

ABB BALDOR RELIANCE III

Customer information packet

CEM3709T-G

7.5HP, 3520RPM, 3PH, 60HZ, 213TC, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV NEMA PREMIUM UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	9.000 A @ 460.0 V 18.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	37WGR224
Layout	37LYJ841
Eff. date	05-01-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	12-17-2019

Insulation Class	H
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3728M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	18.63 IN
Power Factor	84
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	3520 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3441LUA									
CAT.NO.	CEM3709T-G								
SPEC	37-0000-0186								
HP	7.5								
VOLTS	230/460								
AMPS	18/9								
RPM	3520								
FRAME	213TC		HZ	60			PH	3	
SF	1.15		CODE	J	DES	A	CLASS	H	
NEMA NOM. EFF	89.5		PF	84					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC		SER						
DE	6307		ODE	6206					
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
	50HZ 7.5HP 190/380V 21.2/10.6A							SF1.0	

AC Induction Motor Performance Data

Record # 53379

Typical performance - not guaranteed values

Winding: 37WGR224-R034				Type: 3728M		Enclosure: TEFC		
Nameplate Data				460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5		Full Load Torque		10.9 LB-FT		
Volts		230/460		Start Configuration		direct on line		
Full Load Amps		18/9		Breakdown Torque		40.4 LB-FT		
R.P.M.		3520		Pull-up Torque		20.6 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		21.8 LB-FT		
NEMA Design Code		A	KVA Code	J		Starting Current		68.4 A
Service Factor (S.F.)		1.15		No-load Current		3.73 A		
NEMA Nom. Eff.		89.5	Power Factor	84		Line-line Res. @ 25°C		1.1531 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		45°C		
S.F. Amps				Temp. Rise @ S.F. Load		54°C		
				Locked-rotor Power Factor		33		
				Rotor inertia		0.255 LB-FT2		

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	69	79	84	87	89	86
Efficiency	81.5	88.8	90.5	90.6	90.1	89.2	90.3
Speed	3580.5	3562.7	3541.6	3520.3	3496.3	3470.9	3506
Line amperes	4.22	5.36	7.03	8.94	11	13.1	10.2

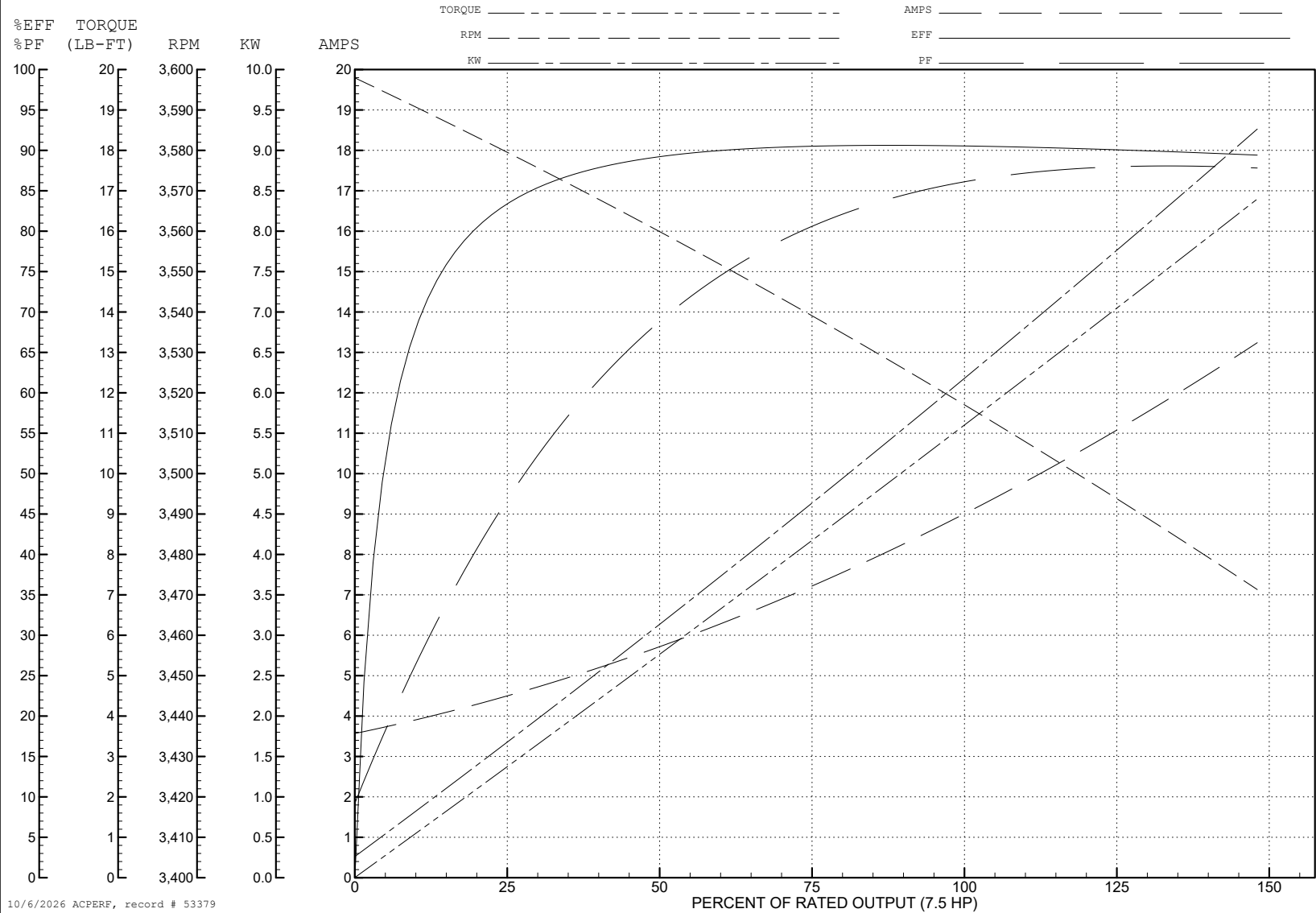
ABB Motors and Mechanical Inc.

