

ABB BALDOR RELIANCE III

Customer information packet

ZDPM28125-BV

125HP, 1800, 460V, FL2882, TEBC, F3

Specifications

Enclosure	TEBC
Frame	FL2882Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	125.000 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	137.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	RESOLVER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	137.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	44.06 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.624 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1800 rpm
Starting Method	Full Voltage

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	PM4056A
Layout	617530-313
Eff. date	03-24-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-09-2021

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

Nameplate

000613006MY									
	DUTY	HP	RPM	AMPS	VOLTS	HZ			
	CONT	125	1800		137	460	60		
	CONT	125	3000		137	460	100		
CAT.NO.	ZDPM28125-BV			SPEC. NO.	F28-A000-0379				
SER.NO				FR	FL2882Z	INSUL	H		
PH.	3	MAX SAFE SPEED			5000	AMB.	40	MIN. AMB.	-25
DESIGN NO.	PM4056A			TYPE		ENCL.	TEAO-BC		
S.F.	1.00			D.E. BRG.	75BC02J30X				
ENCL MOD				O.D.E. BRG.	55BC02J30X				
	IP44								

000692000VY		
MEAS OPEN CIRCUIT VOLTAGE		
IS		VOLTS AT
		RPM.

Parts List

Part number	Description	Quantity
WS393401	WS F28-A000-0379	1.000 ea
RA389930	RA F28-A000-0379	1.000 ea
418018122A	LABEL	2.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
000613006MY	NP-RPMAC INVERTER DUTY	1.000 ea
000692000NH	LABEL DIRECTION AIR FL	1.000 ea
LB1613	LABEL, QR CODE, ADHESIVE LABEL	1.000 ea
000692000XM	LABEL QR CODE	1.000 ea
000692000VY	PERMANENT MAGNET MOTOR NAMEPLATE	1.000 ea
422927001	C/D LABEL	1.000 ea
807583004AAB	BRKT,ODE,FL280	1.000 ea
807583003AAA	BRKT,DE,FL280	1.000 ea
BP5068BJ01	BRUSH, .187 X .187 X 1.00	2.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
004824015A	GREASE POLYREX EM	0.300 lb
036600014AB	FLTW MOTOR MTG.	2.000 ea
400638001G	WAVEN (Customer number 43699)	1.000 ea
036000016DB	HHCS	4.000 ea
418150003A	GREASE FITTING CAP	2.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
036100070KA	METRIC HSHCS	3.000 ea
036100070JA	HSHCS M8 70MM UNPLATED	3.000 ea
036140001D	EYEBOLT - 360	2.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 ea
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 ea
609830005AAG	TBOLT METRIC	4.000 ea
BP5248	BP5248	2.000 ea

610490001A	16M 2P TENV VER 56C SUPER E, CE	1.000 ea
415000103D	T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT	1.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	3.000 ea
422962052AB	STUB SHAFT	1.000 ea
800123015A	RESOLVER	1.000 ea
600164003A	WHEEL, BLOWER	1.000 ea
036600008AB	MFWSH M6 PLATED	4.000 ea
417733004J	GASKT	1.000 ea
706310640B	BACKPLATE GASKET C/BOX 706310-637	1.000 ea
609843001K	GASKET HANDHOLE COVER FE	1.000 ea
708535017A	FAN COVER,GRILL	1.000 ea
036000025HB	HHCS M6-1.0X25L PLTD.	4.000 ea
032018006CK	HHCS 3/8-16X3/4L PLATED 411409	4.000 ea
036500008AB	METRIC H.NUT M6-1.0 PLTD	4.000 ea
708535010C	FAN COVER FL280 WITH ENCODER/RMM BLWR	1.000 ea
036000012KB	M10 1.50 X 12MM HXHDCS	3.000 ea
000613006NT	NAME PLATE IEC	1.000 ea
418057256F	HHCS M6 12MM ZINCPLAT	1.000 ea
036610008AB	METRIC LCKW M6 PLTD-G508	4.000 ea
418057373A	SCREW SHEET METAL	7.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
708533003A	PLATE, BTM FAN/BLOWER	2.000 ea
706313063A	BLOWER HOUSING	1.000 ea
410978010A	FLANGE, INLET BLOWER	1.000 ea
410978011A	GRILL, INLET BLOWER HSG	1.000 ea
406673002C	.75 CAP PLUG	1.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
034630001AJ	1/8" PIPE COUPLING	1.000 ea
034017014AB	LCKW 3/8 STD. PLATED	4.000 ea
706310642A	BACK PLATE FOR 706310-637 WITH 5.00" BOL	1.000 ea
036600009AB	METRIC FLWASH M8 PLATED	2.000 ea
036310010FB	RHMS TERM/BLK MTG	2.000 ea
034530016AB	P/NIP 1/8X2 PLATED - 320	1.000 ea
418057461B	PLATE, ENCODER	1.000 ea

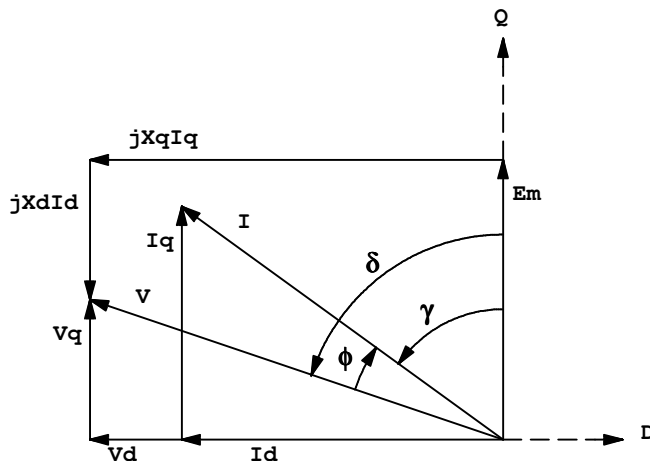
036320008CB	M2.5 SCREW	4.000 ea
036500006AB	M4-0.7 METRIC HEX NUT	2.000 ea
706310637A	C/BOX, MILL, RPMAC,9X9X4, 375IN^3	1.000 ea
706310641A	LIPPED CBOX LID FOR 706310-642	1.000 ea
706310640A	LID GASKET C/BOX 706310-637	1.000 ea
036010012HB	HHCS T/BOX BRACE	16.000 ea
036000012JB	M8-1.25 X 12MM HXHDC	4.000 ea
034180032HA	KEY 5/8X5/8X4	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
004824007CQR	C2 PAINT SYSTEM MEDIUM GRAY CHARCOAL MET	0.100 ea
LB1549	LABEL, BLANK 1.375 X 2.250 IMPRINTABLE	1.000 ea
004824007AB	PAINT,XT	0.100 ea

S.O. 0	VOLTS 460	TYPE IPM	STATOR RES. @ 25 °C .04394
FRAME FL2882	AMPS 136	ENCLOSURE TEBC	OHMS (BETWEEN LINES)
HP 60	DUTY CONT	MAX SAFE RPM 5000	
BASE SPEED 1800	S.F. 1.0	WK ² (Lb-Ft ²) 8.84	
PHASE/HERTZ 3/60	AMB °C/INSUL 40/H	MAX INSTANTANEOUS OVERLOAD AMPS 408	

VARIABLE SPEED PERFORMANCE

HP	AMPS (rms)	RPM	GAMMA*	POWER FACT.	EFF.	VOLTS (L-L) (rms)	Em (L-N) (rms)	Lq (mH)	Ld (mH)
OpenCkt**	N/A	1800	5.0	N/A	N/A	N/A	175	N/A	N/A
OpenCkt, hot	N/A	1800	5.0	N/A	N/A	N/A	157	N/A	N/A
25.9	34.0	1800	29.6	96.2	95.4	357	157	13.1	2.05
58.0	68.0	1800	36.7	93.6	96.0	409	157	9.60	2.00
90.6	102	1800	40.2	91.5	96.1	435	157	7.60	1.97
125	136	1800	43.7	89.7	95.9	460	157	6.70	1.93

Remarks: TYPICAL DATA
 CONSTANT TORQUE 0-1800 RPM, CONSTANT POWER 1800-3000 RPM
 200% OVERLOAD BELOW BASE SPEED TAPERED TO 100% AT 3000 RPM



*Gamma is the current angle relative to counter emf, defined to be positive when current leads counter emf.

