



# ORIENTAL DM SDN BHD

## INDUSTRIAL SUPPLIES & ENGINEERING SERVICES

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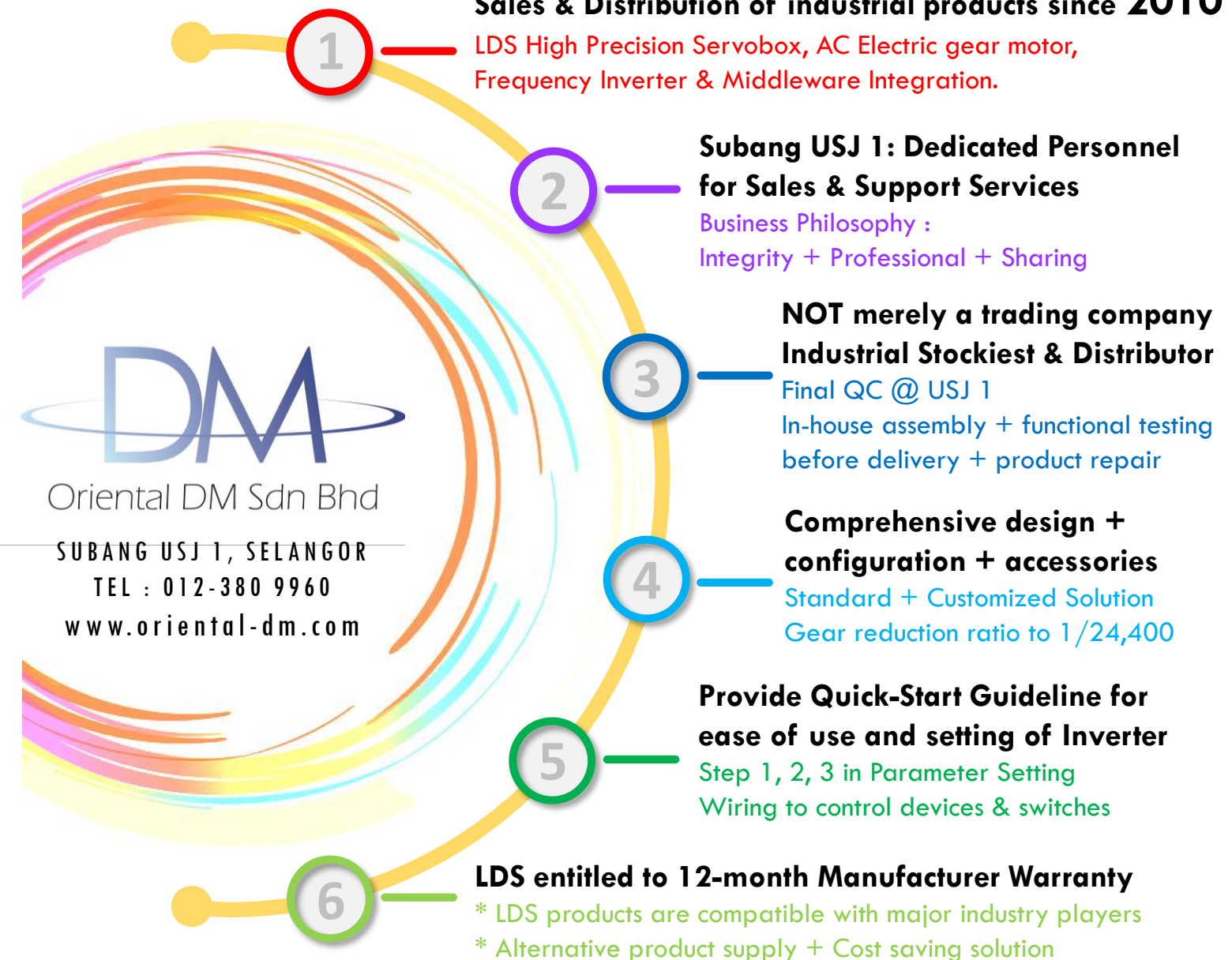
MY Edition-V5



# ABOUT US : ORIENTAL DM SDN BHD



### Sales & Distribution of industrial products since 2010



Oriental DM Sdn Bhd

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www.oriental-dm.com

DISTRIBUTION AND AGENCY FOR :



### Major Product Ranges

#### HIGH PRECISION APPLICATION SERVO GEAR REDUCER 0.1kW~30kW

Planetary ServoBox  
Hypoid & Spiral Bevel ServoBox  
Robonic | Harmonic Drive  
Cyko | Cyclo Drive  
Worm Gear ServoBox  
Servo Drive | Stepper Drive

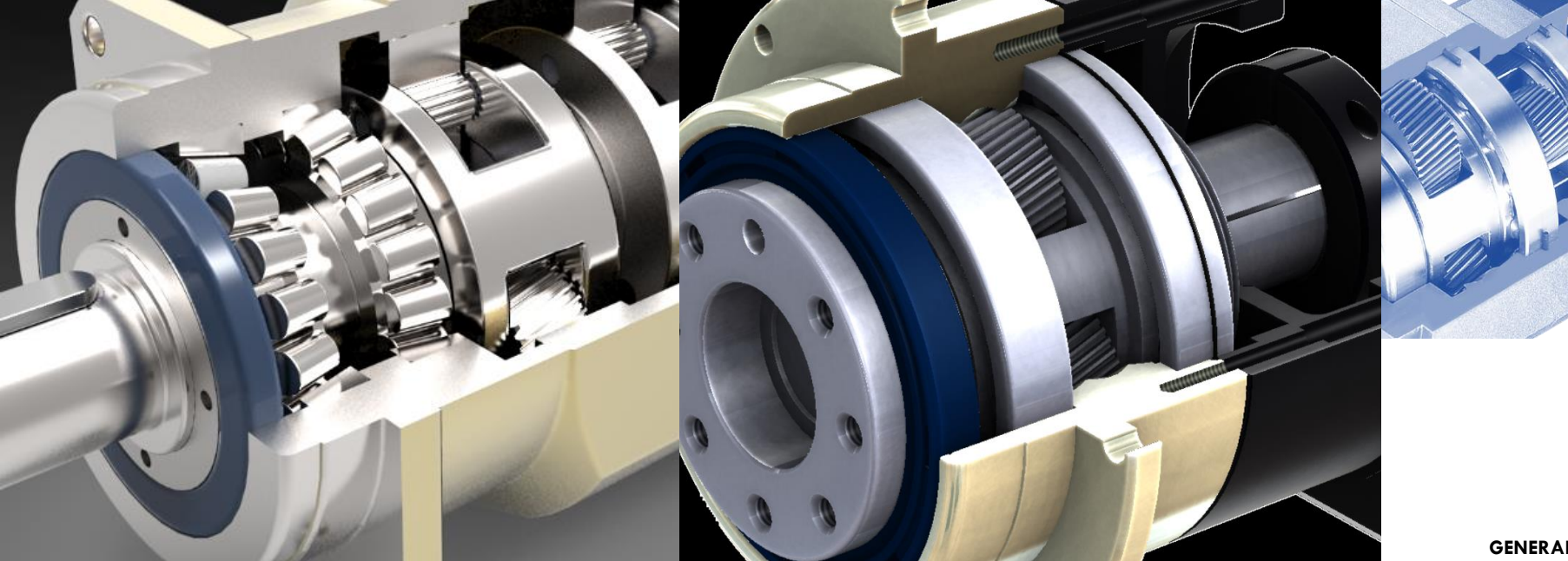
#### GENERAL APPLICATION AC GEAR MOTOR & FREQUENCY INVERTER

Compact Gear Motor 6W ~ 200W  
Small Gear Motor 0.2kW ~ 7.5kW  
Electric Motor 0.1kW ~ 200kW  
Worm Gear Reducer #030 ~ #150  
VFD Inverter 0.1kW ~ 280kW  
Screw Jack & Bevel Gearbox

#### INDUSTRIAL PARTS & SERVICES

Aluminium Profile & Accessories.  
Stainless Steel Wire Mesh & Conveyor Belt.  
Middleware Integration.





## PLANETARY SERVOBOX

# DB SERIES

## UNIVERSAL DESIGN HIGH PRECISION



High Precision Planetary ServoBox in compact design and universal housing with precision bearings and planetary gearing provides high torque density while offering high positioning performance.

- DB Series 1-Stage Planetary ServoBox in Gear Reduction Ratio 3 ~ 10
- DB-A Series 2-Stage Planetary ServoBox in Gear Reduction Ratio 15 ~ 100
- DB Series 3-Stage Planetary ServoBox in Gear Reduction Ratio 125 ~ 1000

## PLANETARY GEAR HIGH PRECISION IN-LINE SERVOBOX



### DB Planetary ServoBox

Model : #44 ~ #330 Series (Rated Output Torque 8790Nm)  
Backlash :  $1 \leq 8$ arcmin ▪ Gear reduction ratio 3 ~ 1,000  
Maximum Output Torque : 3-times of Rated Torque  
Maximum Acceleration Torque : 1.8-times of Rated Torque  
Efficiency  $\geq 97\%$  ▪ Service Life up to 30,000 hours

### SD Rotary Flange Planetary ServoBox

Backlash :  $1 \leq 8$ arcmin ▪ Gear reduction ratio 3 ~ 1,000  
Maximum Output Torque : 3-times of Rated Torque  
Maximum Acceleration Torque : 1.8-times of Rated Torque  
Efficiency  $\geq 97\%$  ▪ Service Life up to 30,000 hours  
Available in Ball Bearing and Taper Bearing designs



### LDS-LM In-line ServoBox series



#### SF Planetary ServoBox

Double Taper Bearing design  
High axial and radial forces  
Backlash up to 1arcmin  
Efficiency  $\geq 97\%$

#### FE Planetary ServoBox

Backlash up to 8arcmin  
Gear Reduction Ratio 3 ~ 1,000  
Efficiency  $\geq 97\%$   
Service Life up to 30,000 hours

#### SE Planetary ServoBox

Backlash up to 3arcmin  
Gear Reduction Ratio 3 ~ 1,000  
Efficiency  $\geq 97\%$   
Service Life up to 30,000 hours

