

**BALDOR® • RELIANCE** 

**Product Information Packet**

**CEM3558**

**2HP,1755RPM,3PH,60HZ,56C,3528M,TEFC,F1,N**

Part Detail							
Revision:	H	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGN909	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	35A012	Layout:	35LYA012	Poles:	04	Created Date:	03-24-2015
Base:	RG	Eff. Date:	03-06-2018	Leads:	9#18		Y

Specs			
Catalog Number:	CEM3558	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	56C	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	L
Output @ Frequency:	2.000 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3528M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	75
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	2.900 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	5.800 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	6.600 A @ 208.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	B	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	CEM3558									
<b>SPEC</b>	35A012N909G1									
<b>HP</b>	2									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	5.8/2.9									
<b>RPM</b>	1755									
<b>FRAME</b>	56C				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	L	<b>DES</b>	B		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	86.5		<b>PF</b>	75						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>						6.6
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6205			<b>ODE</b>	6203					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1)</b>										
50Hz 2HP 190/380V 6.6/3.3A									SF1.0	

Parts List		
Part Number	Description	Quantity
SA295808	SA 35A012N909G1	1.000 EA
RA281866	RA 35A012N909G1	1.000 EA
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 EA
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3307F00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 EA
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
35FH4005A32SP	IEC FH NO GR SR W/3 HOLES - PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4521GX	CONDUIT BOX LID KIT **ORDER INDIV PARTS	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.017 GA
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
36PA1000	PKG GRP, PRINT PK1016A06	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA

**AC Induction Motor Performance Data**

Record # 53344 - Typical performance - not guaranteed values

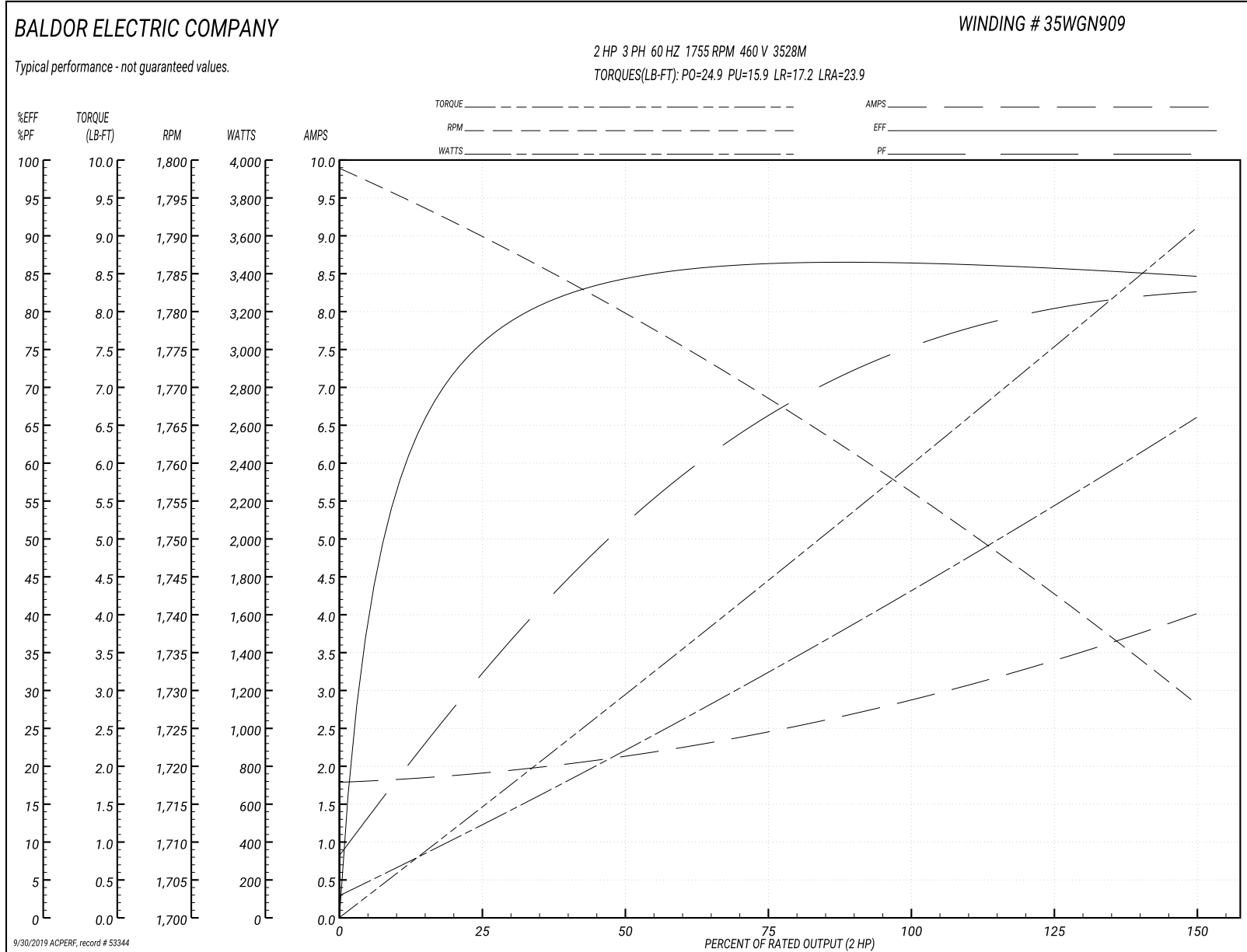
<b>Winding:</b> 35WGN909-R032	<b>Type:</b> 3528M	<b>Enclosure:</b> TEFC
-------------------------------	--------------------	------------------------

Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	2			Full Load Torque	5.99 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	5.8/2.9			Breakdown Torque	24.9 LB-FT
R.P.M.	1755			Pull-up Torque	15.9 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	17.2 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	23.9 A
Service Factor (S.F.)	1.15			No-load Current	1.81 A
NEMA Nom. Eff.	86.5	Power Factor	75	Line-line Res. @ 25°C	8.02 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	65°C
S.F. Amps				Temp. Rise @ S.F. Load	77°C
				Locked-rotor Power Factor	52.4
				Rotor inertia	0.165 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 2 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	53	66	74	80	83	78
Efficiency	75.5	84	86.3	86.5	85.8	84.5	86.2
Speed	1790	1779	1769	1756	1743	1728	1748
Line amperes	1.89	2.11	2.46	2.91	3.4	4	3.2

Performance Graph at 460V, 60Hz, 2.0HP Typical performance - Not guaranteed values





**AC Induction Motor Performance Data**

Record # 57956 - Typical performance - not guaranteed values

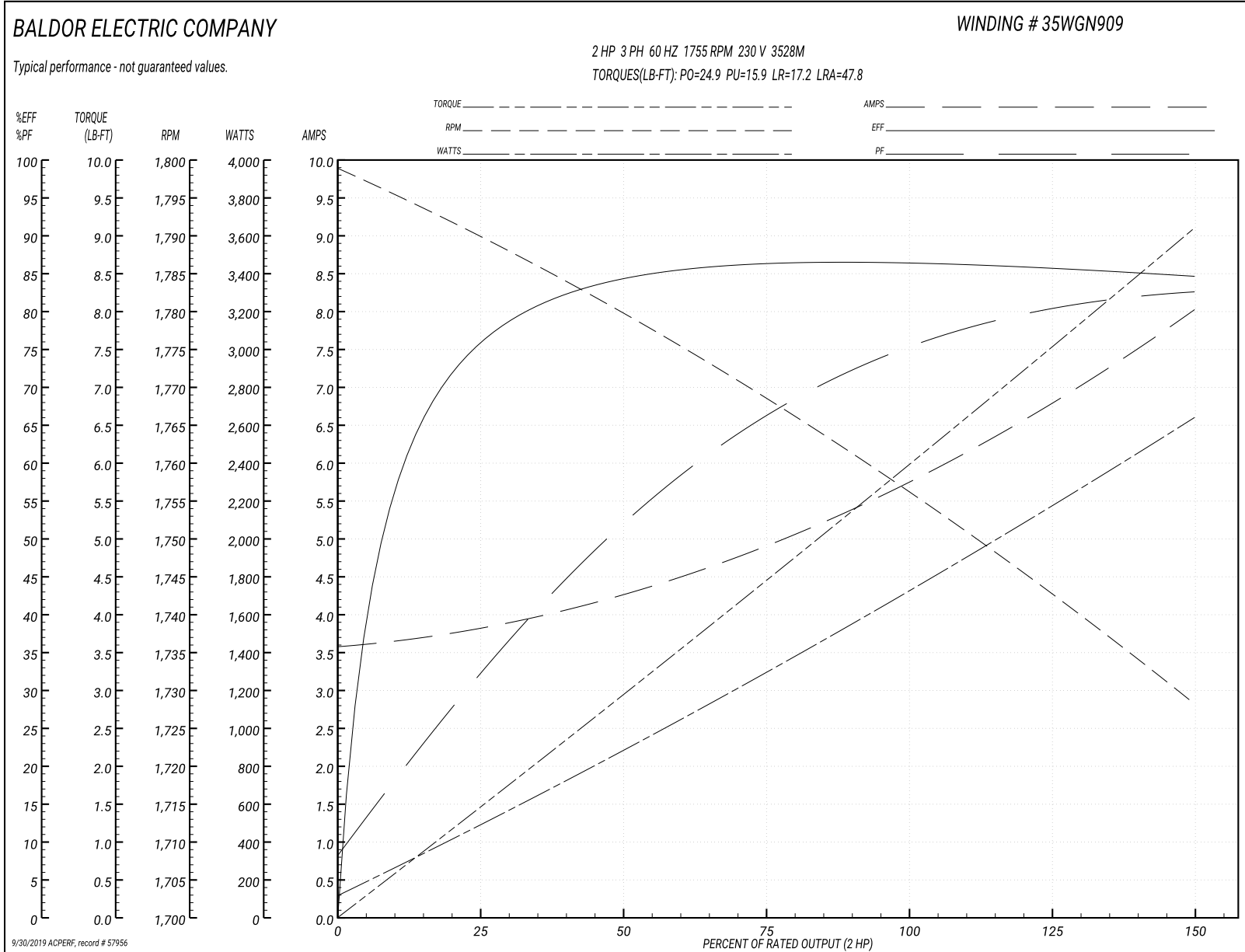
<b>Winding:</b> 35WGN909-R032	<b>Type:</b> 3528M	<b>Enclosure:</b> TEFC
-------------------------------	--------------------	------------------------

Nameplate Data				230 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	2			Full Load Torque	5.99 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	5.8/2.9			Breakdown Torque	24.9 LB-FT
R.P.M.	1755			Pull-up Torque	15.9 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	17.2 LB-FT
NEMA Design Code	B	KVA Code	L	Starting Current	47.8 A
Service Factor (S.F.)	1.15			No-load Current	3.62 A
NEMA Nom. Eff.	86.5	Power Factor	75	Line-line Res. @ 25°C	2 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	65°C
S.F. Amps				Temp. Rise @ S.F. Load	77°C
				Locked-rotor Power Factor	52.4
				Rotor inertia	0.165 LB-FT <sup>2</sup>

Load Characteristics 230 V, 60 Hz, 2 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	53	66	74	80	83	78
Efficiency	75.6	84.1	86.4	86.6	85.9	84.6	86.2
Speed	1790	1779	1769	1756	1743	1728	1748
Line amperes	3.78	4.22	4.92	5.82	6.8	8	6.41

Performance Graph at 230V, 60Hz, 2.0HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 73870 - Typical performance - not guaranteed values

