

BALDOR • RELIANCE

Customer information packet

EWCM3709T

7.5HP, 3450RPM, 3PH, 60HZ, 213TCZ, 3646M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TCZ
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
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	19.400 A @ 230.0 V 9.700 A @ 460.0 V 19.400 A @ 208.0 V
Design Code	A
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	G
Type	AC
Mech. spec.	36N536
Base	
Status	PRD/A
Elec. spec.	36WGR431
Layout	36LYN536
Eff. date	05-01-2024
CD Diagram	CD0005
Poles	02
Leads	9#16
Proprietary	False
Created date	05-19-2015

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.7 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	S
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3646M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	23.45 IN
Power Factor	79
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Tapped & Key
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	3450 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**NP3441L****CAT.NO.** EWCM3709T**SPEC.** 36N536R431G1**HP** 7.5**VOLTS** 230/460**AMP** 19.4/9.7**RPM** 3450**FRAME** 213TCZ **HZ** 60 **PH** 3**SER.F.** 1.15 **CODE** S **DES** A **CL** F**NEMA-NOM-EFF** 89.5 **PF** 79**RATING** 40C AMB-CONT**CC** 010A**DE** 6307 **ODE** 6205**ENCL** TEFC **SN****VPWM INVERTER READY****CT6-60H(10:1)VT3-60H(20:1)**

AC Induction Motor Performance Data

Record # 65929

Typical performance - not guaranteed values

Winding: 36WGR431-R004		Type: 3646M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	7.5		Full Load Torque	11.3 LB-FT	
Volts	230/460		Start Configuration	direct on line	
Full Load Amps	19.4/9.7		Breakdown Torque	97.6 LB-FT	
R.P.M.	3450		Pull-up Torque	73.1 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque	88.3 LB-FT	
NEMA Design Code	A KVA Code	S	Starting Current	155 A	
Service Factor (S.F.)	1.15		No-load Current	5.69 A	
NEMA Nom. Eff.	89.5 Power Factor	79	Line-line Res. @ 25°C	0.936 Ω	
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	72°C	
S.F. Amps			Temp. Rise @ S.F. Load	84°C	
			Locked-rotor Power Factor	48.4	
			Rotor inertia	0.205 LB-FT ²	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	35	58	71	79	85	87	83
Efficiency	82	88.4	90.2	90.3	89.7	88.3	89.9
Speed	3580	3557	3533	3507	3480	3449	3491
Line amperes	6.03	6.89	8.27	9.9	11.6	13.7	10.9

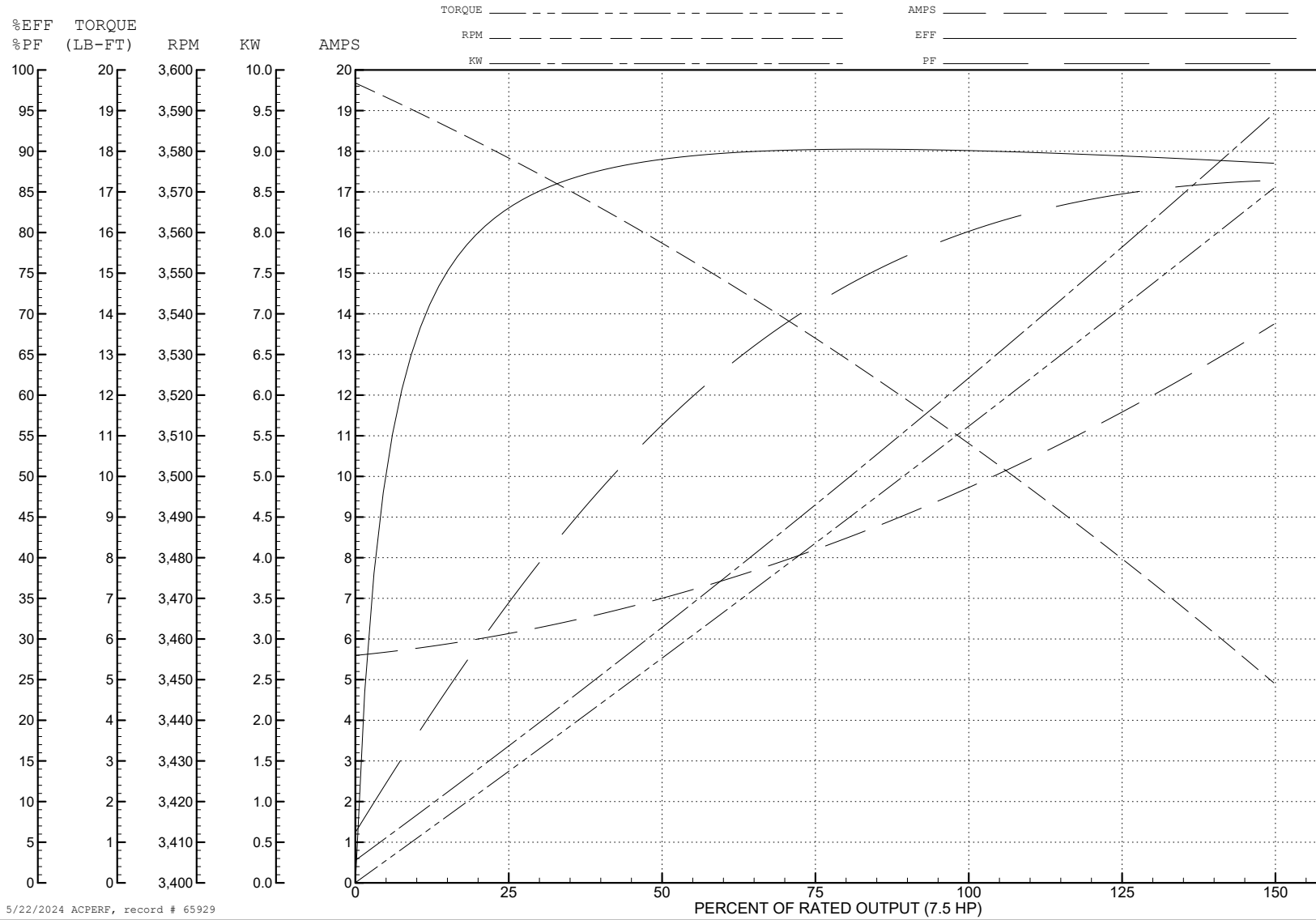
ABB Motors and Mechanical Inc.

WINDING # 36WGR431

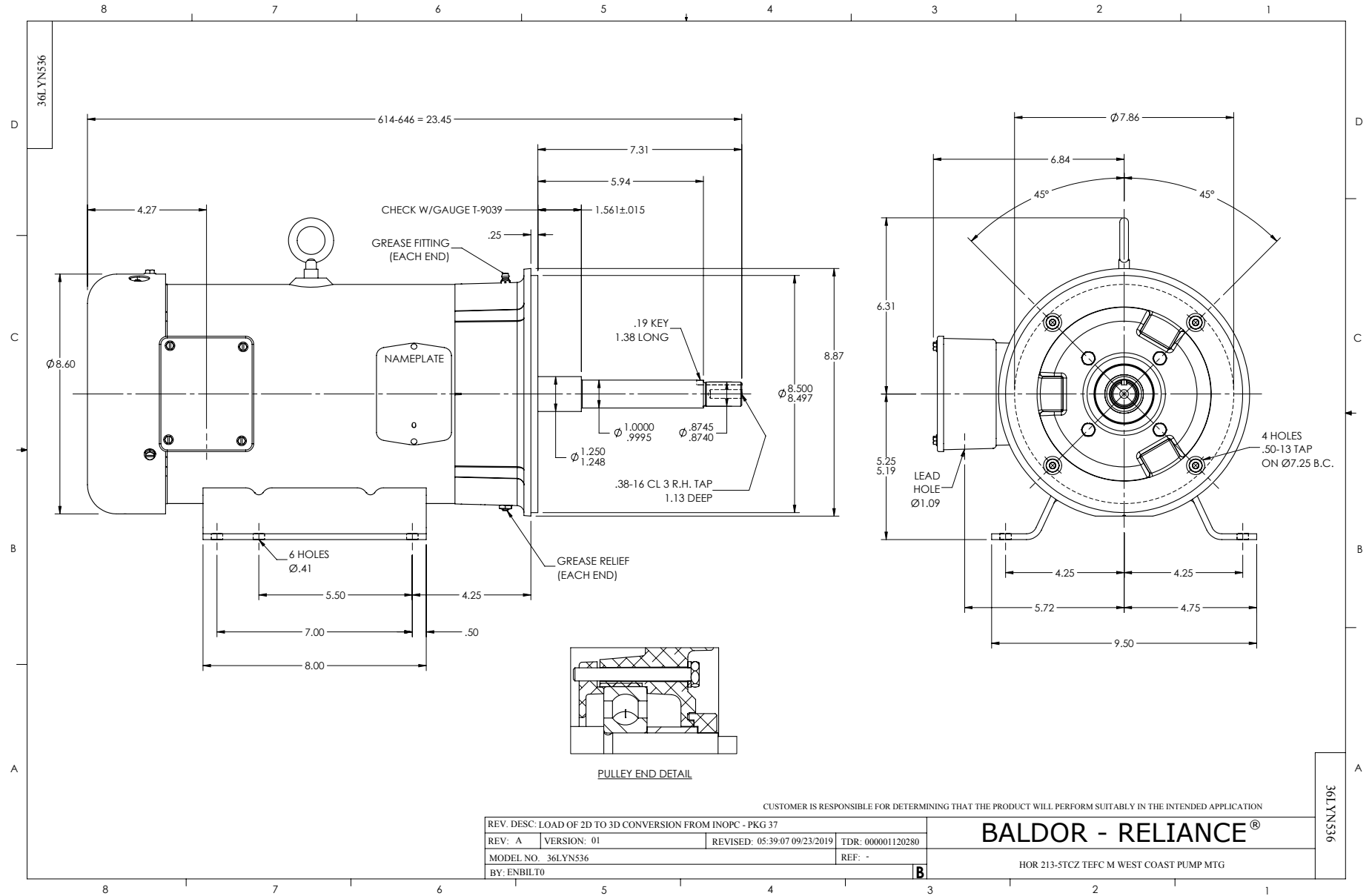
Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3450 RPM 460 V 3646M

