



Manufacturer

Customer

**VEM motors GmbH - Werk Wernigerode**  
**Carl-Friedrich-Gauß-Straße 1**

**38855 WERNIGERODE**  
**Deutschland**

**Three-phase motors with squirrel cage rotor,**  
**Housing grey cast iron**

|                          |                      |                  |      |
|--------------------------|----------------------|------------------|------|
| Type                     | IE4-W61R 160 L2      | TPM HW           |      |
| Design output            | ( kW )               | 18,5             |      |
| Design torque            | ( Nm )               | 60               |      |
| Class IE                 | [ - ]                | IE4-93,7%        |      |
| Efficiency determination | EN 60034-2-1         |                  |      |
| Duty type                | S1                   |                  |      |
| Design frequency         | ( Hz )               | 50               |      |
| Design speed             | [rpm]                | 2960             |      |
| Voltage                  | ( V )                | 400/690          |      |
| Connection               | [ - ]                | D                | Y    |
| Current                  | [ A ]                | 31.5             | 18.3 |
| Relative pull-in current | [ - ]                | 7,7              |      |
| Relative starting torque | [ - ]                | 2,4              |      |
| Relative pull-up torque  | [ - ]                | 1,9              |      |
| Relative pull-out torque | [ - ]                | 3,4              |      |
| Efficiency100/75/50 %    | [ % ]                | 93,7 / 94 / 93,6 |      |
| Power factor             | [ - ]                | 0,9              |      |
| Th. cl.                  | 155(F/B)             |                  |      |
| Coolant temperature      | ( °C )               | -20°C...+40°C    |      |
| Altitude above sea level | ( m )                | 1000m            |      |
| Degree of protection IP  | IP55                 |                  |      |
| Moment of inertia        | ( kgm <sup>2</sup> ) | 0,082            |      |
| Motor weight             | ( kg )               | 163              |      |
| Bearing, D-side          | 6310 ZZ C3           |                  |      |
| Bearing, N-side          | 6309 ZZ C3           |                  |      |
| Relubrication interval   | ( h )                |                  |      |
| Grease type              | ASONIC GHY 72        |                  |      |
| Grease amount            | [cm <sup>3</sup> ]   |                  |      |

**Options**

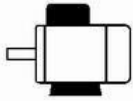
|  |  |
|--|--|
| Type of mounting                                 | IM B3  |
| Flange   | -  |
| Terminal box                                     | Standard   |
| Position of terminal box                         | on the top   |
| Cable gland                                      | Sealing plug   |
| Position of cable entry                          | right  |
| Shaft  | Standard, 1 shaft end                                      |
| Bearing  | Easy bearing arrangement                                   |
| Special details to bearings                      | Fixed bearing, N-side                                      |
| Winding protection                               | 1 set ptc resistors  |
| Limit values to vibration velocity               | Class A  |
| Colour system                                    | Balancing with half key                                    |
| Delivery conditions and/or official regulations: | 01 Moderate (KK C2),RAL 7031 blue-grey<br>IEC / EN 60034-1 |

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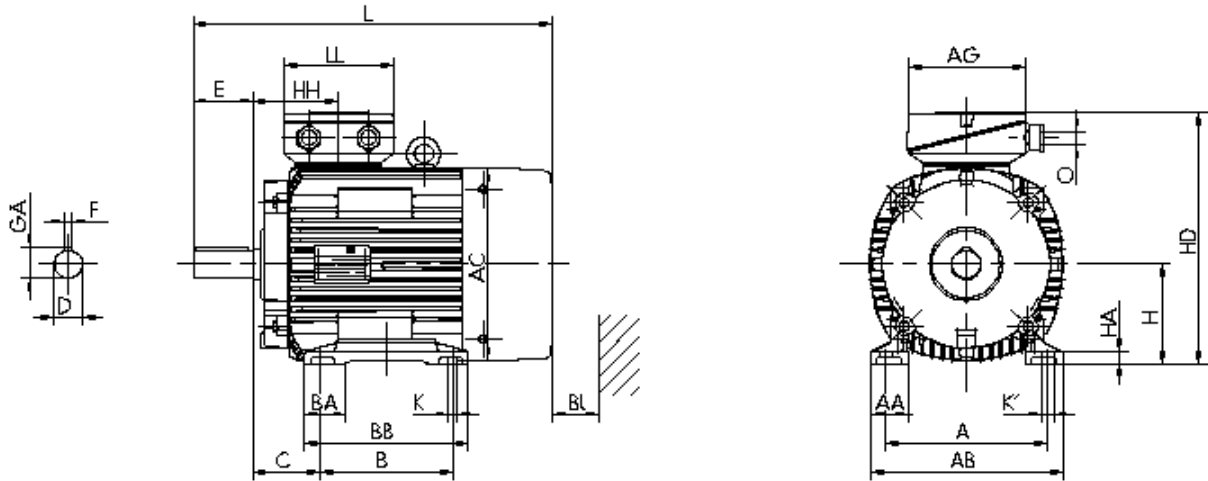
## IE4-W61R 160 L2 TPM HW

### Mounting position



Type of mounting: IM B3  
Flange: -  
Position of terminal box: on the top  
Brake type:  
Forced-ventilation:

Terminal box: KK 63 A  
Cable gland O: 1 xSealing plug



### Motor

|     |    |     |     |     |     |    |    |     |     |     |    |                         |    |                     |  |
|-----|----|-----|-----|-----|-----|----|----|-----|-----|-----|----|-------------------------|----|---------------------|--|
| A   | AA | AB  | AC  | AD  | B   | B' | BA | BA' | BB  | C   | CA | K                       | K' |                     |  |
| 254 | 55 | 296 | 313 | -   | 254 |    | 60 | -   | 301 | 108 | -  | 15                      | 20 |                     |  |
|     |    |     |     |     |     |    |    |     |     |     |    | <b>Protection cover</b> |    | <b>Terminal box</b> |  |
| L   | LC | H   | HA  | HD  | HH  | BI | L  | AG  | LL  | BE  | AH |                         |    |                     |  |
| 659 | -  | 160 | 18  | 402 | 138 | 40 | -  | 193 | 167 | -   | -  |                         |    |                     |  |

### Flange

|   |   |    |   |   |   |  |  |  |  |  |  |  |  |
|---|---|----|---|---|---|--|--|--|--|--|--|--|--|
| P | N | LA | M | T | S |  |  |  |  |  |  |  |  |
| - | - | -  | - | - | - |  |  |  |  |  |  |  |  |

### Tolerances

|      |    |    |    |
|------|----|----|----|
| H    | N  | D  | DA |
| -0,5 | h6 | k6 | k6 |

### Shaft-DS

|    |     |    |    |                 |
|----|-----|----|----|-----------------|
| D  | E   | GA | F  | DB              |
| 42 | 110 | 45 | 12 | DIN 332 DS- M16 |

### Shaft-NS

|    |    |    |    |
|----|----|----|----|
| DA | EA | GC | FA |
| -  | -  | -  | -  |

### DB...Centre hole

Delivery conditions and/or official regulations: IEC / EN 60034-1

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