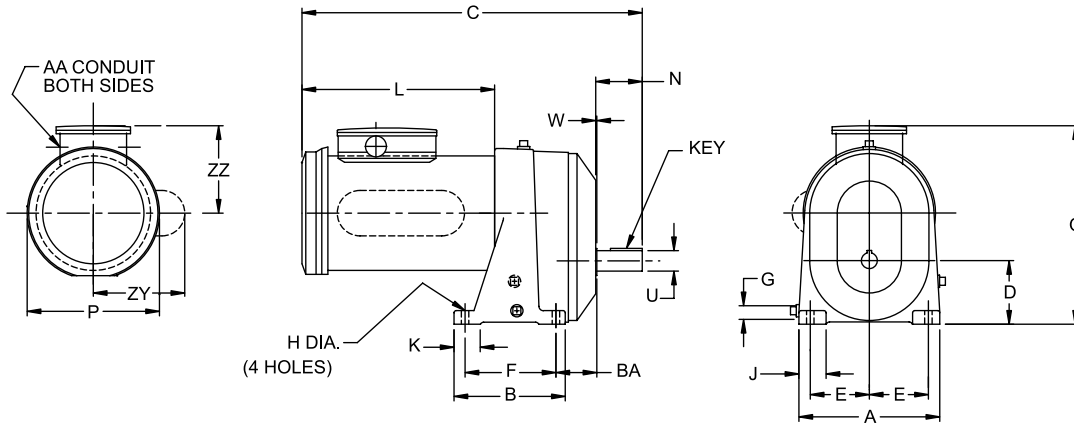
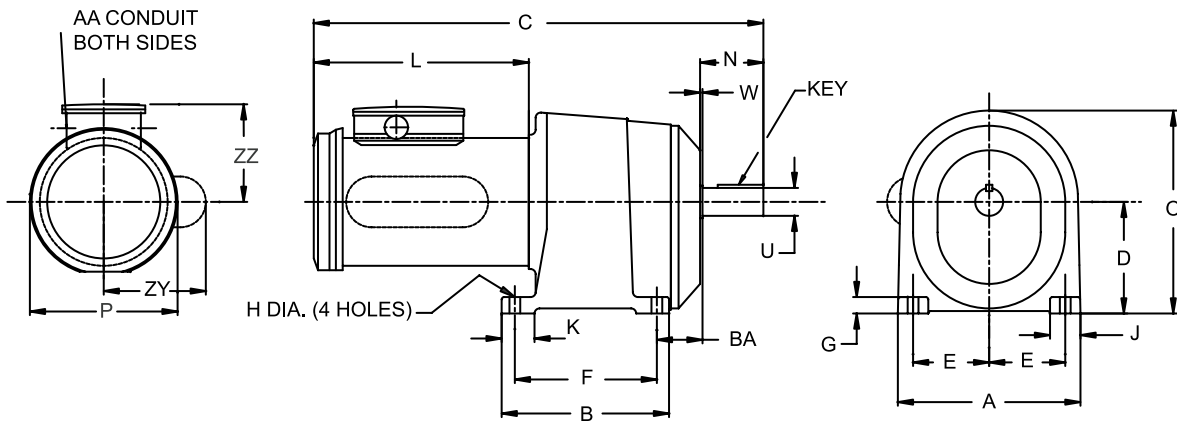


# Integral Gearmotor Dimensions



**SINGLE REDUCTION**



**DOUBLE/ TRIPLE REDUCTION**

	Unit Size	A	B	D	E	F	G	H	J
Single Reduction	SG16A	7.00	5.06	2.50	3.00	4.00	0.63	0.34	1.25
	SG21A	7.75	6.13	3.50	3.25	5.00	0.75	0.41	1.50
	SG28A	9.50	8.75	4.50	3.94	7.50	0.88	0.66	2.00
Double Reduction	DG16A	8.00	7.00	4.50	3.50	6.00	0.63	0.41	1.25
	DG21A	9.00	8.25	5.50	3.75	7.00	0.81	0.53	1.50
	DG28A	11.63	10.81	6.50	4.75	9.25	0.88	0.66	2.31
Triple Reduction	TG16A	8.00	9.25	4.63	3.50	8.00	0.63	0.41	1.38
	TG21A	11.00	12.00	6.63	4.88	10.63	0.88	0.63	1.50
	TG28A	13.00	15.50	8.25	5.50	13.75	0.88	0.81	2.00

