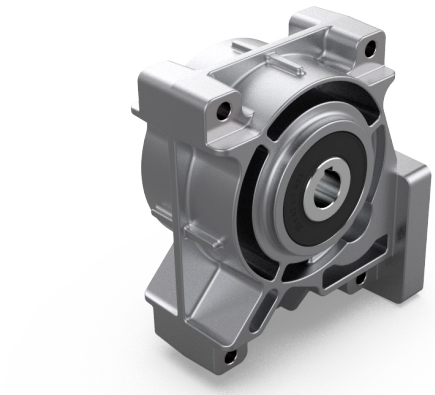
GB65 Product Overview

60:1 - 160:1 ratio // 300.0 Nm

parvalux by maxon



Overview

The GB65 right angled gearbox offers powerful torque up to 300Nm, with high radial loads in a compact design..

The two stage, high efficiency design gives low noise and vibration, it is designed for market applications such as:

- **Agriculture;** milking robots and farming robots
- **Medical;** stairlifts, patient hoists and elevators
- **Warehouse Automation;** AGVs, shuttles, palletising robots, conveyors, and sorting machines

Gearbox Design

The GB65 delivers up to 300Nm torque and high radial loads of over 2300N.

Supports shaft diameters of up to 35mm and hollow shafts up to 20mm. The gearbox has ratio options of 60:1, 80:1, 100:1, 120:1 and 160:1.

With peak efficiencies of upto 75% it has a coupling driven input interface, and delivers low backlash at sub 35 arc minutes.

Fully sealed & lubricated for life using a synthetic oil lubrication it is housed within a metal enclosure and sealed to IP67, protecting it from dust particles and water. Capable of operating between -30°C and +100°C, with an ambient temperature of +40°C.

The gearbox can be combined with Parvalux motors including the BRx90, PM90 brushed, and PBL86 brushless, as well as maxon EC90 flat brushless as part of an overall system.

Features at a glance

- Delivers up to 300 Nm torque
- High radial loads over 2300N
- Steel & bronze gears
- Fully sealed & lubricated for life
- Compatible with Parvalux PRx90, PBL86, PM90 & maxon EC90 motors

Market sectors

Agriculture

Medical

Warehouse Automation

GB65 Right-angle gearbox // Steel / bronze gears

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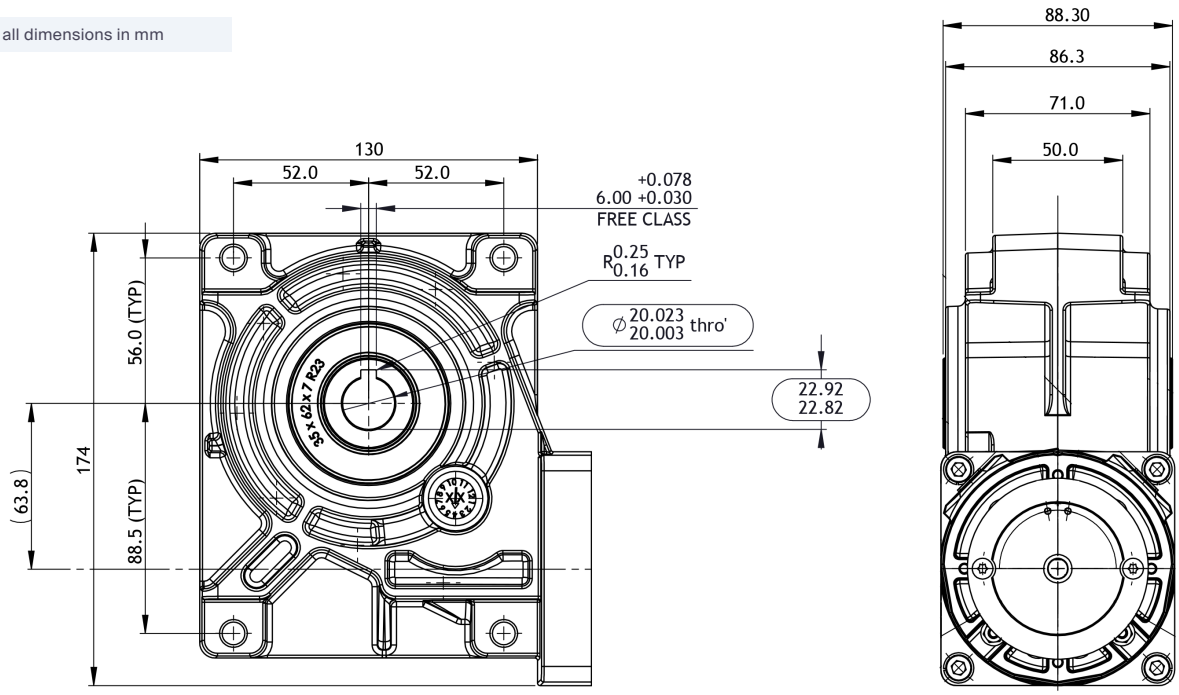
all dimensions in mm



Part number key	
Modular	######
Standard	######
Calculated data	######

	Technical data						
1	Part number		656002	658002	651002	651202	651602
2	Gear ratio	:1	60	80	100	120	160
3	Stages		2	2	2	2	2
4	Max. continuous torque (S1) [1]	Nm	120.0	120.0	120.0	120.0	120.0
5	Max. intermittent torque	Nm	300.0	300.0	300.0	300.0	300.0
6	Efficiency	%	75	70	65	60	55
7	Backlash	arc.min	35	35	35	35	35
8	Max. axial load (dynamic)	N	-	-	-	-	-
9	Max. radial load, 12 mm from flange	N	2335	2335	2335	2335	2335
10	Weight	Kg	3.5	3.5	3.5	3.5	3.5
11	Gear material [2]		S / B	S / B	S / B	S / B	S / B

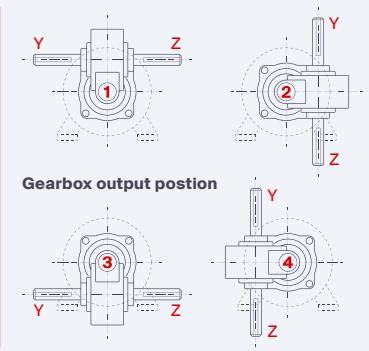
[1] S1 duty cycle based on 3000 RPM input speed [2] Gear material: C = Composite, S = Steel, B = Bronze

Modular system

BLDC motor	+L mm
PBL86-55	111
PBL86-80	136

+L mm = approximate added length*

PMDC motor	+L mm
BRx90-50	153
BRx90-75	183



*additional length may also be required for mounting flange between components