

# Series-wound AC-DC motor

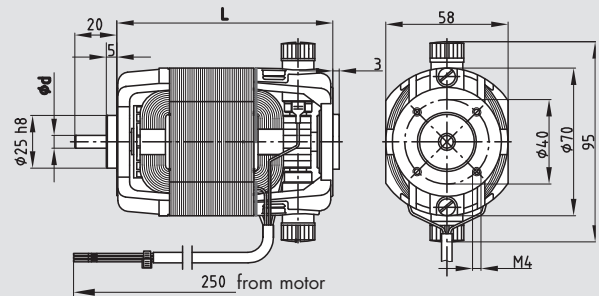
**Model:** (Standard)  
**Connection:** 230 V / 50 Hz AC system  
 Optional design for 110 V / 60 Hz  
 Optional design for direct current  
 Cable connection, optional plug-in connector  
**Commutation:** Mechanical commutation using a 24-part commutator  
**Magnetic system:** Soft magnetic stator ring with two stimulation coils  
**Service life:** 2,000 h, S1 duty  
**Insulation mat. class:** B, optional F  
**System of protection:** IP 00 (open design)  
**Special model:** Design for short-time duty with high performance,  
 Additional voltages and speeds upon request  
**Options:** Special shafts, custom designed



Type	Name	U	Volt	U 7030	U7030	U7050	U 7050
	Nominal voltages			24 (DC)	230 (AC)	24 (DC)	230 (AC)
<b>Rate</b>	Nominal power	$P_2$	W	90	98	130	77
	Nominal speed	$n_{nom}$	rpm	9,000	9,300	9,000	6,200
	Nominal torque	$T_{nom}$	cNm	10	10	14	12
	Nominal current	$I_{nom}$	A	6,7	0,9	8,4	0,9
	Accelerating torque	$T_A$	cNm	35	55	100	40
<b>Characteristics</b>	Nominal efficiency	$\eta$	%	56	51	65	52
<b>Connection</b>	Terminal resistance	R	Ohm	8.0	60.0	4.0	66.0
	Input power	P1	W	160	192	200	149
<b>Dynamics</b>	Weight	m	kg	0.9	0.9	1.3	1.3
	Moment of inertia	J	gcm <sup>2</sup>	306	306	423	423
	Mech. time constant	$t_M$	ms	90	90	186	186
<b>Thermal</b>	Adm. ambient temperature	T	°C	-20 to +40	-20 to +40	-20 to +40	-20 to +40
	Max. adm. rotor temperature	$T_{max}$	°C	+120	+120	+120	+120
<b>Coupling</b>	Shaft diameter	d	mm	6	6	6	6
	Max. axial force	$F_a$	N	8	8	8	8
	Radial force max.	$F_r$	N	100	100	100	100

**Dimensions - Characteristics**

Type	L / mm
U7030	82.5
U7050	112.5



**System technology (table next page)**

<b>Recommended combinations</b>	Worm gear	upon request
	Spur gear	upon request
	Planetary gear	upon request
	Rotary encoder	upon request
	Brake	upon request
	Electronics	upon request