

BALDOR® • RELIANCE 

Product Information Packet

EM3706

5HP,3450RPM,3PH,60HZ,213,3630M,TEFC,F1,N

Part Detail							
Revision:	C	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGS042	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36G890	Layout:	36LYG890	Poles:	02	Created Date:	02-27-2015
Base:	RG	Eff. Date:	10-23-2017	Leads:	9#16		

Specs			
Catalog Number:	EM3706	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	213	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	L
Motor Letter Type:	Three Phase	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	5.000 HP @ 60 HZ	Locked Bearing Indicator:	No Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 16 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3630M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	91
	CSA EEV	Product Family:	General Purpose
	UR	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End

Blower:	None	Shaft Ground Indicator:	No Shaft Grounding
Current @ Voltage:	11.800 A @ 230.0 V	Shaft Rotation:	Reversible
	5.900 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
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.	EM3706									
SPEC.	36G890S042G1									
HP	5									
VOLTS	230/460									
AMP	11.8/5.9									
RPM	3450									
FRAME	213				HZ	60			PH	3
SER.F.	1.15		CODE	L	DES	A		CL	F	
NEMA-NOM-EFF	88.5		PF	91						
RATING	40C AMB-CONT									
CC	010A				USABLE AT 208V					
DE	6206				ODE	6205				
ENCL	TEFC		SN							

AC Induction Motor Performance Data

Record # 32158

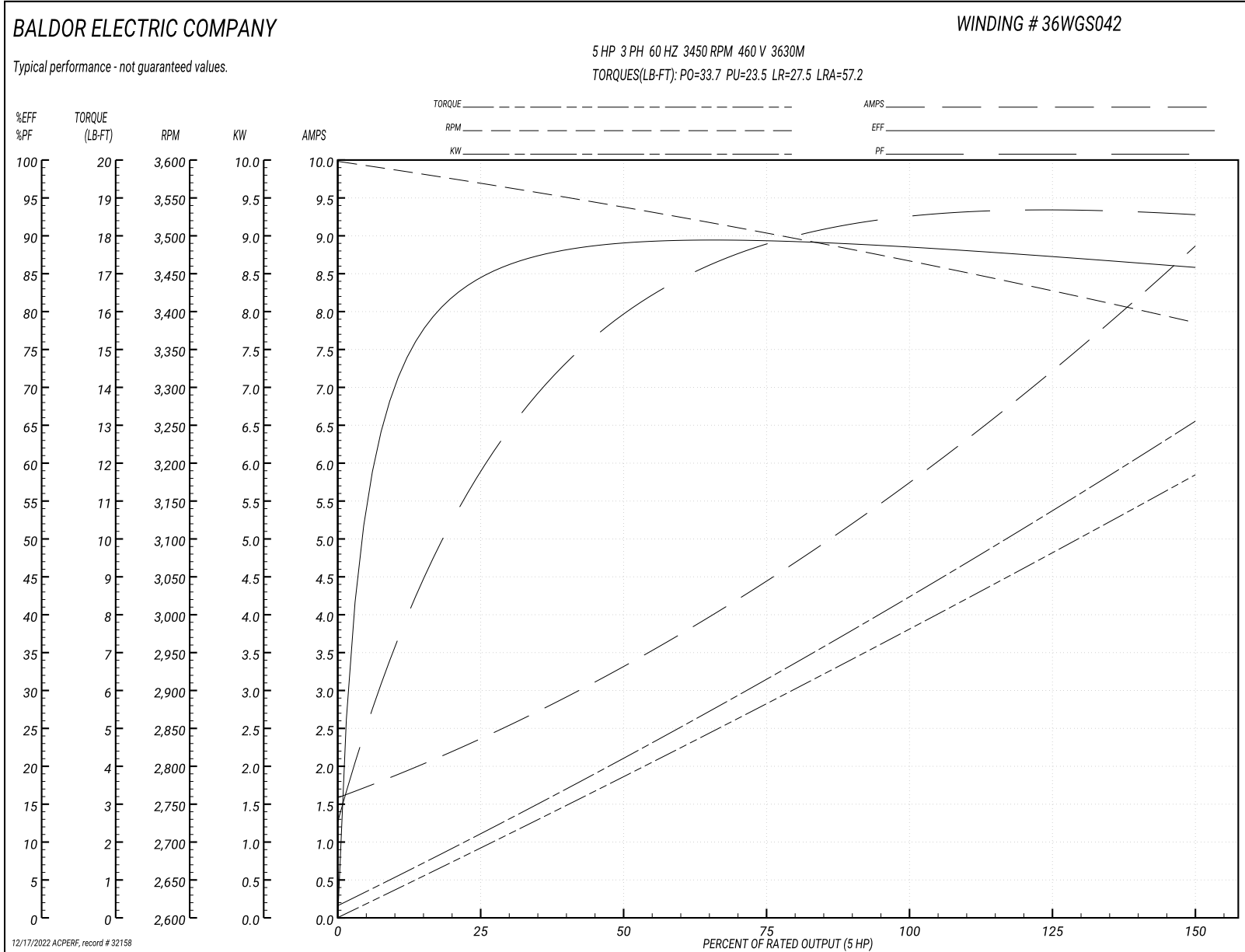
Typical performance - not guaranteed values

Winding: 36WGS042-R002		Type: 3630M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	5	Full Load Torque	7.67 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	11.8/5.9	Breakdown Torque	33.7 LB-FT		
R.P.M.	3450	Pull-up Torque	23.5 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	27.5 LB-FT	
NEMA Design Code	A KVA Code	L	Starting Current	57.2 A	
Service Factor (S.F.)	1.15	No-load Current	1.68 A		
NEMA Nom. Eff.	88.5 Power Factor	91	Line-line Res. @ 25°C	2.3313 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	72°C		
S.F. Amps		Temp. Rise @ S.F. Load	89°C		
		Locked-rotor Power Factor	45		
		Rotor inertia	0.134 LB-FT ²		

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	91	93	93	92
Efficiency	84.1	88.9	89.4	88.7	87.3	85.8	87.9
Speed	3568.7	3537.4	3504.2	3465.8	3428.2	3385	3443
Line amperes	2.24	3.26	4.47	5.85	7.26	8.8	6.7

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 50850

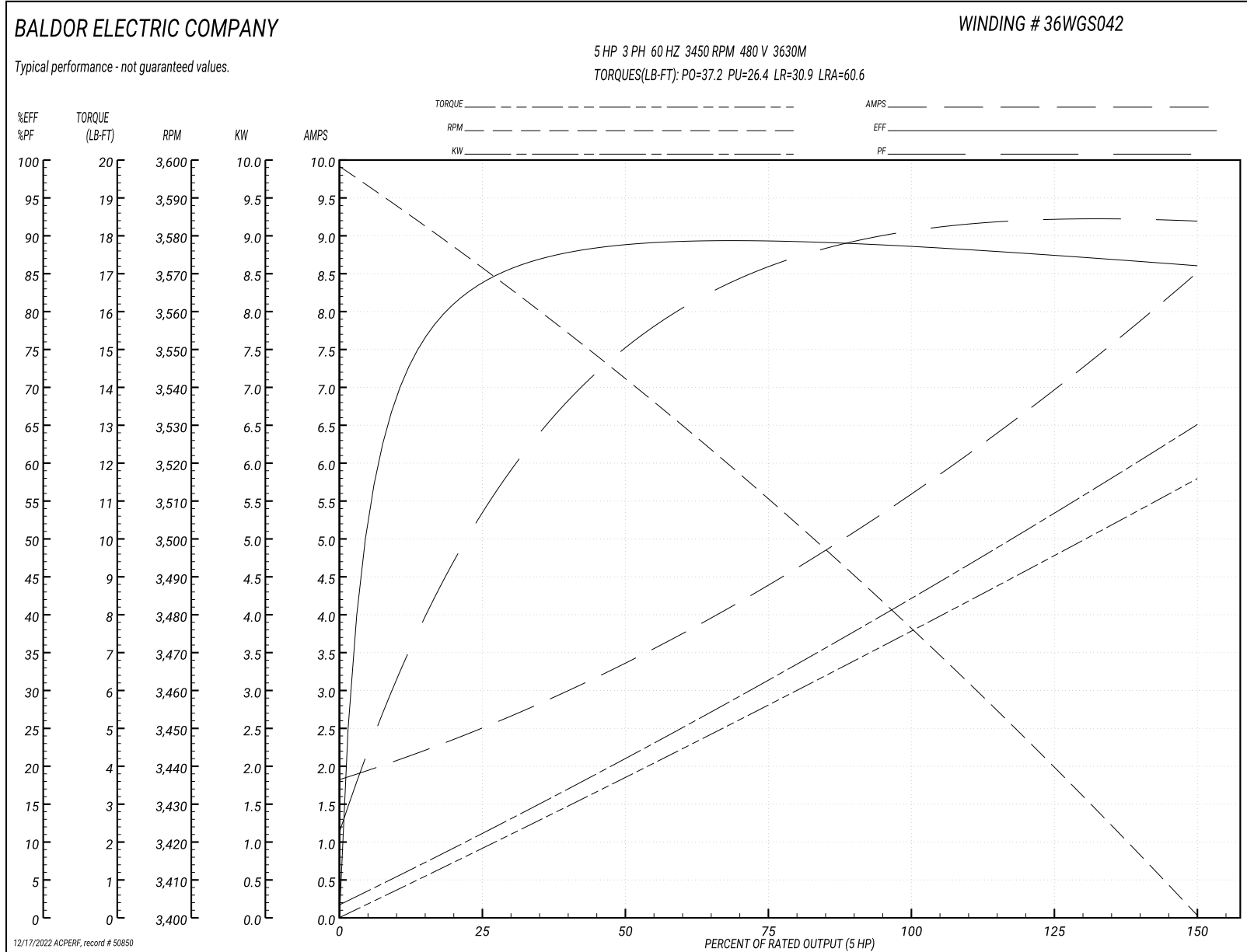
Typical performance - not guaranteed values

Winding: 36WGS042-R002		Type: 3630M	Enclosure: TEFC	
Nameplate Data			480 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	5	Full Load Torque	7.64 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	11.8/5.9	Breakdown Torque	37.2 LB-FT	
R.P.M.	3450	Pull-up Torque	26.4 LB-FT	
Hz	60 Phase	Locked-rotor Torque	30.9 LB-FT	
NEMA Design Code	A KVA Code	Starting Current	60.6 A	
Service Factor (S.F.)	1.15	No-load Current	1.91 A	
NEMA Nom. Eff.	88.5 Power Factor	Line-line Res. @ 25°C	2.26 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	71°C	
S.F. Amps		Temp. Rise @ S.F. Load	85°C	
		Locked-rotor Power Factor	45.7	
		Rotor inertia	0.134 LB-FT ²	

Load Characteristics 480 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	56	77	86	90	92	93	91
Efficiency	83.3	88.5	89.4	88.7	87.6	86	88
Speed	3571	3541	3511	3475	3440	3400	3454
Line amperes	2.39	3.32	4.43	5.71	7.03	8.46	6.5

Performance Graph at 480V, 60Hz, 5.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 51386

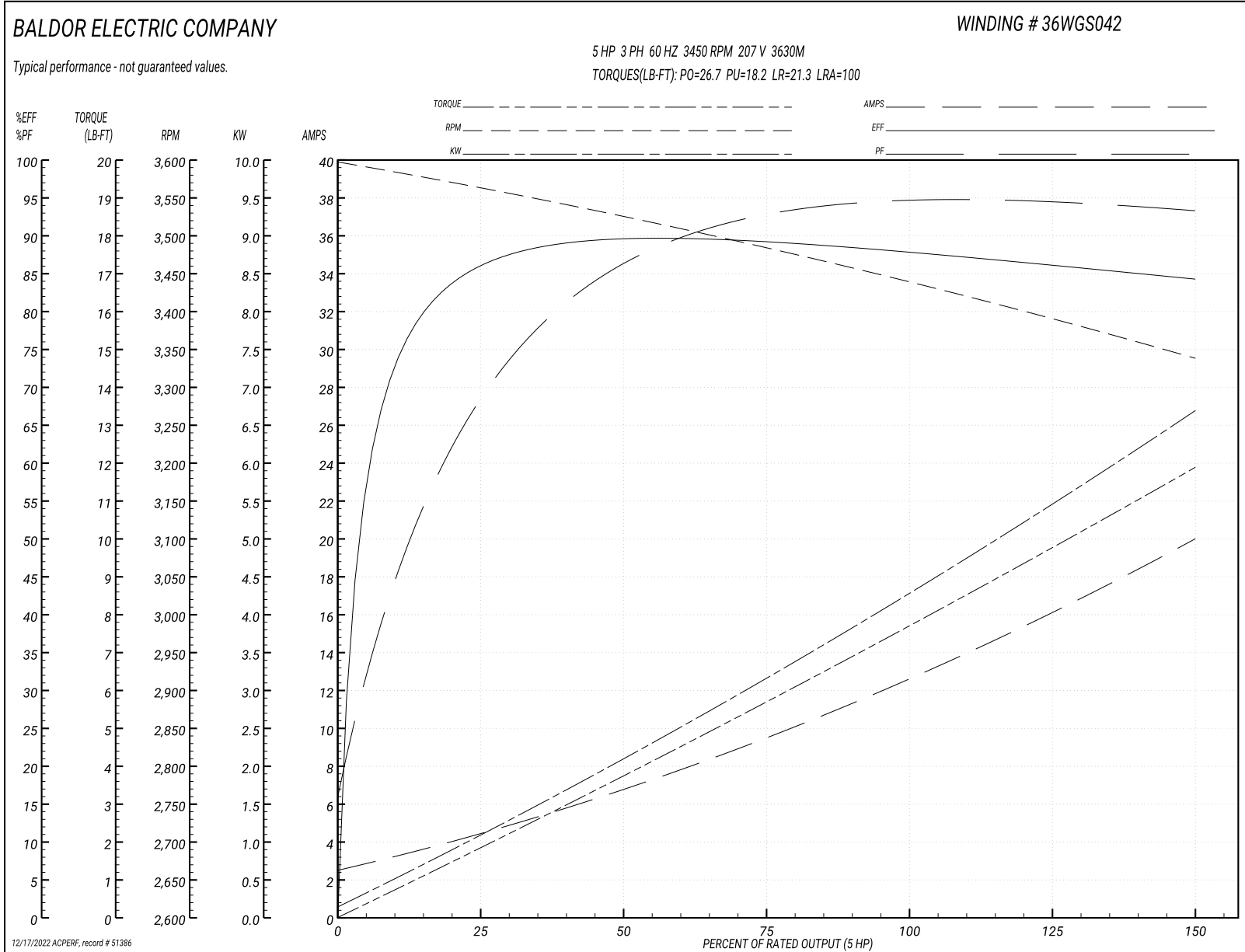
Typical performance - not guaranteed values

Winding: 36WGS042-R002		Type: 3630M		Enclosure: TEFC	
Nameplate Data			207 V, 60 Hz: Low Voltage Connection		
Rated Output (HP)	5	Full Load Torque	7.73 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	11.8/5.9	Breakdown Torque	26.7 LB-FT		
R.P.M.	3450	Pull-up Torque	18.2 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	21.3 LB-FT	
NEMA Design Code	A KVA Code	L	Starting Current	100 A	
Service Factor (S.F.)	1.15	No-load Current	2.7 A		
NEMA Nom. Eff.	88.5 Power Factor	91	Line-line Res. @ 25°C	0.566 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	78°C		
S.F. Amps		Temp. Rise @ S.F. Load	99°C		
		Locked-rotor Power Factor	44		
		Rotor inertia	0.134 LB-FT ²		

Load Characteristics 207 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	73	87	92	94	94	94	94
Efficiency	85.8	89.5	89.3	88	86.1	84.3	86.9
Speed	3563	3525	3485	3439	3392	3338	3411
Line amperes	4.17	6.68	9.54	12.8	16.1	19.9	14.8

Performance Graph at 207V, 60Hz, 5.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 59341

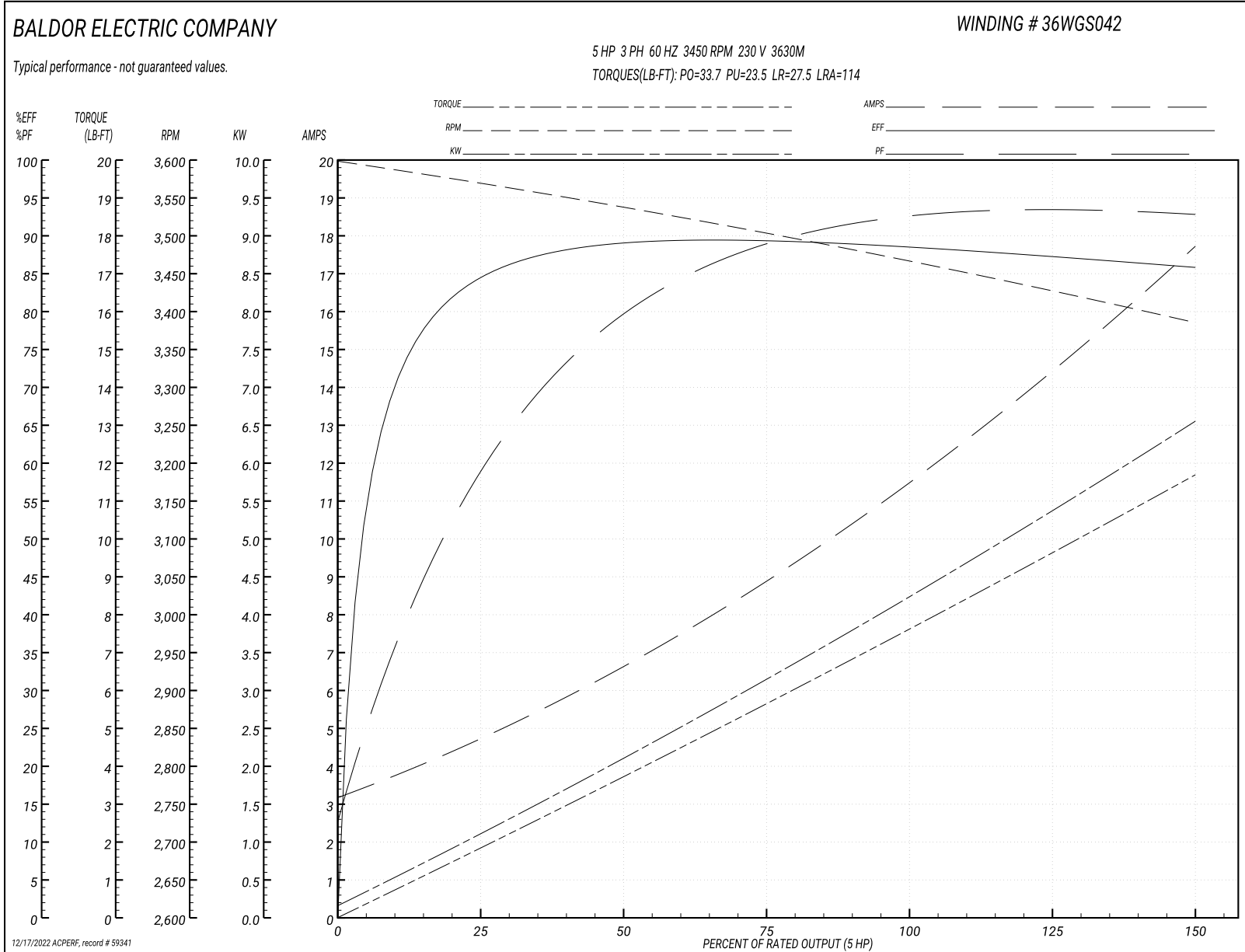
Typical performance - not guaranteed values

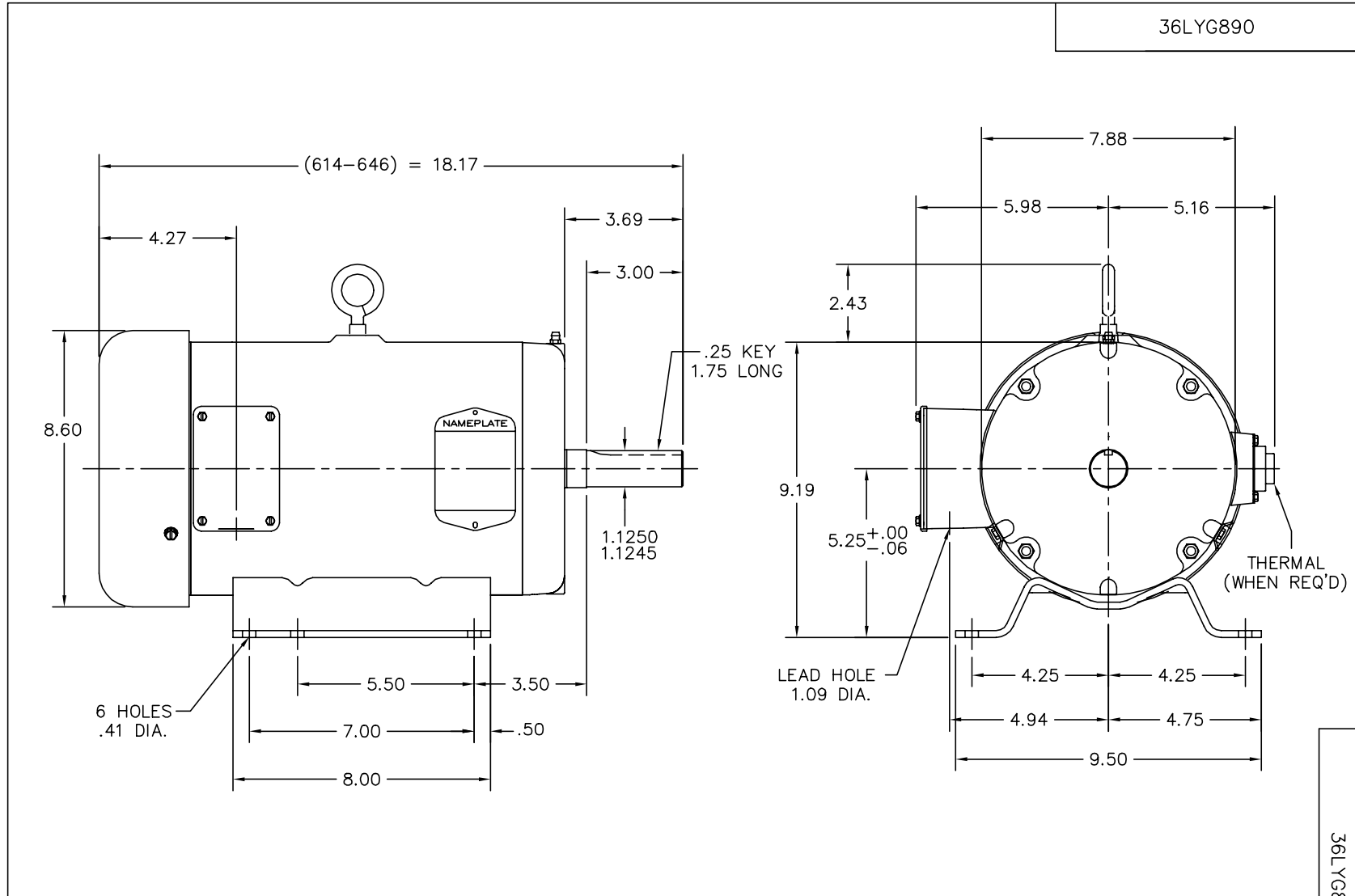
Winding: 36WGS042-R002		Type: 3630M		Enclosure: TEFC	
Nameplate Data			230 V, 60 Hz: Low Voltage Connection		
Rated Output (HP)	5	Full Load Torque	7.67 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	11.8/5.9	Breakdown Torque	33.7 LB-FT		
R.P.M.	3450	Pull-up Torque	23.5 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	27.5 LB-FT	
NEMA Design Code	A KVA Code	L	Starting Current	114 A	
Service Factor (S.F.)	1.15	No-load Current	3.36 A		
NEMA Nom. Eff.	88.5 Power Factor	91	Line-line Res. @ 25°C	0.576 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	72°C		
S.F. Amps		Temp. Rise @ S.F. Load	88°C		
		Locked-rotor Power Factor	45.4		
		Rotor inertia	0.134 LB-FT ²		

Load Characteristics 230 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	81	88	91	93	94	92
Efficiency	84.1	88.9	89.4	88.7	87.3	85.8	87.9
Speed	3569	3537	3504	3466	3428	3385	3443
Line amperes	4.48	6.52	8.94	11.7	14.5	17.6	13.4

Performance Graph at 230V, 60Hz, 5.0HP 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		
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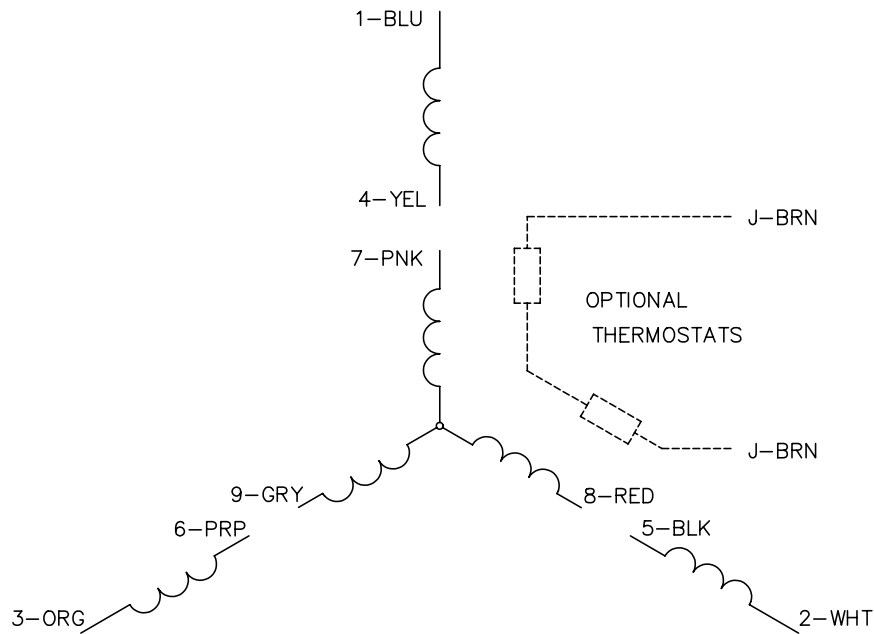
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HORZ 213-5 TEFC 36M

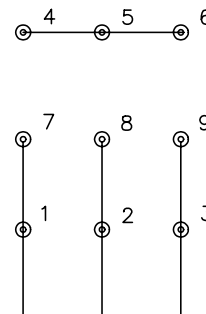
SH 1 of 1

36LYG890

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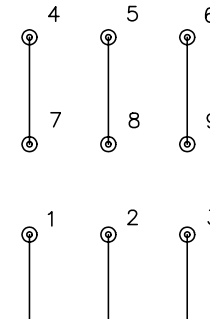


LOW VOLTAGE
(2Y)



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
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005