

Technical specification

Model 9C44300E000011M00
MRP code 68959993

Motor parameters

| | | | | |
|-------------------------|---------|---|------|-----|
| Continuous stall torque | Mo | 1 | 12 | Nm |
| Peak stall torque | Mmax | 2 | 36 | Nm |
| Rated torque | Mn @ nN | 1 | 7.5 | Nm |
| Rated speed | nN | | 3000 | rpm |
| Rated frequency | fN | | 250 | Hz |
| Number of motor poles | p | | 10 | |

Winding specifications

| | | | | |
|--------------------------------|----------|-------|------|--------|
| Torque constant | KTo_cold | 2-3-5 | 1.67 | Nm/A |
| Voltage constant | KE | 2-3-4 | 0.96 | Vs/rad |
| Resistance between phases [Ω] | R | 2-3 | 1.39 | Ohm |
| Inductance between phases [mH] | L | 6 | 10.7 | mH |
| Continuous current @ Mo | Io | 1-5 | 8.2 | A |
| Current @ Mmax | Imax | 2-5 | 27.3 | A |
| Rated current @ Mn | In | 1-5 | 5.4 | A |
| Bemf between phases @ nN | Ephph | 2-3-4 | 302 | V |

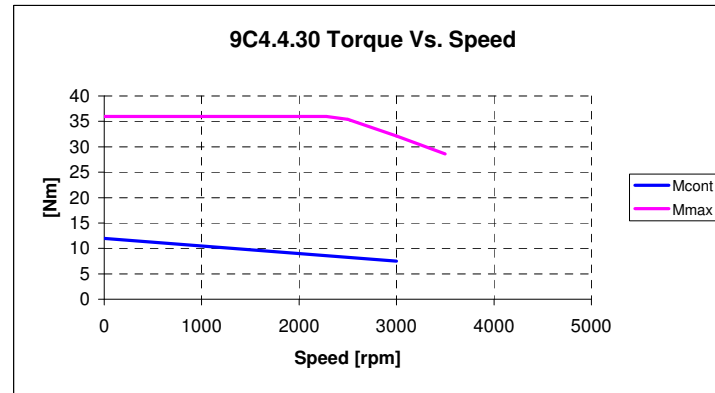
Mechanical parameters

| | | | | |
|-------------------------------|----|---|------|--------------------|
| Moment of inertia of rotor | JM | 7 | 14.7 | kg.cm ² |
| Mass of the motor | M | 7 | 12.8 | kg |
| Protection degree (body only) | - | | IP65 | |

Notes:

- 1) Average motor windings over temperature 100 °C, ambient temperature 40 °C, flange mounted (300x300x20 steel)
- 2) All motor parts at 20 °C
- 3) Tolerance +/-10%
- 4) Vrms between phases
- 5) Arms
- 6) Tolerance +/-15%
- 7) Motor without brake

All values have been calculated



Notes:

DC bus voltage: 565 Vdc (AC 400 V supply)
 Max torque curve may depend on actual DC bus voltage.

Transducer type

Endat EQN 1325, 1Vpp, 512 ppr
 Sin/Cos Nr.: 512
 Interface: EnDat
 Rev. Count Bits: 12
 Pos. Count Bits: 13

