

**BALDOR • RELIANCE**

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# Customer information packet

## CEM3616T

7.5HP, 3450RPM, 3PH, 60HZ, 184TC, 3646M, TEFC

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	184TC
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 EEV CURUSEEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	18.500 A @ 208.0 V 8.400 A @ 460.0 V 16.800 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

## Part detail

Revision	M
Type	AC
Mech. spec.	36A002
Base	
Status	PRD/A
Elec. spec.	36WGS428
Layout	36LYA002
Eff. date	10-02-2024
CD Diagram	CD0005
Poles	02
Leads	9#16
Proprietary	False
Created date	07-29-2010

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	8.4 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3646M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	18.05 IN
Power Factor	93
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	1.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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**

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**Nameplate**

**NP3441LUA**

<b>CAT.NO.</b>	CEM3616T						
<b>SPEC</b>	36A002S428G1						
<b>HP</b>	7.5						
<b>VOLTS</b>	230/460						
<b>AMPS</b>	16.8/8.4						
<b>RPM</b>	3450						
<b>FRAME</b>	184TC		<b>HZ</b>	60		<b>PH</b>	3
<b>SF</b>	1.15	<b>CODE</b>	L	<b>DES</b>	A	<b>CLASS</b>	F
<b>NEMA NOM. EFF</b>	89.5	<b>PF</b>	93				
<b>RATING</b>	40C AMB-CONT						
<b>CC</b>	010A						
<b>ENCL</b>	TEFC	<b>SER</b>					
<b>DE</b>	6206	<b>ODE</b>	6205				
<b>VPWM INVERTER READY</b>							
<b>CT6-60H(10:1)VT3-60H(20:1</b>	50Hz 7.5HP 190/380V 21/10.5A						SF1.0

**AC Induction Motor Performance Data**

Record # 52145

Typical performance - not guaranteed values

Winding: 36WGS428-R020		Type: 3646M	Enclosure: TEFC
<b>Nameplate Data</b>		<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)	7.5	Full Load Torque	11.4 LB-FT
Volts	230/460	Start Configuration	direct on line
Full Load Amps	16.8/8.4	Breakdown Torque	57.9 LB-FT
R.P.M.	3450	Pull-up Torque	39.9 LB-FT
Hz	60 Phase	Locked-rotor Torque	48.2 LB-FT
NEMA Design Code	A KVA Code	Starting Current	91 A
Service Factor (S.F.)	1.15	No-load Current	2.33 A
NEMA Nom. Eff.	89.5 Power Factor	Line-line Res. @ 25°C	1.43 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	74°C
S.F. Amps		Temp. Rise @ S.F. Load	92°C
		Locked-rotor Power Factor	44.4
		Rotor inertia	0.205 LB-FT <sup>2</sup>

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	64	85	90	93	94	94	94
Efficiency	86.9	90.6	91	90.1	88.8	86.5	89.3
Speed	3571	3539	3505	3468	3429	3385	3445
Line amperes	3.14	4.59	6.43	8.43	10.5	12.9	9.67

