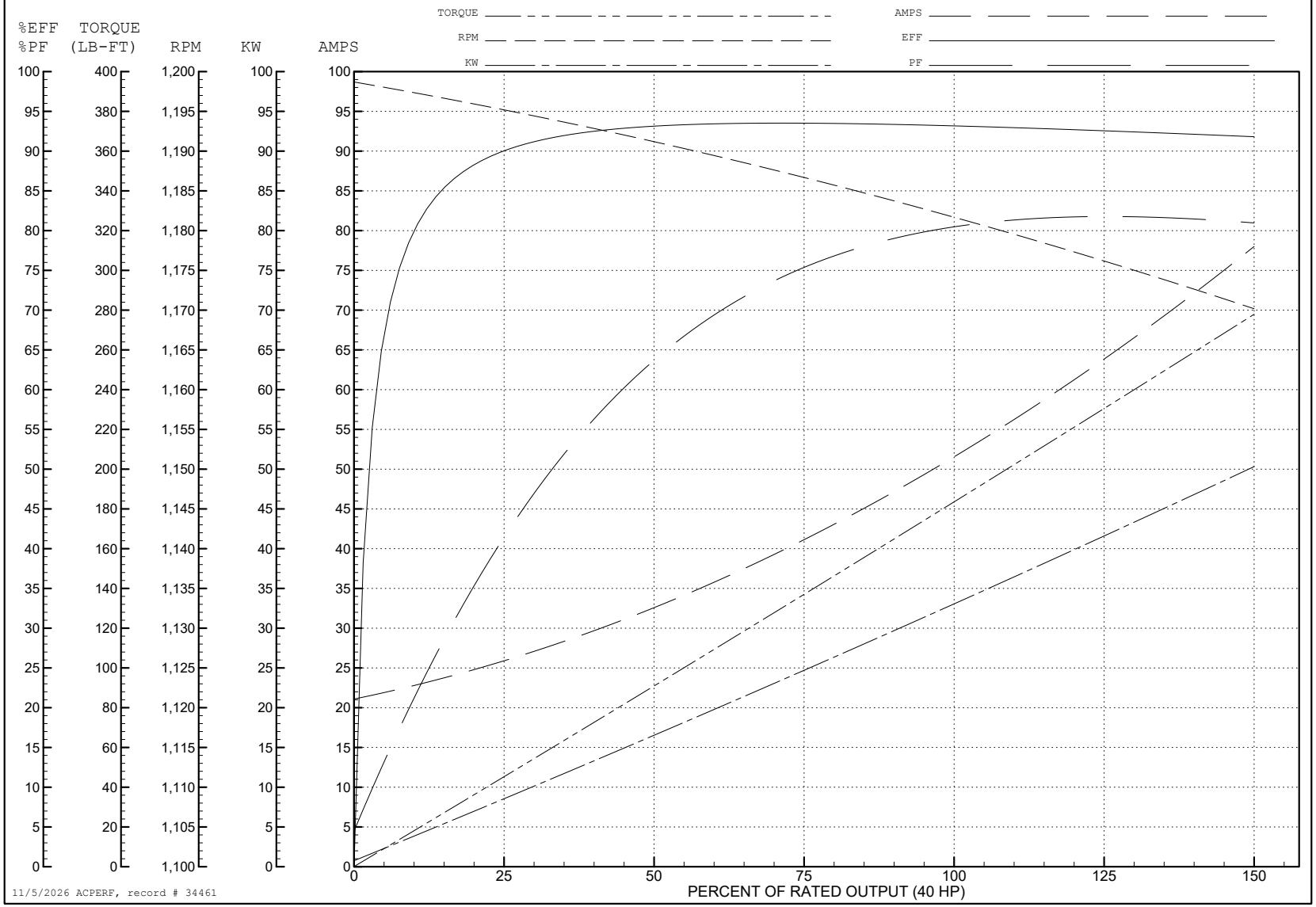
ABB Motors and Mechanical Inc.

