ABB BALDOR RELIANCE

Customer information packet

CEM4106T-5

20HP, 3520RPM, 3PH, 60HZ, 256TC, 0936M, TEFC, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM (OLD LOGO) 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 @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	18.0 a
Insulation Class	F

Part Detail

Revision	AA
Type	AC
Mech. spec.	09C102
Base	
Status	PRD/A
Elec. spec.	09WGZ699
Layout	09LYC102
Eff. date	11-14-2023
CD Diagram	CD0006
Poles	02
Leads	3#12 Y
Proprietary	False
Created date	02-05-2015

Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0936M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	23.86 IN
Power Factor	88
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	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft 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

NP1259L									
CAT.NO.	CEM4106T-5								
SPEC.	09C102Z699G1								
HP	20								
VOLTS	575								
AMP	18								
RPM	3520								
FRAME	256TC	**HZ**	60				**PH**	3	
SER.F.	1.15	**CODE**	H	**DES**	A	**CL**	F		
NEMA-NOM-EFF	91	**PF**	88						
RATING	40C AMB-CONT								
CC	010A								
DE	6309		**ODE**	6208					
ENCL	TEFC	**SN**							

AC Induction Motor Performance Data
Record # 33069
Typical performance - not guaranteed values

Winding: 09WGZ699-R001	**Type:** 0936M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			20	**Full Load Torque**	29.7 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			18	**Breakdown Torque**	110 LB-FT
R.P.M.			3520	**Pull-up Torque**	39 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	49.5 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	129 A
Service Factor (S.F.)			1.15	**No-load Current**	5.75 A
NEMA Nom. Eff.	91	**Power Factor**	88	**Line-line Res. @ 25ºC**	0.732 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	78°C
S.F. Amps				**Temp. Rise @ S.F. Load**	98°C
				Locked-rotor Power Factor	29.5
				Rotor inertia	0.92 lb-ft²

Load Characteristics 575 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	58	78	86	88	90	90	89
Efficiency	88.4	91.9	92.2	91.7	90.3	89	90.9
Speed	3580	3562	3541	3519	3495	3468	3505
Line amperes	7.21	10.4	14.2	18.4	22.9	28	21.1

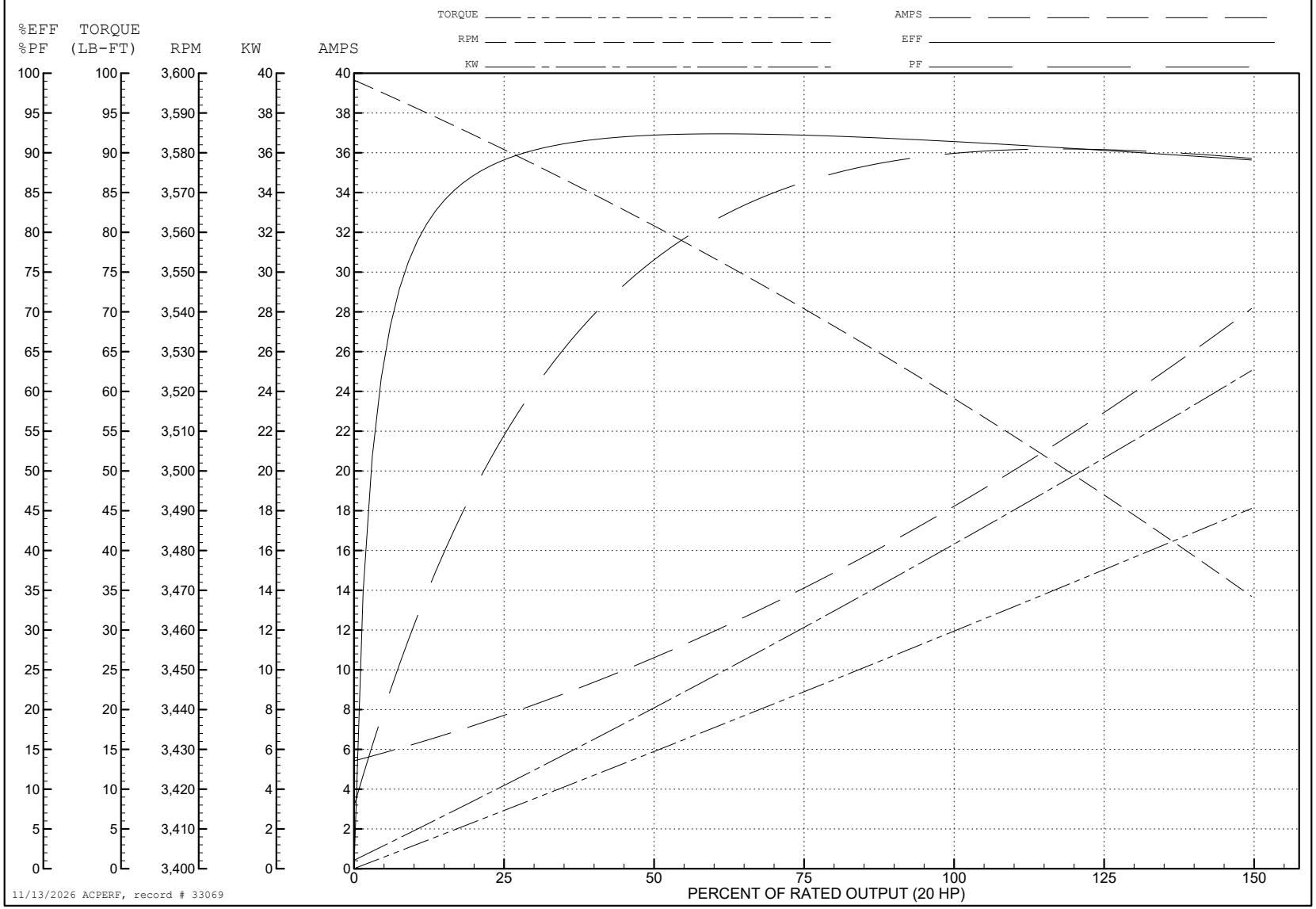
ABB Motors and Mechanical Inc.

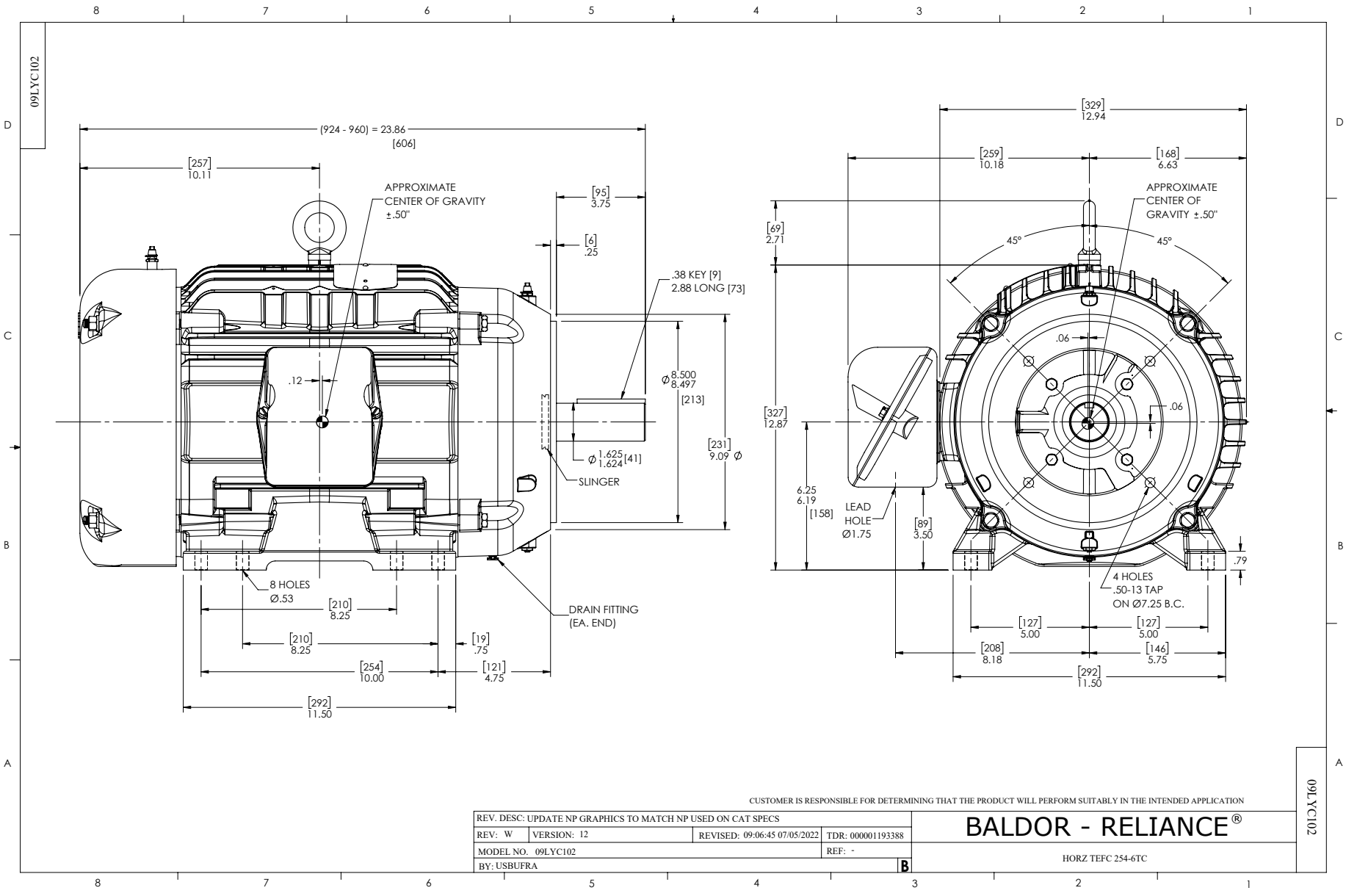
WINDING # 09WGZ699

20 HP 3 PH 60 HZ 3520 RPM 575 V 0936M

Typical performance - not guaranteed values.

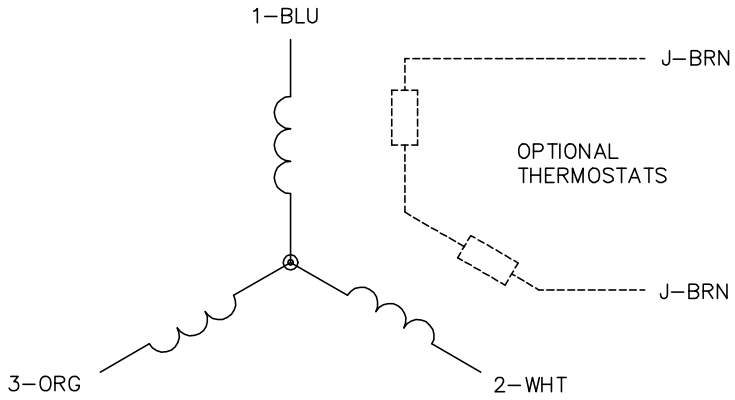
TORQUES(LB-FT): PO=110 PU=39 LR=49.5 LRA=129

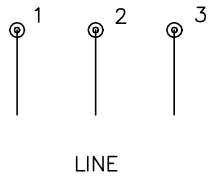



09LYC102
(924 - 960) = 23.86
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10.11
APPROXIMATE
CENTER OF GRAVITY
±.50"
[95]
3.75
[6]
.25
.38 KEY [9]
2.88 LONG [73]
.12
Ø 8.500
8.497
[213]
[231]
9.09 Ø
Ø 1.625
1.624 [41]
SLINGER
8 HOLES
Ø.53
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8.25
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8.25
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4.75
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11.50
DRAIN FITTING
(EA. END)
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APPROXIMATE
CENTER OF
GRAVITY ±.50"
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45°
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.06
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12.87
6.25
6.19
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LEAD
HOLE
Ø1.75
[89]
3.50
.79
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
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8.18
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5.75
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11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE NP GRAPHICS TO MATCH NP USED ON CAT SPECS
REV: W
VERSION: 12
REVISED: 09:06:45 07/05/2022
TDR: 000001193388
MODEL NO. 09LYC102
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HORZ TEFC 254-6TC
09LYC102

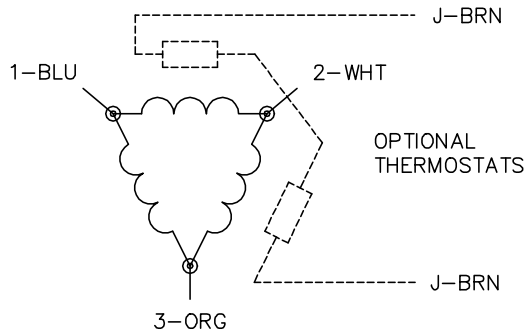
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



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.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

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

SH 1 of 1