


| ABB Motors and Generators | | Technical Data Sheet - DOL | | |  |
|---|--|---|------------------------------------|--|---|
| | | Project | Location | | |
| Department/Author | | Customer name | Customer ref. | | Item name 1.0004 |
| Our ref. | | Rev/Changed by A | Date of issue 21/11/2017 | Saving ident wimes stock.do2.xls | Pages 1(3) |
| No. | Definition | Data | Unit | Remarks | |
| 1 | Product | TEFC, 3-phase, squirrel cage induction motor | | | |
| 2 | Product code | 3GBA 182 420-ADF | | Calc. ref. | 3GZC021018-40 |
| 3 | Type/Frame | M2BAX 180MLB 4 | | | |
| 4 | Mounting | IM1001, B3(foot) | | | |
| 5 | Rated output P _N | 22 | kW | | |
| 6 | Service factor | 1 | | | |
| 7 | Type of duty | S1(IEC) 100% | | | |
| 8 | Rated voltage U _N | 400 | VD | ± 5 % (IEC 60034-1) | |
| 9 | Rated frequency f _N | 50 | Hz | ± 2 % (IEC 60034-1) | |
| 10 | Rated speed n _N | 1473 | r/min | | |
| 11 | Rated current I _N | 42.8 | A | | |
| 12 | No-load current | 18.2 | A | | |
| 13 | Starting current I _s /I _N | 10.1 | | Not within IEC 60034-12 design N,H | |
| 14 | Nominal torque T _N | 143 | Nm | | |
| 15 | Locked rotor torque T _s /T _N | 3.3 | | | |
| 16 | Maximum torque T _{max} /T _N | 4.2 | | | |
| 17 | Minimum torque T _{min} /T _N | 2.5 | | | |
| 18 | Speed at minimum torque | 450 | r/min | | |
| Load characteristics (IEC 60034-2-1:2014) | | Load % | Current A | Efficiency % | Power factor |
| 19 | PLL determined from residual loss | 100 | 42.8 | 93.0 / IE3 | 0.8 |
| 20 | | 75 | 34.5 | 93.2 | 0.74 |
| 21 | | 50 | 27.7 | 92.5 | 0.62 |
| 22 | | Start | 432 | | 0.34 |
| 23 | Maximum starting time from hot | 15 | s | | |
| 24 | Maximum starting time from cold | 27 | s | | |
| 25 | Insulation class / Temperature class | F / B | | | |
| 26 | Ambient temperature | 40 | °C | | |
| 27 | Altitude | 1000 | m.a.s.l. | | |
| 28 | Enclosure | IP55 | | | |
| 29 | Cooling system | IC411 self ventilated | | | |
| 30 | Bearing DE/NDE | 6210-2Z/C3 - 6209-2Z/C3 | | | |
| 31 | Type of Grease | | | | |
| 32 | Sound pressure level (LP dB(A) 1m) | 65 | dB(A) | at load | |
| 33 | Moment of inertia J = ¼ GD ² | 0.16734 | kg-m ² | | |
| 34 | Balancing | | | | |
| 35 | Vibration class | | | | |
| 36 | Position of terminal box | Top | | | |
| 37 | Terminal box entries; no, dimens. | | | | |
| 38 | Number of power terminals | | | | |
| 39 | Direction of rotation | CW or CCW | | | |
| 40 | Weight of rotor | 56 | kg | | |
| 41 | Total weight of motor | 198 | kg | | |
| 42 | Dimension drawing no. | | | | |
| 43 | | | | | |
| 44 | | | | | |
| 45 | | | | | |
| Ex-motors | | | | | |
| 46 | | | | | |
| 47 | | | | | |
| 48 | | | | | |
| Option Variant Codes / Definition | | | | | |
| 49 | | | | | |
| 50 | | | | | |
| 51 | | | | | |
| 52 | | | | | |
| Remarks: | | | | | |
| Data based on situation 31/05/2016 | | | | | |
| All data subject to tolerances in accordance with IEC | | | | | |
| Guaranteed values on request | | | | | |

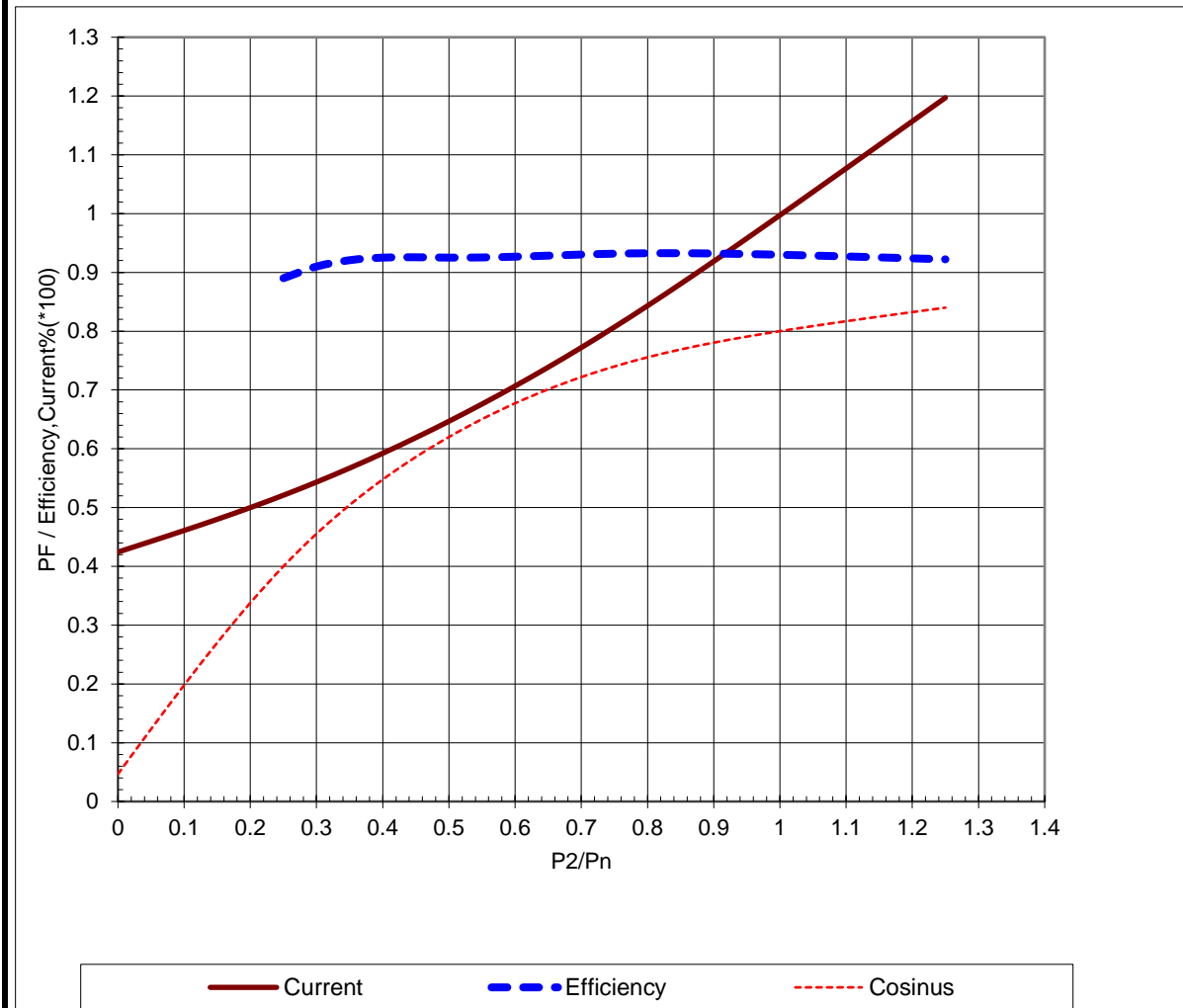
| | |
|---------|----------|
| Project | Location |
|---------|----------|

| | | | |
|-------------------|---------------|---------------|---------------|
| Department/Author | Customer name | Customer ref. | Item name |
| | | | 1.0004 |

| | | | | |
|----------|----------------|-------------------|----------------------------|-------------|
| Our ref. | Rev/Changed by | Date of issue | Saving ident | Pages |
| | A | 21/11/2017 | wimes stock.do2.xls | 2(3) |

| | | | |
|-----------------------------|---|------------|----------------------|
| Product | TEFC, 3-phase, squirrel cage induction motor | | |
| Type/Frame | M2BAX 180MLB 4 | Calc. ref. | 3GZC021018-40 |
| Product code | 3GBA 182 420-ADF | | |
| Rated output P _N | 22 | kW | |
| Type of duty | S1(IEC) 100% | | |

| | | | | | |
|----------------|------------|----------------------------|-------------|----------------------------------|------------|
| Voltage (V) | 400 | Current I _N (A) | 42.8 | Power factor at P _N | 0.8 |
| Frequency (Hz) | 50 | Speed (r/min) | 1473 | Efficiency (%) at P _N | 93 |



