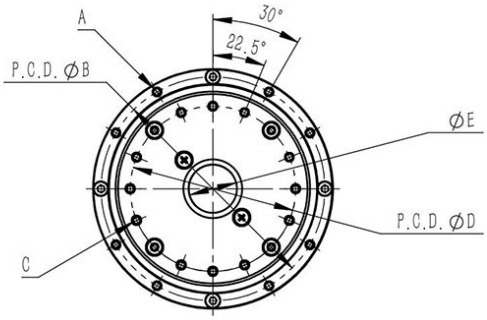
KCERM-R90 Module Series

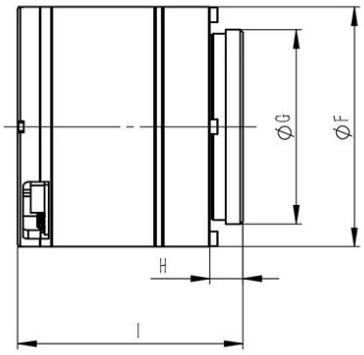
The product can effectively replace some direct-drive motors and hollow rotary platformsRotating actuators such as precision cam splitters and servo-integrated high-ratio planetary reducers.The harmonic reducer is combined with a standard servo motor or a stepper motor.

Feature

In the field of collaborative robots,Further reduce the volume and weight of the robot joint module,Implement a highly integrated transmission joint module solution

Drawing





Naming resolution

K	CE	RM	R90	100	18	B	S	C	N
Product coding	Integration	Joint Module	Specifications	reduction ratio	Inner diameter	Is there a brake	Encoder type	contact method	torque sensor

Product size specification table(mm)

	A	B	C	D	E	F	G	H	I
R90	8-ϕ3.5 T22 EQS M3T8	84	12-ϕ3.5 T12 EQS M3T10	62	18	90	73	12.5	84.5
Deviation	–	–	–	–	–	0 -0.03	0 -0.03	–	–
Weight (kg)	No brakes: 1.55Kg Equipped with brakes: 1.65Kg (friction damping brake)								

Parameter Table 1

Model		R90				
Speed ratio	–	50	80	100	120	160
Input the rated torque at 2000r/min	Nm	33	44	52	52	52
	kgfm	3.3	4.4	5.2	5.2	5.2
Allowable peak torque during start-stop	Nm	73	96	107	113	120
	kgfm	7.3	9.6	10.7	11.3	12.0
Allowable maximum torque of average load torque	Nm	44	61	64	64	64
	kgfm	4.4	6.1	6.4	6.4	6.4
Instantaneous allowable maximum input torque	Nm	127	165	191	191	191
	kgfm	12.7	16.5	19.1	19.1	19.1
Maximum allowable input speed (grease lubrication)	r/min	6000				
Allowable average input speed (grease lubrication)	r/min	3500				
Maximum allowable rotational speed at the output end	RPM	70	43	35	29	21
Backlash	Arc Sec	⩽30			⩽25	
Design life	Hour	15000			12000	

Parameter Table 2

Model	R90		
Brake parameters	Static torsion	Nm	≥1.0
	Braking response time	ms	80
	Disconnect response time	ms	50
Encoder parameters	position loop	bit	19
	speed loop	bit	20
Motor parameters	rated power	w	366
	rated speed	RPM	3500
	rated torque	Nm	1.0
	peak torque	Nm	3.0
Driver parameters	communication interface	–	EtherCAT/CANOpen
	Control bandwidth	–	Current loop: 50KHz Speed loop: 10KHz
	protection function	–	Reverse connection, overheating, short circuit Overvoltage, undervoltage, self check