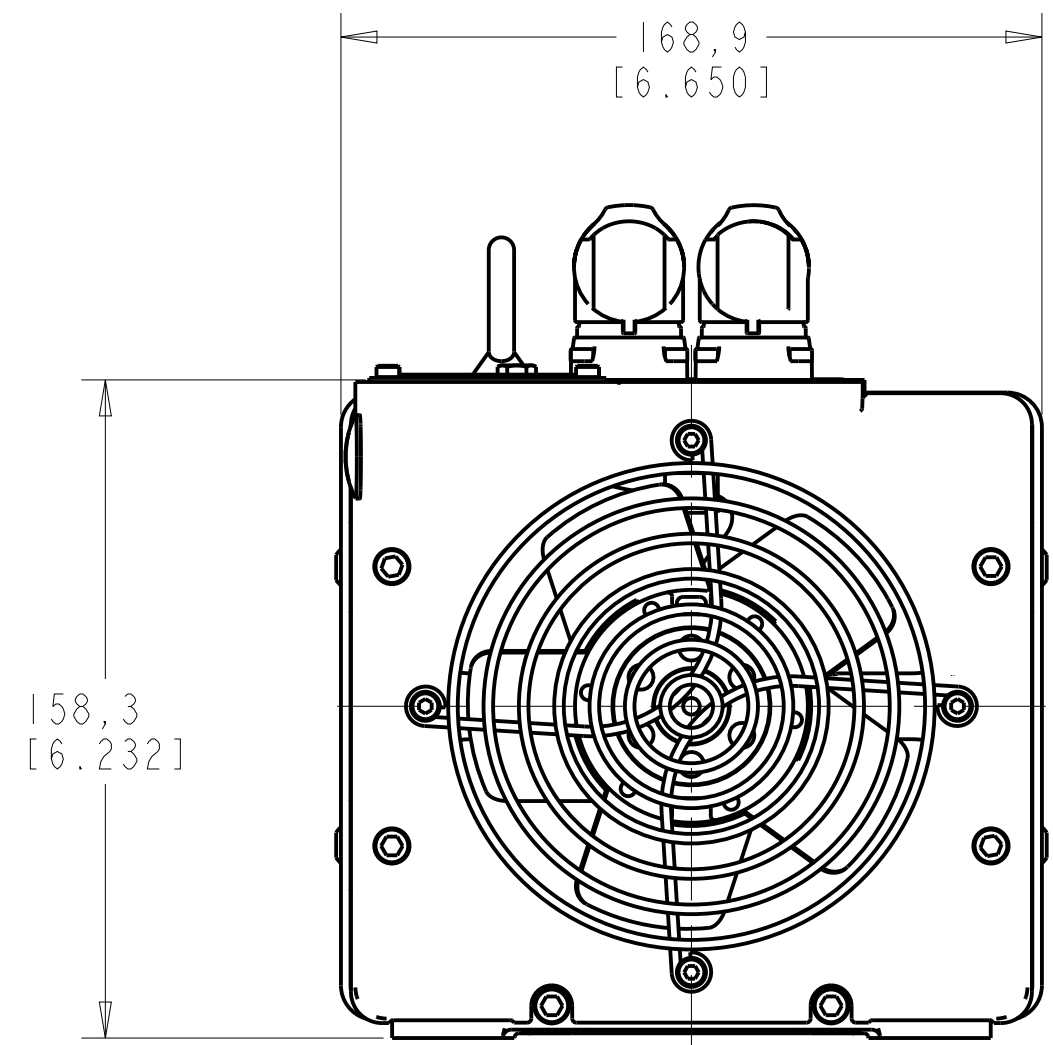
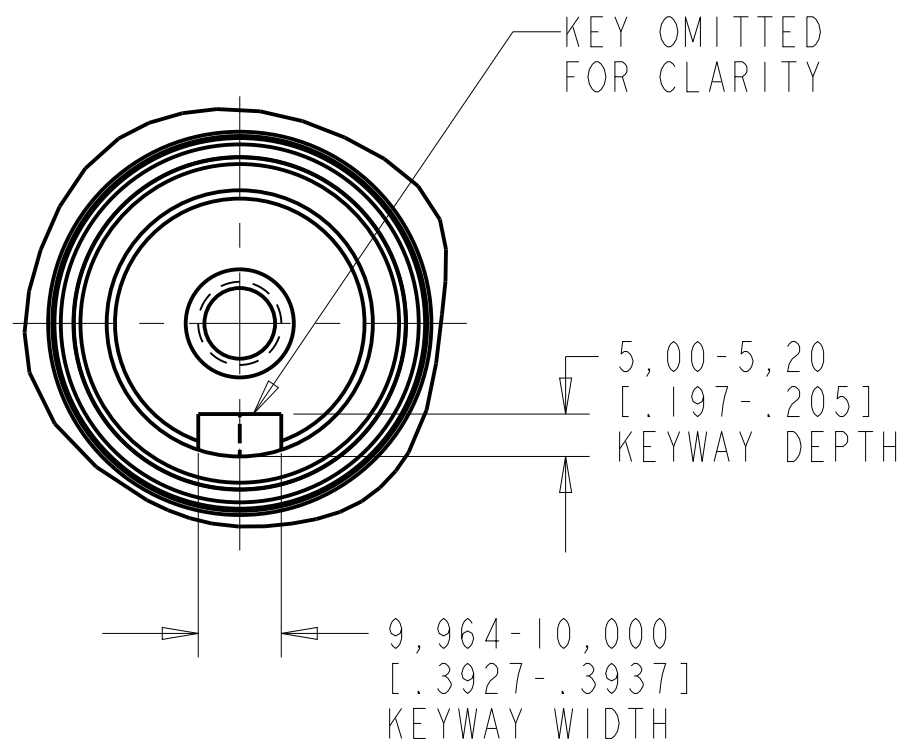
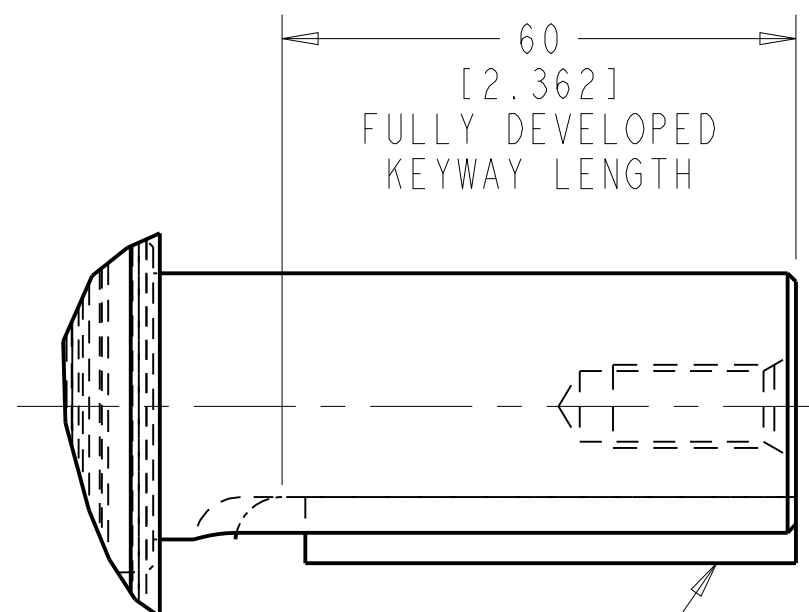
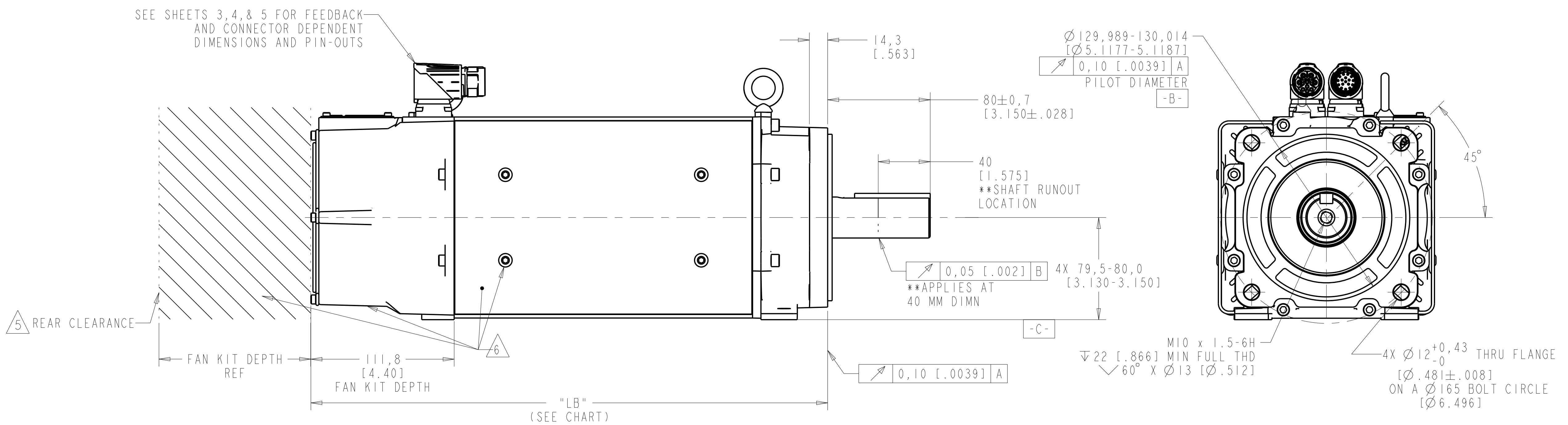