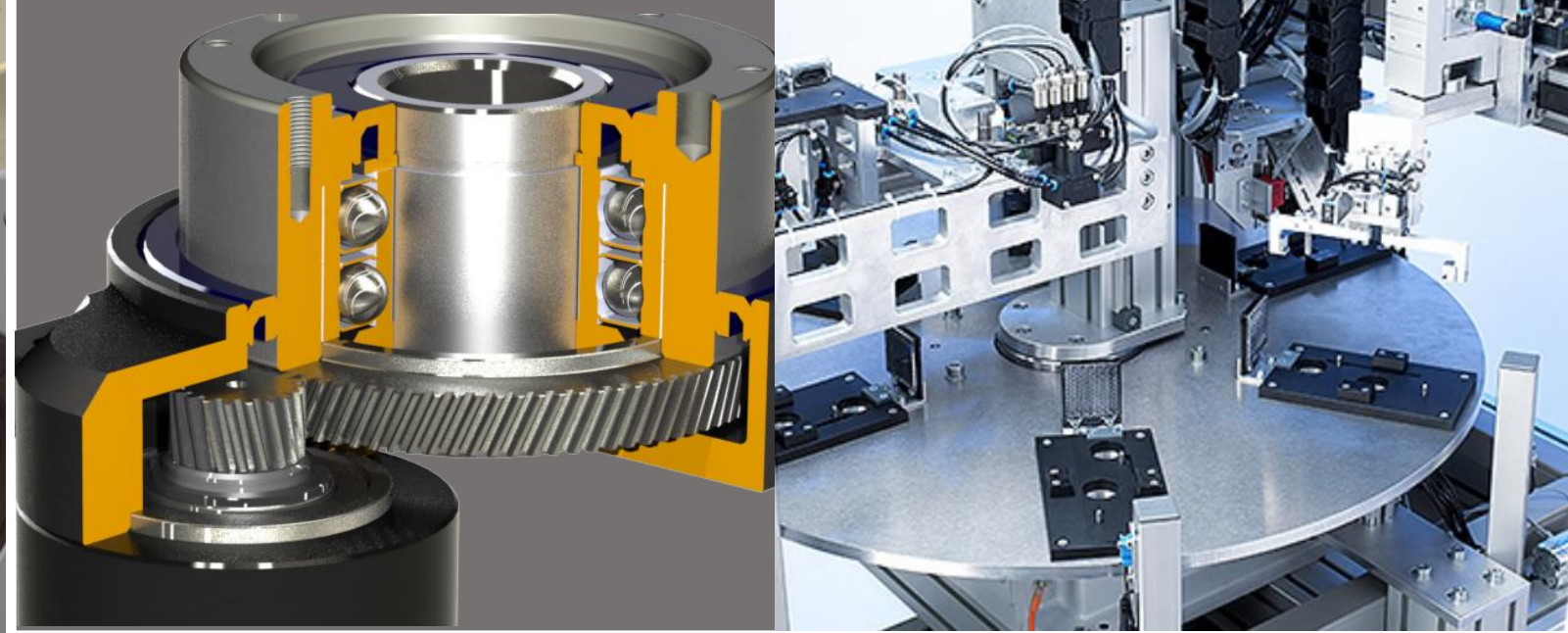
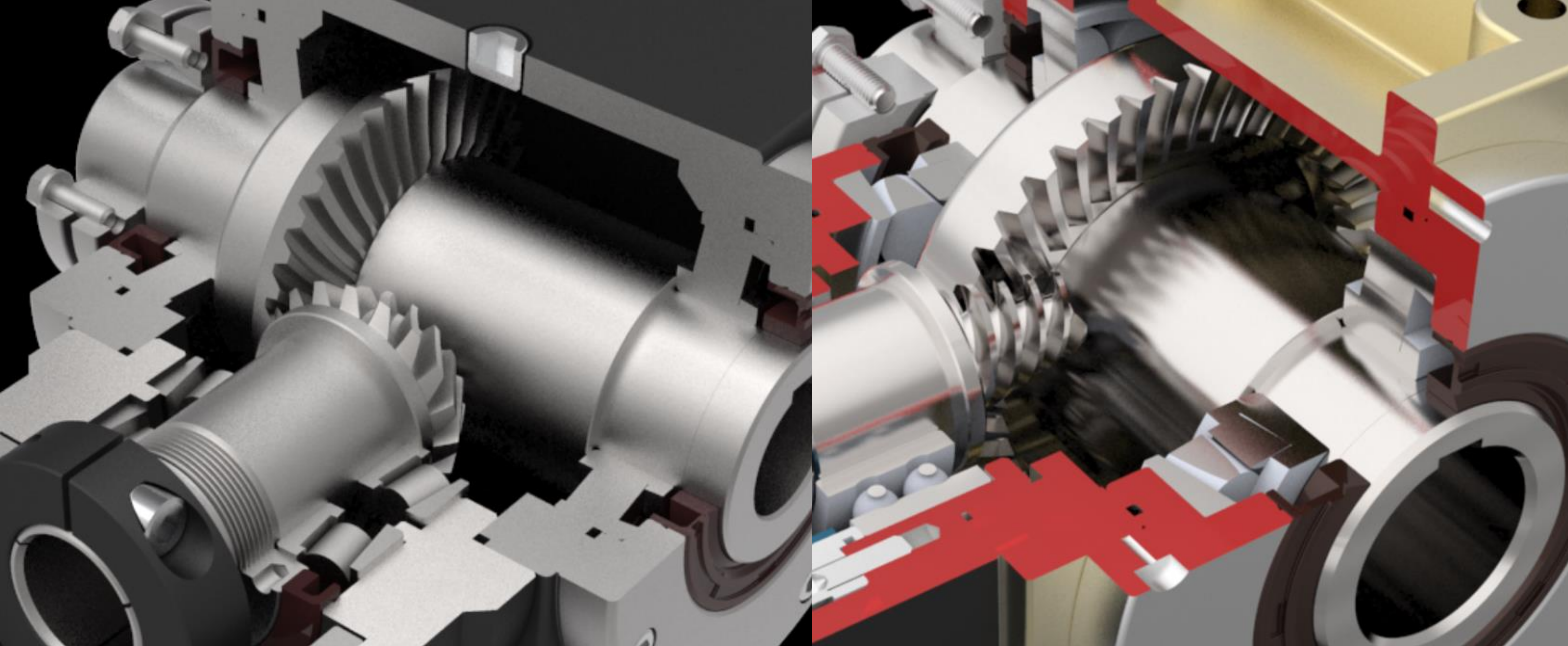


### Servo Motor & Drives 0.1kW ~ 30kW

LDS High Precision ServoBox is compatible with major servo manufacturers including Mitsubishi, Panasonic, Fuji, Yaskawa, Omron, Festo, Siemens, ABB, Bosch, Schneider.

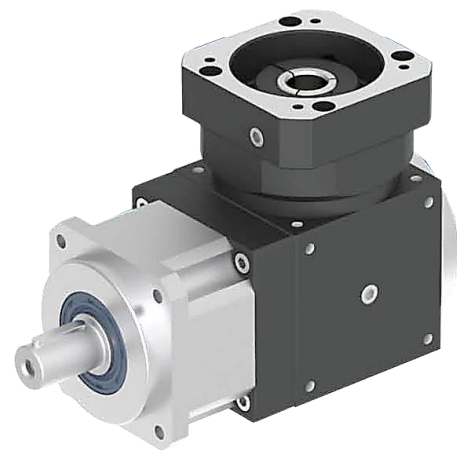
GENERAL SPECIFICATIONS	Unit	Ratio	Model : DB & DB-A Series										
			#44	#62	#90	#120	#142	#180	#220	#270	#330		
Frame Size	MM	3~10	44 x 44	62 x 62	90 x 90	120 x 120	142 x 142	180 x 180	220 x 220	270 x 270	330 x 330		
Mounting PCD	MM	3~10	Ø50	Ø70	Ø100	Ø130	Ø165	Ø215	Ø250	Ø300	Ø380		
Output Shaft Diameter	MM	3~10	Ø13	Ø16	Ø22	Ø32	Ø40	Ø55	Ø75	Ø85	Ø100		
Output Shaft Length	MM	3~10	20	28	36	50	74	82	104	130	140		
Rated Output Torque (1-Stage ServoBox)	Nm	3	19	59	165	335	625	1,206	2,030	4,770	8,790		
		4	16	51	146	300	555	1,069	1,804	4,730	8,730		
		5	16	48	160	333	618	1,189	2,010	4,680	8,660		
		6	15	45	151	311	583	1,118	1,911	--	--		
		7	15	45	149	309	573	1,108	1,870	4,570	8,520		
		8	14	43	143	298	553	1,070	1,824	--	--		
		9	13	44	145	278	516	993	1,694	--	--		
		10	14	43	141	294	549	1,059	1,779	4,420	8,310		
		Rated Output Torque (2-Stage ServoBox)	Nm	15	19	59	165	335	625	1,206	2,030	4,770	8,790
				20	16	51	146	300	555	1,069	1,804	4,730	8,730
25	16			48	160	333	618	1,189	2,010	4,680	8,660		
30	15			45	151	311	583	1,118	1,911	4,620	8,610		
35	15			45	149	309	573	1,108	1,870	4,570	8,520		
40	14			43	143	298	553	1,070	1,824	4,520	8,440		
50	16			48	160	333	618	1,189	2,010	4,680	8,660		
60	15			45	151	311	583	1,118	1,911	--	--		
70	15			45	149	309	573	1,108	1,870	4,570	8,520		
80	14			43	143	298	553	1,070	1,824	--	--		
90	13	44	145	278	516	993	1,694	--	--				
100	14	43	141	294	549	1,059	1,779	4,420	8,310				
Max. Acceleration Torque	Nm	3~100	1.8 Times of Rated Output Torque										
Max. Output Torque Emergency Stop Torque	Nm	3~100	3 Times of Rated Output Torque										
Rated Input Speed	RPM	3~100	5,000	5,000	4,000	4,000	3,000	3,000	2,000	2,000	2,000		
Maximum Input Speed	RPM	3~100	10,000	10,000	8,000	8,000	6,000	6,000	4,000	3,000	3,000		
Backlash (arcmin)	PS	3~100	-	-	$\leq 1$ arcmin	$\leq 1$ arcmin	$\leq 1$ arcmin	$\leq 1$ arcmin	$\leq 1$ arcmin	$\leq 3$ arcmin	$\leq 3$ arcmin		
	P0 / P1 / P2	3~100	$P0 \leq 3$ arcmin ▪ $P1 \leq 5$ arcmin ▪ $P2 \leq 7$ arcmin										
Torsional Rigidity	Nm/arcmin	3~100	3	6	14	27	60	140	240	140	220		
Maximum Radial Force	N	3~100	380	1180	3,200	6,800	9,300	15,600	51,000	107,100	224,910		
Maximum Axial Force	N	3~100	190	590	1,600	3,400	4,650	7,800	25,500	53,550	112,455		
Service Life	Hr	3~100	Intermittent Periodic Duty S5 > 30,000 hours Continuous Duty S1 > 15,000 hours										
Efficiency	%	3~100	1-stage : $\geq 97\%$   2-stage : $\geq 94\%$										
Operating Temperature	°C	3~100	-25°C ~ +90°C										
Lubrication		3~100	Synthetic oil										
Degree of Protection		3~100	IP65										
Mounting Position		3~100	Any										
Noise Level	dB(A)	3~100	$\leq 56$	$\leq 58$	$\leq 60$	$\leq 63$	$\leq 65$	$\leq 67$	$\leq 70$	$\leq 72$	$\leq 74$		





## RIGHT ANGLE HIGH PRECISION SERVO GEAR REDUCER

## ROTARY TABLE HOLLOW ROTARY ACTUATOR SERVOBOX



### PBT Right Angle Planetary ServoBox

Backlash up to 2arcmin ■ Gear Reduction Ratio : 3 ~ 50  
Efficiency ≥ 94%  
Service Life : 30,000 hours (S5) / 15,000 hours (S1)



### ST Spiral Bevel Gear ServoBox

Backlash up to 2arcmin ■ Gear Reduction Ratio 1 ~ 50  
Efficiency ≥ 98%  
Service Life : 30,000 hours (S5) / 15,000 hours (S1)  
Available in Ball Bearing and Taper Bearing design

### GT Series Features :

- Solid hollow output table that allows simple wiring and piping on your equipment design.
- Repetitive Positioning Accuracy ±10 sec.
- Lost Motion 2arcmin (0.033°).
- Torsional Backlash ≤ 2arcmin.

