



Manufacturer

Customer

**VEM motors GmbH - Werk Zwickau**  
**Äußere Dresdner Str. 35**

**08066 ZWICKAU**  
**Deutschland**

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

|                          |                      |                    |      |
|--------------------------|----------------------|--------------------|------|
| Type                     | IE3-W42R 90 S2       |                    |      |
| Design output            | ( kW )               | 1,5                |      |
| Design torque            | ( Nm )               | 4,94               |      |
| Class IE                 | [ - ]                | IE3-84,2%          |      |
| Efficiency determination | EN 60034-2-1         |                    |      |
| Duty type                | S1                   |                    |      |
| Design frequency         | ( Hz )               | 50                 |      |
| Design speed             | [rpm]                | 2900               |      |
| Voltage                  | ( V )                | 230/400            |      |
| Connection               | [ - ]                | D                  | Y    |
| Current                  | [ A ]                | 5.43               | 3.12 |
| Relative pull-in current | [ - ]                | 7,9                |      |
| Relative starting torque | [ - ]                | 3,5                |      |
| Relative pull-up torque  | [ - ]                | 3,5                |      |
| Relative pull-out torque | [ - ]                | 4,4                |      |
| Efficiency100/75/50 %    | [ % ]                | 84,2 / 85,4 / 83,2 |      |
| Power factor             | [ - ]                | 0,81               |      |
| 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> ) | 0,0017             |      |
| Motor weight             | ( kg )               | 19                 |      |
| Bearing, D-side          | 6205 2Z C3           |                    |      |
| Bearing, N-side          | 6205 2Z C3           |                    |      |
| Relubrication interval   | ( h )                |                    |      |
| Grease type              | Asonic GLY 32        |                    |      |
| Grease amount            | [cm <sup>3</sup> ]   |                    |      |
| A-sound pressure level   | ( dB )               | a.A.               |      |

**Options**

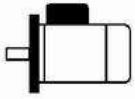
|  |  |
|--|--|
| Type of mounting                                 | IMB5                                   |
| Flange   | FF 165[A 200]                          |
| Terminal box                                     | Standard                               |
| Position of terminal box                         | on the top                             |
| Cable gland                                      | Sealing plug                           |
| Position of cable entry                          | right                                  |
| Shaft  | Standard, 1 shaft end                  |
| Bearing  | Easy bearing arrangement               |
| Limit values to vibration velocity               | Class A                                |
|  | Balancing with half key                |
| Colour system                                    | 01 Moderate (KK C2),RAL 7031 blue-grey |
| Delivery conditions and/or official regulations: | IEC / EN 60034-1                       |

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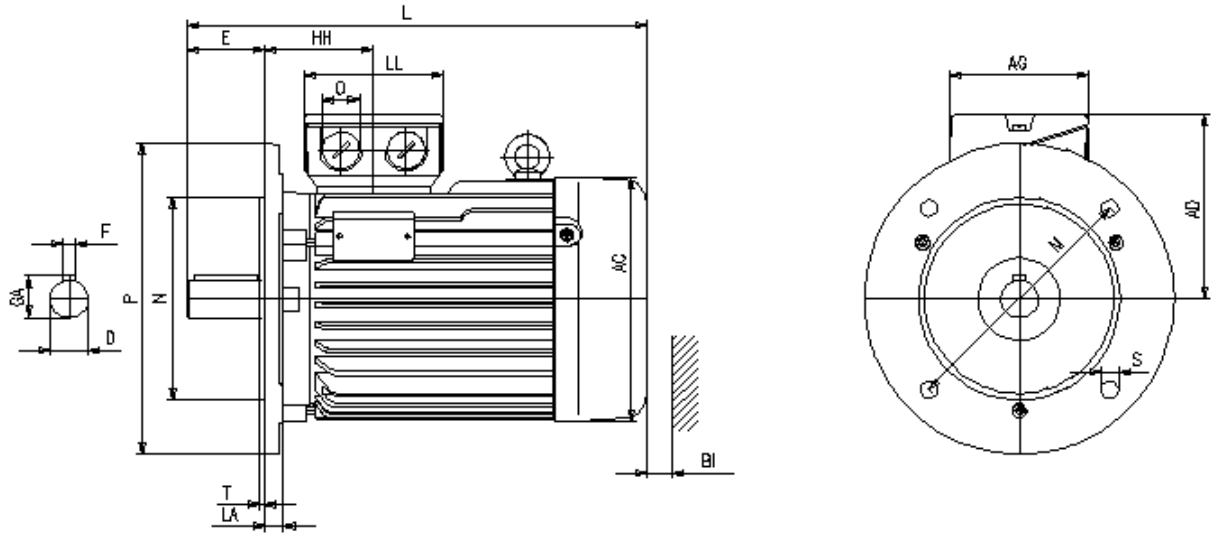
## IE3-W42R 90 S2

### Mounting position



Type of mounting: IMB5  
Flange: FF 165[A 200]  
Position of terminal box: on the top  
Brake type:  
Forced-ventilation:

Terminal box: KA 05  
Cable gland O: 1 xSealing plug



### Motor

|     |    |    |     |     |    |    |    |     |    |    |                  |   |              |  |
|-----|----|----|-----|-----|----|----|----|-----|----|----|------------------|---|--------------|--|
| A   | AA | AB | AC  | AD  | B  | B' | BA | BA' | BB | C  | CA               | K | K'           |  |
| -   | -  | -  | 157 | 120 | -  | -  | -  | -   | -  | -  | -                | - | -            |  |
|     |    |    |     |     |    |    |    |     |    |    | Protection cover |   | Terminal box |  |
| L   | LC | H  | HA  | HD  | HH | BI | L  | AG  | LL | BE | AH               | - | -            |  |
| 297 | -  | 90 | -   | -   | 70 | 16 | -  | 92  | 92 | -  | -                | - | -            |  |

### Flange

|     |     |    |     |     |    |            |  |      |    |    |    |
|-----|-----|----|-----|-----|----|------------|--|------|----|----|----|
| P   | N   | LA | M   | T   | S  | Tolerances |  | H    | N  | D  | DA |
| 200 | 130 | 10 | 165 | 3,5 | 11 |            |  | -0,5 | j6 | k6 | k6 |

### Shaft-DS

|    |    |    |   |                 |
|----|----|----|---|-----------------|
| D  | E  | GA | F | DB              |
| 24 | 50 | 27 | 8 | DIN 332 DS - M8 |

### Shaft-NS

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

### DB...Centre hole

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