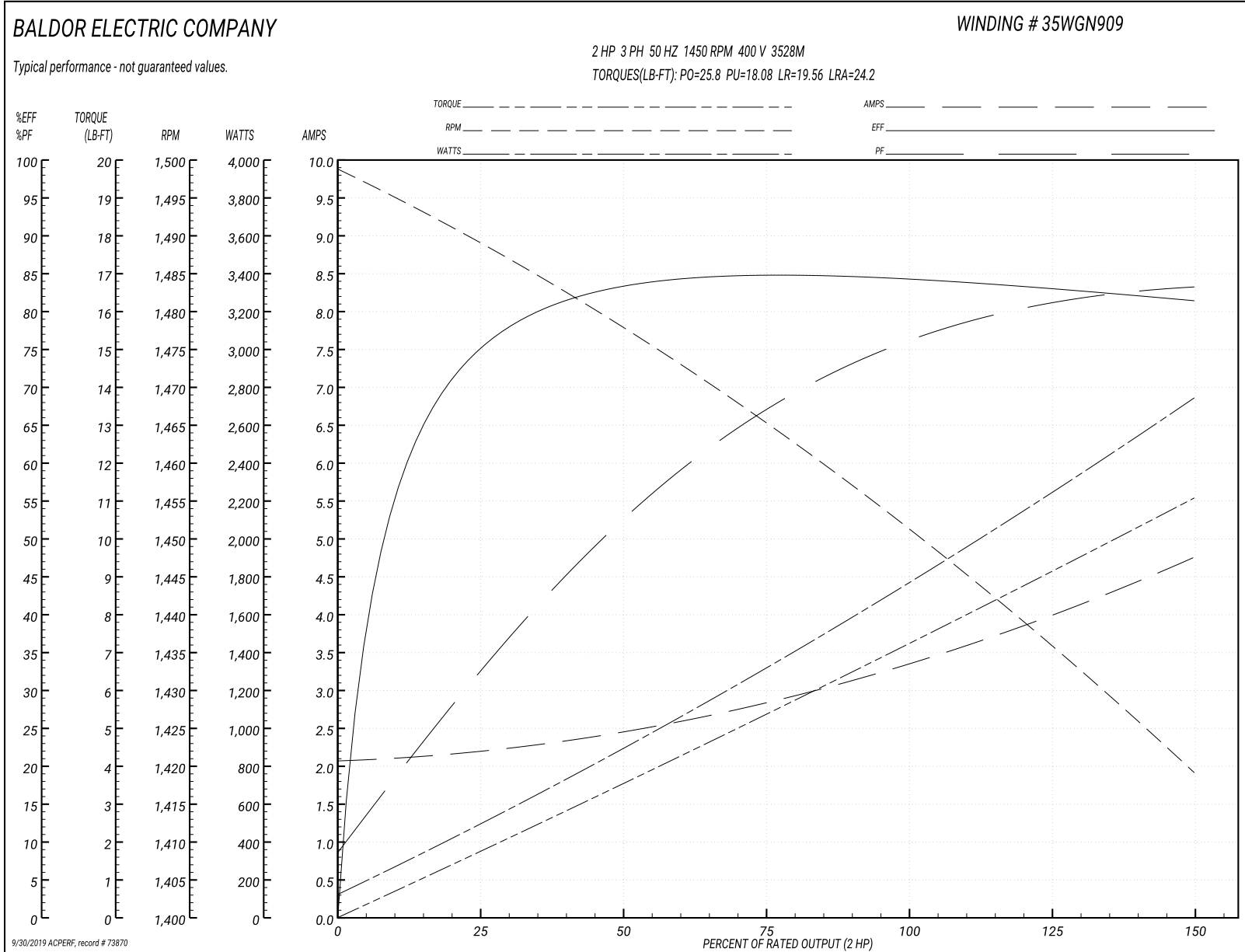
<b>Winding:</b> 35WGN909-R032	<b>Type:</b> 3528M	<b>Enclosure:</b> TEFC
-------------------------------	--------------------	------------------------