Equivalently, Gamma is positive when Id is negative.

**Data at 25°C - all other data at rated temperature

BALDOR

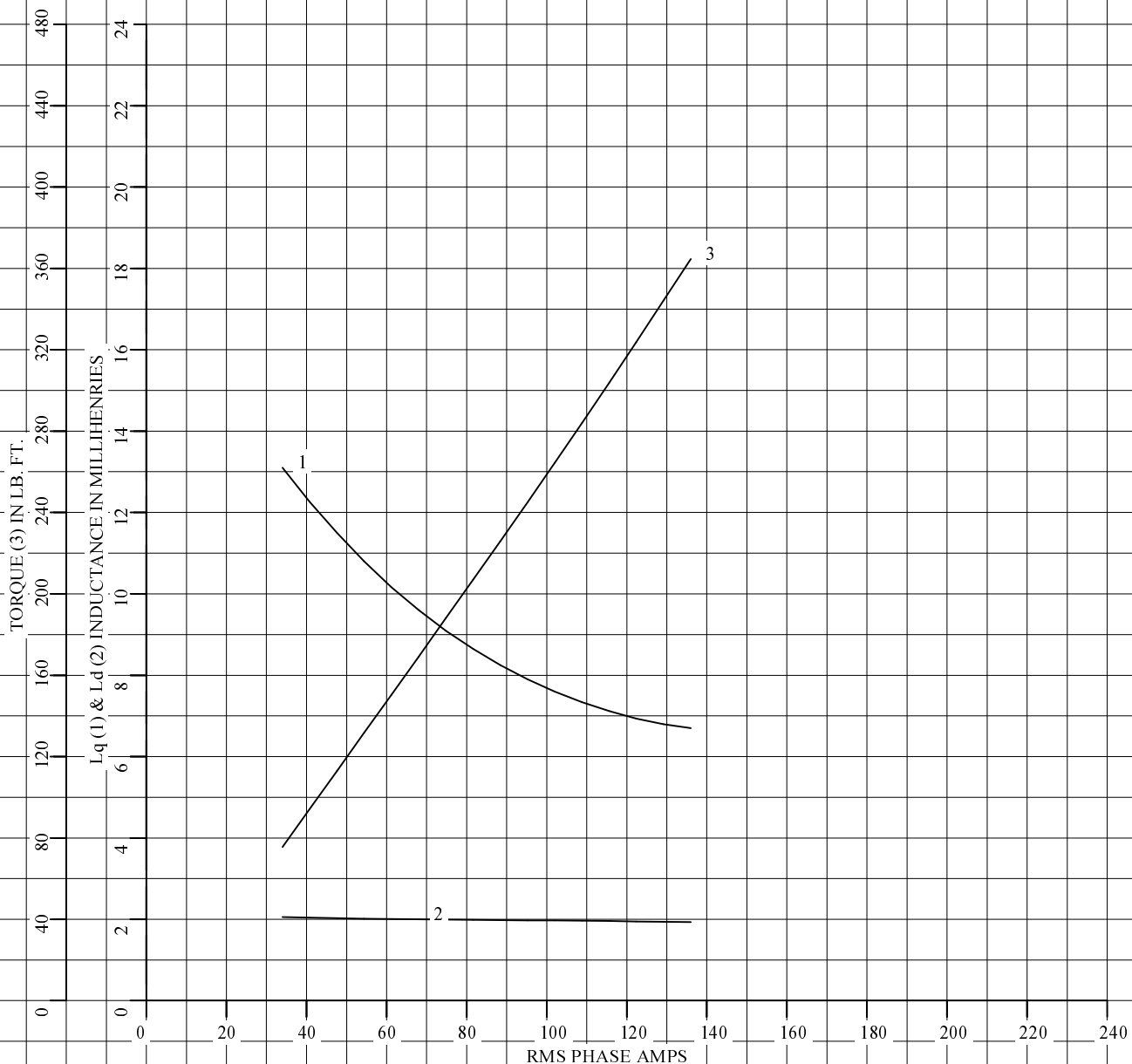
DR. BY	CD
CK. BY	RM
APP. BY	RM
DATE	5/10/10

