



Customer information packet

CEM3704T

3HP, 1160RPM, 3PH, 60HZ, 213TC, 3738M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
XP Class and Group	None
XP Division	Not Applicable
Agency Approvals	CSA EEV CURUSEEV NEMA PREMIUM NEMA_PREMIUM UR
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	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

Part detail

Revision	K
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGS519
Layout	37LYG814
Eff. date	08-16-2022
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	06-16-2010

Front Face Code	Standard
Front Shaft Indicator	None
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	USABLE AT 208V				N/A	
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. @ 25°C	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-FT ²

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

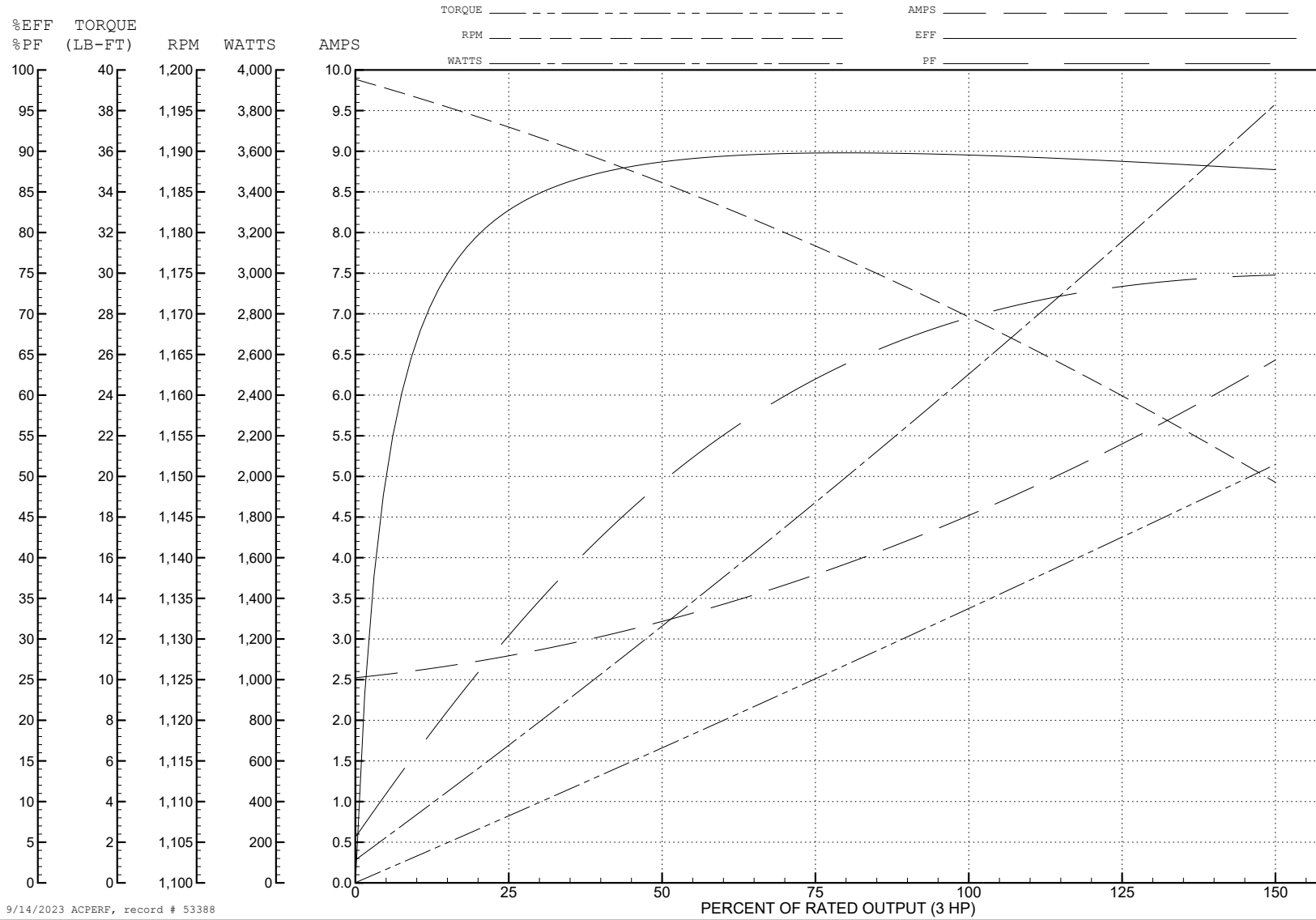
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WINDING # 37WGS519

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



9/14/2023 ACPERF, record # 53388

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. @ 25°C		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-FT ²

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

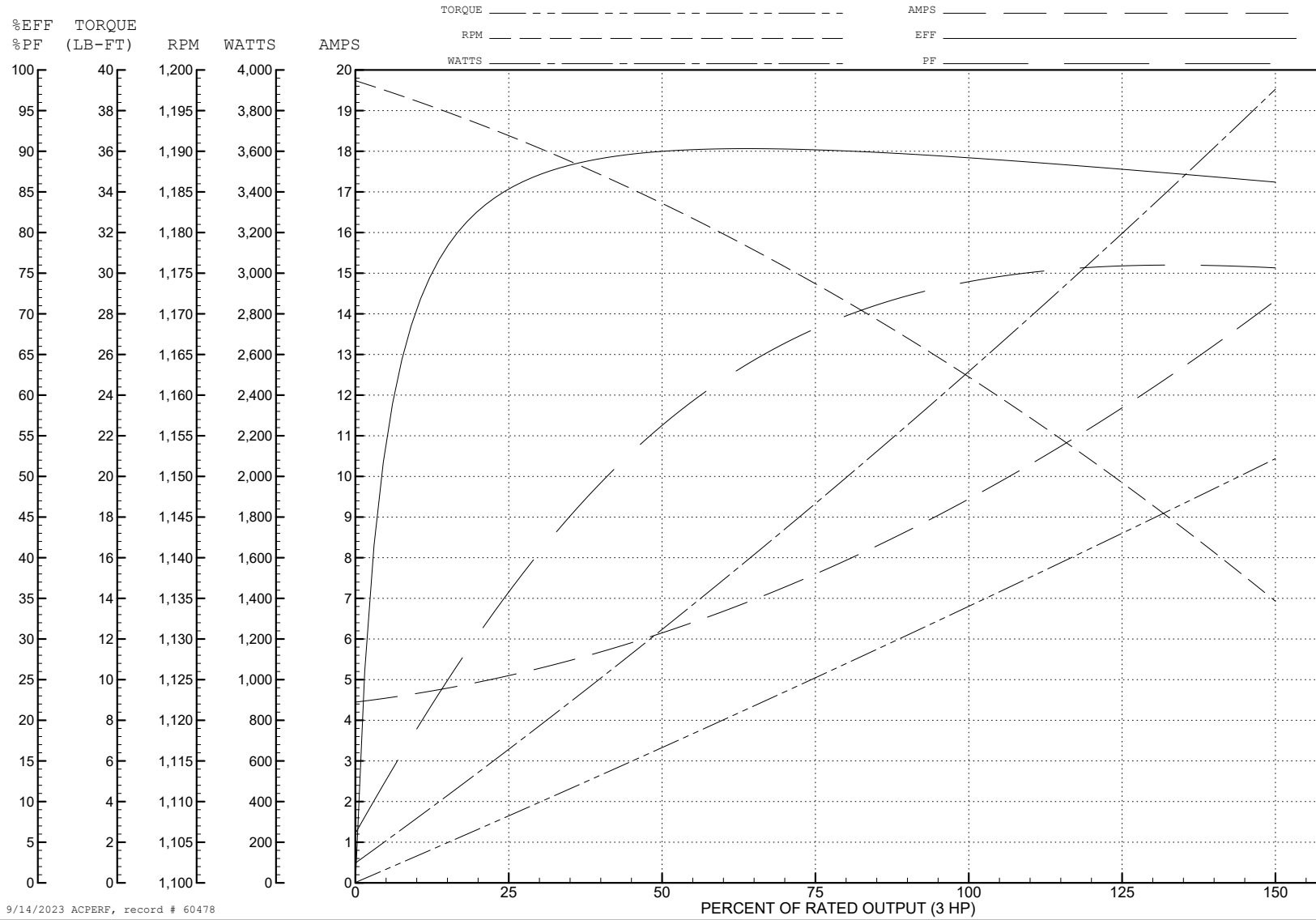
ABB Motors and Mechanical Inc.

