

BALDOR® • RELIANCE 

Product Information Packet

VEM3770T-5

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC

Part Detail							
Revision:	Q	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	07WGX817	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	07G082	Layout:	07LYG082	Poles:	04	Created Date:	03-20-2009
Base:	N	Eff. Date:	11-10-2017	Leads:	3#14		

Specs			
Catalog Number:	VEM3770T-5	Inverter Code:	Inverter Ready
Enclosure:	TEFC	KVA Code:	J
Frame:	213TC	Lifting Lugs:	Standard Lifting Lugs
Frame Material:	Iron	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	7.500 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 14 AWG
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	575.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0738M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	81
	CSA EEV	Product Family:	General Purpose
	UR	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:	7.500 A @ 575.0 V	Shaft Ground Indicator:	No Shaft Grounding

Design Code:	A	Shaft Rotation:	Reversible
Drip Cover:	No Drip Cover	Shaft Slinger Indicator:	No Slinger
Duty Rating:	CONT	Speed Code:	Single Speed
Electrically Isolated Bearing:	Not Electrically Isolated	Motor Standards:	NEMA
Feedback Device:	NO FEEDBACK	Starting Method:	Direct on line
Front Face Code:	Standard	Thermal Device - Bearing:	NONE (OLD)
Front Shaft Indicator:	None	Thermal Device - Winding:	None
Heater Indicator:	No Heater	Vibration Sensor Indicator:	No Vibration Sensor
Insulation Class:	F	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP3441L										
CAT.NO.	VEM3770T-5									
SPEC.	07G082X817									
HP	7.5									
VOLTS	575									
AMP	7.5									
RPM	1770									
FRAME	213TC				HZ	60		PH	3	
SER.F.	1.15		CODE	J		DES	A		CL	F
NEMA-NOM-EFF	91.7		PF	81						
RATING	40C AMB-CONT									
CC	010A				USABLE AT 208V					
DE	6307				ODE	6206				
ENCL	TEFC		SN							
VPWM INVERTER READY										
CT6-60H(10:1)VT3-60H(20:1)										

Parts List		
Part Number	Description	Quantity
SA180782	SA 07G082X817	1.000 EA
RA168734	RA 07G082X817	1.000 EA
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 EA
HW3201A05	3/8-16 EYEBOLT	1.000 EA
09CB3002SP	CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30	1.000 EA
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
WD1000B17	T&B CX35TN TERMINAL	1.000 EA
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 EA
37FE1100A41	FR ENDPLATE ASSEMBLY FOR ROUTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 EA
37PE1300A10	PUEP ASSEMBLY FOR ROUTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	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
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 EA
09GS1013SP	09 GS FOR 09CB3501 LID - LEXIDE	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 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
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.050 LB
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.036 GA
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
NP3441L	ALUM SUPER-E VPWM INVERTER READY UL	1.000 EA
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 EA
07PA1095	PKG GRP, VER 07 CAST IRON	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