	Unit Size	K	N	W	BA	U		KEY	
						Min	Max	Square	Length
Single Reduction	SG16A	1.25	1.81	0.06	1.38	0.7495	0.7500	3/16	1-1/4
	SG21A	1.44	2.56	0.06	2.25	1.1245	1.1250	1/4	1-3/4
	SG28A	1.63	3.13	0.13	2.50	1.3745	1.3750	5/16	2
Double Reduction	DG16A	1.25	2.50	0.06	1.88	1.1245	1.1250	1/4	1-3/4
	DG21A	1.63	3.13	0.13	2.25	1.3745	1.3750	5/16	2-1/4
	DG28A	2.00	4.44	0.19	2.63	1.9995	2.0000	1/2	3
Triple Reduction	TG16A	1.50	3.38	0.13	2.25	1.3745	1.3750	5/16	2-1/4
	TG21A	1.50	4.50	0.19	2.69	1.9995	2.0000	1/2	3
	TG28A	1.88	6.50	0.31	3.44	2.7495	2.7500	5/8	4

# Integral Gearmotor Dimensions

## SINGLE REDUCTION

Unit Size	Motor HP	Frame	Encl.	C	O	AA	AB	L	P	ZY		
SG16	1/2	FB56	TENV	14.75	7.88	0.50	---	8.56	6.47	5.03		
		FC56	TENV	15.75				9.56				
		FC56	TEFC	15.63								
	3/4	FC56	TENV	15.75				10.63				
		FC56	TEFC	15.63								
	1	FB56	TENV	14.75				15.63			8.56	9.44
		FC56	TEFC	15.63							9.56	
		FD56	TEFC	16.69							10.63	
		FC140	TEFC	15.63							9.44	
	1-1/2	FC140	TEFC	16.69				10.50				
2	FD140	TEFC										
SG21	1	FC140	TEFC	17.56	9.63	10.63	0.75	5.28	9.25	---		
	1-1/2	FC140	TEFC									
	2	FD140	TEFC	18.63								
	3	182T	TEFC	21.34								
	5	184T	TEFC	22.50								
	7-1/2	213T	TEFC	26.41								
SG28	3	182T	TEFC	23.00	12.50	0.75	5.28	12.47	9.25	---		
	5	184T	TEFC								24.00	13.47
	7-1/2	213T	TEFC	28.06				17.53				
	10	215T	TEFC	28.06							10.63	

## DOUBLE REDUCTION

Unit Size	Motor HP	Frame	Encl.	C	O	AA	AB	L	P	ZY		
DG16	1/3	FB56	TENV	18.41	8.63	0.50	---	8.56	6.47	5.03		
		FC56	TENV	19.41				9.56				
	1/2	FB56	TENV	18.41							10.63	
		FC56	TENV	19.41				9.56				
	3/4	FC56	TEFC	19.28				19.28			9.44	
		FC56	TENV	19.41								
	1	FB56	TENV	18.41				19.28			10.50	
		FC56	TEFC	19.28								8.56
		FD56	TEFC	20.34								9.56
		FC140	TEFC	19.28								10.63
1-1/2	FC140	TEFC	20.34	9.44								
2	FD140	TEFC										
DG21	1	FC140	TEFC	21.00	9.88	0.75	5.28	12.47	9.25	---		
	1-1/2	FC140	TEFC									
	2	FD140	TEFC	22.06				13.47				
	3	182T	TEFC	24.75								
	5	184T	TEFC	25.75								
DG28	1-1/2	FC140	TEFC	24.88	12.31	0.50	---	9.44	6.47	---		
	2	FD140	TEFC					10.50				
	3	182T	TEFC	28.59				12.47				
	5	184T	TEFC	29.59							13.47	
	7-1/2	213T	TEFC	33.66				17.53				
	10	215T	TEFC								10.63	

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MASTER XL

MOTO DRIVE

ULTIMA

# Integral Gearmotor Dimensions

## TRIPLE REDUCTION

Unit Size	Motor HP	Frame	Encl.	C	O	AA	AB	L	P	ZY
TG16	1/3	FB56	TENV	22.50	8.63	0.50	---	8.56	6.47	5.03
		FC56		23.50				9.56		
	1/2	FB56		22.50				8.56		
		FC56		23.50				9.56		
	3/4	FC56	TEFC	23.38						
		1	FC56	TENV				23.50		
	FC56		TEFC	23.38						
	FB56	TENV	22.50	8.56						
	FC56	TEFC	23.38	9.56						
	FD56		24.44	10.63						
TG21	1	FB56	TENV	26.00	11.06	0.50	---	8.56	6.47	5.44
		FC56	TEFC	26.88				9.56		5.03
		FD56		27.94				10.63		5.44
		FC140		26.88				9.44		
	FC140	26.88								
	1-1/2	182T	30.63	12.47		9.25				
		FD140	27.94	10.50		6.47				
	2	182T	30.63	12.47		9.25				
	5	184T	31.63				13.47			
	TG28	1-1/2	FC140	TEFC		32.63	14.06	0.50		---
182T			36.34		0.75	12.47		9.25		
2		FD140	33.69		0.50	10.50		6.47		
		184T	37.34		0.75	13.47		9.25		
3		182T	36.34			5.28		12.47	9.25	
		213T	41.41		1.00	8.69		17.53	10.63	
5		184T	37.34		0.75	5.28		13.47	9.25	
7-1/2		213T	41.41		1.00	8.69		17.53	10.63	
10		215T								

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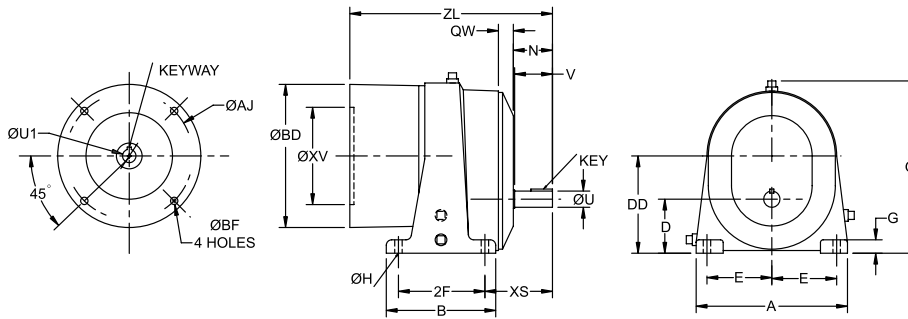
MASTER XL

MOTO DRIVE

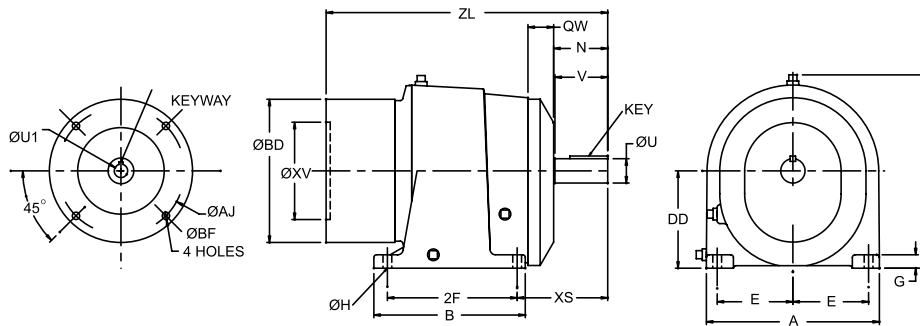
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# Gearcase Dimensions

