

BALDOR® • RELIANCE 

Product Information Packet

VEM3709T

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

Part Detail							
Revision:	D	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGR454	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36G843	Layout:	36LYG843	Poles:	02	Created Date:	04-20-2015
Base:	N	Eff. Date:	05-09-2018	Leads:	9#14		

Specs			
Catalog Number:	VEM3709T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	213TC	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	M
Output @ Frequency:	7.500 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 14 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3646M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	99
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	No Mounting	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

Current @ Voltage:	16.200 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding
	17.200 A @ 208.0 V	Shaft Rotation:	Reversible
	8.100 A @ 460.0 V	Shaft Slinger Indicator:	No Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	None
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
		Winding Thermal 2:	None

Parts List		
Part Number	Description	Quantity
SA299299	SA 36G843R454G1	1.000 EA
RA286316	RA 36G843R454G1	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

Parts List (continued)		
Part Number	Description	Quantity
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 (1200/bx) 3/19	1.000 EA

AC Induction Motor Performance Data

Record # 53349 - Typical performance - not guaranteed values

Winding: 36WGR454-R003	Type: 3646M	Enclosure: TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	7.5			Full Load Torque	11.5 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	16.2/8.1			Breakdown Torque	69.2 LB-FT
R.P.M.	3450			Pull-up Torque	46.1 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	54.7 LB-FT
NEMA Design Code	A	KVA Code	M	Starting Current	98.3 A
Service Factor (S.F.)	1.15			No-load Current	2.35 A
NEMA Nom. Eff.	89.5	Power Factor	99	Line-line Res. @ 25°C	1.14 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	66°C
S.F. Amps				Temp. Rise @ S.F. Load	79°C
				Locked-rotor Power Factor	44.3
				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	64	88	96	99	98	98	98
Efficiency	82.1	88.8	90.2	89.4	88.9	87.4	89.1
Speed	3572	3545	3514	3477	3449	3408	3460
Line amperes	2.83	4.12	5.91	8.07	9.92	12.3	9.18

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

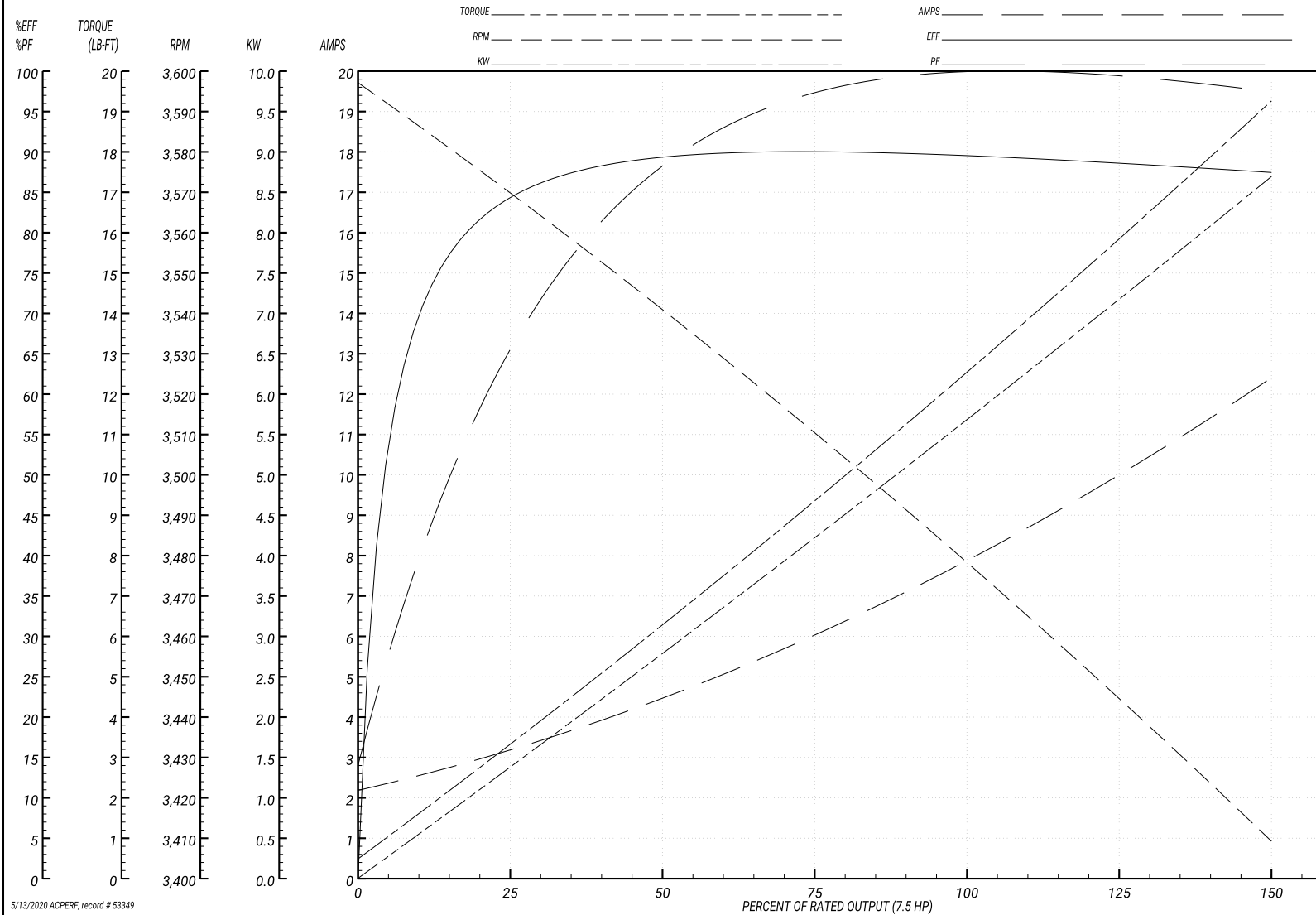
ABB Motors and Mechanical Inc.