AC Induction Motor Performance Data

Record # 26661 - Typical performance - not guaranteed values

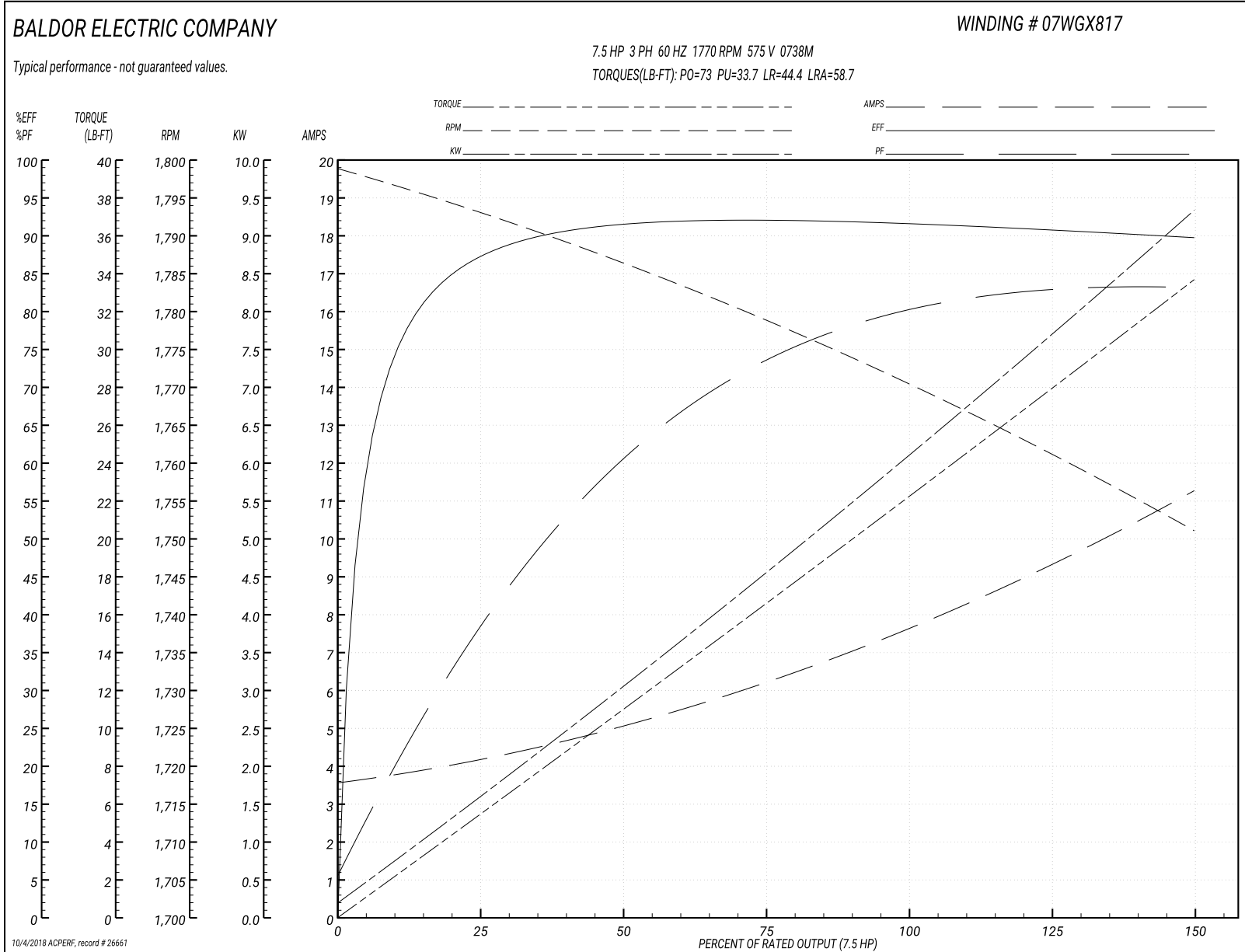
Winding: 07WGX817-R001	Type: 0738M	Enclosure: TEFC
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Nameplate Data				575 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	7.5			Full Load Torque	22.1 LB-FT
Volts	575			Start Configuration	direct on line
Full Load Amps	7.5			Breakdown Torque	73 LB-FT
R.P.M.	1770			Pull-up Torque	33.7 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	44.4 LB-FT
NEMA Design Code	A	KVA Code	J	Starting Current	58.7 A
Service Factor (S.F.)	1.15			No-load Current	3.66 A
NEMA Nom. Eff.	91.7	Power Factor	81	Line-line Res. @ 25°C	2.23 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	42°C
S.F. Amps				Temp. Rise @ S.F. Load	51°C
				Locked-rotor Power Factor	37.9
				Rotor inertia	0.934 LB-FT ²

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	40	62	73	79	82	84	82
Efficiency	86.9	91.4	92.2	91.7	90.9	89.7	90.9
Speed	1793	1786	1779	1771	1761	1751	1764
Line amperes	4.07	4.98	6.23	7.7	9.4	11.2	8.58

Performance Graph at 575V, 60Hz, 7.5HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 44991 - Typical performance - not guaranteed values

