

**KEB**



**CALUS**

## **HIGH TORQUE SERIES DL4**

SERVO SYSTEMS - WITH AIR AND LIQUID COOLING

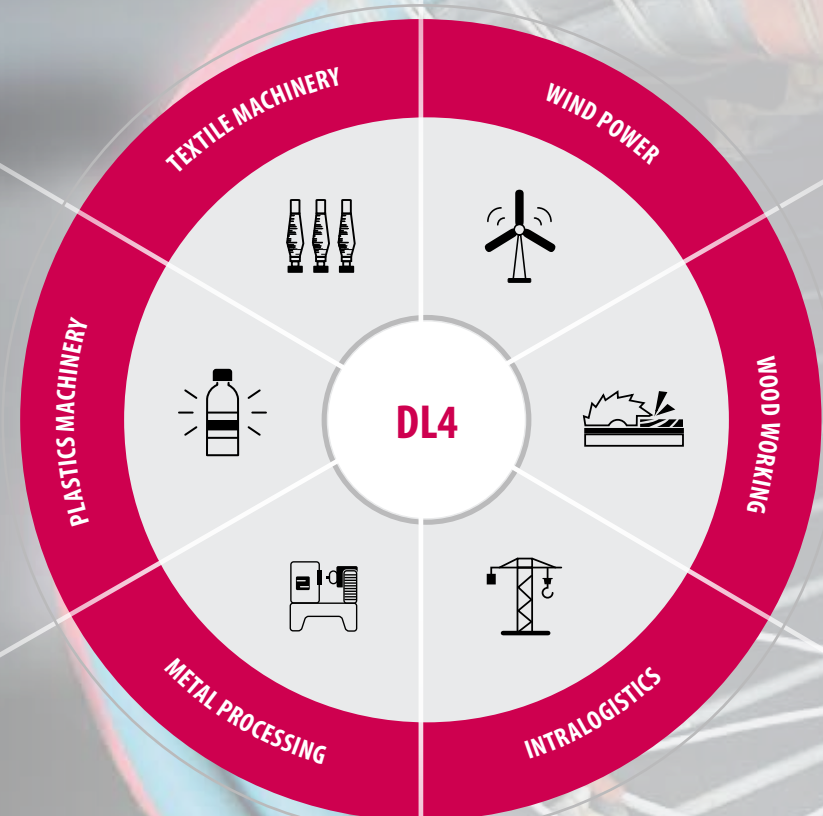
EN

- Spinning technology
- Weaving
- Knitting
- Finishing

- Pitch systems
- Yaw systems
- Auxiliary equipment

DL4 motors stand for the highest dynamics and maximum flexibility in the connection of the machine design. The use of rare earth permanent magnets ensures a high energy density – the design of the magnetic circuit for sinusoidal voltages combines low ripple torque with high overload without danger of demagnetization.

- Extrusion
- Injection molding
- Blow forming
- Foils
- Handling



- Saws
- Milling
- Drilling
- Portals
- Shredder

- Bending
- Cutting
- Grinding
- Lathes
- Milling
- Die casting
- Pressing
- Drilling

- Stacker cranes
- Tower cranes
- Lifts and escalators
- Transportation



CE  
cULus  
FS

#### **WATER COOLED VERSION DL4-LC**

The new water-cooled variant uses optimal thermal conditions and thus combines the properties of the highest power density, the best overload with high reserves. This results into about 25% higher torque compared to the forced ventilated versions.



#### **SERVO SYSTEMS**

In combination with the servo inverter series KEB COMBIVERT F6, as well as assembled encoder / motor cables, powerful Drive systems are created, that perfectly match optimal properties of speed and torque characteristics, as well as provide high efficiency and easy startup.

More details of the DRIVE CONTROLLER portfolio are described in the catalogue COMBIVERT F6.