MODEL SHOWN ON THIS SHEET IS VPC-BI652x-xJ72FS

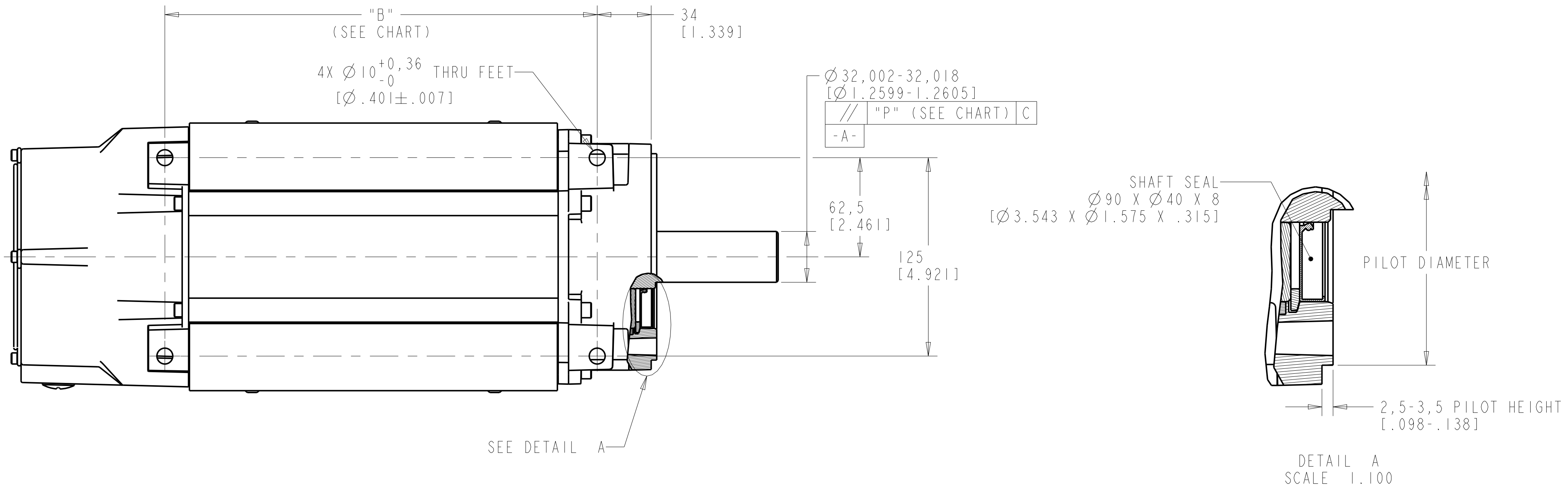


SEE SHEETS 3, 4, & 5 FOR FEEDBACK AND CONNECTOR DEPENDENT DIMENSIONS AND PIN-OUTS



KEY SUPPLIED
10+0
-0.036 X 8+0
-0.090 X 59
[.394 X .315 X 2.323]

OPTIONAL SHAFT KEY
SCALE 1:100



NOTES:

- DXF OF THIS DRAWING MUST BE SCALED TO LENGTH. SEE MOTOR DIMENSIONS CHART.
- 3D STEP (.stp) FILES ARE AVAILABLE FOR ALL MOTOR CONFIGURATIONS.
- FOR ADDITIONAL SPECIFICATIONS SEE ESE DRAWING DIR 10001892617.
- VPC CATALOG STRING CODES:

BRAKE:
2 = NO BRAKE
4 = BRAKE

RATED SPEED:
A = 1500 RPM
D = 3000 RPM

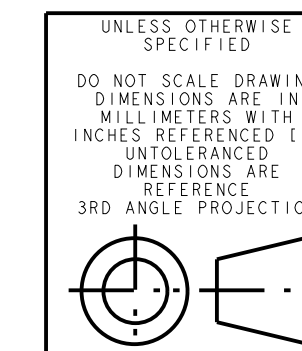
FEEDBACK TYPE:
S = 21 BIT SINGLE-TURN (HIPERFACE)
Q = 23 BIT MULTI-TURN (HIPERFACE DSL)
Y = 25 BIT MULTI-TURN (ENDAT 2.2)

COOLING:
A = NATURAL CONVECTION (FAN-LESS)
F = FORCED VENTILATION (WITH FAN-KIT)

5. FOR SUFFICIENT AIRFLOW AND SPACE FOR FAN KIT REMOVAL AND INSTALLATION, ENSURE THERE IS SPACE GREATER THAN OR EQUAL TO THAT OF THE FAN KIT DEPTH BEYOND THE REAR OF THE MOTOR (SHOWN). ONLY APPLICABLE FOR CATALOGS WITH A FAN-KIT.

6. DIMENSIONS AND PARTS NOT APPLICABLE FOR FANLESS CATALOG CONFIGURATIONS.

FRAME-STACKS	BRAKE OPTION	MOTOR DIMENSIONS				RATED SPEED	FEEDBACK TYPE		
		LB	LB-FANLESS	B	P		S	Q	Y
165-2	2	347,6 [13.69]	281,7 [11.09]	216,9 [8.54]	0,8 [.03]	A	SEE FIGURE 3, SH 4	SEE FIGURE 1, SH 3	SEE FIGURE 3, SH 4
	4	403,1 [15.87]	337,2 [13.27]	272,4 [10.72]	1,0 [.04]	D	SEE FIGURE 3, SH 4	SEE FIGURE 1, SH 3	N/A
165-3	2	403,1 [15.87]	337,2 [13.27]	272,4 [10.72]	1,0 [.04]	A	SEE FIGURE 3, SH 4	SEE FIGURE 1, SH 3	SEE FIGURE 3, SH 4
	4	443,6 [17.46]	377,7 [14.87]	312,9 [12.32]	1,0 [.04]	D	SEE FIGURE 3, SH 4	SEE FIGURE 1, SH 3	N/A
165-4	2	443,6 [17.46]	377,7 [14.87]	312,9 [12.32]	1,0 [.04]	A	SEE FIGURE 4, SH 5	SEE FIGURE 2, SH 3	SEE FIGURE 4, SH 5
	4	484,1 [19.06]	418,2 [16.46]	353,4 [13.91]	1,0 [.04]	D	SEE FIGURE 4, SH 5	SEE FIGURE 2, SH 3	N/A



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DO NOT SCALE DRAWING DIMENSIONS ARE IN MILLIMETERS WITH INCHES REFERENCED (X) UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE REFERENCE
3RD ANGLE PROJECTION



