

## Technical specification

**Model** 9C42400R000001M00

**MRP code**

### Motor parameters

Continuous stall torque	Mo	1	7.5	Nm
Peak stall torque	Mmax	2	22.5	Nm
Rated torque	Mn @ nN	1	5.4	Nm
Rated speed	nN		4000	rpm
Rated frequency	fN		333.3	Hz
Number of motor poles	p		10	

### Winding specifications

Torque constant	KTo_cold	2-3-5	1.23	Nm/A
Voltage constant	KE	2-3-4	0.71	Vs/rad
Resistance between phases [ $\Omega$ ]	R	2-3	1.81	Ohm
Inductance between phases [mH]	L	6	11.9	mH
Continuous current @ Mo	Io	1-5	6.9	A
Current @ Mmax	I <sub>max</sub>	2-5	23.1	A
Rated current @ Mn	In	1-5	5.2	A
Bemf between phases @ nN	E <sub>phph</sub>	2-3-4	298	V

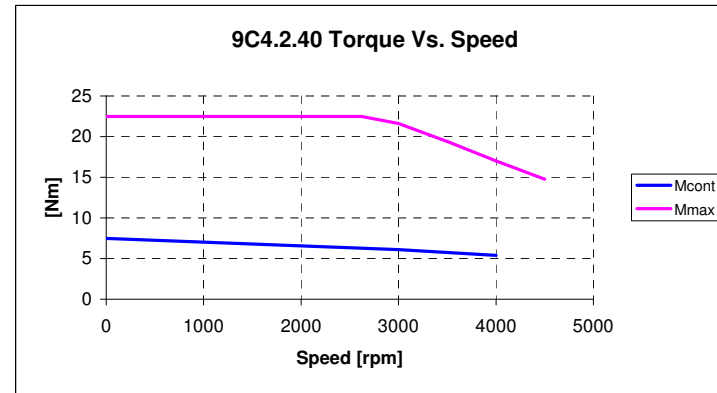
### Mechanical parameters

Moment of inertia of rotor	JM	7	7.6	kg.cm <sup>2</sup>
Mass of the motor	M	7	7.0	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:

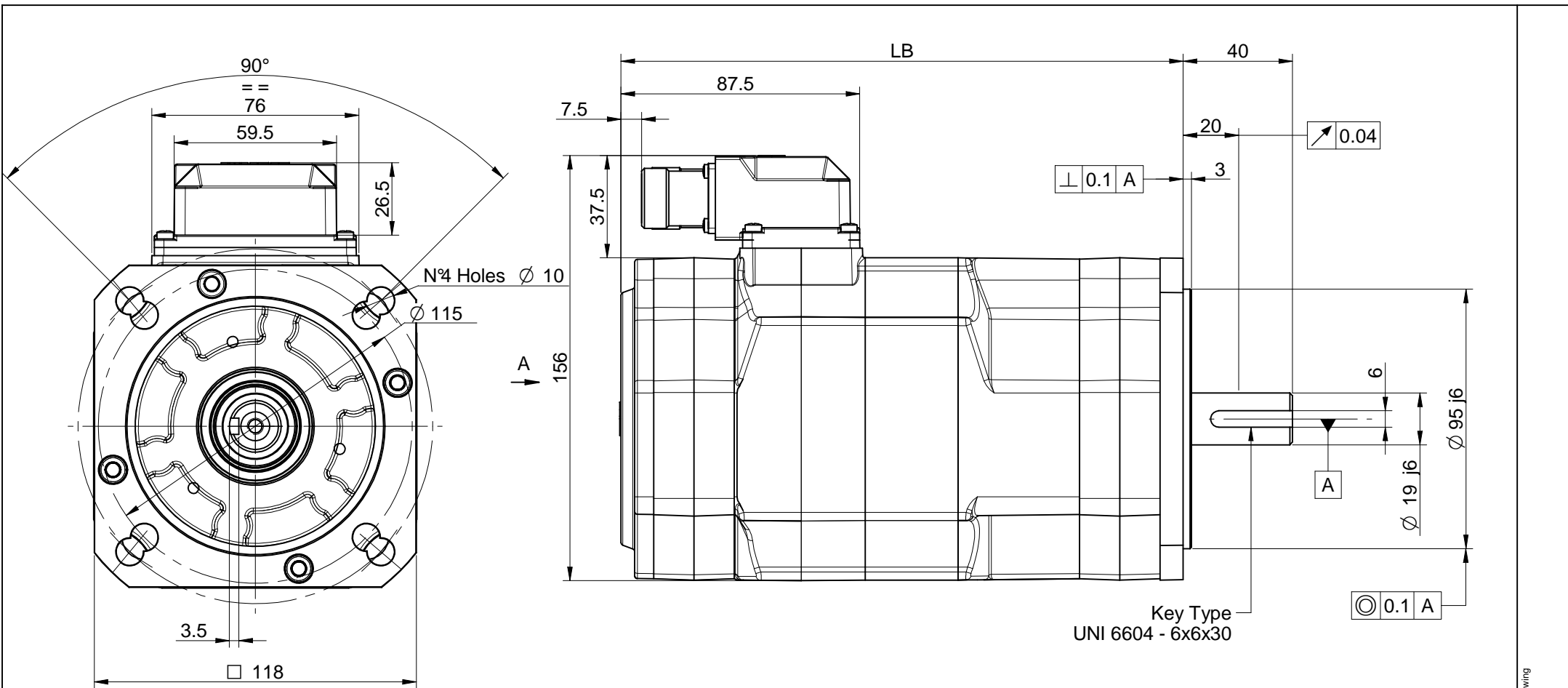
DC bus voltage: 565 Vdc (AC 400 V supply)  
Max torque curve may depend on actual DC bus voltage.

#### Transducer type

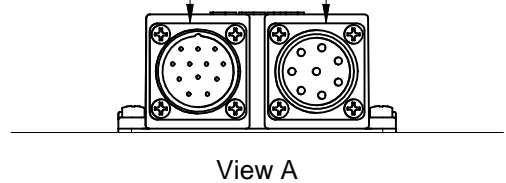
2-pole resolver, size 15  
Resolver pole pairs: 1  
Supply voltage: 7 V  
Supply frequency: 10 kHz

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 ✓ 0,5 ✓ 1,0 ✓ 1,5 ✓ 2,0 ✓ 3,0 ✓ 4,0 ✓ 5,0 ✓ 6,0 ✓ 8,0 ✓ 10,0 ✓ 12,5 ✓ 15,0 ✓ 20,0 ✓ 25,0 ✓ 30,0 ✓ 40,0 ✓ 50,0 ✓ 60,0 ✓ 80,0 ✓ 100,0 ✓</p>	<p>DISIGN. PGS</p>	<p>CONTROLL. Ing. Secondo</p>
<p>MATERIALE</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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