ABB BALDOR RELIANCE

Customer information packet

CEM3704T

3HP, 1160RPM, 3PH, 60HZ, 213TC, 3738M, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	213TC
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	3.000 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	9.200 A @ 230.0 V
	9.600 A @ 208.0 V
	4.600 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGS519
Layout	37LYG814
Eff. date	05-02-2024
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	06-16-2010

Heater Indicator	No Heater
High Voltage Full Load Amps	4.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3738M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	19.76 IN
Power Factor	68
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1160 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.	CEM3704T									
SPEC	37G814S519G1									
HP	3									
VOLTS	230/460									
AMPS	9.2/4.6									
RPM	1160									
FRAME	213TC	**HZ**	60	**PH**	3					
SF	1.15	**CODE**	L	**DES**	B	**CLASS**	F			
NEMA NOM. EFF	89.5	**PF**	68							
RATING	40C AMB-CONT									
CC	010A									
ENCL	TEFC	**SER**								
DE	6307	**ODE**	6206							
VPWM INVERTER READY										
CT6-60H(10:1)VT3-60H(20:1										
	50Hz 3HP 190/380V 10.6/5.3A									SF1.0

AC Induction Motor Performance Data
Record # 53388
Typical performance - not guaranteed values

Winding: 37WGS519-R032	**Type:** 3738M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			3	**Full Load Torque**	13.4 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			9.2/4.6	**Breakdown Torque**	50.4 LB-FT
R.P.M.			1160	**Pull-up Torque**	31.8 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	33.9 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	34 A
Service Factor (S.F.)			1.15	**No-load Current**	2.56 A
NEMA Nom. Eff.	89.5	**Power Factor**	68	**Line-line Res. @ 25ºC**	2.67 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	38°C
S.F. Amps				**Temp. Rise @ S.F. Load**	45°C
				Locked-rotor Power Factor	22.9
				Rotor inertia	0.945 LB-FT2

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	30	50	62	69	73	75	70
Efficiency	82.1	88.6	89.5	89.8	89.1	87.6	89.1
Speed	1193	1186	1178	1170	1160	1149	1166
Line amperes	2.74	3.19	3.82	4.53	5.44	6.41	5.14

