

ABB BALDOR RELIANCE III

Customer information packet

ZDBRPM25604

60HP, 1750, 460V, FL2578, TEBC, F3

Specifications

Enclosure	TEBC
Frame	FL2578Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	60.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	75.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	ENCODER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	75.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	38.35 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.124 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1775 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3381A
Layout	617577-375
Eff. date	01-19-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-10-2021

Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613006MY									
	DUTY	HP	RPM	AMPS	VOLTS	HZ			
	CONT	60	1775		75	460		60	
	CONT	60	3540		71	460		120	
CAT.NO.	ZDBRPM25604		SPEC. NO.		F25-A000-0413				
SER.NO			FR	FL2578Z	INSUL	H			
PH.	3	MAX SAFE SPEED		5000	AMB.	40	MIN. AMB.		-25
DESIGN NO.	L3381A		TYPE		ENCL.	TEAO-BC			
S.F.	1.00		D.E. BRG.		65BC03JPP30A				
ENCL MOD			O.D.E. BRG.		50BC03JPP30A				
	IP44								

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN	EQ	CKT	OHMS	PER PHASE
FRAME	FL2578	AMPS	75	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)				
HP	60	DUTY	CONT	IM (AMPS)	35	R1	.0612	X1	.309	
BASE SPEED	1775	S.F.	1.0	P.F.@NL/FL	.048/.819	R2	.0409	X2	.427	
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	4.2			XM	7.77	

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1774	60.0	178	460	60	75.0
MAX SPEED	3542	60.0	89	460	120	71.2
MIN SPEED	0	0	178	13.4	.865	75.0

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	34.3
1/4	1794	15.0	44	460	60	38.9
1/2	1788	30.0	88	460	60	48.1
3/4	1781	45.0	133	460	60	60.6
FULL LOAD	1774	60.0	178	460	60	75.0
O/L	1742	118	355	460	60	142