VPC, F165, ESM

CREATED BY: SWLARSON

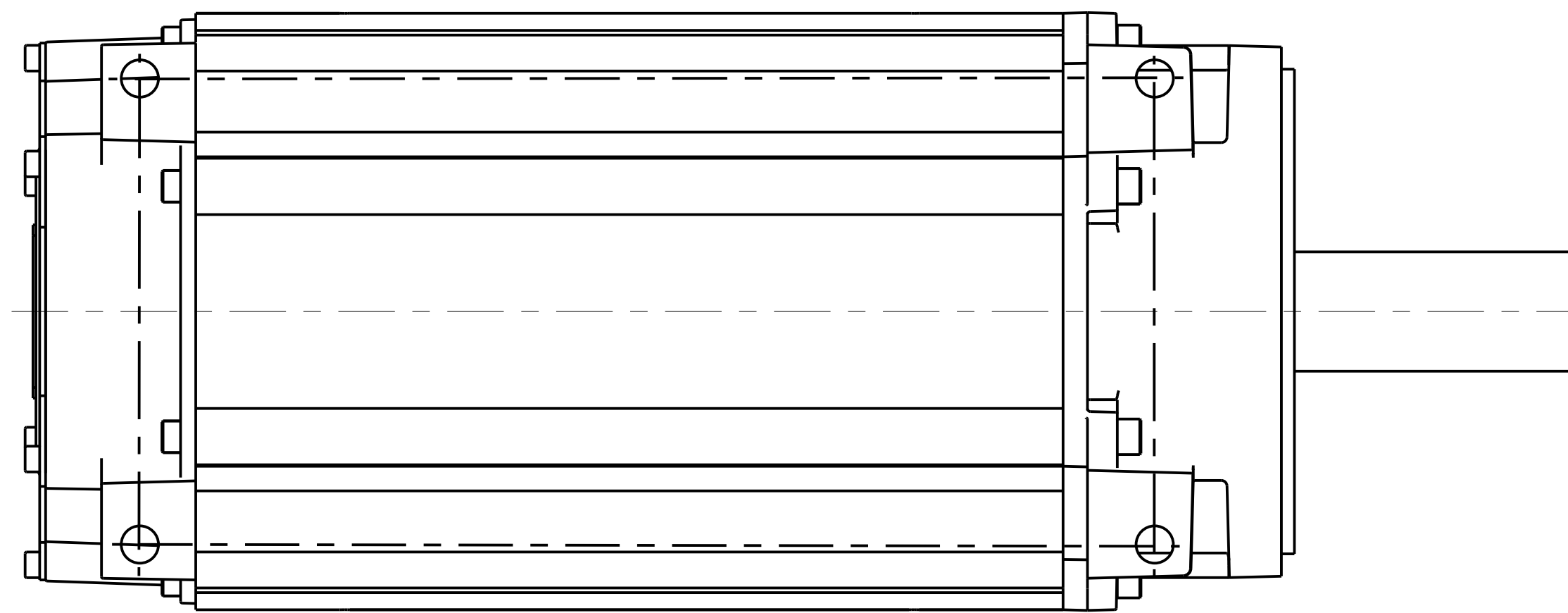
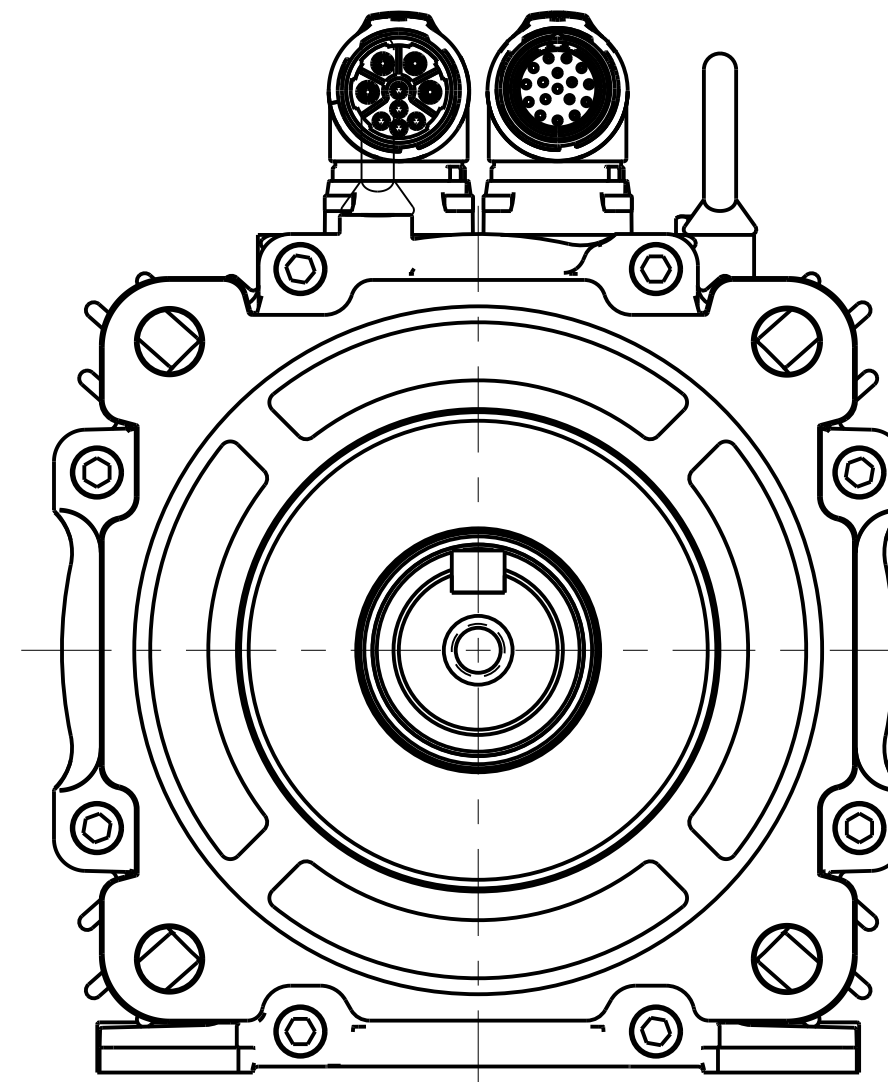