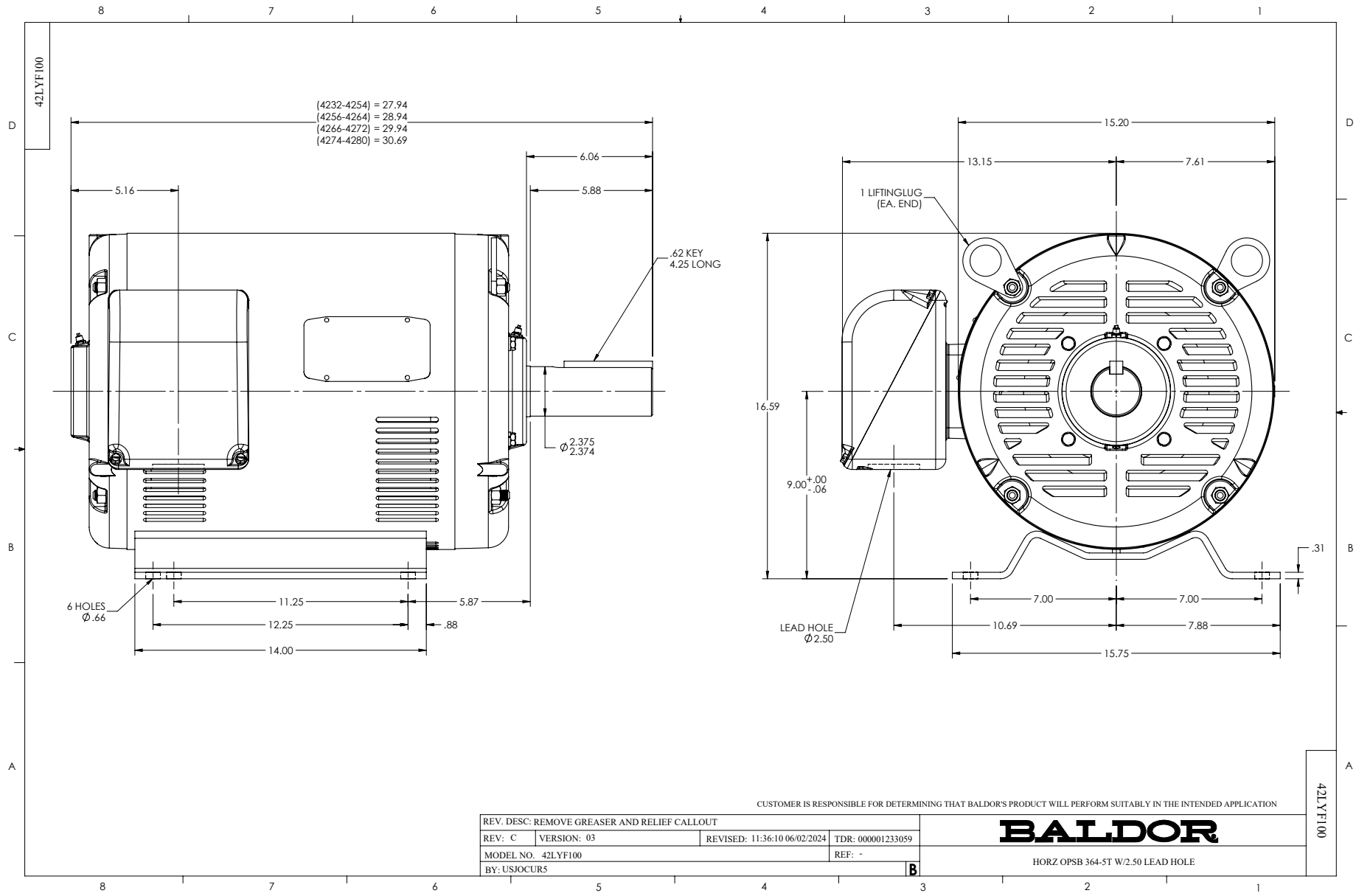
WINDING # 42WGW920

40 HP 3 PH 60 HZ 1180 RPM 460 V 4278M

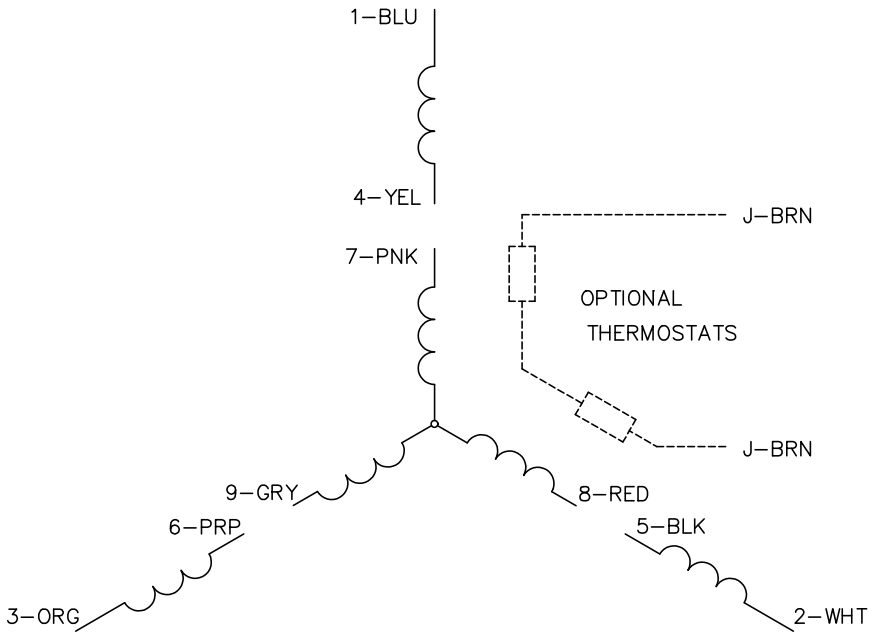
Typical performance - not guaranteed values.

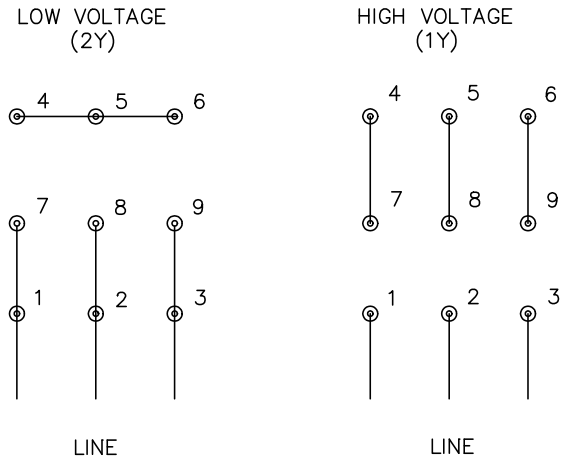
TORQUES(LB-FT): PO=521 PU=232 LR=317 LRA=337




42LYF100
(4232-4254) = 27.94
(4256-4264) = 28.94
(4266-4272) = 29.94
(4274-4280) = 30.69
6.06
5.88
5.16
.62 KEY
4.25 LONG
Ø2.375
2.374
6 HOLES
Ø.66
11.25
5.87
12.25
.88
14.00
15.20
13.15
7.61
1 LIFTINGLUG
(EA. END)
16.59
9.00 +.00 -.06
.31
7.00
7.00
LEAD HOLE
Ø2.50
10.69
7.88
15.75
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REMOVE GREASER AND RELIEF CALLOUT
REV: C
VERSION: 03
REVISED: 11:36:10 06/02/2024
TDR: 000001233059
MODEL NO. 42LYF100
REF: -
BY: USJOCUR5
B
BALDOR
HORZ OPSB 364-5T W/2.50 LEAD HOLE
42LYF100

CD0005





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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS