

BALDOR • RELIANCE

Customer information packet

VEM3709T

7.5HP, 3495RPM, 3PH, 60HZ, 213TC, 3646M, TEFC

Class - None

Division - Not Applicable

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	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
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	8.800 A @ 460.0 V 18.600 A @ 208.0 V 17.600 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	90.2 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part detail

Revision	D
Type	AC
Mech. spec.	36G843
Base	
Status	PRD/A
Elec. spec.	36WGQ046
Layout	36LYG843
Eff. date	12-31-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	01-04-2021

Heater Indicator	No Heater
High Voltage Full Load Amps	8.8 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3646M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	18.56 IN
Power Factor	89
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 Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3495 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.	VEM3709T						
SPEC	36G843Q046G1						
HP	7.5						
VOLTS	230/460						
AMPS	17.6/8.8						
RPM	3495						
FRAME	213TC		HZ	60		PH	3
SF	1.15	CODE	M	DES	A	CLASS	F
NEMA NOM. EFF	90.2	PF	89				
RATING	40C AMB-CONT						
CC	010A						
ENCL	TEFC	SER					
DE	6207	ODE	6205				
VPWM INVERTER READY							
CT6-60H(10:1)VT3-60H(20:1	50HZ 7.5HP 190/380V 20/10.0A						SF1.0

AC Induction Motor Performance Data

Record # 85922

Preliminary Data Sheet

Winding: 36WGQ046-R001		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	17.6/8.8	Breakdown Torque	73 LB-FT
R.P.M.	3495	Pull-up Torque	49.1 LB-FT
Hz	60 Phase	Locked-rotor Torque	62.3 LB-FT
NEMA Design Code	A KVA Code	Starting Current	112 A
Service Factor (S.F.)	1.15	No-load Current	3.47 A
NEMA Nom. Eff.	90.2 Power Factor	Line-line Res. @ 25°C	1.24 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	73°C
S.F. Amps	20/10	Temp. Rise @ S.F. Load	95°C
		Locked-rotor Power Factor	68.2
		Rotor inertia	0.206 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	52	75	84	89	92	93	91
Efficiency	84.5	89.6	90.5	90.2	89.3	88	89.7
Speed	3574	3549	3522	3494	3463	3431	3476
Line amperes	4.06	5.28	6.94	8.75	10.7	12.9	9.91

