

ABB BALDOR RELIANCE III

Customer information packet

CEM3709T

7.5HP, 3520RPM, 3PH, 60HZ, 213TC, 3728M, TEFC

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	CURUSEEV NEMA PREMIUM
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	18.000 A @ 230.0 V 19.000 A @ 208.0 V 9.000 A @ 460.0 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
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a

Part Detail

Revision	C
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGL869
Layout	37LYG814
Eff. date	05-02-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	01-28-2021

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
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 End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
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								
SPEC	37G814L869G1								
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	F		
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 22/11A						SF1.0		

AC Induction Motor Performance Data

Record # 86805

Preliminary Data Sheet

Winding: 37WGL869-R002				Type: 3728M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		7.5		Full Load Torque		11.2 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		18/9		Breakdown Torque		40.3 LB-FT	
R.P.M.		3520		Pull-up Torque		19.7 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		3.52 A	
NEMA Nom. Eff.		89.5	Power Factor	84	Line-line Res. @ 25°C		1.19 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		50°C	
S.F. Amps		20/10		Temp. Rise @ S.F. Load		63°C	
				Locked-rotor Power Factor		38.1	
				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	49	71	81	86	88	89	87
Efficiency	83.9	89.7	91	90.9	90.2	89.2	90.3
Speed	3580	3560	3540	3518	3494	3468	3500
Line amperes	4.1	5.4	7.06	8.96	11	13.2	10.2

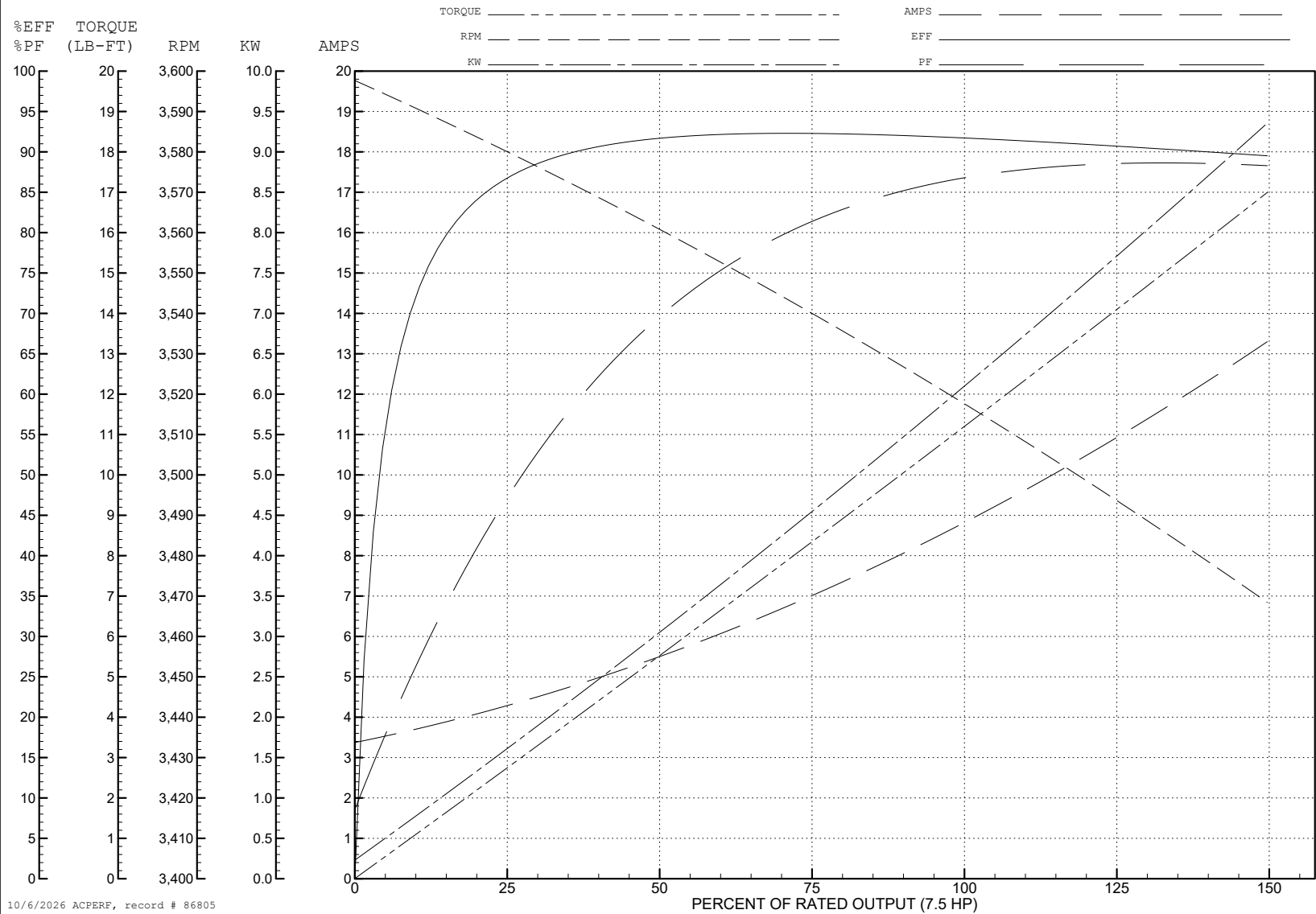
ABB Motors and Mechanical Inc.

