

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPM4409T-4

100HP, 1195RPM, 3PH, 60HZ, 447T, A44112M, TEFC

Class - CLI GP A,B,C,D; CLII GP F,G

Division - Division II

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	447T
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	CLI GP A,B,C,D; CLII GP F,G
<b>Haz Area Division</b>	Division II
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	100.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1200 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	460.0 V @ 60 HZ
<b>Agency Approvals</b>	CCSAUSEEV CURUSEEV NEMA PREMIUM
<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>	125.000 A @ 460.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	95.8 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	125.0 a
<b>Insulation Class</b>	H
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	K
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Max Speed</b>	1800 rpm
<b>Motor Lead Quantity/Wire Size</b>	6 @ 2 AWG

**Part Detail**

<b>Revision</b>	D
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A44WG0698
<b>Layout</b>	617439-175
<b>Eff. date</b>	01-22-2025
<b>CD Diagram</b>	416820-036
<b>Poles</b>	06
<b>Leads</b>	3#2 (02 per group)
<b>Proprietary</b>	False
<b>Created date</b>	08-27-2024

<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A44112M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	6
<b>Overall Length</b>	48.46 IN
<b>Power Factor</b>	78
<b>Product Family</b>	General Industrial
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	3.375 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	Shaft Slinger
<b>Speed</b>	1195 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**

<b>NP2496L</b>
MOBIL POLYREX EM

**NP4562L**

<b>CAT NO</b>	SPM4409T-4		<b>SPEC NO.</b>	A44-5011-0698		<b>I.P.</b>	55	
<b>HP</b>	100	<b>AMPS</b>	125	<b>VOLTS</b>	460	<b>DESIGN</b>	B	
<b>FRAME SIZE</b>	447T	<b>RPM</b>	1195	<b>MAX RPM</b>	1800	<b>HZ</b>	60	<b>AMB</b> 40
<b>D.E. BRG.</b>	90BC03J30X		<b>PH.3</b>	3	<b>DUTY</b>	CONT		<b>INSUL.CLASS</b> H
<b>O.D.E. BRG.</b>	90BC03J30X		<b>TYPE P</b>	P	<b>ENCL</b>	TEFC	<b>SF</b> 1.15	<b>CODE</b> K
<b>POWER FACTOR</b>	78	<b>MAX CORR KVAR</b>	36	<b>NEMA NOM EFFICIENCY</b>	95.8		<b>MOTOR WEIGHT</b>	<b>LBS</b>
<b>CL.I,DIV 2,GRP:</b>	A,B,C,D	<b>T.CODE</b>	T3C	<b>CL.1,ZONE 2,GRP:</b>	IIA,IIB,IIC		<b>T=</b> 160	<b>INVERTER T.CODE</b> T3
<b>CL.II,DIV 2,GRP:</b>	F,G	<b>T.CODE</b>	T3C	<b>CL II ZONE 22 GRPS IIIB</b>	T= 160		<b>INVERTER T.CODE</b>	T3C
<b>ID LOGO</b>	<b>INV TYPE:</b>	<b>VPWM</b>	<b>CT</b> 6	<b>TO</b> 60	<b>VT</b> 3	<b>TO</b> 60	<b>CHP</b> 60	<b>TO</b> 90
<b>ID LOGO</b>	1.0 SF VPWM	<b>WK2</b>	101.55	<b>LBFT2</b>	<b>SL HZ</b> 0.41	<b>MAG CUR</b>	53.4	
<b>SER.NO.</b>				<b>MEETS INTENT OF IEEE-45</b>		<b>FOR WEATHER PROTECTION</b>		

<b>CUSTOMER INFORMATION PACKET</b>		SPM4409T-4 - 100HP, 1195RPM, 3PH, 60HZ, 447T, A44112M, TEFC				
<b>FRAME</b>	<b>HP</b>	<b>TYPE</b>	<b>PHASE/ HERTZ</b>	<b>RPM</b>	<b>VOLTS</b>	
445T	100	P	3/60	1195	460	

<b>AMPS</b>	<b>DUTY</b>	<b>AMB °C/ INSUL</b>	<b>S.F.</b>	<b>NEMA DESIGN</b>	<b>CODE LETTER</b>	<b>ENCLOSURE</b>
125	CONT	40/F	1.15	A	K	TEFC

<b>E/S</b>	<b>ROTOR</b>	<b>TEST S.O.</b>	<b>TEST DATE</b>	<b>STATOR RES. @25 °C OHMS (BETWEEN LINES)</b>	
-	418143080NE	---	---	.0282	

**PERFORMANCE**


<b>LOAD</b>	<b>HP</b>	<b>AMPERES</b>	<b>RPM</b>	<b>% POWER FACTOR</b>	<b>% EFFICIENCY</b>
NO LOAD	0	53.4	1200	3.86	0
1/4	25.0	62.7	1199	40.8	91.5
2/4	50.0	79.4	1197	62.2	94.8
3/4	75.0	101	1196	72.6	95.7
4/4	100	125	1194	78.0	95.9
5/4	125	150	1192	81.4	95.8

**SPEED TORQUE**

	<b>RPM</b>	<b>TORQUE % FULL LOAD</b>	<b>TORQUE LB.-FT.</b>	<b>AMPERES</b>
<b>LOCKED ROTOR</b>	0	326	1435	1180
<b>PULL UP</b>	1070	238	1045	720
<b>BREAKDOWN</b>	1155	341	1500	530
<b>FULL LOAD</b>	1194	100	440	125

AMPERES SHOWN FOR 460 VOLT CONNECTION. IF OTHER CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

CALCULATED DATA  
NEMA NOM. EFF. 95.8 PCT.