REMARKS: TYPICAL DATA
CORRELATED DATA

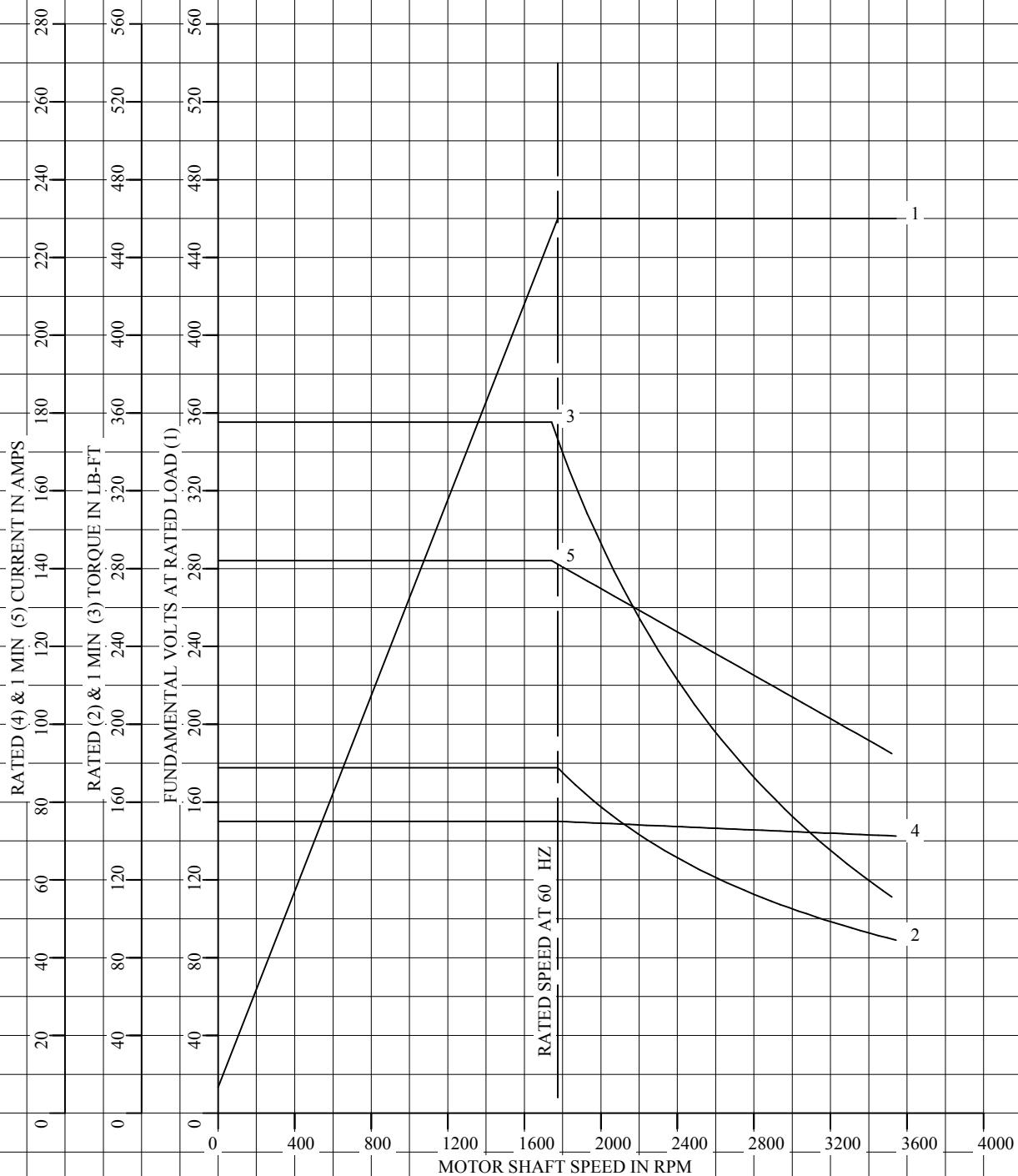


DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 8-11-06

A-C MOTOR
PERFORMANCE DATA L3381A
ISSUE DATE 8-11-06

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2578	AMPS	75	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)	
HP	60	DUTY	CONT	IM (AMPS)	35	R1 .0612	X1 .309
BASE SPEED	1775	S.F.	1.0	P.F. @NL/FL	.048/.819	R2 .0409	X2 .427
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	4.2	XM 7.77	

CORRELATED DATA
VARIABLE SPEED AC MOTOR CURVES



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



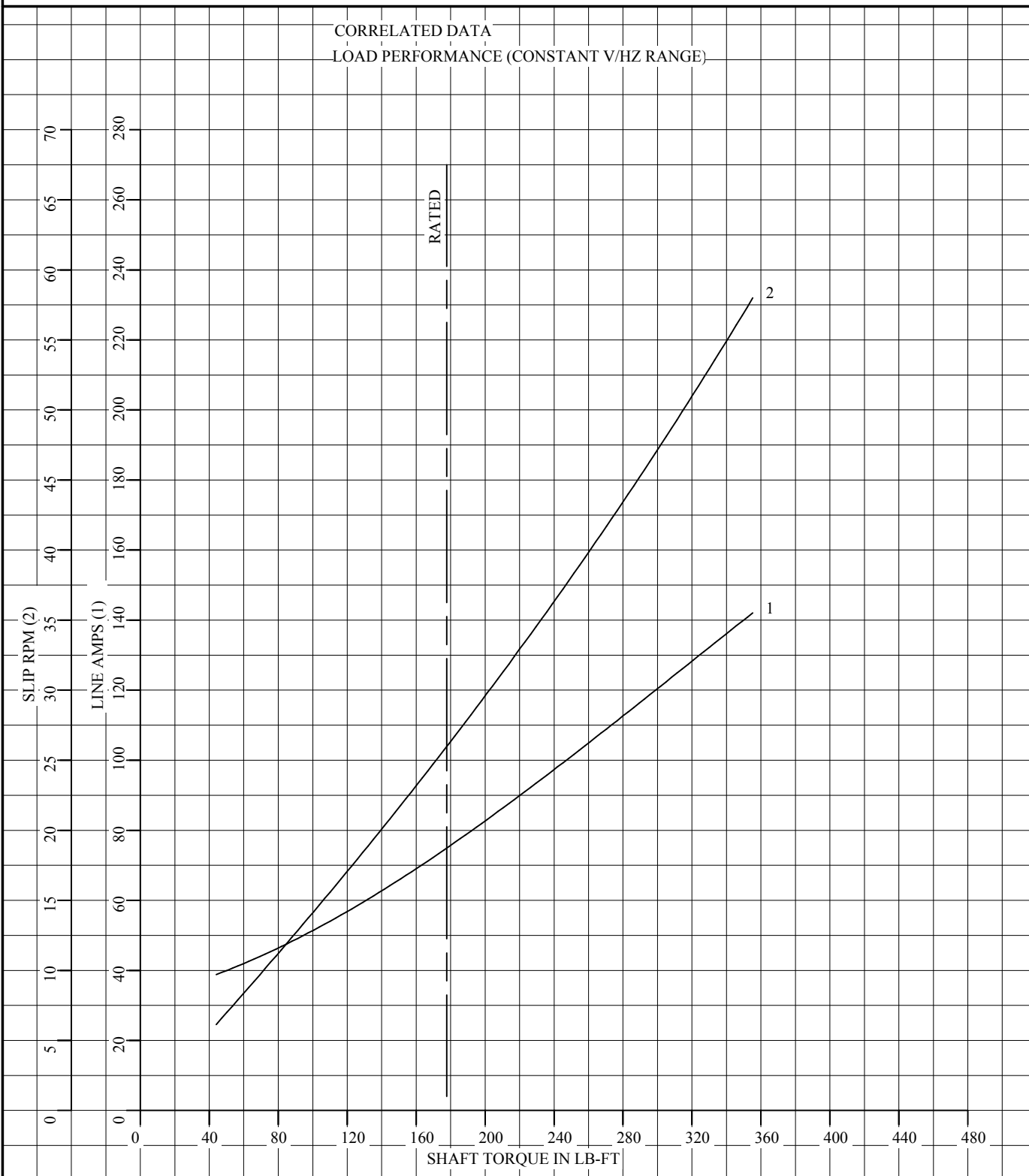
DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 8-11-06

