ABB BALDOR RELIANCE

Customer information packet

EM3550T

1.5HP, 3500RPM, 3PH, 60HZ, 3520M, 143T, N
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	143T
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.500 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	NEMA PREMIUM
	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	1.900 A @ 460.0 V
	3.800 A @ 230.0 V
	4.000 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	84.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	AA
Type	AC
Mech. spec.	35T638
Base	
Status	PRD/A
Elec. spec.	35WGM760
Layout	35LYT638
Eff. date	01-08-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	04-28-2010

High Voltage Full Load Amps	1.9 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.29 IN
Power Factor	85
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	0.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3500 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

NP3441LUA										
CAT.NO.	EM3550T									
SPEC	35T638M760G1									
HP	1.5									
VOLTS	230/460									
AMPS	3.8/1.9									
RPM	3500									
FRAME	143T	**HZ**	60	**PH**	3					
SF	1.15	**CODE**	L	**DES**	B	**CLASS**	F			
NEMA NOM. EFF	84	**PF**	85							
RATING	40C AMB-CONT									
CC	010A									
ENCL	TEFC	**SER**								
DE	6205	**ODE**	6203							
VPWM INVERTER READY	SFA 4.4/2.2									
CT6-60H(10:1)VT3-60H(20:1										
	50Hz 1.5HP 190/380V 4.6/2.3A									SF1.0

Accessories

Part number	Description	Multiplier
35-8762	C FACE KIT	A8
35EP1506A01SP	D-FLANGE KIT	A8

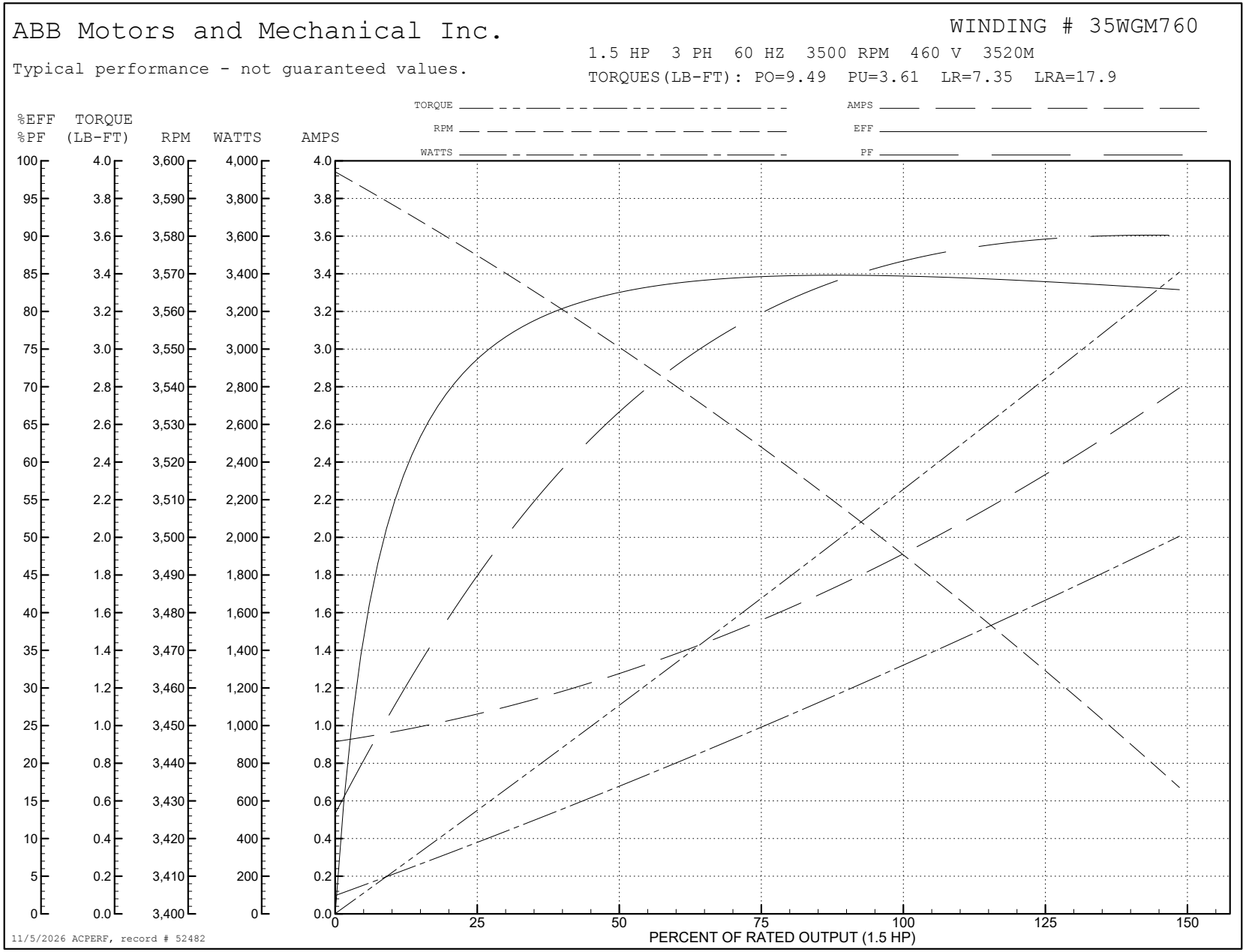
AC Induction Motor Performance Data
Record # 52482
Typical performance - not guaranteed values

Winding: 35WGM760-R051	**Type:** 3520M	**Enclosure:** TEFC

Nameplate Data			**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)		1.5	**Full Load Torque**	2.22 LB-FT
Volts		230/460	**Start Configuration**	direct on line
Full Load Amps		3.8/1.9	**Breakdown Torque**	9.49 LB-FT
R.P.M.		3500	**Pull-up Torque**	3.61 LB-FT
Hz	60 **Phase**	3	**Locked-rotor Torque**	7.35 LB-FT
NEMA Design Code	B **KVA Code**	L	**Starting Current**	17.9 A
Service Factor (S.F.)		1.15	**No-load Current**	0.932 A
NEMA Nom. Eff.	84 **Power Factor**	85	**Line-line Res. @ 25ºC**	12.2 Ω
Rating - Duty		40C AMB-CONT	**Temp. Rise @ Rated Load**	43°C
S.F. Amps			**Temp. Rise @ S.F. Load**	50°C
			Locked-rotor Power Factor	60.1
			Rotor inertia	0.0553 LB-FT2

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	45	67	79	85	89	90	87
Efficiency	72.3	82.2	84.4	84.8	84.3	82.8	84.5
Speed	3575	3551	3526	3498	3466	3433	3479
Line amperes	1.03	1.25	1.55	1.91	2.31	2.79	2.15


ABB Motors and Mechanical Inc.
WINDING # 35WGM760
1.5 HP 3 PH 60 HZ 3500 RPM 460 V 3520M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=9.49 PU=3.61 LR=7.35 LRA=17.9
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1.5 HP)
11/5/2026 ACPERF, record # 52482

AC Induction Motor Performance Data
Record # 59170
Typical performance - not guaranteed values

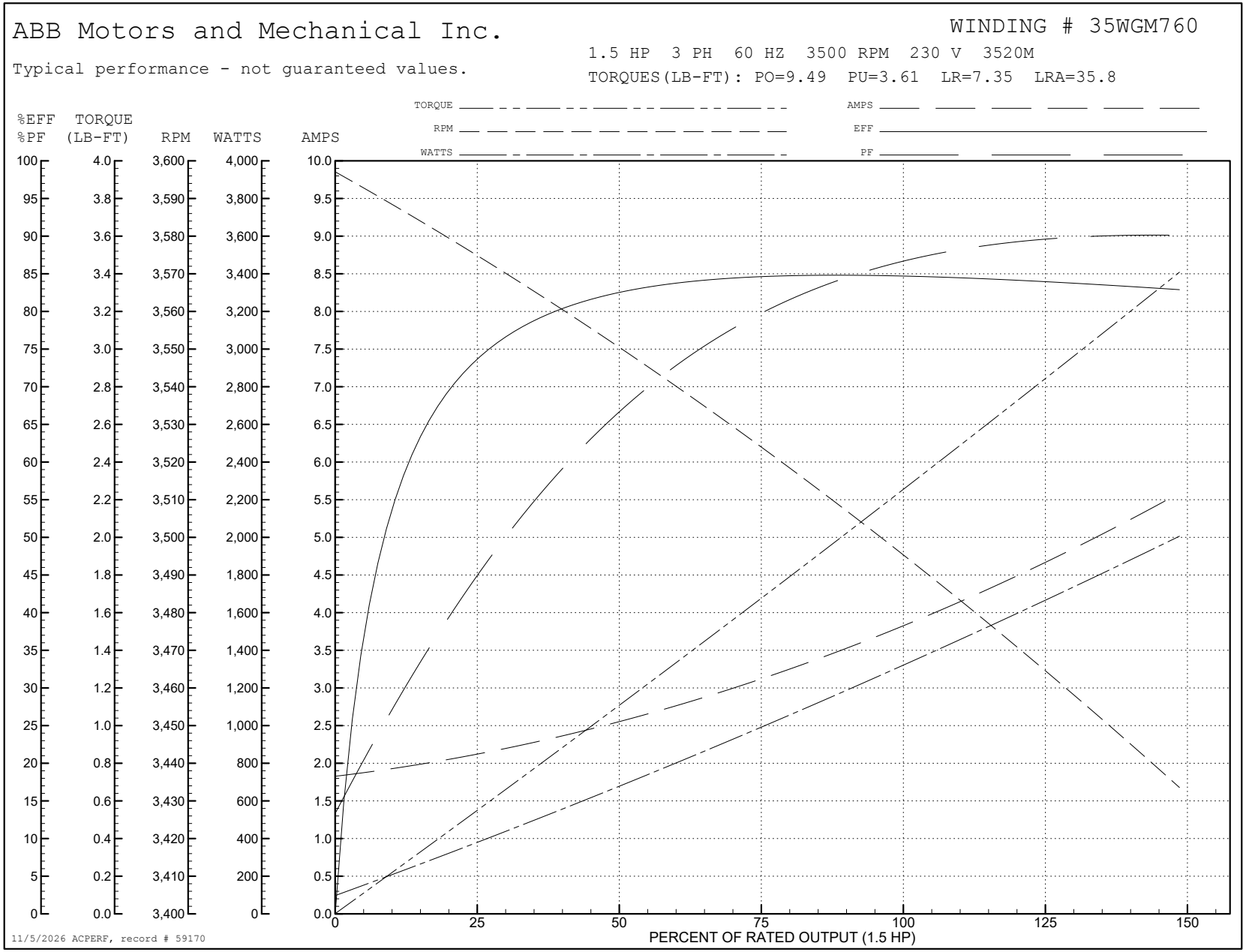
Winding: 35WGM760-R051	**Type:** 3520M	**Enclosure:** TEFC