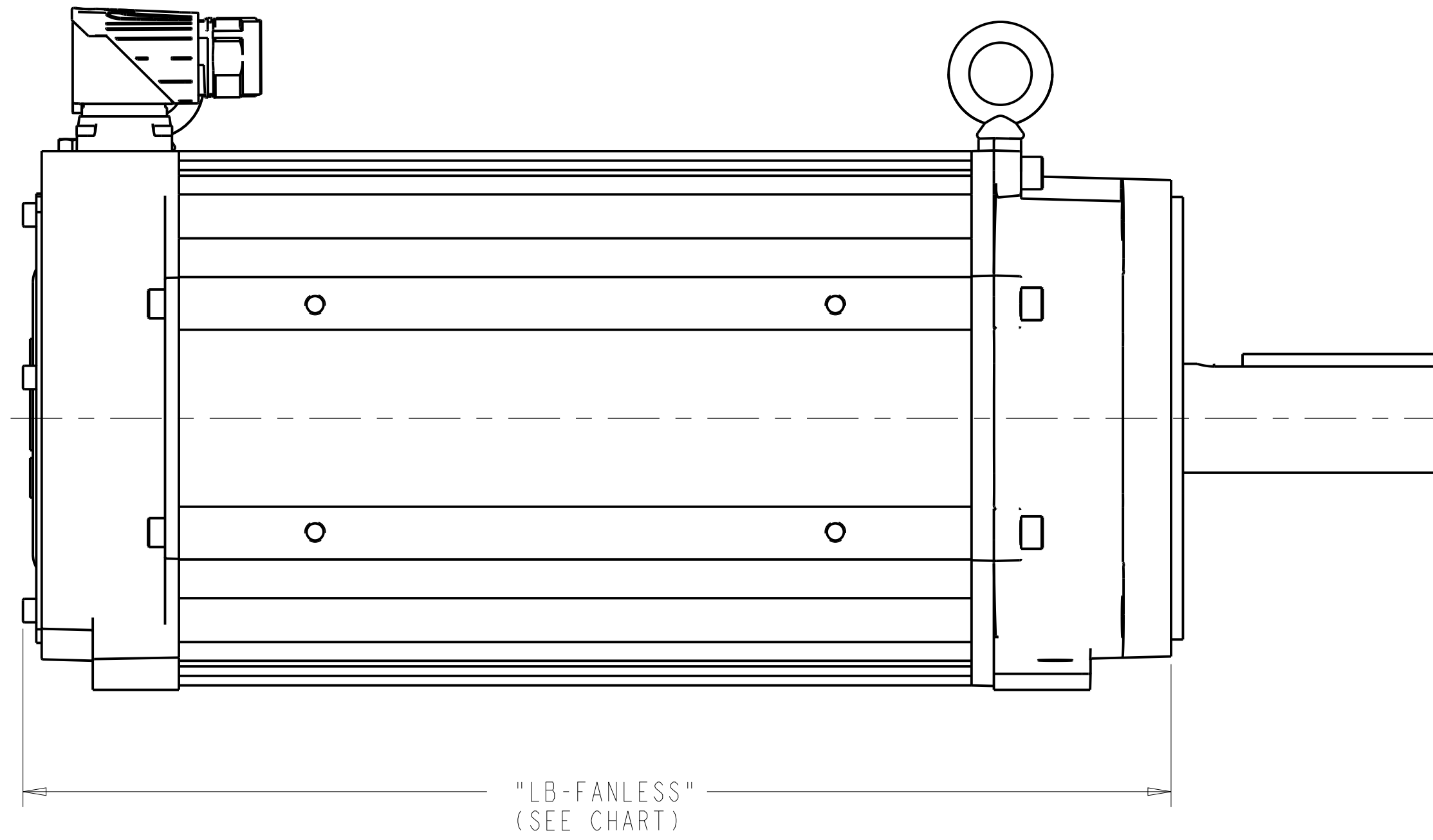
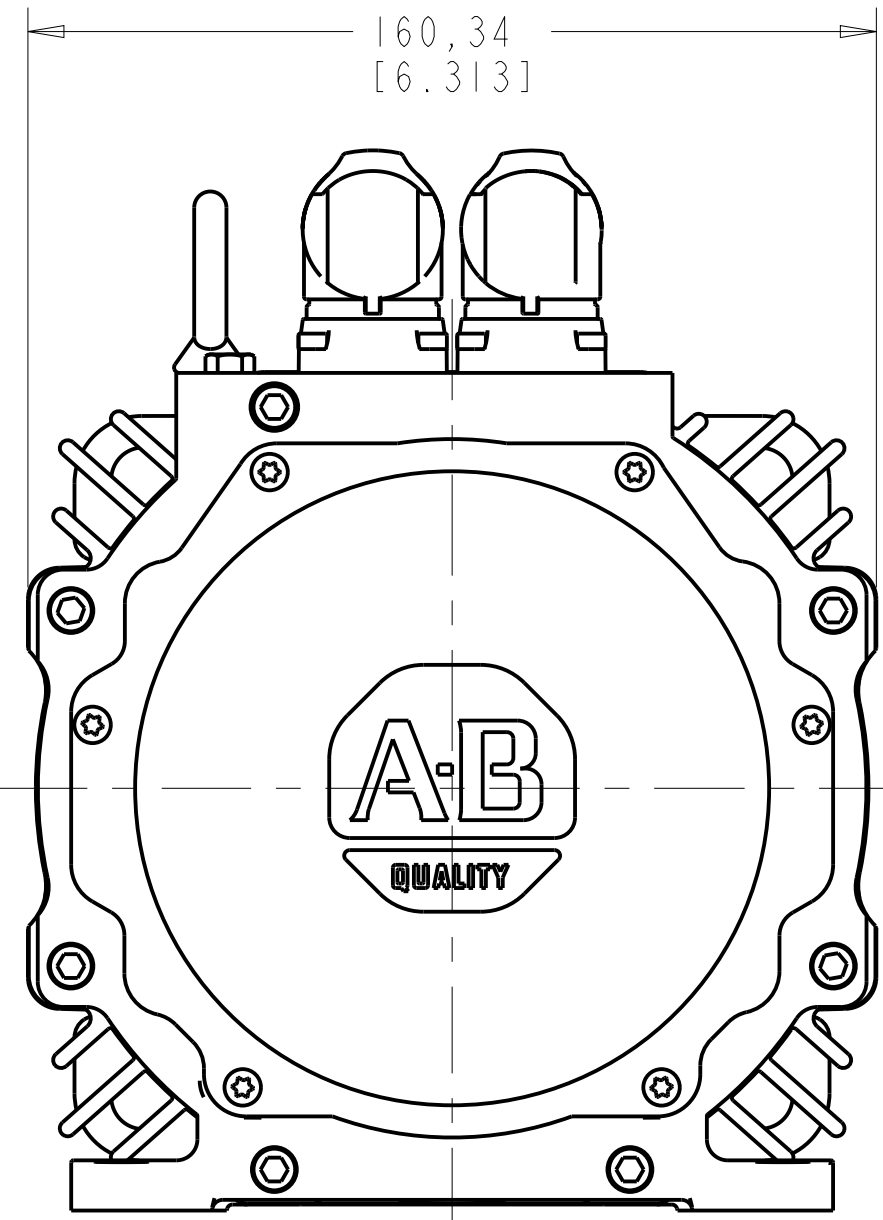
CHANGED BY: VTHIMMA