MOTOR STANDARDS

Design	IM B5 according to CEI EN 60034-7 (1993)
Protection	IP 54 according to CEI EN 60034-5-(2001)
Shaft	with keyway balancing with half key CEI 2-23 (1993) special shaft (on request)
Encoder systems	Resolver Hiperface SRS50 - 16 bit Hiperface SRM50 - 16 bit /Multiturn - 12 bit without encoder (SCL-operation)
Thermal design	ISO KI. F / dTmax=105K, according to CEI -EN 60034-1 (2000)
Winding	ISO KI. H – according to CEI 2-3 (2000)
Nominal voltage	400 V
No. of poles	8
Thermal protection PT 1000	
Cooling	CS = self cooled version – IC 410 motor without servo-ventilation CF = forced ventilation – IC 416 servo-ventilated motor, according to CEI EN 60034-6-(1997) 1 ph. 230V AC - connection on clipboard in the terminal box LC = liquid cooled
Bearings	lubricated for life
Operating position	any
Colour	black RAL 9005

MOTOR OPTIONS

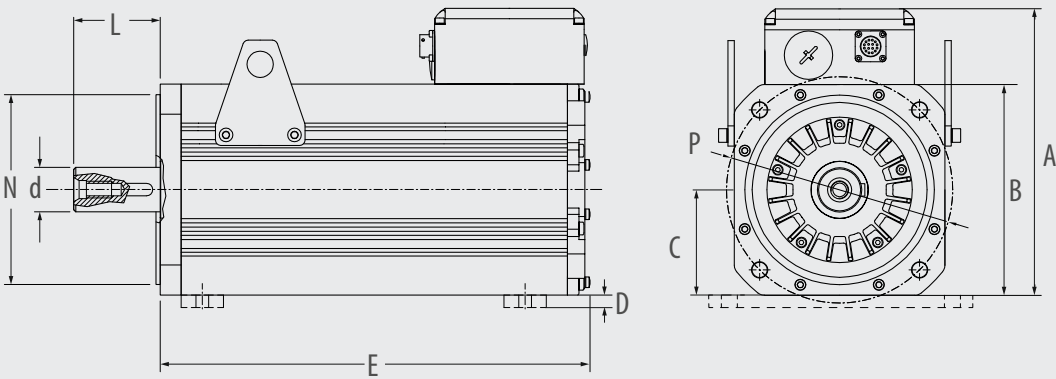
Foot/ Flange mounted version IM B3 / IM B35
IP 65 – without ventilation (with shaft seal ring D-side)
without keyway Grade of balancing: G 2.5 in accordance with ISO 1940-1 (1993)
Safety Resolver Hiperface SRS50 - 16 bit - safety Hiperface SRM50 - 16 bit /Multiturn - 12 bit- safety
Holding brake 24V DC Permanent magnet (SE, SF) Spring applied (SG)
Additional inertia

ACCESSORIES

Encoder cables
Resolver 00S6L50 - 10xx (xx = 1 ... 50 m)
Hiperface 00S6L55 - 10xx (xx = 1 ... 50 m)
Connection: Speedtec plug M23
Motor cable 2.5mm <sup>2</sup> 00S4619 - 00xx (xx = 1 ... 50 m)
Connection: Speedtec plug M23 (for SE/ ... /CS)
Terminal box (from SE../CF)
Motor cable 4mm <sup>2</sup> (on request)

SYSTEM SOLUTIONS - EVERYTHING FROM A SINGLE SOURCE

The DL4 servo motors extend the extensive product portfolio of KEB Automation. Your advantage: From HMI and controls to frequency converters and motors to brakes, you will find ideally coordinated components at KEB. Realize your individual requirements with an attractive price-performance ratio, central contacts and optimized drive performance.



PART NUMBER SERVO MOTORS

11 DIGIT CODE DL4

F	4	D 4	2	2	B	2	3	0 0
Size	Lengths	Type	Speed Voltage	Cooling Protection	Shaft Brake	Connection	Encoder	Option

Configuration Code

Specific versions and samples of motors are described with a configuration.

Part number is 00SM000-CMAT -followed by an EXECUTION-CODE for DL4. f.e: SE - L2 CS SP15 FKN BRN ENC01 OP00

X X	X X	X	X	X	X	X	X X
Size/Lengths	Type	Speed/ Voltage	Cooling	Brake	Connection	Encoder	Options





MANUFACTURED BY



**Brusatori**  
MOTORI ELETTRICI

MEMBER OF THE KEB GROUP

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual application do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. We reserve the right to make technical changes.

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**Automation with Drive**

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