Brake parameters

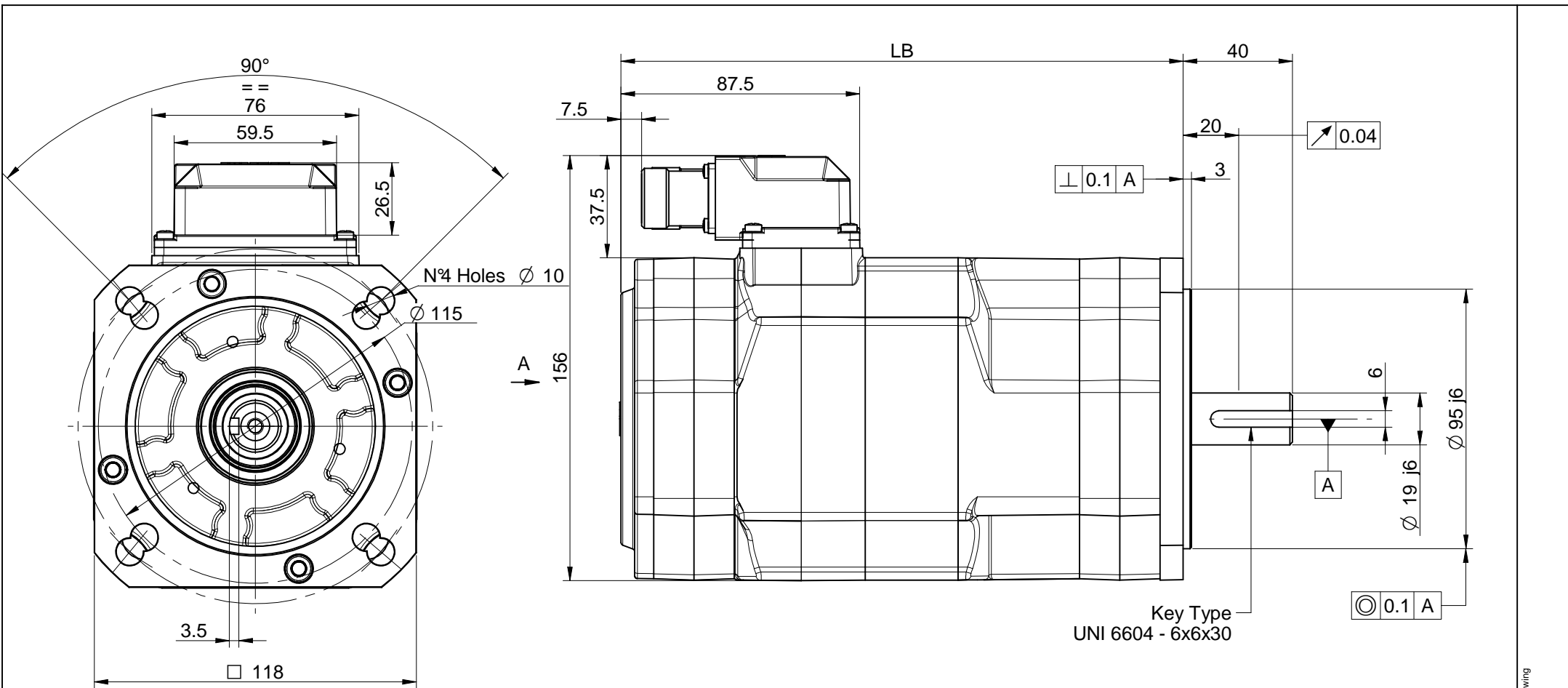
| | | |
|------------------------------|------|--------------------|
| Rated voltage | 24 | Vdc |
| Input power | 19.5 | W |
| Input current | 0.81 | A |
| Braking torque (min. static) | 16.0 | Nm |
| Disc inertia | 0.73 | kg.cm ² |
| Weight | 1.1 | kg |

Notes:

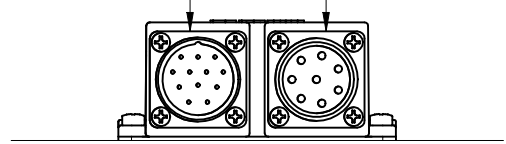
Parking brake only! Motor shaft must be at standstill when brake is actuated.

Motor overall dimensions on next page

See motor quick guide for additional information on installation, connections and transducers.



Signal Connector (17 pins) Power Connector (8 pins)



NOTES:

- 1) This drawing refers to 9C4.1 motor equipped with brake and encoder.
- 2) Dimensions may be subject to changes.
- 3) All motors balanced with half-key, full key in package.

| Motor Sizes | | | | |
|-------------|-------------|------------|----------|--------------------|
| TYPE | LB RESOLVER | LB ENCODER | LB Brake | LB Brake + ENCODER |
| 9C4.1 | 147 | 176,5 | 176,5 | 206 |
| 9C4.2 | 181 | 210,5 | 210,5 | 240 |
| 9C4.3 | 215 | 244,5 | 244,5 | 274 |
| 9C4.4 | 249 | 278,5 | 278,5 | 308 |

| | | | | | |
|-------------------|--|--|------------------------|-----------------------------------|----------------------|
| <p>ABB S.p.A.</p> | <p>QUOTE SENZA INDICAZIONE DI TOLLERANZA GRADO DI PRECISIONE SECONDO UNI 5307-63</p> | <p><input type="checkbox"/> GROSSOLANO <input type="checkbox"/> MEDIO <input type="checkbox"/> PRECISO</p> | <p>SCALA 1:1</p> | <p>DATA 22/10/2007</p> | |
| | <p>9C4 Motor Overall Dimensions</p> | <p>LAVORAZIONI 0.2 ✓ 0.8 ✓ 3.2 ✓ 12.5 ✓</p> | <p>DISIGN. PGS</p> | <p>CONTROLL. Ing. Secondo</p> | <p>SERIE 9C4</p> |
| <p>MATERIALE</p> | <p>File: 1526050a - Ingombro 9C4 - Finland.dft</p> | <p>PROTEZ. SUPERFICIALE</p> | <p>PESO</p> | <p>DISIGNO NR. 15.26050</p> | <p>MODIFICHE</p> |

(A) 2008-09-26 - Modified dimensions in length table, updated drawing

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