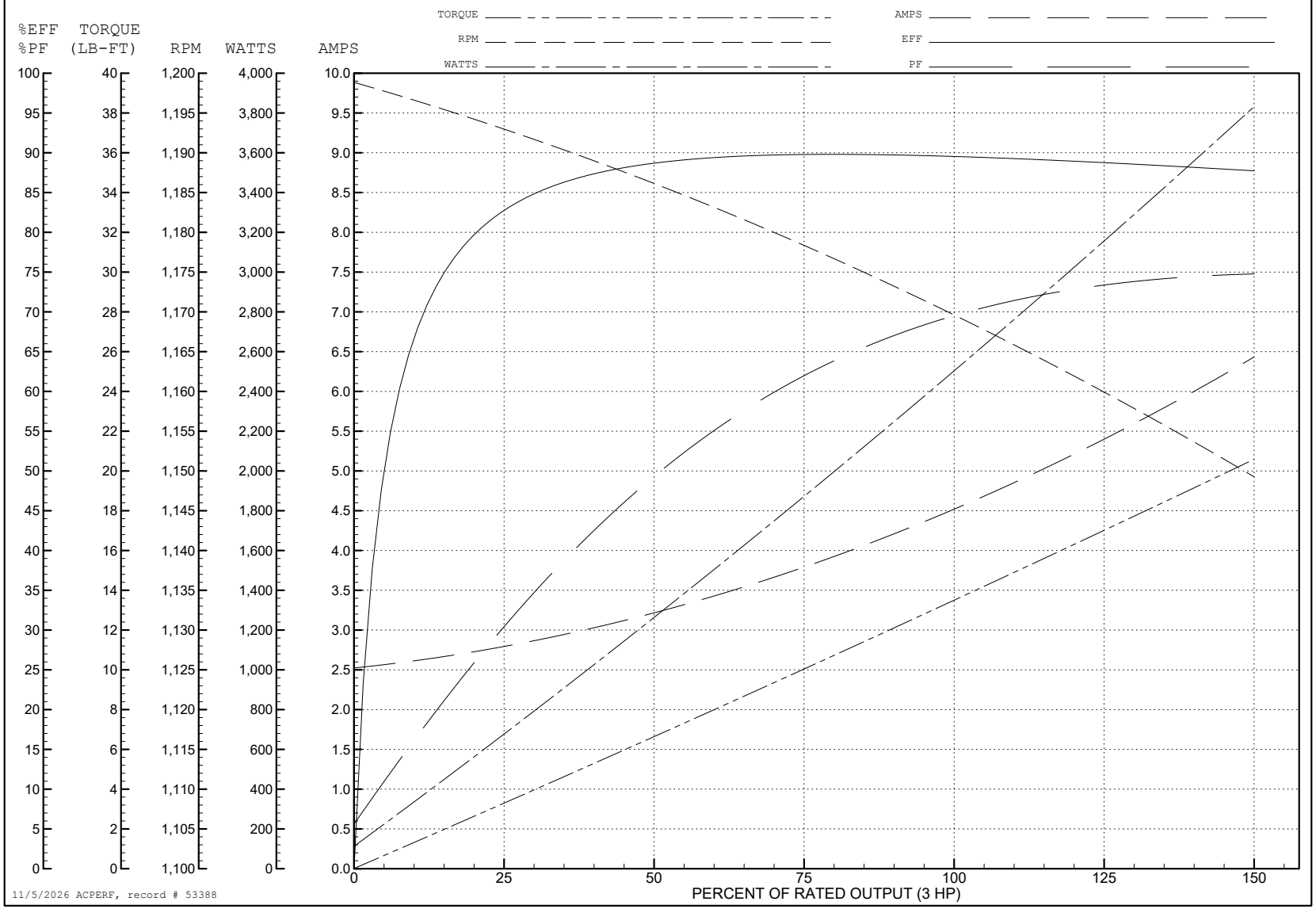
ABB Motors and Mechanical Inc.