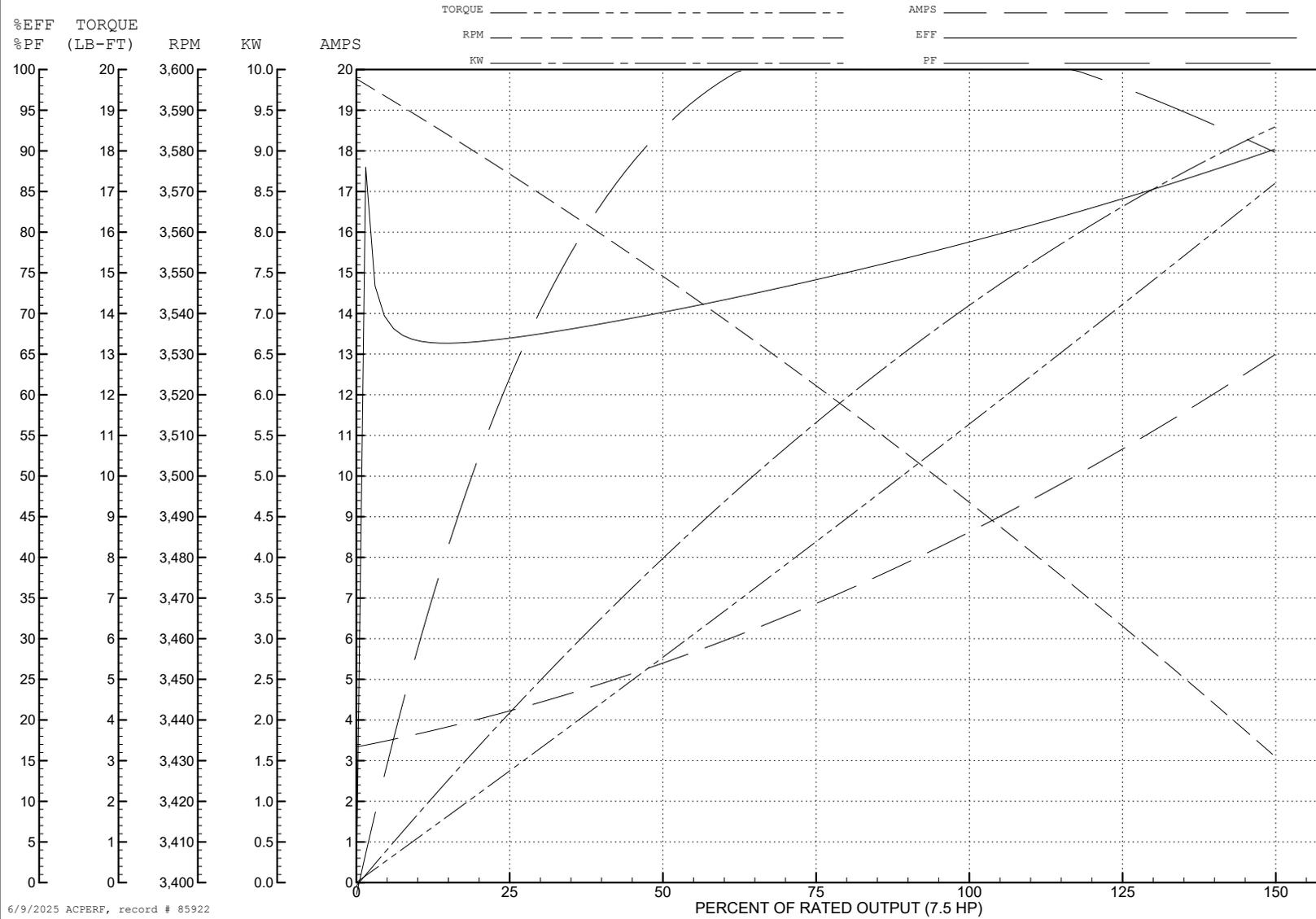
ABB Motors and Mechanical Inc.

WINDING # 36WGQ046

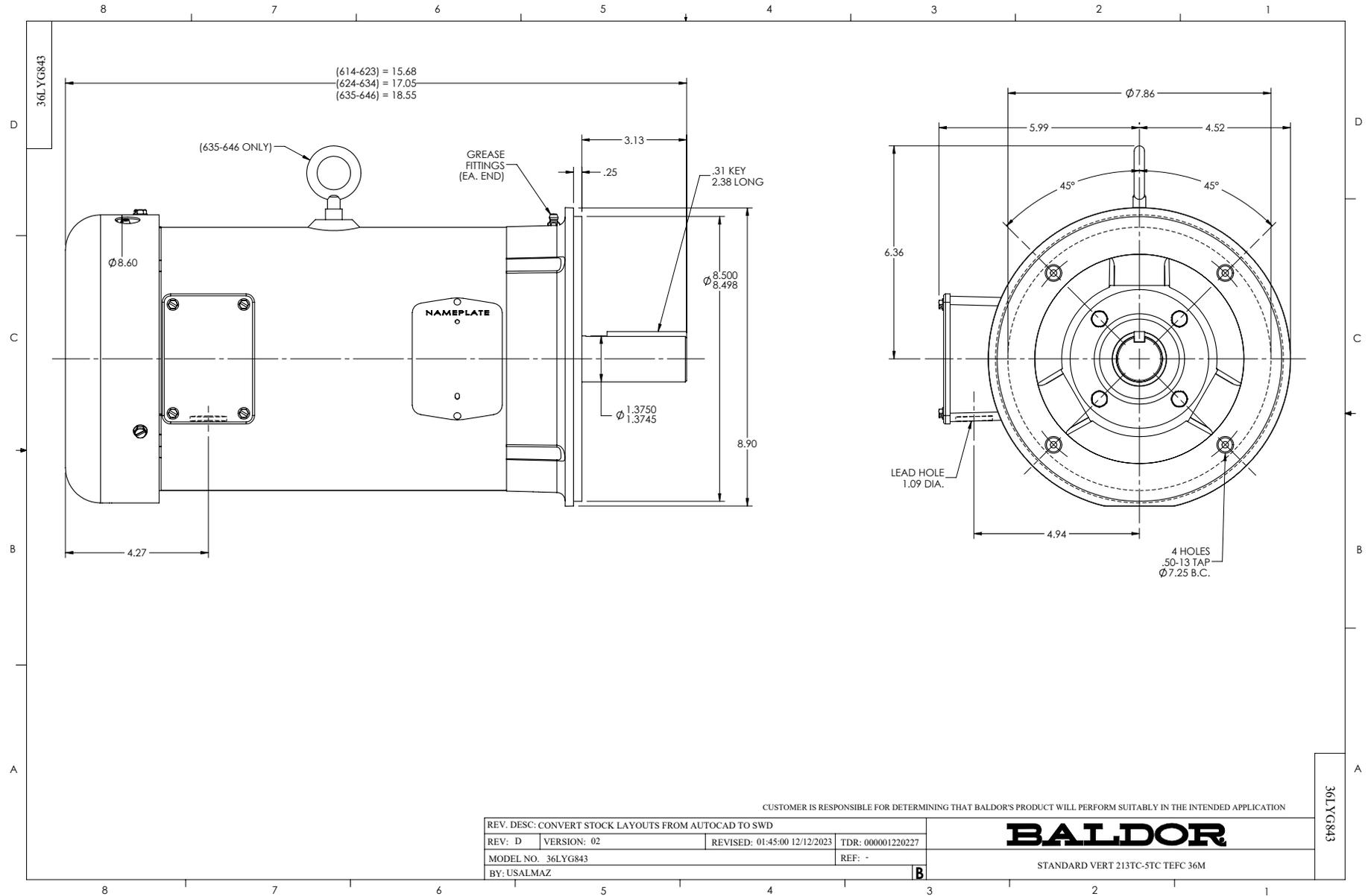
Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3495 RPM 460 V 3646M

