TORQUE MOTOR RM24-120-20-C-ES1

RUCH SERVOMOTOR
Direct drive systems

TORQUE MOTOR RM24-120-20-C-ES1 - DIRECT DRIVE SYSTEMS

Application:

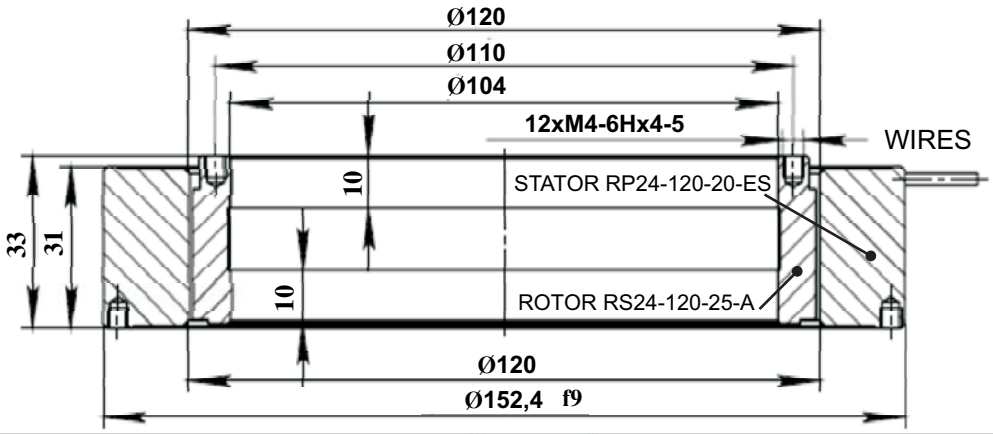
Indexing tables and gimbals for mobile applications with battery supply.

Construction:

Motor consist of a fixed lamination stack with epoxy molded windings (stator) and rotated steel ring with glued permanent magnets (rotor).
User should install bearing and encoder.
Motor is compatible with standard servo controllers.

Features:

- Iron-core three-phase rotary synchronous motor with rare-earth magnets for high force density;
- Direct drive (no gear, no backlash), small height 33 mm with big hollow shaft (104 mm) ;
- Low weight 1,6kg, easy centering by fit diameters and mounting by thread holes.



		RM24-120-20-C...	
Parameter	Unit	-ES1	-ET1
Number of pole pairs		14	14
Peak torque Mp	Nm	12.4	12.4
Continuos torque Ma (coil at 120° C), air cooling	Nm	8.8	8.8
Peak current Ip at Mp	Arms	10.6	18.4
Continuos current Ia at Ma (coil at 120° C), air cooling	Arms	7.6	13.1
Inductance L	mH	2.2	0.8
Resistance R	Ohm	1.2	0.4
Maximum velocity Np at Mp and 28 VDC	rpm	56	259
Maximum velocity Na at Ma and 28 VDC	rpm	120	324
Inertia of rotor Jr	$kg \cdot m^2$	0.0014	0.0014
Rotor mass	kg	0.5	0.5
Stator mass	kg	1.1	1.1
Motor height	mm	33	33
Peak mechanical power Pmp	W	73	335
Torque constant Km	Nm/Arms	1.2	0.7
Attraction force radial Fr	N/mm	244	244
Max. attraction force axial Fa	N	1536	1536
Continuous electrical power Pea, air cooling	W	259	447
Continuous mechanical power Pma, air cooling	W	111	299
Peak electrical power Pep	W	379	704
Efficiency Ea at Ma and Us	%	43	67

ORDER EXAMPLE:
Stator **RP24-120-20-C-ES1-3000-N0-A,** where **RP24**-type, **120**-inner diameter of stator, **20**-iron core height, **C**–air cooling, **E**-winding wire code, **S** or **T**–internal star or triangle connection, **1**-number of parallel coils, **3000**-stator wire length mm, **N0**-without motor connector (flying leads), **A**-wires radial.
Rotor **RS24-120-25-A**, where **RS24**-type, **120**-inner diameter of stator, **25**-magnet height, **A**- standard.

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