

BALDOR® • RELIANCE

Product Information Packet

D50250P

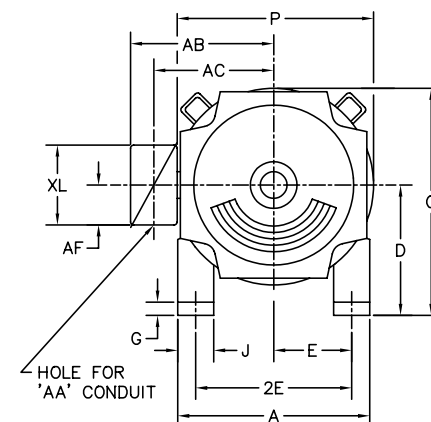
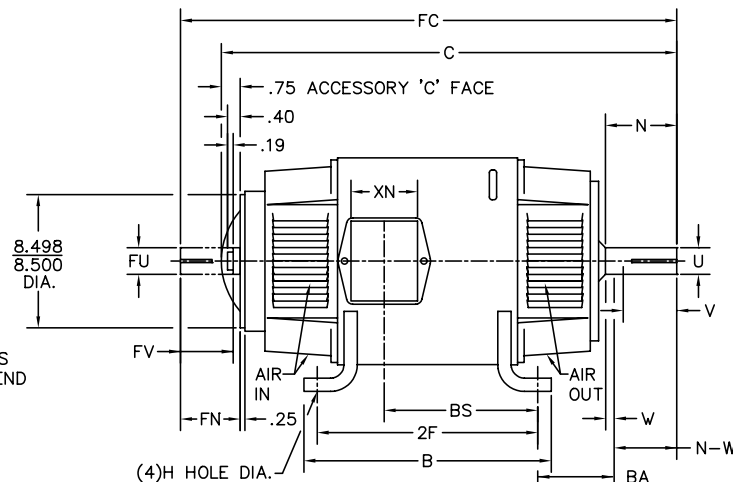
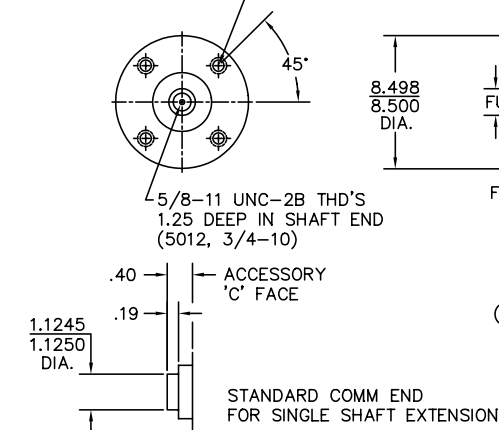
250HP,1750/1900RPM,DC,506AT,DPFG,F1,N

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	D	Weight:	2540
Frame Group:	0506AT	Mounting Pos.:	F1
HP:	250	Enclosure:	DPFG
RPM:	1750/1900	Wound:	STR. SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	392.00	Field V:	300
Field A:	7.05	Field A Hot:	5.02-4.05
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	6218
ODE Bearing:	6216	Brushes:	50034-2
Brush Qty.:			

877-3

1/2-13UNC-2B THD X 1.00 DEEP
4-HOLES EQUALLY SPACED
ON A 7.250 DIA. B.C.



	FOOT MOUNTING						D.E. SHAFT EXTENSION					DRIVE KEY		ACC SHAFT EXTENSION			ACC KEY		FRAME							
FRAME	BA	E	2F	G	H	J	N	N-W	U	V	W	KEY-SQ.	KEY-LONG	FN	FU	FV	KEY-SQ.	KEY-LONG	A	B	C	FC	D	O	P	
504AT	8.50	10.00	16.00	1.18	1.188	4.50	6.76	6.57	3.250	6.32 ³	.19	.750	5.25	5.95	2.875	5.70	.750	5.00	24.88	18.88	45.75	51.00	12.50 ²	24.91	24.81	
506AT	8.50	10.00	20.00	1.18	1.188	4.50	6.76	6.57	3.250	6.32 ³	.19	.750	5.25	5.95	2.875	5.70	.750	5.00	24.88	22.88	49.75	55.00	12.50 ²	24.91	24.81	
508AT	8.50	10.00	25.00	1.18	1.188	4.50	6.76	6.57	3.250	6.32 ³	.19	.750	5.25	5.95	2.875	5.70	.750	5.00	24.88	27.88	54.75	60.00	12.50 ²	24.91	24.81	
5010AT	8.50	10.00	32.00	1.18	1.188	4.50	6.76	6.57	3.250	6.32 ³	.19	.750	5.25	5.95	2.875	5.70	.750	5.00	24.88	34.88	61.75	67.00	12.50 ²	24.91	24.81	
5011AT	8.50	10.00	36.00	1.18	1.188	4.50	6.76	6.57	3.250	6.32 ³	.19	.750	5.25	5.95	2.875	5.70	.750	5.00	24.88	38.88	65.75	71.00	12.50 ²	24.91	24.81	
5012AT	8.50	10.00	43.00	1.18	1.188	4.50	7.06	6.87	4.250	6.62 ³	.19	1.000	5.25	5.95	2.875	5.70	1.000	5.00	24.88	45.88	73.75	79.75	12.50 ²	24.91	24.91	

	CONDUIT BOX							ARM APPROX. WK ² LBS.FT. ²	APPROXIMATE WEIGHT
FRAME	AA	AB	AC	AF	BS	XL	XN		
504AT	3	20.65	16.81	2.62	13.25	11.63	7.76	79.10	1910 ⁵
506AT	3	20.65	16.81	2.62	17.25	11.63	7.76	98.76	2290 ⁵
508AT	3	20.65	16.81	2.62	22.25	11.63	7.76	121.87	2820 ⁵
5010AT	4 ⁴	21.20	16.81	2.84	30.12	13.40	13.50	156	3450 ⁵
5011AT	4 ⁴	21.20	16.81	2.84	34.12	13.40	13.50	161	3810 ⁵
5012AT	4 ⁴	21.20	17.19	2.84	41.12	13.40	13.50	170	4887 ⁵

- 1) SHAFT DIAMETERS TO 1.500 TOLERANCE +.0000 - .0005
SHAFT DIAMETERS ABOVE 1.500 TOLERANCE +.0000 - .0010
SHAFT DIAMETERS TO 1.625 RUNOUT .002 T.I.R. MAX.
SHAFT DIAMETERS ABOVE 1.625 RUNOUT .003 T.I.R. MAX.
- 2) 'D' DIMENSION TOLERANCE +.000 - .060.
- 3) 'V' DIMENSION IS MAX. HUB LENGTH ON SHAFT
- 4) THERE ARE TWO HOLES FOR 4" CONDUIT, SECOND HOLE IS 6" TOWARD DRIVE END.
- 5) TOTAL WEIGHT OF MOTOR.
- 6) ALL DIMENSIONS NOT NOTED ARE NOMINAL DIMENSIONS CONSULT FACTORY FOR TOLERANCES.

FOR F1 OR F2 CONDUIT BOX
LOCATION SEE SALES ORDER

MATL: -			
REV: C	CORRECT ERROR 5012AT E FROM 20 TO 10		
Σ-778	SCALE: -	BY: BKW	REVISED: 05/13/96
	FILE: CHB00001040	TDR: 0096765	

BALDOR ELECTRIC Co.

DIM SHEET

877-3

15209

ALUMINUM (MATT) BACKGROUND WITH BLACK LETTERS

LABEL MANUFACTURER IDENTIFYING MARK TO APPEAR HERE

3 1/4

2 1/2

15209

15209

CONNECTIONS AND TERMINAL MARKINGS

HIGH FIELD EXCITATION VOLTAGE (SERIES CONN.)

SHUNT FIELD

ARM COMM FLD

S1 S2

F1 F3

F2 F4

LOW FIELD EXCITATION VOLTAGE (PARALLEL CONN.)

SHUNT FIELD

ARM COMM FLD

S1 S2

F1, F3

F2, F4

FOR STRAIGHT SHUNT MOTORS: DISREGARD S1 AND S2.

FOR SERIES MOTORS: DISREGARD F1,F2,F3,F4.

STRAIGHT SHUNT: F1 AND A1 SAME POLARITY, ROTATION CCW.

SERIES: CONNECT A2 AND S1, ROTATION CCW.

STABILIZED SHUNT AND COMPOUND: F1 AND A1 SAME POLARITY. CONNECT A2 AND S1, ROTATION CCW.

FOR CW ROTATION: INTERCHANGE A1 AND A2. ROTATION VIEWED FROM OPPOSITE DRIVE END. FOR FIELD REVERSING MOTORS WITH A SERIES FIELD: S1 MUST REVERSE POLARITY WHEN F1 REVERSES.

THERMOSTAT: WHEN SUPPLIED WILL HAVE LEADS TAGGED P1 AND P2. THERMOSTAT SENSES HEAT OF COMMUTATING FIELD COIL.

AMPERE RATINGS OF CONTACTS.

MAX AMPS BREAK			MAX CONTINUOUS	
120 VAC	240 VAC	24 VDC	AMP - ALL VOLTAGES	
12	8	2	2	

SPACE HEATER: WHEN SUPPLIED WILL HAVE LEADS TAGGED H1 AND H2. SEE MOTOR NAMEPLATE FOR HEATER VOLTAGE AND CURRENT.

UNLESS OTHERWISE SPECIFIED, BREAK ALL SHARP EDGES .010/.020. REMOVE ALL BURRS.

TOLERANCES

.X ±.015	FRACTIONS ±1/32
.XX ±.010	RADI ±1/16
.XXX ±.005	ANGLES ±1°

MATL: NOTED

REV: G CHANGE ALL "NAMEPLATE" TEXT TO "LABEL"

60291

SCALE: - BY: BKW REVISED: 02/19/97

FILE: CHB00002485 TDR: 0115147

BALDOR ELECTRIC Co.

LABEL, CONNECTIONS AND TERMINAL MARKINGS DC

Page 4 of 7

BALDOR
A MEMBER OF THE ABB GROUP

For Baldor Sales and Support, Please Contact: Walker EMD • <http://www.walkeremd.com> • Toll-Free: (800) 876-4444 • Phone: (203) 426-7700 • Fax: (203) 426-7800

REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	506	250HP	1750	500	392
WINDING TYPE					
	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STRAIGHT SHUNT	1.0	DPG	40/F	CONT	300
POWER CODE					
	TYPE	WK ² (LB-FT ²)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
D	TR	93.43	.0342	7.04	59.7
ARM. CIR. IND. (mh)					
	FIELD IND. (H)	COOLING AIR (CFM/IN H ² O)		TURNS PER COIL SHUNT/SERIES	TEST DATE
.908	50.1	-/-		1250/.00000	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	6.2	0	0	1739	0
1/4	98	184	60.6	1734	87.4
2/4	196	378	124	1729	90.6
3/4	294	568	187	1726	91.4
4/4	392	755	248	1723	92.0
O.L.	588	1108	366	1736	91.3
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
5.01	1739	1722	501	492	
4.77	1769	1752	494	483	
4.53	1804	1792	485	472	
4.29	1848	1841	473	459	
4.05	1902	1900	460	445	
REMARKS: TYPICAL DATA					

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DR. BY E. H. GILLIOT
CK. BY K. ERLACHER
APP. BY K. ERLACHER
DATE 07-10-2009

D-C MOTOR
PERFORMANCE
DATA
DK0113A
ISSUE DATE 07-10-2009

