

PRODUCT-DETAILS

# 3GAA182410-BDK

## IE3 Premium Efficiency Aluminum Motors, 18.5 kW, 400 V (3GAA182410-BDK)



| General Information  |   |
|----------------------|---|
| Product ID           | 3GAA182410-BDK  |
| ABB Type Designation | M3AA 180MLA 4   |
| Catalog Description  | IE3 Premium Efficiency Aluminum Motors, 18.5 kW, 400 V (3GAA182410-BDK) |

| Ordering                  |   |
|---------------------------|---|
| ABB Type Designation      | M3AA 180MLA 4                             |
| Invoice Description       | M3AA 180MLA 4                             |
| Product Name              | 3-Phase squirrel cage motor               |
| Product Type              | 3AA3_M3AA_IE3_AA                          |
| Made To Order             | No  |
| Minimum Order Quantity    | 1 piece                                   |
| Order Multiple            | 1 piece                                   |
| Selling Unit of Measure   | piece                                     |
| Country of Origin         | Poland (PL)<br>Finland (FI)<br>China (CN) |
| Customs Tariff Number     | 85015230                                  |
| Replaced Product ID (OLD) | 3GAA182051-BDK                            |
| Stocked At                | Menden, Germany                           |

|                    |  |
|--------------------|--|
| (Warehouses)       | Sant Quirze del Vallés - BCN, Spain  |
| Medium Description | 18.5kW, 4 Poles, Frame Size 180, 3 Phases, 400V, 50Hz, IP55 Enclosure, IMB5/IM3001 Mounting (3GAA182410-BDK) |
| Short Description  | 18.5kW, 4P, Frame Size 180, 3PH, 400V, 50Hz, IP55, IMB5/IM3001   |

Electrical

Electrical Data

| Conn                             | Temp Class | Freq  | Voltage | Power    | Speed      | Current | Power Factor | Efficiency | Torque     | IS/IN   |
|----------------------------------|------------|-------|---------|----------|------------|---------|--------------|------------|------------|---|
| Y                                | --         | 50 Hz | 690 V   | 18.50 kW | 1481 r/min | 20.10 A | 0.830        | 92.60 %    | 119.30 N-m | 7.20  |
| D                                | --         | 50 Hz | 400 V   | 18.50 kW | 1481 r/min | 34.90 A | 0.830        | 92.60 %    | 119.30 N-m | 7.20  |
| Y                                | --         | 50 Hz | 660 V   | 18.50 kW | 1477 r/min | 20.90 A | 0.840        | 92.60 %    | 119.50 N-m | 6.50  |
| D                                | --         | 50 Hz | 380 V   | 18.50 kW | 1477 r/min | 36.30 A | 0.840        | 92.60 %    | 119.50 N-m | 6.50  |
| D                                | --         | 50 Hz | 415 V   | 18.50 kW | 1482 r/min | 33.80 A | 0.820        | 92.60 %    | 119.17 N-m | 7.80  |
| D                                | --         | 60 Hz | 460 V   | 18.50 kW | 1783 r/min | 30.30 A | 0.820        | 93.60 %    | 99.04 N-m  | 8.40  |
| Connection Configuration         |            |       |         |          |            |         |              |            |            | D   |
| Temperature Class Default        |            |       |         |          |            |         |              |            |            | --  |
| Input Voltage (U <sub>in</sub> ) |            |       |         |          |            |         |              |            |            | 400 V   |
| Frequency (f)                    |            |       |         |          |            |         |              |            |            | 50 Hz   |
| Output Power                     |            |       |         |          |            |         |              |            |            | 18.5 kW   |
| Altitude                         |            |       |         |          |            |         |              |            |            | 1000 m  |
| Ambient Temperature              |            |       |         |          |            |         |              |            |            | 40 °C   |
| IC Class                         |            |       |         |          |            |         |              |            |            | IC411   |
| IE Class Data (50 Hz)            |            |       |         |          |            |         |              |            |            | IE Class IE3<br>Full Load (100%) 92.6 %<br>Partial Load (75%) 93.1 %<br>Partial Load (50%) 92.6 % |
| IE Class Data (60 Hz)            |            |       |         |          |            |         |              |            |            | IE Class IE3<br>Full Load (100%) 93.6 %<br>Partial Load (75%) 93.7 %<br>Partial Load (50%) 92.9 % |
| IP Class                         |            |       |         |          |            |         |              |            |            | IP55  |
| Insulation Class                 |            |       |         |          |            |         |              |            |            | ICLF  |
| Direction of Rotation            |            |       |         |          |            |         |              |            |            | Both sides  |
| Number of Poles (High)           |            |       |         |          |            |         |              |            |            | 4   |
| Two Speed Motor                  |            |       |         |          |            |         |              |            |            | No  |
| Type of Duty                     |            |       |         |          |            |         |              |            |            | S1  |
| Voltage Code                     |            |       |         |          |            |         |              |            |            | D   |

Mechanical

|                         |             |
|-------------------------|-------------|
| Frame Material          | Aluminum    |
| Frame Size              | 180         |
| Bearing                 | 6310-2Z/C3  |
| Bearing NDE             | 6209-2Z/C3  |
| IM Class                | IMB5 IM3001 |
| Terminator Box Location | D-End top   |

| Dimensions                 |                 |
|----------------------------|-----------------|
| Package Level 1 Units      | 0 pallet (lift) |
| Product Net Depth / Length | 726 mm          |
| Product Net Height         | 405 mm          |
| Product Net Width          | 341 mm          |
| Product Net Weight         | 177 kg          |
| Gross Weight               | 187 kg          |

| Environmental |   |
|---------------|---|
| WEEE Category | 4. Large Equipment (Any External Dimension More Than 50 cm) |
| SCIP          | 27ac6190-e1ce-4080-8654-6552aaabbe58 Finland (FI)           |

| Classifications |          |
|-----------------|----------|
| UNSPSC          | 26101100 |

Categories

Motors and Generators → IEC Low Voltage AC Motors → Process Performance Motors → IE3 Premium Efficiency Aluminum Motors

