

BALDOR® • RELIANCE 

Product Information Packet

EM3709

7.5HP,3450RPM,3PH,60HZ,215,3646M,TEFC,F1

Part Detail							
Revision:	C	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGS428	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36G890	Layout:	36LYG890	Poles:	02	Created Date:	02-27-2015
Base:	RG	Eff. Date:	09-01-2016	Leads:	9#16		

Specs			
Catalog Number:	EM3709	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	215	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	L
Output @ Frequency:	7.500 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	No Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 16 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:	3646M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	93
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

Current @ Voltage:	16.800 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding
	18.500 A @ 208.0 V	Shaft Rotation:	Reversible
	8.400 A @ 460.0 V	Shaft Slinger Indicator:	No Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	NONE (OLD)
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP1259L										
CAT.NO.	EM3709									
SPEC.	36G890S428G1									
HP	7.5									
VOLTS	230/460									
AMP	16.8/8.4									
RPM	3450									
FRAME	215				HZ	60			PH	3
SER.F.	1.15		CODE	L	DES	A		CL	F	
NEMA-NOM-EFF	89.5		PF	93						
RATING	40C AMB-CONT									
CC	010A				USABLE AT 208V			18.5		
DE	6206				ODE	6205				
ENCL	TEFC		SN							

Parts List		
Part Number	Description	Quantity
SA301652	SA 36G890S428G1	1.000 EA
RA288729	RA 36G890S428G1	1.000 EA
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1.000 EA
36CB3000SP	CONDUIT BOX, CAST	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
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
36EP3104A01	FREP MACH ASSEMBLY FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 EA
36EP3100A01SP	PUEP ASSEMBLY FOR ROUTING PURPOSES	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HA3101A28	THRUBOLT 1/4-20 X 12.500 OHIO ROD	4.000 EA
XY2520A12	1/4-20 HEX NUT, DIRECTIONAL SERRATIONS	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
36FH4009A102	IEC FH GREASER PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4514GX	CONDUIT BOX LID KIT	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501E16	KEY, 1/4 SQ X 1.750	1.000 EA
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.050 LB
35FN3002A04SP	EXFN, PLASTIC, 6.376 OD, .906 ID W/KEY	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP1259L	ALUM SUPER-E UL CSA-EEV CC NEMA PREMIUM	1.000 EA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