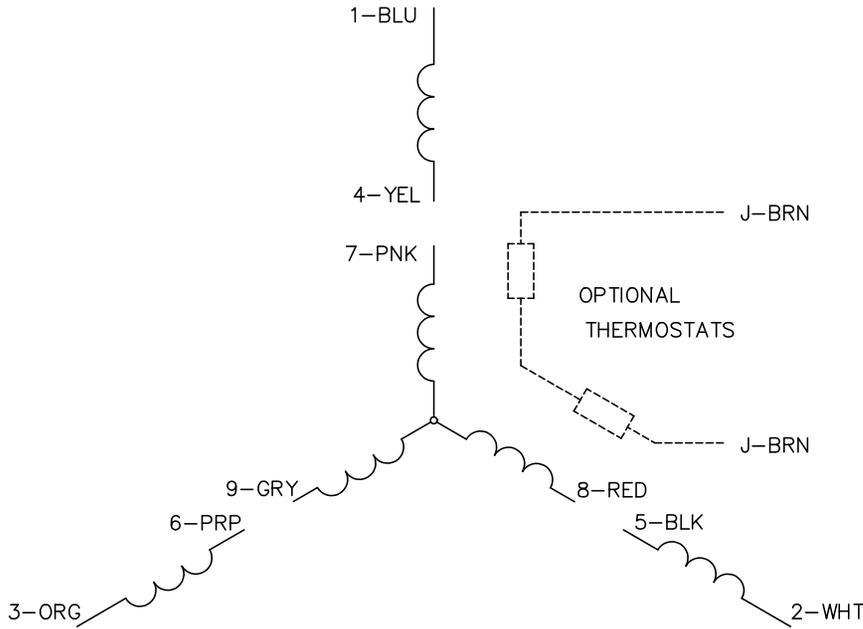
TORQUES (LB-FT): PO=73 PU=49.1 LR=62.3 LRA=112



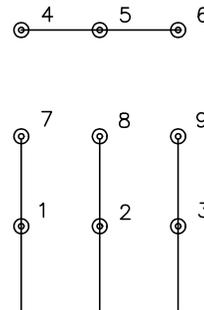
6/9/2025 ACPERF, record # 85922



CD0005

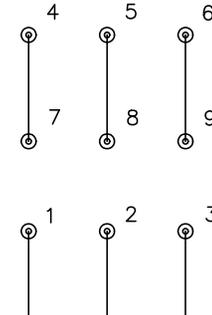


LOW VOLTAGE
(2Y)



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

500000

FILE: AAA00005140

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS