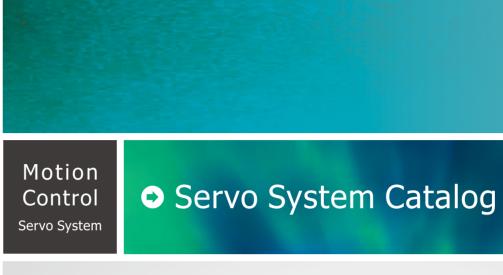
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- JD/FD2S/CD2S Series Servo Driver - Servo Motor

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Kinco JD Series Servo Driver Kinco FD2S Series Servo Driver Kinco CD2S Series Servo Driver Kinco Servo Motor Kinco Multi-pole Servo Motor Power, Brake, Encoder cable of Motor

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JD/FD2S/CD2S Servo Driver and Motor Selection Table (1) JD/FD2S/CD2S Servo Driver and Motor Selection Table (2) FD2S/CD2S Servo Driver and Motor Selection Table

Servo Driver Introduction 07

Panel and Interface Description, Port Description, Technical Specifications, Wiring Diagram, Mechanical Dimension Diagram

JD Servo Driver FD2S Servo Driver FD122 Servo Driver CD2S Servo Driver

23 Servo Motor Introduction

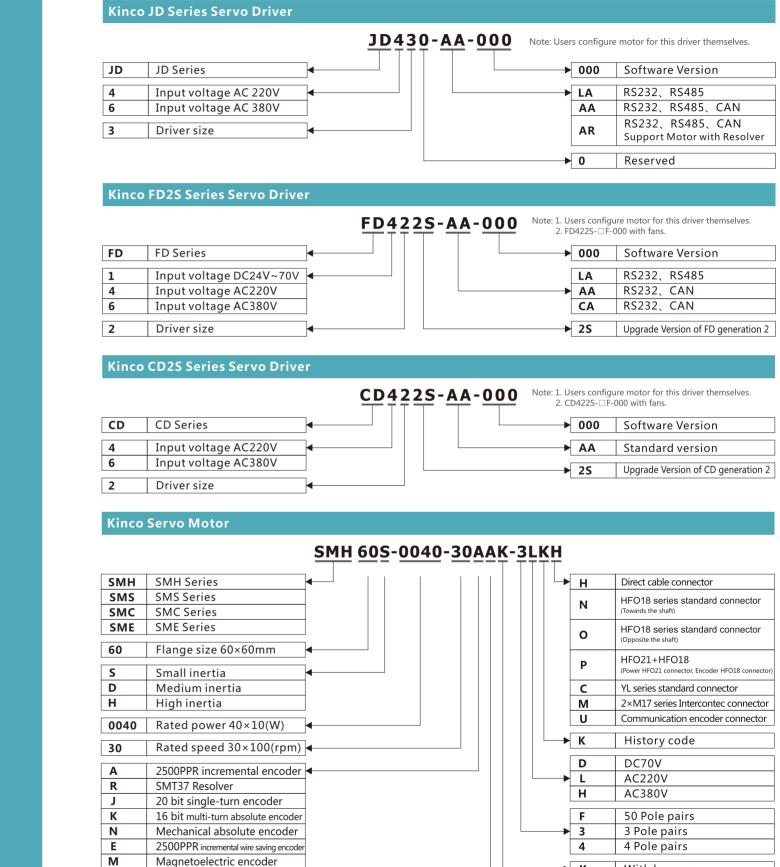
Technical Specifications Table of SMH Series Servo Motor (40/60/80 flange) Technical Specifications Table of SMH Series Servo Motor (110 flange) Technical Specifications Table of SMH Series Servo Motor (130/150 flange) Technical Specifications Table of SMH Series Servo Motor (180 flange) Technical Specifications Table of Low-voltage Series Servo Motor (40/60/80 flange) Technical Specifications Table of Multi-pole Servo Motor (57/85 flange) Technical Specifications Table of SMC Series Servo Motor (60/80 flange) Technical Specifications Table of SMC Series Servo Motor (130 flange) Technical Specifications Table of SMS Series Servo Motor (60/80 flange)

Dimension/Torque curve of SMH Series Servo Motor Dimension/Torque curve of Low-voltage Series Servo Motor Dimension/Torque curve of Multi-pole Servo Motor Dimension/Torque curve of SMC Series Servo Motor Dimension/Torque curve of SMS Series Servo Motor

Wiring Diagram for Cable 39

Wiring Diagram for The Power Cable Wiring Diagram for The Encoder Cable

Model Description of Servo Driver and Motor



20 bit single-turn encoder and 16 bit multi-turn absolute encoder are a kind of communication encoder.

Without brake

With brake

Α

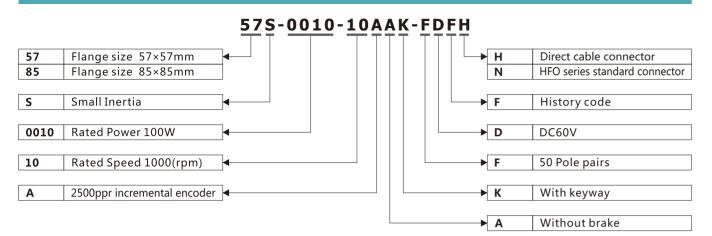
В

| <u>AA</u> - <u>000</u> | Note: 1. Users configure motor for this driver themselves. 2. FD422S-□F-000 with fans. | | | |
|------------------------|---|--------------|------------------------------------|--|
| | ► 000 Software Version | | | |
| | LA RS232、RS485 | | | |
| | | AA RS232、CAN | | |
| | | CA | RS232、CAN | |
| | > | 25 | Upgrade Version of FD generation 2 | |

| <u>AA</u> - <u>000</u> | O Note: 1. Users configure motor for this driver themselves. 2. CD422S-□F-000 with fans. → 000 Software Version | | |
|------------------------|---|------------------------------------|--|
| | | | |
| | AA Standard version | | |
| | ▶ 25 | Upgrade Version of CD generation 2 | |

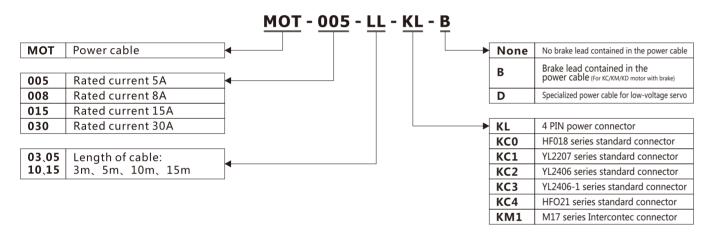
| → н | Direct cable connector |
|-----|---|
| N | HFO18 series standard connector (Towards the shaft) |
| 0 | HFO18 series standard connector (Opposite the shaft) |
| Р | HFO21+HFO18 (Power HFO21 connector, Encoder HFO18 connector) |
| С | YL series standard connector |
| M | 2×M17 series Intercontec connector |
| U | Communication encoder connector |
| K | History code |
| D | DC70V |
| | AC220V |
| H | AC380V |
| F | 50 Pole pairs |
| → 3 | 3 Pole pairs |
| 4 | 4 Pole pairs |
| K | With keyway |
| Α | Without keyway |
| | |

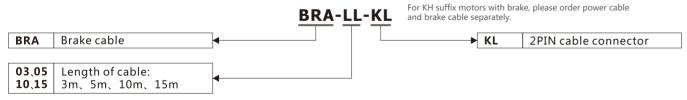
Kinco Multi-pole Servo Motor

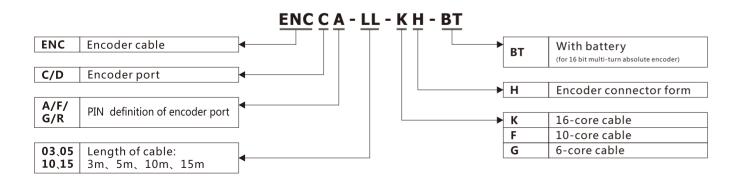


Model Description of Cable

Power, Brake and Encoder Cable of Motors







JD/FD2S/CD2S Servo Driver and Motor Selection Table (1)

| Catagory | Rated Power/ Rated Speed/ Rated Torgue | Servo Motor | Description | Power/ Brake Cable | Encoder Cable | Servo Driver |
|------------------------|--|--|---|-----------------------------------|------------------|---------------|
| | 50W | SMH40S-0005-30AAK-4LKH | 2500P/R Cable connector | MOT-005-LL-KL | | FD412S-CA-000 |
| | 3000rpm/0.16Nm | SMH40S-0005-30ABK-4LKH | 2500P/R Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | | FD412S-AA-000 |
| | 100W 3000rpm/0.32Nm | SMH40S-0010-30AAK-4LKH | 2500P/R Cable connector | MOT-005-LL-KL | ENCCA-LL-KH | FD412S-LA-000 |
| | 50001pm/0.5214m | SMH40S-0010-30ABK-4LKH | 2500P/R Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | | CD412S-AA-000 |
| | | SMH60S-0020-30AAK-3LKH | 2500P/R Cable connector | MOT-005-LL-KL | | |
| | | SMH60S-0020-30ABK-3LKH | 2500P/R Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | | |
| | 200W | SMH60S-0020-30AAK-3LKN | 2500P/R HFO18 series standard connector | MOT-005-LL-KC0 | | |
| | 3000rpm/0.64Nm | SMH60S-0020-30ABK-3LKP | 2500P/R HFO18+FHO21 connector with brake | MOT-005-LL-KC4-B | ENCCA-LL-KC0 | |
| | | SMH60S-0020-30AAK-3LKO | 2500P/R HFO18 series standard connector | MOT-005-LL-KC0 | | |
| | | SMH60S-0020-30AAK-3LKM | 2500P/R Intercontec connector | MOT-005-LL-KM1 | ENCCA-LL-KM1 | |
| | | SMH60S-0020-30ABK-3LKM SMH60S-0040-30AAK-3LKH | 2500P/R Intercontec connector with brake 2500P/R Cable connector | MOT-005-LL-KM1-B MOT-005-LL-KL | | |
| | | SMH60S-0040-30ABK-3LKH | 2500P/R Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCA-LL-KH | |
| 10 | | SMH60S-0040-30ABK-3LKN | 2500P/R HFO18 series standard connector | MOT-005-LL-KC0 | | |
| Small Inertia | 400W | SMH60S-0040-30ABK-3LKP | 2500P/R HFO18+FHO21 connector with brake | MOT-005-LL-KC4-B | | JD430-AA-000 |
| II In | 3000rpm/1.27Nm | SMH60S-0040-30AAK-3LKO | 2500P/R HFO18 series standard connector | MOT-005-LL-KC0 | ENCCA-LL-KC0 | FD422S-CA-000 |
| ertia | | SMH60S-0040-30AAK-3LKM | 2500P/R Intercontec connector | MOT-005-LL-KM1 | | FD422S-AA-000 |
| | | SMH60S-0040-30ABK-3LKM | 2500P/R Intercontec connector with brake | MOT-005-LL-KM1-B | ENCCA-LL-KM1 | FD422S-LA-000 |
| 220V | | SMH80S-0075-30AAK-3LKH | 2500P/R Cable connector | MOT-005-LL-KL | | CD422S-AA-000 |
| | | SMH80S-0075-30ABK-3LKH | 2500P/R Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCA-LL-KH | CD4223-AA-000 |
| | 750W 3000rpm/2.39Nm | SMH80S-0075-30AAK-3LKN | 2500P/R HFO18 series standard connector | MOT-005-LL-KC0 | | |
| | | SMH80S-0075-30ABK-3LKP | 2500P/R HFO18+FHO21 connector with brake | brake MOT-005-LL-KC4-B | | |
| | | SMH80S-0075-30AAK-3LKO | 2500P/R HFO18 series standard connector | MOT-005-LL-KC0 | ENCCA-LL-KC0 | |
| | | SMH80S-0075-30AAK-3LKM | 2500P/R Intercontec connector | MOT-005-LL-KM1 | | |
| | | SMH80S-0075-30ABK-3LKM | 2500P/R Intercontec connector with brake | MOT-005-LL-KM1-B | ENCCA-LL-KM1 | |
| | 4.18Nm | 85S-0025-05AAK-FLFN-02 | 2500P/R Multi-pole servo motor | | | |
| | 6Nm | 85S-0035-05AAK-FLFN-02 | 2500P/R Multi-pole servo motor | MOTE-005-LL-KC0 | ENCCF-LL-FC0 | |
| | 7.5Nm | 85S-0045-05AAK-FLFN-02 | 2500P/R Multi-pole servo motor | | ENCCI-LE-ICO | |
| | | SMH80S-0100-30AAK-3LKH | 2500P/R Cable connector | MOT-008-LL-KL | ENCCA-LL-KH | |
| | 1kW | SMH80S-0100-30ABK-3LKH | 2500P/R Cable connector with brake | MOT-008-LL-KL/BRA-LL-KL | | |
| | 3000rpm/3.18Nm | SMH80S-0100-30AAK-3LKM | 2500P/R Intercontec connector | MOT-008-LL-KM1 | ENCCA-LL-KM1 | JD430-AA-000 |
| | | SMH80S-0100-30ABK-3LKM | 2500P/R Intercontec connector with brake | MOT-008-LL-KM1-B | | FD432S-CA-000 |
| _ | 1.05kW | SMH110D-0105-20AAK-4LKC | 2500P/R HFO18 series standard connector | MOT-008-LL-KC1 | | FD432S-AA-000 |
| Med | 2000rpm/5Nm | SMH110D-0105-20ABK-4LKC • | 2500P/R HFO18+FHO21 connector with brake | MOT-008-LL-KC2-B | | FD432S-LA-000 |
| Medium Ine 220V | 1.26kW | SMH110D-0126-20AAK-4LKC | 2500P/R HFO18 series standard connector | MOT-008-LL-KC1 | | CD432S-AA-000 |
| | 2000rpm/6Nm | SMH110D-0126-20ABK-4LKC • | | MOT-008-LL-KC2-B | | |
| rtia | 1.25kW | SMH110D-0125-30AAK-4LKC | 2500P/R HFO18 series standard connector | MOT-008-LL-KC1 | | |
| | 3000rpm/4Nm | SMH110D-0125-30ABK-4LKC • | 2500P/R HFO18+FHO21 connector with brake | MOT-008-LL-KC2-B | ENCCA-LL-KC1 | |
| 7 | 1.26kW 3000rpm/4Nm | SMH110D-0126-30AAK-4HKC | 2500P/R HFO18 series standard connector | MOT-008-LL-KC1 | | JD620-AA-000 |
| Medium Inertia 380V | | SMH110D-0126-30ABK-4HKC • | | MOT-008-LL-KC2-B | | FD622S-CA-000 |
| um] 380/ | 1.57kW 3000rpm/5Nm | SMH110D-0157-30AAK-4HKC | 2500P/R HFO18 series standard connector | MOT-008-LL-KC1 | | FD622S-AA-000 |
| Ineri | | SMH110D-0157-30ABK-4HKC • | | MOT-008-LL-KC2-B | | FD622S-LA-000 |
| tia | 1.88kW 3000rpm/6Nm | SMH110D-0188-30AAK-4HKC | 2500P/R HFO18 series standard connector | MOT-008-LL-KC1 | | CD622S-AA-000 |
| | 3000rpm/6Nm | SMH110D-0188-30ABK-4HKC • | 2500P/R HFO18+FHO21 connector with brake | MOT-008-LL-KC2-B | | |

Note: User select the compatible motors themselves. • It needs CD24V/2A delay when driver drive the brake device.

JD/FD2S/CD2S Servo Driver and Motor Selection Table (2)

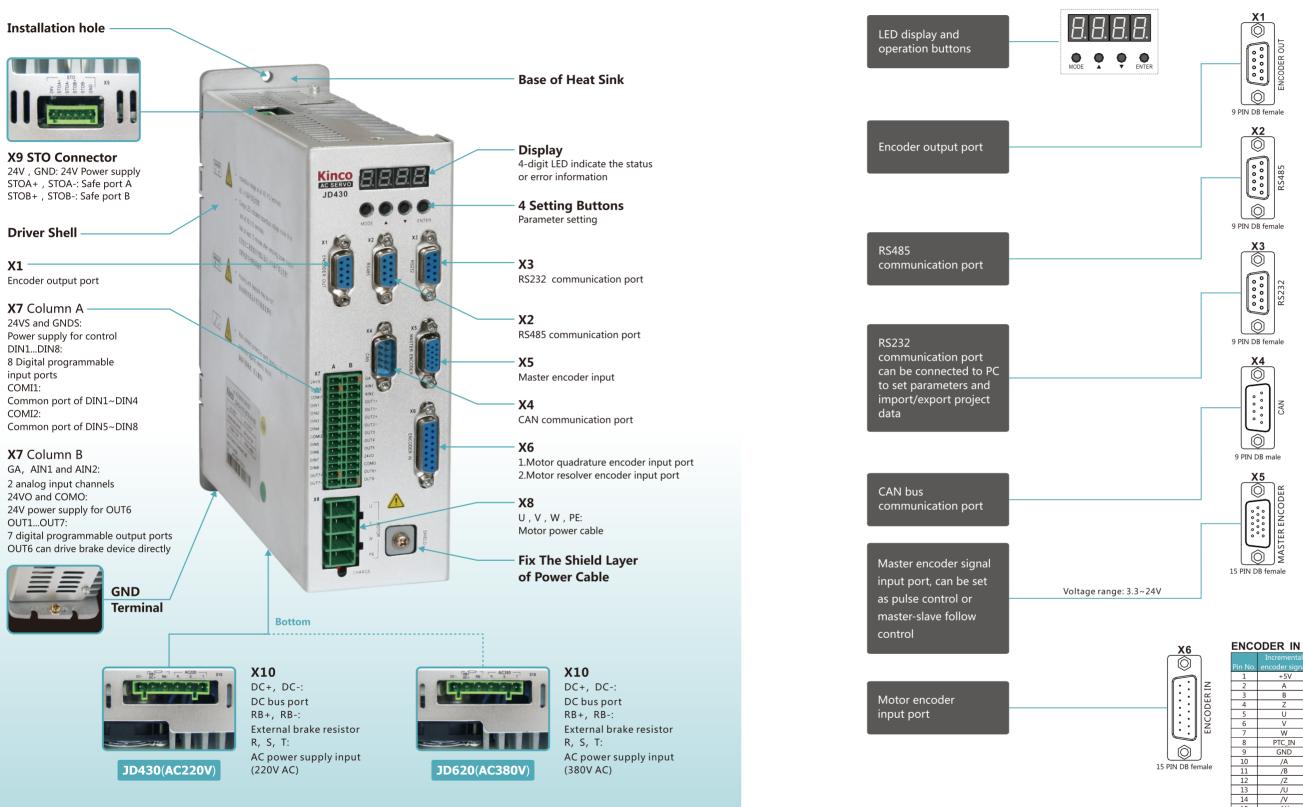
| Catagory | Rated Power/ Rated Speed/ Rated Torgue | Servo Motor | Description | Power/ Brake Cable | Encoder Cable | Servo Driver |
|-----------------------------|--|---------------------------|--|-----------------------|------------------|---|
| Medium Inertia 220V/380V | 1.05kW 2000rpm/5Nm | SMH130D-0105-20AAK-4HKC | 2500P/R YL series standard connector | MOT-008-LL-KC2 | | JD430-AA-000 JD620-AA-000 |
| | | SMH130D-0105-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-008-LL-KC2-B | | FD432S-CA-000 FD432S-AA-000 FD622S-CA-000 |
| 1 Inertia '380V | 1.57kW | SMH130D-0157-20AAK-4HKC | 2500P/R YL series standard connector | MOT-008-LL-KC2 | | FD622S-AA-000 FD432S-LA-000 FD622S-LA-000 |
| | 2000rpm/7.5Nm | SMH130D-0157-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-008-LL-KC2-B | | CD432S-AA-000 CD622S-AA-000 |
| | 2.1kW | SMH130D-0210-20AAK-4HKC | 2500P/R YL series standard connector | MOT-008-LL-KC2 | | JD620-AA-000 |
| | 2000rpm/10Nm | SMH130D-0210-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-008-LL-KC2-B | | FD622S-CA-000 |
| | 2.3kW | SMH150D-0230-20AAK-4HKC | 2500P/R YL series standard connector | MOT-008-LL-KC2 | ENCCA-LL-KC1 | FD622S-AA-000 FD622S-LA-000 |
| | 2000rpm/11.1Nm | SMH150D-0230-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-008-LL-KC2-B | ENCCA-LL-RCI | CD622S-AA-000 |
| | 3kW | SMH130D-0300-20AAK-4HKC | 2500P/R YL series standard connector | MOT-008-LL-KC2 | | |
| | 2000rpm/14.3Nm | SMH130D-0300-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-008-LL-KC2-B | | |
| | 3kW | SMH150D-0300-20AAK-4HKC | 2500P/R YL series standard connector | MOT-008-LL-KC2 | | |
| ≤e | 2000rpm/14.3Nm | SMH150D-0300-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-008-LL-KC2-B | | JD630-AA-000 |
| 3 3 3 | 3.8kW | SMH150D-0380-20AAK-4HKC | 2500P/R YL series standard connector | MOT-015-LL-KC2 | | JD630-LA-000 |
| m In 80V | 2000rpm/18Nm | SMH150D-0380-20ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-015-LL-KC2-B | - | |
| Medium Inertia 380V | 3.5kW 1500rpm/22Nm | SMH180D-0350-15AAK-4HKC | 2500P/R YL series standard connector | MOT-015-LL-KC2 | | |
| 6 | | SMH180D-0350-15ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-015-LL-KC2-B | | |
| | 4.4kW 1500rpm/28Nm | SMH180D-0440-15AAK-4HKC | 2500P/R YL series standard connector | MOT-015-LL-KC2 | | JD640-AA-000 |
| | | SMH180D-0440-15ABK-4HKC • | 2500P/R YL series standard connector with brake | MOT-015-LL-KC2-B | - | JD640-LA-000 |
| | 5.5kW 1500rpm/35Nm | SMH180D-0550-15RAK-4HKC | SMT37 Resolver YL series standard connector | MOT-015-LL-KC2 | | |
| | | SMH180D-0550-15RBK-4HKC • | SMT37 Resolver YL series standard connector with brake | MOT-015-LL-KC2-B | | JD640-AR-000 |
| | 7.5kW 1500rpm/48Nm | SMH180D-0750-15RAK-4HKC | SMT37 Resolver YL series standard connector | MOT-030-LL-KC3 | - ENCCR-LL-FC1 | JD650-AR-000 |
| | | SMH40S-0005-30AAK-4DKH | 2500P/R Cable connector | MOT-005-LL-KL-D | | |
| | 50W 3000rpm/0.16Nm | | | MOT-005-LL-KL-D | | |
| | 5000rpm/0.1600m | SMH40S-0005-30ABK-4DKH | 2500P/R Cable connector with brake | BRA-LL-KL | | |
| | | SMH40S-0010-30AAK-4DKH | 2500P/R Cable connector | MOT-005-LL-KL-D | ENCCA-LL-KH | |
| | 100W | | | MOT-005-LL-KL-D | | |
| | 3000rpm/0.32Nm | SMH40S-0010-30ABK-4DKH | 2500P/R Cable connector with brake | BRA-LL-KL | | |
| | 1Nm | 57S-0010-10AAK-FDFH | | | | |
| Small Inerti | 1.5Nm | 57S-0015-08AAK-FDFH | 2500P/R Multi-pole servo motor | MOT-005-LL-KL-D | ENCCF-LL-FH | |
| | 2.4Nm | 85S-0020-05AAK-FLFN-02 | | | | |
| lert | 8 Nm | 85S-0050-10AAK-FLFN-03 | 2500P/R Multi-pole servo motor | MOTE-005-LL-KC0 | ENCCF-LL-FC0 | FD122-CA-000 |
| <u>م</u> | | SME60S-0020-30AAK-3DKH | 2500P/R Wire saving encoder Cable connector | MOT-005-LL-KL-D | | FD122-AA-000 |
| DC60V | 200W | | 2500P/R Wire saving encoder Cable connector | MOT-005-LL-KL-D/ | | FD122-LA-000 |
| >0 | 3000rpm/0.64Nm | SME60S-0020-30ABK-3DKH | with brake | BRA-LL-KL | | |
| | | SME60S-0040-30AAK-3DKH | 2500P/R Wire saving encoder Cable connector | MOT-008-LL-KL-D | - | |
| | 400W | | 2500P/R Wire saving encoder Cable connector | MOT-008-LL-KL-D/ | ENCCF-LL-FH | |
| | 3000rpm/1.27Nm | SME60S-0040-30ABK-3DKH | with brake | BRA-LL-KL | | |
| | | SME80S-0040-30AAK-3DKH | 2500P/R Wire saving encoder Cable connector | MOT-008-LL-KL-D | - | |
| | 400W | | 2500P/R Wire saving encoder Cable connector | MOT-008-LL-KL-D/ | - | |
| | 3000rpm/1.27Nm | SME80S-0040-30ABK-3DKH | with brake | | | |
| | | with brake | BRA-LL-KL | | | |

FD2S/CD2S Servo Driver and Motor Selection Table

| Catagory R | Rated Power/ Rated Speed/ Rated Torgue | Servo Motor | Description | Power/ Brake Cable | Encoder Cable | Servo Driver |
|------------|--|--|---|-------------------------|--------------------------------|--------------------------------|
| | 200W | SMC60S-0020-30EAK-3LKH | 2500P/R Wire saving encoder Cable connector | MOT-005-LL-KL | | |
| 300 | 3000rpm/0.64Nm | SMC60S-0020-30EBK-3LKH | 2500P/R Wire saving encoder Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | | FD422S-CA-000 |
| | 400W | SMC60S-0040-30EAK-3LKH | 2500P/R Wire saving encoder Cable connector | MOT-005-LL-KL | ENCCF-LL-FH | FD422S-AA-000 |
| 300 | 000rpm/1.27Nm | SMC60S-0040-30EBK-3LKH | 2500P/R Wire saving encoder Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCF-LL-FH | FD422S-LA-000 |
| | 750W | SMC80S-0075-30EAK-3LKH 2500P/R Wire saving encoder Cable connector MOT-005-LL-KL | | | CD422S-AA-000 | |
| 300 | 000rpm/2.39Nm | SMC80S-0075-30EBK-3LKH | 2500P/R Wire saving encoder Cable connector with brake | MOT-005-LL-KL/BRA-LL-KL | | |
| | 1kW | SMC130D-0100-20EAK-4LKP | 2500P/R Wire saving encoder, HFO18+FHO21 connector | MOT-005-LL-KC4 | | FD422S-CF-000 FD422S-AF-000 |
| 20 | 000rpm/4.8Nm | SMC130D-0100-20EBK-4LKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-005-LL-KC4-B | _ | FD422S-LF-000 CD422S-AF-000 |
| SMC | 1.5kW | SMC130D-0150-20EAK-4LKP | 2500P/R Wire saving encoder, HFO18+FHO21 connector | MOT-008-LL-KC4 | | FD432S-CA-000 |
| Series 20 | 000rpm/7.2Nm | SMC130D-0150-20EBK-4LKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-008-LL-KC4-B | | FD432S-AA-000 |
| | 2kW | SMC130D-0200-20EAK-4LKP | 2500P/R Wire saving encoder, HFO18+FHO21 connector | MOT-008-LL-KC4 | | FD432S-LA-000 |
| 20 | 000rpm/10Nm | SMC130D-0200-20EBK-4LKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-008-LL-KC4-B | ENCCF-LL-FC0 | CD432S-AA-000 |
| | 1.5kW | SMC130D-0150-20EAK-4HKP | 2500P/R Wire saving encoder, HFO18+FHO21 connector | MOT-005-LL-KC4 | | FD612S-CA-000 |
| 20 | 000rpm/7.2Nm | SMC130D-0150-20EBK-4HKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-005-LL-KC4-B | | FD612S-AA-000 |
| | 2kW 2000rpm/10Nm | SMC130D-0200-20EAK-4HKP | 2500P/R Wire saving encoder, HFO18+FHO21 connector | MOT-008-LL-KC4 | | FD612S-LA-000 CD612S-AA-000 |
| 20 | | SMC130D-0200-20EBK-4HKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-008-LL-KC4-B | MOT-008-LL-KC4-B | |
| | 3kW | SMC130D-0300-30EAK-4HKP | 2500P/R Wire saving encoder, HF018+FH021 connector MOT-008-LL-KC4 | | | FD622S-CA-000 |
| 30 | 000rpm/10Nm | SMC130D-0300-30EBK-4HKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-008-LL-KC4-B | | FD622S-AA-000 |
| | 3kW | SMC130D-0300-20EAK-4HKP | 2500P/R Wire saving encoder, HFO18+FHO21 connector | MOT-008-LL-KC4 | | FD622S-LA-000 |
| 200 | 000rpm/14.3Nm | SMC130D-0300-20EBK-4HKP • | 2500P/R Wire saving encoder, HFO18+FHO21 connector with brake | MOT-008-LL-KC4-B | | CD622S-AA-000 |
| | 5014 | SMH40S-0005-30JAK-4LKU | 20 bit single-turn encoder | MOT-005-LL-KL | ENCCG-LL-GU | |
| 300 SMH | 50W 000rpm/0.16Nm | SMH40S-0005-30KAK-4LKU | 16 bit multi-turn absolute encoder | MOT-005-LL-KL | ENCDG-LL-GU ENCCG-(4)-GU-BT | FD412S-CA-000 FD412S-AA-000 |
| Series | 100W | SMH40S-0010-30JAK-4LKU | 20 bit single-turn encoder | MOT-005-LL-KL | ENCCG-LL-GU | FD412S-LA-000 |
| 300 | 000rpm/0.32Nm | SMH40S-0010-30KAK-4LKU | 16 bit multi-turn absolute encoder | MOT-005-LL-KL | ENCDG-LL-GU ENCCG-(4)-GU-BT | CD412S-AA-000 |
| | | SMS60S-0020-30JAK-3LKU | 20 bit single-turn encoder | MOT-005-LL-KL | ENCCG-LL-GU | |
| | 200W | SMS60S-0020-30JBK-3LKU | 20 bit single-turn encoder, with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCO-LL-GO | |
| 300 | 000rpm/0.64Nm | SMS60S-0020-30KAK-3LKU | 16 bit multi-turn absolute encoder | MOT-005-LL-KL | ENCDG-LL-GU | |
| | | SMS60S-0020-30KBK-3LKU | 16 bit multi-turn absolute encoder, with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCG-(4)-GU-BT | |
| | | SMS60S-0040-30JAK-3LKU | 20 bit single-turn encoder | MOT-005-LL-KL | ENCCG-LL-GU | FD422S-CA-000 |
| SMS | 400W | SMS60S-0040-30JBK-3LKU | 20 bit single-turn encoder, with brake | MOT-005-LL-KL/BRA-LL-KL | EINCCG-LL-GU | FD422S-AA-000 |
| Series 300 | 000rpm/1.27Nm | SMS60S-0040-30KAK-3LKU | 16 bit multi-turn absolute encoder | MOT-005-LL-KL | ENCDG-LL-GU | FD422S-LA-000 |
| | | SMS60S-0040-30KBK-3LKU | 16 bit multi-turn absolute encoder, with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCG-(4)-GU-BT | CD422S-AA-000 |
| | | SMS80S-0075-30JAK-3LKU | 20 bit single-turn encoder | MOT-005-LL-KL | | |
| | 750W | SMS80S-0075-30JBK-3LKU | 20 bit single-turn encoder, with brake | MOT-005-LL-KL/BRA-LL-KL | ENCCG-LL-GU | |
| 300 | 000rpm/2.39Nm | SMS80S-0075-30KAK-3LKU | 16 bit multi-turn absolute encoder | MOT-005-LL-KL | ENCDG-LL-GU | |
| | | | | | | |

Note: User select the compatible motors themselves. • It needs CD24V/2A delay when driver drive the brake device.

Note: User select the compatible motors themselves. • It needs CD24V/2A delay when driver drive the brake device.



Note: 1. JD430/JD620 drivers share the same interface definition, except for X10 power interfaces.

2. Suggested brake resistor: JD430 39ohms/200W or 75ohms/100W, JD620 75ohms/200W, JD630 & JD640 47ohms/500W. The customer should chose the power of brake resister according to the actual application.

ENCODER OUT

| Pin No. | Signal | |
|---------|----------|--|
| 1 | +5V (in) | |
| 2 | A | |
| 3 | В | |
| 4 | Z | |
| 5 | Z2+ | |
| 6 | GND | |
| 7 | /A | |
| 8 | /B | |
| 9 | /Z | |
| | | |

RS485

| Pin No. | Signal |
|---------|--------|
| 1 | NC |
| 2 | RX+ |
| 3 | TX+ |
| 4 | NC |
| 5 | GND |
| 6 | +5V |
| 7 | RX- |
| 8 | TX- |
| 9 | NC |

RS232

| Pin No. | Signal |
|---------|--------|
| 1 | NC |
| 2 | TX |
| 3 | RX |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | NC |
| 8 | NC |
| 9 | NC |

CAN

| Pin No. | Signal |
|---------|--------|
| 1 | NC |
| 2 | CAN_L |
| 3 | GND |
| 4 | NC |
| 5 | NC |
| 6 | NC |
| 7 | CAN_H |
| 8 | NC |
| 9 | NC |

MASTER ENCODER

| Pin No. | Signal | |
|-------------|---------------|--|
| 1 | +5V | |
| 1 2 3 | GND | |
| | NC | |
| 4 | Pul+/A1+/CW+ | |
| 5 | Pul-/A1-/CW- | |
| | Z | |
| 7 | В | |
| 8 | A | |
| 9 | Z1+ | |
| 10 | Dir+/B1+/CCW+ | |
| 11 | /Z | |
| 12 | /B | |
| 13 | /A | |
| 14 | Z1- | |
| 15 | Dir-/B1-/CCW- | |

| Incremental | Resolver | Hiperface | | |
|----------------|--|---|--|--|
| encoder signal | signal | encoder signa | | |
| +5V | NC | NC | | |
| A | ResCos+ | NC | | |
| В | ResSin+ | NC | | |
| Z | NC | EncCos+ | | |
| U | NC | EncSin+ | | |
| V | Res_ref+ | VCC | | |
| W | NC | Enc 485+ | | |
| PTC_IN | PTC INI | PTC INI | | |
| GND | GND | GND | | |
| /A | ResCos- | NC | | |
| /B | ResSin- | NC | | |
| /Z | NC | EncCos- | | |
| /U | NC | EncSin- | | |
| /V | Res_ref- | NC | | |
| /W | NC | Enc 485- | | |
| | Incremental encoder signal +5V B Z U V W PTC_IN M PTC_IN /A /B /Z /U /V | Incremental encoder signal Resolver signal +5V NC A ResCos+ B ResSin+ Z NC U NC V Res.ref+ W NC PTC_IN PTC INI GND GND /A ResCos- /B ResSin- /Z NC /U NC //U NC //U NC //V Res_ref- | | |

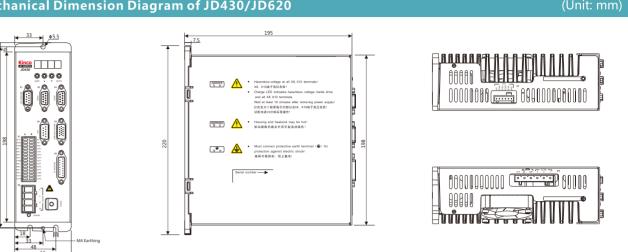
08

Technical Specifications of JD Servo Driver

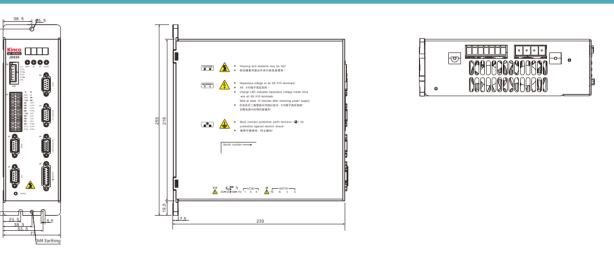
| Мо | odel Parameter | JD430-AA-000 | JD620-AA-000 | JD630-□A-000 | JD640-□R-000 | JD650-AR-000 | | |
|-------------------|-------------------------------|--|---|--------------------------|------------------|--------------------|--|--|
| | Main supply voltage | Single-phase or | 3-phase AC380V | 3-phase AC380V | 3-phase AC380V | 3-phase AC380V | | |
| Power | | 3-phase AC220V -20/+15% 47~63Hz | -20/+15% 47~63Hz | -20/+15% 47~63Hz | -20/+15% 47~63Hz | -20/+15% 47~63Hz | | |
| er | Control circuit voltage | 18VDC~30VDC 1A | 18VDC~30VDC 1A | 18VDC~30VDC 1A | 18VDC~30VDC 1A | 18VDC~30VDC 1A | | |
| Cu | Rated current (RMS) | 10A | 7A | 10A | 13A | 18A | | |
| Current | Peak current (PEAK) | 27.5A | 25A | 35A | 45A | 65A | | |
| | ke chopper threshold | DC380V±5V | DC680V±5V | DC680V±5V | DC680V±5V | DC680V±5V | | |
| Ove | r-voltage alarming threshold | DC400V±5V | DC700V±5V | DC700V±5V | DC700V±5V | DC700V±5V | | |
| Und | er-voltage alarming threshold | DC200V±5V | DC400V±5V | DC400V±5V | DC400V±5V | DC400V±5V | | |
| Coo | oling method | Forced air cooling | | Forced air cooling | 1 | Forced air cooling | | |
| We | ight (Kg) | 2.51 | | 3.62 | | 6.7 | | |
| Size | e(W*H*D, mm) | 220×195×66 | | 255×230×77 | | 320×280.5×95 | | |
| | Digital operation panel | 4 buttons and 4 LED di | isplay | | | • | | |
| | | 7 digital outputs(OUT1 | 7 digital outputs(OUT1, OUT2, OUT7 are 0.1A and OUT3~OUT6 are 0.5A, can define driver ready and | | | | | |
| | External I/O | other functions freely; | | | | | | |
| | | 8 digital inputs(12.5~30V), can define driver enables and other functions freely. | | | | | | |
| | Analog input | 2 analog inputs, can be used to control speed and torque, the input range is -10V~10V | | | | | | |
| | Encoder signal | Output encoder signal and master encoder signal are optional, can be used in the multiple axises synchronization, | | | | | | |
| Gene | output function | the max. output frequency is 2MHz. Do not support this function if driver is matched with resolver motor. | | | | | | |
| General Functions | Master encoder | Can receive 3.3V~24V pulse/direction signal, CW/CCW signal, and the RS422 difference signal, the max. input frequency is 4MHz. | | | | | | |
| unc | input function | | | | | | | |
| tions | | Incremental encoder 2500P/R | | | | | | |
| | Feedback signal | Resolver、Hiperface/sincos ® Encoder 16 bit multi-turn absolute encoder、20 bit single-turn absolute encoder | | | | | | |
| | | | | | | | | |
| | RS232 | The max. baudrate is 115.2KHz, use JD-PC software to communicate with PC, or via free protocol to communicate with controller | | | | | | |
| | RS485 | The max. baudrate is 115.2KHz, use Modbus RTU protocol to communicate with controller | | | | | | |
| | CAN BUS | The max. baudrate is 1MHz, use CANopen protocol to communicate with controller | | | | | | |
| | STO function | STO port can be conne | ected to safe controller, s | witch, and sensor to pro | tect the system | | | |
| | Operating temperature | 0~40°C | | | | | | |
| Operat | Storage temperature | -10~70°C | | | | | | |
| | Humidity (non-condensing) | Below 90% RH | | | | | | |
| on E | Protection class | IP20 | | | | | | |
| nvira | Installation environment | Installed in a dust-free,dry and lockable environment (such as in a electrical cabinet) | | | | | | |
| ion Environment | Installation mode | Vertical installation | | | | | | |
| ent | Height | No power limitation below 1000m | | | | | | |
| | Atmospheric pressure | 86 ~ 106kpa | | | | | | |

Note① : □ = LA : Communication port RS232、RS485 □=AA: Communication port RS232、RS485、CANopen □=AR : Communication port RS232、RS485、CANopen , support motor with Resolver Note② : AA is a direct driving servo system

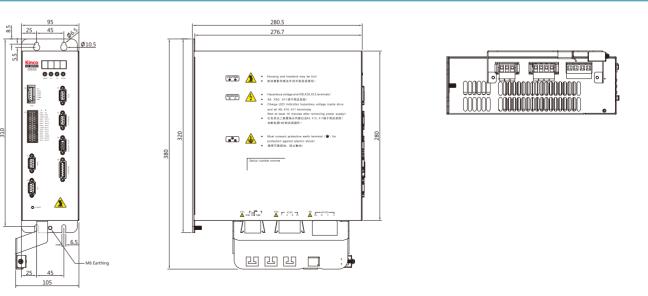
Mechanical Dimension Diagram of JD430/JD620



Mechanical Dimension Diagram of JD630/JD640

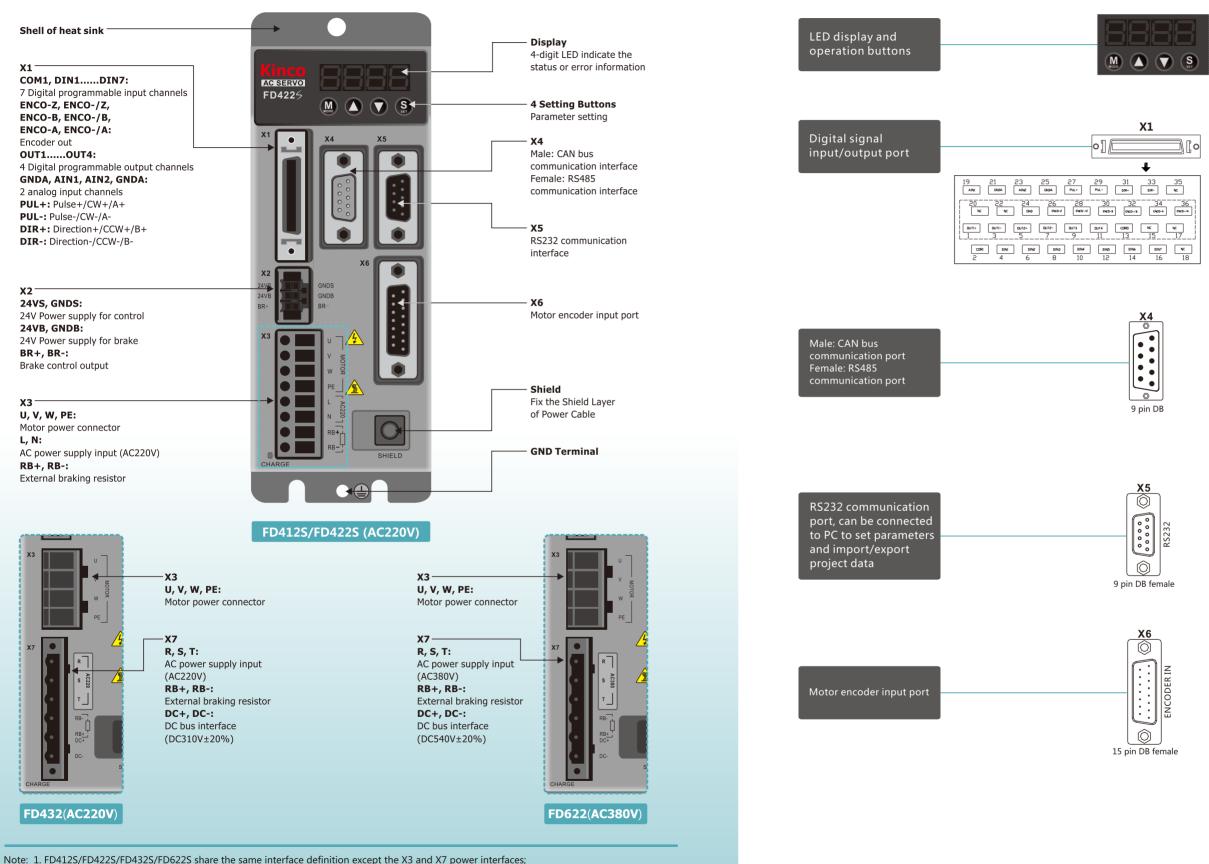


Mechanical Dimension Diagram of JD650



FD2S Panel and Interface Description of **FD2S** Servo Driver

Port Description of FD2S Servo Driver



2. Suggested brake resistor: FD412S/FD422S 75ohms/100W, FD432S 39ohms/200W, FD622S 75ohms/200W. The customer should choose the power of brake resistor according to the actual application.

| XI | | | | | | | |
|---------|--------|---------|--------|---------|---------|---------|--------|
| Pin No. | Signal | Pin No. | Signal | Pin No. | Signal | Pin No. | Signal |
| 2 | COM1 | 1 | OUT1+ | 20 | NC | 19 | AIN1 |
| 4 | DIN1 | 3 | OUT1- | 22 | NC | 21 | GNDA |
| 6 | DIN2 | 5 | OUT2+ | 24 | GND | 23 | AIN2 |
| 8 | DIN3 | 7 | OUT2- | 26 | ENCO-Z | 25 | GNDA |
| 10 | DIN4 | 9 | OUT3 | 28 | ENCO-/Z | 27 | PUL+ |
| 12 | DIN5 | 11 | OUT4 | 30 | ENCO-B | 29 | PUL- |
| 14 | DIN6 | 13 | COM0 | 32 | ENCO-/B | 31 | DIR+ |
| 16 | DIN7 | 15 | NC | 34 | ENCO-A | 33 | DIR- |
| 18 | NC | 17 | NC | 36 | ENCO-/A | 35 | NC |
| | | | | | | | |

| CAN | | | | |
|---------|--------|--|--|--|
| Pin No. | Signal | | | |
| 1 | NC | | | |
| 2 | CAN_L | | | |
| 3 | GND | | | |
| 4 | NC | | | |
| 5 | NC | | | |
| 6 | NC | | | |
| 7 | CAN_H | | | |
| 8 | NC | | | |
| 9 | NC | | | |

| RS485 |
|-------|
|-------|

| Pin No. | Signal |
|---------|--------|
| 1 | NC |
| 2 | RX+ |
| 3 | TX+ |
| 4 | NC |
| 5 | GND |
| 6 | +5V |
| 7 | RX- |
| 8 | TX- |
| 9 | NC |

RS232

| Pin No. | Signal |
|---------|--------|
| 1 | NC |
| 2 | TX |
| 3 | RX |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | NC |
| 8 | NC |
| 9 | NC |

ENCODER IN

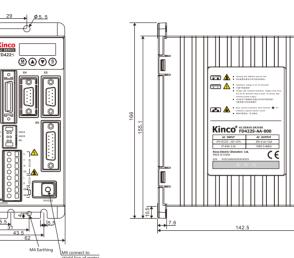
| Pin No. | Incremental encoder signal | Communication encoder signal |
|---------|----------------------------|------------------------------|
| 1 | +5V | + 5V |
| 2 | A | NC |
| 3 | В | NC |
| 4 | Z | NC |
| 5 | U | NC |
| 6 | V | NC |
| 7 | W | SD |
| 8 | PTC_IN | NC |
| 9 | GND | GND |
| 10 | /A | NC |
| 11 | /B | NC |
| 12 | /Z | NC |
| 13 | /U | NC |
| 14 | /V | NC |
| 15 | /W | /SD |

Technical Specifications of FD2S Servo Driver

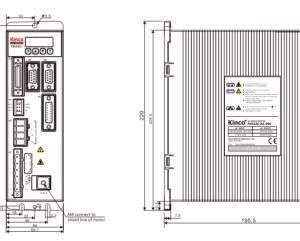
| | del Devenenter | FD412S- | FD422S- | FD422S- | FD432S- | FD612S- | FD622S- | |
|-----------------------|--------------------------------|--|---|------------------------|---|---------------------------------|--------------------|--|
| | odel Parameter | □A-000 | □A-000 | □F-000 | □A-000 | □A-000 | □A-000 | |
| Power | Main supply voltage | | Single-phase AC220V -20/+15% 47~63Hz | | Single-phase or 3-phase AC220V -20/+15% 47~63Hz | 3-phase AC220V 20(115% 47 62117 | | |
| , T | Control circuit voltage | 18VDC~30VDC 1A | | | | | | |
| Cur | Rated current(RMS) | 2A | 4A | 5A | 11A | 5.5A | 7A | |
| Current | Peak current(PEAK) | 7A | 15A | 15A | 27.5A | 15A | 25A | |
| Fee | dback signal | 2500PPR (increme | ntal encoder with 5 | V supply), 16 bit mult | i-turn absolute encoc | ler, 20 bit single-tur | n absolute encoder | |
| Bra | ke chopper | Use an external braking resistor according to application, mainly in occasion of quick stop. | | | | | | |
| Bra | ke chopper threshold | DC380V±5V | | | DC380V±5V | V DC680V±5V | | |
| Ovi | er-voltage alarming threshold | DC400V±5V | | | DC400V±5V | DC700V±5V | | |
| Un | der-voltage alarming threshold | DC200V±5V | | | DC200V±5V | DC400V±5V | | |
| Co | oling method | Natural air coolir | ng | Fan | Fan | | | |
| We | ight(Kg) | 1.2 | | 1.2 | 2.4 | | | |
| | Digital input specification | 7 digital inputs, wi | th COMI terminal fo | r PNP (high level vali | d 12.5-30V) or NPN (l | ow level valid) conn | ection. | |
| | Digital input function | Define freely according to requirement, supporting following functions: Driver enable, driver fault reset, driver mode control, proportional control, positive limit, negetive limit, homing signal, reverse command, internal speed section control, internal positive section control, quick stop, start homing, active command, switch electronic gear ratio, switch gain | | | | | | |
| | Digital output specification | 5 digital outputs,OUT1 ~ OUT4 current is 100mA, BR+/BR- (Brake control ourtput) current is 500mA, can drive brake device directly | | | | | | |
| General Functions | Digital output function | Define freely according to requirement, supporting following functions: Driver ready, driver fault, position reached, motor at zero speed, motor brake, motor speed reached, Z signal, maximum speed obtained in torque mode, motor brake, position limiting, reference found, multi-position reached. | | | | | | |
| Fu | Analog input | 2 analog input, can be used to control speed and torque, the input range is -10V~10V. | | | | | | |
| nctions | Encoder signal output function | Output encoder signal is optional, can be used in the multiple axises synchronization, the max. output frequency is 2MHz. Motor A、B、Z signal, Plus signal (PLS+DIR、CW/CCW、A+B) | | | | | | |
| | RS232 | The max. baudrate is 115.2KHz, use JD-PC software to communicate with PC, or via free protocol to communicate with controller. | | | | | | |
| | Protection functions | Over-voltage protection, under-voltage protection, motor over-heat protection (I ² T), short-circuit protection, drive over-heat protection, etc. | | | | | | |
| RS4 | 185 | The max. baudrate is 115.2KHz, use Modbus RTU protocol to communicate with controller. | | | | | | |
| CA | N BUS | The max. baudrate is 1MHz, use CANopen protocol to communicate with controller. | | | | | | |
| | Operating temperature | 0~40°C | | | | | | |
| Ope | Storage temperature | -10°C~70°C | | | | | | |
| ratic | Humidity(non-condensing) | Below 90%RH | | | | | | |
| n Fr | Protection class | IP20 | | | | | | |
| Iviro | Installation environment | Installed in a dust-free, dry and lockable environment (such as in a electrical cabin | | | | al cabinet) | | |
| Operation Environment | Installation mode | Vertical installation | | | | | | |
| nt | Height | No power limitation below 1000m | | | | | | |
| | Atmospheric pressure | 86kpa~106kpa | | | | | | |

Note①: □=L: Communication port RS232, RS485 □=A/C: Communication port RS232, CANopen Note2: AA is a direct driving servo system

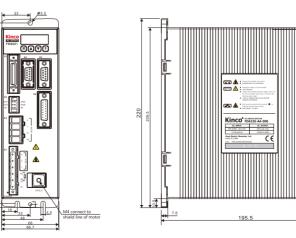
Mechanical Dimension Diagram of FD412S/FD422S



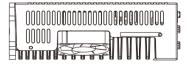
Mechanical Dimension Diagram of FD432S



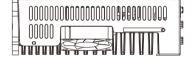
Mechanical Dimension Diagram of FD612S/FD622S



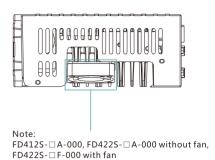




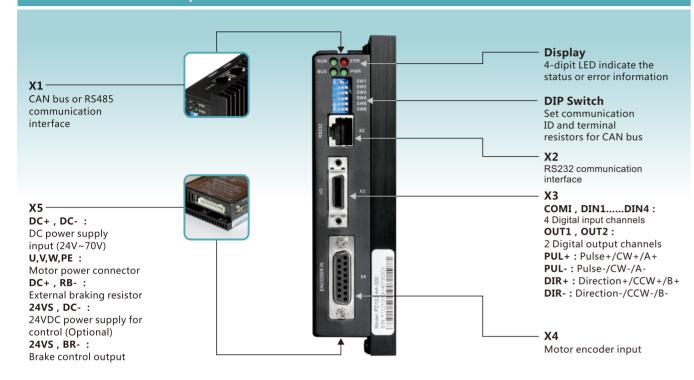




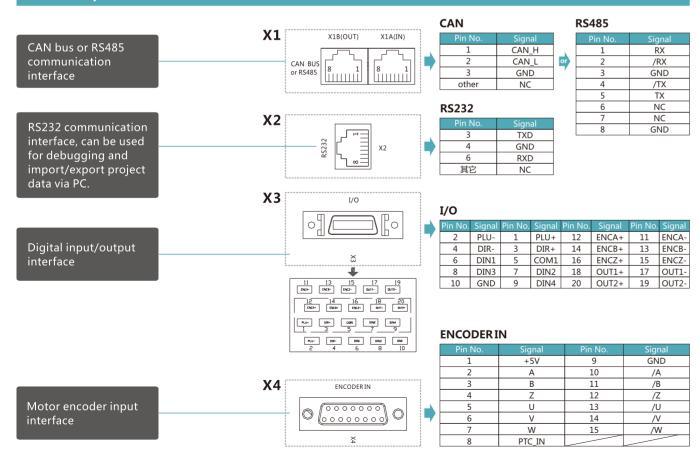




Panel and Interface Description of FD122 Servo Driver



Port Description of FD122 Servo Driver



Technical Specifications Table of FD122 Servo Driver

| Мо | del parameter | FD122-LA-000 | | |
|-------------------|--------------------------------|--|--|--|
| Po | Main supply voltage | 24VDC ~ 70VDC | | |
| Power | Control circuit voltage | DC24V 1A (Optional) | | |
| Cur | Rated current(RMS) | 10A | | |
| Current | Peak current(PEAK) | 30A | | |
| Feedback signal | | 2500PPR (incremental encoder with 5\ | | |
| Bra | ke chopper | Use an external braking resistor accord | | |
| Bra | ke chopper threshold | DC79V ± 2V | | |
| Ove | er-voltage alarming threshold | DC86V ± 2V | | |
| Und | der-voltage alarming threshold | 18V± 2V | | |
| Cod | oling method | Natural air cooling | | |
| We | ight (Kg) | 0.565 | | |
| | Input specification | 4 digital inputs, with COMI terminal fo | | |
| | | Define freely according to requiremen | | |
| | | driver mode control, proportional con | | |
| | Input function | internal speed section control, interna | | |
| | | switch electronic gear ratio, switch gai | | |
| Gen | Output angeification | 3 digital outputs, OUT1-OUT2 current | | |
| General Functions | Output specification | can drive brake device directly | | |
| Func | | Define freely according to requiremen | | |
| tion | Output function | reached, motor at zero speed, motor k | | |
| S | | torque mode, motor brake, position lii | | |
| | Encoder Signal Output | Output the encoder signal of motor, U | | |
| | RS232 | The max. baud rate is 115.2KHz, use JI | | |
| | K3232 | protocol to communicate with control | | |
| | Protection Functions | Over-voltage protection, under-voltag | | |
| | Protection Functions | drive over-heat protection, etc | | |
| CAI | N BUS | Supports 1M baud rate, communicate | | |
| | Operating temperature | 0 ~ 40°C | | |
| ę | Storage temperature | -10°C ~ 70°C | | |
| Operati | Humidity(non-condensing) | Below 90%RH | | |
| | Protection class | IP20 | | |
| on Environment | Installation environment | Installed in a dust-free, dry and lockab | | |
| onm | Installation mode | Vertical installation | | |
| lent | Altitude | No power limitation below 1000m | | |
| | Atmospheric pressure | 86kpa ~ 106kpa | | |

Note(1):
=L: Communication port RS232, RS485 □=A/C: Communication port RS232, CANopen

FD122-CA-000

FD122-AA-000

V supply)

rding to application, mainly in high speed start and stop application.

or PNP (high level valid 12.5-30V) or NPN (low level valid) connection. nt, supporting following functions: Driver enable, driver fault reset, ntrol, positive limit, negative limit, homing signal, reverse command, al positive section control, quick stop, start homing, active command, nin

t is 100mA, BR+/BR- (Brake control output) current is 500mA,

nt, supporting following functions: Driver ready, driver fault, position brake, motor speed reached, N signal, maximum speed obtained in imiting, reference found, multi-position reached

Used in multiple axis synchronous control, supports 2MHz at most

D-PC software to communicate with PC, or via free oller.

ge protection, motor over-heat protection(I²T), short-circuit protection,

es with controller via CANopen protocol

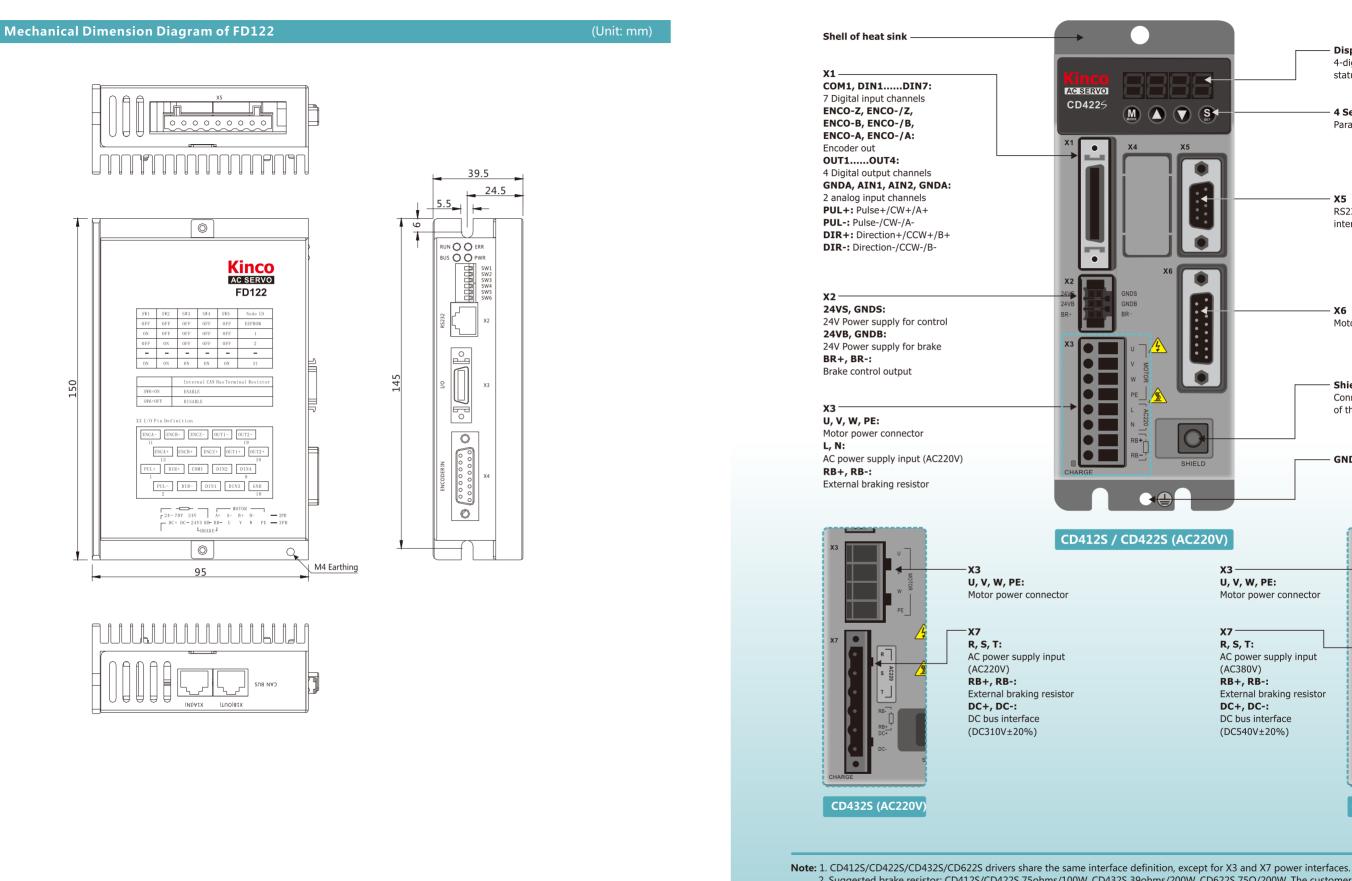
ble environment(such as in a electrical cabinet)

Note(2): AA is a direct driving servo system

Mechanical Dimension Diagram of FD122 Servo Driver

AC SERVO

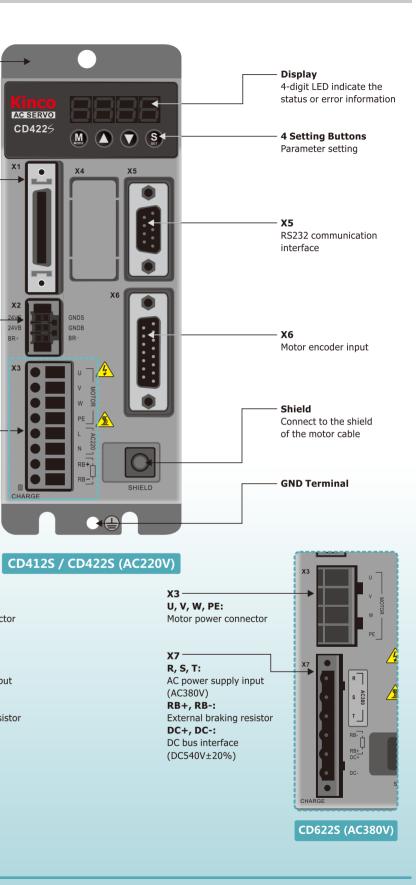
CD4225



2. Suggested brake resistor: CD412S/CD422S 75ohms/100W, CD432S 39ohms/200W, CD622S 75Ω/200W, The customer should chose the power of brake resister according to the actual application.

L50

CD2S Panel and Interface Description of **CD2S** Servo Driver



Port Description of **CD2S** Servo Driver

| LED display and | |
|-----------------|--|
| Setting Buttons | |

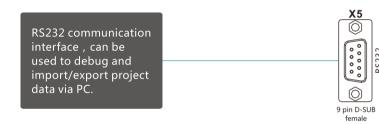


RS232

| | X1 |
|--------------------------------|--|
| ignal input/output nterface | •] |
| | ₽ ₽ |
| | 19 21 23 25 27 29 31 33 35 ANG OKBA AND OKBA PAL+ PAL- BKH- BKH- KC |
| | 20 22 24 26 28 30 32 34 36 K K 00 0057 0057 0059 0059 0059 |
| | 1 0/1- 0/12- 0/13- 0/14 COND KC KC I 1 |
| | CON1 BHC BHC |

| X1 | |
|----|--|
| | |

| ~1 | | | | | | | |
|---------|--------|---------|--------|---------|---------|---------|--------|
| Pin No. | Signal | Pin No. | Signal | Pin No. | Signal | Pin No. | Signal |
| 2 | COM1 | 1 | OUT1+ | 20 | NC | 19 | AIN1 |
| 4 | DIN1 | 3 | OUT1- | 22 | NC | 21 | GNDA |
| 6 | DIN2 | 5 | OUT2+ | 24 | GND | 23 | AIN2 |
| 8 | DIN3 | 7 | OUT2- | 26 | ENCO-Z | 25 | GNDA |
| 10 | DIN4 | 9 | OUT3 | 28 | ENCO-/Z | 27 | PUL+ |
| 12 | DIN5 | 11 | OUT4 | 30 | ENCO-B | 29 | PUL- |
| 14 | DIN6 | 13 | COM0 | 32 | ENCO-/B | 31 | DIR+ |
| 16 | DIN7 | 15 | NC | 34 | ENCO-A | 33 | DIR- |
| 18 | NC | 17 | NC | 36 | ENCO-/A | 35 | NC |





| Pin No. | Signal |
|---------|--------|
| 1 | NC |
| 2 | TX |
| 3 | RX |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | NC |
| 8 | NC |
| 9 | NC |

ENCODER IN

| Pin No. | Signal |
|---------|--------|
| 1 | +5V |
| 2 | A |
| 3 | В |
| 4 | Z |
| 5 | U |
| 6 | V |
| 7 | W |
| 8 | PTC_IN |
| 9 | GND |
| 10 | /A |
| 11 | /B |
| 12 | /Z |
| 13 | /U |
| 14 | /V |
| 15 | /W |

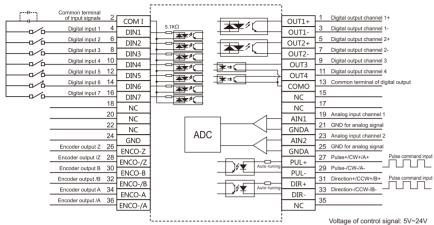
Technical Specifications of CD2S Servo Driver

| Model | parameter | CD412S-AA-000 | CD422S-AA-000 |
|--------------------------|-------------------------------------|-------------------------------------|---|
| P | Main supply voltage | Single-phase AC2 -20/+15% 47~63F | |
| Power | Control circuit voltage | 18VDC~30VDC | 1A |
| Current | Max. continuous current | 2A | 4A |
| Current | Peak current(PEAK) | 7A | 15A |
| Feedba | ck signal | 2500PPR (increm | nental encoder with |
| | | | absolute encoder, |
| Brake cl | | | praking resistor acc |
| | hopper threshold | DC380V±5V | |
| | tage alarming threshold | DC400V±5V | |
| | oltage alarming threshold method | DC200V±5V Natural air coolir | |
| Weight | | 1.2 | ig |
| weight | Max. frequency of input pulse | | : 500KPPS, Open-col |
| | Pulse command mode | - | CW+CW, A+B phase |
| | Command smoothing | | (Adjustable by inter |
| Position | Feedforward gain | | ernal parameter setti |
| Mode | Electronic gear ratio | | ar factor: -32768~32 |
| | Position loop sampling frequency | 1KHz | ar lactor52700-52 |
| | Analog input voltage range | -10V~+10V(Reso | lution 12bit) |
| | Input impedance | 200K | |
| | Analog input sampling frequency | 4KHz | |
| | Command source | | ommand / internal co |
| Speed | Command smoothing | | (Adjustable by interi |
| Mode | Input voltage dead-zone setting | | ernal parameter setti |
| | Input voltage offset settiong | | ernal parameter setti |
| | Speed limit | | ernal parameter setti |
| | Torque limit | | ernal parameter setti |
| | Speed loop sampling frequency | 4KHz | F |
| | Analog voltage input range | -10V~+10V(Reso | lution 12bit) |
| | Input impedance | 200K | |
| | Input sampling frequency | 4KHz | |
| _ | Command source | External analog co | ommand / internal co |
| Torque | Command smoothing | Low-pass filtering | (Adjustable by interr |
| Mode | Speed limit | Adjustable by inte | ernal parameter setti |
| | Input voltage dead-zone setting | Adjustable by inte | ernal parameter setti |
| | Input voltage offset setting | Adjustable by inte | ernal parameter setti |
| | Current sampling frequency | 16KHz | |
| Digital | Input specification | 7 digital inputs, w | ith COM1 terminal f |
| Digital Input | Input function | proportional control, | ng to requirement, supp positive limit, negetive rol, quick stop, start hon |
| Disting | Output specification | 5 digital outputs,Ol | JT1~OUT4 current is 1 |
| Digital Output | Output function | motor at zero spee | ling to requirement, su d, motor brake, motor on limiting, reference f |
| Protecti | on functions | Over-voltage protectio | n,under-voltage protectior |
| Commu | inication interface | RS232 (Connecti | ons with PC: 2-2, 3- |
| | Operating temperature | 0~40°C | |
| | Storage temperature | -10°C~70°C | |
| 필융 | Humidity(non-condensing) | Below 90%RH | |
| viro | Protection class | IP20 | |
| Operation Environment | Installation environment | Installed in a dus | st-free,dry and lock |
| nt | Installation mode | Vertical installati | on |
| | Altitude | No power limitat | tion below 1000m |
| | | | |

| CD422S-AF-000 | CD432S-AA-000 | CD612S-AA-000 | CD622S-AA-000 |
|---|--|-----------------------------------|---------------|
| | Single-phase or 3-phase AC220V -20/+15% 47~63Hz | 3-phase AC380V -20/+15% 47~63H | |
| | | | |
| 5A | 11A | 5.5A | 7A |
| 15A | 27.5A | 15A | 25A |
| 5V supply) | | | |
| 20 bit single-turn | absolute encoder | | |
| ording to applicat | ion, mainly in occa | sion of quick stop. | |
| | | DC680V±5V | |
| | | DC700V±5V | |
| _ | _ | DC400V±5V | |
| Fan | Fan | | |
| 1.2 | 2.4 | | |
| llector signal: 200KF | 742 | | |
| e(5V-24V) pal paramotor cottir | | | |
| nal parameter settir | iy) | | |
| ng 2767 Gear divider: 1 | | ar factor/Gear divide | arl < 50 |
| 2767, Gear divider. | L~52/67, 1/50≤ Ge | ar lactor/Gear divide | erizoo |
| | | | |
| | | | |
| | | | |
| ommand | | | |
| nal parameter settir | na) | | |
| ng | .9/ | | |
| ng | | | |
| ng | | | |
| ng / External analog | command control | | |
| | , | | |
| | | | |
| | | | |
| | | | |
| ommand | | | |
| nal parameter settir | ng) | | |
| ng / External analog | g command control | | |
| ng | | | |
| ng | | | |
| | | | |
| or PNP (high level val | id 12.5-30V) or NPN | (low level valid) conne | ction. |
| orting following functi | ons: Driver enable,drive | er fault reset,driver mod | e control, |
| | verse command, interna switch electronic gear i | al speed section control | , internal |
| - | - | - | |
| 100mA,OUT5 current | is 800mA, can drive b | orake device directly | |
| | | , driver fault, position | |
| speed reached, Z sig found, multi-position | | obtained in torque m | ode, |
| n,motor over-heat protect | ion(I ² T),short-circuit prote | ection,drive over-heat pro | tection,etc. |
| -3, 5-5) | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| able environment(| such as in a electri | cal cabinet) | |
| | | | |
| | | | |

Wiring Diagram of **CD2S** Servo Driver

Wiring Diagram for Position Control Mode



| Default setting for digital inputs: Din 1: Driver enable Din 2: Fault reset Din 3: Operation mode Din 4: P control Din 5: Positive limit Din 6: Negative limit Din 7: Home signal | Default setting for digital output Out 1: Ready Out 2: Error Out 3: Prosition reached Out 4: Zero velocity Out 5: Motor brake |
|--|---|
| To use other functions, please redefine the digital inputs, Other functions that can be defined are as followings: - Reverse command - Internal speed section control - Internal position section control - Start homing - Active command - Quick stop - Switch electronic gear ratio - Switch gein | To use other functions, please redefine the digital inputs, Other functions that can be defined are as followings: - Index - Motor brake - Position limiting - References found - Multi-function output signa (Multi-position reached) |

Default setting for digital output

To use other functions, please

define the digital inputs,

Other functions that can be

lefined are as followings

Out 1: Ready

Out 3: Position reached

Out 4: Zero velocity

Out 5: Motor brake

Out 2. Error

Index

- Motor brake

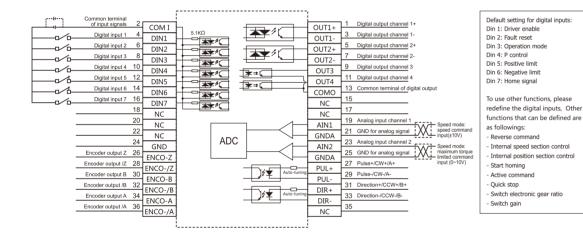
Position limiting

References found

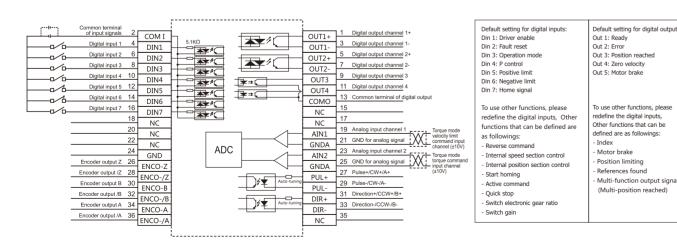
Multi-function output signa

(Multi-position reached)

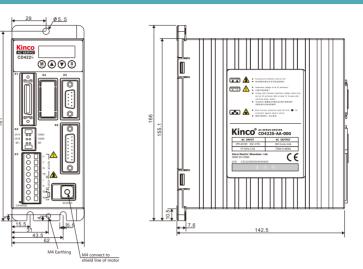
Wiring Diagram for Speed Control Mode



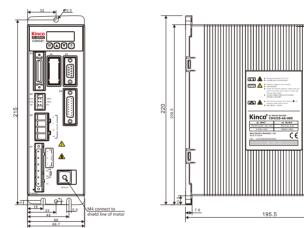
Wiring Diagram for Torque Control Mode



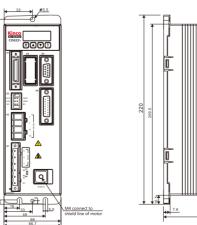
Mechanical Dimension Diagram of CD412S/CD422S

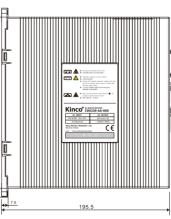


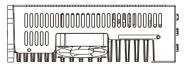
Mechanical Dimension Diagram of CD432S



Mechanical Dimension Diagram of CD612S/CD622S

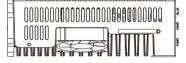




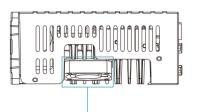


(Unit: mm)





(Unit: mm)



CD412S-AA-000. CD422S-AA-000 without fan.

CD422S-AF-000 with fan

Note

Technical Specifications of SMH Servo Motor (1)

| Motor series | | Small inertia fla | ange size 40mm | Small inertia fla | ange size 60mm | Small inertia flange size 80mm | | |
|-------------------------------------|---|--|----------------------------|---------------------------|--|--------------------------------|--|--|
| Model Driver matching | | SMH40S-0005- 30A□K-4LKH | SMH40S-0010- 30A□K-4LKH | SMH60S-0020- 30A K-3LK | SMH60S-0040- 30A K-3LK | SMH80S-0075- 30A K-3LK | SMH80S-0100- 30A K-3LK | |
| | | FD412S-CA-000 FD412S-AA-000 FD412S-LA-000 CD412S-AA-000 | | | JD430-AA-000 FD422S-CA-000 FD422S-AA-000 FD422S-LA-000 CD422S-AA-000 | | JD430-AA-000 FD432S-CA-000 FD432S-AA-000 FD432S-LA-000 CD432S-AA-000 | |
| DC link voltage UDC | | 300 | 300 | 300 | 300 | 300 | 300 | |
| | Rated power P _N (W) | 50 | 100 | 200 | 400 | 750 | 1000 | |
| Continuous | Rated torque T _N (Nm) | 0.16 | 0.32 | 0.64 | 1.27 | 2.39 | 3.18 | |
| performance | Rated speed n _N (rpm) | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | |
| | Rated current IN (A) | 0.7 | 1.4 | 1.6 | 3.1 | 3.9 | 6.3 | |
| Maximum torg | | 0.48 | 0.96 | 1.92 | 3.82 | 7.17 | 9.48 | |
| Maximum curr | | 2.1 | 4.2 | 4.8 | 9.3 | 11.7 | 18.9 | |
| Standstill torgu | . , | 0.176 | 0.352 | 0.7 | 1.39 | 2.63 | 3.3 | |
| Standstill current IS (A) | | 0.77 | 1.54 | 1.79 | 3.38 | 4.4 | 6.93 | |
| Resistance line-line RL (Ω) | | 16.6 | 5.53 | 8.02 | 3.52 | 1.4 | 0.86 | |
| Inductance line-line LL (mH) | | 14 | 6 | 16.3 | 7.8 | 7.5 | 4.5 | |
| Electrical time constant te (ms) | | 0.84 | 1.08 | 2.03 | 2.22 | 5.35 | 5.23 | |
| Mechanical time constant Tm (ms) | | 1.28 | 0.86 | 2.26 | 1.35 | 0.75 | 0.89 | |
| Reverse voltage constant Ke(V/krpm) | | 16 | 14 | 29 | 29 | 40 | 34 | |
| Torque constar | nt Kt (Nm/A) | 0.265 | 0.265 | 0.48 | 0.48 | 0.662 | 0.562 | |
| - | | 0.031 | 0.059 | 0.375 | 0.51 | 1.36 | 1.9 | |
| Rotor moment | of inertia J _m (Kg·cm ²) | 0.031 (with brake) | 0.061 (with brake) | 0.379 (with brake) | 0.514 (with brake) | 1.385 (with brake) | 1.925 (with brake) | |
| Pole pair numb | ber | 4 | 4 | 3 | 3 | 3 | 3 | |
| Maximum volta | ge rising du/dt (KV/µs) | 8 | 8 | 8 | 8 | 8 | 8 | |
| Insulation class | | F | F | F | F | F | F | |
| Maximum radi | al force F (N) | 120 | 120 | 180 | 180 | 335 | 335 | |
| Maximum axia | I force F (N) | 60 | 60 | 90 | 90 | 167.5 | 167.5 | |
| | C (1() | 0.5 | 0.8 | 1.3 | 1.8 | 3.3 | 3.9 | |
| Weight | G(Kg) | 0.8 (with brake) | 1.0 (with brake) | 1.8 (with brake) | 2.3 (with brake) | 4 (with brake) | 4.6 (with brake) | |
| | | 85.3±1 | 110.8±1 | 120 | 150 | 147 | 167 | |
| Length of motor L(mm) | | 119±1.5 (with brake) | 145±1.5 (with brake) | 159±1.5 (with brake) | 189±1.5 (with brake) | 197±1.5 (with brake) | 217±1.5 (with brake | |
| Position feedback device | | Incremental encoder 2500ppr | | | | | | |
| Cooling metho | d | Totally enclosed, r | non-ventilated | | | | | |
| Protection leve | 1 | IP65 for body, sha | aft sealing IP54 | | | | | |
| | Temperature | -20°C ~ 40°C (Non | -freezing) | | | | | |
| Environmental | Humidity | Below 90% RH (N | on-condensing) | | | | | |
| conditions for operation | Ambient environment | Away from active | gas, combustible g | gas, oil drops and d | lust | | | |
| operation | Altitude | - | | | elow, Above 1000m | : Decreasing 1.5% | per 100m rise | |