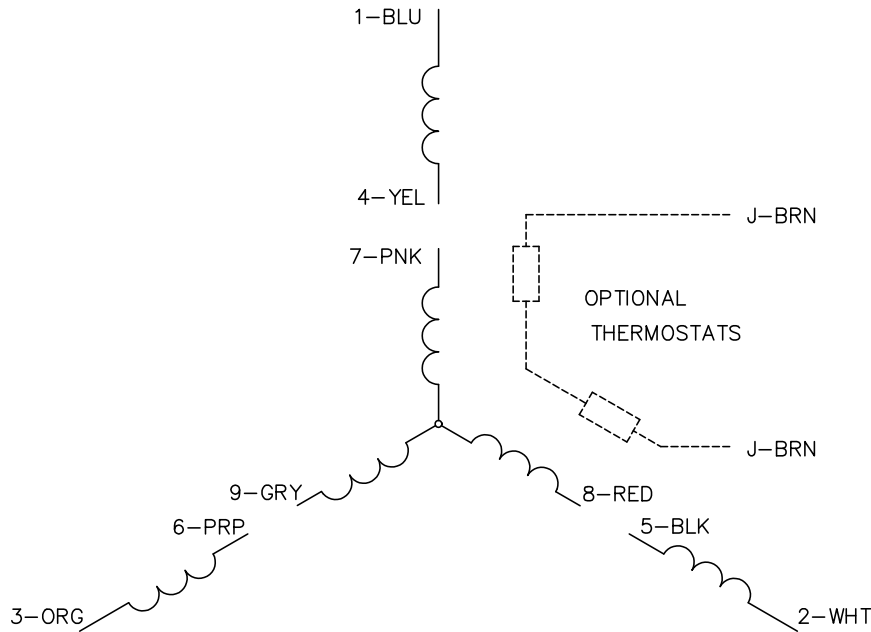
TORQUES (LB-FT): PO=97.6 PU=73.1 LR=88.3 LRA=155



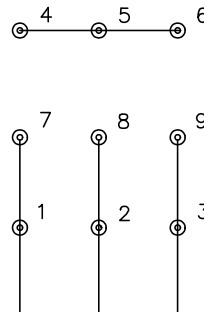
5/22/2024 ACPERF, record # 65929



CD0005

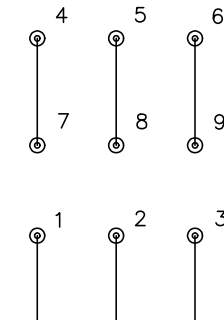


LOW VOLTAGE
(2Y)



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