

Helicross Gearbox

We chose Helicross gear to design our new gearbox. Our new right-angle gearbox which is produced by patented technology is made with a hollow shaft.



High Durable Casing

Design optimized for Helical gear

Special Steel with advanced heat treatment

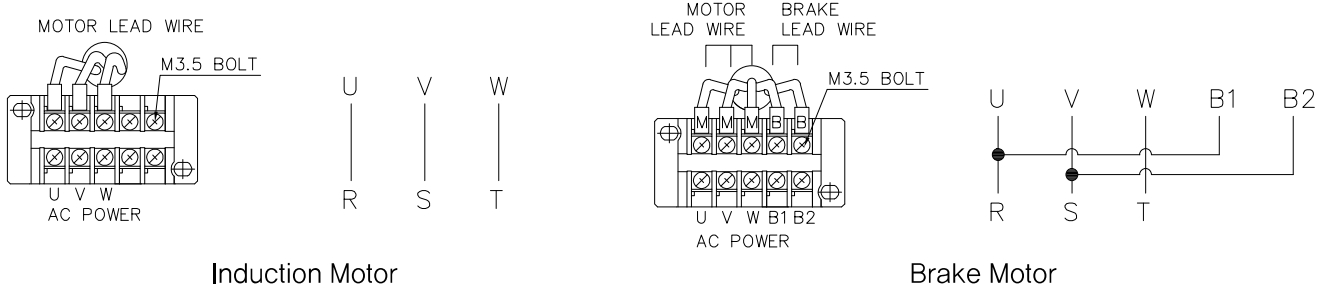
Helical Gear

Cross Gear

Specifications

Item	DSY series
Output	0.1 / 0.2 / 0.4kW
Type	Induction motor / Brake motor
Number of poles	4P
Number of phases	3-phase
Voltage	220~230V, 380~400V, 415~440V
Frequency	50/60Hz
Gear ratio	7.5~60
Rating	Continuous (S1)
Heat resistance class	B Class (130)
Starting method	Direct start
Cooling method	Totally-enclosed fan-cooled type
Degree of protection	IP55(Induction Motor) / IP40(Brake Motor)
Output shaft	Hollow Shaft type
Mounting method	For both flange and face mounting methods
Mounting direction	Installation in any direction
Installation location	Indoor
Ambient temperature	-10°C ~ +40°C
Ambient humidity	85% RH or less
Altitude	1000 m or less above sea level
Brake type	B type, DC spring brake
Lubrication method	Grease lubrication
Paint colour	Glossy Beige