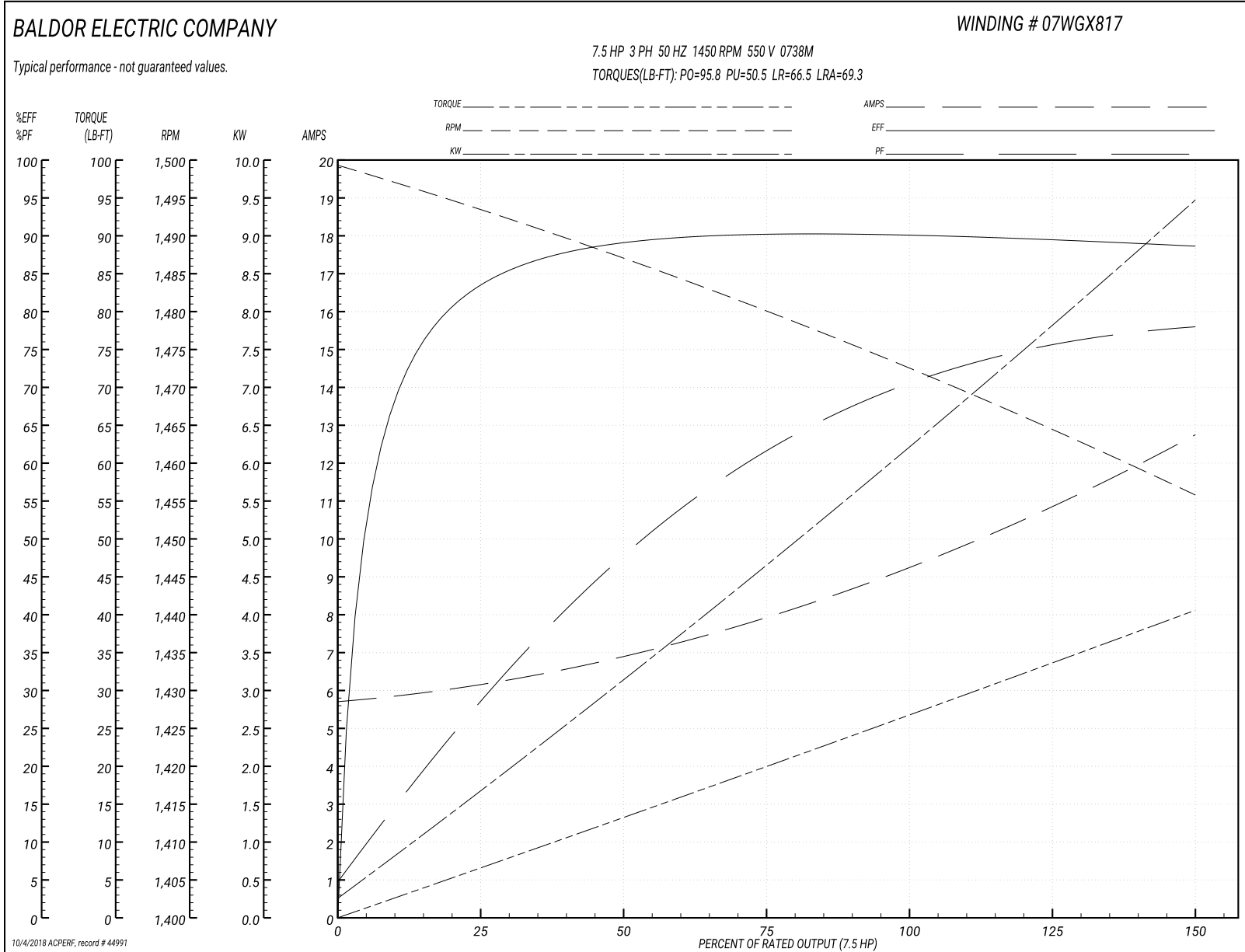
Winding: 07WGX817-R001	Type: 0738M	Enclosure: TEFC
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Nameplate Data				550 V, 50 Hz: Single Voltage Motor	
Rated Output (HP)	7.5			Full Load Torque	26.6 LB-FT
Volts	550			Start Configuration	direct on line
Full Load Amps	9.1			Breakdown Torque	95.8 LB-FT
R.P.M.	1450			Pull-up Torque	50.5 LB-FT
Hz	50	Phase	3	Locked-rotor Torque	66.5 LB-FT
NEMA Design Code	A	KVA Code	K	Starting Current	69.3 A
Service Factor (S.F.)	1.15			No-load Current	5.77 A
NEMA Nom. Eff.	89.5	Power Factor	71	Line-line Res. @ 25°C	2.23 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	56°C
S.F. Amps				Temp. Rise @ S.F. Load	67°C
				Locked-rotor Power Factor	44.1
				Rotor inertia	0.934 LB-FT ²