Design Option : Ball Bearing Design (GT-B) / Crossed Roller Bearing Design (GT-C)

- 1-Stage ServoBox in Gear Ratio 5, 10 and 18.
- 2-Stage ServoBox in Gear Ratio 25, 50 and 100 (fitted with planetary gear).



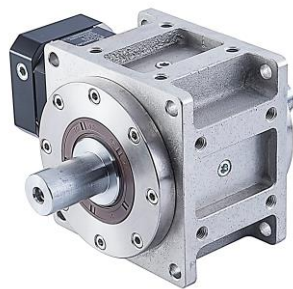
GENERAL SPECIFICATIONS	Unit	Bearing Type (Ratio 5, 10, 18) (Ratio 25, 50, 100)	Model : GT (1 Stage) / (2 Stage)				
			#60	#85	#110	#135	#200
Frame Size	MM	Ball / Crossed Roller	60 x 60	85 x 85	110 x 110	135 x 135	200 x 200
Mounting Dimension	MM	Ball / Crossed Roller	50 x 50	70 x 70	90 x 90	110 x 110	170 x 170
Rotary Flange Diameter	MM	Ball / Crossed Roller	Ø45	Ø70	Ø95	Ø115	Ø170
Hollow Rotary Flange Dia.	MM	Ball / Crossed Roller	Ø20	Ø22	Ø30	Ø50	Ø75
Rated Output Torque	Nm	Ball / Crossed Roller	59	165	216	625	1,206
Max. Output Torque Emergency Stop Torque	Nm	Ball / Crossed Roller	3 Times of Rated Output Torque				
Inertia Moment	Kg.m <sup>2</sup>	Ball	777 x 10 <sup>-7</sup>	1268 x 10 <sup>-6</sup>	1562 x 10 <sup>-6</sup>	2918 x 10 <sup>-6</sup>	29072 x 10 <sup>-6</sup>
		Crossed Roller	735 x 10 <sup>-7</sup>	1203 x 10 <sup>-6</sup>	1483 x 10 <sup>-6</sup>	2772 x 10 <sup>-6</sup>	27619 x 10 <sup>-6</sup>
Permissible Output Speed	RPM	Ball	300				
		Crossed Roller	200				
Torsional Backlash	Arcmin	Ball / Crossed Roller	≤ 1 arcmin				
Lost Motion	Arcmin	Ball / Crossed Roller	2 (0.033°)				
Repetitive Positioning Accuracy	Arcsec	Ball / Crossed Roller	±10 (0.0028°)				
Permissible Trust Load	N	Ball Bearing	350	600	800	1,450	2,500
		Crossed Roller Bearing	500	900	1,200	2,200	4,000
Permissible Moment Load	Nm	Ball Bearing	7	12	16	30	50
		Crossed Roller Bearing	10	18	24	45	80
Runout of Output Table Surface	MM	Ball / Crossed	0.01	0.01	0.015	0.015	0.02
Runout of Output Table Inner / Outer Diameter	MM	Ball / Crossed	0.01	0.01	0.015	0.015	0.02
Parallelism of Output Table	MM	Ball / Crossed	0.02	0.02	0.025	0.025	0.03
Protection Class		Ball / Crossed	IP 65				

### LDS-LM Right Angle ServoBox series



#### SDH Series ServoBox

Helical & Hypoid Bevel Gear  
Rotary output flange  
Gear Reduction Ratio : 3 to 50  
Backlash up to 4arcmin



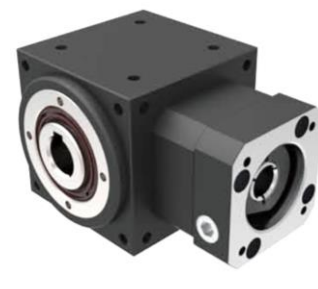
#### HY Hypoid Bevel Gear ServoBox

Backlash up to 2arcmin  
Gear Reduction Ratio : 3 ~ 50  
Heavy duty diecast alloy housing



#### WE Worm Gear ServoBox

Cost competitive package  
Backlash up to 8arcmin  
Gear Reduction Ratio : 5 to 60  
Aluminium Alloy housing



#### FT Spiral Bevel Gear ServoBox Ultra Compact Series

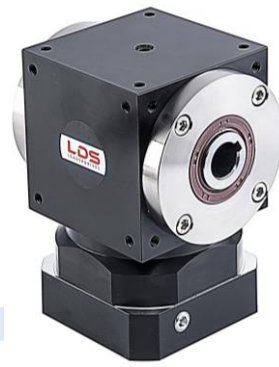
Gear Reduction Ratio : 1 to 5  
Backlash up to 2arcmin  
Space saving design



# SPIRAL BEVEL GEAR SERVOBOX

## ST-FO/RO SERIES

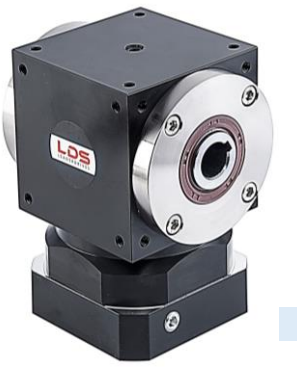
COMPACT RIGHT ANGLE SOLUTION  
HIGHEST EFFICIENCY DESIGN



# SPIRAL BEVEL GEAR SERVOBOX

## ST SERIES

SPIRAL BEVEL GEAR SERVOBOX  
DESIGN SELECTION



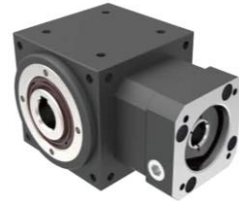
Features :

- Employ high precision grinded and carburized spiral bevel gears to meet standard AGMA12.
- High efficiency design (≥98%) to transmit rotational motion at right angles
- Max gear reduction ratio up to 1/500.
- Hollow output shaft / single output shaft / double outputs shaft and multiple shaft configurations are available.

Ball Bearing Design (ST-FO-B / ST-RO-B) / Taper Bearing Design (ST-FO-T / ST-RO-T)

- ST-FO: 1-Stage ServoBox in Gear Ratio 1, 2, 3, 4 and 5.
- ST-RO: 2-Stage ServoBox in Gear Ratio 10, 15, 20, 25, 30, 40 and 50.

\* FT-FO/RO – Ultra Compact Spiral Bevel Gear ServoBox



**FT-FO SERIES**

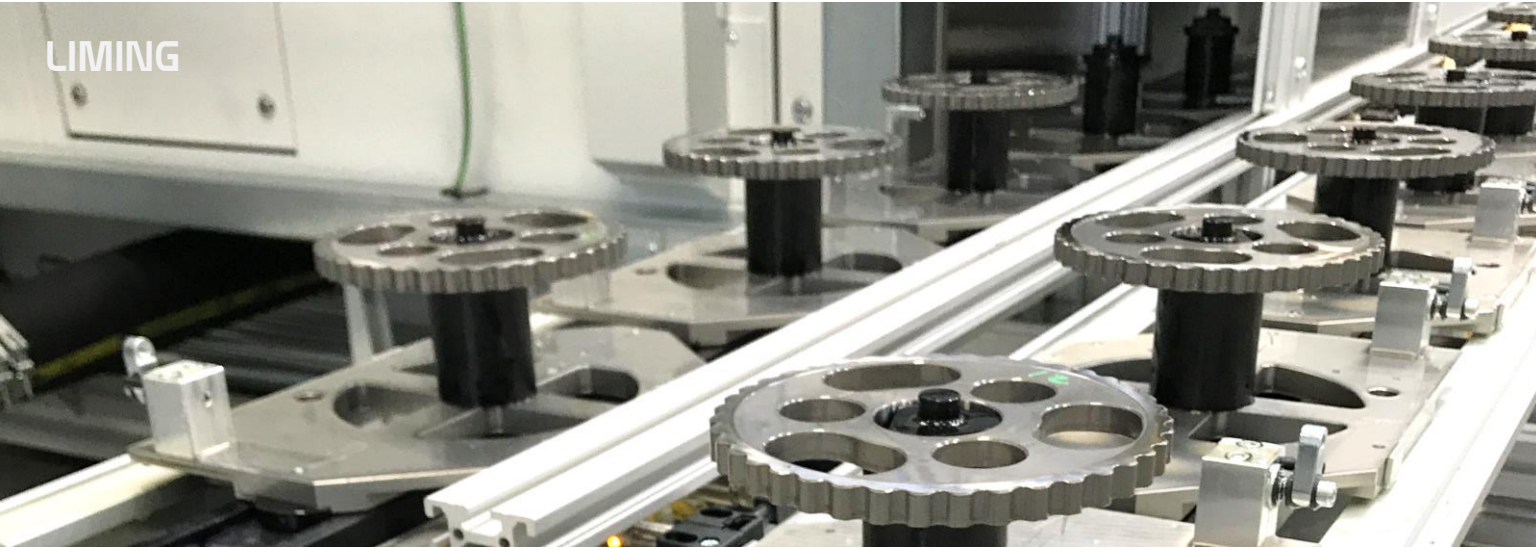
Ultra Compact Design Series

GENERAL SPECIFICATIONS	Unit	Ratio	Model : ST (1 Stage) / (2 Stage)						
			#65	#75	#90	#110	#140	#170	#210
Frame Size	MM	1~50	65 x 65	75 x 75	90 x 90	110 x 100	140 x 140	170 x 170	210 x 210
Mounting Dimension	MM	1~50	52 x 52	60 x 60	72 x 72	88 x 88	110 x 110	134 x 134	170 x 170
Hollow Output Shaft Bore Diameter	MM	1~50	Ø14	Ø14	Ø18	Ø22	Ø32	Ø40	Ø50
Rated Output Torque	Nm (1Stage)	1	25	45	78	150	360	585	1,300
		2	24	42	68	150	330	544	1,220
		3	18	33	54	120	270	450	1,020
		4	13	28	52	100	224	376	860
		5	12	25	40	85	196	320	740
	Nm (2Stage)	10	24	42	68	150	330	544	1,220
		15	18	33	54	120	270	450	1,020
		20	13	28	48	100	224	376	860
		25	12	25	40	85	196	320	740
		30	18	33	54	120	270	450	1,020
Max. Acceleration Torque	Nm	1~50	1.5 Times of Rated Output Torque						
	Nm	1~50	3 Times of Rated Output Torque						
Max. Output Torque	Nm	1~50	3 Times of Rated Output Torque						
Emergency Stop Torque	Nm	1~50	3 Times of Rated Output Torque						
Rated Input Speed	RPM	1~50	3,000	3,000	3,000	2,500	2,500	2,000	2,000
Maximum Input Speed	RPM	1~50	7,500	6,500	5,500	4,500	3,500	3,000	3,000
Backlash (arcmin)	Arcmin	1~5	P0 ≤ 2 arcmin / P1 ≤ 5 arcmin / P2 ≤ 8 arcmin						
		10~50	P0 ≤ 3 arcmin / P1 ≤ 6 arcmin / P2 ≤ 9 arcmin						
Torsional Backlash	Nm/arcmin	1~50	≤ 1 arcmin						
Maximum Radial Force	N (Ball Bearing)	1~50	600	700	1,000	2,000	3,000	5,000	8,000
	N (Taper Bearing)	1~50	--	1,100	1,700	2,700	4,800	6,600	11,500
Maximum Axial Force	N (Ball Bearing)	1~50	300	400	500	1,000	1,500	2,500	4,000
	N (Taper Bearing)	1~50	--	600	800	1,400	2,400	3,300	5,800
Service Life	Hr	1~50	Intermittent Periodic Duty S5 > 20,000 hours Continuous Duty S1 > 10,000 hours						
Efficiency	%	1~5	≥ 98%						
		10~50	≥ 94%						
Operating Temperature	°C	1~50	-10°C ~ +100°C						
Lubrication		1~50	Synthetic oil						
Degree of Protection		1~50	IP65						
Mounting Position		1~50	Any						
Noise Level	dB(A)	1~5	≤ 68	≤ 70	≤ 74	≤ 76	≤ 77	≤ 78	≤ 80
		10~50	≤ 71	≤ 72	≤ 76	≤ 77	≤ 78	≤ 79	≤ 81

OUTPUT TYPE

	INPUT TYPE			
	F Input Flange Ratio 1 ~ 5	RO Input Flange Ratio 10 ~ 50	D Single Input Shaft	Y Double Input Shaft
<b>O</b> Hollow Output Shaft	FO	RO	DO	YO
<b>N</b> Hollow Output Shaft with Single Clamping	FN	RN	DN	YN
<b>M</b> Hollow Output Shaft with Double Clamping	FM	RM	DM	YM
<b>S</b> Single Output Shaft	FS	RS	DS	YS
<b>V</b> Double Output Shaft	FV	RV	DV	YV
<b>P</b> For Ball Screw	FP	RP	DP	YP





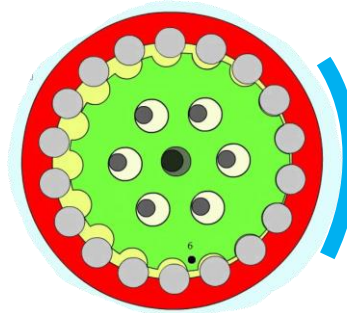
## CYKO DRIVE HIGH SHOCK-LOAD CAPABILITY

**CYKODRIVE servobox (Precision High Shock-Load Cyclo Drive Design)**

- Model available #6 ~ #320
- Output rotary flange supported by Angular Contact Ball Bearing
- Backlash :  $1 \leq 6$  arcmin
- Gear Reduction Ratio :  $1/41 \sim 1/171$
- Rated Output Torque : up to 3,200Nm
- Max. Output Torque : 5-times of Rated Torque
- Max. Emergency Stop Torque : 5-times of Rated Torque
- Max. Acceleration Stop Torque : 2.5-times of Rated Torque
- Nominal Input Speed : 3000rpm
- Max Radial Force : up to 19,000N
- Max Axial Force : up to 15,000N
- Torsional Rigidity : up to 3,00Nm/arcmin
- Efficiency :  $\geq 85\%$
- Service Life : S5 Duty > 6,000 hours ■ S1 Duty > 3000 hours



**RSM Series**  
with servo motor adapter

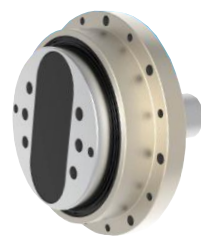


**CykoDrive Design :**  
Large number of teeth come in contact simultaneously



Cyko Drive ServoBox allows high shockload in your precision robotic application

**CykoDrive Design Option :**



**RSE Series**  
with Solid Input Shaft Type



**RCM Series**  
with Hollow Rotary Flange Type

## ROBONIC DRIVE ZERO-BACKLASH\* SERVOBOX FOR ROBOTICS

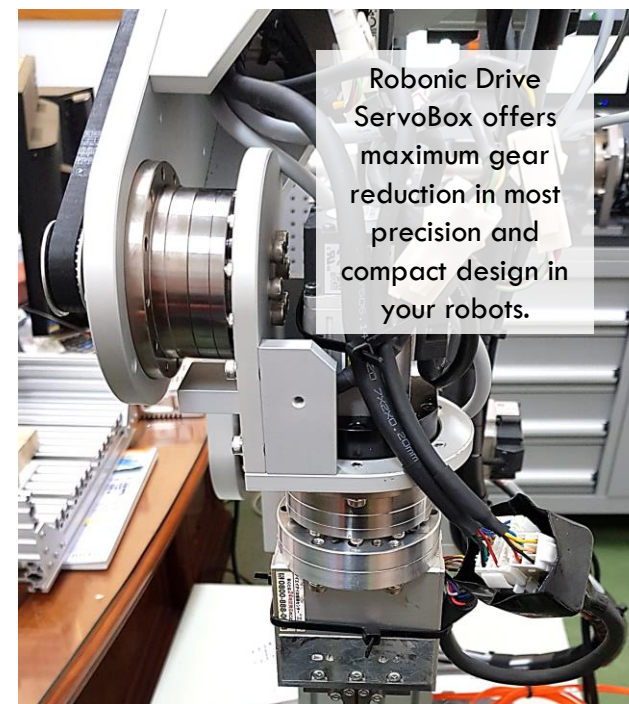
**ROBONICDRIVE servobox (\*Zero-Backlash design concept as Harmonic Drive)**

is very commonly implemented in robotics and aerospace nowadays. DSF / DHF servobox series offer the ultimate in design flexibility and can be tightly integrated into your machine design. These are well suited for applications where high torque density is of paramount importance.

- Model available #14 ■ #17 ■ #20 ■ #25 ■ #32 ■ #40
- Backlash :  $5 \leq 20$  arcsec  
( $0.08\text{arcmin} \leq 0.33\text{arcmin}$ ) ( $0.0013^\circ \sim 0.0055^\circ$ )
- Gear Reduction Ratio  $1/50$  ■  $1/80$  ■  $1/100$  ■  $1/120$
- Rated Output Torque up to 300Nm
- Max. Output Torque : 2-times of Rated Torque
- Max. Emergency Stop Torque : 3-times of Rated Torque
- Nominal Input Speed : 2000rpm
- Service Life : S5 Duty > 6,000 hours (Not for continuous running)
- Outer Frame Size : max 73mm ~ 160mm (PCD : 65 ~ 144mm)  
Height : 38mm ~ 73.5mm



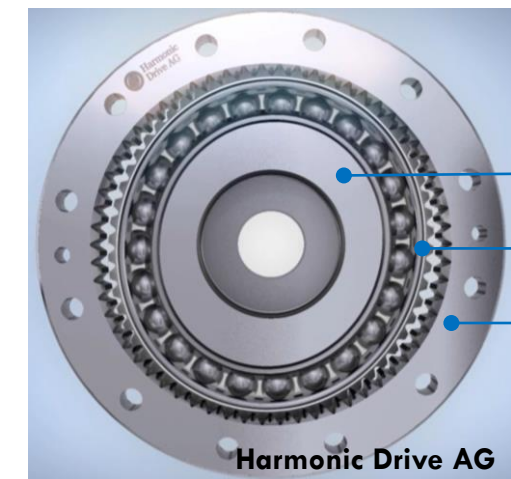
**DSF-M Series**  
with servo motor adapter



Robonic Drive ServoBox offers maximum gear reduction in most precision and compact design in your robots.

**ServoBox Design :**

**Strain Wave Gear** enables no backlash, high compactness, light weight, and high gear ratios within compact housing



- Wavegear
- Flexspline
- Fixed-ring gear

Harmonic Drive AG

**RobonicDrive Design Option :**



**DSF-AC Series**  
Input Collet Locking Mechanism Type



**DSF-AK Series**  
Input Hollow Shaft Type (Key-way)



**DSF-M Series**  
with Servo Motor Adapter Type



**DSF-S Series**  
with Solid Input Shaft Type



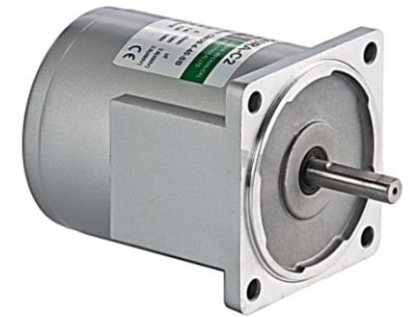


# COMPACT AC MOTOR

## IK Series



- Type of Motor : Induction Motor ■ Reversible Motor ■ Variable Speed Motor ■ Inverter Motor ■ Brake Motor ■ Clutch & Brake Motor
- Power Rating : 6W ■ 15W ■ 25W ■ 40W ■ 60W ■ 90W ■ 120W ■ 150W ■ 180W ■ 200W
- Input Voltage : 1 phase 110V / 240V ■ 3phase 220V / 415V (50/60Hz)
- Motor Rotation Speed (RPM) : 2Pole (2800) ■ 4Pole (1400) ■ 6Pole (900)
- Motor Output Shaft Type : D-cut ■ Keyway ■ Helical (use with gearhead)
- Insulation Class B
- Ingress Protection : IP20 / IP54
- Most common compact motor in the industry, comply with the industry standard like Oriental Motor, Panasonic and SPG motor
- Compact design and light weight, and easy operation and installation
- Motor Options : Speed Controller ■ IGBT Inverter ■ Electro-magnetic Brake 240V ■ Clutch and Brake DC 24V ■ Coactive Axial Cooling Fan 240V ■ Thermal Protection (Automatic / Signal type)



Motor Rotation Speed (RPM) :  
2Pole (2800) ■ 4Pole (1400) ■ 6Pole (900)

# INVERTER MOTOR

## V-SERIES COMPACT ASYNCHRONOUS MOTOR

- Asynchronous Motor Series with LED Digital Display Inverter Controller
- Smallest size and light weight to achieve compact equipment requirement
- Motor Rating : 25W ■ 40W ■ 60W ■ 90W ■ 120W ■ 150W ■ 180W ■ 200W
- Gearhead Ratio (1/X) : Single Stage 3~300  
(Double Stage Rear Reduction Ratio up to 1/3000)
- Inverter Input Voltage : AC 1ph 220V ~ 240V, 50Hz/60Hz  
Inverter Output Voltage / Motor Input Voltage : AC 3ph 220V



### Key advantages of Inverter Motor

- Easy operation and installation with higher starting torque up to 200%
- Low motor operating temperature to further extend product lifespan
- Broader adjustable speed range up to 400Hz
- Motor Overload Protection with alarm signal is possible via ampere setting
- Easy switching of multiple-speed, forward/reverse running direction
- Adjustable acceleration and deceleration of speed provide soft-starting and stopping, and smooth speed change
- Improved speed regulation can be accomplished by slip compensation
- Direct replaceable - same size and mounting with major speed control motors
- Inverter Motor as replacement for DC motor with controller is possible