**A-C MOTOR
PERFORMANCE
CURVES**

L3381A
SH 1 OF 2
ISSUE DATE 8-11-06 Page 6 of 10

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2578	AMPS	75	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)	
HP	60	DUTY	CONT	IM (AMPS)	35	R1 .0612	X1 .309
BASE SPEED	1775	S.F.	1.0	P.F. @NL/FL	.048/.819	R2 .0409	X2 .427
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	4.2	XM 7.77	

CORRELATED DATA
LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



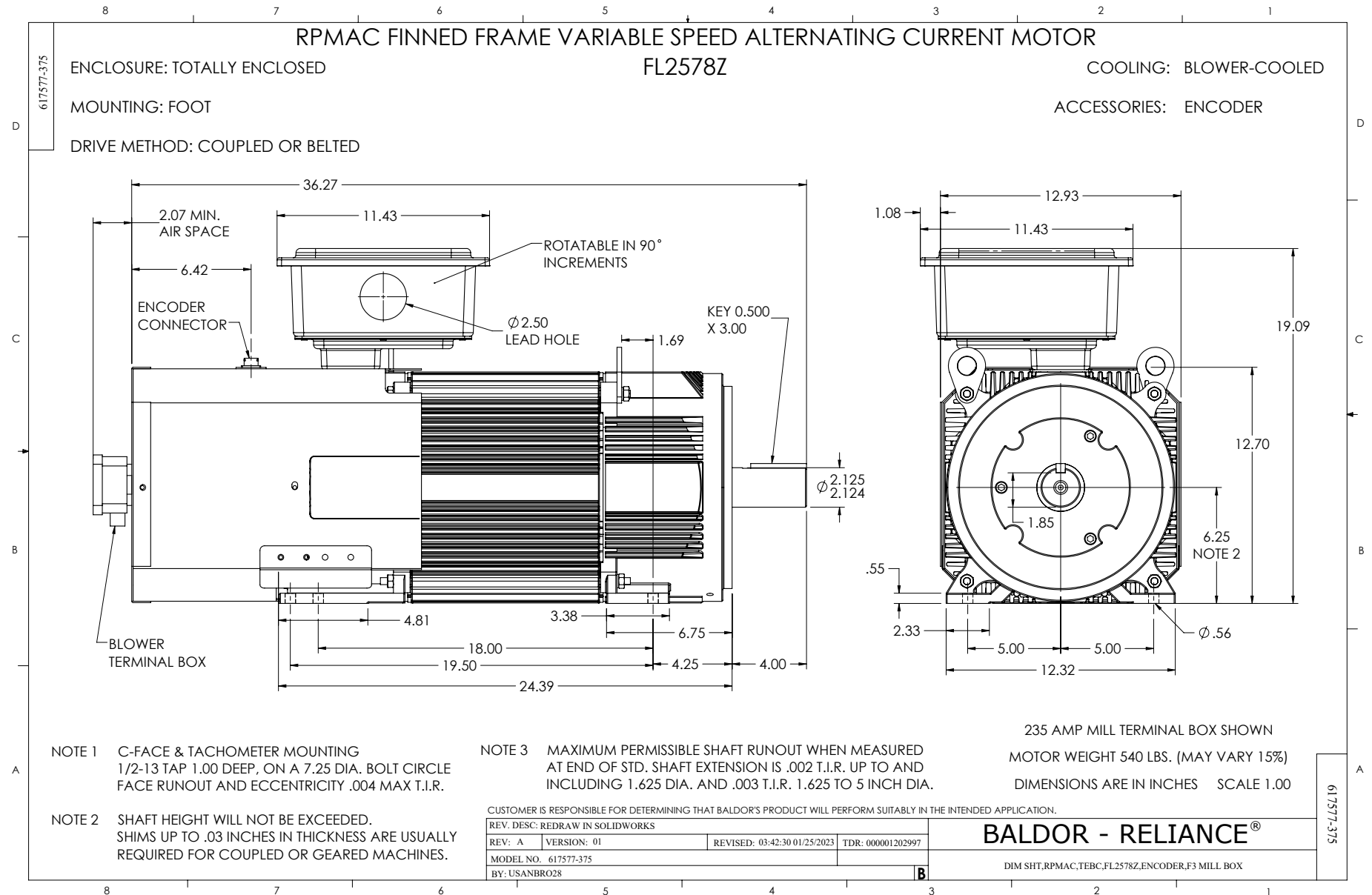
REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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APP. BY T. CUFR
DATE 8-11-06

