

# Guide to selecting motomate brushless with controller

## Right angle gearbox

<b>Gearbox</b>		<b>Max. torque (Nm)</b>		<b>1</b>	<b>1.7</b>	<b>2.9</b>
<b>Motors direct drive (Nm)</b>						
Usable Power (W)	Nominal torque (Nm)	Nominal speed (rpm)	Supply voltage (V)	Motor type dimensions (mm)		
<b>80</b>	240	3250	24	▶ p.88 80 080 57x57	▶ p.88 80 081  650 rpm	▶ p.88 80 081  325 rpm
					▶ p.88 80 081  163 rpm	

## Planetary gearbox

<b>Gearbox</b>		<b>Max. torque (Nm)</b>		<b>1</b>	<b>4.5</b>	<b>20</b>
<b>Motors direct drive (Nm)</b>						
Usable Power (W)	Nominal torque (Nm)	Nominal speed (rpm)	Supply voltage (V)	Motor type dimensions (mm)		
<b>30</b>	240	3250	24	▶ p.88 80 080 57x57	▶ p.88 80 089  650 rpm	▶ p.88 80 089  120 rpm
					▶ p.88 80 089  23 rpm	

### Choice of gearbox according to mechanical criteria

<b>Right angle</b>	Perpendicular output Silence (<53 dB) Non-reversible from R = 30	<b>Planetary</b>	Output in shaft Increased efficiency Reversible
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### Selection of a geared motor

A geared motor is selected according to the required usable power output.

$$\text{Usable Power (W)} = \frac{2\pi}{60} C \cdot n \cdot \text{Torque (Nm)} \cdot \text{Speed (rpm)}$$

A geared motor must have usable power equal to or greater than the power required to rotate the load. It is selected by checking that the point corresponding to the required operating conditions (torque and speed output) is higher than the nominal torque versus speed curve of the geared motor. The required torque output of a geared motor must be within its maximum recommended torque for continuous duty.



3.4

3.5

▶ p.88 80 081  65 rpm	▶ p.88 80 081  108 rpm
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