Motor wiring diagram



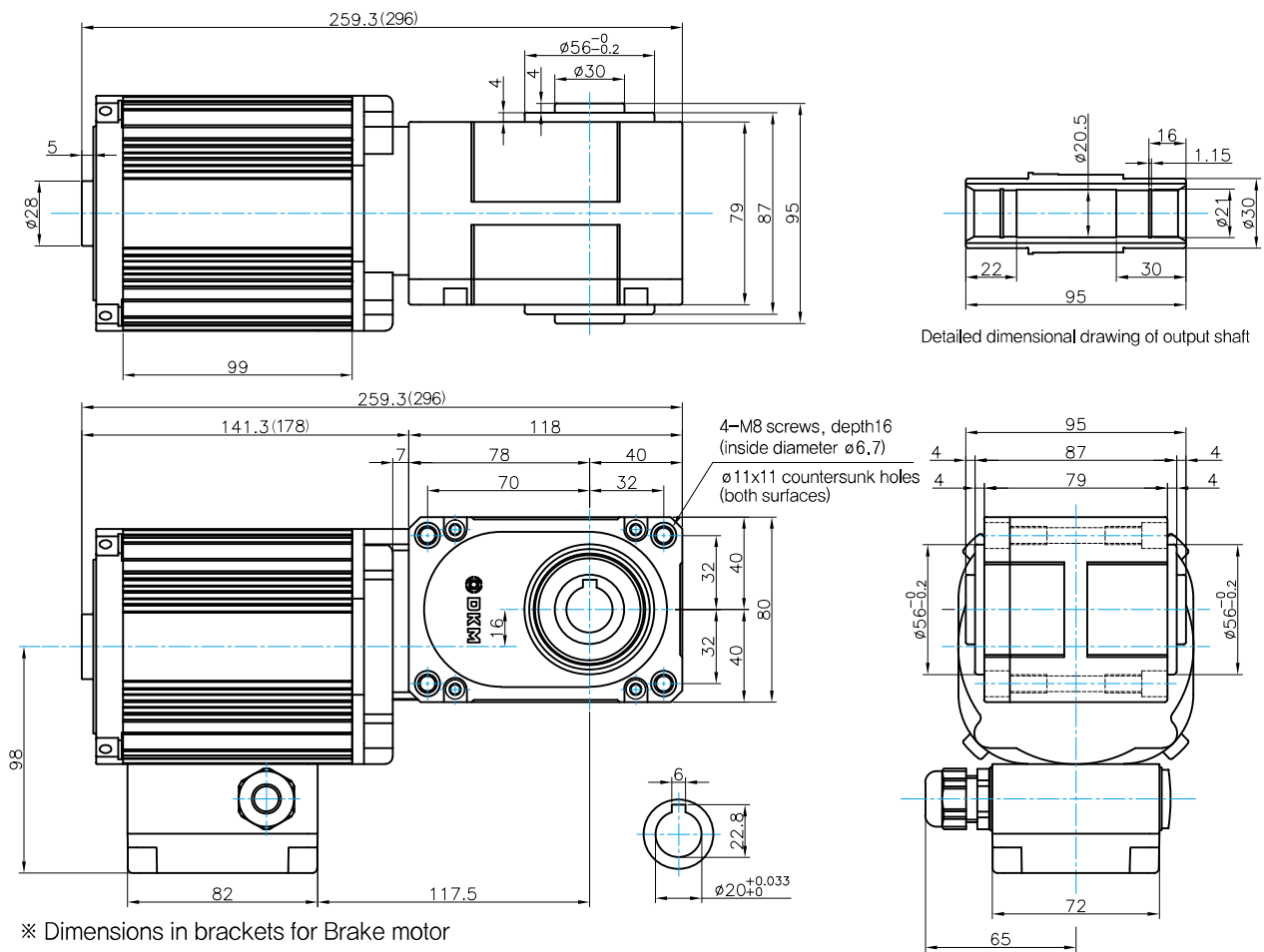
Maximum Permissible Torque

Output	Gear ratio		7.5	10	12.5	15	20	25	30	40	50	60
0.1kW	60Hz	r/min	240	180	144	120	90	72	60	45	36	30
	50Hz		200	150	120	100	75	60	50	37.5	30	25
	60Hz	kgfcm	67.6	90.1	113	135	180	225	270	361	451	541
	50Hz		81.1	100	135	162	216	270	325	433	541	649

※ Revolutions per minute(r/min) is that Synchronous Rotation Speed(50Hz:1500r/min, 60Hz:1800r/min) is divided into gear ratio

※ Actual rotation speed may vary 2~20% slower depending on load

Outline Dimension Drawings DSY 0.1kW gear ratio(7.5:1~30:1)



※ Dimensions in brackets for Brake motor
 ※ Brake input power is the same as motor voltage

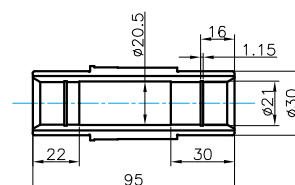
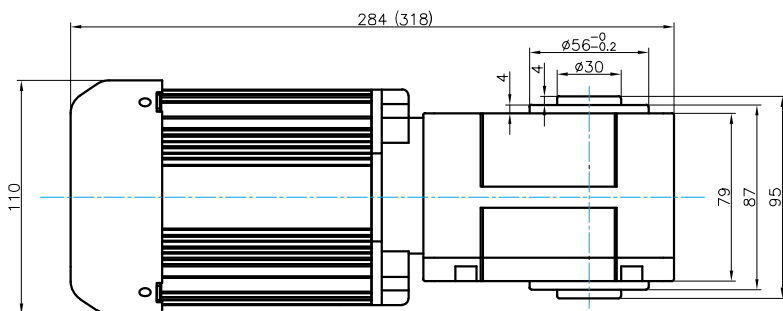
Maximum Permissible Torque