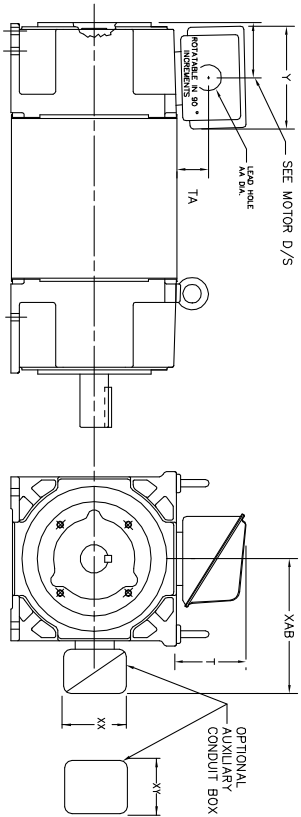
**A-C MOTOR
PERFORMANCE
CURVES**

L3381A
SH 2 OF 2
ISSUE DATE 8-11-06 Page 7 of 10



INDUSTRIAL ALTERNATING CURRENT MOTORS
RPM AC

STEEL, CAST IRON, MILL AND TERMINAL BOARD CONDUIT BOX DIMENSIONS
NEMA FRAMES RL210 thru RL280 and IEC FRAMES RDL132 thru RDL180
NEMA FRAMES FL180 thru FL280 and IEC FRAMES FDL112 thru FDL180



FRAME	TYPE	TERMINAL STRIP	AMPS	C/BOX	Y	TA	T	AA
FL180	STEEL	N	40	706320003A	5.00	1.62	3.00	1.12
FL180	STEEL	Y/N	75	706320003A	6.12	2.35	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.62	2.00	7.00	2.50/2.00
FL180	CAST IRON	Y/N	208	706320004C	6.75	2.50	4.38	1.0/1.75
FL180 & FDL11	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16

FL210 & RL210	STEEL	N	61	0754520008	6.34	2.00	4.12	1.75
FL210 & RL210	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL210 & RL210	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210	MILL	Y	160	706310056A	9.00	3.06	5.40	PG36/PG16
FL210 & RL210	MILL	Y/N	235	706310056B	11.42	4.00	6.72	2.50

FL250 & RL250	STEEL	N	61	0754520008	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL250 & RL250	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	CAST IRON	N	210	706320013A	10.50	4.88	9.00	4.0 TAP
FL250 & RL250	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250	MILL	Y/N	235	706310057A	11.42	4.00	6.72	2.50
FL250 & RL250	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FL280 & RL280	STEEL	N	160	706320009A	7.25	3.50	7.06	2.50
FL280 & RL280	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL280 & RL280	STEEL	N	500	702658001C	14.62	7.56	12.70	5.00
FL280 & RL280	CAST IRON	N	140	706320012B	9.25	4.81	8.56	3.0 TAP
FL280 & RL280	CAST IRON	N	210	706320013A	10.50	4.88	9.00	4.0 TAP
FL280 & RL280	CAST IRON	N	510	706320014D	15.00	7.56	12.81	5.0 TAP
FL280 & RL280	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL280 & RL280	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL280 & RL280	MILL	Y/N	235	706310057A	11.42	4.00	6.72	2.50
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
FL210/RL210/FL112	7.38	4.25	4.25	602007-26-A	FL210/RL210/FL112	10.88	8.00	8.00	706310-3-B
FL250/RL250/FL160	8.44	4.25	4.25	602007-26-A	FL250/RL250/FL160	11.88	8.00	8.00	706310-3-B
FL280/RL280/FL180	9.12	4.25	4.25	602007-26-A	FL280/RL280/FL180	12.62	8.00	8.00	706310-3-B

