BALDOR • RELIANCE

Customer information packet

EM3545-57

1HP, 2850RPM, 3PH, 50HZ, 56, 3516M, TEFC, F1, N
Class - None
Division - Not Applicable

3/26/2025 12:08:52 AM

Specifications

Enclosure	TEFC
Frame	56
Frame Material	Steel
Frequency	50.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	3000 RPM @ 50 HZ
Voltage @ Frequency	230.0 V @ 50 HZ
	400.0 V @ 50 HZ
Agency Approvals	C UR US
	CE
	CURUS
	IE3
	UKCA
	WEEE
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	1.600 A @ 400.0 V
	2.800 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	82.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

Part detail

Revision	M
Type	AC
Mech. spec.	35E2941
Base	
Status	PRD/A
Elec. spec.	35WGL462
Layout	35LYE2941
Eff. date	06-20-2024
CD Diagram	CD0022
Poles	02
Leads	6#18
Proprietary	False
Created date	12-23-2015

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	B
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.23 IN
Power Factor	87
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	2850 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

NP2716L									
CAT NO	EM3545-57								
SPEC.	35E2941L462G1								
HP	1/.75KW				**PH**	3			
VOLTS	230/400								
AMP	2.8/1.6								
R.P.M. (1/MIN)	2850								
FRAME	56	**HZ**	50			**I.P.**	44		
SER.F.	1.25	**CODE**	J	**DES**	B	**CL**	B		
NOM.EFF.	82.5		**% (100%)**						
PF	87								
RATING	40C AMB-CONT			**CC**					
DE BRG	6205		**ODE**	6203					
ENCL	TEFC	**SN**							
BLANK	SFA 3.3/1.9								
	IE3 81.2 (75%) 77.8 (50%)								
	16KG IC411								

AC Induction Motor Performance Data
Record # 54628
Typical performance - not guaranteed values

Winding: 35WGL462-R001	**Type:** 3516M	**Enclosure:** TEFC

Nameplate Data				**400 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	1.9 LB-FT
Volts			230/400	**Start Configuration**	direct on line
Full Load Amps			2.8/1.6	**Breakdown Torque**	6.33 LB-FT
R.P.M.			2850	**Pull-up Torque**	5.05 LB-FT
Hz	50	**Phase**	3	**Locked-rotor Torque**	5.67 LB-FT
NEMA Design Code	B	**KVA Code**	J	**Starting Current**	11.3 A
Service Factor (S.F.)			1.25	**No-load Current**	0.718 A
NEMA Nom. Eff.	82.5	**Power Factor**	87	**Line-line Res. @ 25ºC**	15.2 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	39°C
S.F. Amps			3.3/1.9	**Temp. Rise @ S.F. Load**	52°C
				Locked-rotor Power Factor	63.4
				Rotor inertia	0.0443 LB-FT2

Load Characteristics 400 V, 50 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	52	72	82	87	91	92	91
Efficiency	74.5	81.7	83	83	81.9	79.9	81.9
Speed	2963	2937	2906	2873	2836	2795	2836
Line amperes	0.825	1.01	1.28	1.55	1.89	2.27	1.89