Output	Gear ratio		7.5	10	12.5	15	20	25	30	40	50	60
0.2kW	60Hz	r/min	240	180	144	120	90	72	60	45	36	30
	50Hz		200	150	120	100	75	60	50	37.5	30	25
	60Hz	kgfcm	67.6	90.1	113	135	180	225	270	361	451	541
	50Hz		81.1	100	135	162	216	270	325	433	541	649

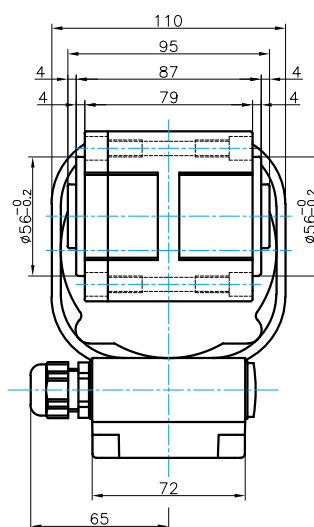
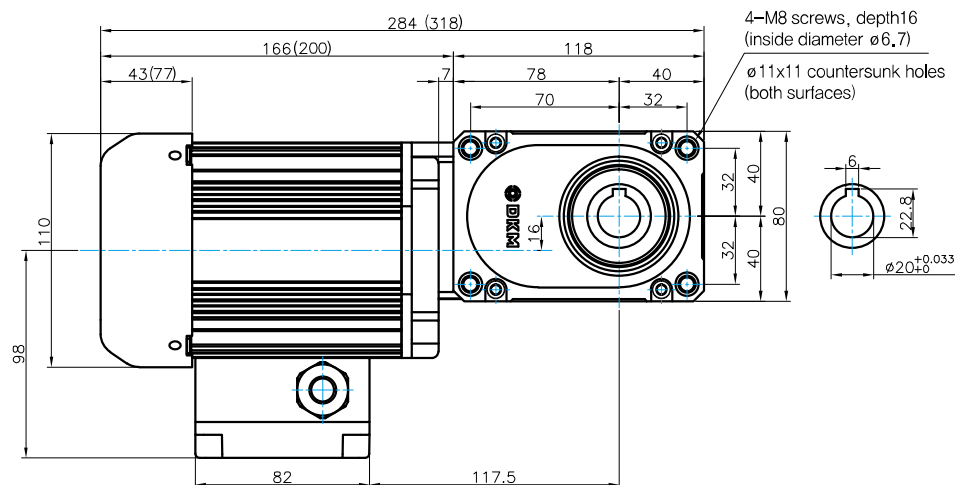
※ Revolutions per minute(r/min) is that Synchronous Rotation Speed(50Hz:1500r/min, 60Hz:1800r/min) is divided into gear ratio

※ Actual rotation speed may vary 2~20% slower depending on load

Outline Dimension Drawings DSY 0.2kW gear ratio(7.5:1~30:1)



Detailed dimensional drawing of output shaft



※ Dimensions in brackets for Brake motor

※ Brake input power is the same as motor voltage

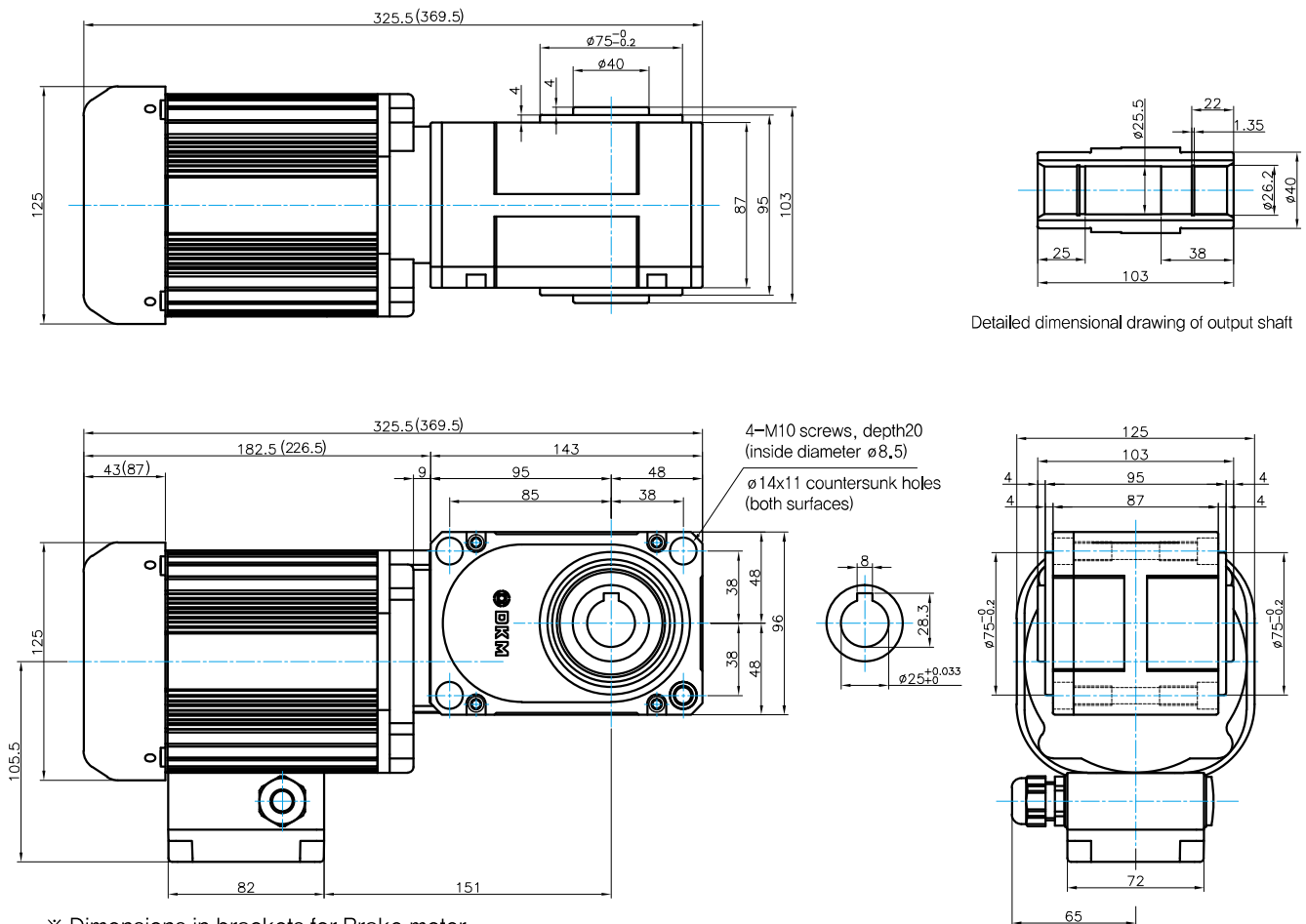
Maximum Permissible Torque

Output	Gear ratio		7.5	10	12.5	15	20	25	30	40	50	60
0.4kW	60Hz	r/min	240	180	144	120	90	72	60	45	36	30
	50Hz		200	150	120	100	75	60	50	37.5	30	25
	60Hz	kgfcm	135	180	225	270	361	451	541	721	901	1082
	50Hz		162	216	270	325	433	541	649	865	1082	1298

※ Revolutions per minute(r/min) is that Synchronous Rotation Speed(50Hz:1500r/min, 60Hz:1800r/min) is divided into gear ratio

※ Actual rotation speed may vary 2~20% slower depending on load

Outline Dimension Drawings DSY 0.4kW gear ratio(7.5:1~30:1)



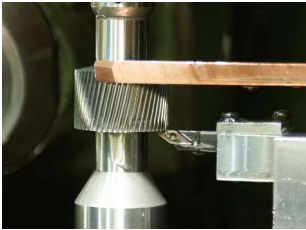
※ Dimensions in brackets for Brake motor

※ Brake input power is the same as motor voltage



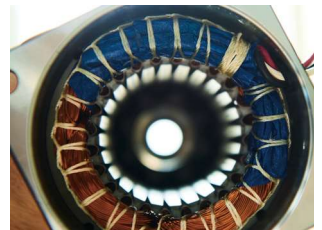
Metalworking Process

We, DKM, have maintained all parts of products from the first step to the end with our knowledge which we have accumulated since our company was founded. We can guarantee high degree of precision and accuracy of all parts of our products since we applied our knowledge to all manufacturing processes like the process with spindle machine, the gear cutting process with hobbing machine, heat treatment and many others.







Assembly and Inspection











As we use our precision machines to assemble all precision parts, we can have an efficient manufacturing process and high-quality control. We have a 3 steps procedure for quality inspections about parts of products and finished products. First inspection for the parts of the products before assembly, Second inspection in an assembly line production, and last inspection after finish assembly of motors and gearboxes.



Classification by Model Of DKM Gearbox

Type		MODEL (□ : Gear ratio)	Product Picture	Gear ratio (n :1)
Parallel gearbox	G type (General type)	6GBD □ MH(BH)		3 / 3.6 / 5 / 6 / 7.5 / 9 / 10 / 12.5 / 15 / 18
				20 / 25 / 30 / 36 / 40
				50 / 60 / 75 / 90 / 100 / 120 / 150 / 180 / 200 / 250
		7GBK □ BMH(BH)		3 / 3.6 / 5 / 6 / 7.5 / 9 / 10 / 12.5 / 15 / 18
				20 / 25 / 30 / 36 / 40
				50 / 60 / 75 / 90 / 100 / 120 / 150 / 180 / 200
		8GBK □ BMH(BH)		3 / 3.6 / 5 / 6 / 7.5 / 9 / 10 / 12.5 / 15 / 18
				20 / 25 / 30
				36 / 40
		9GBK □ BMH(BH)		50 / 60 / 75 / 90 / 100 / 120 / 150 / 180
				200 / 250 / 300 / 360
				2 / 3 / 3.6 / 5 / 6 / 7.5 / 9 / 10 / 12.5 / 15 / 18
	20 / 25 / 30			
	PB type (Powerful Box type) & PF type (Powerful Flange type)	9PBK □ BH 9PFK □ BH		2 / 3 / 3.6 / 5 / 6 / 7.5 / 9 / 10
				12.5 / 15 / 18 / 20
				25 / 30 / 36 / 40 / 50 / 60
75 / 90 / 100 / 120 / 150 / 180 / 200				
HB type (High Powerful Box type) & HF type (High Powerful Flange type)	9HBK □ BH 9HFK □ BH		3 / 3.6 / 5 / 6 / 7.5 / 9 / 10	
			12.5 / 15 / 18 / 20	
			25 / 30 / 36 / 40 / 50 / 60	
			75 / 90 / 100 / 120 / 150 / 180 / 200	
UB type (High Powerful Box type)	10UBK □ BH		3 / 5 / 9	
			10 / 15	
			20 / 25 / 30 / 40 / 50 / 60	
			90 / 100 / 120 / 150 / 180	

Classification by Model Of DKM Gearbox

Type	MODEL (□ : Gear ratio)	Product Picture	Gear ratio (n :1)	
Right angle gearbox	Worm gearbox with Solid shaft	8/9 WD□ BL/ BR/ BRL	 10 / 12 / 15 / 18 / 25 / 30 / 36 / 50 / 60	
	Worm gearbox with Hollow shaft	9WHD□-030		7.5 / 10 / 15 / 20 / 25 / 30 / 40 / 50 / 60 / 80
		9WHD□-040		50 / 60 / 80 / 100
		10WHD□-040		5 / 7.5 / 10 / 15 / 20 / 25 / 30 / 40
	Helicross Gearbox	9HC□-□		15 / 20 / 25 / 30
				40 / 50 / 60
		10HC□-□		80 / 100 / 120
				160 / 200 / 225 / 240
	DSY Series (Induction Motor)	DSY□□-□ N010-□		7.5 / 10 / 12.5 / 15 / 20 / 25 / 30
				40 / 50
				60
		DSY□□-□ N020-□		7.5 / 10 / 12.5 / 15 / 20 / 25 / 30
				40 / 50
				60
	DSY□□-□ N040-□		7.5 / 10 / 12.5 / 15 / 20 / 25 / 30	
40 / 50				
60				
DSY Series (Brake Motor)	DSY□□-□ B010-□		7.5 / 10 / 12.5 / 15 / 20 / 25 / 30	
			40 / 50	
			60	
	DSY□□-□ B020-□		7.5 / 10 / 12.5 / 15 / 20 / 25 / 30	
			40 / 50	
			60	
DSY□□-□ B040-□		7.5 / 10 / 12.5 / 15 / 20 / 25 / 30		
		40 / 50		
		60		