### Gear Motor Design Options



Induction & Reversible Motor with Parallel Shaft Gearhead)



Motor with Terminal Box & Hinge Gearhead



Motor with Electromagnetic Brake 240V



Motor with Clutch & Brake DC24V



Motor with Decimal Gearhead (Ratio up to 1/2,400)



Motor with Spiral Bevel Gearhead (Ratio up to 1/225)



Motor with worm gear head (ratio up to 1/80)



Motor with double gear reduction ratio to 1/19,200 (Parallel shaft + Worm Gear)

### GEAR REDUCER OPTIONS



2GN-K ~ 6GU-KB



5GU-K Hinge Type



Hollow Output Shaft Bore Dia. : 17mm



Hollow Output Shaft Bore Dia. : 14mm ■ 18mm ■ 25mm

#### 2GN-K ■ 3GN-K ■ 4GN-K ■ 5GN-K ■ 5GU-KB (5GU-K) ■ 6GU-KB ■ 6GU-KB-S18

Parallel Shaft Helical Gear Reducer Ratio and Output Speed Guideline (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio	3	5	6	7.5	9	10	12.5	15	18	20
Gearbox Output Speed (RPM)	450	270	225	180	150	135	108	90	75	67.5

Gear Reduction Ratio	25	30	36	40	50	60	75	90	100	120
Gearbox Output Speed (RPM)	54	45	37.5	33.7	27	22.5	18	15	13.5	11.3

Gear Reduction Ratio	150	180	200	240	300	(360)	(500)	(750 ~ 24,000)
Gearbox Output Speed (RPM)	9	7.5	6.7	5.6	4.5	(3.75)	(2.7)	(0.05 ~ 1.8)

\* ( ) Double Gear Reduction Ratio (Parallel Shaft Gearhead + Decimal Gearhead)

#### 5GU-RH

Spiral Bevel Gear Reducer Ratio and Output Speed Guideline (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio	9	15	18	22.5	27	37.5	45	54	75	90
Gearbox Output Speed (RPM)	150	90	75	60	50	36	30	25	18	15

Gear Reduction Ratio	108	150	180	225	(270)	(375)	(450)	(540 ~ 22,500)
Gearbox Output Speed (RPM)	12.5	9	7.5	6	5	3.6	3	(0.06 ~ 2.5)

\* ( ) Double Gear Reduction Ratio (Spiral Bevel Gearhead + Decimal Gearhead)

#### 8MRV030 ■ 8MRV040 ■ 8MRV050 | DMRS050 ■ DMRS063

Worm Gear Reducer Ratio and Output Speed Guideline (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio	5	7.5	10	15	20	25	30	40	50	60
Gearbox Output Speed (RPM)	270	180	135	90	67.5	54	45	33.7	27	22.5

Gear Reduction Ratio	80	100	(135)	(150)	(180)	(225)	(270)	(300 ~ 19,200)
Gearbox Output Speed (RPM)	16.8	13.5	10	9	7.5	6	5	(0.07 ~ 4.5)

\* ( ) Double Gear Reduction Ratio (Worm Gearhead + Parallel Shaft Gearhead)



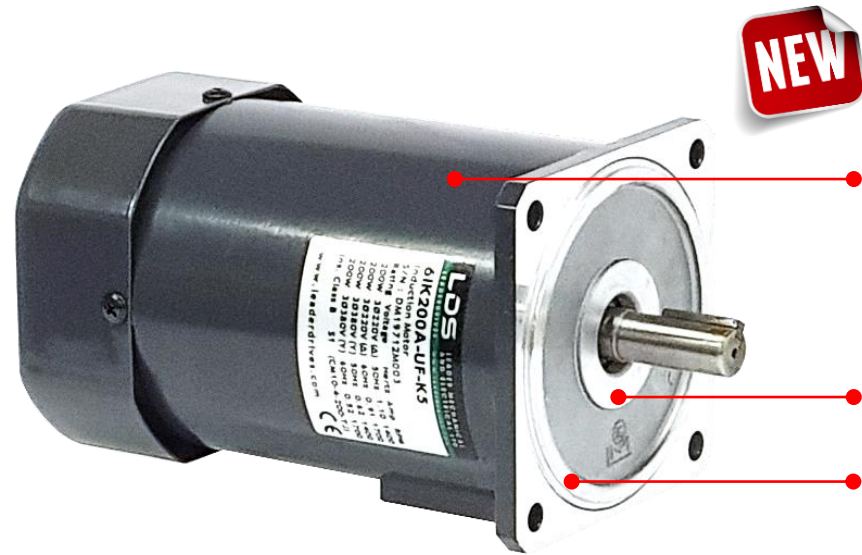
# 6IK SERIES AC GEAR MOTOR

200W ~ 250W | 104 x 104mm Frame Size



# COMPACT SPIRAL BEVEL GEAR MOTOR

40W ~ 180W | Gear Reduction Ratio 9 ~ 225



### 6IK Motor output power 200W

- \* Induction Motor
- \* Inverter Motor
- \* Speed Control Motor
- \* Electromagnetic Brake Motor
- \* Input Voltage 1phase 240V  
3phase 220V / 415V

### Japan Genuine Bearing

Compact Size 104 x 104 frame Size  
Solid Key Shaft Diameter 14mm

### GEARHEAD OPTIONS



### Parallel Shaft Gearhead

#### Helical Gear

6GU\_KB-S18 (Shaft Ø18mm)  
6GU\_KB (Shaft Ø15mm)  
Frame Size 104 x 104mm



### Single Gear Reduction

#### Aluminium Worm GearHead

8MRV040-CM10 (Hollow Shaft Ø18mm)  
8MRV050-CM10 (Hollow Shaft Ø25mm)



### Double Gear Reduction

#### Aluminium Worm GearHead

8MRV063-CG10 + 6GU-KB-N  
Gear Ratio 1/120 ~ 18,000  
(Hollow Shaft Ø25mm)

Power Rating	Gearhead Type Key Specification	5GU_KB 6GU_KB	#030	#040	#050	#063
40W ~ 180W (5IK)	Gear Ratio (1/X) (Single Reducer)	5GU: 1/3~1/240	1/5 ~ 1/80	1/5 ~ 1/80	N/A	N/A
	Gear Ratio (1/X) (Double Reducer)	5GU: 1/300 ~ 1/2,400	1/100 ~ 1/19,200	1/100 ~ 1/19,200	1/120 ~ 1/19,200	1/120 ~ 1/19,200
200W (6IK)	Gear Ratio (1/X) (Single Reducer)	6GU: 1/3~1/180	N/A	1/5 ~ 1/80	1/5 ~ 1/100	N/A
	Gear Ratio (1/X) (Double Reducer)	N/A	N/A	N/A	N/A	1/120 ~ 1/18,000
<b>Gearhead Max Torque</b>		5GU (20Nm) 6GU (40Nm)	21Nm	40Nm	70Nm	120Nm
<b>Gearhead Efficiency %</b>		60 ~ 85%	50% ~ 90%	50% ~ 90%	50% ~ 90%	50% ~ 90%

### Motor output power between 40W to 180W.

- \* Induction Motor
- \* Speed Control Motor
- \* Inverter Motor
- \* Brake Motor

**Gear reduction ratio** between 1/9 ~ 1/225.  
5GU9RH ~ 5GU225RH.  
\* Double Gear Reduction Ratio 1/275 ~ 1/2,250 available

### Spiral bevel gear design offer constant backlash throughout the service life of the gearbox.

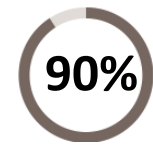
- \* Efficiency and output torque is higher than worm gearhead (up to 30%).
- \* Quiet operation and longer lifespan
- \* Lower operating temperature compared to worm gearbox.
- Compact Design : Hollow Shaft Bore Dia. 17mm
- \* Frame size 90x90mm / Mounting PCD of 104mm.



Gearbox Engineering



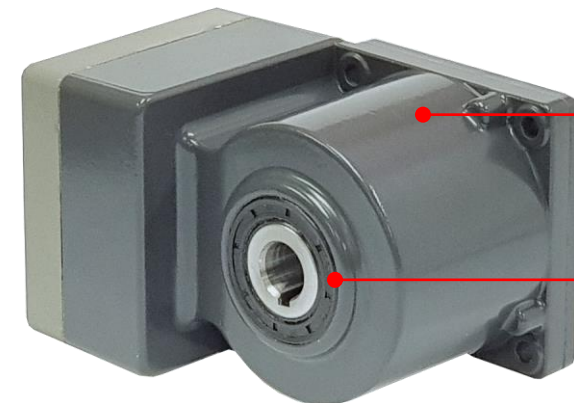
Technical Support And Collaboration



High Efficiency Performance



1 Year Product Warranty



**Gearbox design with smooth and clean surface without any protrusions.** Ideal design for sanitary environment with quicker and easier cleaning process. Reduces operating costs specially in food processing applications.

### A rigid housing ensures alignment of shafting and bearings under stringent use.

Optional Accessories :  
Viton Oil Seal and Solid Output Shaft

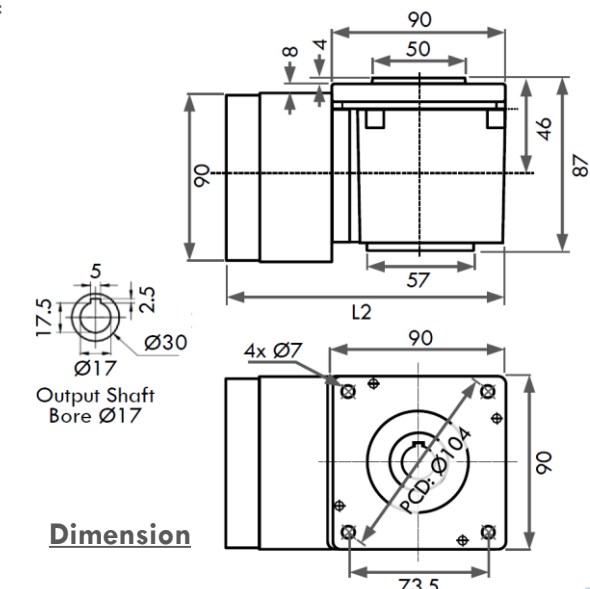
### Further Enhance Your Conveyor Design



Low Friction  
Low Maintenance  
Ideal "sanitary" design



Strong Gripping  
Smooth Transfer (no jerking)  
Easier maintenance







# IGBT INVERTER

LDS Single Phase IGBT-K100 / IGBT-K200 Series (Panel Mount Type)

- Motor Rating : Maximum 120W (1/6HP) ■ 200W (1/4HP)
- Rated Output Capacity : 0.4kVA ~ 0.6kVA
- Rated Output Current : 1.0 ~ 1.5Ampere
- Input Current : 2.0 ~ 3.0Ampere
- Input Voltage : AC 1phase 240V, 50Hz/60Hz
- Output Voltage : AC 3phase 240V
- Frequency Range : 0.1 ~ 400Hz.
- 150% Overload Protection. / Self Cooling ■ IP20
- Same dimension and mounting with
- Unit Type AC Speed Controller (USM series).



