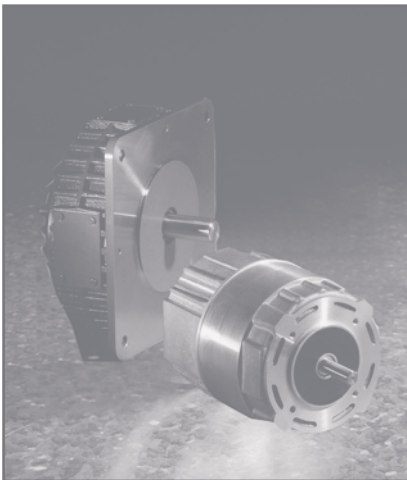




## GR Series



*A rugged range of powerful, extremely accurate d.c. servo motors, ideal for applications where an exceptionally robust motor casing is demanded.*

Incorporating all the benefits of flat armature technology, the GR series can be readily adapted to suit customer's specific application requirements. This includes the addition of a wide range of standard ancillaries.

- 3 sizes
- 5 Models

#### DESIGN OPTIONS

- Fixings/flange to IEC72, or BS
- Tachos, brakes, encoders, gearboxes, etc.
- Shaft fixings - taper, key, flat. thread, pin-hole
- Tailored performance profiles
- Custom engineered units
- Rear case extension to house ancillaries

#### MATERIAL AND FINISH

*Casing/End plates* cast aluminium  
*Bearings* ABEC 3  
*Connections* flying leads

#### STANDARD BENEFITS

- High torque
- Zero cogging
- Ultra slow/ creep capability
- Low inertia
- Instant start torque
- High power output
- Low inductance
- Robust construction
- EMC compliant

#### GR-T SERIES (WITH INTEGRAL TACHO)

A tachometer can be fitted within the GR extended outer casing combined with a solenoid brake. For tachometer output performance, select a G-Tacho 9 or 12 model as required.

#### TYPICAL APPLICATIONS

- Strength testing
- Wire eroding
- Winding machines
- Industrial/automated machinery
- Process plant/equipment
- Fluid pumps/valves

For further information ►



# GR Series

## PERFORMANCE DATA

TEST DETAIL			GR SERIES MOTOR TEST RESULTS				
MOTOR RATINGS	SYMBOL	UNIT	GR12C	GR12CH	GR16C	GR16CH	GR19CH
Power	P	Watt	270	420	720	320	800
Torque	T	Ncm	86.1	133.4	229.5	334	320
Speed	N	rpm	3000	3000	3000	3000	3000
Voltage	V	Volt	44.5	63.8	86.9	128.7	83
Current	I	Amp	8.62	8.36	10.34	9.55	14.4
Continuous Stall Current	IS	Amp	5.2	5.0	6.2	5.7	8.6

MOTOR CONSTANTS	SYMBOL	UNIT	GR12C	GR12CH	GR16C	GR16CH	GR19CH
Torque	Kt	Ncm/Amp	10.8	17.0	23.7	37.3	24.0
EMF	Ke	V/krpm4.9	11.3	17.8	24.8	39.0	25.0
Damping	Kd	Ncm/krpm	1.16	1.95	3.57	6.44	7.76
Friction Torque	Tf	Ncm	4.2	4.2	7.7	7.7	9.8
Terminal Resistance @ 5A	Rm	Ohm	0.95	0.95	0.95	0.95	0.65
Rotor Moment of Inertia	J	kg.cm <sup>2</sup>	1.2	1.2	5.93	5.93	12.71

## PERFORMANCE CHARACTERISTICS AND DATA

## DIMENSION GUIDES

\* Weight shown is for motor only, in kg.  
All dimensions in mm.

MOTOR TYPE	DIMENSIONS													
	A	B	C	D	E	F1	F2	F3	F4	F5	G	H	J	Wt*
GR12	142	95j6	14j6	34	3	97	124	190	180	244	M8	10	115	2.8
GR12CH	142	95j6	14j6	34	3	118	145	210	200	265	M8	10	115	3.6
GM16C	187	95j6	14j6	34	3.5	108	137	225	206	271	M8	15	115	6.1
GM16CH	187	110j6	16j6	40	3.5	133	162	250	232	298	M8	15	130	8.0
GM19CH	230	130j6	24j6	54	3.5	110	162	253	235	300	M8	11	165	15.9