(1) 1"AW CONDUIT.
(2) 1"AW PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE PER CONDUIT.
(4) 2" DN-5A OR 1" TAP DN-4C

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

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

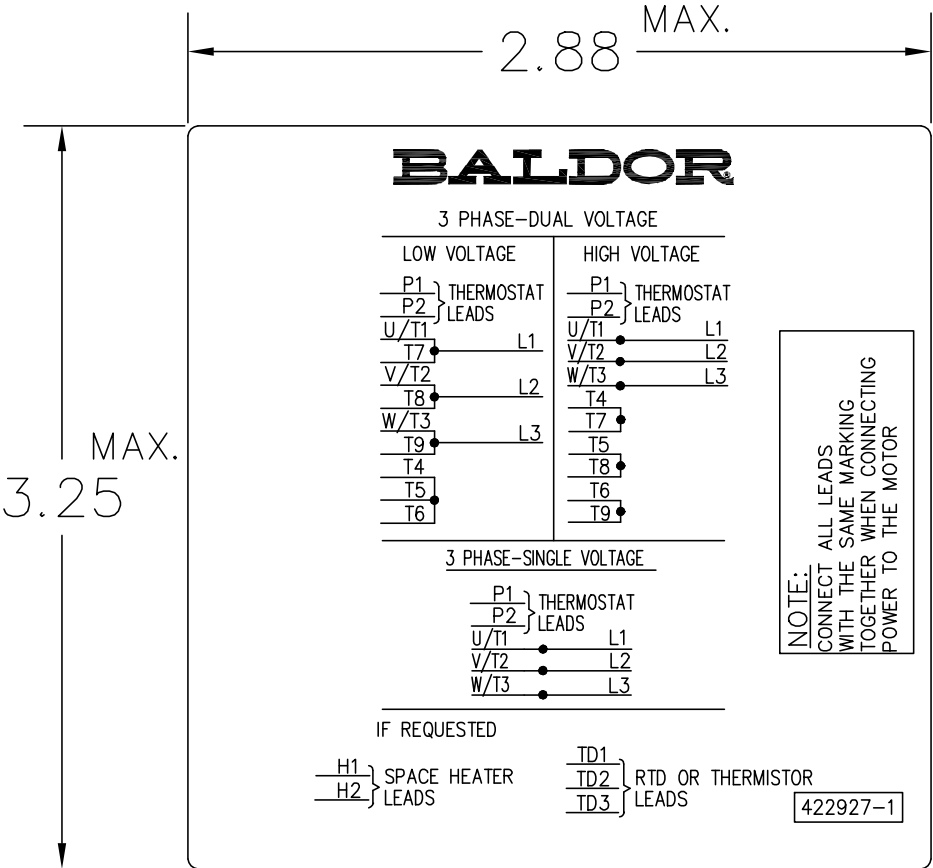
REV. DESC: ADD 706310-637 & 639 BOX	VERSION: 06	TDR: 000001180260
REV. LTR: F	REVISED: 11:08:56 10/26/2021	BY: RCGRWM
FILE: \\RGG\00003\692		
MTL: -		

BALDOR - RELIANCE®

DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180

SH 1 of 1

422927-001



NOTE:
DATA TO BE SIZED
SO THAT IT FITS INTO
MATERIAL DECAL
DIMENSIONS. MAKE
LETTERS & NUMBERS
AS LARGE AS POSSIBLE.

MATERIAL: CERAMATIC DGF-P4
PERMA GRIP ADHESIVE

ALL LETTERS, NUMBERS
AND LINES TO BE BLACK
ON WHITE BACKGROUND.

422927-001

REV. DESC: CHANGE BACKGROUND COLOR FROM GOLD TO WHITE		
REV. LTR: B	VERSION: 02	TDR: 000000788708
FILE: \RGG\00000\203	REVISED: 08:09:29 03/04/2013	
MTL: -	BY: RGGWT	

BALDOR
EXTERNAL CONNECTION LABEL
SH 1 of 1