## C-FACE



SINGLE REDUCTION



DOUBLE AND TRIPLE REDUCTION

	Reducer Size	A	B	XS	D	DD	E	2F	G	H (4) Holes	N	QW	Output Shaft		
													U ◆	V ■	Key
Single Reduction	SM16A	7.00	5.06	3.13	2.50	4.50	3.00	4.00	0.63	0.34	1.81	0.69	0.750	1.75	3/16 x 3/16 x 1-1/4
	SM21A	7.75	6.13	4.75	3.50	6.13	3.25	5.00	0.75	0.41	2.56	1.50	1.125	2.50	1/4 x 1/4 x 1-3/4
	SM28A	9.50	8.75	5.50	4.50	8.00	3.94	7.50	0.88	0.66	3.13	1.63	1.375	3.00	5/16 x 5/16 x 2
Double Reduction	DM16A	8.00	7.00	4.31	---	4.50	3.50	6.00	0.63	0.41	2.50	1.19	1.125	2.44	1/4 x 1/4 x 1-3/4
	DM21A	9.00	8.25	5.25	---	5.50	3.75	7.00	0.81	0.53	3.13	1.44	1.375	3.00	5/16 x 5/16 x 2-1/4
	DM28A	11.63	10.81	6.88	---	6.50	4.75	9.25	0.88	0.66	4.44	1.63	2.000	4.25	1/2 x 1/2 x 3
Triple Reduction	TM16A	8.00	9.25	5.75	---	4.63	3.50	8.00	0.63	0.41	3.38	1.81	1.375	3.25	5/16 x 5/16 x 2-1/4
	TM21A	11.00	12.00	7.00	---	6.63	4.88	10.63	0.88	0.63	4.50	1.69	2.000	4.31	1/2 x 1/2 x 3
	TM28A	13.00	15.50	9.63	---	8.25	5.50	13.75	0.88	0.81	6.50	2.13	2.750	6.19	5/8 x 5/8 x 5

NEMA Frames 56C/140TC										
	Reducer Size	Wt. (Lbs)	O +	AJ	BD	BF	Input Bore		XV1 ●	ZL
							U1 *	KW ▲		
Single Reduction	SM16A	33	7.88	5.88	6.72	0.41	0.625 (1)	3/16 x 3/32	4.50	9.38
	SM21A	44	9.63							11.31
Double Reduction	DM16A	53	8.47	5.88	6.72	0.41	0.625 (1)	3/16 x 3/32	4.50	13.05
	DM21A	77	9.88							14.75
	DM28A	167	12.31							18.63
Triple Reduction	TM16A	78	8.47	5.88	6.72	0.41	0.625 (1)	3/16 x 3/32	4.50	17.14
	TM21A	139	11.06							20.63
	TM28A	288	14.06							26.38

- (1) For NEMA 56C
- (2) For NEMA 140TC
- (3) For NEMA 180TC
- (4) For NEMA 210TC
- ◆ +0.000; -.0005
- Usable Shaft Length
- + At highest point
- \* +.001; +.002
- ▲ Uses a 3/16 x 3/16 x 1-3/8 Key
- +.001; -.003
- ♣ 180TC uses a 1/4 x 1/4 x 1-1/8 Key; 210TC uses a 5/16 x 5/16 x 1-1/8 Key
- † +.002; -.000

NEMA Frame 180TC/210TC												
	Reducer Size	180TC Wt (lbs)	210TC Wt (lbs)	O +	AJ	BD	BF	Input Bore		XV1 †	180TC ZL	210TC ZL
								U1 *	KW ♣			
Single Reduction	SM21A	65	75	10.63	7.25	9.22	0.53	1.125 (3)	1/4 x 1/8 (3)	8.50	13.03	13.53
	SM28A	87	97	12.50							14.69	15.19
Double Reduction	DM21A	95	105	10.11	7.25	9.22	0.53	1.375 (4)	5/16 x 5/32 (4)	8.50	16.44	16.94
	DM28A	155	165	12.31							20.28	20.78
Triple Reduction	TM21A	157	167	11.23	7.25	9.22	0.53	1.375 (4)	5/16 x 5/32 (4)	8.50	22.33	22.83
	TM28A	305	305	14.06							28.03	28.53

