

TYPE

RDC 207

RDC 208

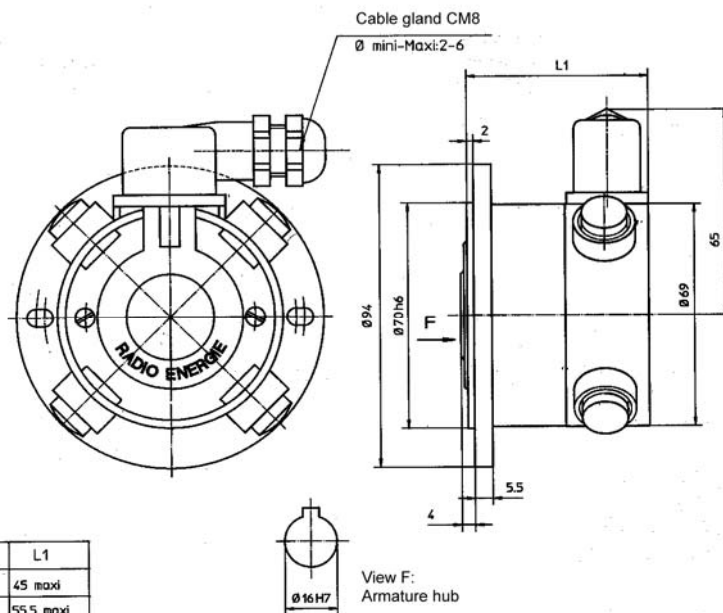


DESTINATION

- Industrial applications
- Machine tools
- Robots

DISCRIPTION

- Hollow shaft tachometer generator: rotor / stator set
- Permanent magnet excitation
- Small size
- Collector on opposite of mounting side
- Mounted on smooth shaft or fixed by key
- **SILVER COLLECTOR**



| | RDC 207 | RDC 208 |
|-----------|---------|---------|
| Weight kg | 0,5 | 0,5 |

| TYPES | L1 |
|---------|-----------|
| RDC 207 | 45 maxi |
| RDC 208 | 55,5 maxi |

GENERAL DATA

| Designation | Symbol | Unit | Value | |
|----------------------------------------------------------|--------------|--------------------|--------|--------|
| Maximum speed (mechanical) | n_m | rpm | 6000 | 6000 |
| Moment of inertia | J | kg cm ² | 0,12 | 0,08 |
| No load driving torque | M_r | N. cm | ≤ 0,3 | ≤ 0,3 |
| Maximum E.M.F. | E_m | V | 300 | 300 |
| Maximum linearity error | ΔE | % E_T | ≤ 0,15 | ≤ 0,15 |
| Overall ripple rate (peak to peak) | ΔE_c | % E_c | ≤ 0,5 | ≤ 0,5 |
| Rotation harmonics (f = 2 p. n.) | ΔE_p | % E_c | ≤ 0,05 | ≤ 0,05 |
| Slot harmonics (f = Z. n.) | ΔE_z | % E_c | ≤ 0,45 | ≤ 0,45 |
| Calibration precision | ΔE_o | % E_{T_o} | ± 2,0 | ± 2,0 |
| E.M.F. temperature drift - not compensated - compensated | ΔE_e | % /°C | 0,03 | 0,03 |
| Time constant | C_t | ms | 0,4 | 0,25 |
| *Filter: Time constant | RF x CF | ms | 0,1 | 0,1 |
| Load current | I_c | mA | 2 | 2 |
| Speed | n | rpm | 3000 | 3000 |

| Construction Details | |
|----------------------------|---------------------------|
| Number of poles | 4 |
| Number of armature slots | 33 |
| Number of collector blades | 33 |
| Insulation class | B (IEC 34-1) |
| Operating temperature | -20° - 80 °C |
| Climatic protection | C _a (IEC 68-1) |
| Protection degree | IP 55 (IEC 34-5)** |
| Direction of rotation | Reversible |
| Excitation | Permanent magnets SmCo |

* Filter-connection diagram see following pages
 ** The protection degree refers to a mounted machine

Rev.: 02

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Mechanical options

| Armature bore Ø d (mm) | | | Motor centring end frame Ø D (mm) | | | Armature clamping system | | |
|---------------------------|------|------|--------------------------------------|--|--|--------------------------|--|-------------------------|
| Standard | Max. | Min. | Standard | | | | | |
| 14 ^{H7} | 16 | 12 | 70 | | | | | Key or expanding device |