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DATE: 12-11-2019 SHEET 1 OF 5
SIZE DIR VER
D 10002434951 03

FAN-LESS MOTOR CONFIGURATIONS

MODEL SHOWN ON THIS SHEET IS VPC-BI652x-xJ72AS



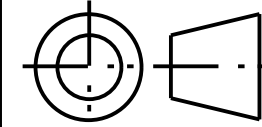

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		VPC, F165, ESM	<small>DATE: 12-11-2019</small> <small>SHEET 2 OF 5</small>
<small>CREATED BY: SWLARSON</small> <small>CHANGED BY: VTHIMMA</small>	<small>SIZE: D1R</small>	10002434951	<small>VER</small> 03

FIGURE #1

MODEL SHOWN IN FIGURE #1
IS VPC-B1652x-QJ12FS

CHART #1 (FOR FIGURE #1)			
FRAME-STACKS	BRAKE OPTION	MOTOR DIMENSIONS	
		LD	LE
165-2	2	251,9 [9.92]	211,9 [8.34]
	4	307,4 [12.10]	267,4 [10.53]
165-3	2	307,4 [12.10]	267,4 [10.53]
	4	347,9 [13.70]	307,9 [12.12]

SINGLE M23 CONNECTOR
PIN-OUTS (FIGURE #1)

NON-BRAKE MOTOR BRAKE OPTION "2"		BRAKE MOTOR BRAKE OPTION "4"	
M923 SINGLE CONNECTOR		M923 SINGLE CONNECTOR	
PIN ID	FUNCTION	PIN ID	FUNCTION
A	U	A	U
B	V	B	V
C	W	C	W
⊕	GND	⊕	GND
E	DSL +	E	DSL +
F	-	F	MBRK +
G	-	G	MBRK -
H	DSL -	H	DSL -
L	-	L	-
APPLICABLE CATALOG STRINGS		APPLICABLE CATALOG STRINGS	
VPC-B1652x-Qx12Fx		VPC-B1652x-Qx14Fx	
VPC-B1653x-Qx12Fx		VPC-B1653x-Qx14Fx	

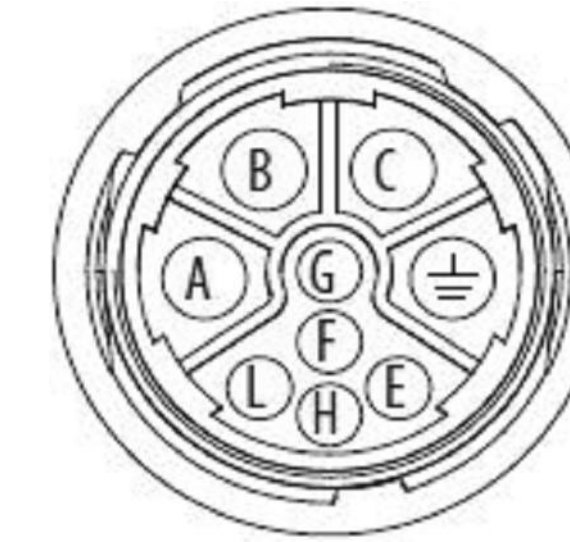
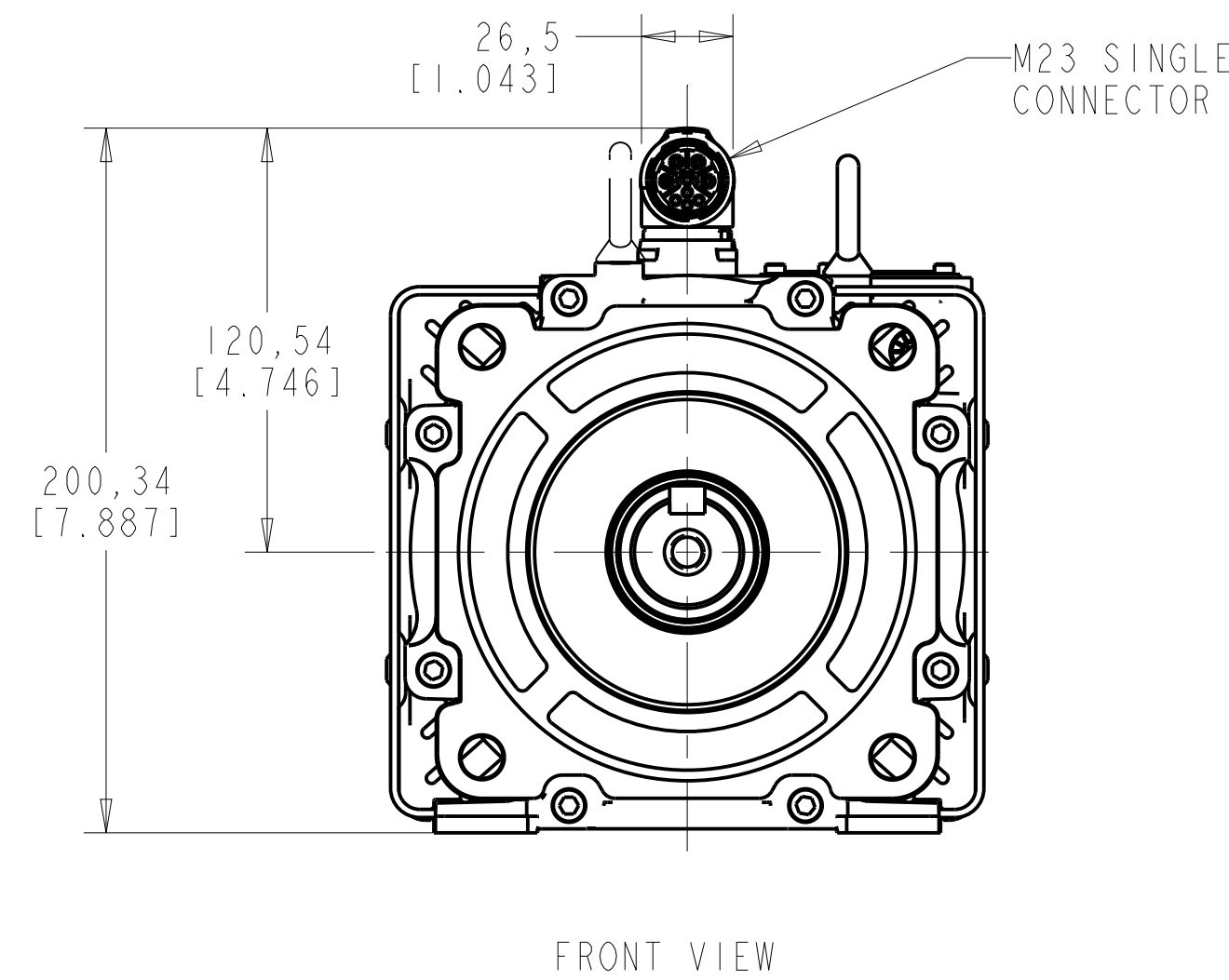
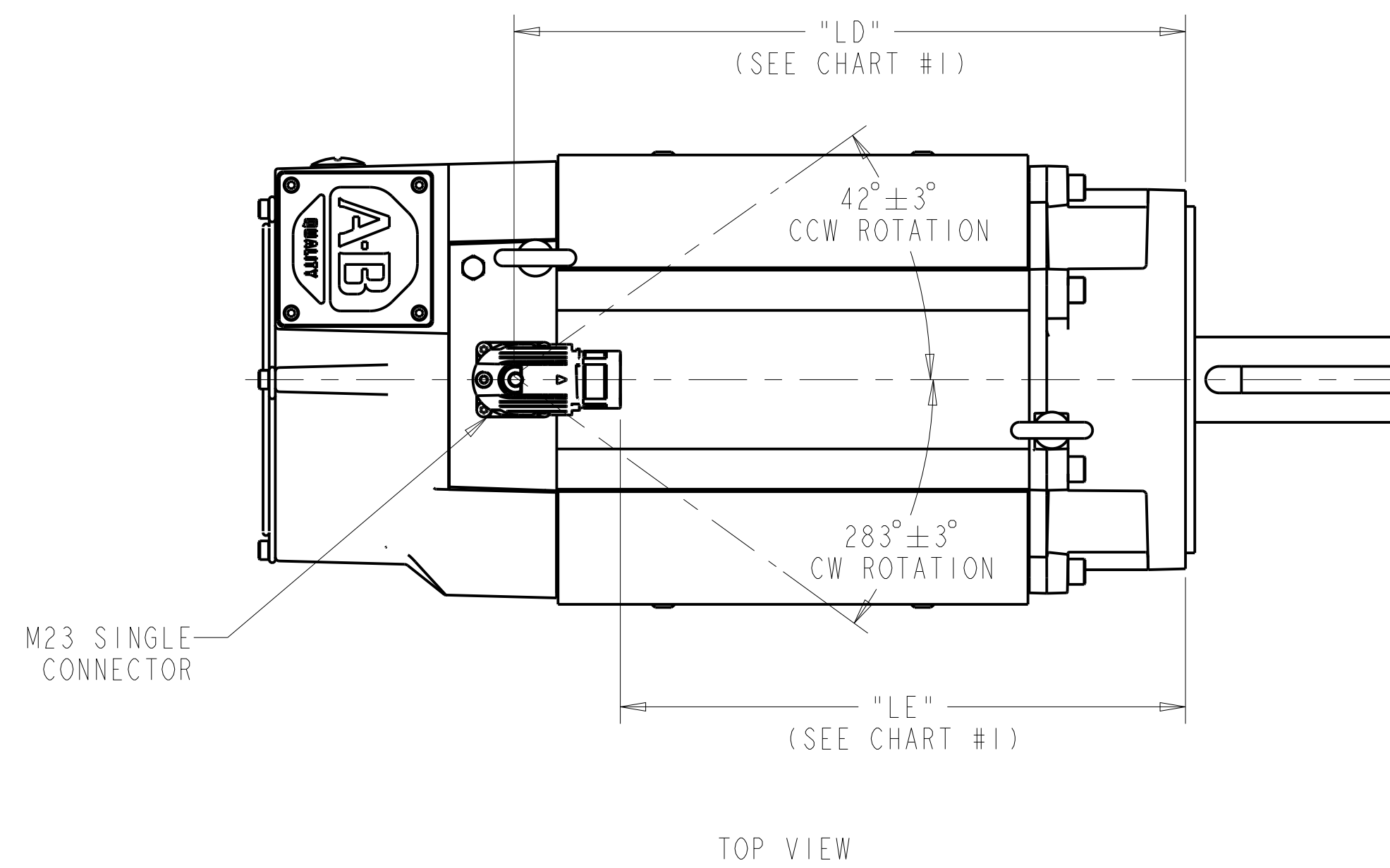