WINDING # 37WGS519

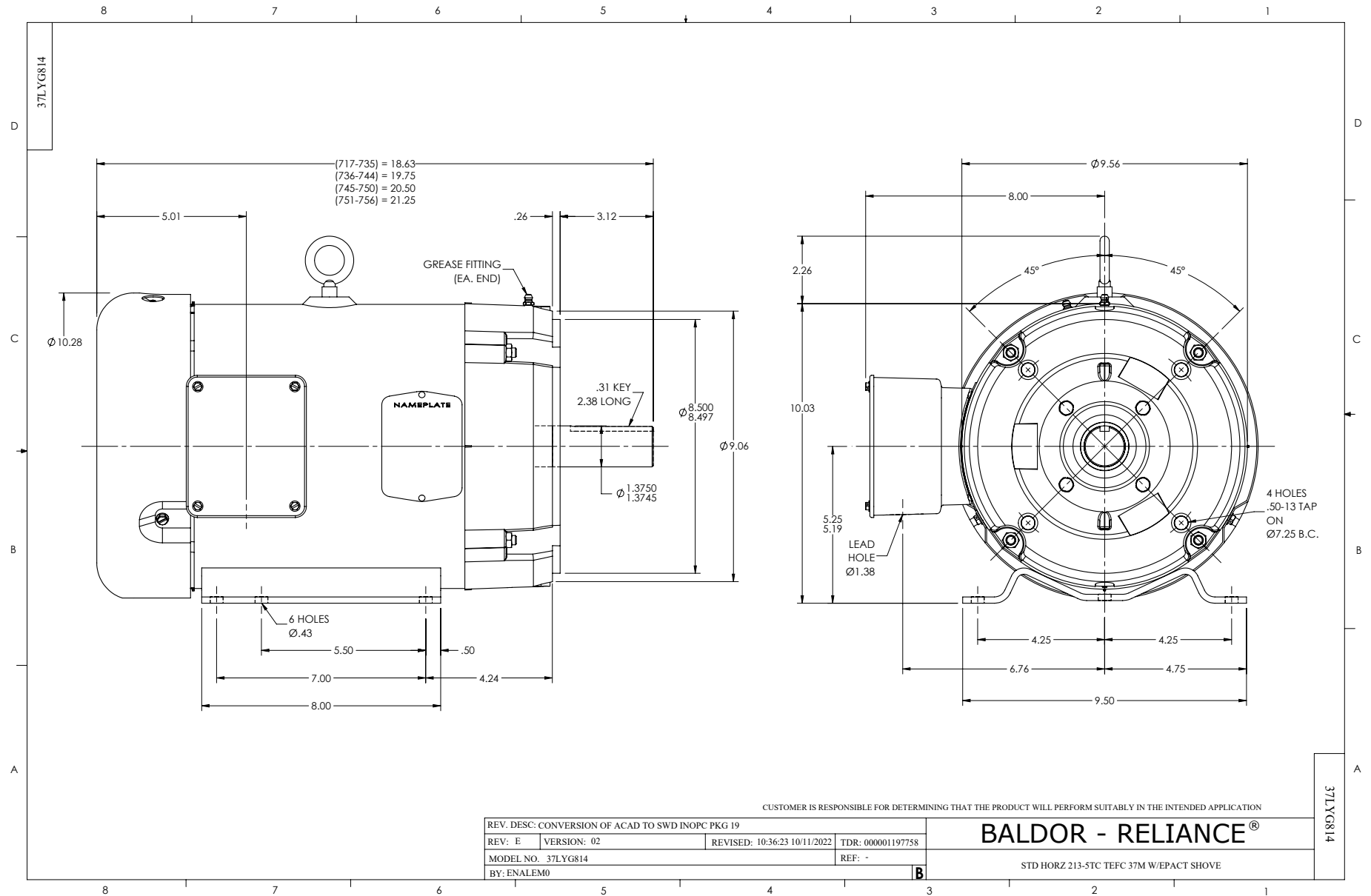
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Typical performance - not guaranteed values.

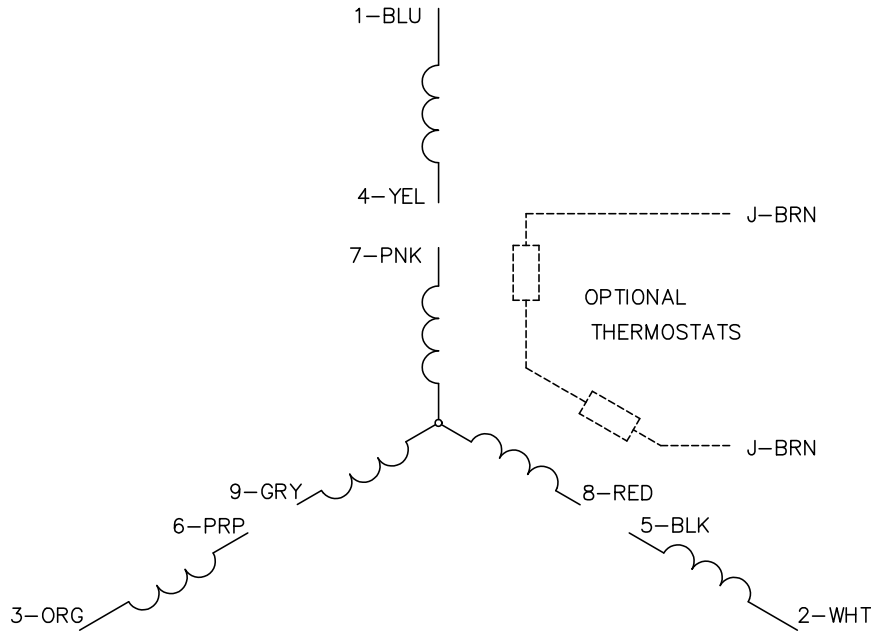
TORQUES (LB-FT): PO=41 PU=25.7 LR=27.3 LRA=61



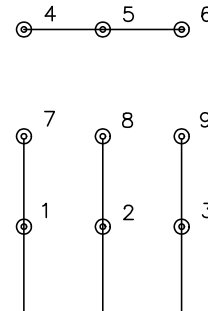
9/14/2023 ACPERF, record # 60478



CD0005

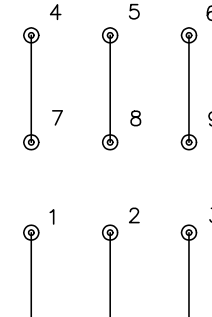


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS