

BALDOR® • RELIANCE 

Product Information Packet

VEM3704T

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

Part Detail							
Revision:	G	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	37WGS519	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	37A003	Layout:	37LYA003	Poles:	06	Created Date:	04-23-2015
Base:	N	Eff. Date:	09-06-2019	Leads:	9#14		

Specs			
Catalog Number:	VEM3704T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	213TC	KVA Code:	L
Frame Material:	Steel	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	3.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1200 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:	3738M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	68
	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

Current @ Voltage:	4.600 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding
	9.200 A @ 230.0 V	Shaft Rotation:	Reversible
	9.600 A @ 208.0 V	Shaft Slinger Indicator:	No Slinger
Design Code:	B	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
Heater Indicator:	No Heater	Winding Thermal 2:	None

Nameplate NP3441LUA										
CAT.NO.	VEM3704T									
SPEC	37A003S519G2									
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						9.6
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									

Parts List		
Part Number	Description	Quantity
SA299817	SA 37A003S519G2	1.000 EA
RA286849	RA 37A003S519G2	1.000 EA
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 EA
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1.000 EA
37CB3006	37 CB CASTING W/1.38 LEAD HOLE @ 6:00	1.000 EA
37GS1000SP	GASKET, CONDUIT BOX STD., .06 THICK LEXI	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
37EP3101A01	FR ENDPLATE, FOR ROUTING PURPOSES	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 EA
37PE3300A01	PUEP ASSEMBLY FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
07FH4007SP	PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
37CB4516	LIPPED LID FOR 37 FRAME NEC KOBX	1.000 EA
37GS1008	37 GS FOR CB LID - LEXIDE	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

Parts List (continued)		
Part Number	Description	Quantity
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.028 GA
HA3104A17	5/16-18X13.250 T-BLT/OHIO	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
G0PA1000	PKG GRP, PRINT PK1026A06	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 # 53388 - Typical performance - not guaranteed values

Winding: 37WGS519-R032	Type: 3738M	Enclosure: TEFC
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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

Performance Graph at 460V, 60Hz, 3.0HP Typical performance - Not guaranteed values

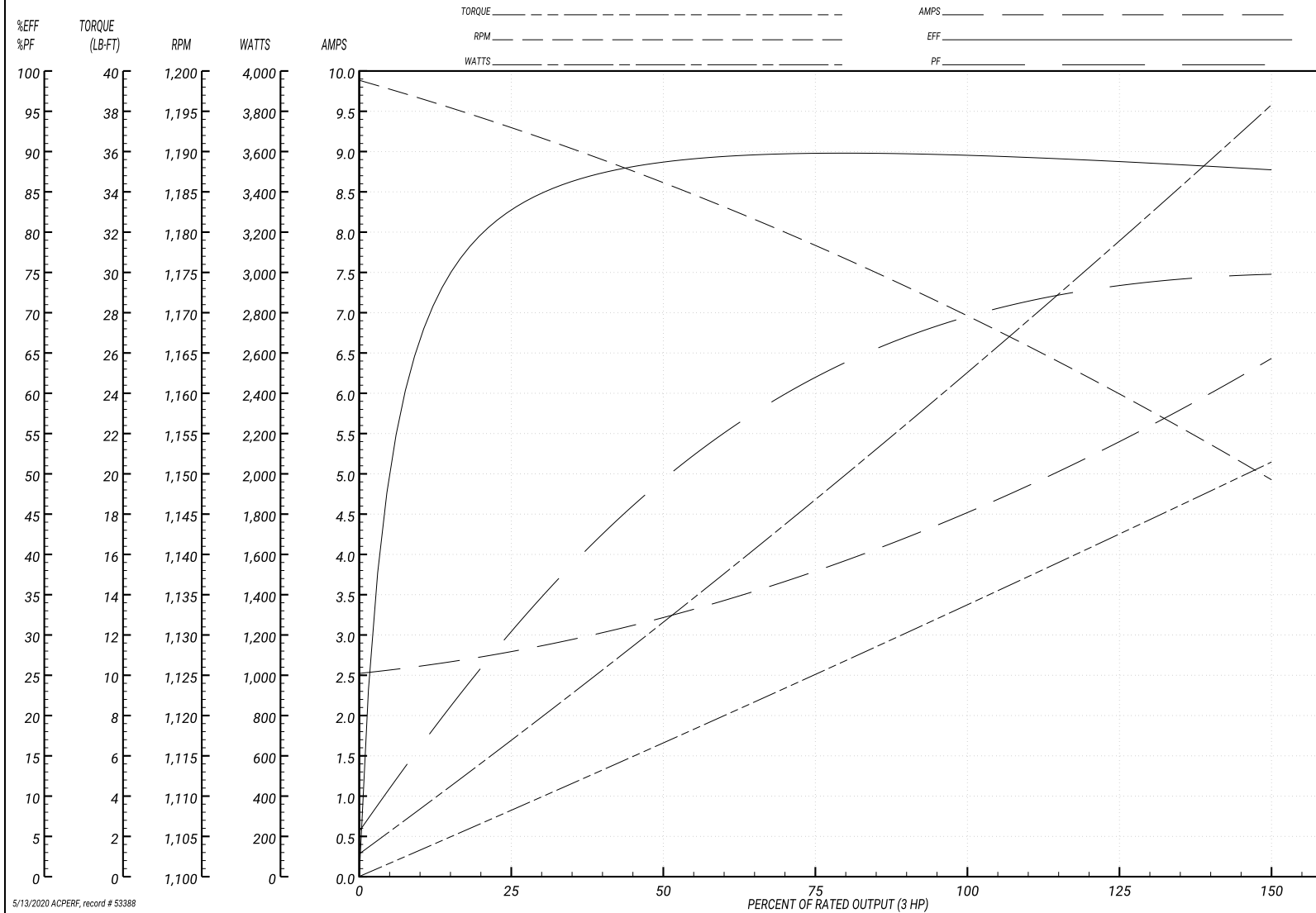
ABB Motors and Mechanical Inc.