WINDING # 36WGR454

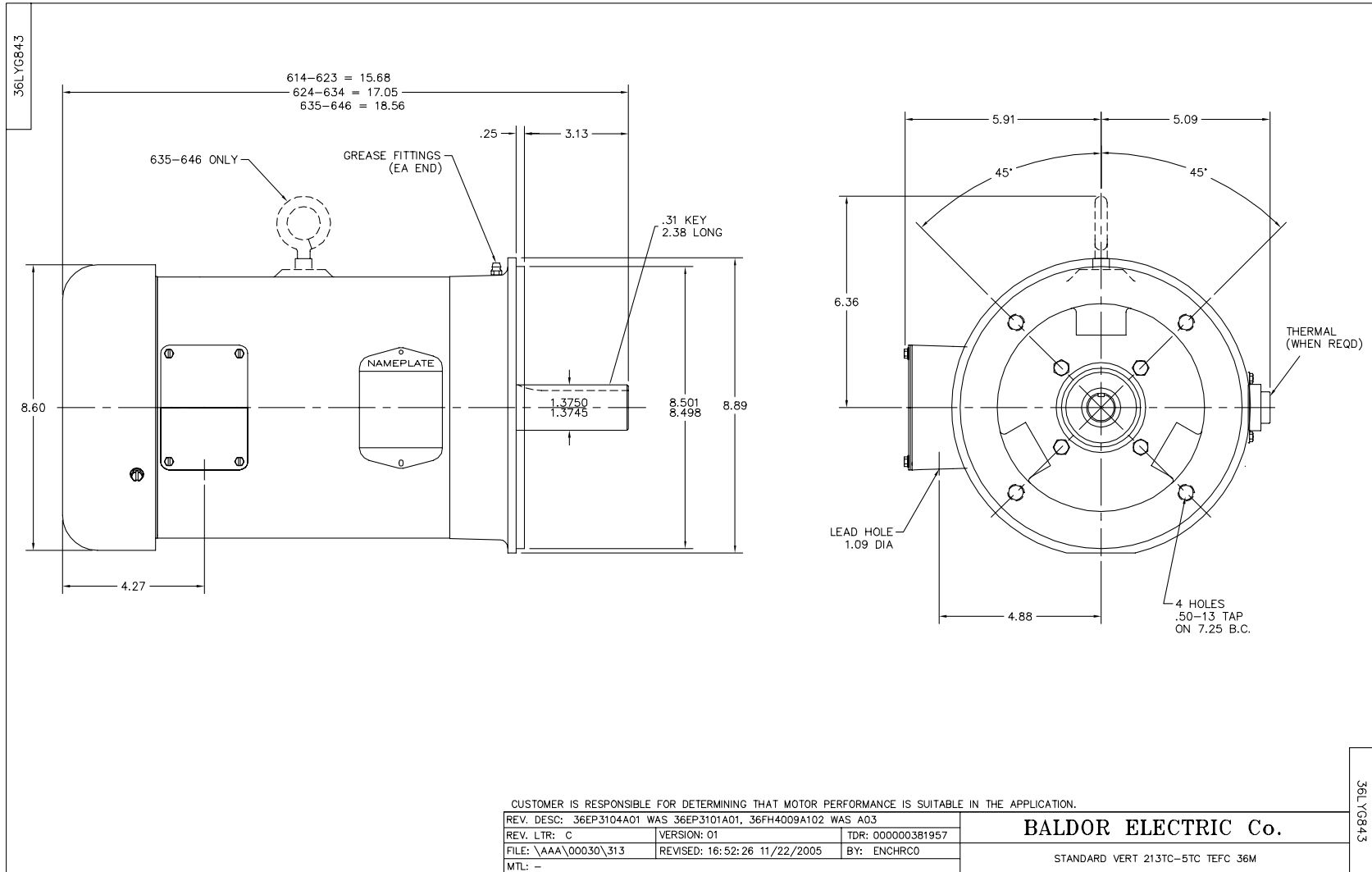
Typical performance - not guaranteed values.

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

TORQUES(LB-FT): PO=69.2 PU=46.1 LR=54.7 LRA=98.3



5/13/2020 ACPERF, record # 53349



CD0005

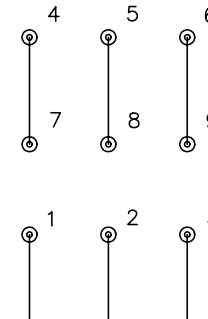


LOW VOLTAGE
(2Y)



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
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005