IPM MOTOR	
PERFORMANCE	PM4056A
DATA	ISSUE DATE 5/10/10

S.O. 0	VOLTS 460	TYPE IPM	STATOR RES. @ 25 °C .04394
FRAME FL2882	AMPS 136	ENCLOSURE TEBC	OHMS (BETWEEN LINES)
HP 60	DUTY CONT	MAX SAFE RPM 5000	
BASE SPEED 1800	S.F. 1.0	WK ² (Lb-Ft ²) 8.84	
PHASE/HERTZ 3/60	AMB °C/INSUL 40/H	MAX INSTANTANEOUS OVERLOAD AMPS 408	

Lq, Ld, & Torque vs. RMS Phase Amps

CONSTANT TORQUE 0-1800 RPM, CONSTANT POWER 1800-3000 RPM
200% OVERLOAD BELOW BASE SPEED TAPERED TO 100% AT 3000 RPM



REMARKS: TYPICAL DATA

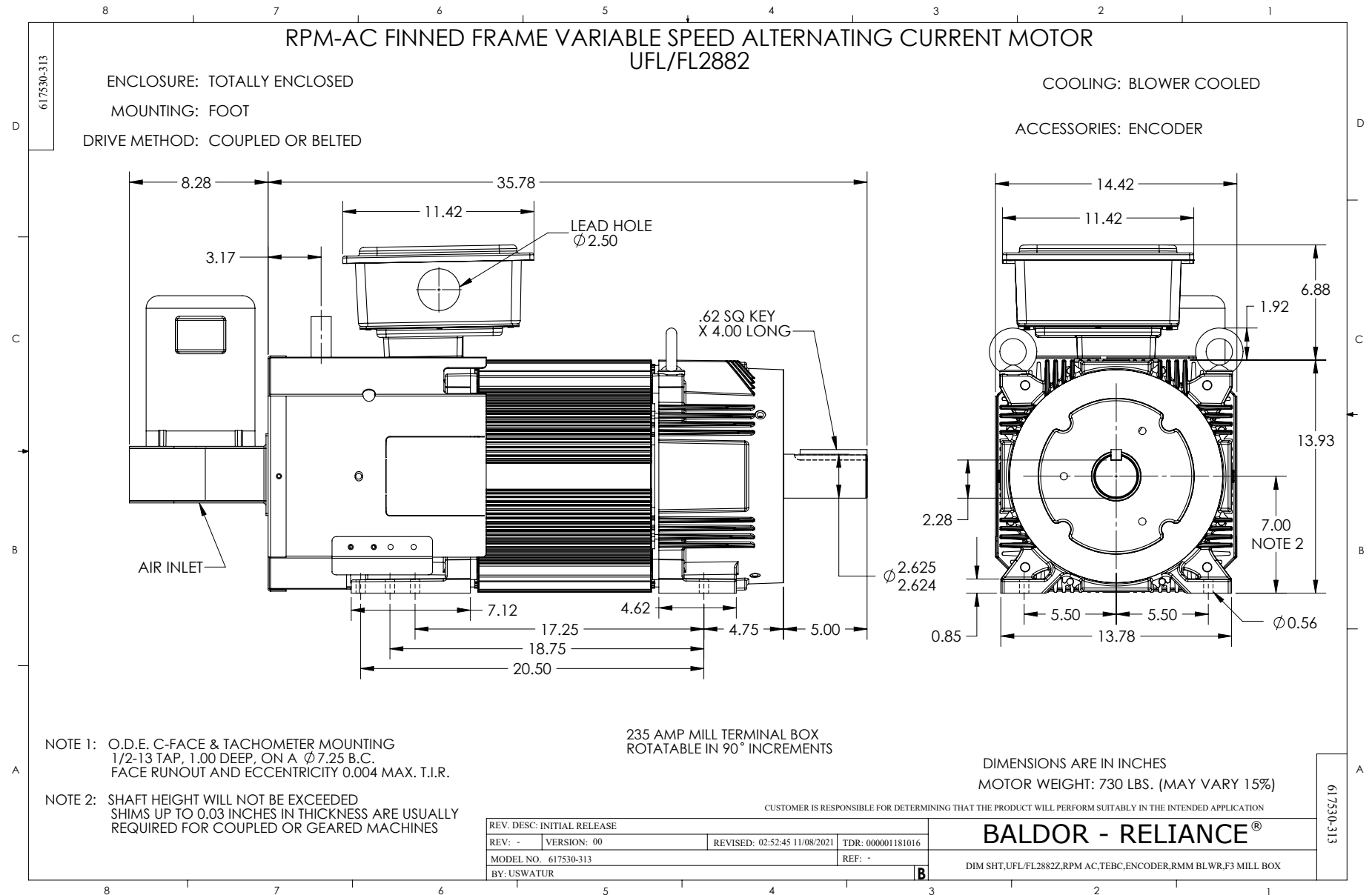
BALDOR

DR. BY	CD
CK. BY	RM
APP. BY	RM
DATE	5/10/10

**IPM MOTOR
PERFORMANCE
DATA**

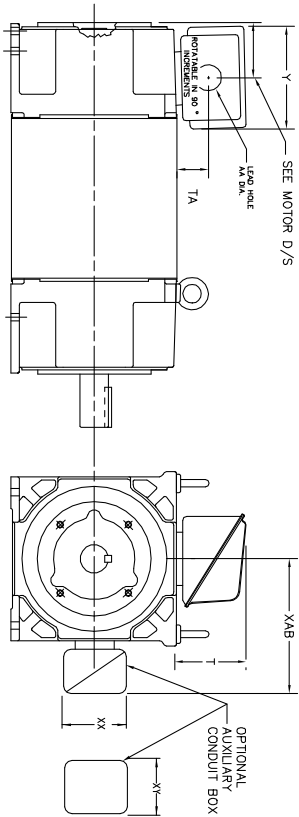
PM4056A

ISSUE DATE 5/10/10



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	2.36	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.62	2.00	7.00	2.50/3.00
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	075452000B	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	075460062B	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	7063100637A	11.42	4.00	6.72	2.50