Technical Specifications of SMH Servo Motor (2)

| Motor series | | Medium inertia flange size 110mm | | | | | | | |
|-------------------------------------|--------------------------------------|----------------------------------|--|--------------------------------|--|--------------------------------|--------------------------------|--|--|
| Model Driver matching | | SMH110D-0125 -30A K-4LKC | SMH110D-0126 -30A K-4HKC | SMH110D-0105 -20A K-4LKC | SMH110D-0157 -30A□K-4HKC | SMH110D-0126 -20A K-4LKC | SMH110D-0188 -30A□K-4HKC | | |
| | | FD432S-AA-000 FD432S-LA-000 | JD620-AA-000 FD622S-CA-000 FD622S-AA-000 FD622S-LA-000 CD622S-AA-000 | FD432S-AA-000 FD432S-LA-000 | JD620-AA-000 FD622S-CA-000 FD622S-AA-000 FD622S-LA-000 CD622S-AA-000 | FD432S-AA-000 FD432S-LA-000 | FD622S-AA-000 FD622S-LA-000 | | |
| DC link voltage | e UDC | 300 | 560 | 300 | 560 | 300 | 560 | | |
| | Rated power P _N (W) | 1250 | 1260 | 1050 | 1570 | 1260 | 1880 | | |
| Continuous performance | Rated torque T _N (Nm) | 4.0 | 4.0 | 5.0 | 5.0 | 6.0 | 6.0 | | |
| | Rated speed n _N (rpm) | 3000 | 3000 | 2000 | 3000 | 2000 | 3000 | | |
| | Rated current IN (A) | 6.5 | 4.3 | 5.9 | 5.9 | 6.2 | 6.2 | | |
| Maximum toro | ue T _m (Nm) | 12 | 12 | 15.0 | 15.0 | 18.0 | 18.0 | | |
| Maximum curr | rent Im (A) | 19.5 | 12.9 | 17.7 | 17.7 | 18.6 | 18.6 | | |
| Standstill torqu | ue Ts (Nm) | 4.4 | 4.4 | 5.5 | 5.5 | 6.6 | 6.6 | | |
| Standstill curre | nt IS (A) | 6.82 | 4.73 | 6.49 | 6.49 | 6.765 | 6.765 | | |
| Resistance line | -line RL (Ω) | 0.8 | 1.83 | 1.03 | 1.03 | 1.258 | 1.258 | | |
| Inductance line-line LL (mH) | | 6.4 | 13.5 | 7.8 | 7.8 | 9.62 | 9.62 | | |
| Electrical time constant te (ms) | | 7.9 | 7.37 | 7.57 | 7.57 | 7.64 | 7.64 | | |
| Mechanical tim | ne constant τm (ms) | 1.4 | 1.63 | 1.55 | 1.55 | 1.65 | 1.65 | | |
| Reverse voltage constant Ke(V/krpm) | | 45 | 64 | 55 | 55 | 64 | 64 | | |
| Torque constar | nt Kt (Nm/A) | 0.744 | 1.058 | 0.910 | 0.910 | 1.058 | 1.058 | | |
| | (; ;;) (<i>u</i> , 2) | 5.8 | 5.8 | 7.2 | 7.2 | 8.5 | 8.5 | | |
| Rotor moment | : of inertia J _m (Kg·cm²) | 5.85 (with brake) | 5.85 (with brake) | 7.25 (with brake) | 7.25 (with brake) | 8.55 (with brake) | 8.55 (with brake) | | |
| Pole pair numb | per | 4 | 4 | 4 | 4 | 4 | 4 | | |
| Maximum volta | ige rising du/dt (KV/µs) | 8 | 8 | 8 | 8 | 8 | 8 | | |
| Insulation class | 5 | F | F | F | F | F | F | | |
| Maximum radi | al force F (N) | 630 | 630 | 630 | 630 | 630 | 630 | | |
| Maximum axia | l force F (N) | 315 | 315 | 315 | 315 | 315 | 315 | | |
| | 6//() | 6.2 | 6.2 | 7.2 | 7.2 | 8.2 | 8.2 | | |
| Weight | G(Kg) | 8.2 (with brake) | 8.2 (with brake) | 9.2 (with brake) | 9.2 (with brake) | 10.2 (with brake) | 10.2 (with brake) | | |
| | | 168 | 168 | 185 | 185 | 202 | 202 | | |
| Length of mot | or L(mm) | 228±1 (with brake) | 228±1 (with brake) | 245±1 (with brake) | 245±1 (with brake) | 262±1 (with brake) | 262±1 (with brake) | | |
| Position feedba | ack device | Incremental enco | der 2500ppr | | | | | | |
| Cooling metho | od | Totally enclosed, r | non-ventilated | | | | | | |
| Protection leve | 2 | IP65 for body, sha | ft sealing IP54 | | | | | | |
| _ | Temperature | -20°C ~ 40°C (Non-freezing) | | | | | | | |
| Environmental conditions for | Humidity | Below 90% RH (N | on-condensing) | | | | | | |
| operation | Ambient environment | Away from active | gas, combustible g | gas, oil drops and d | lust | | | | |
| - per a con | Altitude | Maximum altitude | e 4000m, Rated por | wer at 1000m or be | elow, Above 1000m | : Decreasing 1.5% | per 100m rise | | |

Note : = A — Without brake =B ——With brake

□=H ——Cable connector

Image: Image:

□=0 ——HFO18 series standard connector (Opposite the shaft)

□ = P ------HFO21+HFO18 (Power HFO21 connector, Encoder HFO18 connector)

□=M ----2xM17 series Intercontec connector

Technical Specifications of SMH Servo Motor (3)

| Motor series | | | Medium inertia flange size 150mm | | | |
|-------------------------------------|---|--|---|---|------------------------------|--|
| Model Driver matching | | SMH130D-0105 -20A K-4HKC | SMH130D-0157 -20A K-4HKC | SMH130D-0210 -20A K-4HKC | SMH130D-0300 -20A K-4HKC | SMH150D-0230 -20A K-4HKC JD620-AA-000 FD622S-CA-000 FD622S-AA-000 FD622S-LA-000 |
| | | JD430-AA-000 FD432S-CA-000 FD432S-AA-000 FD432S-LA-000 CD432S-AA-000 | JD620-AA-000 FD622S-CA-000 FD622S-AA-000 FD622S-LA-000 | JD620-AA-000 FD622S-CA-000 FD622S-AA-000 FD622S-LA-000 | JD630-AA-000 JD630-LA-000 | |
| DC link voltage | UDC | 560 | 560 | 560 | 560 | 560 |
| | Rated power P _N (W) | 1050 | 1570 | 2100 | 3000 | 2300 |
| Continuous | Rated torgue T _N (Nm) | 5 | 7.5 | 10 | 14.3 | 11.1 |
| performance | Rated speed n _N (rpm) | 2000 | 2000 | 2000 | 2000 | 2000 |
| | Rated current IN (A) | 4.3 | 6.3 | 7.6 | 7.9 | 7.1 |
| Maximum torg | ue T _m (Nm) | 12.5 | 18.75 | 25 | 35.75 | 27.5 |
| Maximum curr | ent I _m (A) | 10.75 | 15.75 | 19 | 19.75 | 17.75 |
| Standstill torqu | ie T _s (Nm) | 5.5 | 8.25 | 11 | 15.73 | 12.1 |
| Standstill current IS (A) | | 4.73 | 6.93 | 8.36 | 8.7 | 7.81 |
| Resistance line-line RL (Ω) | | 1.85 | 1.17 | 0.98 | 0.84 | 2.2 |
| Inductance line-line LL (mH) | | 23.7 | 16.2 | 14.3 | 12.7 | 14(AVG) |
| Electrical time constant τe (ms) | | 12.81 | 13.846 | 14.592 | 14.94 | 6.36 |
| Mechanical time constant τm (ms) | | 2.868 | 2.529 | 2.268 | 1.53 | 4.68 |
| Reverse voltage constant Ke(V/krpm) | | 70 | 72 | 80 | 110 | 100 |
| Torque constar | nt Kt (Nm/A) | 1.1578 | 1.191 | 1.3232 | 1.82 | 1.65 |
| . | finantia 1 (Karan) | 12 | 17.7 | 23.4 | 34.8 | 33.5 |
| Rotor moment | of inertia J _m (Kg·cm ²) | 12.04 (with brake) | 17.74 (with brake) | 23.44 (with brake) | 34.9 (with brake) | 33.6 (with brake) |
| Pole pair numb | ber | 4 | 4 | 4 | 4 | 4 |
| Maximum volta | ge rising du/dt (KV/µs) | 8 | 8 | 8 | 8 | 8 |
| nsulation class | ; | F | F | F | F | F |
| Maximum radi | al force F (N) | 900 | 900 | 900 | 900 | 1200 |
| Maximum axia | l force F (N) | 450 | 450 | 450 | 450 | 600 |
| | C (1/4) | 7.5 | 9.1 | 10.7 | 13.9 | 12 |
| Neight | G(Kg) | 9.7 (with brake) | 11.3 (with brake) | 12.9 (with brake) | 14.9 (with brake) | 15.5 (with brake) |
| | | 159±1.5 | 179±1.5 | 199±1.5 | 239±1.5 | 226±1.5 |
| ength of mote | or L(mm) | 220±1.5 (with brake) | 240±1.5 (with brake) | 260±1.5 (with brake) | 280±1.5 (with brake) | 292±1.5 (with brake) |
| osition feedba | ack device | Incremental encoder | 2500ppr | • | • | • |
| Cooling metho | d | Totally enclosed, non | -ventilated | | | |
| Protection leve | | IP65 for body, shaft s | ealing IP54 | | | |
| | Temperature | -20°C ~ 40°C (Non-fre | | | | |
| nvironmental | Humidity | Below 90% RH (Non- | condensing) | | | |
| conditions for operation | Ambient environment | Away from active gas | , combustible gas, oil | drops and dust | | |
| speration | Altitude | Maximum altitude 40 | 00m, Rated power at | 1000m or below, Abov | e 1000m: Decreasing (| 1.5% per 100m rise |

Technical Specifications of SMH Servo Motor (4)

| Motor series | | Medium inertia fl | ange size 150mm | Medium inertia flange size 180mm | | | | | |
|-------------------------------------|------------------------------------|---|-----------------------------|----------------------------------|------------------------------|-----------------------------|-----------------------------|--|--|
| Model | | SMH150D-0300 -20A K-4HKC | SMH150D-0380 -20A K-4HKC | SMH180D-0350 -15A K-4HKC | SMH180D-0440 -15A K-4HKC | SMH180D-0550 -15R K-4HKC | SMH180D-0750 -15R K-4HKC | | |
| Driver matching | | JD630-AA-000 JD630-LA-000 | | JD630-LA-000 JD630-AA-000 | JD640-LA-000 JD640-AA-000 | JD640-AR-000 | JD650-AR-000 | | |
| DC link voltage | UDC | 560 | 560 | 560 | 560 | 560 | 560 | | |
| | Rated power P _N (W) | 3000 | 3800 | 3500 | 4400 | 5500 | 7500 | | |
| Continuous | Rated torque T _N (Nm) | 14.3 | 18 | 22 | 28 | 35 | 48 | | |
| performance | Rated speed n _N (rpm) | 2000 | 2000 | 1500 | 1500 | 1500 | 1500 | | |
| - | Rated current IN (A) | 8.5 | 9.3 | 10.3 | 11.9 | 13.5(REF) | 19.2 (REF) | | |
| Maximum torg | () | 35.75 | 45 | 55 | 70 | 87.5 | 120 | | |
| Maximum curre | . , | 21.25 | 23.25 | 25.75 | 29.75 | 33.7(REF) | 47.9 (REF) | | |
| Standstill torqu | | 15.73 | 19.8 | 24.2 | 30.8 | 38.5 | 52.8 | | |
| Standstill current IS (A) | | 9.35 | 10.23 | 11.33 | 13.09 | 14.8(REF) | 21.1(REF) | | |
| Resistance line-line RL (Ω) | | 1.4 | 1.3 | 1.2 | 0.65 | 0.53 | 0.38 | | |
| Inductance line-line LL (mH) | | 10.6(AVG) | 10.5(AVG) | 12.7(AVG) | 8.5 | 7.86 | 5.89 | | |
| Electrical time constant te (ms) | | 7.57 | 8.08 | 10.58 | 13.08 | 14.83 | 15.5 | | |
| Mechanical tim | e constant τm (ms) | 3.68 | 3.32 | 3.42 | 2.16 | 1.9 | 1.81 | | |
| Reverse voltage constant Ke(V/krpm) | | 107 | 125 | 135 | 150 | 165 | 159 | | |
| Torque constan | | 1.77 | 2.07 | 2.23 | 2.48 | 2.73 | 2.63 | | |
| | | 47.6 | 63.1 | 82 | 118 | 154 | 190 | | |
| Rotor moment | of inertia J _m (Kg·cm²) | 47.7 (with brake) | 63.2 (with brake) | 82.2 (with brake) | 118.2 (with brake) | 154.3 (with brake) | 190.3 (with brake) | | |
| Pole pair numb | er | 4 | 4 | 4 | 4 | 4 | 4 | | |
| Maximum volta | ge rising du/dt (KV/µs) | 8 | 8 | 8 | 8 | 8 | 8 | | |
| Insulation class | | F | F | F | F | F | F | | |
| Maximum radia | al force F (N) | 1200 | 1200 | 1600 | 1600 | 1600 | 1600 | | |
| Maximum axial | force F (N) | 600 | 600 | 800 | 800 | 800 | 800 | | |
| | C (1/2) | 15 | 18 | 22.7 | 28.6 | 34.4 | 40 | | |
| Weight | G(Kg) | 18.5 (with brake) | 22.5 (with brake) | 27.9 (with brake) | 33.8 (with brake) | 41.4 | 47 (with brake) | | |
| | | 254±1.5 | 282±1.5 | 260±1.5 | 298±1.5 | 336±1.5 | 374±1.5 | | |
| Length of motor L(mm) | | 320±1.5(with brake) | 352±1.5(with brake) | 332±1.5 (with brake) | 370±1.5 (with brake) | 413±1.5 (with brake) | 451±1.5 (with brak | | |
| | | Incremental enco | ncremental encoder 2500ppr | | | | I | | |
| Cooling metho | d | Totally enclosed, r | non-ventilated | | | 1 | | | |
| Protection level | | IP65 for body, sha | aft sealing IP54 | | | | | | |
| | Temperature | -20°C ~ 40°C (Non | | | | | | | |
| Environmental | Humidity | Below 90% RH (N | 3, | | | | | | |
| conditions for | | | | | | | | | |
| operation | Ambient environment | Away from active gas, combustible gas, oil drops and dust | | | | | | | |

Note : = A — Without brake □=B ——With brake

Technical Specifications of Low-voltage Servo Motor

| Motor series | | Low-voltage | e SMH Series | Low-voltage SME Series | | | | |
|------------------------------------|--------------------------------------|-----------------------------------|----------------------------|----------------------------|-----------------------------------|----------------------------|--|--|
| wotor series | | Small inertia fla | ange size 40mm | Small inertia fla | Small inertia flange size 80mm | | | |
| Model | | SMH40S-0005- 30A□K-4DKH | SMH40S-0010- 30A□K-4DKH | SME60S-0020- 30A_K-3DKH | SME60S-0040- 30ACK-3DKH | SME80S-0040- 30A_K-3DKH | | |
| Driver matchin | g | | FD122-CA-000 | FD122-AA-000 | FD122-LA-000 | • | | |
| DC link voltage | e UDC | 60 | 60 | 48 | 48 | 48 | | |
| 5 | Rated power P _N (W) | 50 | 100 | 200 | 400 | 400 | | |
| Continuous | Rated torgue T _N (Nm) | 0.16 | 0.32 | 0.64 | 1.27 | 1.27 | | |
| performance | Rated speed n _N (rpm) | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| | Rated current IN (A) | 1.2 | 2.5 | 4.6 | 10 | 9.6 | | |
| Maximum torc | | 0.48 | 0.96 | 1.92 | 3.18 | 3.18 | | |
| Maximum curr | | 3.6 | 7.5 | 13.8 | 25 | 24 | | |
| Standstill torqu | . , | 0.176 | 0.352 | 0.7 | 1.4 | 1.4 | | |
| Standstill curre | . , | 1.32 | 2.75 | 5.06 | 11 | 10.6 | | |
| Resistance line-line RL (Ω) | | 4.2 | 2.1 | 1.1 | 0.42 | 0.22 | | |
| Inductance line-line LL (mH) | | 3.5 | 2.5 | 2.4 | 0.79 | 1 | | |
| Electrical time constant te (ms) | | 0.84 | 1.2 | 2.18 | 1.88 | 4.55 | | |
| Mechanical time constant Tm (ms) | | 1.28 | 1.22 | 3.22 | 1.84 | 1.65 | | |
| Reverse voltag | e constant Ke(V/krpm) | 8 | 8 | 9 | 8 | 8 | | |
| Torque constant Kt (Nm/A) | | 0.1323 | 0.1323 | 0.149 | 0.13232 | 0.13232 | | |
| | | 0.031 | 0.059 | 0.375 | 0.443 | 0.76 | | |
| Rotor moment | : of inertia J _m (Kg·cm²) | 0.033 (with brake) | 0.061 (with brake) | 0.375 (with brake) | 0.447 (with brake) | 0.77 (with brake) | | |
| Pole pair num | per | 4 | 4 | 3 | 3 | 3 | | |
| • | ge rising du/dt (KV/µs) | 8 | 8 | 8 | 8 | 8 | | |
| Insulation class | 5 5 6 7 7 7 | F | F | F | F | F | | |
| Maximum radi | al force F (N) | 120 | 120 | 180 | 180 | 180 | | |
| Maximum axia | I force F (N) | 60 | 60 | 90 | 90 | 90 | | |
| | | 0.5 | 0.8 | 1.3 | 1.6 | 2.5 | | |
| Weight | G(Kg) | 0.8 (with brake) | 1.0 (with brake) | 1.8 (with brake) | 2.1 (with brake) | 3.2 (with brake) | | |
| | | 85.3±1 | 110.8±1 | 120 ± 1.5 | 135 ± 1.5 | 117 ± 1.5 | | |
| Length of mot | or L(mm) | 119±1.5 (with brake) | 145±1.5 (with brake) | 159±1.5 (with brake) | 174±1.5 (with brake) | 167±1.5 (with brake | | |
| Position feedback device | | Incremental encoder | r 2500ppr | | | | | |
| Cooling method | | Totally enclosed, non-ventilated | | | | | | |
| Protection leve | | IP65 for body, shaft sealing IP54 | | | | | | |
| | Temperature | -20°C ~ 40°C (Non-fr | 5 | | | | | |
| Environmental | Humidity | Below 90% RH (Non | <u>,</u> | | | | | |
| conditions for operation | Ambient environment | | s, combustible gas, oil | drops and dust | | | | |
| operation | Altitude | | 000m, Rated power at | | e 1000m: Decreasing | 1 5% per 100m rise | | |