Options

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| |
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Available options

| |
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| |
|--|

Markings and Polarity of Terminals (cables) for counter clockwise rotation viewing the mounting face

| 1 collector | 2 collector |
|---------------|-------------|
| A1: + - A2: - | |

Electrical options

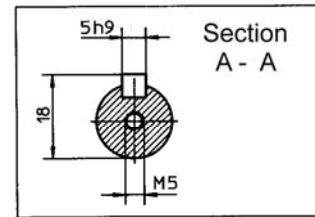
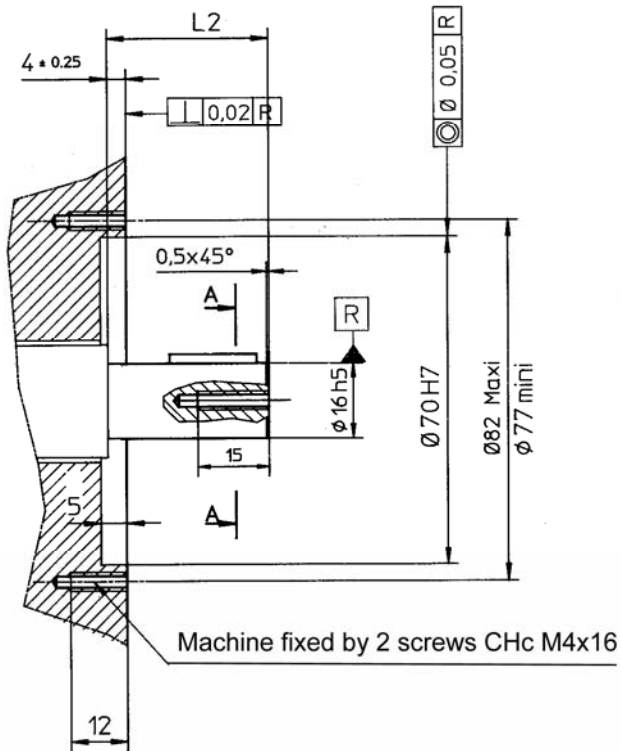
| | | | | Min. | | | | | | | | | |
|---------------------|-----------------|-------|--------------------|------|------|------|------|------|------|------|--|--|--|
| E.M.F. at 1000 rpm. | E _n | V | RDC 207 RDC 208 | 10 | 20 | 30 | 30 | 40 | 50 | 60 | | | |
| Voltage gradient | C _v | V/rpm | RDC 207 RDC 208 | 0,01 | 0,02 | 0,03 | 0,03 | 0,04 | 0,05 | 0,06 | | | |
| Armature resistance | R _a | Ω | RDC 207 RDC 208 | 28 | 55 | 104 | 50 | 68 | 105 | 160 | | | |
| Max. thermal load | I _{th} | A | RDC 207 RDC 208 | 100 | 77 | 61 | 180 | 150 | 120 | 100 | | | |
| Max. allowed speed | n _a | rpm | RDC 207 RDC 208 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 | 5000 | | | |

Brushes

| Number | Size | Quality | Application limits | Reference |
|--------|-------------|-----------------------|-------------------------------------------|--------------|
| 4 | 6 x 4 x 9,9 | Electro-graphite (EG) | Special applications., on request | |
| | | Silver-graphite (CA) | STANDARD for normal use at E.M.F. < 200 V | 64 - 40 - CA |

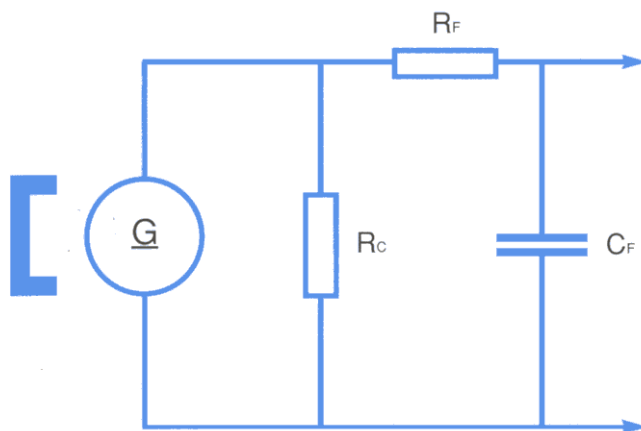
MOUNTING INSTRUCTION

RDC 207 KE / KF
RDC 208 KE / KF



| TYP | L2 |
|---------|-----------------|
| RDC 207 | 28 mini 40 maxi |
| RDC 208 | 38 mini 50 maxi |

Filter Scheme



R_C : Load resistance
 R_F : Filter resistance
 C_F : Filter capacity