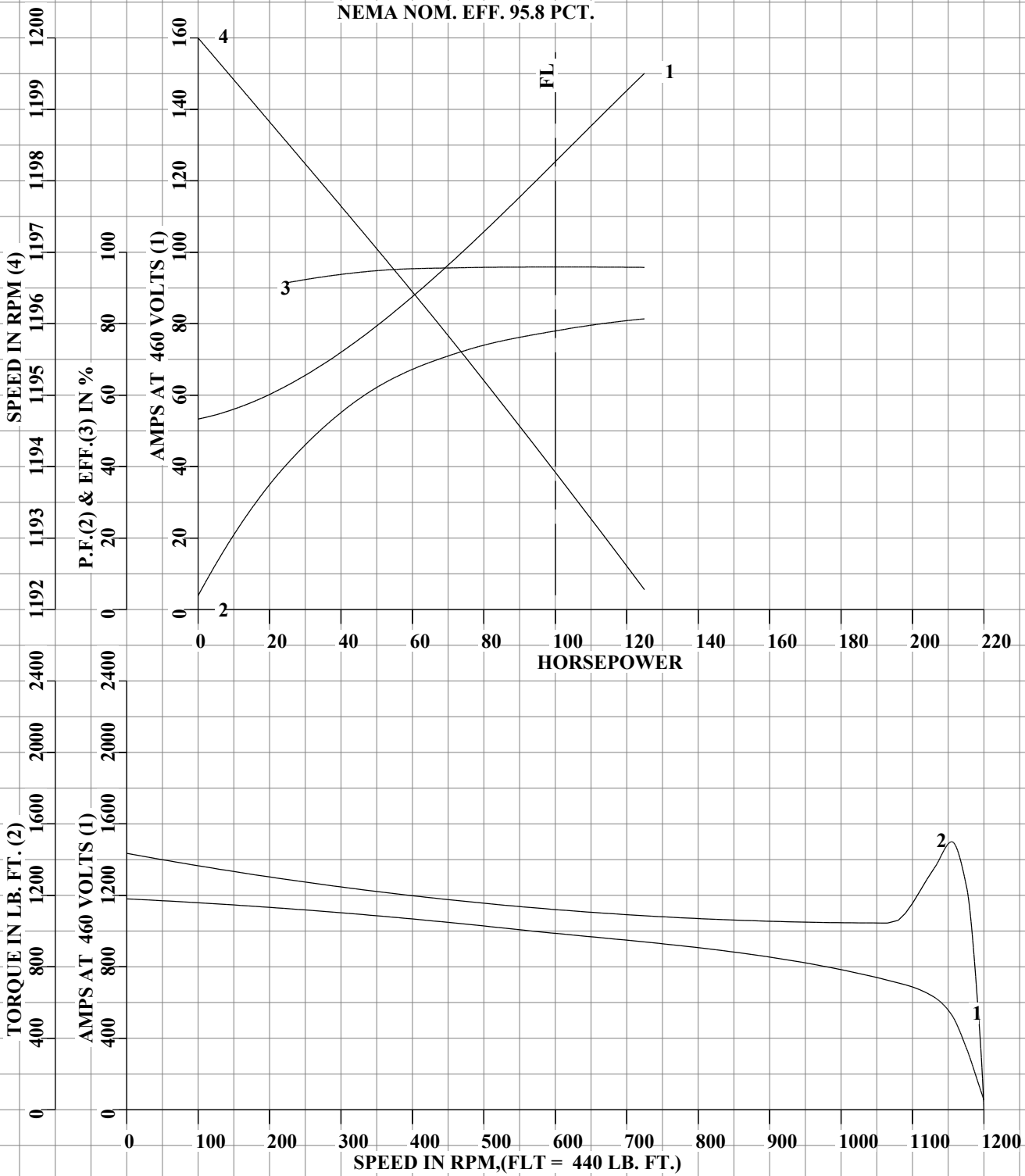
	<b>DRAWN BY: W.L. SMITH</b>	<b>AC MOTOR PERFORMANCE DATA</b>	<b>A44WG0698-R002</b>
	<b>CHECKED BY: C.E. JAMISON</b>		
	<b>APPROVED BY: W.L. SMITH</b>		<b>DATE ISSUED 11/20/24</b>
	<b>DATE: 11/20/24</b>		

FRAME 445T  
HP 100  
TYPE P  
PHASE / HERTZ 3/60

RPM 1195  
VOLTS 460  
AMPS 125  
DUTY CONT  
AMB °C / INSUL 40/F

S.F. 1.15  
NEMA DESIGN A  
CODE LETTER K  
ENCLOSURE TEFC  
E/S -

ROTOR 418143080NE  
TEST S.O. CALCULATED DATA  
TEST DATE ---  
STATOR RES. @ 25°C .0282  
OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

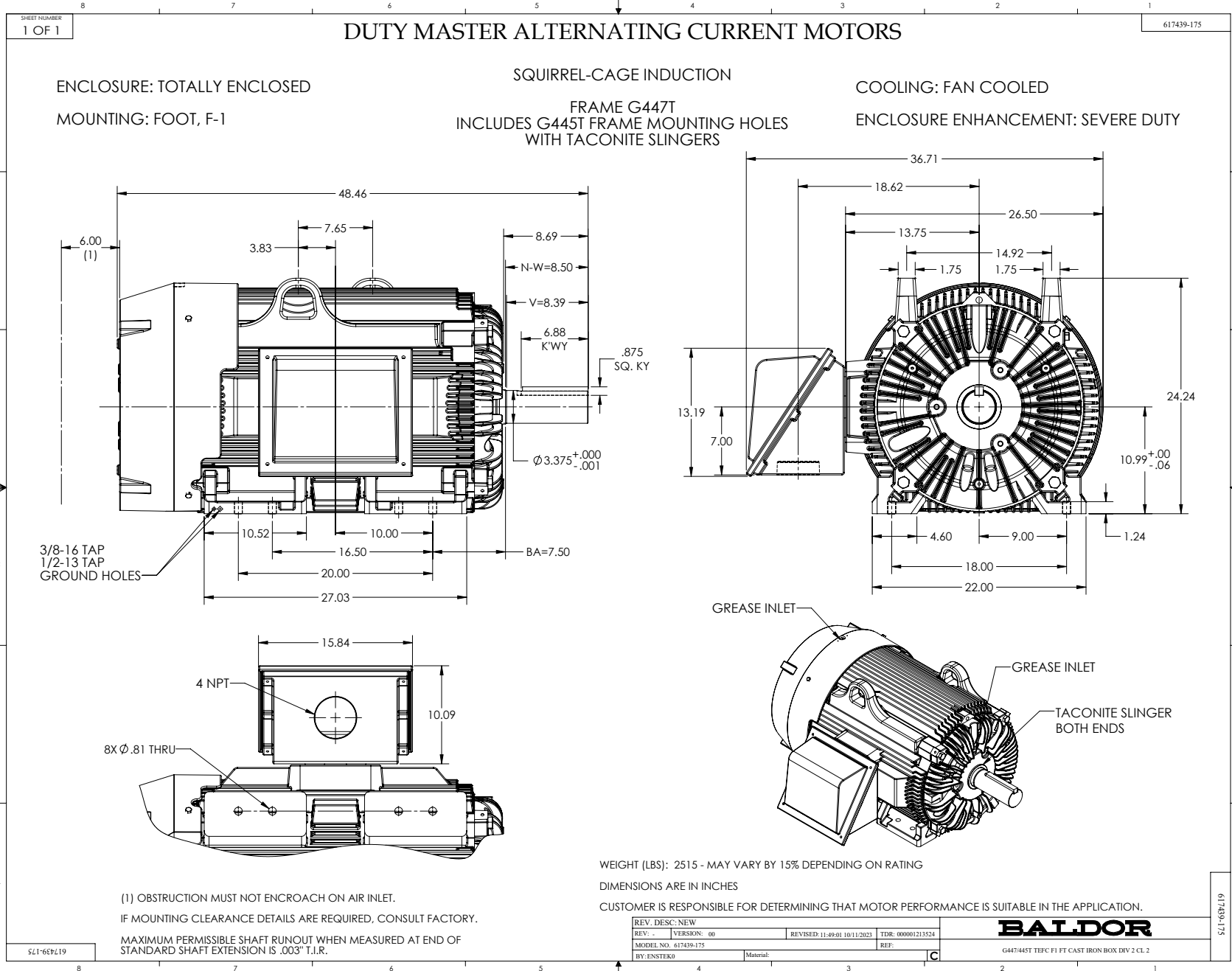


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APPROVED BY: W. L. SMITH  
DATE: 11/20/24

**AC MOTOR  
PERFORMANCE  
DATA**

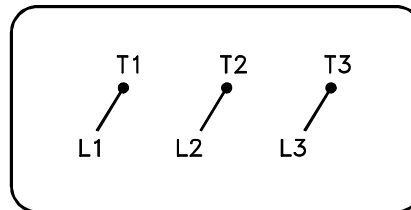
**A44WG0698-R002**

ISSUE DATE 11/20/24



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