AC MOTORS

<p>Induction Motor</p>	<p>For Continuous Operation</p> <ul style="list-style-type: none"> - Appropriate for one way continuous running - It stops in 2sec after the machine is switched off (Overrun:30~40times) - Possible for reverse rotation 	
<p>2 Pole Motor</p>	<p>For High Speed Rotation</p> <ul style="list-style-type: none"> - 3,600 r/m (60Hz) - 3,000 r/m (50Hz) - Gearbox is not required - Possible for reverse rotation 	<p>Lead Wire type</p>
<p>Reversible Motor</p>	<p>For Bi-Directional Operation</p> <ul style="list-style-type: none"> - built-in simple brake mechanism makes overrun small - Appropriate for the machine which needs to change the direction frequently - Fixed speed operation + simple position control (Position control level : ★☆☆☆☆) - It stops in 0.5 sec after the machine is switched off(Overrun:5~6 times) - Possible for reverse rotation 	 <p>Terminal Box type</p>
<p>Brake Motor</p>	<p>For maintaining load</p> <ul style="list-style-type: none"> - Motor with a brake to stop and hold a load - Fixed speed operation + simple position control (Position control level : ★★☆☆☆) - It stops in 0.2 sec after the machine is switched off (Overrun:2~3times) - Possible for reverse rotation 	
<p>Clutch & Brake Motor</p>	<p>For Frequent Start/Stop Operation</p> <ul style="list-style-type: none"> - Structure with an internal clutch and brake mechanism - Fixed speed operation + simple position control (Position control level : ★★★☆☆) - It stops in 0.1 sec after the machine is switched off(Overrun:1time) - Used always with a Gearbox 	
<p>Torque Motor</p>	<p>For Torque Adjustment with ease</p> <ul style="list-style-type: none"> - Suitable for Tension Control or Winding and Unwinding Applications - Motor Torque can be adjusted with ease by using torque controller - Possible for reverse rotation - Torque controller : DX3000, FX3000 	<div style="display: flex; justify-content: space-around;"> <div data-bbox="1002 1249 1082 1350">  <p>FX3000</p> <ul style="list-style-type: none"> - Including control knob (Digital display) - Equipped with internal condenser - Speed or Torque control </div> <div data-bbox="1002 1368 1082 1469">  <p>DX3000</p> <ul style="list-style-type: none"> - RS-485 communication control - PLC I/O control - Speed and Torque Control - DIN Rail Type </div> </div> 
<p>Speed Control Induction Motor Speed Control Reversible Motor Speed Control Brake Motor Speed Control Clutch&Brake Motor</p>	<p>- Speed control motor allows you to set and adjust the speed of the motor easily by using speed controller</p> <p>- Speed Controller: FX3000, DX3000, DSA, DSKM</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div data-bbox="627 1615 754 1771">  <p>FX3000</p> <ul style="list-style-type: none"> - Including control knob (Digital display) - Equipped with internal condenser - Speed or Torque control </div> <div data-bbox="810 1608 911 1771">  <p>DX3000</p> <ul style="list-style-type: none"> - RS-485 communication control - PLC I/O control - Speed or Torque Control - DIN Rail Type </div> <div data-bbox="1002 1615 1145 1771">  <p>DSA</p> <ul style="list-style-type: none"> - Including control knob (Analog type) - Unit Type (Connecting the motor with using connector) </div> <div data-bbox="1198 1563 1385 1783">  <p>DSKM</p> <ul style="list-style-type: none"> - Including control knob - Possible to be used with external volume controller - Socket type (wiring a motor to a socket) </div> </div>	 

D-cut, Key Type Shaft Motor (Motor Only)



Helical Gear Type Shaft Motor (Connect with G, P, H, U Type Gearbox)



Right Angle Type Shaft Gearbox (WD, WH, HC Series)



The Global leader in Electric Motor Industry

Global sales network from over 50 countries around the world, including Germany and US
Fast response and International delivery for worldwide



DKM
motor & gearbox

AC/DC Geared Motor and Gearbox