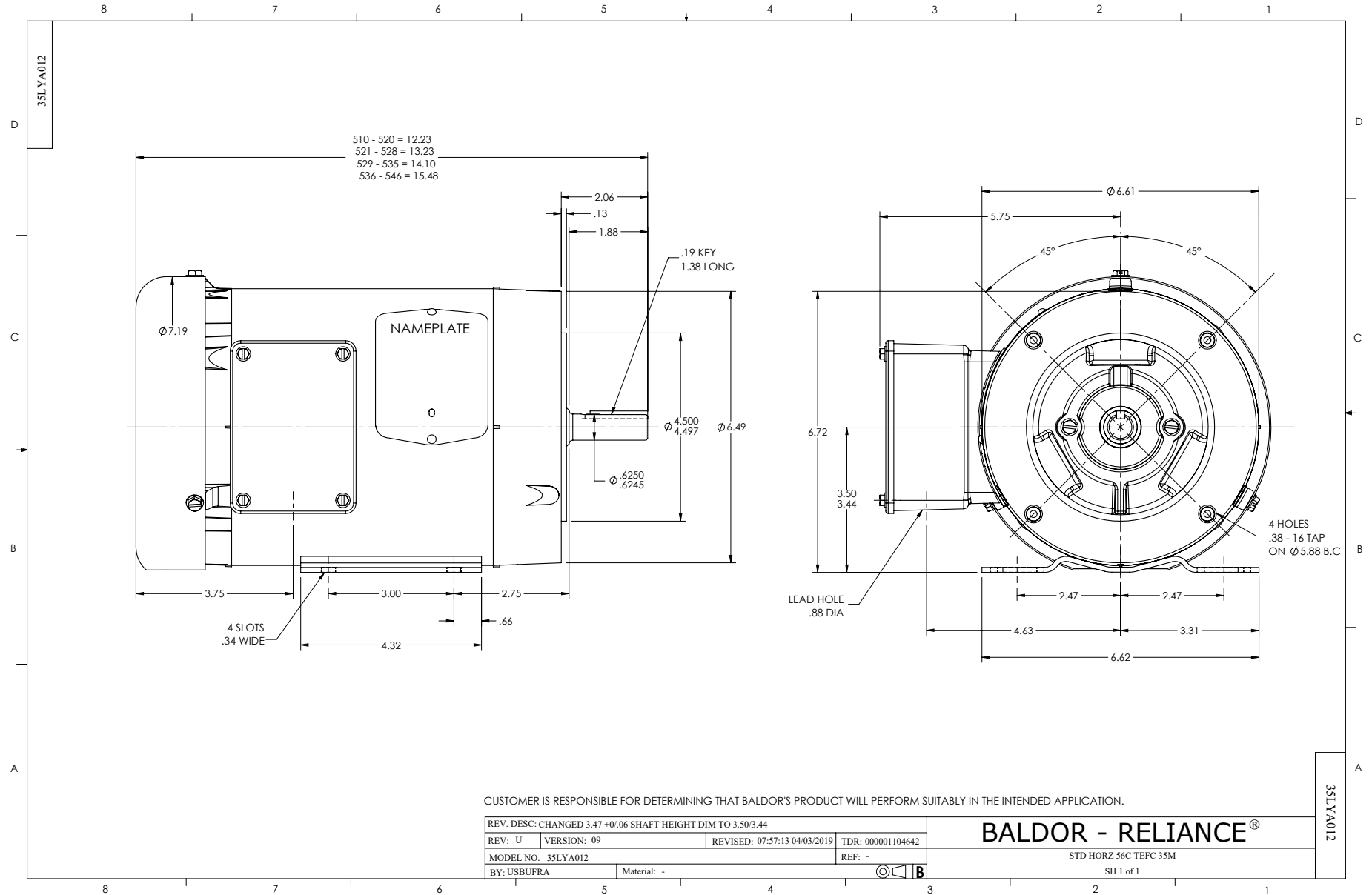
Nameplate Data				400 V, 50 Hz: High Voltage Connection	
Rated Output (HP)	2			Full Load Torque	7.25 LB-FT
Volts	200/400			Start Configuration	direct on line
Full Load Amps	6.8/3.4			Breakdown Torque	25.8 LB-FT
R.P.M.	1450			Pull-up Torque	18.08 LB-FT
Hz	50	Phase	3	Locked-rotor Torque	19.56 LB-FT
NEMA Design Code	B	KVA Code	K	Starting Current	24.2 A
Service Factor (S.F.)	1.15			No-load Current	2.09 A
NEMA Nom. Eff.	84.5	Power Factor	75	Line-line Res. @ 25°C	8.02 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	85°C
S.F. Amps				Temp. Rise @ S.F. Load	104°C
				Locked-rotor Power Factor	58.9
				Rotor inertia	0.165 LB-FT <sup>2</sup>