AC Induction Motor Performance Data

Record # 52145 - Typical performance - not guaranteed values

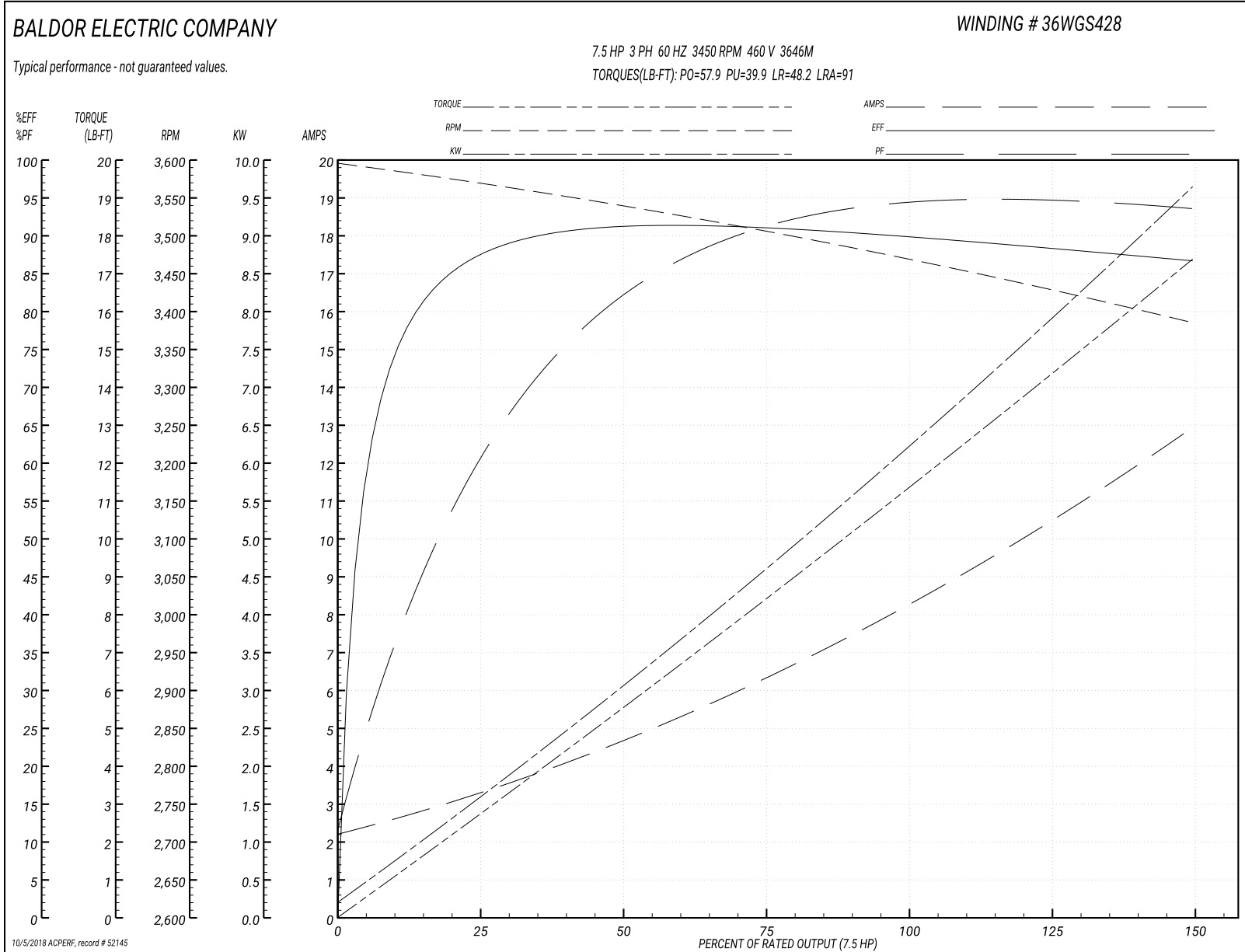
Winding: 36WGS428-R020	Type: 3646M	Enclosure: TEFC
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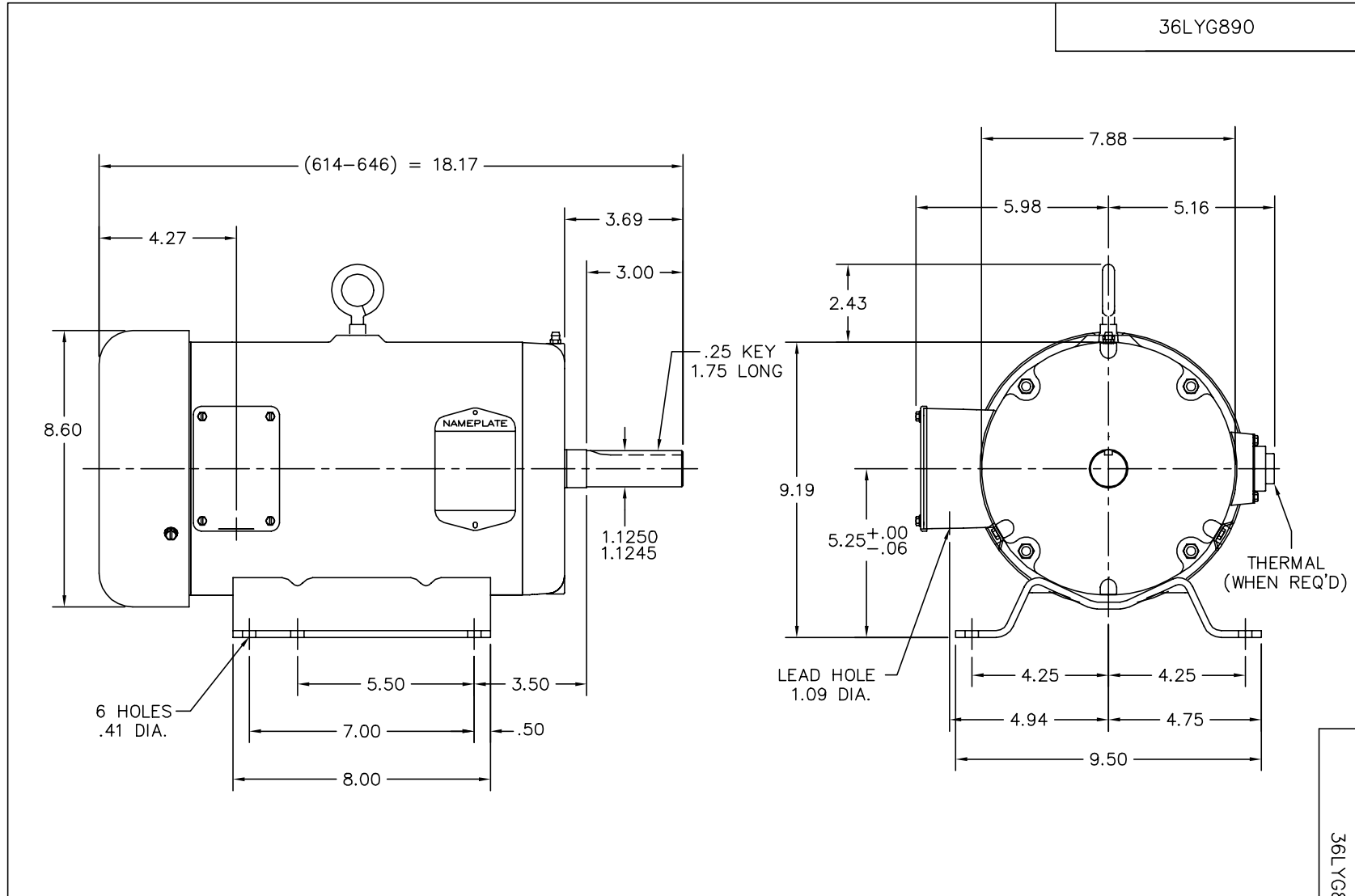
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	7.5			Full Load Torque	11.4 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	16.8/8.4			Breakdown Torque	57.9 LB-FT
R.P.M.	3450			Pull-up Torque	39.9 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	48.2 LB-FT
NEMA Design Code	A	KVA Code	L	Starting Current	91 A
Service Factor (S.F.)	1.15			No-load Current	2.33 A
NEMA Nom. Eff.	89.5	Power Factor	93	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 ²

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

Performance Graph at 460V, 60Hz, 7.5HP Typical performance - Not guaranteed values





CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: UPDATE DRAWING		
REV. LTR: C	VERSION: 02	TDR: 000000499221
FILE: \AAA\00004\441	REVISED: 07:50:24 05/07/2009	
MTL: -	BY: ENALEMO	

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HORZ 213-5 TEFC 36M

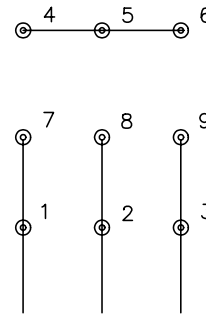
SH 1 of 1

36LYG890

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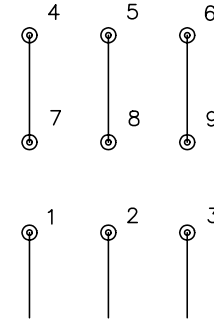


LOW VOLTAGE
(2Y)



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

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FILE: AAA00005140

MDL: -

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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005