

D.C. direct drive brushed motors

→ Ø 42 mm 22 to 52 Watts

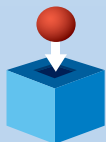
- A range of small D.C. direct-drive brushed motors with a case diameter of 42 mm and between 22 and 52 Watts output power. Available in either 12 or 24 V D.C. versions.
- Sintered bronze bearings lubricated for life
- Supply connection by 2 leads



Specifications

	22 Watts	31 Watts	42 Watts	52 Watts
Type	82 800 8	82 800 8	82 850 0	82 850 0
Voltage	12 V	24 V	12 V	24 V
Part numbers	82 800 801	82 800 802	82 850 001	82 850 002
No-load characteristics				
Speed of rotation (rpm)	3920	4010	4150	4050
Absorbed power (W)	9.96	12.24	7.32	7.44
Absorbed current (A)	0.83	0.51	0.61	0.31
Nominal characteristics				
Speed (rpm)	2670	3070	3100	3200
Torque (mN.m)	70	70	100	100
Usable power (W)	20	22	32.5	33.5
Absorbed power (W)	37	41	51	52
Absorbed current (A)	3.05	1.71	4.25	2.15
Gearbox case temperature rise (°C)	38	40	63	54
Efficiency (%)	54	54	63	64
General characteristics				
Insulation class (conforming to IEC 85)	F (155 °C)	F (155 °C)	F (155 °C)	F (155 °C)
Protection (IEC 529) Terminal	IP20	IP20	IP20	IP20
Max. output (W)	22	31	42	52
Start torque (mN.m)	219	298	390	490
Starting current (A)	9	6.16	14.8	9.6
Resistance (Ω)	1.33	3.9	0.81	2.5
Inductance (mH)	2.67	9.35	0.7	2.5
Torque constant (Nm/A)	0.0268	0.0527	0.027	0.052
Electrical time constant (ms)	2	2.4	0.85	1
Mechanical time constant (ms)	20	15	16	13
Thermal time constant (min)	12	12	26	21
Inertia (g.cm ²)	105	110	140	140
Weight (g)	400	400	640	640
No of segments	8	8	8	8
Service life (h)	3000	3000	3000	3000
Sintered bronze bearings	✓	✓	✓	✓
Wires length (mm)	200	200	200	200

Product adaptations



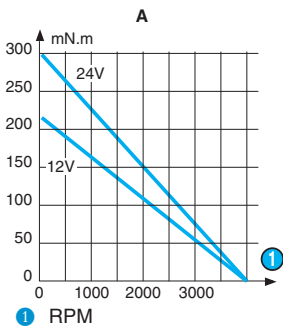
- Special output shafts
- Pinion or bush on output shaft
- Special supply voltages
- Special cable lengths
- Special output bearings
- Optional encoder
- Special mounting plate
- Customised electronics
- Special connectors

To order, see page 13

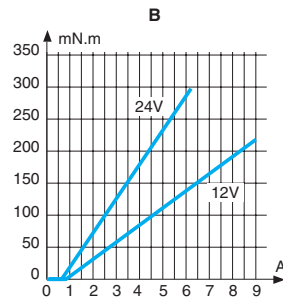
Curves

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

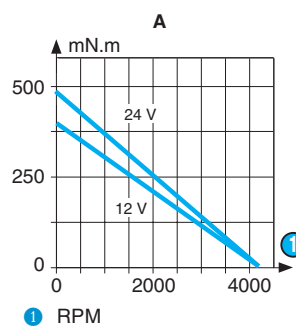
82 800 8



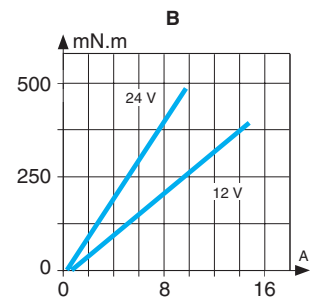
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82 850 0

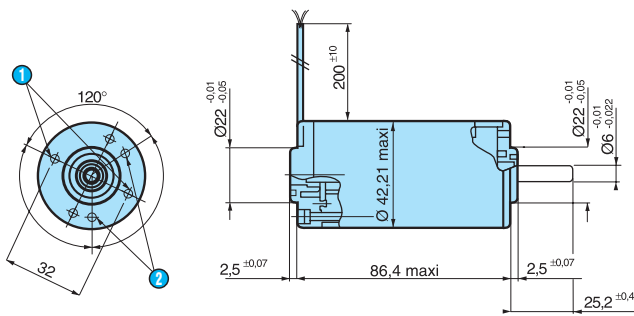


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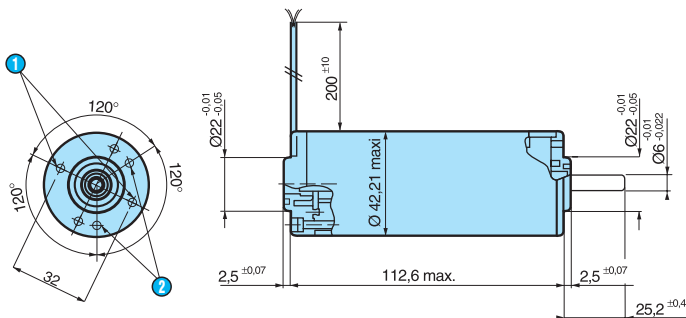
Dimensions

82 800 8



- 1 2 holes M3 x 0.5 at 180° depth 5 on $\varnothing 32$
- 2 2 holes 2.75 ± 0.05 at 120° depth 5 mm on $\varnothing 32$
- 3 2 holes M3 x 0.5 at 180° depth 5.5 on $\varnothing 32$
- 4 2 holes M3 x 0.5 at 120° depth 5.5 on $\varnothing 32$

82 850 0



- 1 2 holes M3 x 0.5 at 180° depth 5 mm on $\varnothing 32$
- 2 2 holes 2.75 ± 0.05 at 120° depth 5 mm on $\varnothing 32$
- 3 2 holes M3 x 0.5 at 180° depth 5.5 mm on $\varnothing 32$
- 4 2 holes M3 x 0.5 at 120° depth 5.5 mm on $\varnothing 32$