WINDING # 37WGL869

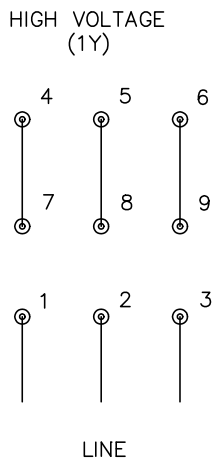
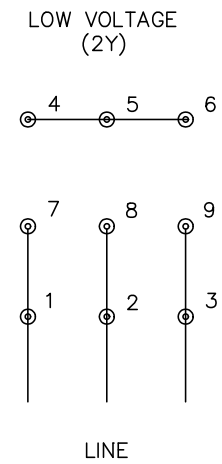
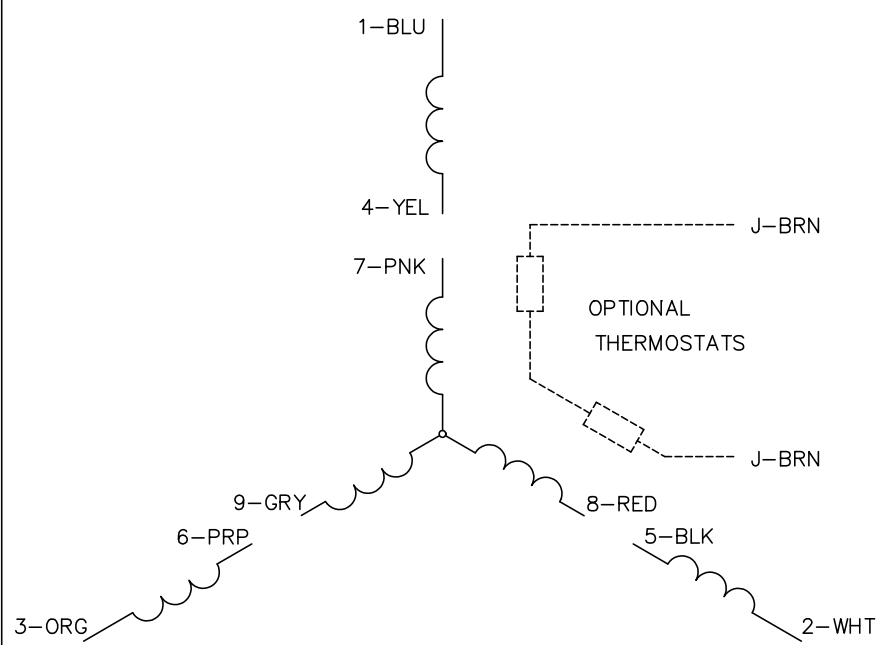
Typical performance - not guaranteed values.

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

TORQUES (LB-FT): PO=40.3 PU=19.7 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