

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECTM4404T-5G

75HP, 1185RPM, 3PH, 60HZ, 405T, A40064M, TEFC

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	405T
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	75.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1200 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	575.0 V @ 60 HZ
<b>Agency Approvals</b>	CCSAUSEEV
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Current @ Voltage</b>	69.500 A @ 575.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	95.0 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Heater Indicator</b>	Heater Included, 115 V
<b>High Voltage Full Load Amps</b>	69.5 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Lead Quantity/Wire Size</b>	3 @ 4 AWG
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A40064M
<b>Mounting Arrangement</b>	F1

**Part Detail**

<b>Revision</b>	A
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A40WG0771
<b>Layout</b>	617433-750
<b>Eff. date</b>	06-06-2023
<b>CD Diagram</b>	416820-036
<b>Poles</b>	06
<b>Leads</b>	3#4
<b>Proprietary</b>	False
<b>Created date</b>	04-13-2022

<b>Number of Poles</b>	6
<b>Overall Length</b>	38.19 IN
<b>Power Factor</b>	85
<b>Product Family</b>	Cooling Tower
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	2.875 IN
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	Shaft Slinger
<b>Speed</b>	1185 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None

**Nameplate**

**000613007EW**

<b>CAT.NO.</b>	ECTM4404T-5G		<b>SPEC NO.</b>	A40-7198-0771					
<b>HP</b>	75HP	<b>AMPS</b>	69.5	<b>VOLTS</b>	575	<b>DESIGN</b>	B		
<b>FRAME</b>	405T	<b>RPM</b>	1185	<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15
<b>DRIVE END BEARING</b>	80BC03J30X		<b>PH</b>	3	<b>DUTY</b>	CONT	<b>INSUL.CLASS</b>	F	
<b>OPP D.E. BEARING</b>	80BC03J30X		<b>TYPE</b>	P	<b>ENCL</b>	TEFC	<b>CODE</b>	G	
<b>D.E.BRG.DATA</b>	6316		<b>POWER FACTOR</b>	85		<b>NEMA NOM EFFICIENCY</b>	95		
<b>O.D.E.BRG.DATA</b>	6316		<b>MAX CORR KVAR</b>	15.00		<b>GUARANTEED EFFICIENCY</b>	94.1		
<b>3/4 LOAD EFF.</b>	95		<b>NEMA NOM/CSA QUOTED EFF</b>						
<b>SER.NO.</b>			<b>MOTOR WEIGHT</b>						

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**000901002AAA**

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INV DUTY 20:1 VT


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REL. S.O.	FRAME	KW	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405HP	55.9	P	3/60	1185	575
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
69.5	CONT	40/F	1.15	B	G	TEFC-841
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
496235	418142-71-EE	---	---	.134		

**PERFORMANCE**

LOAD	KW	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	24.8	1200	4.11	0
1/4	14.0	29.7	1197	51.1	92.5
2/4	28.0	40.6	1194	73.0	95.0
3/4	41.9	54.2	1190	81.6	95.3
4/4	56.0	69.5	1187	85.1	95.0
5/4	69.9	86.3	1183	86.2	94.4

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE NT.-M.	AMPERES
LOCKED ROTOR	0	165	744	433
PULL UP	400	156	703	408
BREAKDOWN	1132	243	1096	241
FULL LOAD	1187	100	450	69.5

AMPERES SHOWN FOR 575. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE  
TYPICAL DATA

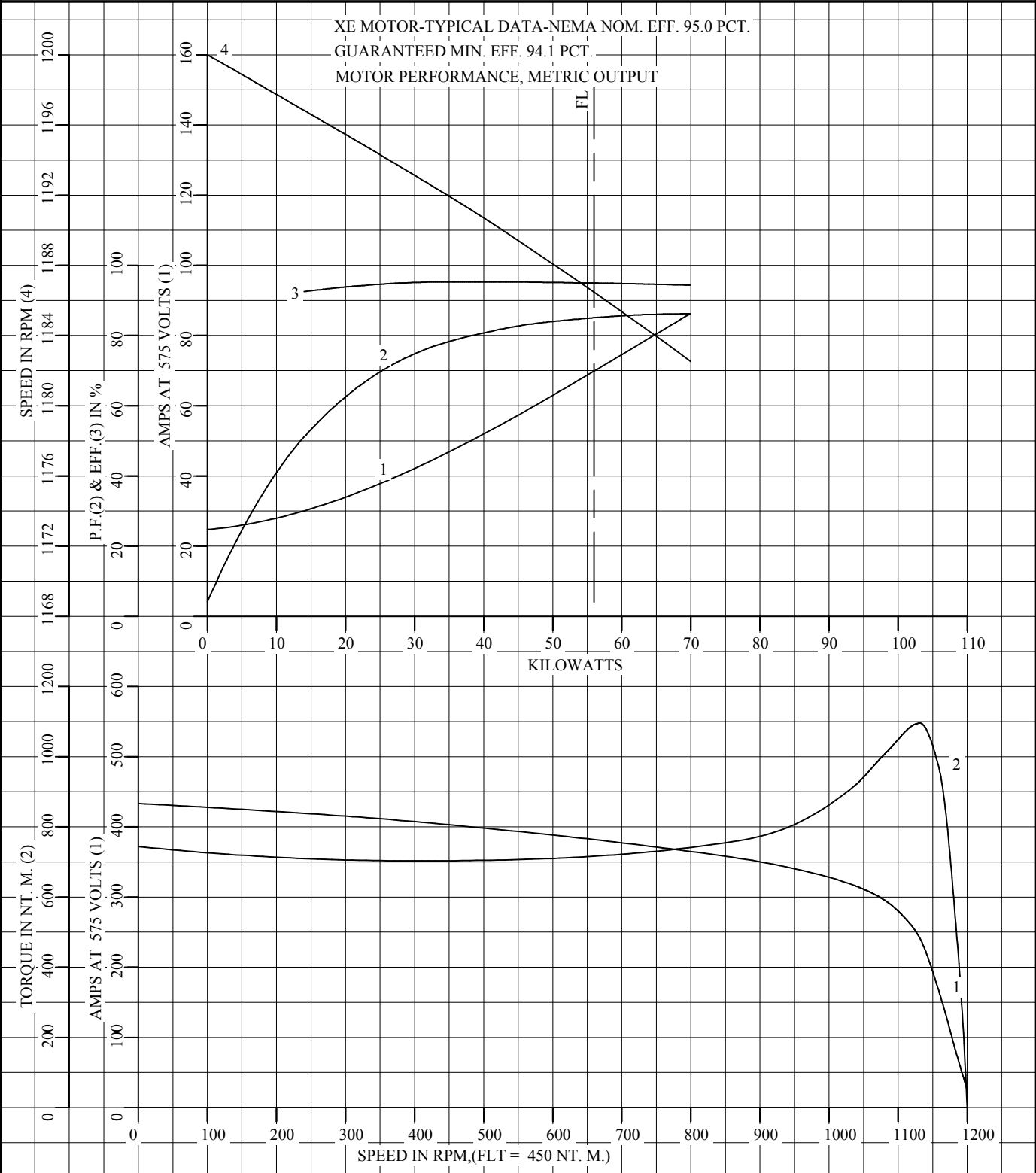
REMARKS: MOTOR PERFORMANCE, METRIC OUTPUT  
XE MOTOR-TYPICAL DATA-NEMA NOM. EFF. 95.0 PCT.  
GUARANTEED MIN. EFF. 94.1 PCT.



DR. BY G. R. WEBB  
CK. BY W. L. SMITH  
APP. BY W. L. SMITH  
DATE 10/15/14

**A-C MOTOR  
PERFORMANCE DATA** A40WG0771-R008  
ISSUE DATE 11/04/14

REL S.O.	RPM 1185	S.F. 1.15	ROTOR 418142-71-EE
FRAME 405HP	VOLTS 575	NEMA DESIGN B	TEST S.O. TYPICAL DATA
KW 55.9	AMPS 69.5	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC-841	STATOR RES. @ 25 °C .134
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 496235	OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

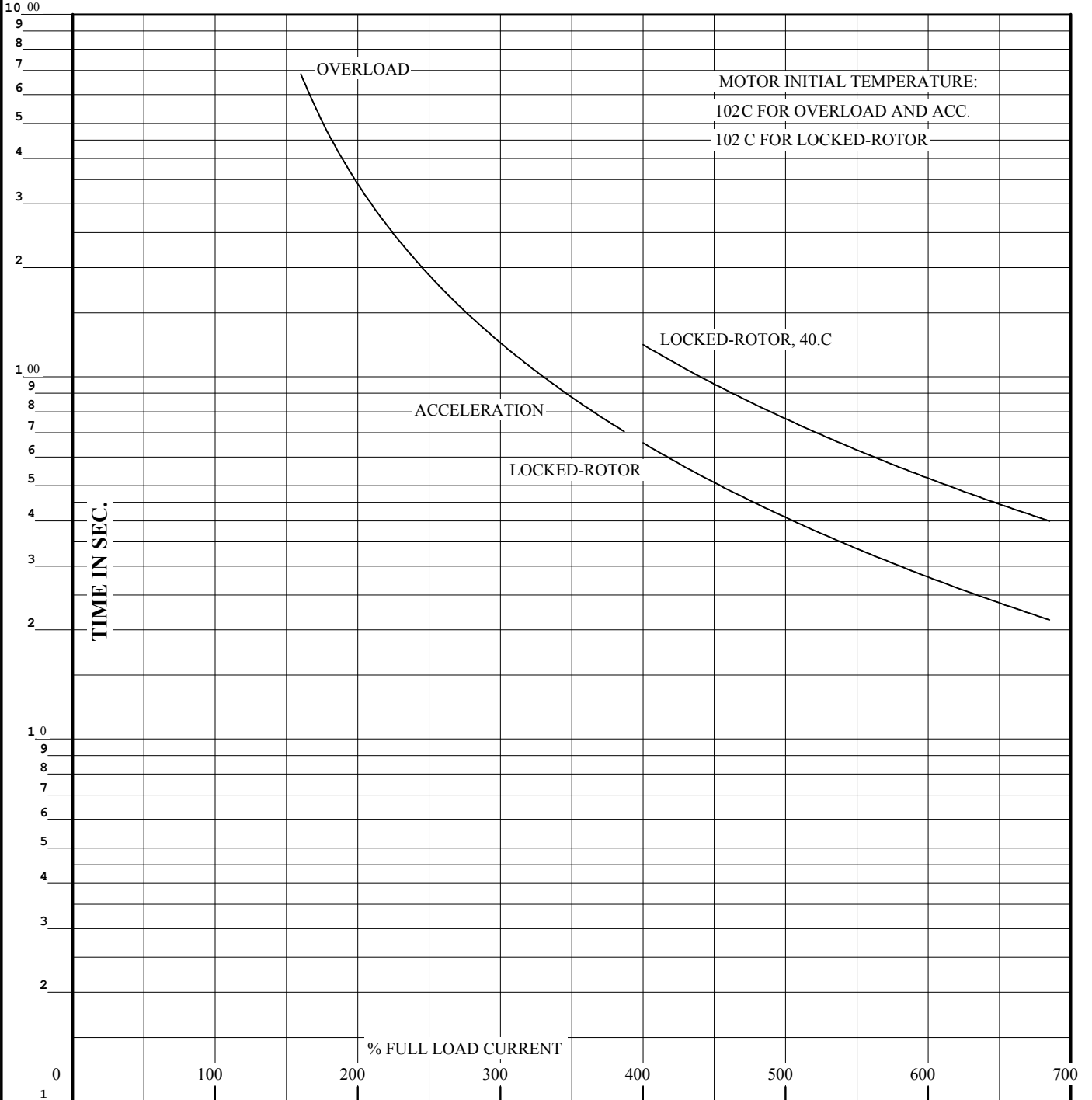


DR. BY	G. R. WEBB
CK. BY	W. L. SMITH
APP. BY	W. L. SMITH
DATE	10/15/14

**A-C MOTOR  
PERFORMANCE  
CURVES**

**A40WG0771-R008**  
 ISSUE DATE 11/04/14

REL. S.O.	RPM <b>1185</b>	S.F. <b>1.15</b>	ROTOR <b>418142-71-EE</b>
FRAME <b>405HP</b>	VOLTS <b>575</b>	NEMA DESIGN <b>B</b>	TEST S.O. <b>TYPICAL DATA</b>
KW <b>55.9</b>	AMPS <b>69.5</b>	CODE LETTER <b>G</b>	TEST DATE <b>---</b>
TYPE <b>P</b>	DUTY <b>CONT</b>	ENCLOSURE <b>TEFC-841</b>	STATOR RES. @ 25 °C <b>.134</b>
PHASE/HERTZ <b>3/60</b>	AMB °C/INSUL <b>40/F</b>	E/S <b>496235</b>	OHMS (BETWEEN LINES)



**THERMAL LIMIT CURVE**

REMARKS: XE MOTOR-TYPICAL DATA-NEMA NOM. EFF. 95.0 PCT.  
GUARANTEED MIN. EFF. 94.1 PCT.

AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



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**A-C MOTOR  
PERFORMANCE  
CURVES** **A40WG0771-R008**  
ISSUE DATE 11/04/14 Page 8 of 10

## DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

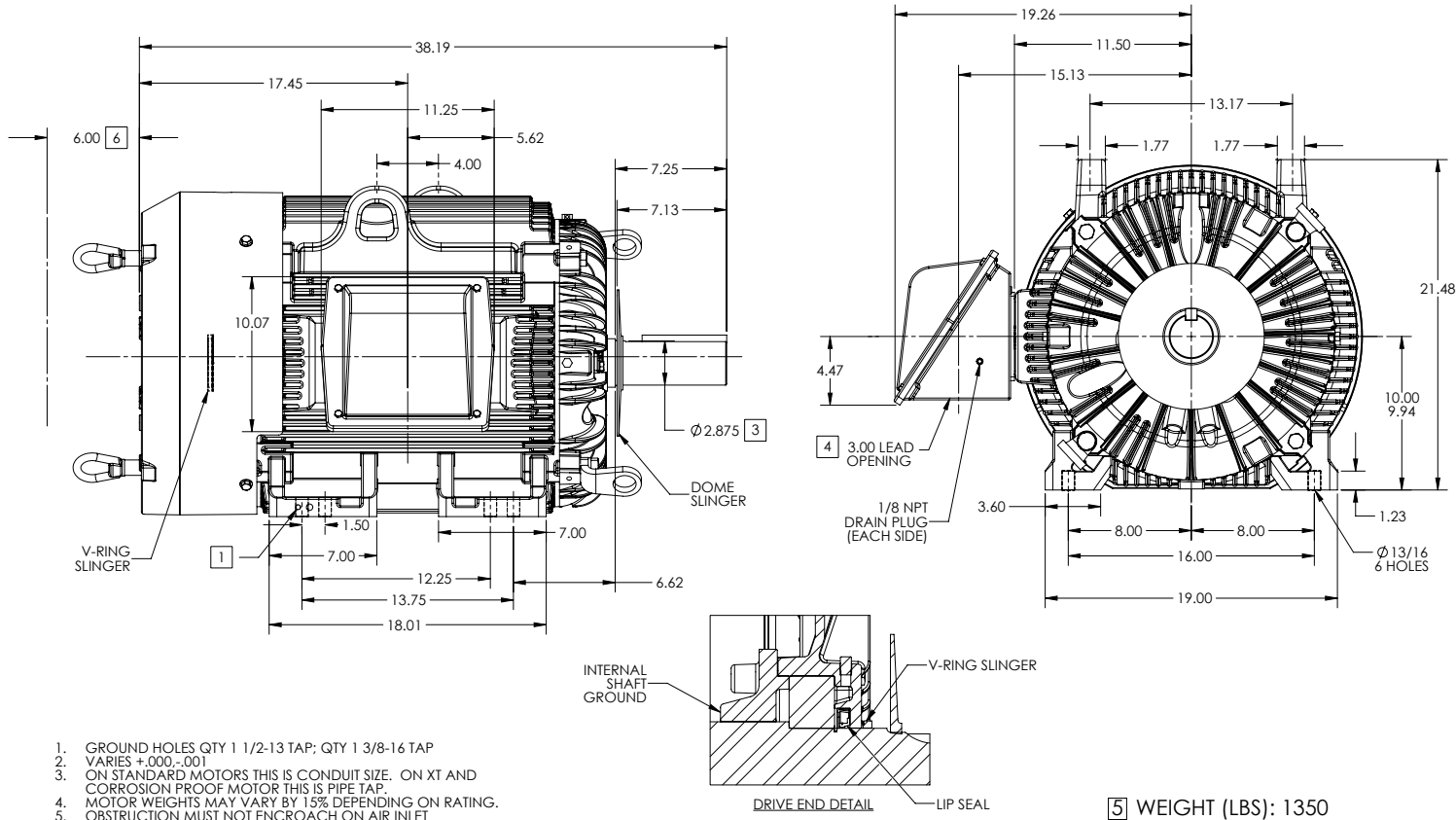
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

STANDARD INDUSTRIAL ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.000,-.001
3. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING. OBSTRUCTION MUST NOT ENCR OACH ON AIR INLET
5. WEIGHT (LBS): 1350

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-1.  
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

DIMENSIONS ARE IN INCHES

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER  
**1 OF 1**  
05C-137219

REV. DESC: NEW	VERSION: 00	REVISED: 02-16-38 04/26/2022	TDR: 000001187873
MODEL NO. 617433-750	REF:		
BY: USBUFRA	Material:		

**BALDOR**

G405T-404T STD - FOOTED - STD ENCL F1 LIPSEAL/V-SLG D.E.

416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\682	REVISED: 11: 54: 06 04/30/2010	
MTL: -	BY: RAGRA	

**BALDOR**

CONN DIAG - STANDARD 3 LEAD  
SH 1 of 1