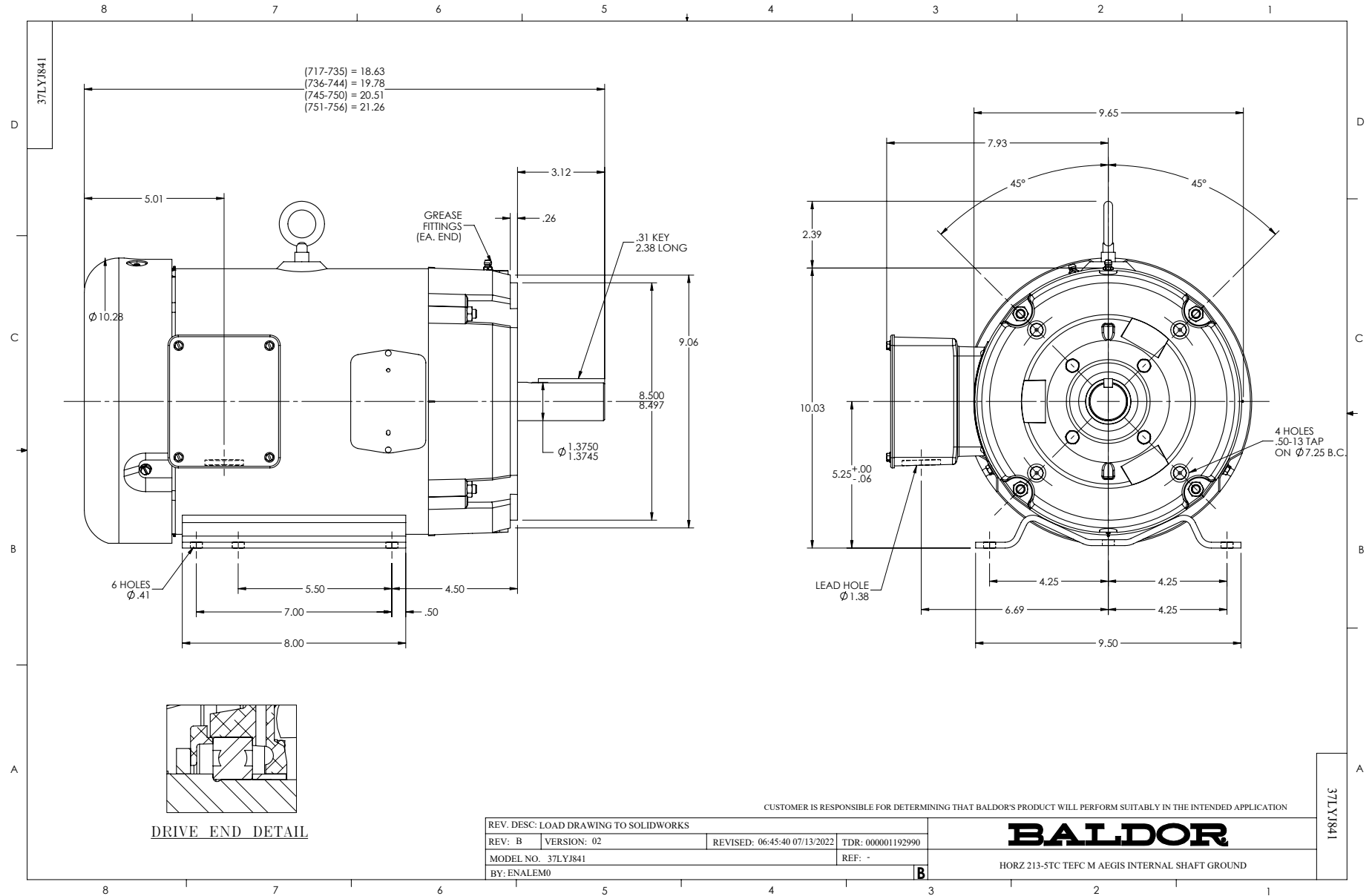
WINDING # 37WGR224

Typical performance - not guaranteed values.

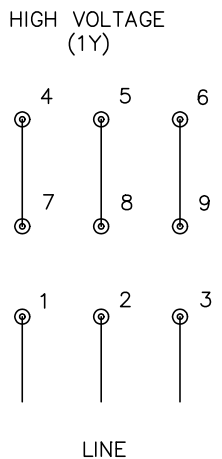
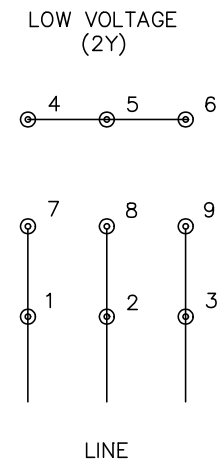
