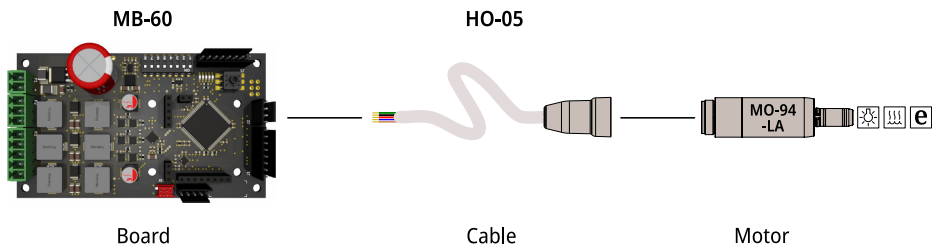


Data Sheet

S-60-I Medical Device



The **S-60-I** medical device, composed of a micromotor (prefix **MO**), an electronic board (prefix **MB**) and a cable connection (prefix **HO**), is intended to drive a straight or contra-angle handpiece as part of a dental treatment unit.

The **S-60-I** medical device is intended for the following medical indications:

- **Implantology:** drilling holes into bone tissue
- **Prophylaxis:** hygienist, polishing, etc.

This equipment is intended for professional use and requires installation from qualified personal.

MO-94 electrical motor

The motor converts electrical energy to rotation and transfers rotation to the instrument tool. This brushless motor is able to maintain any speed between 0 and 40 000 rpm with controlled torque and is equipped with optional air cooling and powerful white lighting. Dassym motors withstand thousands cycles of sterilization.

This motor is especially designed to drive an ISO 14457 & ISO 3964 compliant accessory such as a straight or contra-angle handpiece to which a rotating or oscillating tool is attached.

Conjugated to the precision of the MB-60 closed loop three phases sine drive, the MO-94 motor is particularly suited for high torque at lower speed operation. With an appropriate 20 : 1 handpiece, this motor is able to deliver more than 75 Ncm at the tool, all the way from standstill up to several hundreds rotations per minute.

The external parts of the motors are made of stainless steel (X10CrNiS18).

Technical specifications

| Dimensions | MO-94-LA | Unit |
|---------------------------------------|------------|------------------|
| Motor length excluding coupling | 61 | mm |
| Motor maximum diameter | 21.8 | mm |
| Performances | MO-94-LA | Unit |
| Speed range | 0 – 40 000 | rpm |
| Maximum torque | 5 | Ncm |
| Maximum power | 80 | W _{MEC} |
| Characteristics | MO-94-LA | Unit |
| Optional cooling air pressure | 300 | kPa |
| Cooling air flow consumption | < 40 | NI/min |
| Cooling air flow at the nozzle | — | |
| Features | MO-94-LA | |
| Sterilizable without protection | ✓ | |
| Full torque available from standstill | ✓ | |
| Rocking & auto reverse modes | ✓ | |
| Powerful white LED lighting | ✓ | |
| Optional motor air cooling | ✓ | |
| ISO 3964 & INTRAMatic Lux® coupling | ✓ | |

INTRAMatic Lux® is a Kaltenbach & Voigt trade mark.

MB-60 driver board

The driver board receives commands from the dental unit and sends controlled electrical energy to the motor. The board is to be integrated in the dental unit.

The board monitors its working conditions and finely drives the motor speed, torque and lighting. The motor is safeguarded by electronic limitation of its temperature.

Technical specifications

| Dimensions | MB-60 | | | Unit |
|---|---------------|---------|-----|-----------------|
| Length × Width × Height | 102 × 59 × 25 | | | mm |
| Fastening holes distance & diameter | 95 × 51 ø 3.2 | | | mm |
| Characteristics | Min | Nominal | Max | Unit |
| Supply voltage | 24 | 32 – 36 | 48 | V _{DC} |
| Maximum consumption | 180 | 240 | 360 | VA |
| Features | MB-60 | | | |
| Full set of digital protocols & analog controls | ✓ | | | |
| Optional pressure speed reference control | ✓ | | | |
| Optional router for two motors connection | ✓ | | | |

HO-05 cable connection

The cable conveys electrical energy from the driver board to the motor. It allows disconnection of the motor side with an optional unit side detachable connector for sterilization.

The connection cable comprises a Dassym proprietary motor connector with its nut and encloses a length of five wires cabling for dental unit connection.

The external parts of the cable are made of silicone and stainless steel (X10CrNiS18).

Technical specifications

| Dimensions | HO-35 | | Unit |
|--|-------|--|------|
| Cable length | 1.6 | | m |
| Cable mean diameter | 5.3 | | mm |
| Features | HO-35 | | |
| Stranded wires for motor phases and lighting | ✓ | | |
| Optional unit side connector for sterilization | ✓ | | |

Main features

- brushless motors of the sturdiest construction manufactured in the Swiss watchmaking area
- speed range from standstill to 40 000 rpm with finely controlled torque up to 5 Ncm
- full torque from standstill with patented technology, rocking & auto reverse modes
- powerful LED white lighting compatible with INTRAmatic Lux® handpieces
- light, flexible and strong cable with proprietary connector for reliable motor connection
- highly configurable electronic driver board with versatile analog and digital interfaces
- direct and compatible replacement for previous Dassym MB-30 (-2L) & MB-92 (-2L) products
- ready to be installed as a replacement for an air turbine or a brushed DC electric motor
- extensive compliance with the highest international safety and performance standards
- classe IIa medical device in full conformity to the Regulation (EU) 2017 / 745 (MDR)

Identification

| UDI-DI | Trade name | Trade mark |
|----------------|---------------|------------|
| EDAS1506004010 | S-60-I | Dassym |

Orderable parts

| Without pressure captor | | | Without pressure captor | | |
|-------------------------|-------------|----------------|-------------------------|-------------|----------------|
| Product reference | Composition | Part reference | Product reference | Composition | Part reference |
| 150.60.941 | MO-94-LA | 102.08.200 | 150.60.943 | MO-94-LA | 102.08.200 |
| | MB-60 | 251.60.000 | | MB-60-NP | 251.60.100 |
| | HO-05 | 121.05.001 | | HO-05 | 121.05.001 |

For other options, please contact Dassym.



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