WINDING # 37WGS519

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1160 RPM 460 V 3738M

TORQUES(LB-FT): PO=50.4 PU=31.8 LR=33.9 LRA=34



5/13/2020 ACPERF, record # 53388

AC Induction Motor Performance Data

Record # 60478 - Typical performance - not guaranteed values

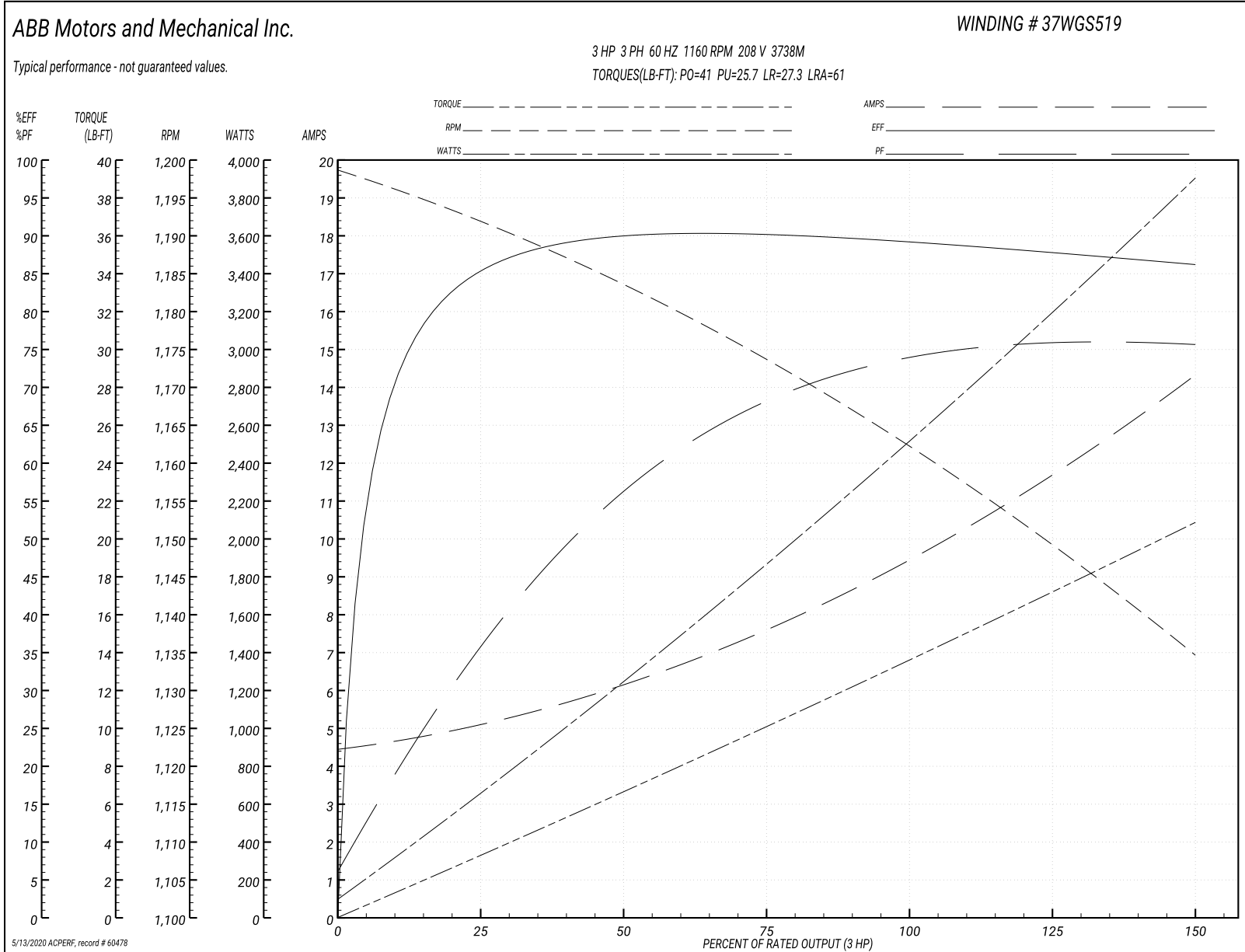
Winding: 37WGS519-R032	Type: 3738M	Enclosure: TEFC
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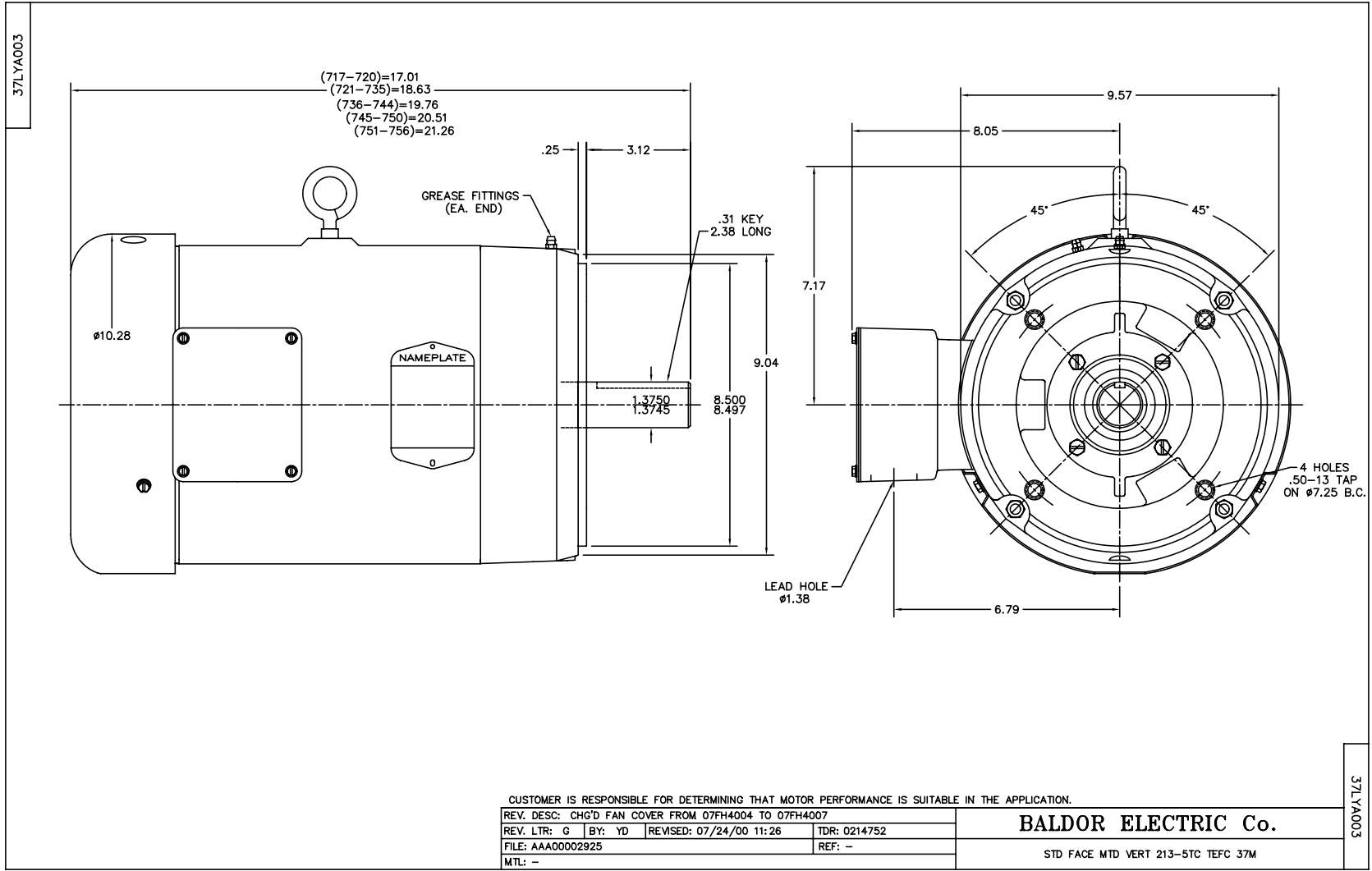
Nameplate Data				208 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	3			Full Load Torque	13.5 LB-FT
Volts	208-230/460			Start Configuration	direct on line
Full Load Amps	9.5-9.2/4.6			Breakdown Torque	41 LB-FT
R.P.M.	1160			Pull-up Torque	25.7 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	27.3 LB-FT
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