FL250 & RL250	STEEL	N	61	075452000B	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	075460062B	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	7063100637A	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	706320029A	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	7063100637A	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/FL180/RL210/RL182	7.38	4.25	4.25	602007-26-A	FL210/FL180/RL210/RL132	10.88	8.00	8.00	706310-3-B
FL250/FL160/RL250/RL160	8.44	4.25	4.25	602007-26-A	FL250/FL160/RL250/RL160	11.88	8.00	8.00	706310-3-B
FL280/FL180/RL280/RL180	9.12	4.25	4.25	602007-26-A	FL280/FL180/RL280/RL180	12.62	8.00	8.00	706310-3-B

(1) 1/4" CONDUIT.
(2) 1/4" PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE PER CONDUIT.
(4) 2" DIA. SH. 1" DIA. DIA. 4/8"

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.
DR 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	TDR: 000001180260
REV. LTR: F	VERSION: 06
FILE: \RGG\00003\692	REVISED: 11:08:56 10/26/2021
MTL: -	BY: RCGRWM

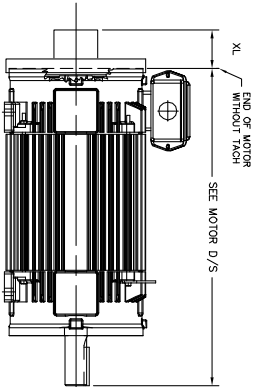
BALDOR - RELIANCE®

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

RPM AC TACHOMETER DIMENSIONS
NEMA FRAMES FL180 thru FL440 and IEC FRAMES FDL112 thru FDL280

DIMENSIONS ARE IN INCHES(mm)

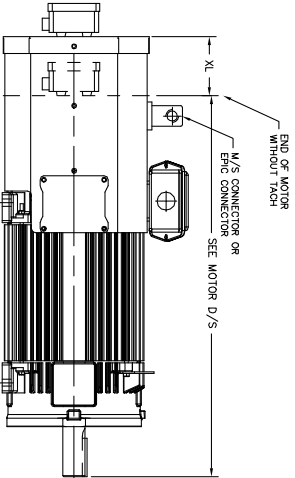
DPV, DPSV, TEPV, TESV, TENV & TEO-PB
IC06, IC17, IC37, IC410, & IC416-PB



* THIS DIMENSION INCLUDES COVER FOR X/T MOTOR.

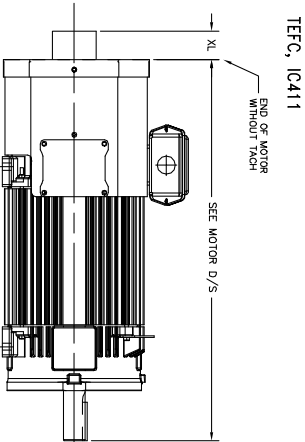
TACH MODEL	XL Inches(mm)	LBS.
BEL DR DYNAPAR HS35	2.88 (74)	5
DYNAPAR H20	7.50 (191) MAX	10
NORHSTAR HS35M	3.31 (84)	10
NORHSTAR ST67	2.88 (74)	5
DYNAPAR HS6	10.56 (268)	40
AVTRON M3 DR M4	3.62 (92)	10
TAMAGAMA TS5013(XT)	6.00 (152)	10
NORHSTAR ST56	2.88 (74)	5
NORHSTAR ST85	2.00 (51)	5
BEL T880	10.19 (259)	15
TAMAGAMA TS2151	6.61 (167)	15
BEL T825	7.50 (191)	15
DYNAPAR HS20	2.00 (50.8)	5
DYNAPAR X25	12.88 (327)	10
STEGMANN SRS5	7.25 (184.4)	10
NORHSTAR HS035	3.00 (76.2)	10
HEIDENHAIN EDW425	2.5 (63.5)	5
AVTRON HS35M	4.19 (106.4)	5
HEIDENHAIN ERN480	5.00 (76.2)	5
DYNAPAR H025	7.00 (177.8)	10
DYNAPAR H02	3.62 (92.1)	5
AVTRON M285	2.54 (64.5)	9
AVTRON AV850	2.54 (64.5)	9
AVTRON AV56	4.50 (115)	15
HS025	3.30 (84)	5
NORHSTAR R18	3.25 (83)	15
DYNAPAR H0625	5.88 (150)	10
AVTRON AA485	9.50 (241)	18
AVTRON AV32	1.93 (49)	7
DYNAPAR RH25	3.80 (97)	1.6
AVTRON AV85	2.40 (61.5)	3

TEAO-BC, IC416-BC
EXCLUDES NEMA FRAMES FL320 THRU FL440
AND
IEC FRAMES FDL200 THRU FDL280



TACH MODEL	XL Inches(mm)	LBS.
BEL DR DYNAPAR HS35	4.50 (115)	10
DYNAPAR H20	4.50 (115)	15
AVTRON M3 DR M4	4.50 (115)	10
NORHSTAR HS35M	4.50 (115)	15
NORHSTAR ST56	4.50 (115)	10
NORHSTAR ST67	4.50 (115)	10
NORHSTAR S185	4.50 (115)	5
NORHSTAR TS5013	4.50 (115)	10
DYNAPAR HS20	4.50 (115)	15
STEGMANN SRS5	4.50 (115)	10
STEGMANN SRS/SRS50	4.50 (115)	3
HE250 & HE56	4.50 (115)	15
AVTRON HS35M	4.50 (115)	10
AVTRON AV85	4.50 (115)	10
AVTRON M56	4.50 (115)	5
AVTRON AV67	4.50 (115)	10
HS038	4.50 (115)	5
TS2014	4.50 (115)	10
AVTRON HS45	4.50 (115)	15
DYNAPAR HST38M	4.50 (115)	15
AVTRON AV32	4.50 (115)	7
AVTRON AV850	4.50 (115)	9

