

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3709T**

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

Part Detail							
Revision:	A	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGQ046	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36G843	Layout:	36LYG843	Poles:	02	Created Date:	01-04-2021
Base:	N	Eff. Date:	06-09-2021	Leads:	9#14		

Specs			
Catalog Number:	VEM3709T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	213TC	KVA Code:	M
Frame Material:	Steel	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	7.500 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 14 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3646M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	89
	CSA EEV	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	C-Face
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	17.600 A @ 230.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	18.600 A @ 208.0 V	<b>Shaft Rotation:</b>	Reversible
	8.800 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	VEM3709T									
<b>SPEC</b>	36G843Q046G1									
<b>HP</b>	7.5									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	17.6/8.8									
<b>RPM</b>	3495									
<b>FRAME</b>	213TC				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	M	<b>DES</b>	A		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	90.2		<b>PF</b>	89						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>			18.6			
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6207			<b>ODE</b>	6205					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1)</b>	50HZ 7.5HP 190/380V 20/10.0A									
										SF1.0

Parts List		
Part Number	Description	Quantity
SA389215	SA 36G843Q046G1	1.000 EA
RA379586	RA 36G843Q046G1	1.000 EA
36CB3000SP	CONDUIT BOX, CAST	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
36EP3104A01	FREP MACH ASSEMBLY FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 EA
36EP1307A01	PU ENDPLATE, MACH	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
10XN2520A26	1/4-20X 1 5/8 HEX HD	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
36FH4009A102	IEC FH GREASER PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4514GX	CONDUIT BOX LID KIT	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 EA
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
35FN3002A04SP	EXFN, PLASTIC, 6.376 OD, .906 ID W/KEY	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
HA3101A28	THRUBOLT 1/4-20 X 12.500 OHIO ROD	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
G7PA1000	PKG GRP, PRINT PK1034A06	1.000 EA
PK3082	STYROFOAM CRADLE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA

**AC Induction Motor Performance Data**

Record # 85922

Preliminary Data Sheet

<b>Winding: 36WGQ046-R001</b>		<b>Type: 3646M</b>		<b>Enclosure: TEFC</b>		
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>			
<b>Rated Output (HP)</b>	7.5	<b>Full Load Torque</b>	11.3 LB-FT			
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line			
<b>Full Load Amps</b>	17.6/8.8	<b>Breakdown Torque</b>	73 LB-FT			
<b>R.P.M.</b>	3495	<b>Pull-up Torque</b>	49.1 LB-FT			
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	62.3 LB-FT		
<b>NEMA Design Code</b>	A <b>KVA Code</b>	N	<b>Starting Current</b>	112 A		
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	3.47 A			
<b>NEMA Nom. Eff.</b>	90.2 <b>Power Factor</b>	89	<b>Line-line Res. @ 25°C</b>	1.24 Ω		
<b>Rating - Duty</b>	40C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	73°C			
<b>S.F. Amps</b>	20/10	<b>Temp. Rise @ S.F. Load</b>	95°C			
		<b>Locked-rotor Power Factor</b>	68.2			
		<b>Rotor inertia</b>	0.206 lb-ft <sup>2</sup>			

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	52	75	84	89	92	93	91
<b>Efficiency</b>	84.5	89.6	90.5	90.2	89.3	88	89.7
<b>Speed</b>	3574	3549	3522	3494	3463	3431	3476
<b>Line amperes</b>	4.06	5.28	6.94	8.75	10.7	12.9	9.91

Performance Graph at 460V, 60Hz, 7.5HP Typical performance - Not guaranteed values