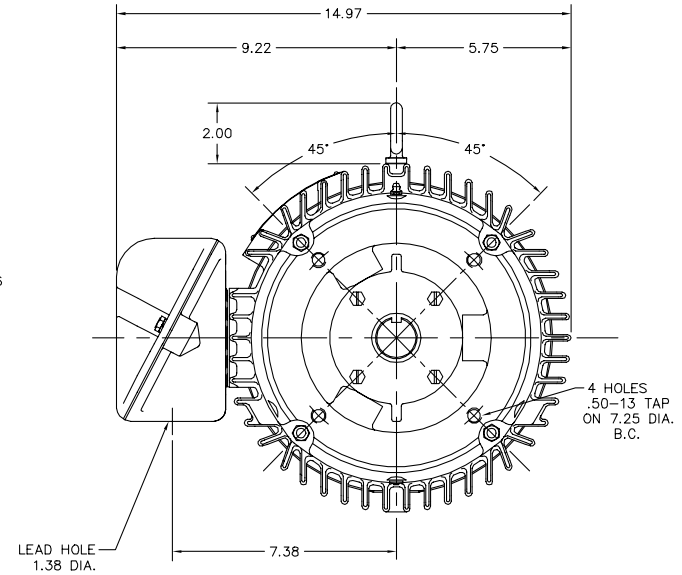
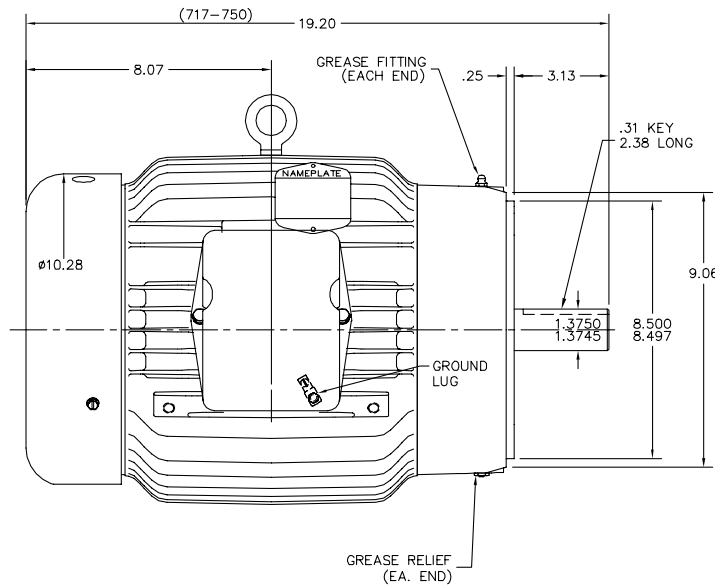
Load Characteristics 550 V, 50 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	48	61	70	75	78	74
Efficiency	83.2	89.2	90.1	90.2	89.6	88.6	89.4
Speed	1494	1487	1480	1473	1464	1456	1466
Line amperes	6.09	6.83	7.9	9.29	10.9	12.7	10.1

Performance Graph at 550V, 50Hz, 7.5HP Typical performance - Not guaranteed values



07LYG082



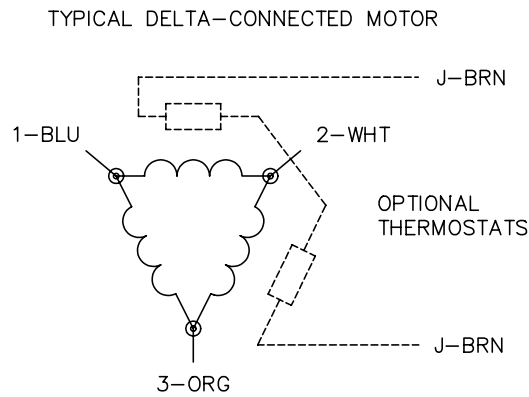
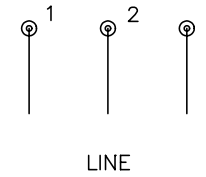
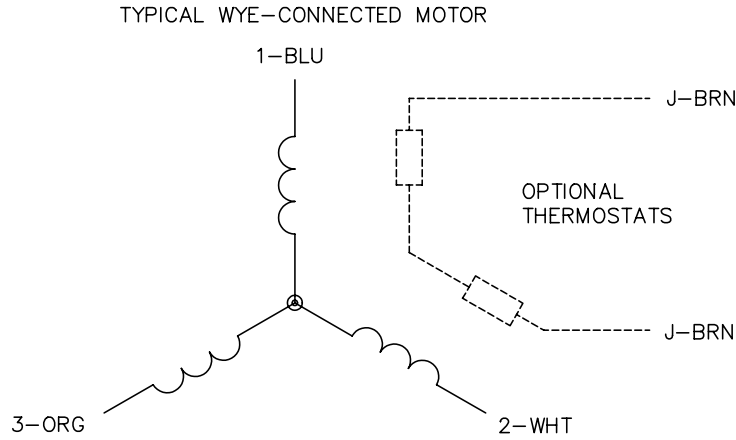
07LYG082

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: REMOVE LB1086	VERSION: 02	TDR: 000000B04114
REV. LTR: G	REVISED: 12:31:59 06/18/2013	BY: ENROSB0
FILE: \AAA\00011\406		
MTL: -		

BALDOR
VERT TEFC 307M 213-5TC, HI-EFF
SH 1 of 1

CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: D	BY: JLP	REVISED: 01/21/99 4:02	TDR: 0171435
9000D		FILE: AAA00005141	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

CD0006