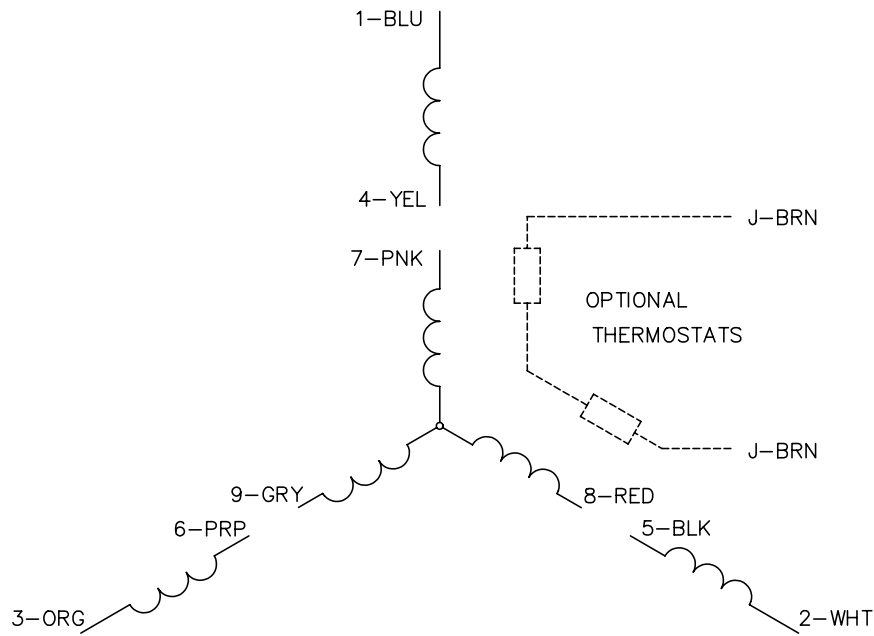
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	36	57	68	73	76	76	75
Efficiency	84.3	89.5	90.1	89.6	88	86.1	88.6
Speed	1192	1183	1173	1163	1150	1134	1155
Line amperes	4.98	6.11	7.69	9.46	11.7	14.3	10.8

Performance Graph at 208V, 60Hz, 3.0HP Typical performance - Not guaranteed values

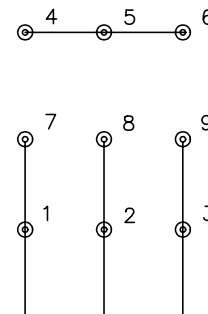




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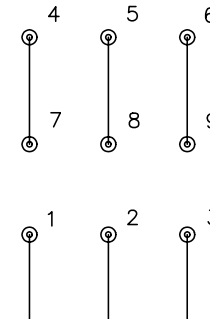


LOW VOLTAGE
(2Y)



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