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MASTER XL

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# XL Parallel Reducer

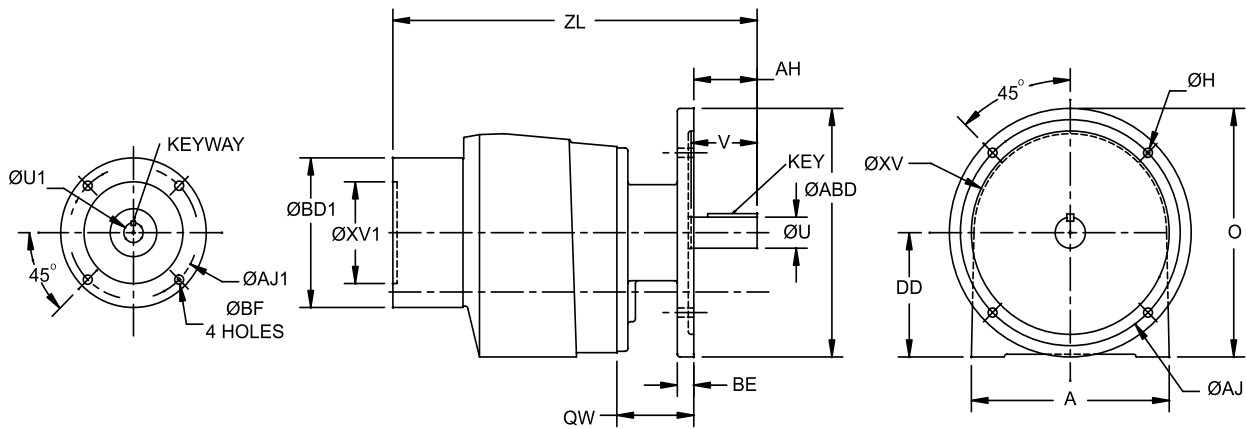
## FLANGE MOUNTED

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MASTER XL

MOTO DRIVE

ULTIMA



	Reducer Size	AJ	A	XV	AH	DD	BD	BE	H (4) Holes	QW	Output Shaft		
											U ◆	V ■	Key
Double Reduction	DM16A	8.00	8.00	7.25	2.38	4.50	8.75	0.50	0.41	2.63	1.125	2.44	1/4 x 1/4 x 1-3/4
	DM21A	10.00	9.00	9.00	2.88	5.50	11.00	0.75	0.41	3.50	1.375	3.00	5/16 x 5/16 x 2-1/4
Triple Reduction	TM16A	10.00	8.00	9.25	3.13	4.63	11.00	0.75	0.41	4.13	1.375	3.25	5/16 x 5/16 x 2-1/4
	TM21A	12.50	11.00	11.00	4.25	6.63	14.00	0.88	0.53	4.25	2.000	4.31	1/2 x 1/2 x 3

NEMA Frames 56C/ 140TC										
Reducer Size	Wt. (Lbs)	O +	AJ1	BD1	BF	Input Bore		XV1 ●	ZL	
						U1 *	KW ▲			
Double Reduction	DM16A	56	8.88	5.88	6.72	0.41	.625 (1) .875 (2)	3/16 x 3/32	4.50	14.34
	DM21A	78	11.00							16.56
Triple Reduction	TM16A	104	10.13	5.88	6.72	0.41	.625 (1) .875 (2)	3/16 x 3/32	4.50	19.59
	TM21A	151	13.63							22.94

NEMA Frame 180TC/ 210TC											
Reducer Size	180TC Wt (lbs)	210TC Wt (lbs)	O +	AJ1	BD1	BF	Input Bore		XV1 †	180TC ZL	210TC ZL
							U1 *	KW ♣			
Double Reduction	DM21A	95	105	11.00	7.25	9.22	0.53	1.125 (3) 1.375 (4)	1/4 x 1/8 (3) 5/16 x 5/32 (4)	8.50	18.22
Trip Reduction	TM21A	157	167	13.63							24.59

Configurations not shown above are not available in flange mounting.

- (1) For NEMA 56C
- (2) For NEMA 140TC
- (3) For NEMA 180TC
- (4) For NEMA 210TC
- ◆ +0.000; -.0005
- Usable Shaft Length

- ⊕ At highest point
- \* +.001; +.002
- ▲ Uses a 3/16 x 3/16 x 1-3/8 Key
- +.001; -.003
- ♣ 180TC uses a 1/4 x 1/4 x 1-1/8 Key; 210TC uses a 5/16 x 5/16 x 1-1/8 Key
- † +.002; -.000