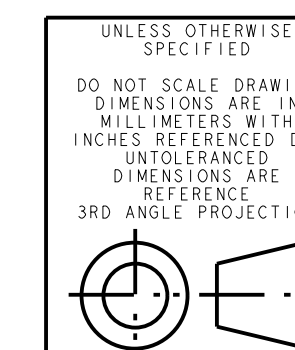
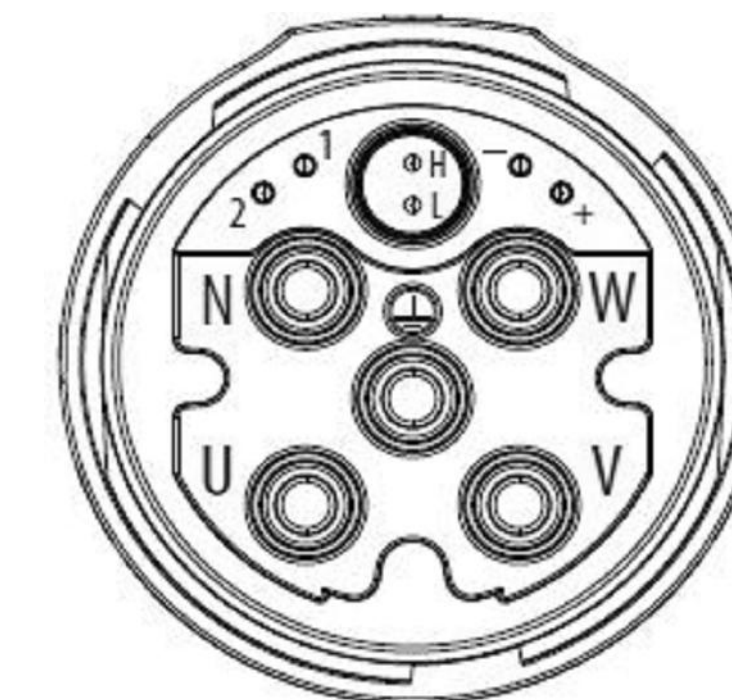
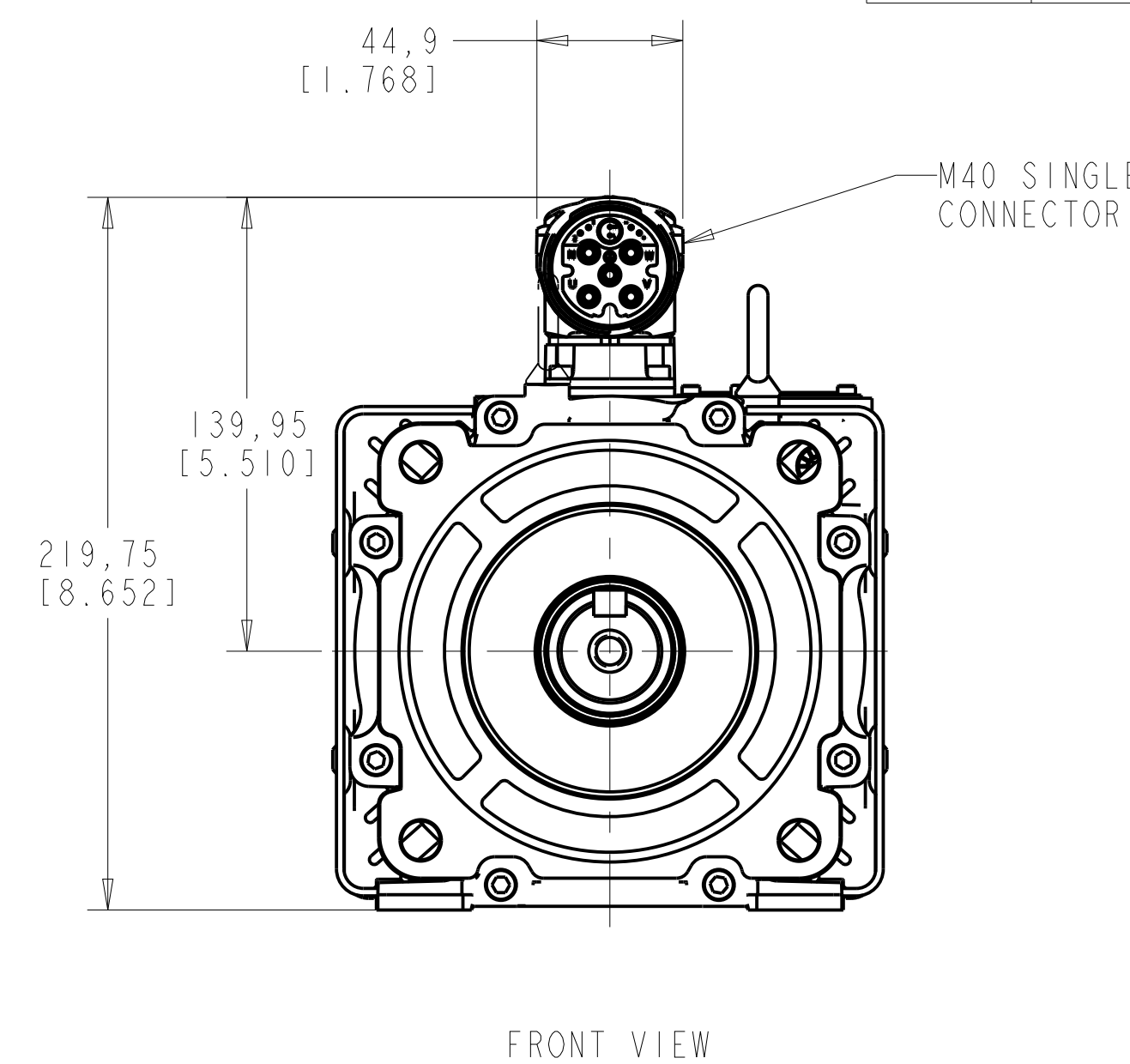
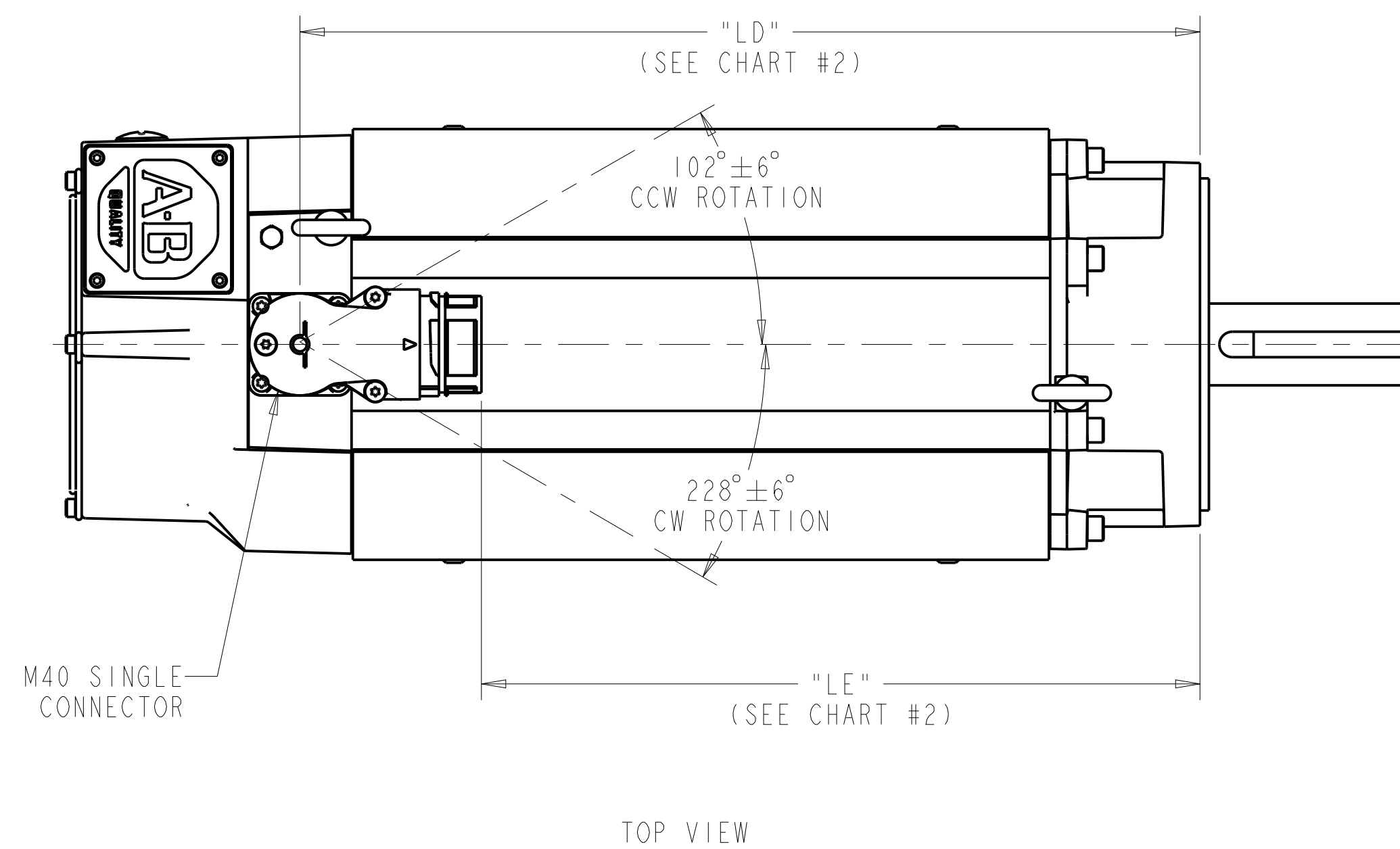
FIGURE #2

