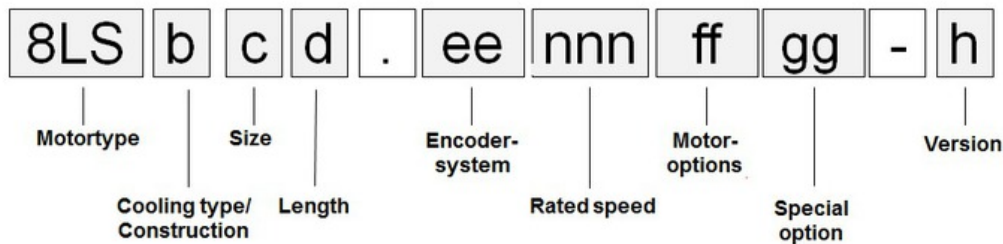


Determining the 8LS order code



Cooling / Construction type (b)
<p>Cooling type A</p> <p>8LS three-phase synchronous motors with cooling type A are self-cooling and have a long, slim design. The motors must be installed on the cooling surface (flange).</p> <p>Cooling type C</p> <p>8LS three-phase synchronous motors with cooling type C are based on motors with cooling type A. They are separately cooled and the only difference is a fan module mounted in the area of the B-side bearing.</p> <p>Technical data – Fan modules</p>
Size (c)
Length (d)
Motor encoder systems
Nominal speed (nnn)
Connection direction (ff)
Oil seal (ff)
Motor version (h)

Order code motor options (ff)

The respective code (ff) for the order key can be found in the following table. Important: The combination **"reinforced holding brake"** with special motor option **"reinforced A-side bearing"** is **not** possible!

Motors with reinforced bearings **cannot** be combined with gearboxes!

For technical reasons, a standard brake and a reinforced brake are not available for the 8LSA5C.

Motor option					
Connection direction	Oil seal	Holding brake	Shaft end	Code for the order key (ff)	
Straight (top connector)	No	No	Smooth	C0	
			Keyed	C1	
		Normal	Smooth	C2	
			Keyed	C3	
		Reinforced	Smooth	C4	
			Keyed	C5	
	Yes	No	No	Smooth	C6
				Keyed	C7
		Normal	Smooth	C8	
			Keyed	C9	
		Reinforced	Smooth	CA	
			Keyed	CB	
Angled, swivel connector	No	No	Smooth	D0	
			Keyed	D1	
			Normal	D2	
			Keyed	D3	

Determining the 8LS order code

		Reinforced	Smooth	D4
			Keyed	D5
	Yes	No	Smooth	D6
			Keyed	D7
		Normal	Smooth	D8
			Keyed	D9
		Reinforced	Smooth	DA
			Keyed	DB
Angled single-cable solution (hybrid), swivel connector	No	No	Smooth	S0
			Keyed	S1
		Normal	Smooth	S2
			Keyed	S3
		Reinforced	Smooth	S4
			Keyed	S5
	Yes	No	Smooth	S6
			Keyed	S7
		Normal	Smooth	S8
			Keyed	S9
		Reinforced	Smooth	SA
			Keyed	SB

The single-cable solution (hybrid) can only be used for motors with connector size 1.0.

Important: The single-cable solution is fundamentally possible up to size 65. For larger sizes please consult the table.

Connector size table (built-in connector on motor) for single-cable solution (hybrid)

Special motor options (gg)

8LS three-phase synchronous motors can be delivered with special motor option "Reinforced A-side bearing" depending on the cooling type, size and length: Other special motor options must be arranged with B&R.

The special motor option is listed as part of the model number in the form of a 2-digit code (gg).

8LS motors with special motor option "Reinforced A-side bearing" can handle increased radial and axial forces (F_r , F_a) on the end of the shaft. Information for determining permissible values of F_r and F_a can be found in the respective motor data.

Motors with special motor option "Reinforced A-side bearing" have increased values (in relation to motors with standard bearings) for the dimensions of the motor shaft, including the total length. The exact dimensions can be found in the motor data in the respective technical data.

[Overview of valid combinations with special motor option "Reinforced A-side bearing"](#)

Example order 1

A three-phase synchronous motor of type **8LSA45** with a nominal speed of 3000 rpm was selected for an application. Because of the construction, the cables can only be connected on the top of the motor ("top" connection direction). The motor should also be equipped with a holding brake, a keyed shaft and a 32-line EnDat single-turn encoder.

The code (ee) for the encoder system is **EA**.

The (nnn) code for a nominal speed of 3000 rpm is **030**.

The code (ff) for the other options (oil seal, holding brake, keyed shaft and connection direction) is **C3**.

The model number for the required motor is **8LSA45.EA030C300-3**

Example order 2