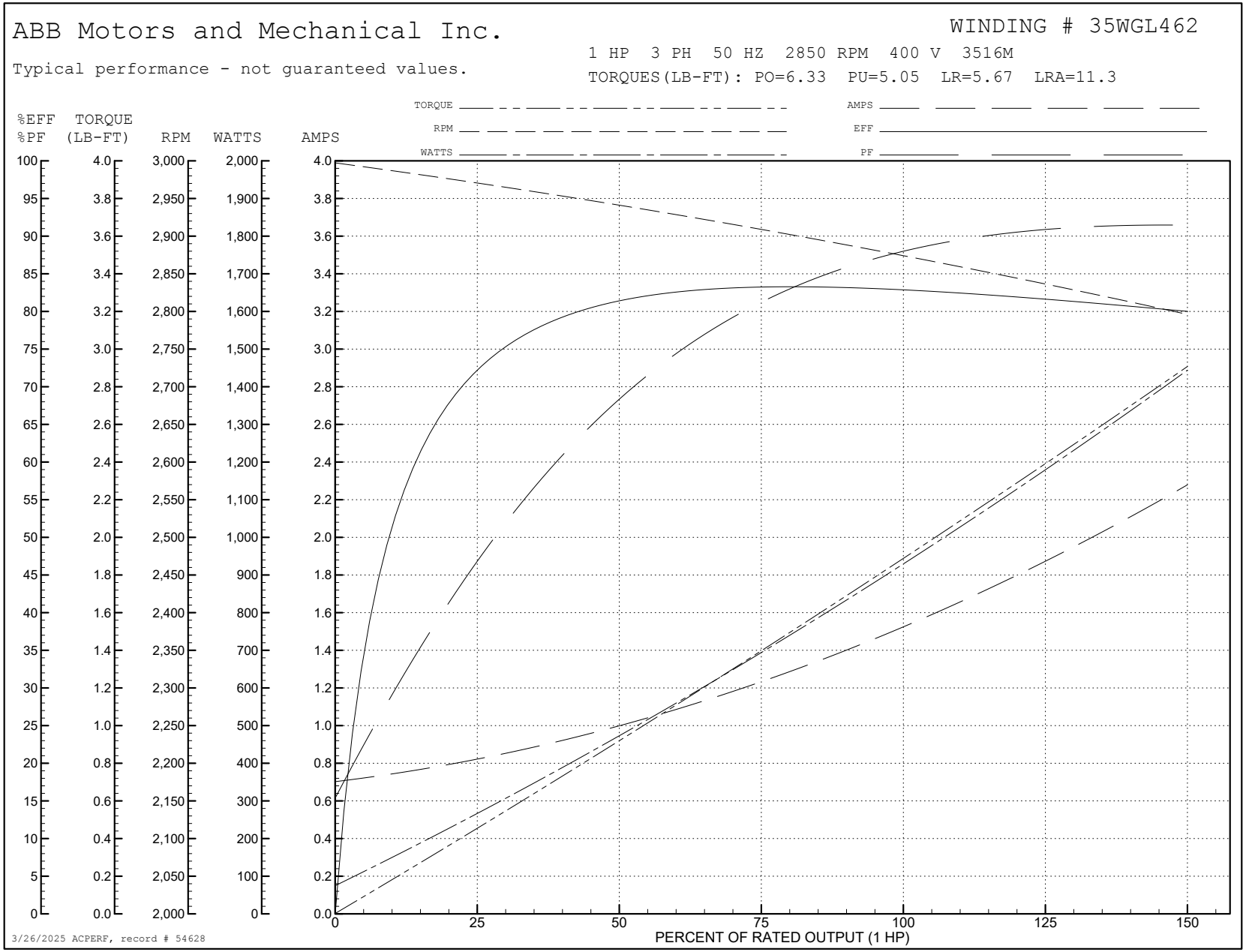
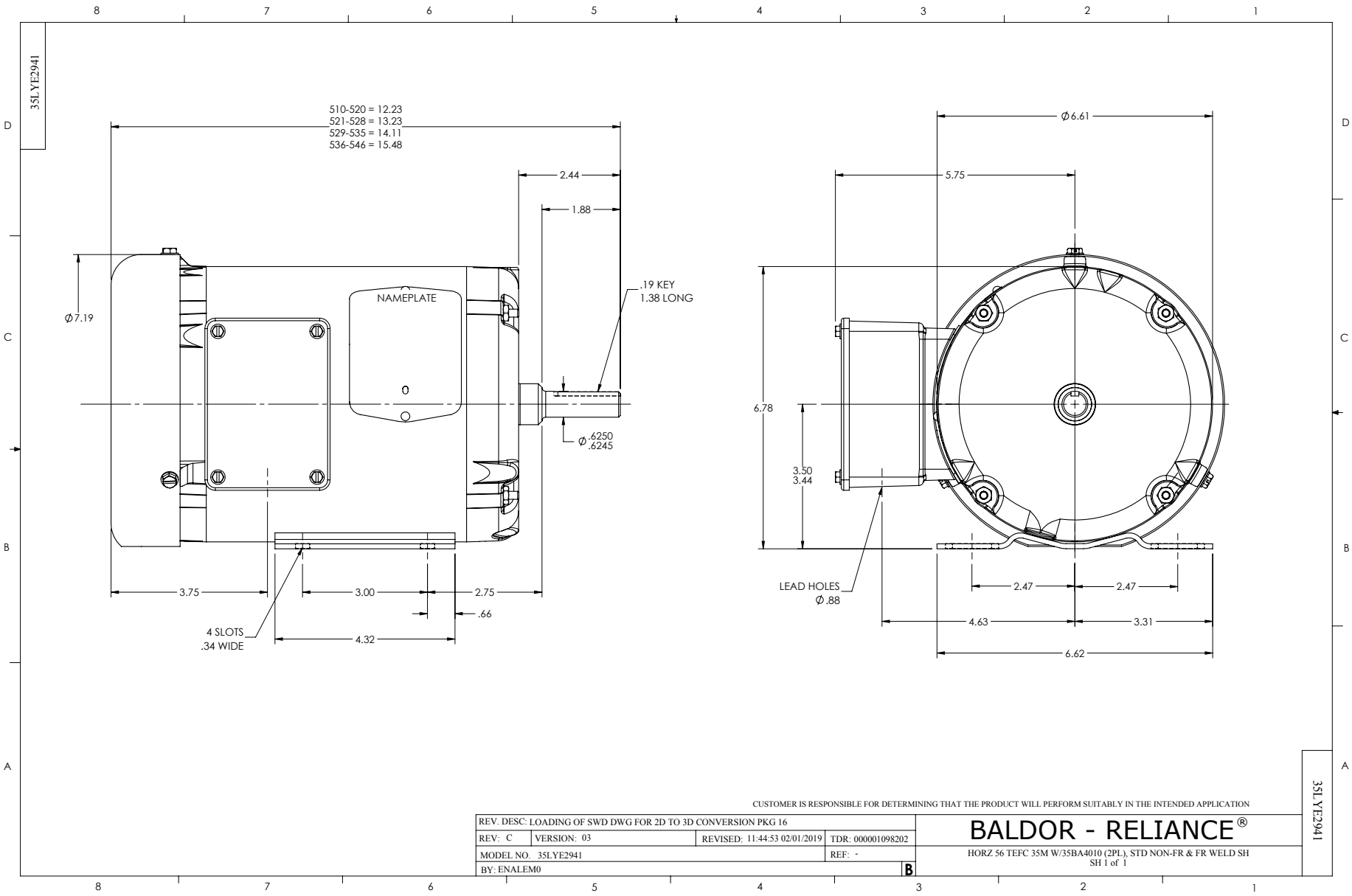
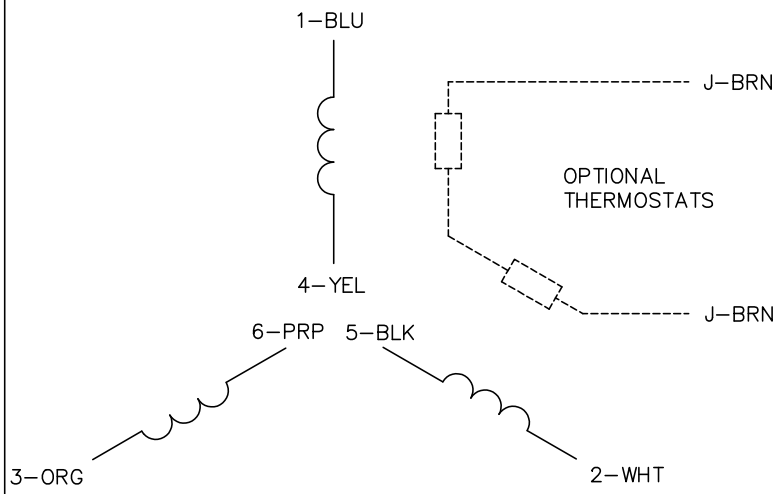
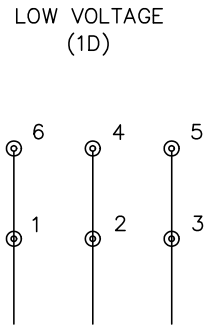


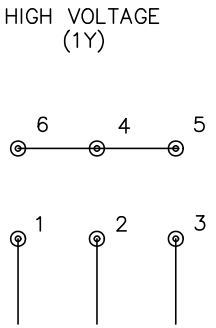
ABB Motors and Mechanical Inc.
WINDING # 35WGL462
1 HP 3 PH 50 HZ 2850 RPM 400 V 3516M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=6.33 PU=5.05 LR=5.67 LRA=11.3
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
3/26/2025 ACPERF, record # 54628


35LYE2941
510-520 = 12.23
521-528 = 13.23
529-535 = 14.11
536-546 = 15.48
2.44
1.88
.19 KEY
1.38 LONG
NAMEPLATE
Ø7.19
Ø .6250
Ø .6245
3.75
3.00
2.75
.66
4 SLOTS
.34 WIDE
4.32
Ø6.61
5.75
6.78
3.50
3.44
LEAD HOLES
Ø .88
2.47
2.47
4.63
3.31
6.62
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION PKG 16
REV: C
VERSION: 03
REVISED: 11:44:53 02/01/2019
TDR: 000001098202
MODEL NO. 35LYE2941
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HORZ 56 TEFC 35M W/35BA4010 (2PL), STD NON-FR & FR WELD SH
SH 1 of 1
35LYE2941

CD0022







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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: F	BY: JLP	REVISED: 01/21/99 3:54	TDR: 0171435
CD0022		FILE: AAA00005144	MDL: –
		MTL: –	3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022