Technical Specifications of Multi-pole Servo Motor

| Motor series | Small inertia fla | ange size 57mm | | Small | inertia flange size | 85mm | |
|--|-------------------------|--|----------------------------|--|----------------------------|----------------------------|--|
| Model | 57S-0010- 10AAK-FDFH | 57S-0015- 08AAK-FDFH | 85S-0020- 05AAK-FLFN-02 | 85S-0025- 05AAK-FLFN-02 | 85S-0035- 05AAK-FLFN-02 | 85S-0045- 05AAK-FLFN-02 | 85S-0050- 10AAK-FLFN-03 |
| Driver matching | | FD122-CA-000 FD122-AA-000 FD122-LA-000 | | JD430-AA FD422S-C FD422S-A FD422S-L | A-000 A-000 | 2S-AA-000 | FD122-CA-000 FD122-AA-000 FD122-LA-000 |
| Rated phase current (A) | 6.5 | 5.8 | 6 | 4 | 4 | 4 | 8.5 |
| Holding torque (Nm) | 0.9 | 1.5 | 2.4 | 4.18 | 6 | 7.5 | 7.5 |
| Damping torque (Nm) | 0.04 | 0.068 | 0.25 | 0.3 | 0.4 | 0.45 | 0.45 |
| Resistance line-line (Ω) | 0.35 | 0.7 | 0.44 | 1.13 | 2.3 | 1.78 | 0.43 |
| Inductance line-line(mH) | 1.28 | 2.4 | 3 | 5.75 | 12.4 | 17.1 | 3.9 |
| Motor moment of inertia(Kg.cm ²) | 0.03 | 0.048 | 0.14 | 0.232 | 0.33 | 0.44 | 0.44 |
| Length L (mm) | 90±1.5 | 113±1.5 | 125±1 | 142±1 | 172±1 | 202±1 | 202±1 |
| Maximum radial force(N) | 15 | 15 | 60 | 60 | 60 | 60 | 60 |
| Maximum axial force (N) | 75 | 75 | 220 | 220 | 220 | 220 | 220 |
| Weight (Kg) | 1.05 | 1.3 | 2.3 | 2.7 | 3.8 | 5.3 | 5.3 |
| Dielectric strength | 600V AC 1S 5mA | 600V AC 1S 5mA | 1200V AC 1S 2mA | 1500V AC 1S 5m | A | | 1800V AC 1S 5mA |
| Insulation class | В | | | | | | |
| Ambient temperature -20 ~ 50°C | | | | | | | |
| Surface temperature rising | ing Max. 80°C | | | | | | |
| Insulation impedance Min. 100MΩ , 500V DC | | | | | | | |

Note : 🗆 = A ——Without brake □=B ——With brake

Technical Specifications of SMC Servo Motor

| Motor series | | Small inertia flange size 60mm | | Small inertia flange size 80mm | | |
|--|---|---|-------------------------|--------------------------------|--|--|
| Model | | SMC60S-0020-30E K-3LKH | SMC60S-0040-30E K-3LKH | SMC80S-0075-30E K-3LKH | | |
| Driver matching | | FD422S-CA-000 FD422S-AA-000 FD422S-LA-000 CD422S-AA-000 | | | | |
| DC link voltage | e UDC | 300 | 300 | 300 | | |
| | Rated power P _N (W) | 200 | 400 | 750 | | |
| Continuous | Rated torque T _N (Nm) | 0.64 | 1.24 | 2.39 | | |
| performance | Rated speed n _N (rpm) | 3000 | 3000 | 3000 | | |
| | Rated current I _N (A) | 1.4 | 2.4 | 3.8 | | |
| Maximum torg | | 1.92 | 3.81 | 7.17 | | |
| Maximum curr | | 4.2 | 7.2 | 11.4 | | |
| Standstill torgu | | 0.7 | 1.4 | 2.63 | | |
| Standstill curre | . , | 1.5 | 2.6 | 4.2 | | |
| Resistance line | . , | 11.2 | 5.8 | 2.1 | | |
| Inductance line-line L (mH) | | 20.9 | 11.5 | 10.5 | | |
| Electrical time | constant τe (ms) | 1.87 | 1.98 | 5 | | |
| Mechanical tim | ne constant τm (ms) | 1.8 | 1.29 | 0.9 | | |
| Reverse voltage constant K _• (V/krpm) | | 29 | 34 | 40 | | |
| Torque constant K: (Nm/A) | | 0.48 | 0.563 | 0.662 | | |
| | 6 1 1 1 1 1 1 1 1 1 1 | 0.214 | 0.405 | 1.087 | | |
| Rotor moment | of inertia J _m (Kg·cm ²) | 0.218 (with brake) | 0.409 (with brake) | 1.099 (with brake) | | |
| Pole pair numb | ber | 3 | 3 | 3 | | |
| • | ge rising du/dt (KV/µs) | 8 | 8 | 8 | | |
| Insulation class | | F | F | F | | |
| Maximum radi | al force F (N) | 180 | 180 | 335 | | |
| Maximum axia | I force F (N) | 90 | 90 | 167.5 | | |
| | | 1.1 | 1.6 | 2.8 | | |
| Weight | G(Kg) | 1.6 (with brake) | 2.1 (with brake) | 3.4 (with brake) | | |
| | | 109±1.5 | 135±1.5 | 139±1.5 | | |
| Length of motor L(mm) | | 150±1.5 (with brake) | 176±1.5 (with brake) | 182±1.5 (with brake) | | |
| Position feedba | ack device | Incremental encoder 2500ppr | 1 | 1 | | |
| Cooling metho | | Totally enclosed, non-ventilated | | | | |
| Protection leve | | IP65 for body, shaft sealing IP54 | | | | |
| | Temperature | -20°C ~ 40°C (Non-freezing) | | | | |
| Environmental | Humidity | Below 90% RH (Non-condensin | g) | | | |
| conditions for | Ambient environment | Away from active gas, combustible gas, oil drops and dust | | | | |
| operation | Altitude | Maximum altitude 4000m, Rated power at 1000m or below, Above 1000m: Decreasing 1.5% per 100m rise | | | | |

Technical Specifications of SMS Servo Motor

| Motor series | | | Medium inertia flange size 130m | m | | |
|--|------------------------------------|---|---------------------------------|--|--|--|
| Model | | SMC130D-0100-20E K-4LKP | SMC130D-0150-20E K-4LKP | SMC130D-0200-20E K-4LKP | | |
| Driver matching | | FD422S-CF-000 FD422S-AF-000 FD422S-LF-000 CD422S-AF-000 | FD4. FD4 | 32S-CA-000 32S-AA-000 32S-LA-000 32S-AA-000 | | |
| DC link voltage | UDC | 300 | 300 | 300 | | |
| | Rated power P _N (W) | 1000 | 1500 | 2000 | | |
| Continuous | Rated torque T _N (Nm) | 4.8 | 7.2 | 10 | | |
| performance | Rated speed n _N (rpm) | 2000 | 2000 | 2000 | | |
| | Rated current I _N (A) | 4.2(REF) | 6.5(REF) | 8.5(REF) | | |
| Maximum toro | . , | 12 | 18 | 25 | | |
| Maximum curr | | 10.4(REF) | 16.2(REF) | 21.1(REF) | | |
| Standstill torqu | | 5.28 | 7.92 | 11 | | |
| Standstill curre | nt Is (A) | 4.6(REF) | 7.1(REF) | 9.3(REF) | | |
| Resistance line | -line R. (Ω) | 3.1 | 1.53 | 0.93 | | |
| Inductance line-line L (mH) | | 22.7 | 13.3 | 8.8 | | |
| Electrical time | constant τe (ms) | 7.32 | 8.69 | 9.46 | | |
| Mechanical tim | ne constant τm (ms) | 2.72 | 2.31 | 1.85 | | |
| Reverse voltage constant K _s (V/krpm) | | 73 | 71 | 75 | | |
| Torque constant K. (Nm/A) | | 1.21 | 1.17 | 1.24 | | |
| Determine | finantia 1 (Karan) | 7.4 | 12 | 17.7 | | |
| Rotor moment | of inertia J _m (Kg·cm²) | 7.5 (with brake) | 12.1 (with brake) | 17.8 (with brake) | | |
| Pole pair numb | ber | 4 | 4 | 4 | | |
| Maximum volta | ge rising du/dt (KV/µs) | 8 | 8 | 8 | | |
| Insulation class | ; | F | F | F | | |
| Maximum radi | al force F (N) | 900 | 900 | 900 | | |
| Maximum axia | l force F (N) | 450 | 450 | 450 | | |
| Weight | | 6.2 | 7.5 | 9.1 | | |
| weight | G(Kg) | 8.5 (with brake) | 9.8 (with brake) | 11.4 (with brake) | | |
| | | 143±1.5 | 159±1.5 | 179±1.5 | | |
| Length of motor L(mm) | | 204±1.5 (with brake) | 220±1.5 (with brake) | 240±1.5 (with brake) | | |
| Position feedba | ack device | Incremental encoder 2500ppr | • | | | |
| Cooling method | | Totally enclosed, non-ventilated | | | | |
| Protection level | | IP65 for body, shaft sealing IP54 | | | | |
| | Temperature | -20°C ~ 40°C (Non-freezing) | | | | |
| Environmental conditions for | Humidity | Below 90% RH (Non-condensing) | | | | |
| operation | Ambient environment | Away from active gas, combustible gas, oil drops and dust | | | | |
| operation | Altitude | Maximum altitude 4000m, Rated power at 1000m or below, Above 1000m: Decreasing 1.5% per 100m rise | | | | |

Technical Specifications of SMC Servo Motor

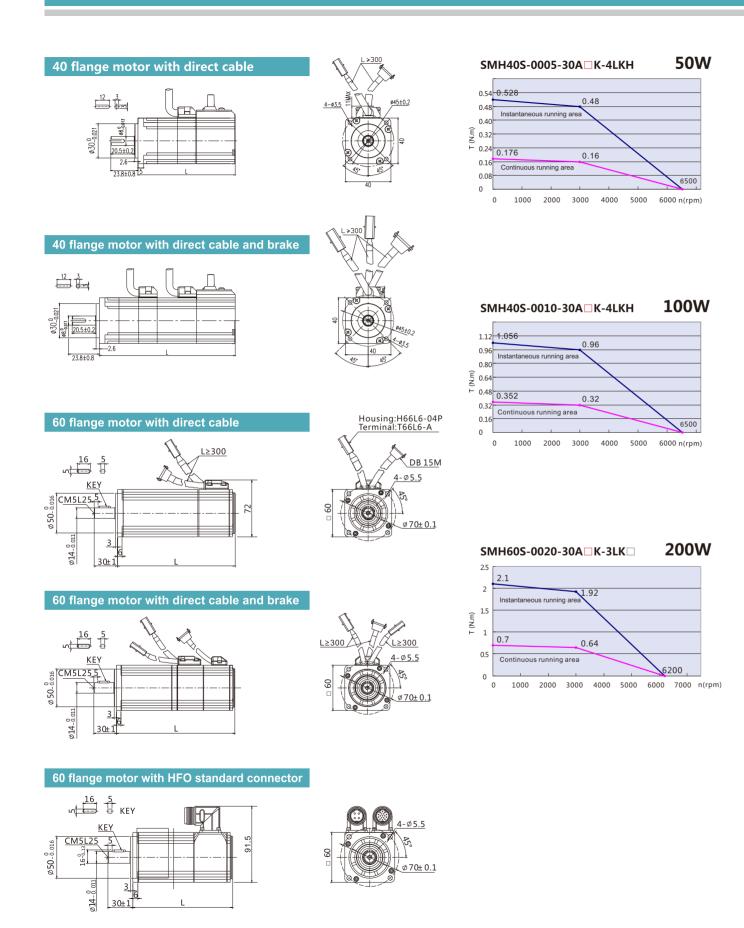
| Motor series | | Medium inertia flange size 130mm | | | | |
|---------------------------------------|--------------------------------------|---|-----------------------------|--|-----------------------------|--|
| Model | | SMC130D-0150 -20E K-4HKP | SMC130D-0200 -20E K-4HKP | SMC130D-0300 -20E K-4HKP | SMC130D-0300 -30E K-4HKP | |
| Driver matching | | FD612S-CA-000 FD612S-AA-000 FD612S-LA-000 CD612S-AA-000 | | FD622S-CA-000 FD622S-AA-000 FD622S-LA-000 CD622S-AA-000 | | |
| DC link voltage | e UDC | 560 | 560 | 560 | 560 | |
| | Rated power P _N (W) | 1500 | 2000 | 3000 | 3000 | |
| Continuous | Rated torque T _N (Nm) | 7.2 | 10 | 14.3 | 10 | |
| performance | Rated speed n _N (rpm) | 2000 | 2000 | 2000 | 3000 | |
| | Rated current I _N (A) | 4.3(REF) | 6.2(REF) | 6.5(REF) | 6.4(REF) | |
| Maximum torc | ue T _m (Nm) | 18 | 25 | 35.75 | 25 | |
| Maximum curr | rent I _m (A) | 10.8(REF) | 15.5(REF) | 16.3(REF) | 15.9(REF) | |
| Standstill torqu | ue Ts (Nm) | 7.92 | 11 | 15.73 | 11 | |
| Standstill current Is (A) | | 4.8(REF) | 6.8(REF) | 7.2(REF) | 7(REF) | |
| Resistance line | -line R _L (Ω) | 3.6 | 1.79 | 1.77 | 1.23 | |
| Inductance line-line L (mH) | | 29.6 | 16.3 | 18.2 | 12.1 | |
| Electrical time | constant τe (ms) | 8.22 | 9.11 | 10.28 | 9.84 | |
| Mechanical time constant τm (ms) | | 2.44 | 1.92 | 1.69 | 1.83 | |
| Reverse voltag | e constant K _e (V/krpm) | 106 | 102 | 139 | 100 | |
| Torque constant K _t (Nm/A) | | 1.75 | 1.69 | 2.3 | 1.65 | |
| | | 12 | 17.7 | 29.1 | 23.4 | |
| Rotor moment | t of inertia J _m (Kg·cm²) | 12.1 (with brake) | 17.8 (with brake) | 29.2 (with brake) | 23.5 (with brake) | |
| Pole pair numb | ber | 4 | 4 | 4 | 4 | |
| Maximum volta | age rising du/dt (KV/µs) | 8 | 8 | 8 | 8 | |
| Insulation class | 5 | F | F | F | F | |
| Maximum radi | al force F (N) | 900 | 900 | 900 | 900 | |
| Maximum axia | l force F (N) | 450 | 450 | 450 | 450 | |
| | | 7.5 | 9.1 | 12.3 | 10.7 | |
| Weight | G(Kg) | 9.8 (with brake) | 11.4 (with brake) | 14.9 (with brake) | 13 (with brake) | |
| | | 159±1.5 | 179±1.5 | 219±1.5 | 199±1.5 | |
| Length of mot | or L(mm) | 220±1.5 (with brake) | 240±1.5 (with brake) | 280±1.5 (with brake) | 260±1.5 (with brake) | |
| Position feedba | ack device | Incremental encoder | 2500ppr | I | I | |
| Cooling metho | | Totally enclosed, non-ventilated | | | | |
| Protection leve | | IP65 for body, shaft s | | | | |
| | Temperature | -20°C ~ 40°C (Non-fre | 5 | | | |
| Environmental | Humidity | Below 90% RH (Non-condensing) | | | | |
| conditions for | Ambient environment | Away from active gas, combustible gas, oil drops and dust | | | | |
| operation | Altitude | Maximum altitude 4000m, Rated power at 1000m or below, Above 1000m: Decreasing 1.5% per 100m rise | | | | |

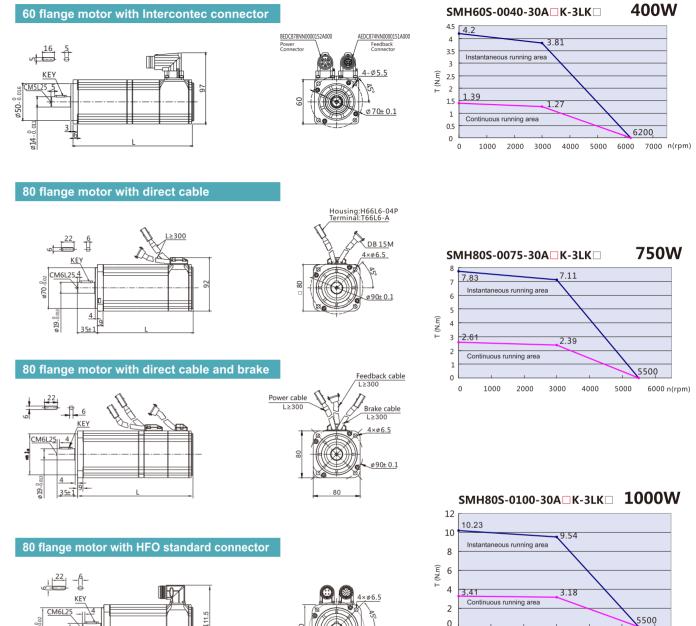
Technical Specifications of SMS Servo Motor

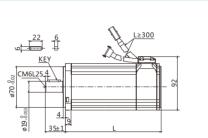
| Motor series | | Small inertia | flange size 60mm | Small inertia flange size 80mm | |
|--|------------------------------------|---|-----------------------------|--------------------------------|--|
| Model | | SMS60S-0020-30□AK-3LKU | SMS60S-0040-30 🗆 K-3LKU | SMS80S-0075-30 | |
| Driver matching | | FD422S-CA-000 FD422S-AA-000 FD422S-LA-000 CD422S-AA-000 | | | |
| DC link voltage | UDC | 300 | 300 | 300 | |
| | Rated power P _N (W) | 200 | 400 | 750 | |
| Continuous | Rated torque T _N (Nm) | 0.64 | 1.27 | 2.39 | |
| performance | Rated speed n _N (rpm) | 3000 | 3000 | 3000 | |
| | Rated current I _N (A) | 1.4 | 2.4 | 3.8 | |
| Maximum torq | ue T _m (Nm) | 1.92 | 3.81 | 7.17 | |
| Maximum curr | ent I. (A) | 4.2 | 7.2 | 11.4 | |
| Standstill torqu | e Ts (Nm) | 0.7 | 1.4 | 2.63 | |
| Standstill curre | nt Is (A) | 1.5 | 2.6 | 4.2 | |
| Resistance line | -line R. (Ω) | 11.2 | 5.8 | 2.1 | |
| Inductance line | e-line L (mH) | 20.9 | 11.5 | 10.5 | |
| Electrical time | constant τe (ms) | 1.87 | 1.98 | 5 | |
| Mechanical tim | e constant τm (ms) | 1.8 | 1.29 | 0.9 | |
| Reverse voltage constant K _« (V/krpm) | | 29 | 34 | 40 | |
| Torque constant K. (Nm/A) | | 0.48 | 0.563 | 0.662 | |
| Determine | finantia 1 (Karan) | 0.214 | 0.405 | 1.087 | |
| Rotor moment | of inertia J _m (Kg·cm²) | 0.218 (with brake) | 0.409 (with brake) | 1.099 (with brake) | |
| Pole pair numb | ber | 3 | 3 | 3 | |
| Maximum volta | ge rising du/dt (KV/µs) | 8 | 8 | 8 | |
| Insulation class | | F | F | F | |
| Maximum radi | al force F (N) | 180 | 180 | 335 | |
| Maximum axia | force F (N) | 90 | 90 | 167.5 | |
| Maight | | 1.1 | 1.6 | 2.8 | |
| Weight | G(Kg) | 1.6 (with brake) | 2.1 (with brake) | 3.4 (with brake) | |
| longth of mot | or I (mm) | 94±1.5 | 115±1.5 | 132±1.5 | |
| Length of moto | or L(mm) | 133±1.5 (with brake) | 154±1.5 (with brake) | 182±1.5 (with brake) | |
| Position feedba | ack device | 20 bit single-turn encoder, 16 bit | multi-turn absolute encoder | | |
| Cooling metho | d | Totally enclosed, non-ventilated | | | |
| Protection leve | | IP65 for body, shaft sealing IP54 | | | |
| | Temperature | -20°C ~ 40°C (Non-freezing) | | | |
| Environmental conditions for | Humidity | Below 90% RH (Non-condensing) | | | |
| operation | Ambient environment | Away from active gas, combustible gas, oil drops and dust | | | |
| operation | Altitude | Maximum altitude 4000m, Rated power at 1000m or below, Above 1000m: Decreasing 1.5% per 100m rise | | | |