WINDING # 37WGS519

3 HP 3 PH 60 HZ 1160 RPM 460 V 3738M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=50.4 PU=31.8 LR=33.9 LRA=34



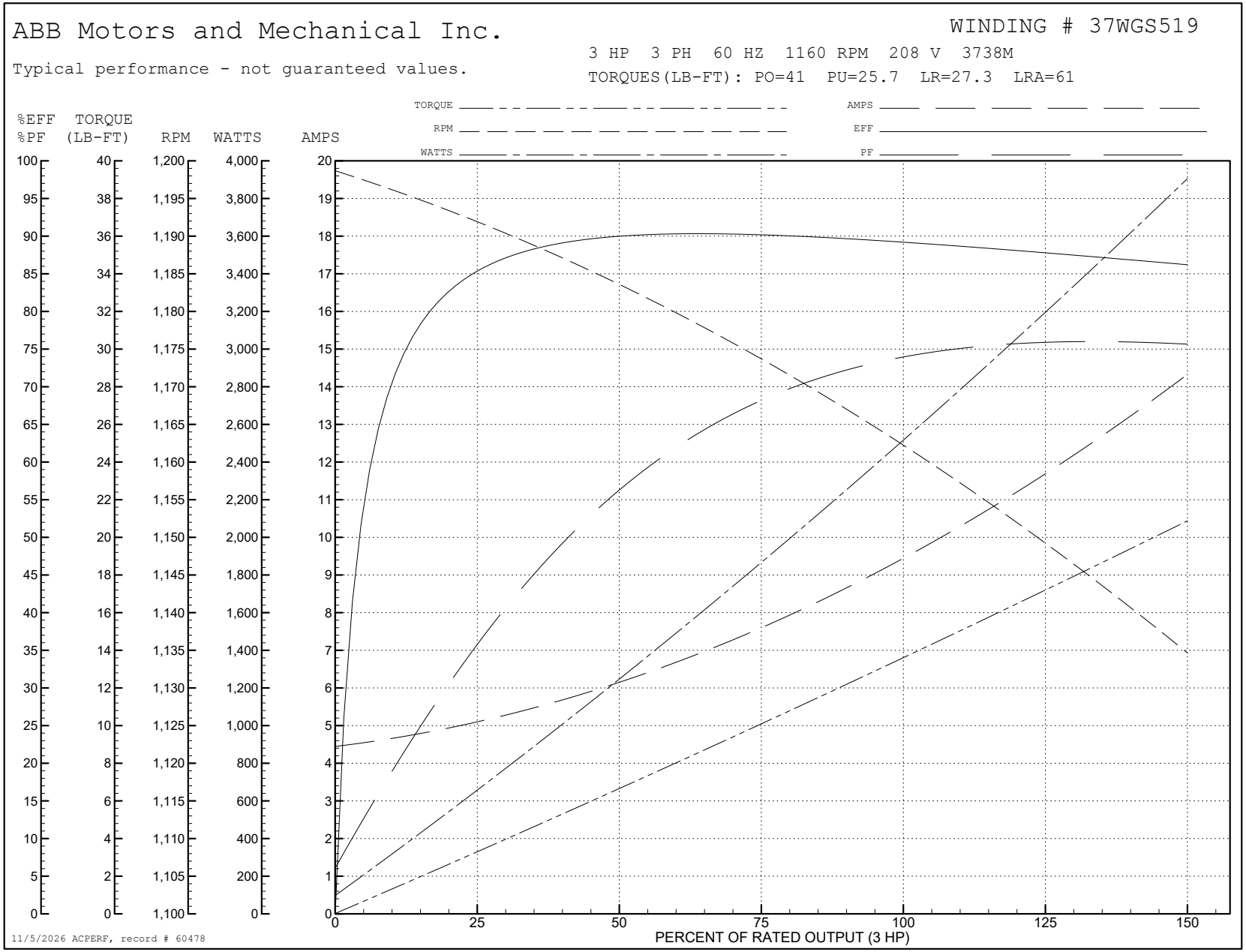
AC Induction Motor Performance Data
Record # 60478
Typical performance - not guaranteed values