MODEL SHOWN IN FIGURE #2
IS VPC-B1654x-QJ12FS

CHART #2 (FOR FIGURE #2)			
FRAME-STACKS	BRAKE OPTION	MOTOR DIMENSIONS	
		LD	LE
165-4	2	352,1 [13.86]	281,1 [11.07]
	4	392,6 [15.46]	321,6 [12.66]

SINGLE M40 CONNECTOR
PIN-OUTS (FIGURE #2)

NON-BRAKE MOTOR BRAKE OPTION "2"		BRAKE MOTOR BRAKE OPTION "4"	
M740 SINGLE CONNECTOR		M740 SINGLE CONNECTOR	
PIN ID	FUNCTION	PIN ID	FUNCTION
U	U	U	U
V	V	V	V
W	W	W	W
⊕	GND	⊕	GND
I	-	I	MBRK +
2	-	2	MBRK -
L	DSL +	L	DSL +
H	DSL -	H	DSL -
+	-	+	-
-	-	-	-
N	-	N	-
APPLICABLE CATALOG STRINGS		APPLICABLE CATALOG STRINGS	
VPC-B1654D-Qx12Fx		VPC-B1654D-Qx14Fx	



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3RD ANGLE PROJECTION

RA Rockwell Automation

VPC, F165, ESM

DESCRIPTION

CREATED BY: SWLARSON CHANGED BY: VTHIMMA

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FIGURE #3

MODEL SHOWN IN FIGURE #3 IS VPC-B1652x-xJ72FS

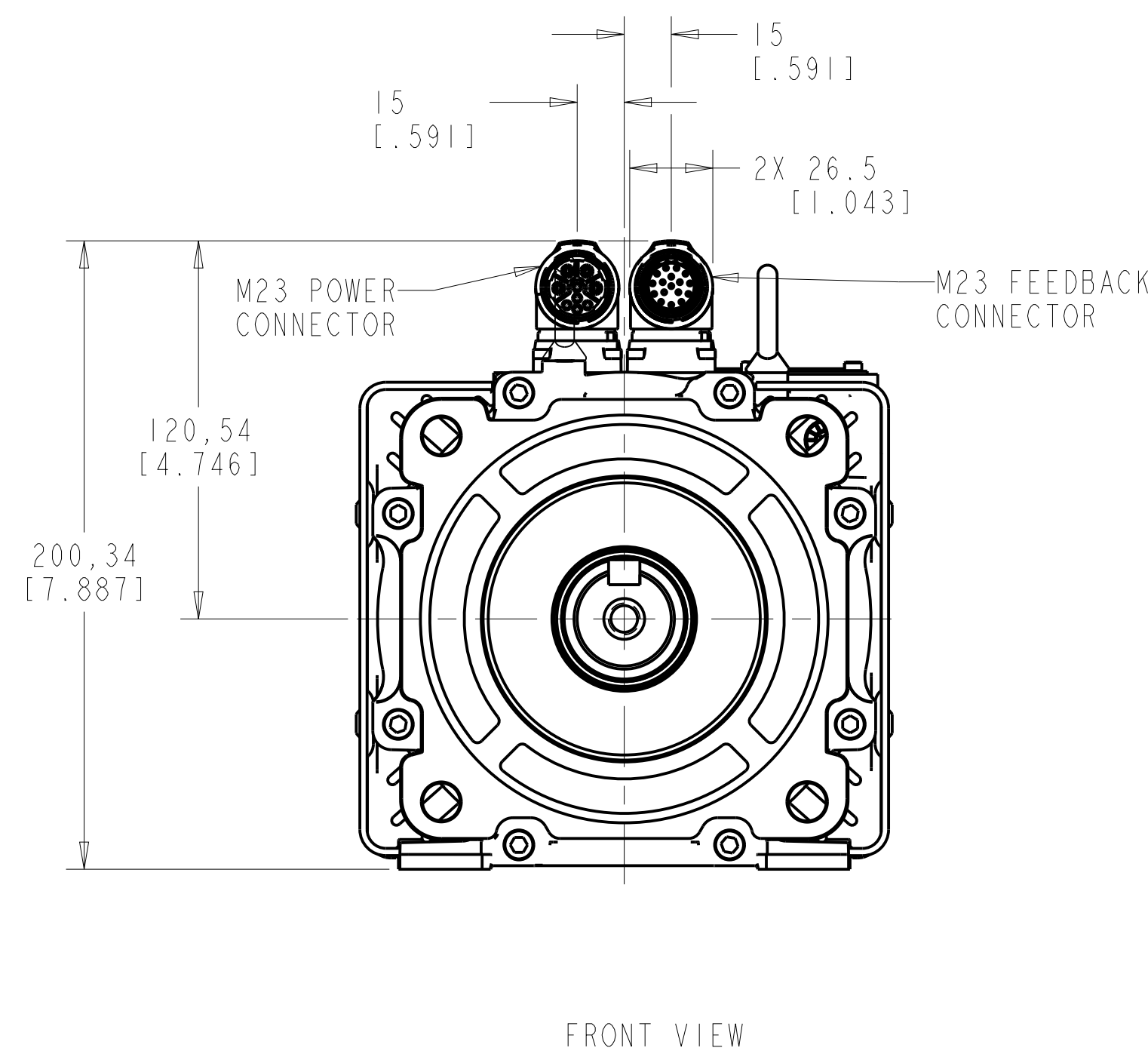
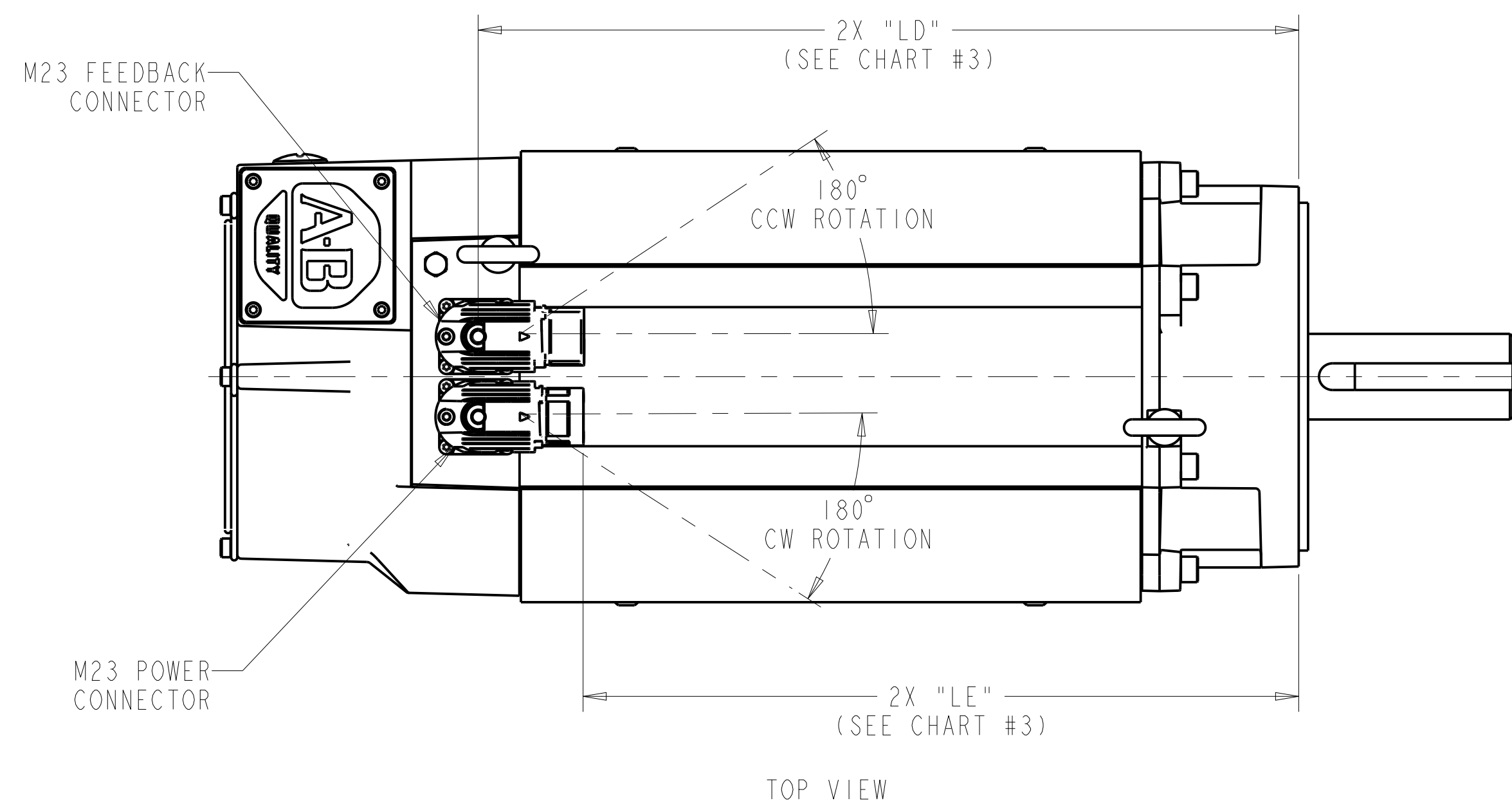


CHART #3 (FOR FIGURE #3)

FRAME-STACKS	BRAKE OPTION	MOTOR DIMENSIONS	
		LD	LE
165-2	2	251,9 [9.92]	211,9 [8.34]
	4	307,4 [12.10]	267,4 [10.53]
165-3	2	307,4 [12.10]	267,4 [10.53]
	4	347,9 [13.70]	307,9 [12.12]

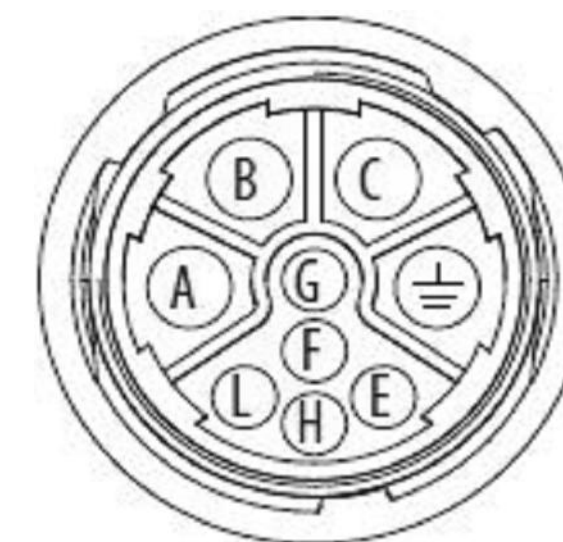
M23 FEEDBACK CONNECTOR PIN-OUTS (FIGURE #3)



21 BIT SINGLE-TURN FEEDBACK OPTION "S"	
M623 FEEDBACK CONNECTOR	
PIN ID	FUNCTION
1	SIN +
2	SIN -
3	COS +
4	COS -
5	DATA +
6	DATA -
7-8	-
9-10	-
11	EPWR 9V
12	ECOM
13	THERM +
14	THERM -
15-17	-
APPLICABLE CATALOG STRINGS	
VPC-B1652x-Sx7xFx	
VPC-B1653x-Sx7xFx	

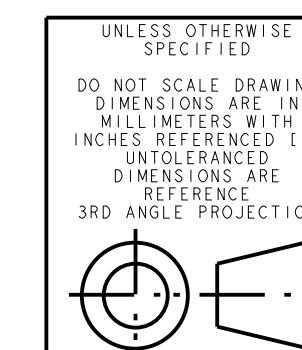
25 BIT MULTI-TURN FEEDBACK OPTION "Y"	
M623 FEEDBACK CONNECTOR	
PIN ID	FUNCTION
1-2	-
3	CLOCK +
4	CLOCK -
5	DATA +
6	DATA -
7-8	-
9	PWR 5V
10	ECOM
11-12	-
13	THERM +
14	THERM -
15-17	-
APPLICABLE CATALOG STRINGS	
VPC-B1652x-Yx72Fx	
VPC-B1653x-Yx72Fx	

M23 POWER CONNECTOR PIN-OUTS (FIGURE #3)



NON-BRAKE MOTOR BRAKE OPTION "2"	
M923 POWER CONNECTOR	
PIN ID	FUNCTION
A	U
B	V
C	W
⊥	GND
E	-
F	-
G	-
H	-
L	-
APPLICABLE CATALOG STRINGS	
VPC-B1652x-Sx72Fx	
VPC-B1652x-Yx72Fx	
VPC-B1653x-Sx72Fx	
VPC-B1653x-Yx72Fx	

BRAKE MOTOR BRAKE OPTION "4"	
M923 POWER CONNECTOR	
PIN ID	FUNCTION
A	U
B	V
C	W
⊥	GND
E	-
F	MBRK +
G	MBRK -
H	-
L	-
APPLICABLE CATALOG STRINGS	
VPC-B1652x-Sx74Fx	
VPC-B1653x-Sx74Fx	



DESCRIPTION



VPC, F165, ESM

CREATED BY: SWLARSON

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SIZE: D1R VER:

