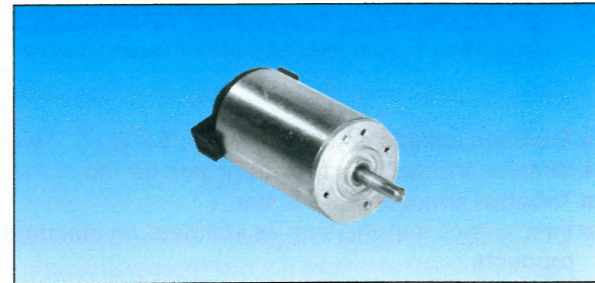


# D.C. direct drive motors Ø 42 and 63 mm

- For high-power drive applications
- Maximum usable power : from 14 to 67 W
- Ø 42 mm : Sintered bronze bearings lubricated for life  
Supply connection by 4.75 mm tags  
Replaceable brushes
- Ø 63 mm : With 2 ball bearings  
Supply connection by 2 leads



## Applications

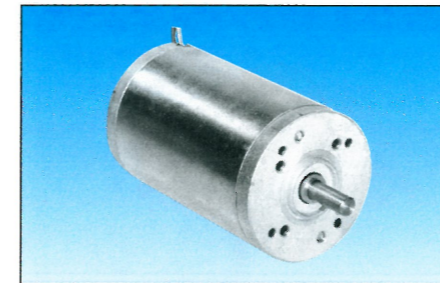
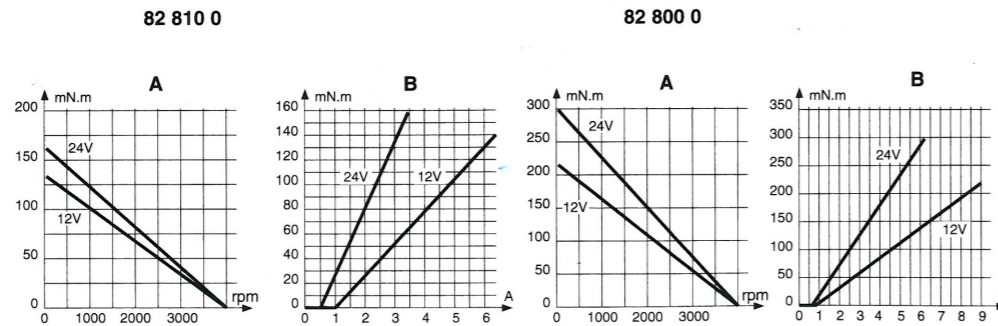
- Gas analysers
- Pumps/vacuum devices
- Cash registers
- Printers
- Mixers for automatic drink dispensers
- Compressors
- Spindle drives for engraving machines
- Document sorters
- Automatic swimming-pool cleaners
- Filtering systems
- Water circulators for whirlpool baths
- Paper drives for photocopiers
- Opening/closing of automatic doors
- Machines for making spectacle lenses

## Made to order products, available on request

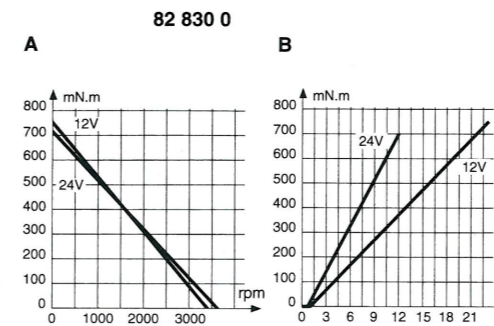
- integrated interference suppression (82 830 5)
- specific interference suppression (82 800 5 - 82 810 5)
- other supply voltages
- motor with 1 front ball bearing (82 800 5 or 82 810 5)
- shaft lengths at front and/or rear
- magnetic encoder 5 pulses per revolution
- magnetic encoder with 2 directions of rotation (1 or 5 pulses per revolution)
- other front and rear fixing plates
- short version possible on 82 830 5 (L = 90 mm)

Types		82 810 5	82 810 5	82 800 5	82 800 5
Nominal voltage		12 V	24 V	12V	24 V
Part numbers		82 810 501	82 810 502	82 800 501	82 800 502
<b>Standard characteristics</b>					
Speed	rpm	3840	3860	3920	4010
Absorbed power	W	12	11.28	9.96	12.24
Absorbed current	A	1	0.47	0.83	0.51
<b>Characteristics - nominal</b>					
Speed	rpm	2580	2750	2670	3070
Torque	mN.m	45	45	70	70
Output power	W	12	13	22	22
Absorbed power	W	31	32	37	41
Absorbed current	A	2.6	1.32	3.05	1.71
Gearbox case temperature rise	°C	32	33	38	40
Efficiency	%	39	40.8	53.3	54.8
<b>General characteristics</b>					
Insulation class (conforming to IEC 85)	F	F	F	F	F
	(155 °C)	(155 °C)	(155 °C)	(155 °C)	(155 °C)
Degree of protection	IP20	IP20	IP20	IP20	IP20
Maximum usable power	W	14	16	22	31
Start torque	mN.m	138	156	219	298
Start current	A	6.2	3.4	9	6.16
Resistance	Ω	1.94	7.06	1.33	3.9
Resistance : inductive	mH	4.45	16.94	2.67	9.35
Torque constant	Nm/A	0.0265	0.0532	0.0268	0.0527
Electrical time constant	ms	2.3	2.4	2	2.4
Mechanical time constant	ms	26	23	20	15
Thermal time constant	min	8	8	12	12
Inertia	g.cm <sup>2</sup>	80	72	105	110
Weight	g	310	310	400	400
No of segments	8	8	8	8	8
Life	hr	2000	2000	2000	2000
Sintered bronze bearings		•	•	•	•
Ball bearings		—	—	—	—
Replaceable brushes	mm	•	•	•	•
Lead length (approx.)		—	—	—	—
<b>Motors with encoder, non stocked</b>					
Magnetic encoder 1 pulse per revolution following SP 1737.00 (see dimensions)		82 810 504	82 810 505	82 800 504	82 800 505

