

## Technical specification

**Model** 9C54300E000001M00

**MRP code**

### Motor parameters

Continuous stall torque	Mo	1	23.5	Nm
Peak stall torque	Mmax	2	70.5	Nm
Rated torque	Mn @ nN	1	14.0	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	1.73	Nm/A
Voltage constant	KE	2-3-4	1.00	Vs/rad
Resistance between phases [Ω]	R	2-3	0.49	Ohm
Inductance between phases [mH]	L	6	7.5	mH
Continuous current @ Mo	Io	1-5	15.4	A
Current @ Mmax	I <sub>max</sub>	2-5	51.4	A
Rated current @ Mn	In	1-5	9.7	A
Bemf between phases @ nN	E <sub>phph</sub>	2-3-4	314	V

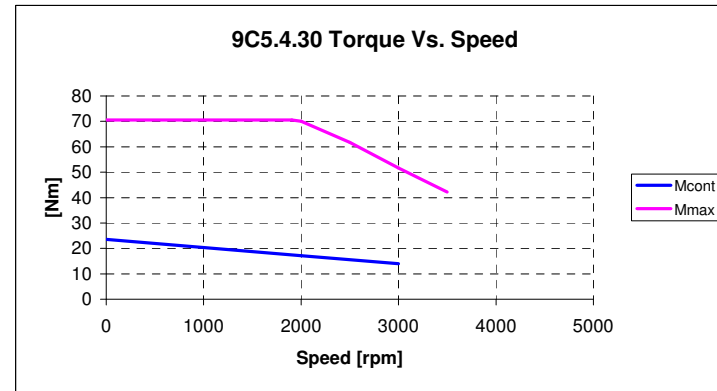
### Mechanical parameters

Moment of inertia of rotor	JM	7	41.4	kg.cm <sup>2</sup>
Mass of the motor	M	7	24.0	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:

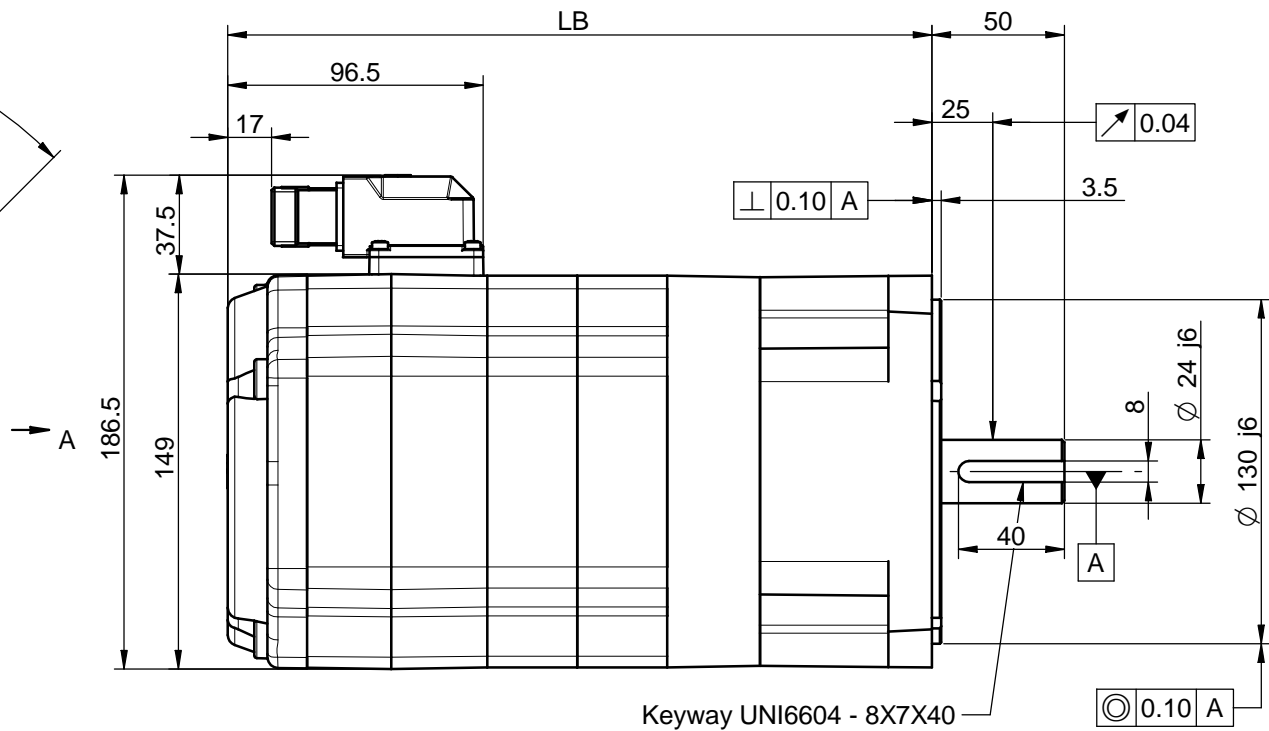
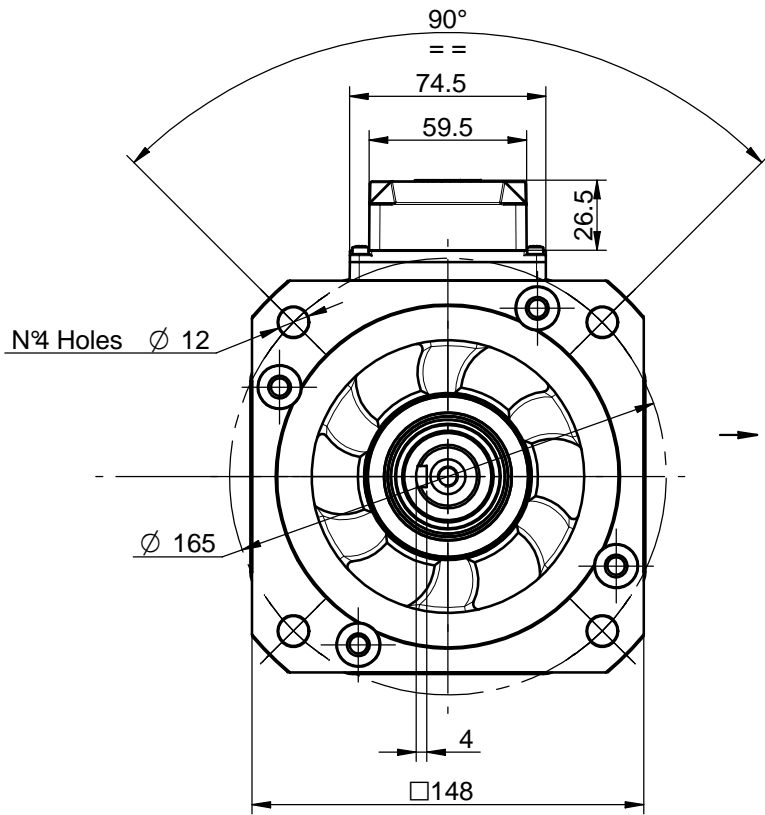
DC bus voltage: 565 Vdc (AC 400 V supply)  
Max torque curve may depend on actual DC bus voltage.