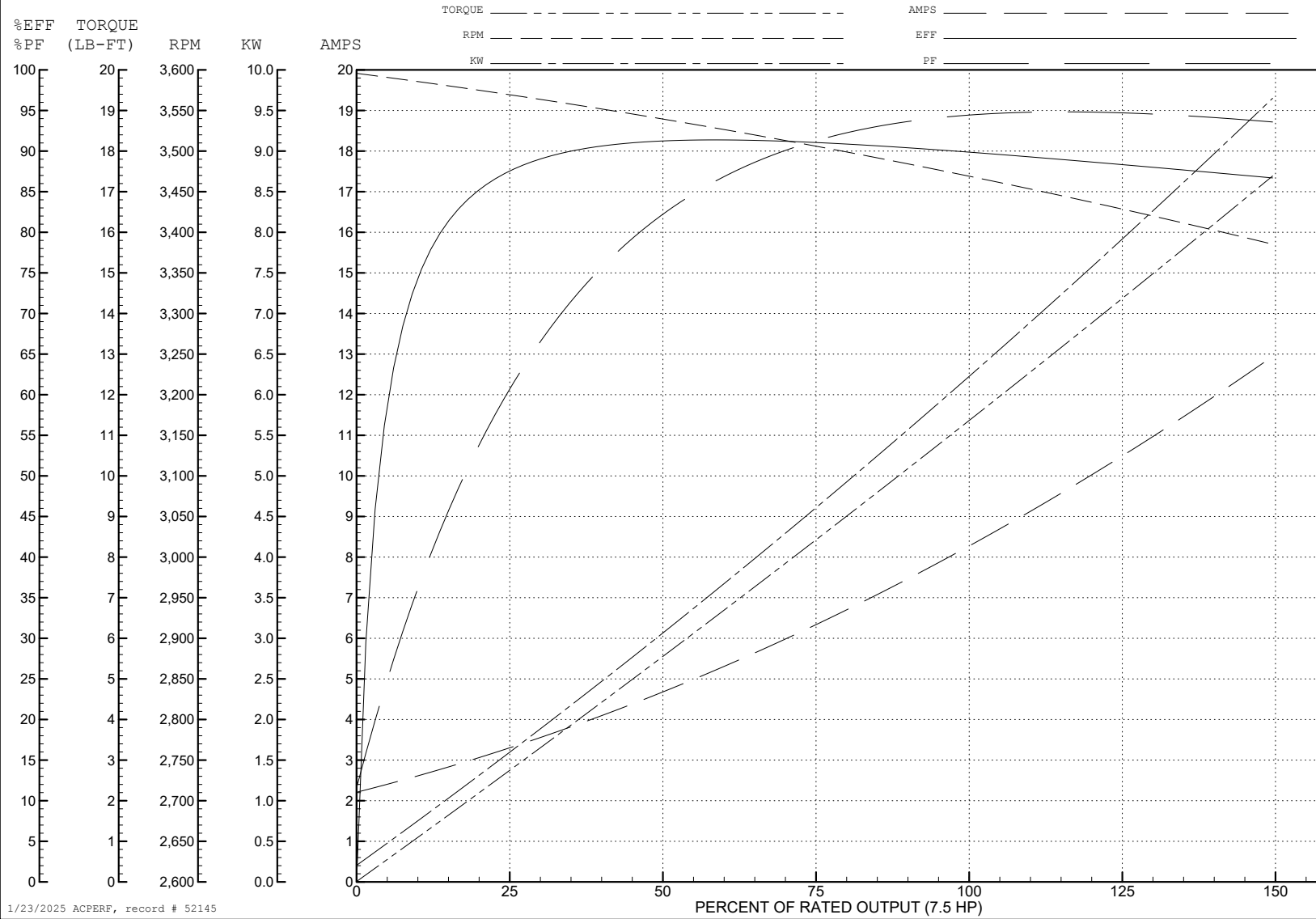
ABB Motors and Mechanical Inc.

WINDING # 36WGS428

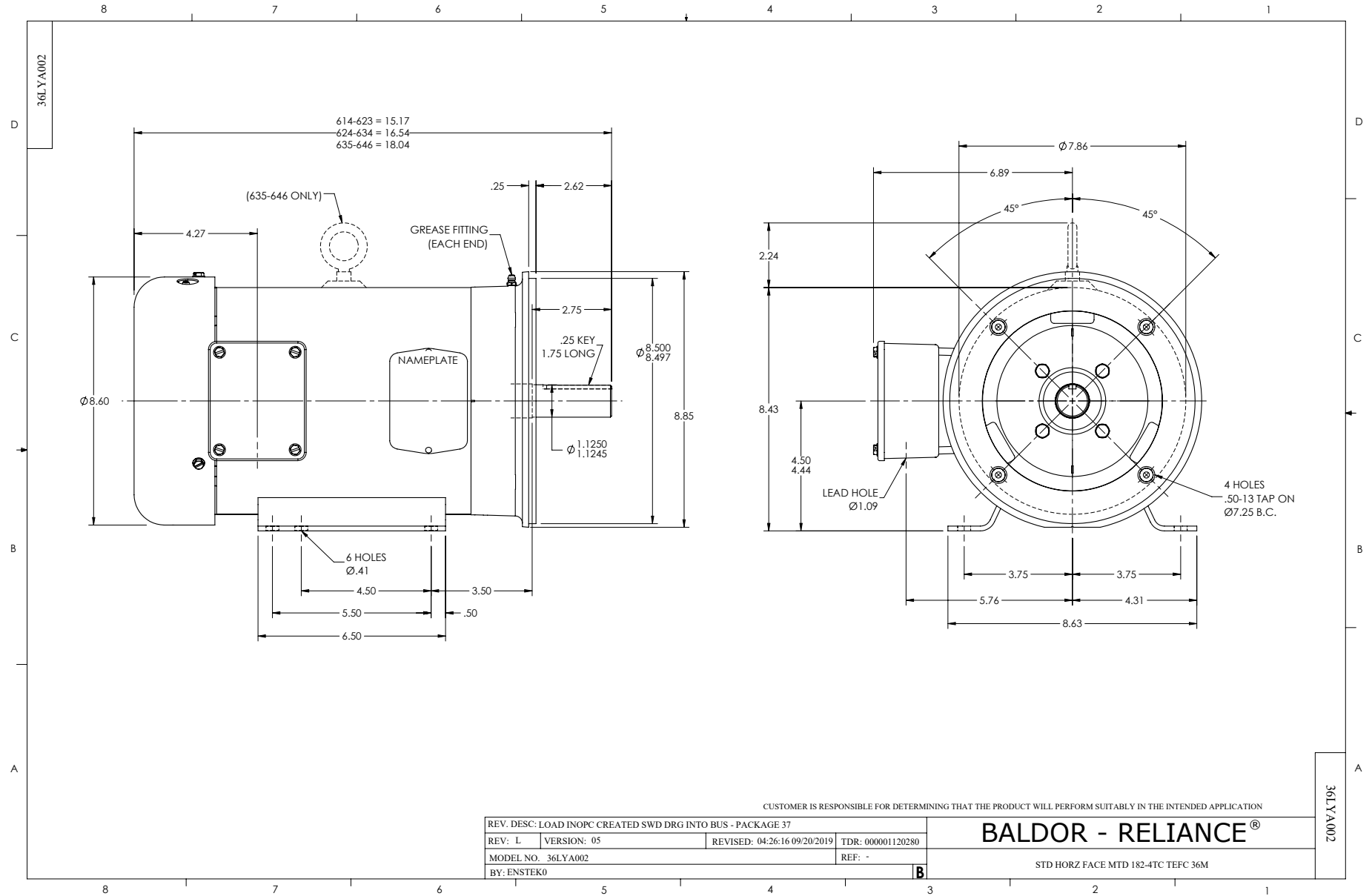
Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3450 RPM 460 V 3646M