Portable Keypad with Ethernet cable



Step-by-Step Teaching of Parameter Setting

Inverter Features		
1	LED Digital Display	Display of Running Frequency "0 ~ 400Hz" ■ Output Ampere ■ Motor RPM ■ Machine Output Speed
2	Energy Saving	YES
3	Low Operation Temperature	YES
4	Higher motor starting torque (150%)	YES
5	Higher motor efficiency (75%~85%)	YES
6	FWD / REV Running Direction	YES
7	Motor Overload Protection	YES - (150% / Adjustable by User)
8	Acceleration & Deceleration of Speed	YES - Adjustable btw 0.1 ~ 3200 seconds
9	FWD / REV Running Direction	YES (Multiple Terminal or SPEC Key)
10	Quick-Stop Operation	YES (From 0.1 Second)
11	Flexible Running Speed Range	YES (0.1 ~ 400Hz)
12	Multiple Speed Setting	YES (Max 3 Speeds)
13	Multiple Speed Setting at Different Running Direction	YES (Max 2 Speeds)
14	Switching Frequency (PWM)	YES
15	External VR Control / SPEC Key	YES
16	Alarm Signal to PLC	YES
17	DC10V Supply	YES
18	Modbus Communication	YES

Enable space & cost saving control panel and easier monitoring of inverter operation



**LDS**<sup>®</sup>  
LEADERDRIVES  
IGBT INVERTER  
25W ~ 200W

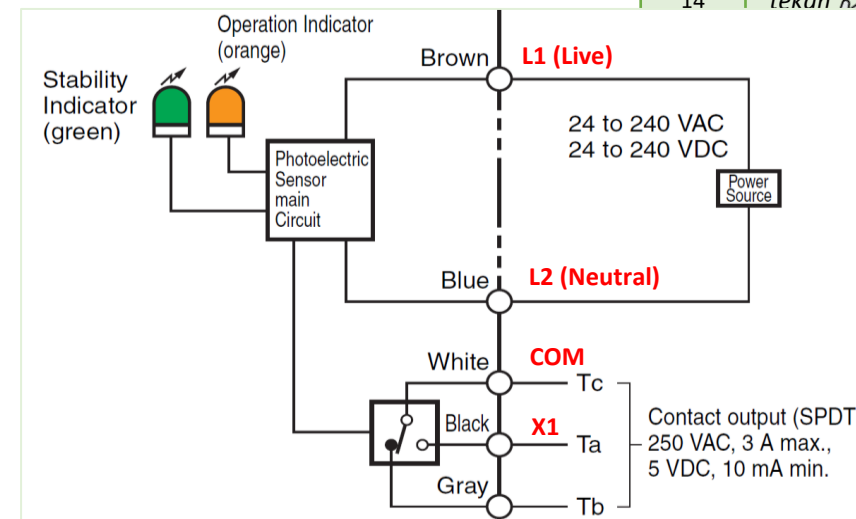
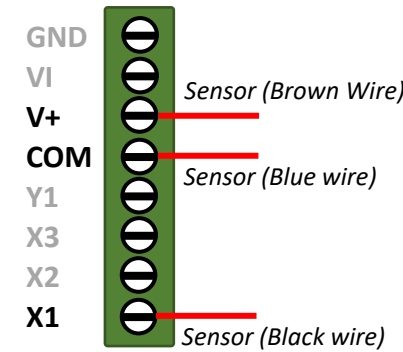
## IGBT User Quick Guide

Easy operation via **Step-by-Step Guide** for Parameter setting, wiring method, error troubleshooting.

How to use Sensor Relay to stop operation by using Jog Speed Setting (Motor rotation is stopped in shorter time compared to Coast to Stop function)

- F2.16 set to [ 0 ]
- F2.19 set to [ 0.1 ]
- F5.19 set to [ 1 ]

Sensor Relay between Terminal X1 and Com



Step	Action	Screen Display (after action)	Remark
		0.00	When Inverter is powered on. (Initial Screen Display)
1	Press tekan <b>PROG</b>	F0.00	Press [ MODE ] to display Operation Status [ F0.00 ] System Parameter
2	Press tekan <b>▲</b>	F2.00	Press [ Δ ] to parameter [ F2.00 ] Frequency Parameter
3	Press tekan <b>◀◀</b>	F2.00	Press [ << ] to shift digit of Parameter : [ F2.00 ]
4	Press tekan <b>▲</b>	F2.16	Press [ Δ ] to parameter [ F2.16 ] Jog Speed (Refer to Page 20)
5	Press tekan <b>FUNC DATA</b>	6.00	Press [ FUNC/DATA ] to enter Parameter F2.16 Default Setting [ 6.00 ] Hertz
6	Press tekan <b>◀◀</b>	6.00	Press [ << ] twice to shift digit of frequency command : [ 6.00 ]
7	Press tekan <b>▼</b>	0.00	Press [ ▽ ] to new command [ 0.00 ] JogSpeed at Zero Hertz Refer to page 20
8	Press tekan <b>FUNC DATA</b>	F2.16	Press [ FUNC/DATA ] to complete the new parameter change.
9	Press tekan <b>▲</b>	F2.19	Press [ Δ ] to parameter [ F2.19 ] Primary Deceleration Time (Refer to Page 21)
10	Press tekan <b>FUNC DATA</b>	2.0	Press [ FUNC/DATA ] to enter Parameter F2.19 Default Setting [ 2.0 ]
11	Press tekan <b>▼</b>	0.1	Press [ ▽ ] to new command [ 0.1 ] Deceleration time at 0.1second
12	Press tekan <b>FUNC DATA</b>	F2.19	Press [ FUNC/DATA ] to complete the new parameter change.
13	Press tekan <b>◀◀</b>	F2.19	Press [ << ] to shift digit of frequency command : [ F2.19 ] Frequency Parameter
14	Press tekan <b>▲</b>	F5.19	Press [ Δ ] to parameter [ F5.19 ] Multi-Function Input Terminal X1 (Refer to Page 29)
		22	Press [ FUNC/DATA ] to enter Parameter F5.19 Default Setting [ 22 ]
		1	Press [ ▽ ] to new command [ 1 ] Jog Speed Command Refer to page 29
		F5.19	Press [ FUNC/DATA ] to complete the new parameter change.
		0.00	Press [ PROG ] to return to Initial Display Screen





# COMPACT GEAR MOTOR

## K SERIES

### SPEED CONTROLLER AND IGBT INVERTER 1-PHASE



#### IGBT-K100 ■ IGBT-K200 SERIES

Compact IGBT Inverter  
For Motor Power : 25W ~ 200W  
Input Voltage : 1phase 240V  
Output Voltage : 3phase 220V



#### PORTABLE KEYPAD & ETHERNET CABLE

For remote control and duplication of parameter of IGBT Inverter via Modbus 485 Communication



#### USM71 ■ USM72 SERIES

Analogue Type Speed Controller  
UNIT TYPE SPEED CONTROLLER  
POWER RATING : 6W ~ 180W  
INPUT VOLTAGE : 1-PHASE 110V/240V



#### USM1000 ■ USM2000 SERIES

LED Digital Display Speed Controller  
UNIT TYPE SPEED CONTROLLER  
POWER RATING : 6W ~ 180W  
INPUT VOLTAGE :  
1-PHASE 110V/240V



#### SS61 ■ SS62 SERIES

DIN RAIL TYPE SPEED CONTROLLER  
WITH EXTERNAL POTENTIOMETER  
POWER RATING : 6W ~ 180W  
INPUT / OUTPUT VOLTAGE :  
1-PHASE 110V/240V



#### SD61 ■ SD62 SERIES

DIN RAIL TYPE SPEED CONTROLLER  
POWER RATING : 6W ~ 180W  
INPUT / OUTPUT VOLTAGE :  
1-PHASE 110V/240V



#### SS31-HR ■ SS32-HR SERIES

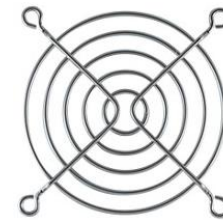
DIN RAIL TYPE BRAKE PACK SPEED CONTROLLER  
WITH EXTERNAL POTENTIOMETER  
POWER RATING : 6W ~ 180W  
INPUT / OUTPUT VOLTAGE :  
1-PHASE 110V/240V



# COMPACT GEAR MOTOR

## K SERIES

### ACCESSORIES COMPREHENSIVE SELECTIONS



#### Axial AC Powerful Cooling Fan and Fan Guard

Design: MA2082-HVL - Maglev Motor with Vapor Bearing System  
Input voltage: 1ph220V ~ 240VAC, 50Hz / 4.6Watts  
Air Delivery: 40CFM / Noise Level: Below 32dBA  
IP20 (IP55 water splash proof type available)