#### Transducer type

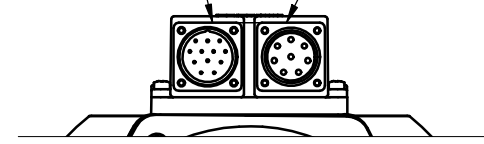
Endat EQN 1325, 1Vpp, 512 ppr  
Sin/Cos Nr.: 512  
Interface: EnDat  
Rev. Count Bits: 12  
Pos. Count Bits: 13

Motor overall dimensions on next page

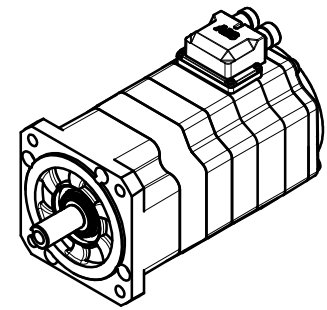
See motor quick guide for additional information on installation, connections and transducers.



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



View A



NOTES:

- 1) This drawing refers to 9C5.2 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 Size	LB [mm]
9C5.2	266
9C5.3	300
9C5.4	334
9C5.6	402

(A) - 24/09/08 - Modified dimensions in table, updated drawing  
 (B) - 12/11/08 - Removed 32X58 shaft option

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C	D	E	F	G	H	I	L
MODIFICHE							

 ABB S.p.A.	QUOTE SENZA INDICAZIONE DI TOLLERANZA GRADO DI PRECISIONE SECONDO UNI 5307-63	<input type="checkbox"/> GROSSOLANO <input type="checkbox"/> MEDIO <input type="checkbox"/> PRECISO		SCALA DATA 1:2 22/10/2007
	DENOMINAZIONE <b>9C5 Motor Overall Dimensions</b>			LAVORAZIONI 0.2 ✓ = ✓ 0.8 ✓ = ✓ 3.2 ✓ = ✓ 12.5 ✓ = ✓ ✓ = ~
CODICE				SERIE 9C5
MATERIALE	PROTEZ. SUPERFICIALE	PESO	DISEGNO NR. 15.27050	

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