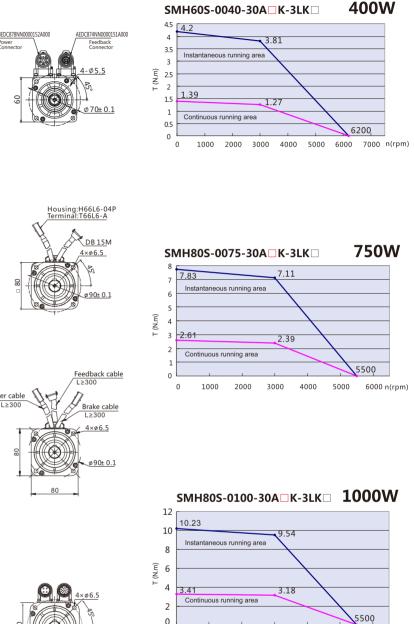
Dimensions/Torque curve of **SMH** Servo Motor

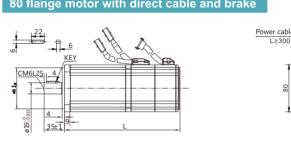
Dimensions/Torque curve of **SMH** Servo Motor



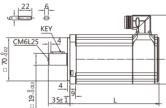




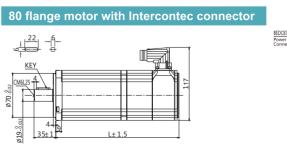














0

1000

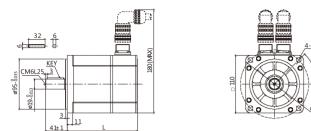
2000

3000 4000

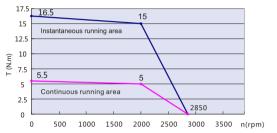
34

5000 6000 n(rpm)

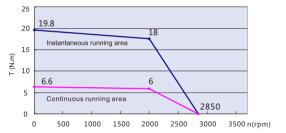




SMH110D-0105-20A K-4LKC 1.05KW

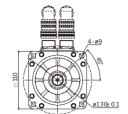


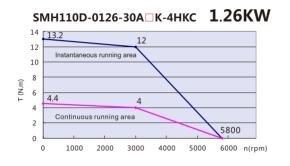
SMH110D-0126-20A K-4LKC 1.26KW



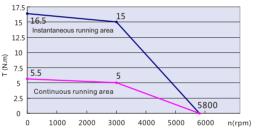
SMH110D-0125-30A K-4LKC 1.25KW



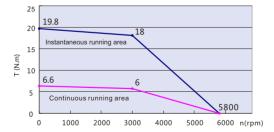


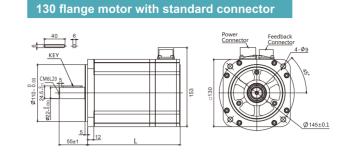


SMH110D-0157-30A K-4HKC 1.57KW

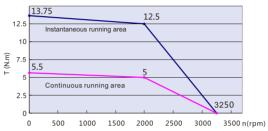


SMH110D-0188-30A K-4HKC 1.88KW

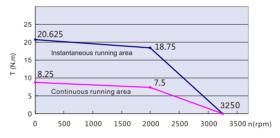




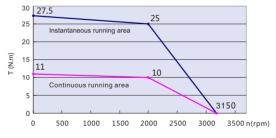
SMH130D-0105-20А К-4НКС 1.05КW

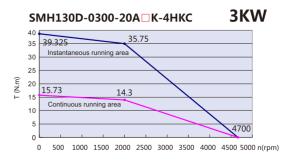


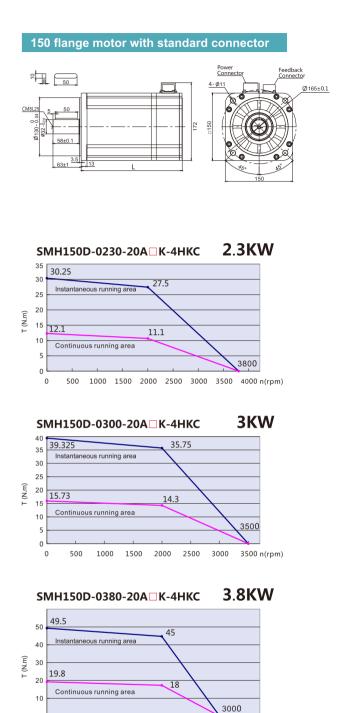
SMH130D-0157-20A K-4HKC 1.57KW



SMH130D-0210-20A K-4HKC 2.1KW



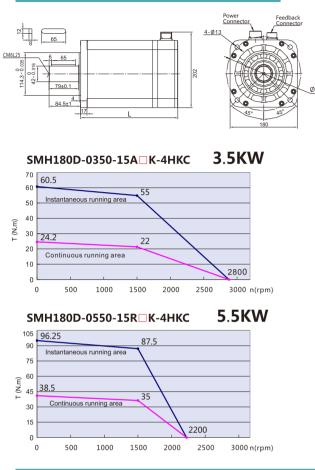




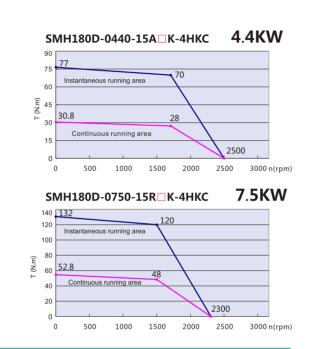
500 1000 1500 2000 2500 3000 3500 n(rpm) 0

Dimensions/Torque curve of **SMH** Servo Motor

Dimensions/Torque curve of Low-voltage Servo Motor

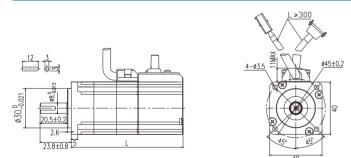


180 flange motor with standard connector

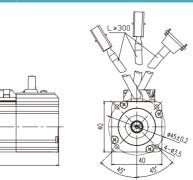


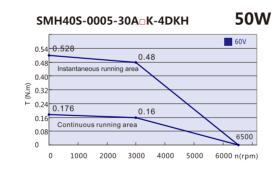
Dimensions/Torque curve of **Low-voltage** Servo Motor

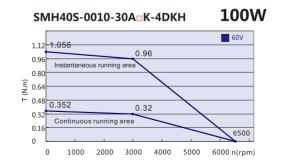


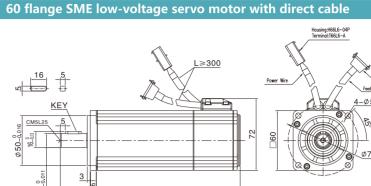


40 flange SMH series low-voltage servo motor with direct cable and brake

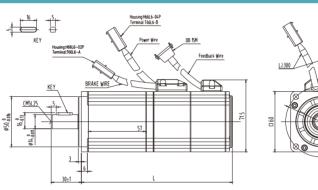




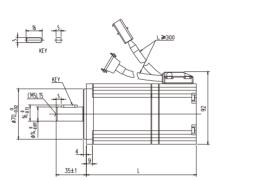




60 flange SME series low-voltage servo motor with direct cable and brake

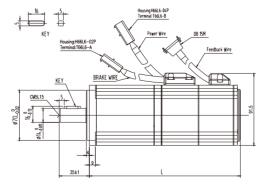


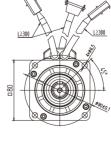
80 flange SME low-voltage servo motor with direct cable





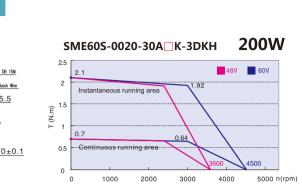
80 flange SME series low-voltage servo motor with direct cable and brake





23.8±0.

—2 F



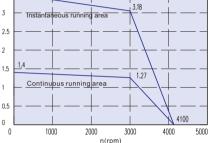


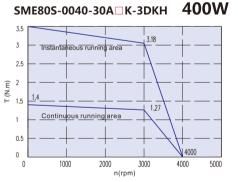






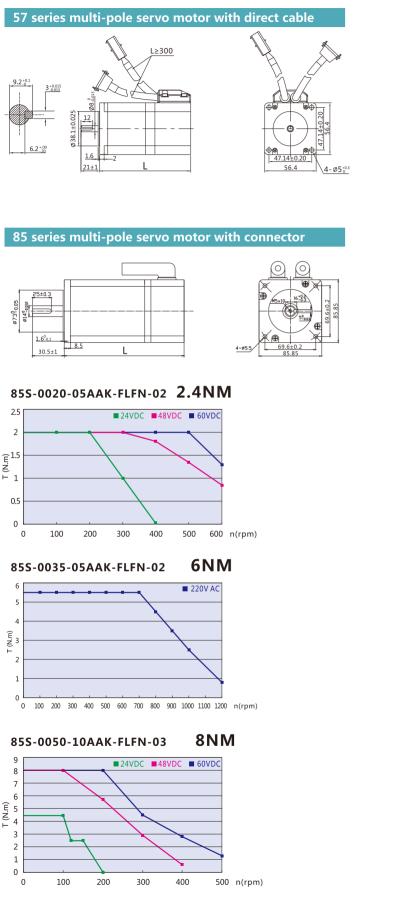
SME60S-0040-30A K-3DKH 400W

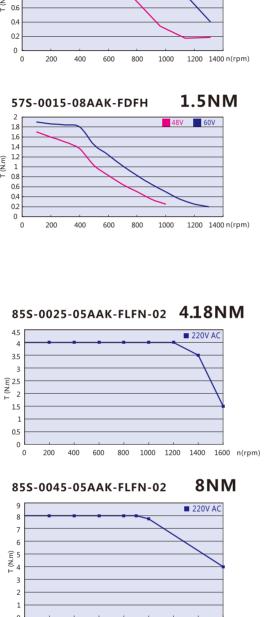




Dimensions/Torque curve of **Multi-pole** Servo Motor

Dimensions/Torque curve of **SMC** Servo Motor



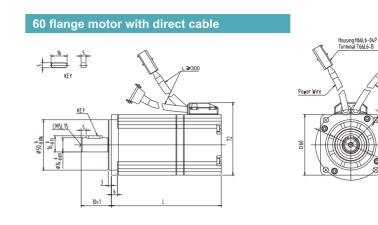


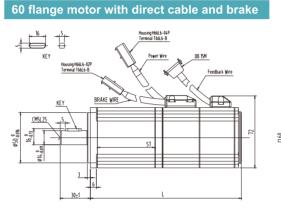
57S-0010-10AAK-FDFH

1NM

48V 60V

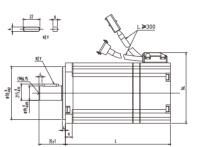
0 100 200 300 400 500 600 700 800 n(rpm)

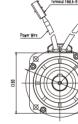




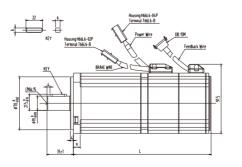


80 flange motor with direct cable



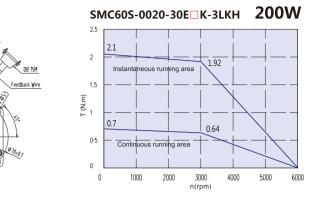


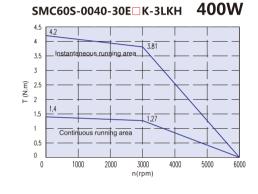
80 flange motor with direct cable and brake

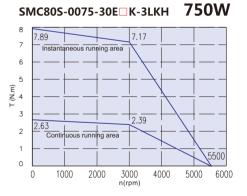




39











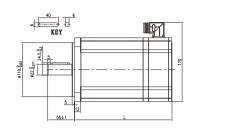


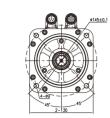
40

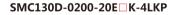
Dimensions/Torque curve of **SMC** Servo Motor

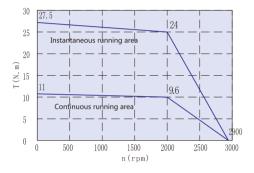
Dimensions/Torque curve of **SMS** Servo Motor

130 flange motor with standard connector

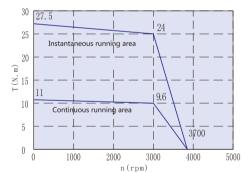




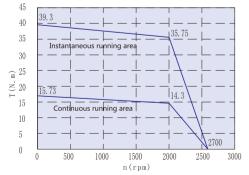




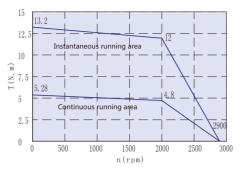
SMC130D-0300-30E K-4HKP



SMC130D-0300-20E K-4HKP



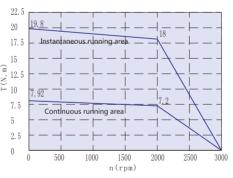
SMC130D-0100-20E K-4LKP



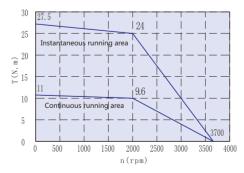
SMC130D-0150-20E K-4HKP

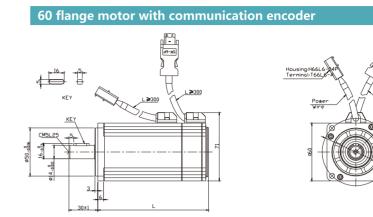


SMC130D-0150-20E K-4LKP

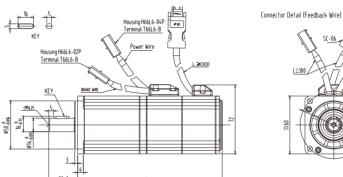


SMC130D-0200-20A K-4HKP

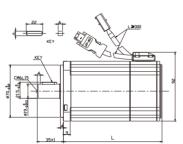


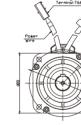




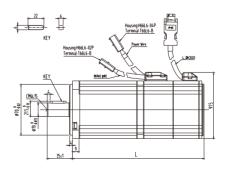


80 flange motor with communication encoder

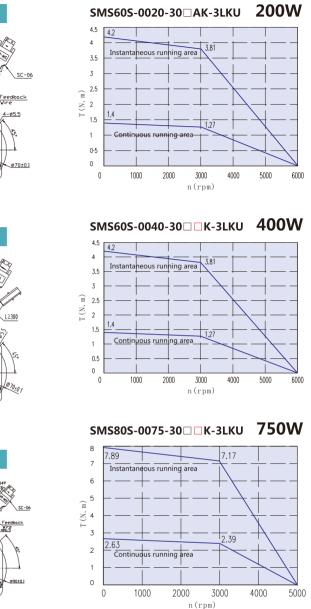




80 flange motor with communication encoder and brake









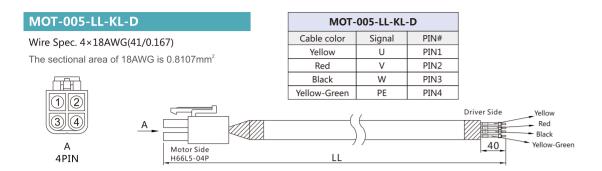




42

Wiring Diagram for The **Power Cable**

Wiring Diagram for The **Power Cable**



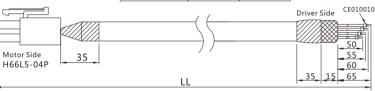
MOT-005-LL-KL

Wire Spec.UL20328 4C×18AWG(41/0.16T) black The sectional area of 18AWG is 0.8107mm²

А







MOT-005-LL-KC0

U

PIN#

PIN2

PIN3 PIN4

Driver Side

55

35 15 65

- Red

Black

Cable color Signal

11

Yellow

MOT-005-LL-KC0

Wire Spec.4C×18AWG(41/0.16T)

The sectional area of 18AWG is 0.8107mm²

A

HF01804KT

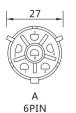


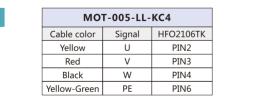
| | Red | | PIN3 |
|------------|--------------|--------|-----------------|
| | Black | W | PIN4 |
| | Yellow-Green | PE | PIN1 |
| | Metal ring | Shield | Shield terminal |
| Motor Side | (| | |

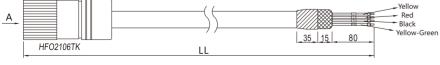
MOT-005-LL-KC4

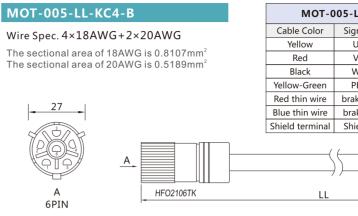
Wire Spec. UL20328 4×18AWG

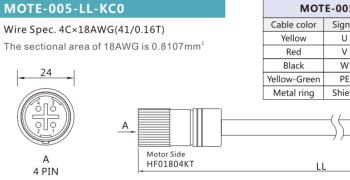
The sectional area of 18AWG is 0.8107mm²

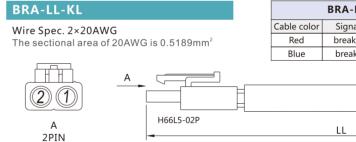


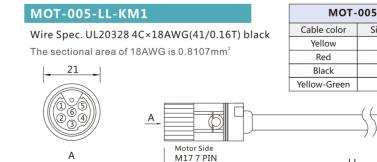












| LL-K | С4-В | |
|------|-----------|--------------------|
| gnal | HFO2106TK | |
| U | PIN2 | |
| V | PIN3 | |
| W | PIN4 | |
| PE | PIN6 | |
| ake+ | PIN1 | |
| ake- | PIN5 | |
| ield | Shell | Red thin wire |
| | | bide dim wire |
| | | Yellow |
| | | Red Black |
| | _35 | 15 80 Yellow-Green |
| | | |

| 05-LL-KC0 | | | |
|-----------|-----------------|--|--|
| Inal | PIN# | | |
| J | PIN2 | | |
| V | PIN3 | | |
| N | PIN4 | | |
| ΡE | PIN1 | | |
| ield | Shield terminal | | |

|) | Driver Side | Yellow Red Black Yellow-Green |
|---|-------------|--|
| | | |