TORQUES (LB-FT): PO=57.9 PU=39.9 LR=48.2 LRA=91

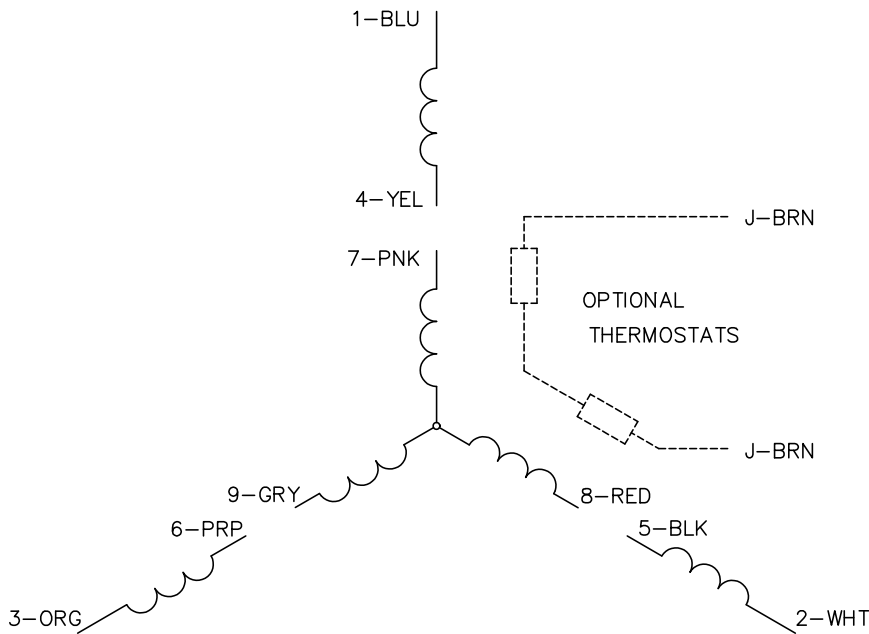


1/23/2025 ACPERF, record # 52145

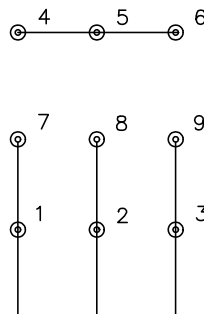




CD0005

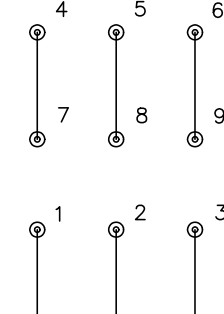


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS