

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **D2020P**

**20HP/1750-2300RPM/DC/NEMA 259AT**

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Part Detail			
Type:	DC	Prod. Type:	T
Power Code:	D	Weight:	250
Frame Group:	259AT	Mounting Pos.:	F1
HP:	20	Enclosure:	DPFG
RPM:	1750/2300	Wound:	STR. SHUNT
Service Factor:	1.0	Arm V:	240
Arm A:	70.50	Field V:	300
Field A:	1.79	Field A Hot:	1.24-1.50/1.39-
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	6209
ODE Bearing:	6207	Brushes:	150986-25-1
Brush Qty.:			

876-1

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

3/8-16 UNC-2B THD'S  
.88 DEEP IN SHAFT END

8.498  
8.500 DIA.

.40  
.19

1.1245  
1.1250 DIA.

ACCESSORY 'C' FACE

STANDARD COMM END  
FOR SINGLE SHAFT EXTENSION

FC  
C  
.75 ACCESSORY 'C' FACE  
.40  
.19  
N  
FU  
FV  
AIR IN  
AIR OUT  
FN  
.25  
2F  
BS  
B  
BA  
N-W  
W  
P  
AB  
AC  
XL  
AF  
HOLE FOR 'AA' CONDUIT  
D  
O  
J  
E  
2E  
A

FRAME	FOOT MOUNTING					D.E. SHAFT EXTENSION					DRIVE KEY			ACC SHAFT			ACC KEY		FRAME						
	BA	E	2F	G	H	N	N-W	U	V	W	KEY-SQ.	KEY-LONG	FN	FU	FV	KEY-SQ.	KEY-LONG	A	B	C	FC	D	O	P	
218AT	3.50	4.25	10.00	.50	.406	2.00	3.00	2.75	1.375	2.50 <sup>3</sup>	.25	.312	1.75	2.44	1.125	2.19	.250	2.25	10.38	11.00	24.25	25.93	5.25 <sup>2</sup>	10.47	10.44
219AT	3.50	4.25	11.00	.50	.406	2.00	3.00	2.75	1.375	2.50 <sup>3</sup>	.25	.312	1.75	2.44	1.125	2.19	.250	2.25	10.38	12.00	25.25	26.93	5.25 <sup>2</sup>	10.47	10.44
2110AT	3.50	4.25	12.50	.50	.406	2.00	3.00	2.75	1.375	2.50 <sup>3</sup>	.25	.312	1.75	2.44	1.125	2.19	.250	2.25	10.38	13.50	26.75	28.43	5.25 <sup>2</sup>	10.47	10.44
258AT	4.25	5.00	12.50	.69	.531	2.25	3.44	3.25	1.625	3.00 <sup>3</sup>	.19	.375	2.31	3.33	1.375	3.08	.312	3.00	12.38	14.00	27.25	29.84	6.25 <sup>2</sup>	12.47	12.44
259AT	4.25	5.00	14.00	.69	.531	2.25	3.44	3.25	1.625	3.00 <sup>3</sup>	.19	.375	2.31	3.33	1.375	3.08	.312	3.00	12.38	15.50	28.75	31.34	6.25 <sup>2</sup>	12.47	12.44
2510AT	4.25	5.00	16.00	.69	.531	2.25	3.44	3.25	1.625	3.00 <sup>3</sup>	.19	.375	2.31	3.33	1.375	3.08	.312	3.00	12.38	17.56	30.75	33.34	6.25 <sup>2</sup>	12.47	12.44
2513AT	4.25	5.00	22.00	.69	.531	2.25	3.44	3.25	1.625	3.00 <sup>3</sup>	.19	.375	2.31	3.33	1.375	3.08	.312	3.00	12.38	23.50	36.75	39.34	6.25 <sup>2</sup>	12.47	12.44

FRAME	CONDUIT BOX							ARM APPROX. WK <sup>2</sup> LBS.FT. <sup>2</sup>	APPROXIMATE WEIGHT
	AA	AB	AC	AF	BS	XL	XN		
218AT	3/4-1	7.91	6.44	2.44	8.38	3.81	3.12	1.35	242 <sup>5</sup>
219AT	3/4-1	7.91	6.44	2.44	9.38	3.81	3.12	1.49	260 <sup>5</sup>
2110AT	3/4-1	7.91	6.44	2.44	10.88	3.81	3.12	1.71	286 <sup>5</sup>
258AT	1 1/4	9.35	7.72	2.94	9.75	4.94	4.00	2.91	366 <sup>5</sup>
259AT	1 1/4	9.35	7.72	2.94	11.25	4.94	4.00	3.31	411 <sup>5</sup>
2510AT	1 1/4	9.35	7.72	2.94	13.25	4.94	4.00	3.80	471 <sup>5</sup>
2513AT	1 1/4	9.35	7.72	2.94	19.25	4.94	4.00	5.27	532 <sup>5</sup>

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) CONDUIT BOX CAN BE ROTATED IN 90° STEPS ON ITS OWN AXIS.  
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

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

REV. DESC: REV. 'D' DIM TO +.000 - .060 ONLY		
REV. LTR: B	VERSION: 01	TDR: 000000752566
FILE: \RGG\00019\505	REVISED: 09:35:03 06/20/2012	BY: RGNAS
MTL: -		

**BALDOR**  
DIM SHEET, 218AT-2513AT, DFIG, STD  
SH 1 of 1

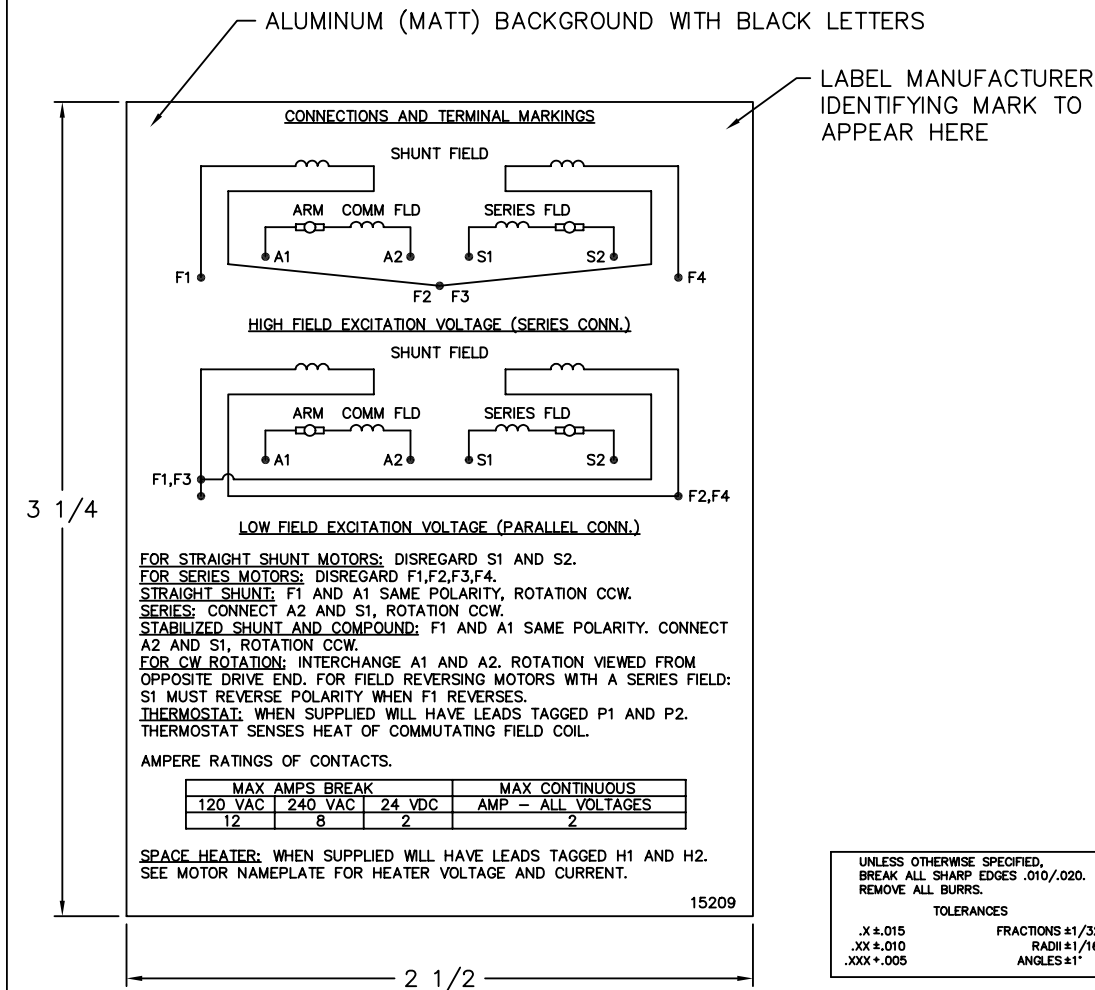
1-9-08

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**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

15209



**NOTE:**  
 MATERIAL .005 MINIMUM FULL HARD ALUMINUM DULL FINISH.  
 TEMP. RANGE -20°C TO +125°C MAXIMUM.  
 FOR INDOOR AND OUTDOOR MOUNTING BACK.  
 METAL, PRESSURE SENSITIVE BACK. MUST MEET CSA STANDARD.  
 THE CSA IDENTIFYING MARK OF THE LABEL MANUFACTURER MUST APPEAR IN THE UPPER RIGHT HAND CORNER AS INDICATED.

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

15209


REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	259	20.0HP	1750	240	70.5
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STRAIGHT SHUNT		1.0	DRG	40/F	CONT
					300
POWER CODE	TYPE	WK 2 (LB-FT 2)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
D	T	2.686	.258	1.79	241

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE
3.91	85.7	-/-	2750/.00000	-

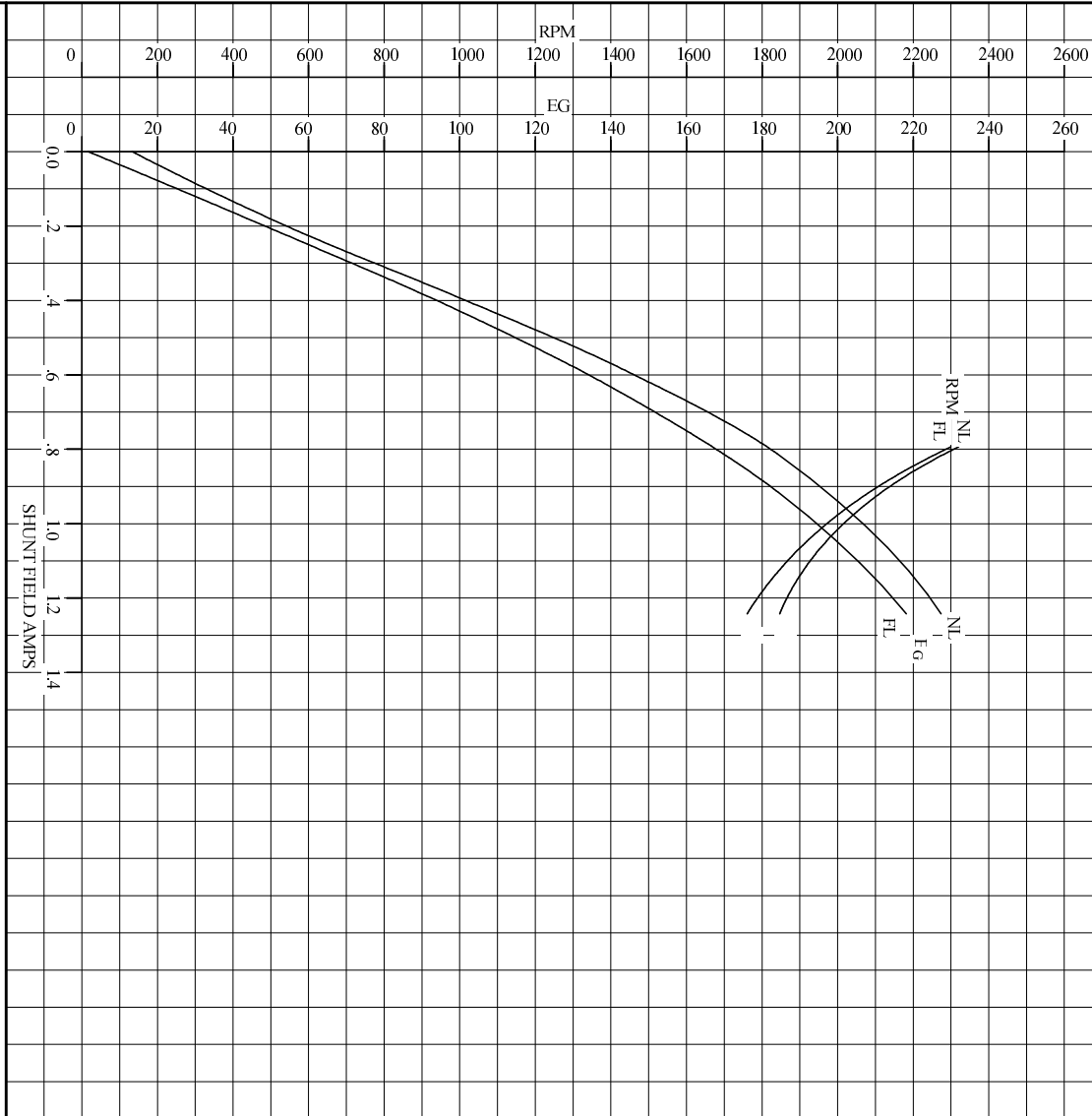
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.8	0	0	1835	0
1/4	18	14.3	4.94	1808	77.7
2/4	35	30.1	10.2	1784	83.8
3/4	53	45.6	15.2	1756	85.4
4/4	71	59.8	20.0	1757	85.1
O.L.	106	85.2	28.7	1772	82.5

RPM VS. FIELD AMPS			Eg VS. FIELD AMPS	
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED
1.24	1835	1757	227	218
1.12	1906	1841	219	208
1.01	1997	1951	209	196
.905	2130	2099	196	182
.793	2320	2300	181	166

REMARKS: TYPICAL DATA

	DR. BY E. H. GILLLOT	<b>D-C MOTOR PERFORMANCE DATA</b> DK00037A ISSUE DATE 10-03-2008
	CK. BY B. GRANT APP. BY R. BRANCHER DATE 10-03-2008	

REF. S.O.	FRAME	259	RATING	20.0HP	BASE SPEED	1750	WINDING TYPE	STRAIGHT SHUNT
S.F.	ENCL.	AMB°C/INSUL	DUTY	CONT	POWER CODE/FORM FACTOR	D	TYPE	T
1.0	DPG	40/F						
COOLING AIR (CFM/IN H <sup>2</sup> O)	R (hot)	T <sub>e</sub>	T <sub>m</sub>	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE	
-/-	.254	.0935	.0134	1900	2300	-	-	
WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER COIL	
ARM CIRCUIT	240	25°C	HOT	25°C	HOT			
SERIES S1-S2	-	.210	.259	-	70.5	3.91	mH	-
SHUNT F1-F2	300	1.67	241	1.79	1.24	85.7	H	2750



REMARKS: TYPICAL DATA  
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

	DR. BY	E.H. GILLOT	<b>D-C</b> <b>APPLICATION</b> <b>DATA</b>	SK0037A ISSUE DATE 10-03-2008
	CK. BY	B. GRANT		
	APP. BY	R. REISCHER		
	DATE	10-03-2008		