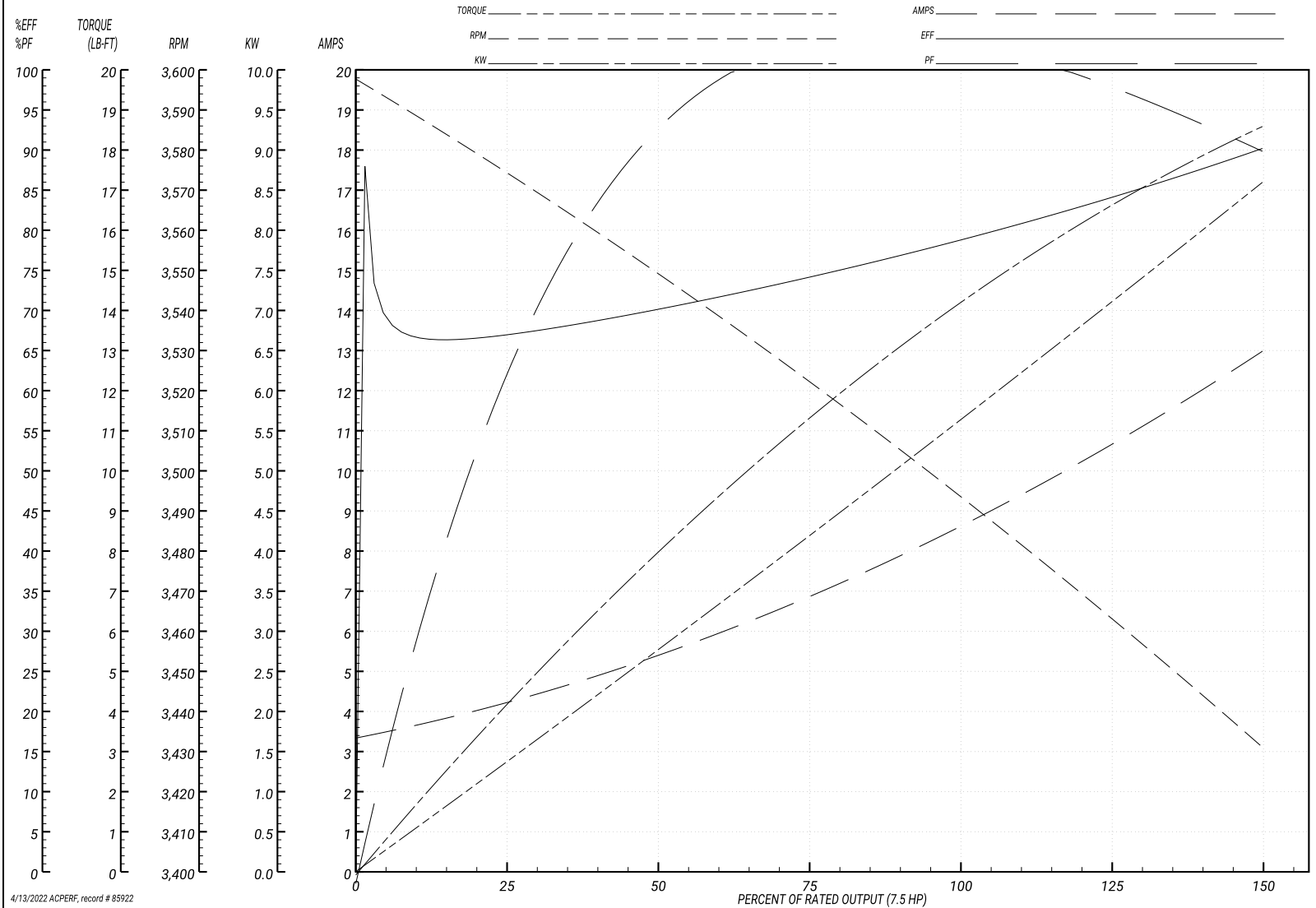
**BALDOR ELECTRIC COMPANY**

WINDING # 36WGQ046

Typical performance - not guaranteed values.