Load Characteristics 400 V, 50 Hz, 2 HP

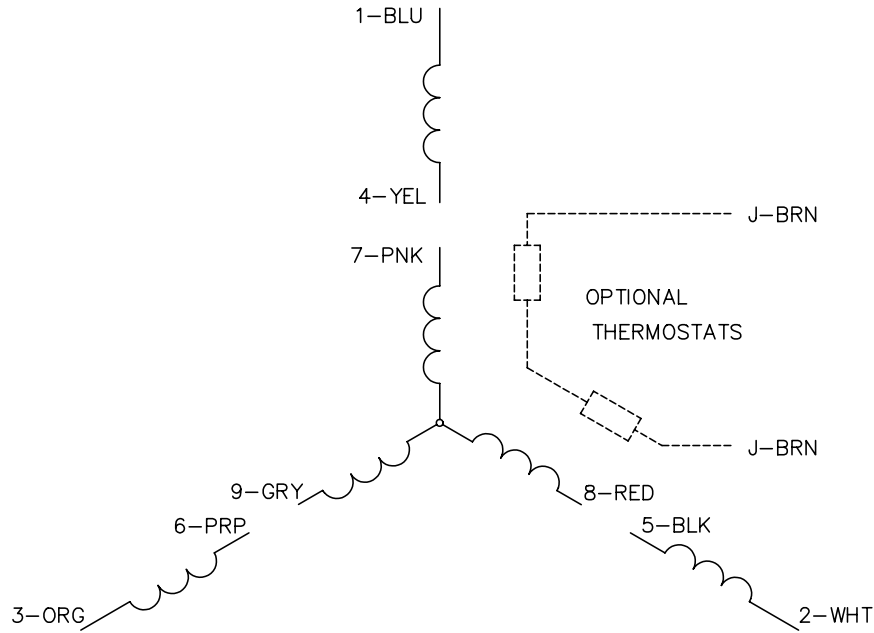
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	54	67	75	81	84	79
Efficiency	74.5	82.9	84.7	84.5	83.2	81.2	83.7
Speed	1489	1477	1466	1451	1436	1419	1442
Line amperes	2.18	2.43	2.85	3.39	3.99	4.75	3.75

Performance Graph at 400V, 50Hz, 2.0HP Typical performance - Not guaranteed values

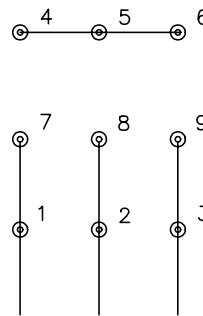




CD0005

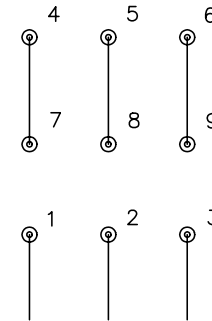


LOW VOLTAGE  
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
9000D		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005