#### Mounting Bracket (Type-F)

Foot mounting bracket for compact gear motor  
40W ~ 180W



#### Mounting Bracket (Type-H)

\* Stainless Steel Made  
For Compact IGBT Inverter & USM Speed Controller



#### Mounting Bracket (Type-V)

\* Stainless Steel Made  
For Compact IGBT Inverter & USM Speed Controller



#### Mounting Bracket (Type-U)

\* Stainless Steel Made  
For Compact IGBT Inverter & USM Speed Controller



#### Acrylic Protective Cover

Design For IGBT Inverter  
Acrylic Made



#### Protective Enclosure

For Aluminium Worm Gear Reducer  
8MRS030 ■ 8MRS040



#### Low Speed Output Shaft

For Aluminium Worm Gear Reducer  
8MRS030 ■ 8MRS040



#### Torque Arm

for Worm Gear Reducer  
Option : Nylon Bush



#### Aluminium Output Flange

for Worm Gear Reducer  
#30F ■ #40F



#### Capacitor - 4pin

0.8 ~ 24 Microfarad  
250V / 400V



#### Terminal Box

with cable gland IP54



#### Extension Cable

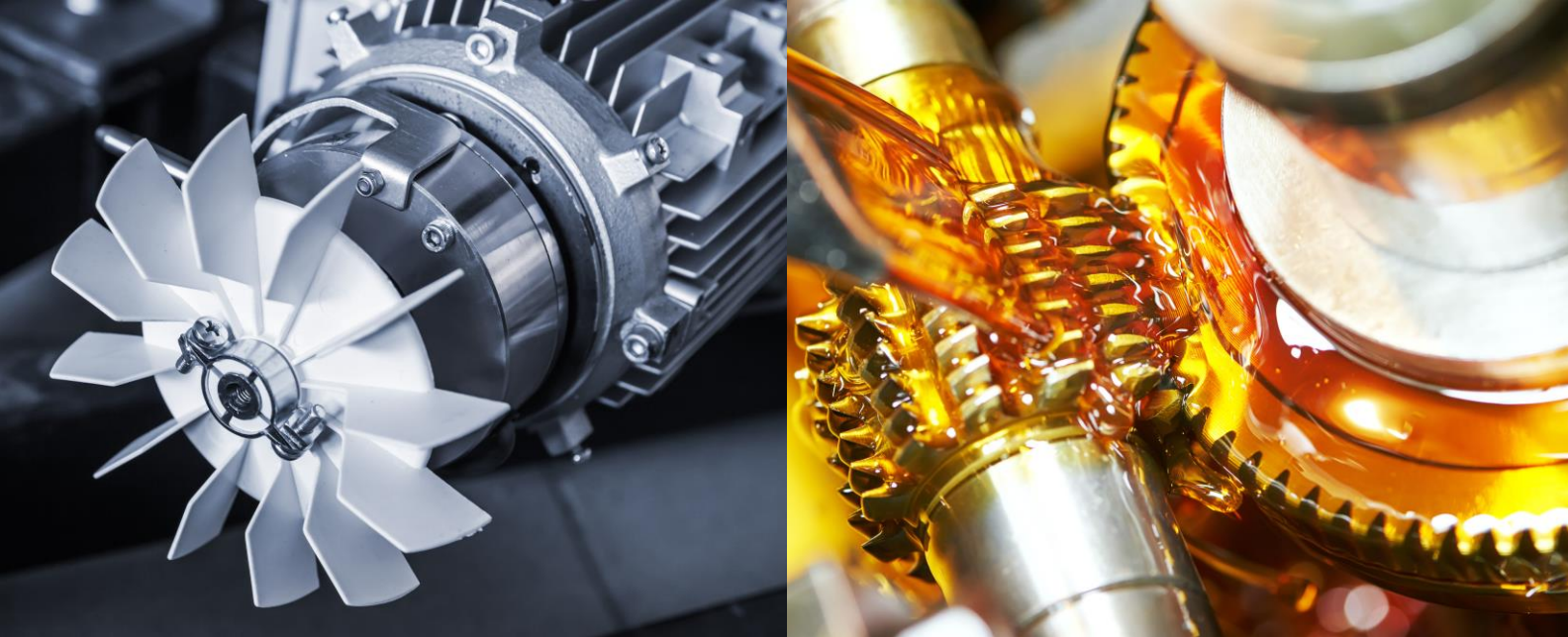
for Variable Speed Motor & Speed Controller, available in  
1m ■ 1.5m ■ 2m ■ 3m length



#### ABS & PVC Made Indoor Use Panel Control / Enclosure Box

For IGBT Inverter & Panasonic Inverter





# INTEGRAL HELICAL GEAR MOTOR



FH / FV / FVA / DMRS / OTS Series



FH Series  
Foot mount

### AC SMALL GEAR MOTOR

- Motor Rating : 0.1kW ~ 2.2kW ■ 3kW ~ 11kW
- Gearbox and motor permanently coupled together
- Shorter in axial length and Lower weight
- Pinion gear driving the gearbox is directly mounted to the drive shaft of the motor
- Perfect, permanent alignment between motor and gearbox with zero loss in mechanical efficiency
- Compatible with Sumitomo, Nissei GTR and IEC Motor
- Optional accessories: Electromagnetic brake 240V ■ Clutch and brake DC 24V ■ Encoder ■ Water splash proof IP55 design (for 0.4kW and 0.75kW only)

### Small Gear Motor Series



FV Series  
Helical Gear Motor with Mounting Flange



FVA Series  
Helical Gear Motor with Small Mounting Flange



DMRV Series  
Worm Gear Reducer with LDVF Asynchronous Motor



OTS Series  
Helical Hypoid Gear Reducer with LDVF Asynchronous Motor



EFVF Series  
With Clutch & Brake DC24V



IP55 Series  
Limited ingress protection – Protected from low pressure jets



EV Series  
Mechanical Variator



DMRS Series  
Worm Gear Reducer with Marelli Motori Electric Motor

### GEAR REDUCER OPTIONS



FHB Series



FVB Series

FH ■ FV ■ FVA ■ FHB ■ FVB Series

Parallel Shaft Helical Gear Reducer Ratio and Output Speed Guideline (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio	3	5	7.5	10	15	20	25	30	40	50
Gearbox Output Speed (RPM)	467	280	186	140	93	70	56	47	35	28

Gear Reduction Ratio	60	80	100	120	150
Gearbox Output Speed (RPM)	23	17.5	14.0	11.7	9.3

Note : For IEC Motor Frame B5 only

DMRV ■ DMRS Series

Worm Gear Reducer Ratio and Output Speed Guideline (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio	5	7.5	10	15	20	25	30	40	50	60
Gearbox Output Speed (RPM)	280	186	140	93	70	56	47	35	28	23

Gear Reduction Ratio	80	100
Gearbox Output Speed (RPM)	17.5	14.0

Note :  
For IEC Motor Frame B5  
and B14 only



Hollow Output Shaft



Hollow Output Shaft

OTS050 ■ OTS063 ■ OTS075

Helical Hypoid Gear Reducer Ratio and Output Speed Guideline (Based on 4Pole Motor, 50Hz)

Gear Reduction Ratio	7.5	10	15	20	25	30	40	50	60	80
Gearbox Output Speed (RPM)	186	140	93	70	56	47	35	28	23	17.5

Gear Reduction Ratio	100	125	150	200	250	300
Gearbox Output Speed (RPM)	14.0	11.2	9.3	7	5.6	4.6

Note :  
For IEC Motor Frame B5 only  
( ) Ratio 300 for OTS075 only



MarelliMotori

# THREE PHASE SQUIRREL CAGE INDUCTION MOTORS

IE1 – MAA SERIES 0.18KW ~ 200KW



B3  
Foot Mounting



B5  
Flange Mounting



B35  
Foot & Flange Mounting



B34  
Foot & Small Flange Mounting



B14  
Small Flange Mounting





# MITSUBISHI INVERTER



## FREQROL Inverters

Rated power 0.4kW ~ 280kW

Mitsubishi with adjustable frequency power supply are designed to easily change the rotation speed of the three phase induction motor.



### FR-A800 series

New & high standard inverter with high-performance and high quality. Enhanced drive performance and easy use while complying with safety standard.

### FR-F800 series

Enhanced next-generation energy saving inverter with functions ideal for fans and pumps.

### FR-E700 series

Top level performer among compact inverters with more persistence and power.

### FR-D700 series

Enhance reliability and integrity with simplified operation and stronger performance.

### FR-CS80 series

Rated Power : 0.4kW ~ 15kW

FR-CS80 Series is the most compact inverter in Mitsubishi Electric. Similar to FR-D700 series, this compact inverter offers a wide variety of general purpose motor speed control applications.

Easy to use inverter with RS-485 communication.

Most compact design of inverter series.

General purpose magnetic flux vector control and auto tuning functions are available. These functions ensure the applications that require high starting torque, such as washing machine, agitators and transfer machines including conveyors, hoists and elevators.

Brake unit can be connected using the terminal P/+ and terminal N/-. It is useful for applications require regenerative braking torque during deceleration, such as transfer machines and food machines.



### Inverter Input Voltage :

- > AC 1ph 170V ~ 264V, 50Hz/60Hz
- > AC 3ph 325V ~ 528V, 50Hz/60Hz
- Inverter Rating : 0.4kW~15kW
- Rated Capacity : 0.9kVA~22.5kVA
- Rated Current : 1.2A~29.5A (Ampere)
- Overload Rating : 150% ~ 200%



**Reduced wiring check time**  
The wiring can be checked easily by lifting the control terminal cover, which make maintenance work easier

# PANASONIC INVERTER



MK300 SERIES : 0.2KW ~ 15KW

ITEM		SPECIFICATION	
Standard output of applicable motor (kW)		0.2 kW to 2.2 kW	0.75 kW to 15 kW
Rated output	Rated voltage	1-phase 200V-250VAC	3-phase 380V-460VAC
	Overload current rating	150% of rated output current, 1 minute (Std Load) Light load specification: 120% of rated output current, 1 minute	
Input power Supply	Phase number/ Voltage/ Frequency	1-phase 200V-230VAC 50Hz/60Hz	3-phase 380V-460VAC 50Hz/60Hz
	Allowable voltage fluctuation	+10% and -15% of rated input AC voltage	
Allowable frequency fluctuation	±5% of rated input frequency		
Instantaneous voltage drop ride-through capability	<ul style="list-style-type: none"> <li>Operation continues when voltage is above 165 VAC.</li> <li>Operation continues for 15ms when voltage drops below 165 VAC</li> </ul>		<ul style="list-style-type: none"> <li>Operation continues when voltage is above 323 VAC.</li> <li>Operation continues for 15ms when voltage drops below 323 VAC</li> </ul>



Portable Keypad  
AEM300-REM1



Step-by-Step Teaching  
of Parameter Setting

### PANASONIC INVERTERS – MK 300 SERIES



Inverter Rating  
0.2kW~0.4kW  
1Phase

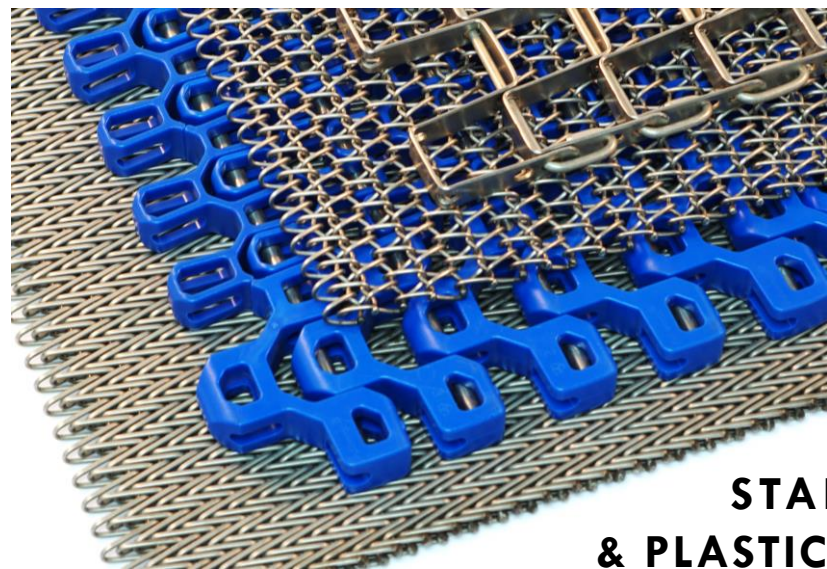
Inverter Rating  
0.75kW~1.5kW  
1Phase / 3Phase

Inverter Rating  
1Phase - 2.2kW  
3Phase - 2.2kW~3.7kW

Inverter Rating  
5.5kW~7.5kW  
3Phase

Inverter Rating  
11kW~15kW  
3Phase





# Ashworth®

THE CONVEYOR BELT EXPERTS  
Winchester - USA

## STAINLESS STEEL WIRE MESH & PLASTIC HYBRID CONVEYOR BELT

Curve & Spiral



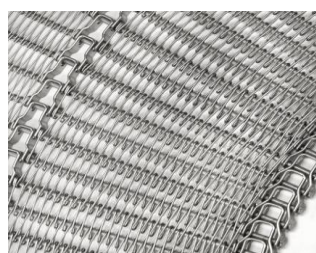
**Omni Pro® 075/100/120/150**  
High tension ratings with maximum service life