TACH MODEL	XL Inches(mm)	LBS.
BEL HS35	2.88 (74)	7
NORHSTAR HS35M	3.31 (84)	10
DYNAPAR H20	3.75 (95)	15
DYNAPAR HS35, HS038	2.88 (74)	7
H00(XT)	9.75 (248)	35
EDW425	7.90 (201)	35
AVTRON HS35M	4.19 (106)	2
STEGMANN SRS50	3.75 (95)	1
DYNAPAR H20	2.00 (51)	1
NORHSTAR HS035	2.81 (71)	2
NORHSTAR HS038	3.30 (84)	5
AVTRON AV32	1.93 (49)	7

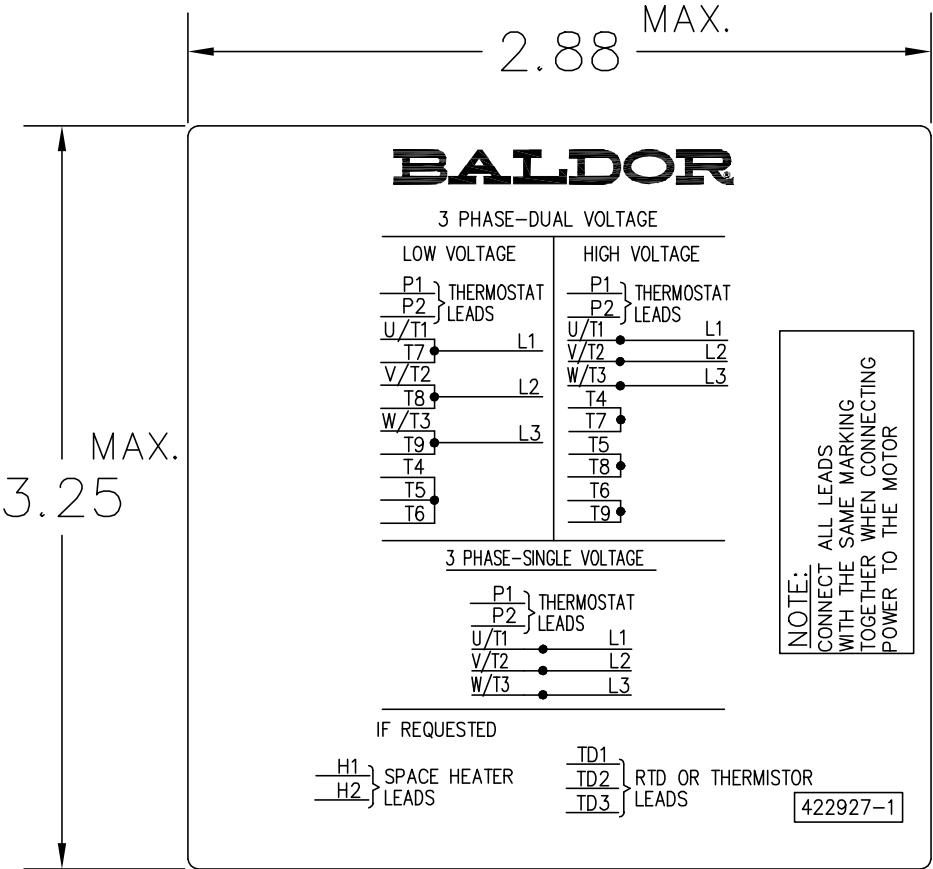


CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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MTL: -		

BALDOR - RELIANCE®	
DIM SHT TACH DIM NEMA FL180 - FL440 IEC FDL112 - FDL280	
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		
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FILE: \RGG\00000\203	REVISED: 08:09:29 03/04/2013	
MTL: -	BY: RGGWT	

BALDOR
EXTERNAL CONNECTION LABEL
SH 1 of 1