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FIGURE #4

MODEL SHOWN IN FIGURE #4 IS VPC-BI654x-SJ74FS

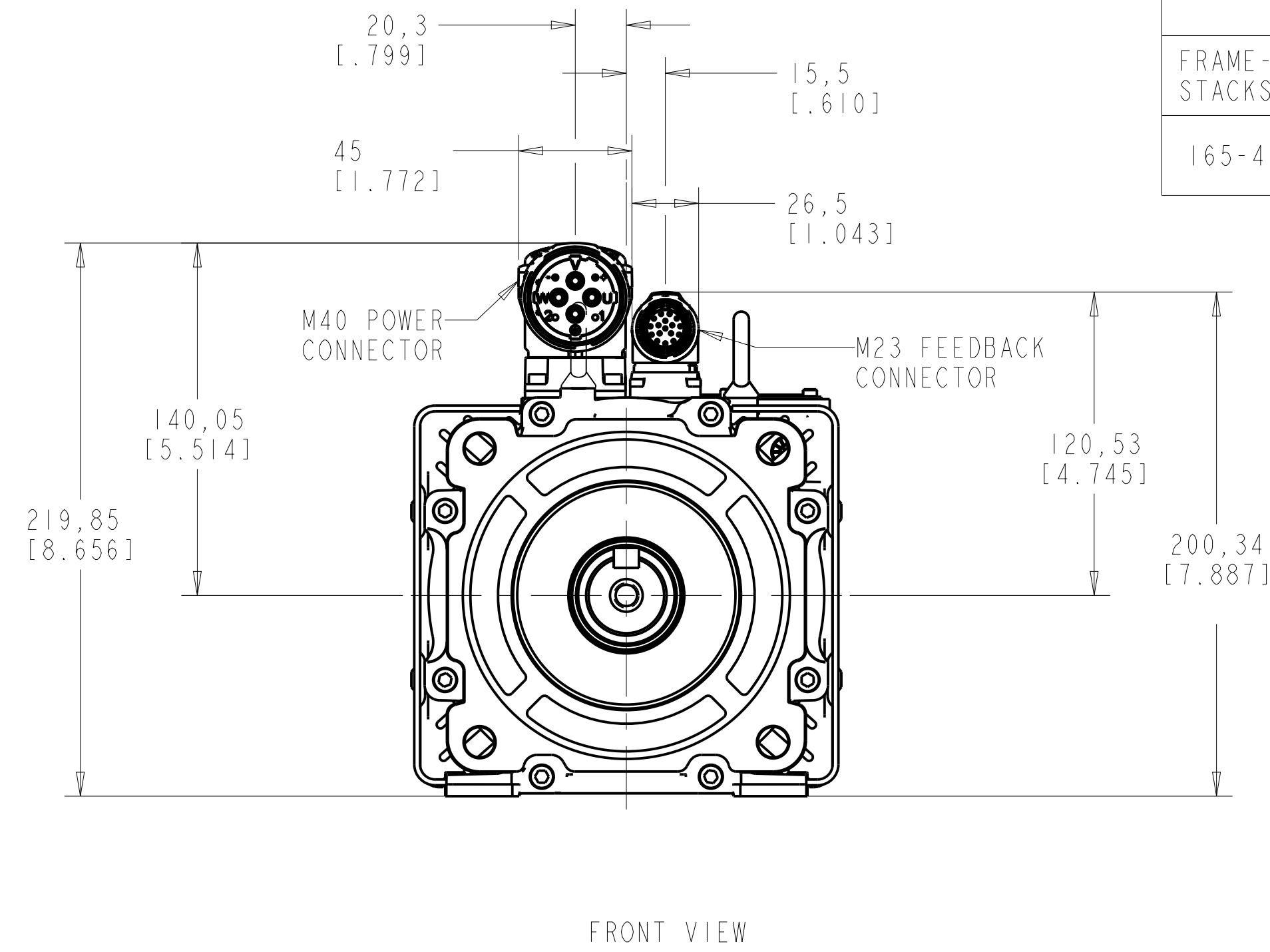
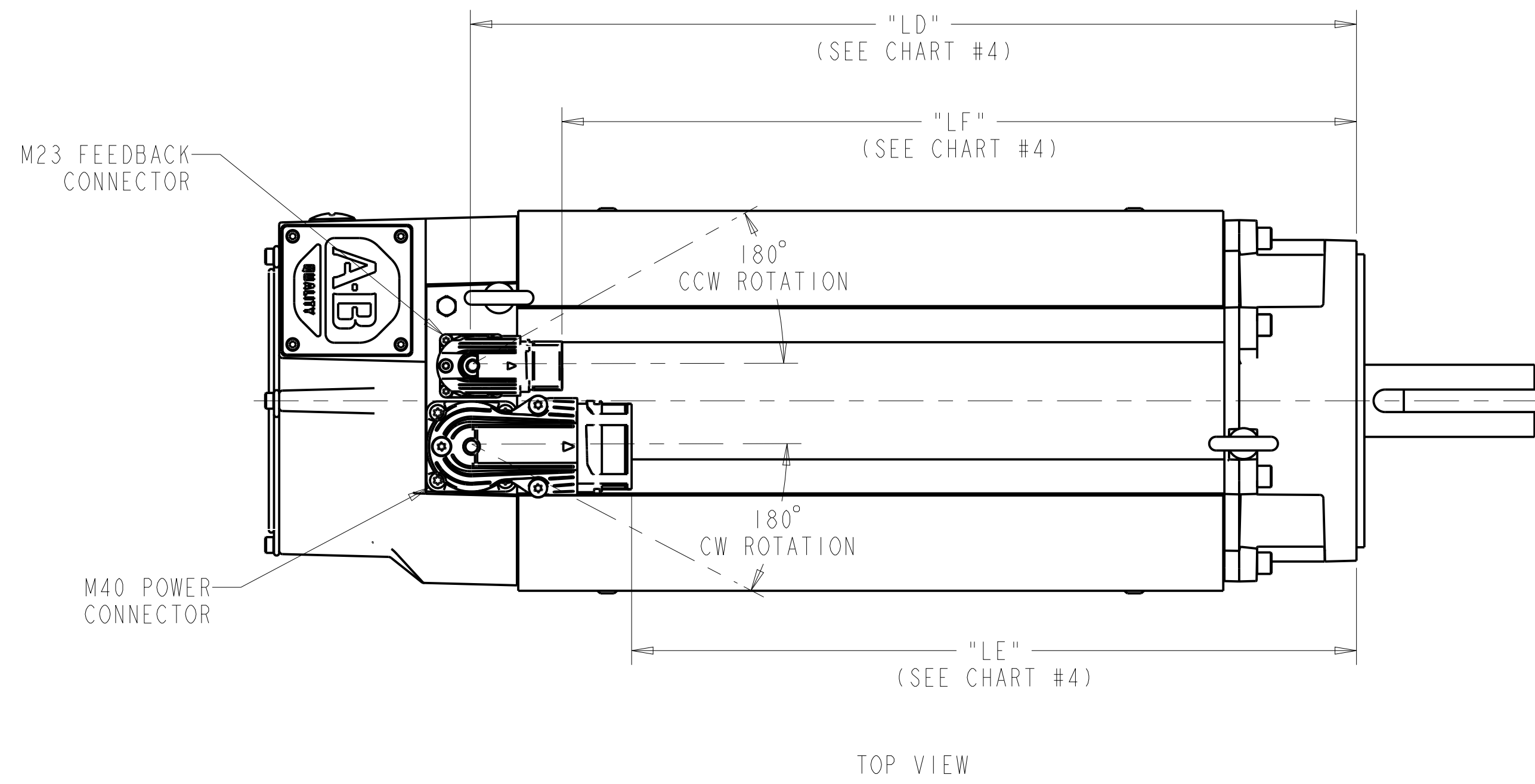


		CHART #4 (FOR FIGURE #4)		
FRAME-STACKS	BRAKE OPTION	MOTOR DIMENSIONS		
		LD	LF	LE
165-4	2	352,1 [13.86]	312,1 [12.29]	281,1 [11.07]
	4	392,6 [15.46]	352,6 [13.88]	321,6 [12.66]

M23 FEEDBACK CONNECTOR PIN-OUTS (FIGURE #4)

21 BIT SINGLE-TURN FEEDBACK OPTION "S"		25 BIT MULTI-TURN FEEDBACK OPTION "Y"	
M623 FEEDBACK CONNECTOR		M623 FEEDBACK CONNECTOR	
PIN ID	FUNCTION	PIN ID	FUNCTION
1	SIN +	1-2	-
2	SIN -	3	CLOCK +
3	COS +	4	CLOCK -
4	COS -	5	DATA +
5	DATA +	6	DATA -
6	DATA -	7-8	-
7-8	-	9	PWR 5V
9-10	-	10	ECOM
11	EPWR 9V	11-12	-
12	ECOM	13	THERM +
13	THERM +	14	THERM -
14	THERM -	15-17	-
15-17	-		
APPLICABLE CATALOG STRINGS		APPLICABLE CATALOG STRINGS	
VPC-BI654D-Sx7xFx		VPC-BI654D-Yx72Fx	

M40 POWER CONNECTOR PIN-OUTS (FIGURE #4)

NON-BRAKE MOTOR BRAKE OPTION "2"		BRAKE MOTOR BRAKE OPTION "4"	
M940 POWER CONNECTOR		M940 POWER CONNECTOR	
PIN ID	FUNCTION	PIN ID	FUNCTION
U	U	U	U
V	V	V	V
W	W	W	W
⊕	GND	⊕	GND
+	-	+	MBRK +
-	-	-	MBRK -
1	-	1	-
2	-	2	-
APPLICABLE CATALOG STRINGS		APPLICABLE CATALOG STRINGS	
VPC-BI654D-Sx72Fx		VPC-BI654D-Sx74Fx	
VPC-BI654D-Yx72Fx			

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		DESCRIPTION VPC, F165, ESM	DATE: 12-11-2019 SHEET 5 OF 5
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