

**KT80**

## TECHNICAL CHARACTERISTICS

High endurance gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **torque load up to 8 Nm, steady load.**


- **Box.** Made of die-cast Zamak with a tubular aluminium cover. Several options for frontal mounting.
- **Gear set.** Hobbed spur gear set with steel pinions and gear wheels, with case superficial heat anti-friction treatment. The intermediate gears turn on rectified hardened steel shafts, which are fixed to the box.
- **Output shaft.** Ø10 mm steel shaft, 30 mm usable length, with a flat. Incorporates and turns on ball bearings.
- **Output shaft load:**
  - Axial direction, pull or push 500 N ≈ 50 Kg.
  - Radial direction, at 10 mm from box 350 N ≈ 35 Kg.
- **Lubrication.** Lithium grade 2 grease.
- **Weight.** With maximal number of stages: 1.41 Kg.

### MOTOR COUPLING:

- **Direct C.:** Dunker GR42 type, 12 or 24V.
- **OPTIONAL:** Optional fixation 4xM3
  - Ø8 shaft.
  - Speed regulation with electronic controller.

**Avoid** impacts on the output shaft when assembling or disassembling parts on it, this could damage the gearbox.

**Your special requests are welcome.**

|  |        |               | DC MOTORS<br>MODEL: Dunker GR42    |                                    |                         |                                    |                                    |                         |                                    |                                    |                         |                                    |                                    |                         |
|--|--------|---------------|------------------------------------|------------------------------------|-------------------------|------------------------------------|------------------------------------|-------------------------|------------------------------------|------------------------------------|-------------------------|------------------------------------|------------------------------------|-------------------------|
|  |        |               | GR42x25 12V                        |                                    |                         | GR42x25 24V                        |                                    |                         | GR42x40 12V                        |                                    |                         | GR42x40 24V                        |                                    |                         |
| Reduction ratio<br>$i = X:1$   | Stages | Torque factor | No load speed<br>$n_0$<br>(r.p.m.) | Nominal Speed<br>$n_N$<br>(r.p.m.) | Nominal Torque<br>(N.m) | No load speed<br>$n_0$<br>(r.p.m.) | Nominal Speed<br>$n_N$<br>(r.p.m.) | Nominal Torque<br>(N.m) | No load speed<br>$n_0$<br>(r.p.m.) | Nominal Speed<br>$n_N$<br>(r.p.m.) | Nominal Torque<br>(N.m) | No load speed<br>$n_0$<br>(r.p.m.) | Nominal Speed<br>$n_N$<br>(r.p.m.) | Nominal Torque<br>(N.m) |
| 4,43   | 2      | 3,59          | 981,94                             | 778,78                             | 0,14                    | 948,08                             | 767,49                             | 0,14                    | 1027,09                            | 846,50                             | 0,20                    | 857,79                             | 699,77                             | 0,22                    |
| 6,68   | 2      | 5,41          | 651,20                             | 516,47                             | 0,21                    | 628,74                             | 508,98                             | 0,21                    | 681,14                             | 561,38                             | 0,30                    | 568,86                             | 464,07                             | 0,33                    |
| 10,65  | 3      | 7,76          | 408,45                             | 323,94                             | 0,31                    | 394,37                             | 319,25                             | 0,30                    | 427,23                             | 352,11                             | 0,44                    | 356,81                             | 291,08                             | 0,47                    |
| 14,78  | 3      | 10,77         | 294,32                             | 233,42                             | 0,42                    | 284,17                             | 230,04                             | 0,41                    | 307,85                             | 253,72                             | 0,60                    | 257,10                             | 209,74                             | 0,65                    |
| 28,63  | 3      | 20,87         | 151,94                             | 120,50                             | 0,82                    | 146,70                             | 118,76                             | 0,80                    | 158,92                             | 130,98                             | 1,17                    | 132,73                             | 108,28                             | 1,27                    |
| 39,71  | 3      | 28,95         | 109,54                             | 86,88                              | 1,14                    | 105,77                             | 85,62                              | 1,10                    | 114,58                             | 94,43                              | 1,62                    | 95,69                              | 78,07                              | 1,76                    |
| 46,45  | 4      | 30,48         | 93,65                              | 74,27                              | 1,20                    | 90,42                              | 73,20                              | 1,16                    | 97,95                              | 80,73                              | 1,71                    | 81,81                              | 66,74                              | 1,85                    |
| 60,26  | 4      | 39,54         | 72,19                              | 57,25                              | 1,55                    | 69,70                              | 56,42                              | 1,51                    | 75,51                              | 62,23                              | 2,22                    | 63,06                              | 51,44                              | 2,40                    |
| 89,98  | 4      | 59,04         | 48,34                              | 38,34                              | 2,32                    | 46,68                              | 37,79                              | 2,25                    | 50,57                              | 41,68                              | 3,31                    | 42,23                              | 34,45                              | 3,59                    |
| 124,81   | 4      | 81,89         | 34,85                              | 27,64                              | 3,22                    | 33,65                              | 27,24                              | 3,12                    | 36,46                              | 30,05                              | 4,59                    | 30,45                              | 24,84                              | 4,98                    |

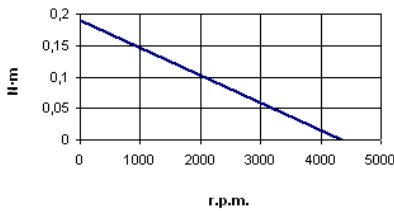
**NO LOAD SPEED/NOMINAL TORQUE**

Motor GR 42x25-12V= 4350 r.p.m./0,19Nm.  
 Motor GR 42x25-24V= 4200 r.p.m./0,2Nm.  
 Motor GR 42x40-12V= 4550 r.p.m./0,319Nm.  
 Motor GR 42x40-24V= 3800 r.p.m./0,33Nm.

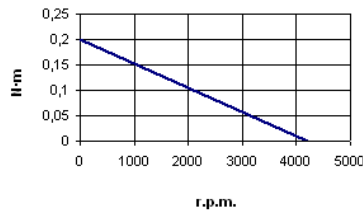
**WARNING:** The load might reduce final speed up to 40%.

**CURVES**

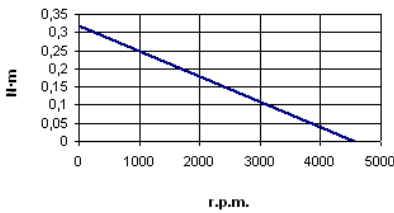
GR42x25 12V



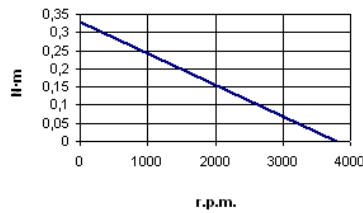
GR42x25 24V



GR42x40 12V



GR42x40 24V



**GEARBOX TIPS:**

**Noise:** noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.