**ExactaStack**  
Drop-in replacement self-stacking spiral belt



**Space Saver Omni-Grid®**  
1.7-2.2 turn radius

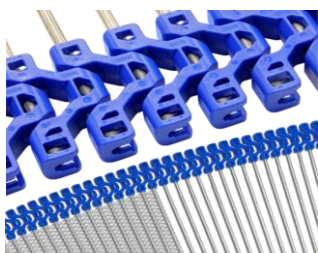


**Super Small Radius Omni-Grid®**  
0.8-1.0 turn radius

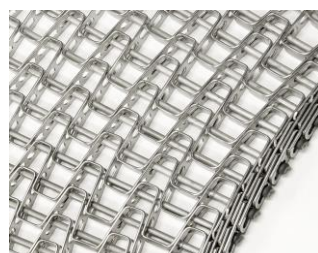
Curve & Spiral



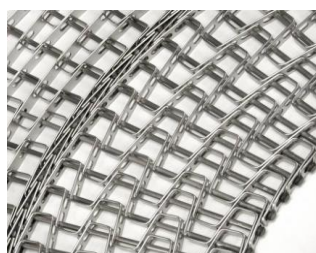
**Advantage 120 & 200**  
The only USDA accepted & NSF certified plastic spiral belt



**Advantage RL75**  
Eliminate costly & unsanitary weld repairs



**Omni Flex®**  
Reliable turn curve & spiral performance

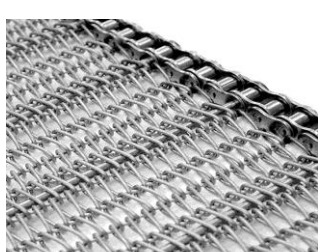


**Small Radius Omni Flex®**  
1.0:1 turn radius

Straight running by positive drive



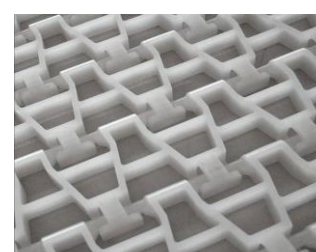
**Cletrac System®**  
Tightest product transfers in the industry



**Positive Drive Chain Edge (PDCE)**



**Flat Wire**  
For can washer

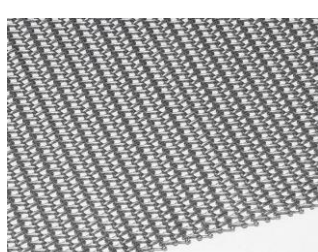


**ChemGuard®**  
Growth resistant hold-down mat for can washer

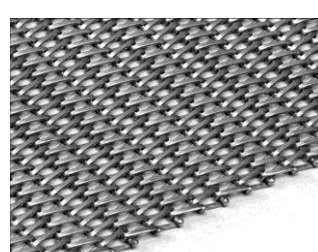
Straight running By friction drive



**Baking Band CB5 & CB3**  
True tracking, long belt life



**Balanced Weave**  
for small products



**Lehr Belt**  
for high temperature oven applications



**Tough Mat**  
For IBO/OBOs and dryers  
Energy efficient



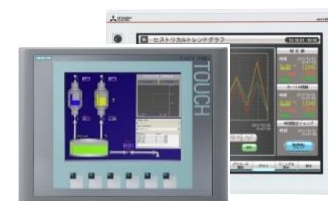
### STANDARD OR CUSTOMIZE, WE HAVE BOTH!

We serve realistic and even customised products and solutions to meet specific demand of your business including competitive product, technical support, effective after sales services & global product sourcing. These are our commitments toward your business, don't you like it!

## MAJOR INDUSTRIAL SUPPLIES & ENGINEERING SERVICES



**AC SERVO MOTOR & DRIVE**  
Mitsubishi • Panasonic • Omron



**TOUCH SCREEN AND HMI**  
Omron • Mitsubishi



**PLC & PROGRAMMING**  
Siemens • Mitsubishi • Siemens



**INVERTER (VFD)**  
Panasonic • Mitsubishi • Siemens



**STEPPER MOTOR & DRIVE**  
Oriental Motor



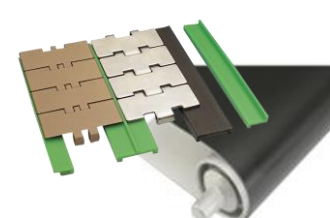
**SPEED CONTROL GEAR MOTOR**  
Oriental Motor • Panasonic • LDS



**BEVEL & HYPOID GEARMOTOR**  
Sumitomo • Nissei • LDS



**CLUTCH & BRAKE UNIT**  
Miki Pulley • Yan Co



**PVC PU PE CONVEYOR BELT  
TEFLON & ROUGH TOP BELT  
PLASTIC & STAINLESS STEEL  
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# PRODUCTS

















OVERVIEW



## HIGH PRECISION SERVO GEAR REDUCER (0.1kW ~ 30kW)

			
<b>DB SERIES PLANETARY SERVOBOX</b>	<b>DB-A SERIES PLANETARY SERVOBOX</b>	<b>ROBONIC DRIVE SERIES (A.K.A. HARMONIC DRIVE)</b>	<b>CYKO DRIVE SERIES (A.K.A CYCLO DRIVE)</b>
			
<b>SE SERIES PLANETARY SERVOBOX</b>	<b>SF SERIES PLANETARY SERVOBOX</b>	<b>SD SERIES ROTARY FLANGE PLANETARY SERVOBOX</b>	<b>SDL SERIES RIGHT ANGLE PLANETARY SERVOBOX</b>
			
<b>ST-FO SERIES SPIRAL BEVEL GEAR SERVOBOX</b>	<b>FT-FO SERIES ULTRA COMPACT SPIRAL BEVEL GEAR SERVOBOX</b>	<b>ST-DN SERIES SERVOBOX WITH SINGLE INPUT SHAFT</b>	<b>ST-DS SERIES SERVOBOX WITH MULTIPLE SHAFT</b>
			
<b>PBT SERIES SPIRAL BEVEL GEAR SERVOBOX</b>	<b>HY-FV SERIES HYPOID BEVEL GEAR SERVOBOX</b>	<b>WEO SERIES ALUMINIUM ALLOY WORM GEAR SERVOBOX</b>	<b>GT SERIES HOLLOW ROTARY ACTUATOR SERVOBOX</b>

## COMPACT GEAR MOTOR (6W ~ 200W)

			
<b>ROUND-SHAFT ELECTRIC MOTOR 2,800 ▪ 1,400 ▪ 900RPM 6W~180W</b>	<b>KEY-SHAFT ELECTRIC MOTOR 2,800 ▪ 1,400 ▪ 900RPM 40W~180W</b>	<b>INDUCTION &amp; REVERSIBLE GEAR MOTOR (CAPACITOR RUN) 6W~180W</b>	<b>INDUCTION GEAR MOTOR (WITH FLANGE GEARHEAD &amp; TERMINAL BOX)</b>
			
<b>COMPACT GEAR MOTOR WITH DECIMAL GEARHEAD GEAR RATIO 1/300 ~1/2400</b>	<b>ELECTRO-MAGNETIC BRAKE GEAR MOTOR (BRAKE 220V) 6W~180W</b>	<b>CLUTCH &amp; BRAKE GEAR MOTOR (CLUTCH &amp; BRAKE DC24V) 40W~180W</b>	<b>HOLLOW SHAFT SPIRAL BEVEL GEAR MOTOR 40W~180W</b>
			
<b>VARIABLE SPEED GEAR MOTOR WITH ANALOGUE CONTROLLER 6W~180W, 1PHASE</b>	<b>VARIABLE SPEED MOTOR WITH ANALOGUE CONTROLLER 6W~180W, 1PHASE</b>	<b>COMPACT GEAR MOTOR WITH COMPACT IGBT INVERTER 25W~200W, 1PHASE</b>	<b>COMPACT SPIRAL BEVEL GEAR MOTOR WITH COMPACT IGBT INVERTER 40W~200W</b>
			
<b>WORM GEAR PACKAGE GEAR REDUCTION RATIO 5~80 40W~180W</b>	<b>WORM GEAR PACKAGE WITH ELECTROMAGNETIC BRAKE 40W~180W</b>	<b>WORM GEAR PACKAGE GEAR REDUCTION RATIO 125~14,400</b>	<b>VARIABLE SPEED GEAR MOTOR WITH ANALOGUE CONTROLLER 40W~180W</b>



















# PRODUCTS





















OVERVIEW



## HELICAL GEAR | HYPOID GEAR | WORM GEAR MOTOR (0.2KW ~ 2.2KW)

			
<b>FH SERIES</b> INTEGRAL HELICAL GEAR MOTOR	<b>FV SERIES</b> INTEGRAL HELICAL GEAR MOTOR	<b>FVA SERIES SMALL FLANGE</b> INTEGRAL HELICAL GEAR MOTOR	<b>LDVF ASYNCHRONOUS MOTOR</b> WITH CLUTCH AND BRAKE DC24V
			
<b>FHB SERIES</b> HELICAL GEAR REDUCER	<b>FVB SERIES</b> HELICAL GEAR REDUCER	<b>DMRV   DMRS SERIES</b> WORM GEAR MOTOR	<b>OTS SERIES</b> HELICAL HYPOID GEAR MOTOR
			
<b>SLDF SERIES</b> HYPOID GEAR MOTOR	<b>SLH SERIES</b> HYPOID GEAR MOTOR	<b>SLHB SERIES</b> HYPOID GEAR REDUCER	<b>SLOFB SERIES</b> HYPOID GEAR REDUCER
			
<b>H-SERIES HEAVY DUTY</b> CAST IRON HELICAL GEAR MOTOR	<b>V-SERIES HEAVY DUTY</b> CAST IRON HELICAL GEAR MOTOR	<b>AS-MO SERIES</b> HEAVY DUTY CAST IRON HYPOID GEAR MOTOR	<b>AS-BO SERIES</b> HEAVY DUTY HYPOID GEAR REDUCER

## BEVEL GEAR | SCREW JACK | WORM GEAR REDUCER (0.2KW ~ 30KW)

			
<b>TH-AW SERIES</b> BEVEL GEAR REDUCER	<b>TH-BW SERIES</b> BEVEL GEAR REDUCER	<b>TH-CW SERIES</b> BEVEL GEAR REDUCER	<b>TH-DW SERIES</b> BEVEL GEAR REDUCER
			
<b>HW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>LW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>LMW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>HMW (MW) SERIES CAST</b> IRON WORM GEAR REDUCER
			
<b>HOM SERIES CAST IRON</b> WORM GEAR REDUCER	<b>HOW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>LOW SERIES CAST IRON</b> WORM GEAR REDUCER	
			
<b>VW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>UW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>VMW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>UMW SERIES CAST IRON</b> WORM GEAR REDUCER
			
<b>VOW SERIES CAST IRON</b> WORM GEAR REDUCER	<b>VOM SERIES CAST IRON</b> WORM GEAR REDUCER	<b>VOWY SERIES</b> CAST IRON SCREW JACK	<b>VOMY SERIES</b> CAST IRON SCREW JACK