Load characteristics (IEC 60034-2-1:2014)
 Data based on situation 31/05/2016

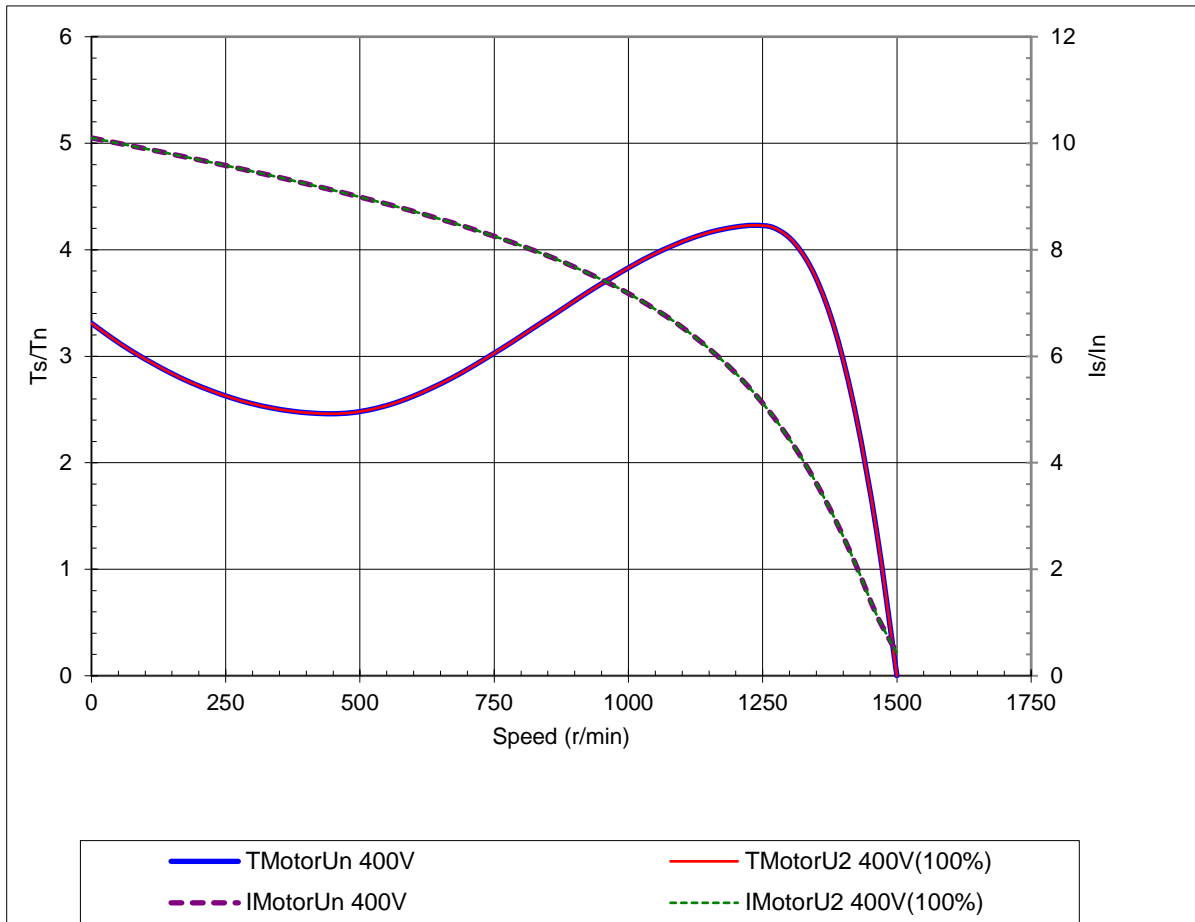
All data subject to tolerances in accordance with IEC



| | | | |
|-------------------|--|--|----------------------------|
| | Project | Location | |
| Department/Author | Customer name | Customer ref. | Item name 1.0004 |
| Our ref. | Rev/Changed b Date of issue A 21/11/2017 | Saving ident wimes stock.do2.xls | Pages 3(3) |

| | | | |
|-----------------------------|---|------------------------------|---------------|
| Type of product | TEFC, 3-phase, squirrel cage induction motor | | |
| Type/Frame | M2BAX 180MLB 4 | Calc. ref. | 3GZC021018-40 |
| Product code | 3GBA 182 420-ADF | Frequency (Hz) | 50 |
| Rated output P _N | 22 kW | Rated current I _N | 42.8 A |
| Type of duty | S1(IEC) 100% | | |

| | | | | | |
|--|-------------|------------------------------------|-------------|------------------------------------|-------------------|
| J _{motor} (kgm ²) | 0.17 | Voltage (V) 100% | 400 | Voltage (V) | 400V(100%) |
| J _{load} (kgm ²) | | T _{start} /T _N | 3.3 | T _{start} /T _N | 3.3 |
| Speed (r/min) | 1473 | Starting time (s) | | Starting time (s) | |
| T _N (Nm) | 143 | Speed (r/min) | | Speed (r/min) | |
| T _{load} (Nm) | | I _s /I _n | 10.1 | I _s /I _n | 10.1 |
| Nbr. of Consecutive Starts at UN | | T _{max} /T _n | 4.2 | T _{max} /T _n | 4.2 |



Load characteristics (IEC 60034-2-1:2014)
Data based on situation 31/05/2016

All data subject to tolerances in accordance with IEC