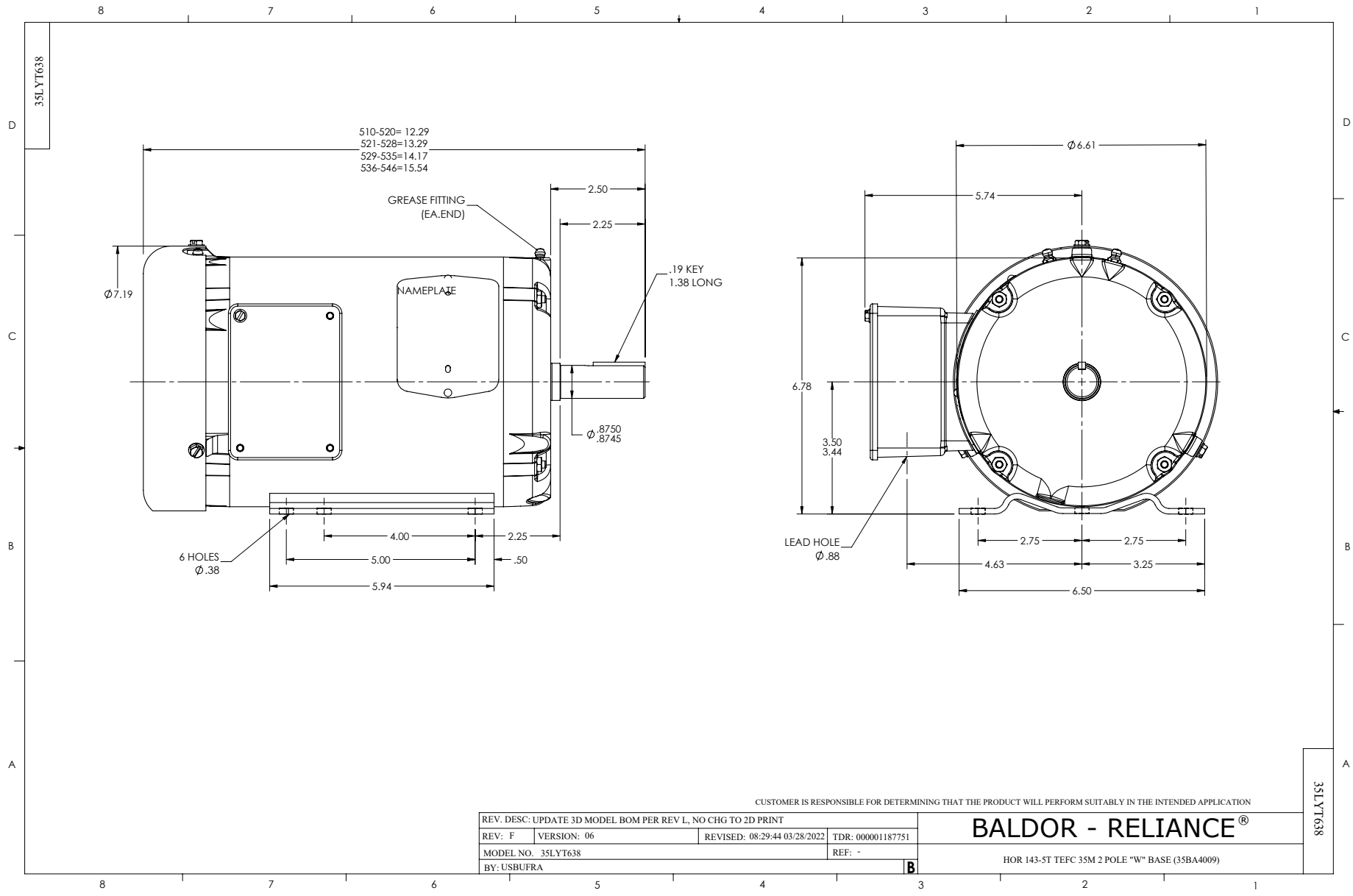
Nameplate Data		
Rated Output (HP)		1.5
Volts		230/460
Full Load Amps		3.8/1.9
R.P.M.		3500
Hz	60 **Phase**	3
NEMA Design Code	B **KVA Code**	L
Service Factor (S.F.)		1.15
NEMA Nom. Eff.	84 **Power Factor**	85
Rating - Duty		40C AMB-CONT
S.F. Amps		

230 V, 60 Hz: Low Voltage Connection	
Full Load Torque	2.22 LB-FT
Start Configuration	direct on line
Breakdown Torque	9.49 LB-FT
Pull-up Torque	3.61 LB-FT
Locked-rotor Torque	7.35 LB-FT
Starting Current	35.8 A
No-load Current	1.86 A
Line-line Res. @ 25ºC	3.04 Ω
Temp. Rise @ Rated Load	43°C
Temp. Rise @ S.F. Load	50°C
Locked-rotor Power Factor	60.1
Rotor inertia	0.0553 LB-FT2

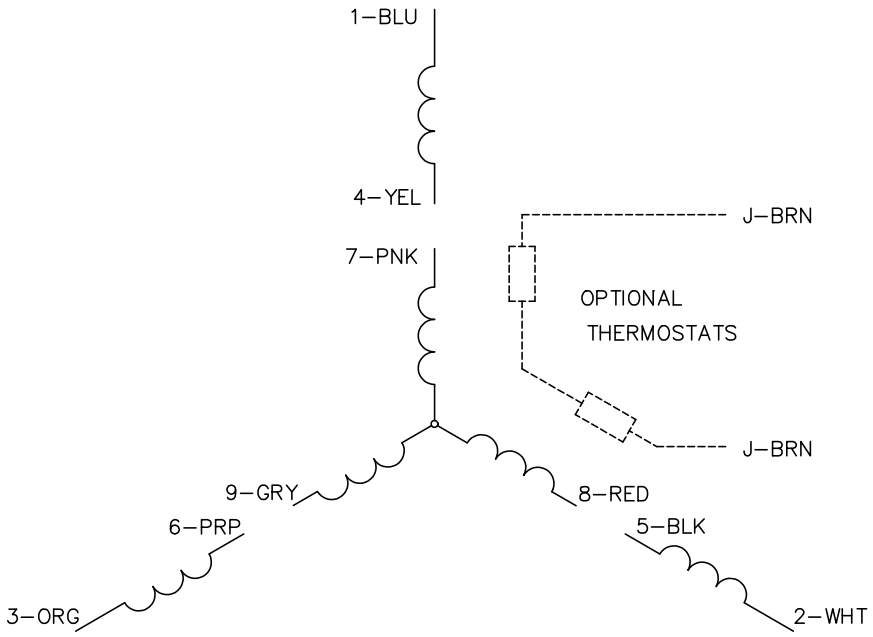
Load Characteristics 230 V, 60 Hz, 1.5 HP

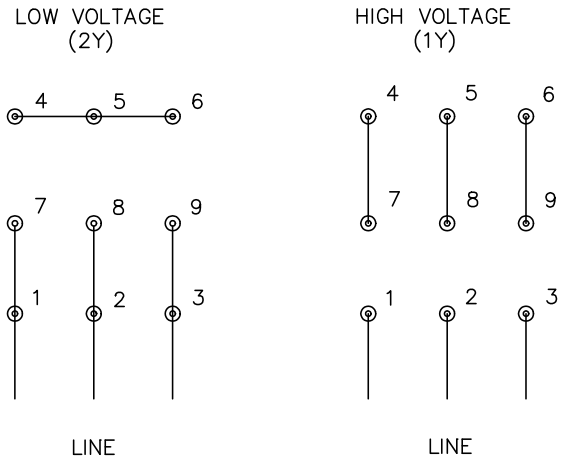
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	45	67	79	85	89	90	87
Efficiency	72.3	82.2	84.4	84.8	84.3	82.8	84.5
Speed	3575	3551	3526	3498	3466	3433	3479
Line amperes	2.06	2.5	3.1	3.82	4.62	5.58	4.3


ABB Motors and Mechanical Inc.
WINDING # 35WGM760
1.5 HP 3 PH 60 HZ 3500 RPM 230 V 3520M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=9.49 PU=3.61 LR=7.35 LRA=35.8
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1.5 HP)
11/5/2026 ACPERF, record # 59170


35LYT638
510-520= 12.29
521-528=13.29
529-535=14.17
536-546=15.54
2.50
2.25
GREASE FITTING
(EA.END)
.19 KEY
1.38 LONG
Ø7.19
NAMEPLATE
Ø .8750
Ø .8745
6 HOLES
Ø .38
4.00
2.25
5.00
.50
5.94
Ø6.61
5.74
6.78
3.50
3.44
LEAD HOLE
Ø .88
2.75
2.75
4.63
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV L, NO CHG TO 2D PRINT
REV: F
VERSION: 06
REVISED: 08:29:44 03/28/2022
TDR: 000001187751
MODEL NO. 35LYT638
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HOR 143-5T TEFC 35M 2 POLE "W" BASE (35BA4009)
35LYT638

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