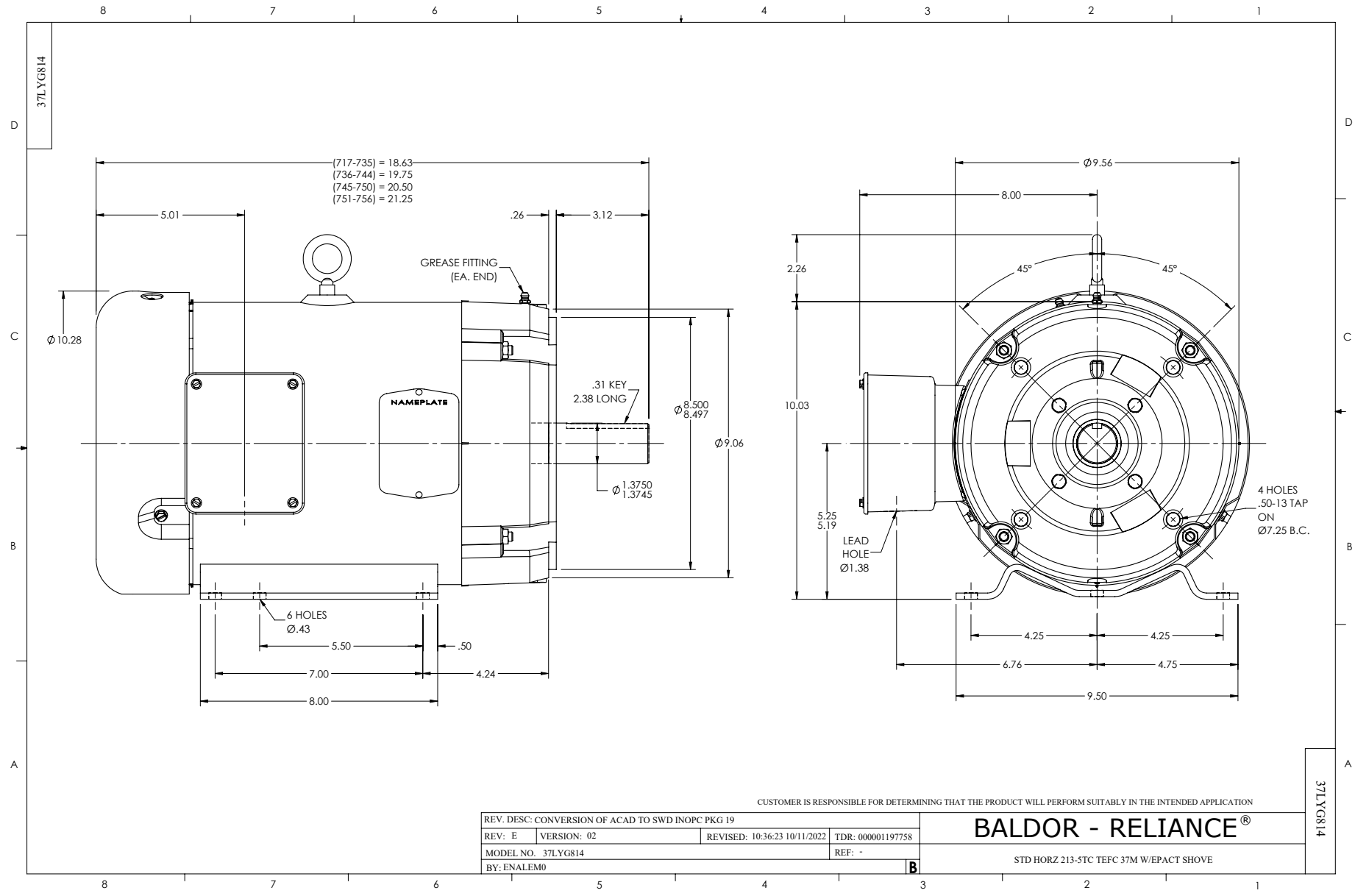
Winding: 37WGS519-R032	**Type:** 3738M	**Enclosure:** TEFC

Nameplate Data				**208 V, 60 Hz: Low Voltage Connection**	
Rated Output (HP)			3	**Full Load Torque**	13.5 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			9.5-9.2/4.6	**Breakdown Torque**	41 LB-FT
R.P.M.			1160	**Pull-up Torque**	25.7 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	27.3 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	61 A
Service Factor (S.F.)			1.15	**No-load Current**	4.52 A
NEMA Nom. Eff.	89.5	**Power Factor**	68	**Line-line Res. @ 25ºC**	0.668 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	39°C
S.F. Amps				**Temp. Rise @ S.F. Load**	49°C
				Locked-rotor Power Factor	22.9
				Rotor inertia	0.945 LB-FT2

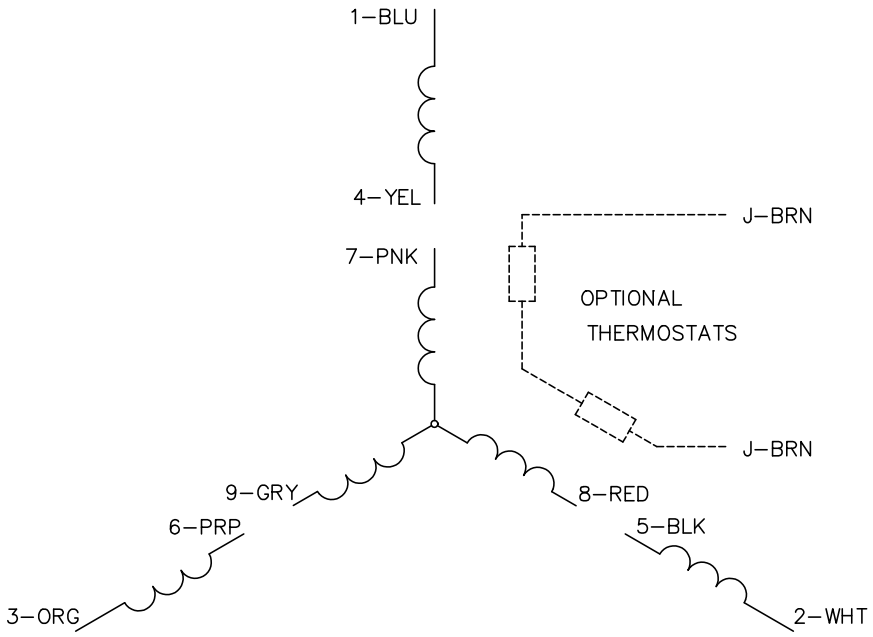
Load Characteristics 208 V, 60 Hz, 3 HP

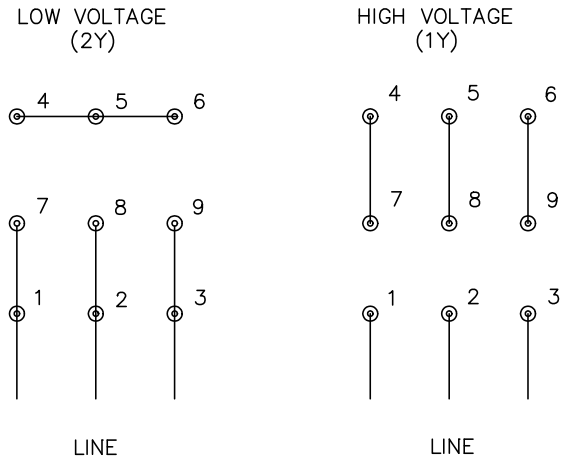
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	36	57	68	73	76	76	75
Efficiency	84.3	89.5	90.1	89.6	88	86.1	88.6
Speed	1192	1183	1173	1163	1150	1134	1155
Line amperes	4.98	6.11	7.69	9.46	11.7	14.3	10.8


ABB Motors and Mechanical Inc.
WINDING # 37WGS519
Typical performance - not guaranteed values.
3 HP 3 PH 60 HZ 1160 RPM 208 V 3738M
TORQUES(LB-FT): PO=41 PU=25.7 LR=27.3 LRA=61
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (3 HP)
11/5/2026 ACPERF, record # 60478


37LYG814
(717-735) = 18.63
(736-744) = 19.75
(745-750) = 20.50
(751-756) = 21.25
5.01
.26
3.12
GREASE FITTING
(EA. END)
Ø 10.28
NAMEPLATE
.31 KEY
2.38 LONG
Ø 8.500
8.497
Ø9.06
Ø 1.3750
1.3745
6 HOLES
Ø.43
5.50
.50
7.00
4.24
8.00
Ø9.56
8.00
2.26
45°
45°
10.03
5.25
5.19
LEAD
HOLE
Ø1.38
4 HOLES
.50-13 TAP
ON
Ø7.25 B.C.
4.25
4.25
6.76
4.75
9.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERSION OF ACAD TO SWD INOPC PKG 19
REV: E
VERSION: 02
REVISED: 10:36:23 10/11/2022
TDR: 000001197758
MODEL NO. 37LYG814
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
STD HORZ 213-5TC TEFC 37M W/EPACT SHOVE
37LYG814

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