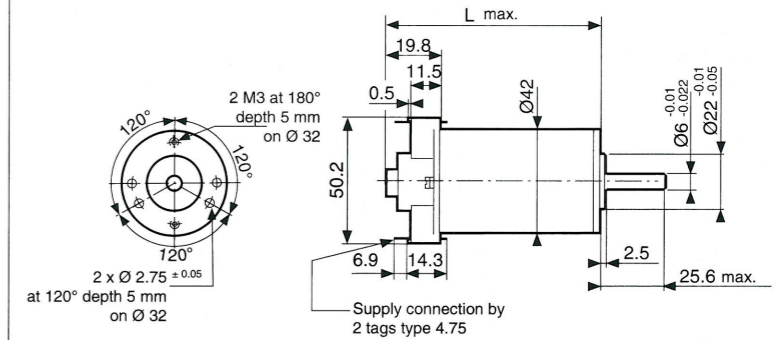
A - Torque/Speed curves  
B - Torque/Current curves



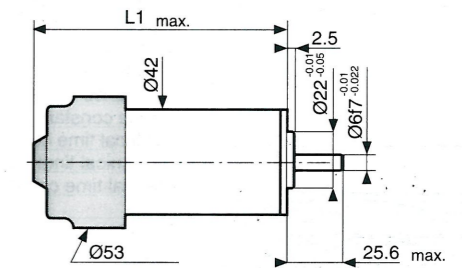
Types		82 830 5	82 830 5
Nominal voltage		12 V	24 V
Part numbers		82 830 501	82 830 502
<b>Standard characteristics</b>			
Speed	rpm	3400	3660
Absorbed power	W	12.6	12
Absorbed current	A	1.05	0.5
<b>Characteristics - nominal</b>			
Speed	rpm	2630	2770
Torque	mN.m	170	170
Output power	W	47	50
Absorbed power	W	72	72
Absorbed current	A	6	3
Gearbox case temperature rise	°C	46	50
Efficiency	%	65	68.5
<b>General characteristics</b>			
Insulation class (conforming to IEC 85)	F	F	F
	(155 °C)	(155 °C)	(155 °C)
Degree of protection	IP20	IP20	IP20
Maximum usable power	W	67	67
Start torque	mN.m	750	700
Start current	A	23.1	11.8
Resistance	Ω	0.52	2.03
Resistance : inductive	mH	1.19	4.68
Torque constant	Nm/A	0.034	0.0619
Electrical time constant	ms	2.3	2.3
Mechanical time constant	ms	33	33
Thermal time constant	min	20	18
Inertia	g.cm <sup>2</sup>	520	500
Weight	g	840	840
No of segments	12	12	12
Life	hr	4000	4000
Sintered bronze bearings		—	—
Ball bearings		•	•
Replaceable brushes	mm	—	—
Lead length (approx.)		200	200



Dimensions :  
82 800 5 - 82 810 5 standard

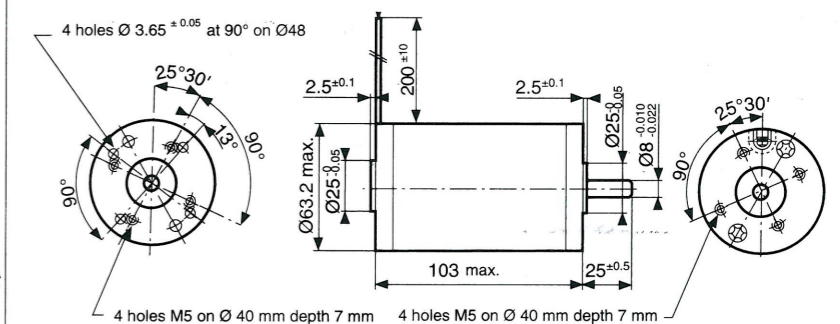


Dimensions with magnetic encoder (see p.1/41 for connections)



Type	L max. (mm)	L1 max. (mm)
82 800 5	84.8	99.1
82 810 5	69.8	84.1

82 830 5 standard



To order, specify :

Standard products, non stocked

1 Part number  
Example : D.C. direct drive motor - 82 810 501 or D.C. direct drive motor - with encoder 82 810 504