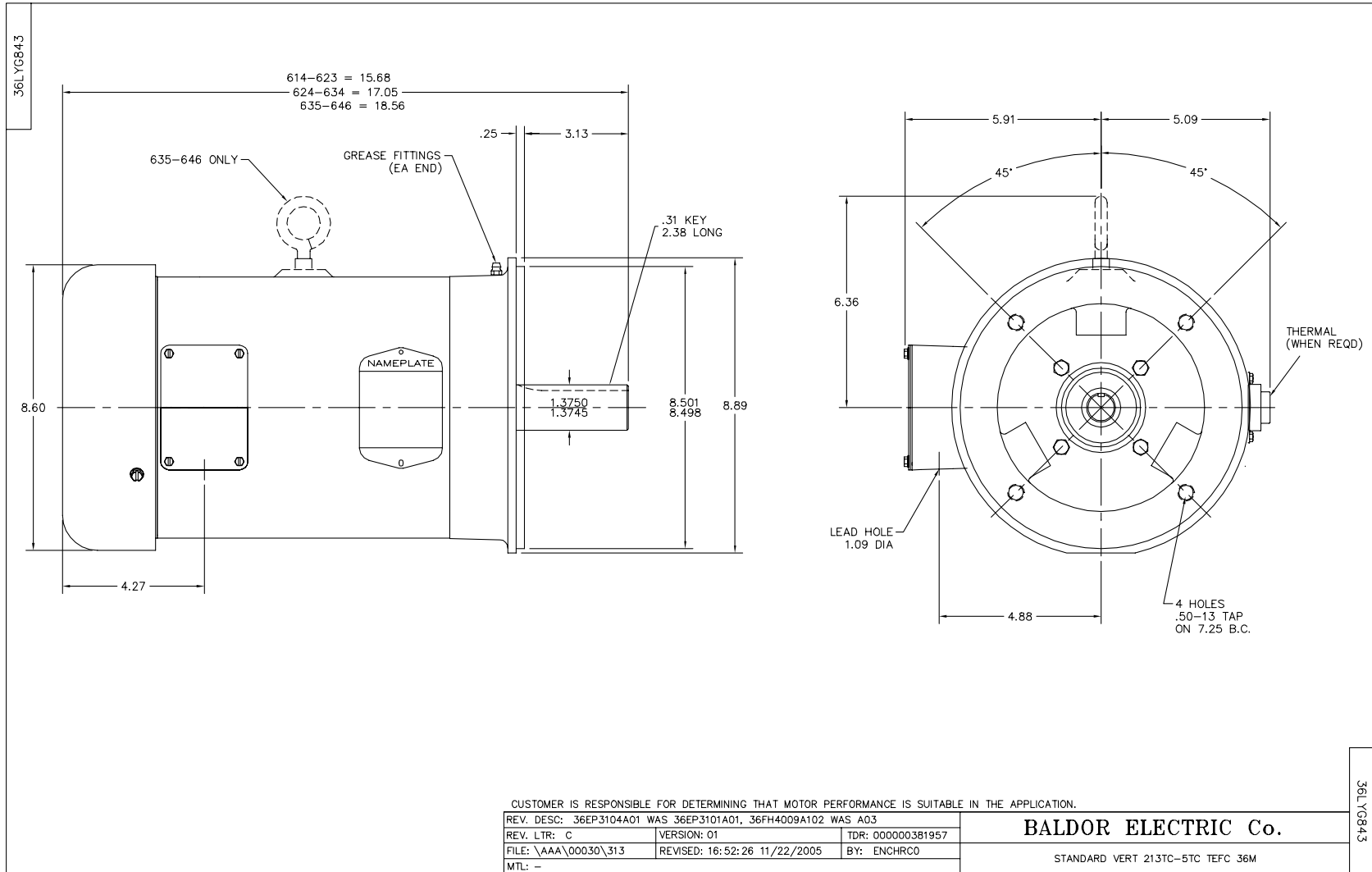
7.5 HP 3 PH 60 HZ 3495 RPM 460 V 3646M

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



4/13/2022 ACPERF, record # 85922





CD0005

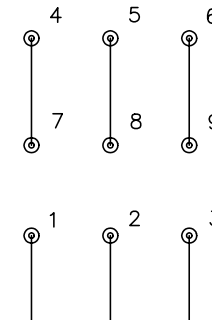


LOW VOLTAGE  
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
90000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005