

ABB BALDOR RELIANCE III

Customer information packet

CDP3590

2HP, 2500RPM, DC, 145TC, 3536P, TEFC, F1

Class - None

Division -

Specifications

Armature Voltage	180 V
Base Speed	2400 rpm
Enclosure	TEFC
Frame	145TC
Frame Material	Steel
Haz Area Class and Group	None
Output Power	2.000 HP
Agency Approvals	CE CSA UR
Ambient Temperature	40 °C
Armature Current	10.0 a
Armature Inertia	30.342 lb-ft ²
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
Lifting Lugs	No Lifting Lugs
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	2 @ 14 AWG, A
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	16.37 IN
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
RoHS Status	ROHS COMPLIANT
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Extension Location	Pulley End

Part Detail

Revision	AF
Type	DC
Mech. spec.	35P432
Base	
Status	PRD/A
Elec. spec.	35WGZ182
Layout	35LYP432
Eff. date	07-08-2025
CD Diagram	CD0194
Poles	00
Leads	2#14 A Y
Proprietary	False
Created date	01-01-0001

Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger

Nameplate

NP0891L					
CAT.NO.	CDP3590				
SPEC.	35P432Z182				
HP	2/KW1.5	ENCL		TEFC	
RPM	2500 1/MIN				
FRAME	145TC	TYPE		3536P	
ARM V	180	ARM A		10	
FLD V		FLD A			
INSUL	F	AMB.		40	
DUTY	CONT	SUPPLY		K	
BRG/DE	6205	BRG/ODE		6205	
BRUSHES	2/BP5000T15				
		BLANK		IP44	
SER.					
BLANK	IC411 KG29				
APRV-CE	Y	APRV-CSA	Y	APRV-UL	Y

Parts List

Part number	Description	Quantity
SA005506	SA 35P432Z182	1.000 ea
AA003155	AA 35P432Z182	1.000 ea
BP5000T15	CARBON BRUSH-35P,180VOLTS	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 ea
35EP3110A02	FR ENDPLATE, MACH	1.000 ea
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 ea
35EP3301A01	PU ENDPLATE, MACH	1.000 ea
BP5201A14SP	BRUSH HOLDER ASSY	1.000 ea
80XN1032J03	10-32 X 3/16 SET SCREW, HEX SOC, CUP PT	2.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.001 ea
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH5001A10SP	FAN COVER ASS'Y TEFC HORZ	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
WD4102A01	SR-6L-1 HEYCO STRN RELIEF OR 23MPO6L10 M	1.000 ea
WD4100A17	PLUG STIMPSON D4036	1.000 ea
35CB4506	CONDUIT BOX LID, STAMPED	1.000 ea
35GS1010	CONDUIT BOX LID, GASKET	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
HA3101A46	THRUBOLT 1/4-20 X 10.00	4.000 ea
ML1424A14	UL3321,150C,14 GA,WHITE, #A1	11.000 in
ML1425A14	UL3321,150C,14 GA, WHITE, #A2	11.000 in
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
NP0891L	NP STD LASER ENGRAVED DC MTRS, UL CSA CE	1.000 ea

LC0194	CONNECTION LABEL	1.000 ea
35PA1007	PKG GRP, PRINT PK1034A07	1.000 ea
PK4000C01	WAFERBOARD 10.50 X 13.375	1.000 ea

Accessories

Part number	Description	Multiplier
TK3500	TACHO MOUTING KIT TK3500	A8

DC Motor Performance Data

Record # 387

Typical performance - not guaranteed values

Winding: 35WGZ182-R001		Type: 3536P	Enclosure: TEFC
Nameplate Data		General Characteristics	
Rated Output (HP)	2	Armature Resistance @ 25°C	0.494 Ω
R.P.M.	2400		
Armature Volts	180	Voltage Constant	68.3 v/krpm
Armature Amps	10		
Field Volts		Armature Inductance	6.797 mH
Field Amps		Armature Inertia	30.3419 LI ²
Rating - Duty	40C AMB-CONT		
Power Supply Code	K		

Load Characteristics at 180 Armature Volts

Load Point	1	2	3	4	5	6	7
Armature Amps	0.7	5.5	8	10.2	12.5	14.7	19.6
R.P.M.	2514	2499	2483	2448	2416	2387	2335
Torque (LB-FT)	0	2.25	3.375	4.375	5.5	6.625	8.75

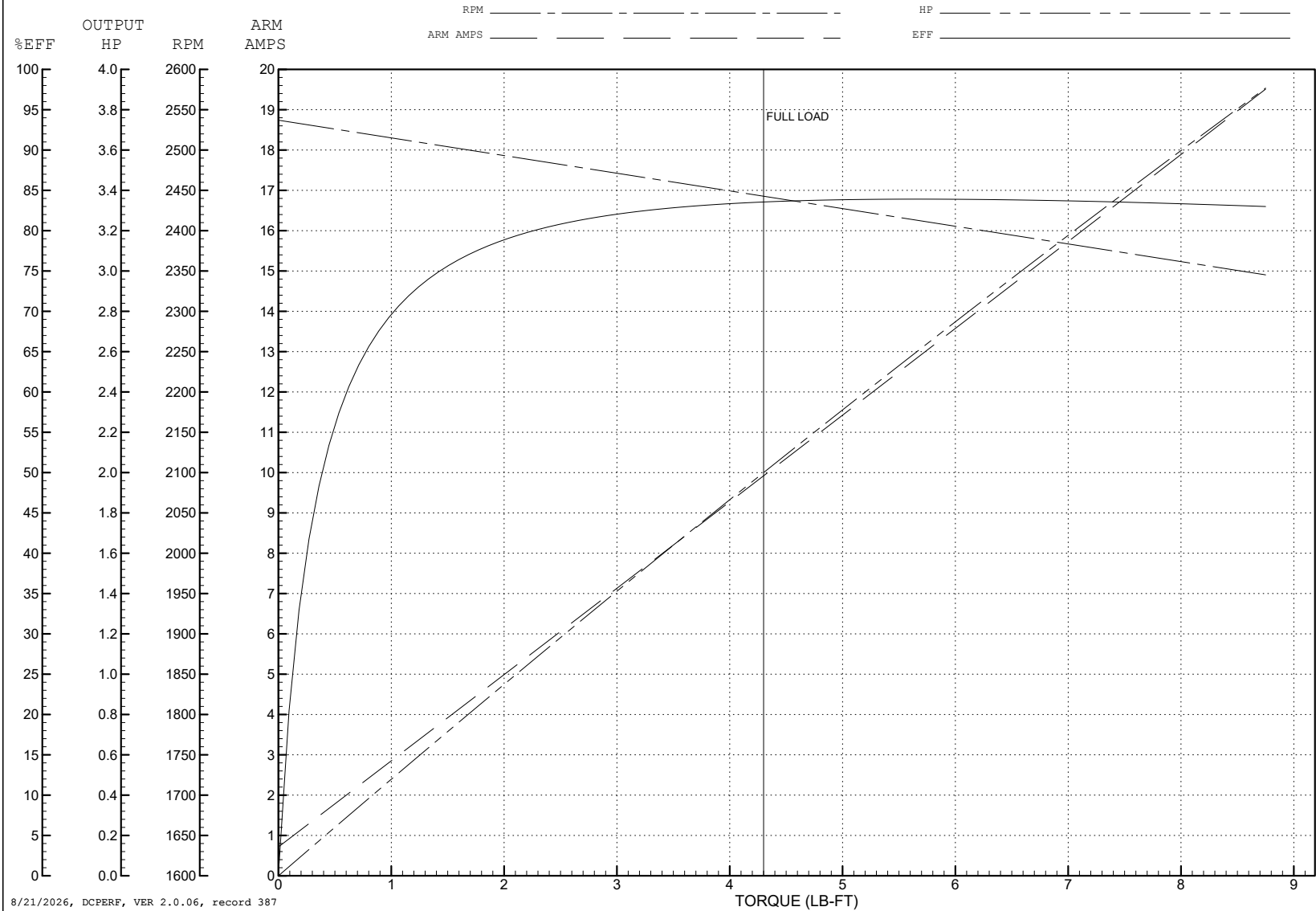
ABB Motors and Mechanical Inc.

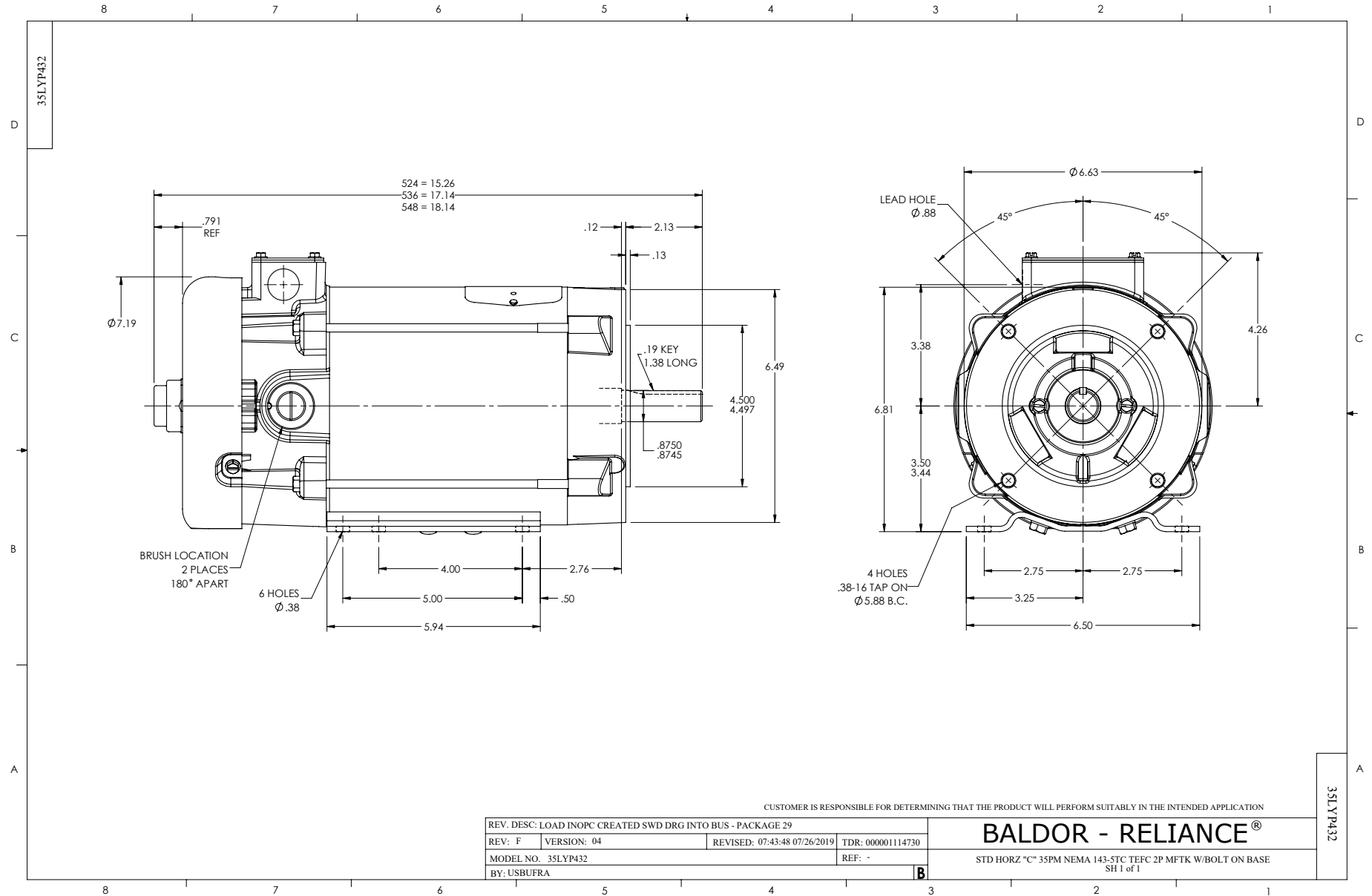
WINDING # 35WGZ182

Typical performance - not guaranteed values.

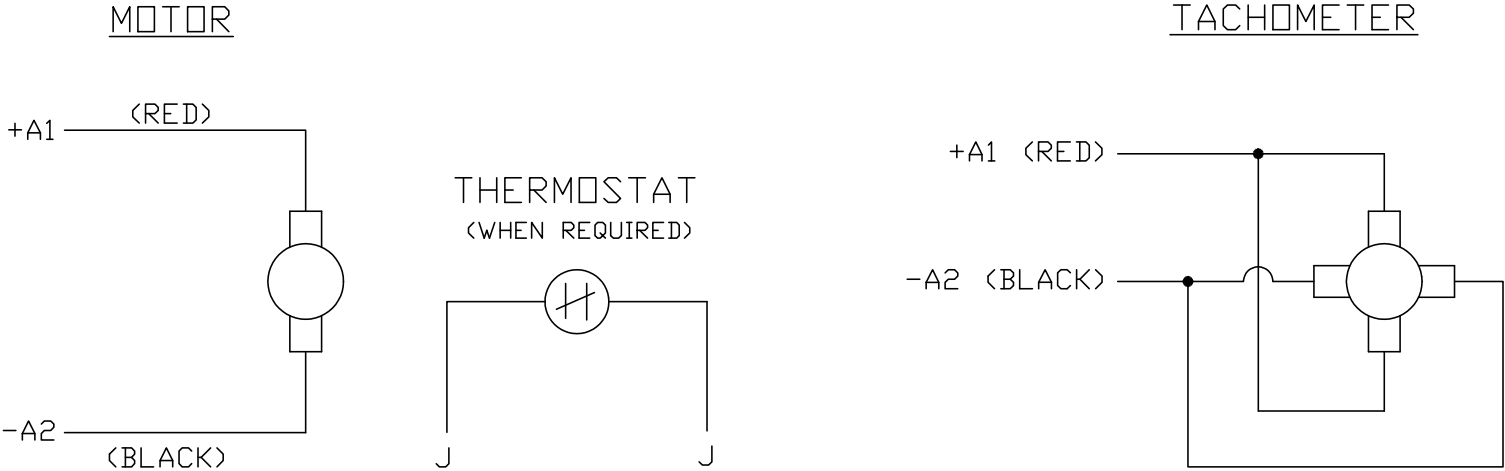
2 HP DC 2400 RPM 180 V 3536P

ENCL: TEFC DUTY: CONT CL: F





CD0194



NOTES:

1. CCW ROTATION AS SHOWN FACING COMMUTATOR END. TO REVERSE MOTOR ROTATION OR TACHOMETER OUTPUT POLARITY INTERCHANGE LEADS A1(RED) & A2(BLACK)
2. LEAD COLORS FOR REFERENCE ONLY & NOT SPECIFIED BY THIS DRAWING. LEAD COLORS SPECIFIED BY LAYOUT DRAWING & BILL OF MATERIAL ONLY.

MATL: -

REV: E

ADDED NOTE "LEAD COLORS FOR REFERENCE ONLY &..."

CD0194

SCALE: -

BY: CK

REVISED: 07/28/95

FILE: AAA00004503

TDR: 0078737

BALDOR ELECTRIC Co.

CD TYPE P DC PERMANENT MAGNET MOTORS AND TACHOMETERS

CD0194