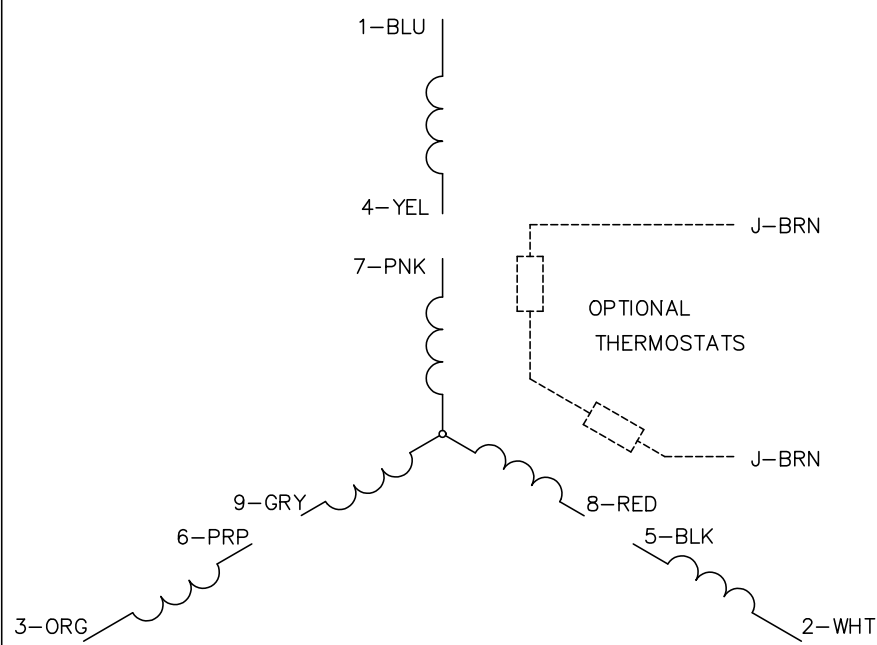
7.5 HP 3 PH 60 HZ 3520 RPM 460 V 3728M

TORQUES (LB-FT): PO=40.4 PU=20.6 LR=21.8 LRA=68.4





CD0005



- 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