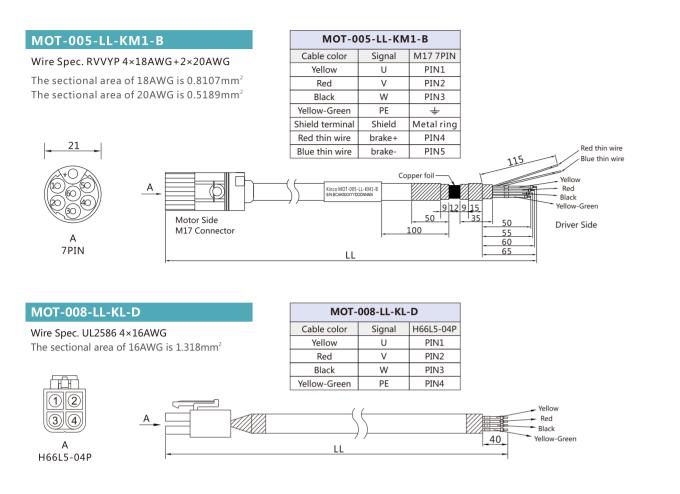
| -LL-I | KL |
|-------|------|
| nal | PIN# |
| ık+ | PIN1 |
| ak- | PIN2 |
| | |
| (| · (|
| | |
|)) | |
| | / / |
| | |

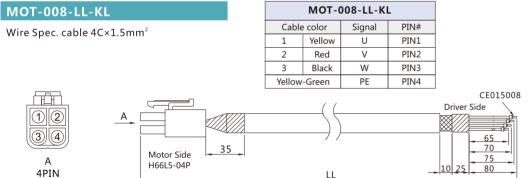
| 5-LL-KM1 | | | |
|----------|------|--|--|
| Signal | PIN# | | |
| U | PIN1 | | |
| V | PIN2 | | |
| W | PIN3 | | |
| PE | ÷ | | |
| | | | |

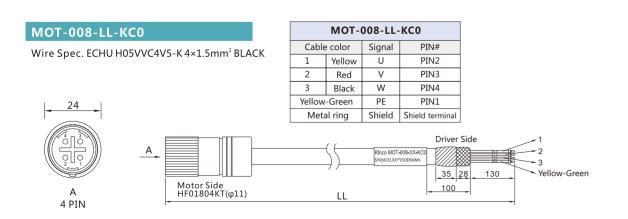
| / | Driver Side CE010010 |
|----|----------------------|
| 5 | |
| 1) | |
| | 35 15 65 |

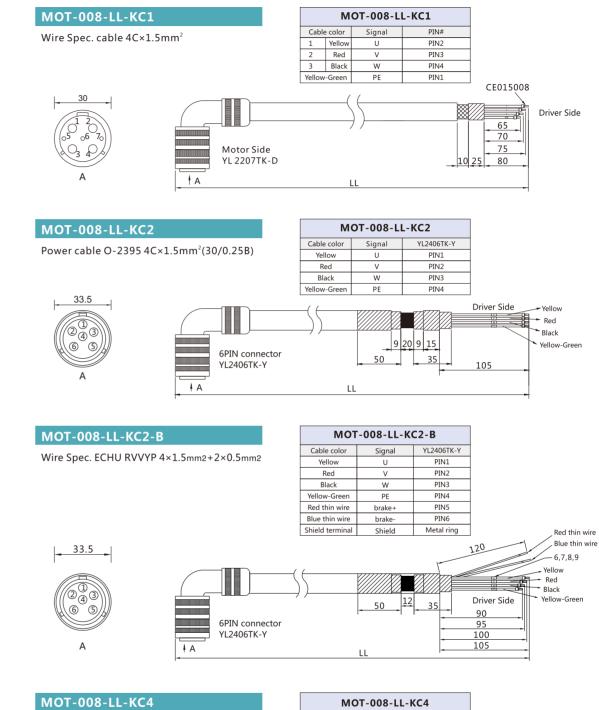
Wiring Diagram for The **Power Cable**

Wiring Diagram for The **Power Cable**

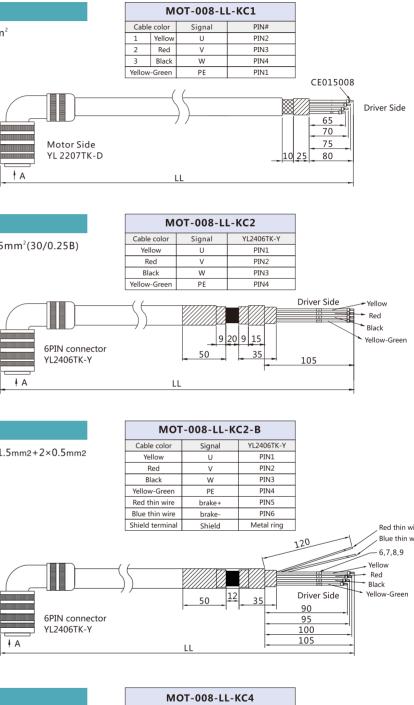


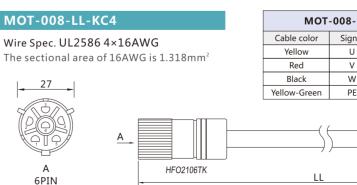










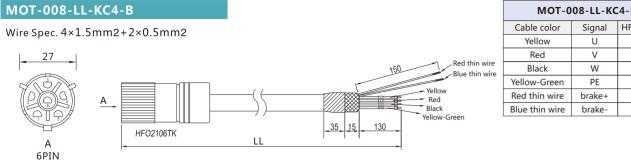


| 08-LL-KC4 | | | | | |
|-----------|-----------|--|--|--|--|
| Signal | HFO2106TK | | | | |
| U | PIN2 | | | | |
| V | PIN3 | | | | |
| W | PIN4 | | | | |
| PE | PIN6 | | | | |
| | | | | | |

| | | | | Yellow Red Black | |
|------|----|---|-----|------------------------|--|
| _35_ | 15 | - | 130 | Yellow-Green | |

Wiring Diagram for The **Power Cable**

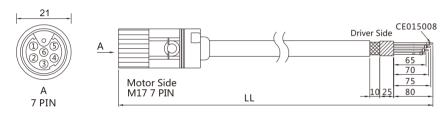
Wiring Diagram for The **Power Cable** & **Encoder Cable**



| MOT-008-LL-KC4-B | | | | | |
|------------------|--------|-----------|--|--|--|
| Cable color | Signal | HFO2106TK | | | |
| Yellow | U | PIN2 | | | |
| Red | V | PIN3 | | | |
| Black | W | PIN4 | | | |
| Yellow-Green | PE | PIN6 | | | |
| Red thin wire | brake+ | PIN1 | | | |
| Blue thin wire | brake- | PIN5 | | | |
| | | | | | |

MOT-008-LL-KM1

Wire Spec. cable 4C×1.5mm²



| Cable color | | Signal | PIN# |
|--------------|--------|--------|------|
| 1 | Yellow | U | PIN1 |
| 2 | Red | V | PIN2 |
| 3 | Black | W | PIN3 |
| Yellow-Green | | PE | ÷ |

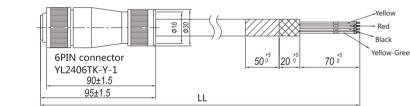
MOT-008-LL-KM1

MOT-015-LL-KC2

Power Cable Cableplus UL2856 4×14AWG(50/0.25T)

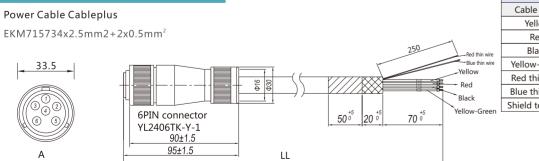
The sectional area of 14AWG is 2.075mm²





| MOT-015-LL-KC2 | | | | | | |
|-----------------|--------|--------------|--|--|--|--|
| Cable color | Signal | YL2406TK-Y-1 | | | | |
| Yellow U | | PIN1 | | | | |
| Red | V | PIN2 | | | | |
| Black | W | PIN3 | | | | |
| Yellow-Green | PE | PIN4 | | | | |
| Shield terminal | Shield | Metal ring | | | | |

<u>MOT-015-LL-KC2-B</u>



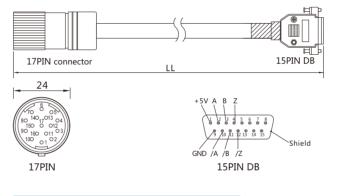
| Cable color Yellow | Signal U | YL2406TK-Y-1 |
|-----------------------|--|---|
| Yellow | U | DINI |
| | - | PIN1 |
| Red | V | PIN2 |
| Black | W | PIN3 |
| Yellow-Green | PE | PIN4 |
| Red thin wire | brake+ | PIN5 |
| Blue thin wire | brake- | PIN6 |
| Shield terminal | Shield | Metal ring |
| | Black Yellow-Green Red thin wire Blue thin wire | Black W Yellow-Green PE Red thin wire brake+ Blue thin wire brake- |

MOT-030-LL-KC3 Wire Spec. ECHU RVVYP 4×4mm2 33.5 6PIN connector YL2406TK-Y-1

Wiring Diagram for The Encoder Cable

ENCCF-LL-FC0

Wire Spec. 1P×24AWG(7/0.20T)+4P×28AWG(7/0.127T) The sectional area of 24AWG is 0.2047mm² The sectional area of 28AWG is 0.0804mm²



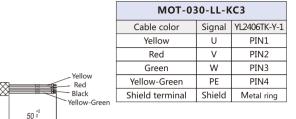
ENCCA-LL-KC0

Wire Spec. 1P×24AWG(7/0.20T)+7P×28AWG(7/0.127T) The sectional area of 24AWG is 0.2047mm² The sectional area of 28AWG is 0.0804mm²

24 HF01817TK 17 PIN

ENCCA-LL-KC1 Wire Spec. 1P×24AWG(7/0.20T)+7P×28AWG(7/0.127T) The sectional area of 24AWG is 0.2047mm² The sectional area of 28AWG is 0.0804mm² 0





| ENCCF-LL-FC0 | | | | | | | |
|---------------------|---------------------|--------------|-------------------------|----------------------|--|--|--|
| 17PIN connector | 15PIN DB | Signal | External wire colour | Motor wire colour | | | |
| PIN1 | PIN1 | +5V | Red(thick) | Red | | | |
| PIN3 | PIN2 | A | Brown | Blue-black | | | |
| PIN5 | PIN3 | В | Yellow | Green | | | |
| PIN14 | PIN4 | Z | Green | Yellow | | | |
| PIN2 | PIN9 | GND | Black(thick) | Black | | | |
| PIN4 | PIN10 | /A | Brown-white | Blue | | | |
| PIN6 | PIN11 | /B | Yellow-white | Green-black | | | |
| PIN15 | PIN12 | /Z | Green-white | Yellow-black | | | |
| Other pins empty | Other pins empty | \backslash | | | | | |
| Metal coil | Shell | Shield | Shield | Shield | | | |

| ENCCA-LL-KC0/ENCCA-LL-KC1 | | | | | | | |
|---------------------------|-------------------|--------|-------------------------|----------------------|--|--|--|
| 17PIN | 15PIN DB | Signal | External wire colour | Motor wire colour | | | |
| PIN1 | PIN1 | +5V | Red(thick) | Red | | | |
| PIN3 | PIN2 | А | Orange | Blue | | | |
| PIN5 | PIN3 | В | Yellow | Green | | | |
| PIN14 | PIN4 | Z | Green | Yellow | | | |
| PIN9 | PIN5 | U | Brown | Brown | | | |
| PIN11 | PIN6 | V | Purple | Gray | | | |
| PIN16 | PIN7 | W | Blue | White | | | |
| PIN2 | PIN9 | GND | Black(thick) | Black | | | |
| PIN4 | PIN10 | /A | Orange-white | Blue-black | | | |
| PIN6 | PIN11 | /B | Yellow-white | Green-black | | | |
| PIN15 | PIN12 | /Z | Green-white | Yellow-black | | | |
| PIN10 | PIN13 | /U | Brown-white | Brown-black | | | |
| PIN12 | PIN14 | /V | Purple-white | Gray-black | | | |
| PIN17 | PIN15 | /W | Blue-white | White-black | | | |
| Internal metal ring | DB metal shell | Shield | Shield | Shield | | | |



В

5VABZUVWNC 1 2 3 4 5 6 7 8 /s /li /li /li /li /li Shield GŃD /A /B /Z /U /V /W в

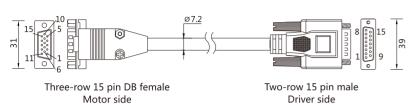
Wiring Diagram for The Encoder Cable

Wiring Diagram for The Encoder Cable

ENCCA-LL-KH

Wire Spec. 1P×24AWG(7/0.20T)+7P×28AWG(7/0.127T)

The sectional area of 24AWG is 0.2047mm² The sectional area of 28AWG is 0.0804mm²

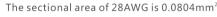


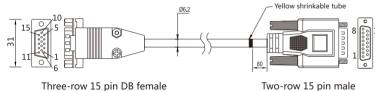
| ENCCA-LL-KH | | | | | | |
|------------------------|----------------------|-----------|------------------------|---------------------|--|--|
| Three-row 15 pin DB | Two-row 15 pin DB | Signal | External wire color | Motor wire color | | |
| PIN1 | PIN1 | + 5V | Red(thick) | Red | | |
| PIN8 | PIN2 | A | Orange | Blue-black | | |
| PIN7 | PIN3 | В | Yellow | Green | | |
| PIN6 | PIN4 | Z | Green | Yellow | | |
| PIN4 | PIN5 | U | Brown | Brown-black | | |
| PIN10 | PIN6 | V | Purple | White-black | | |
| PIN9 | PIN7 | W | Blue | Gray-black | | |
| PIN2 | PIN9 | GND | Black(thick) | Black | | |
| PIN13 | PIN10 | /A | Orange-white | Blue | | |
| PIN12 | PIN11 | /B | Yellow-white | Green-black | | |
| PIN11 | PIN12 | /Z | Green-white | Yellow-black | | |
| PIN5 | PIN13 | /U | Brown-white | Brown | | |
| PIN15 | PIN14 | /V | Purple-white | White | | |
| PIN14 | PIN15 | /W | Blue-white | Gray | | |
| PIN3 empty | PIN8 empty | \square | | \langle | | |
| Metal shell | DB metal shell | Shield | Shield | Metal shell | | |

ENCCF-LL-FH

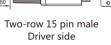
Wire Spec. 1P×24AWG(7/0.20T)+4P×28AWG(7/0.127T)

The sectional area of 24AWG is 0.2047mm²





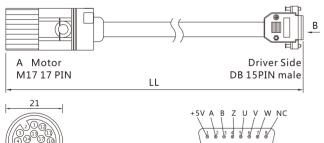
Motor side

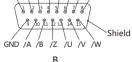


ENCCA-LL-KM1

А

Wire Spec. 1P×24AWG(7/0.20T)+7P×28AWG(7/0.127T) The sectional area of 24AWG is 0.2047mm² The sectional area of 28AWG is 0.0804mm²

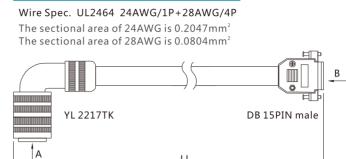




| FIN14 | / v | Fulple-wille | write | | | |
|----------------------|--|-------------------------------|--|--|--|--|
| PIN15 | /W | Blue-white | Gray | | | |
| PIN8 empty | \backslash | | / | | | |
| DB metal shell | Shield | Shield | Metal shell | | | |
| | | | | | | |
| ENCCF-LL-FH | | | | | | |
| Two-row 15 pin DB | Signal | Wire color | Motor wire color | | | |
| PIN1 | + 5V | Red(thick) | Red | | | |
| PIN2 | Α | Brown | Blue-black | | | |
| PIN3 | В | Yellow | Green | | | |
| PIN4 | Z | Green | Yellow | | | |
| PIN9 | GND | Black(thick) | Black | | | |
| PIN10 | /A | Brown-white | Blue | | | |
| PIN11 | /B | Yellow-white | Green-black | | | |
| PIN12 | /Z | Green-white | Yellow-black | | | |
| Other pins empty | \geq | | | | | |
| Shell | Shield | Shield | Shield | | | |
| | PIN15 PIN8 empty DB metal shell ENCCC Two-row 15 pin DB PIN1 PIN2 PIN3 PIN4 PIN9 PIN10 PIN10 PIN11 PIN12 Other pins empty | PIN15 /W PIN8 empty | PIN15 /W Blue-white PIN8 empty Image: Second | | | |

| ENCCA-LL-KM1 | | | | | | |
|---------------------|----------------|--------|-------------------------|----------------------|--|--|
| 17PIN | 15PIN DB | Signal | External wire colour | Motor wire colour | | |
| PIN1 | PIN1 | +5V | Red(thick) | Red | | |
| PIN3 | PIN2 | Α | Orange | Blue | | |
| PIN5 | PIN3 | В | Yellow | Green | | |
| PIN14 | PIN4 | Z | Green | Yellow | | |
| PIN9 | PIN5 | U | Brown | Brown | | |
| PIN11 | PIN6 | V | Purple | Gray | | |
| PIN16 | PIN7 | W | Blue | White | | |
| PIN2 | PIN9 | GND | Black(thick) | Black | | |
| PIN4 | PIN10 | /A | Orange-white | Blue-black | | |
| PIN6 | PIN11 | /B | Yellow-white | Green-black | | |
| PIN15 | PIN12 | /Z | Green-white | Yellow-black | | |
| PIN10 | PIN13 | /U | Brown-white | Brown-black | | |
| PIN12 | PIN14 | /V | Purple-white | Gray-black | | |
| PIN17 | PIN15 | /W | Blue-white | White-black | | |
| Internal metal ring | DB metal shell | Shield | Shield | Shield | | |

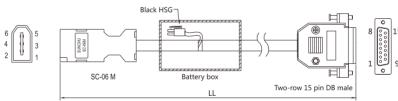
ENCCR-LL-FC1



ENCCG-LL-GU Wire Spec. 3×2×0.2mm2 4 0 SC-06 M Two-row 15 pin DB male LL

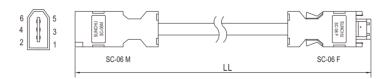
ENCCG-(4)-GU-BT

Wire Spec. 3×2×0.2mm2



ENCDG-LL-GU

Wire Spec. 3×2×0.2mm2



| ENCCR-LL-FC1 | | | | | | | | |
|--------------|-------------|--------|--------------|--|--|--|--|--|
| YL2217TK | 15PIN DB | Signal | Wire color | | | | | |
| PIN1 | PIN6 | ref+ | Brown | | | | | |
| PIN2 | PIN14 | ref- | Brown-white | | | | | |
| PIN3 | PIN2 | cos+ | Green | | | | | |
| PIN4 | PIN10 | COS- | Green-white | | | | | |
| PIN5 | PIN3 | sin+ | Yellow | | | | | |
| PIN6 | PIN11 | sin- | Yellow-white | | | | | |
| PIN7 | PIN8 | KTY+ | Blue | | | | | |
| PIN8 | PIN9 | KTY- | Blue-white | | | | | |
| Metal ring | Metal shell | Shield | Shield | | | | | |

| ENCCG-LL-GU | | | | | | |
|-------------|------------|--------|----------|--|--|--|
| SC-06F | Wire color | Signal | 15PIN DB | | | |
| PIN1 | Red | +5V | PIN1 | | | |
| PIN2 | Black | GND | PIN9 | | | |
| PIN5 | Yellow | SD | PIN7 | | | |
| PIN6 | Green | /SD | PIN15 | | | |
| Shell | Shield | Shield | Shell | | | |

| | 8 0 8 0 8 15 |
|------|--------------------|
| | 8 000 15 1 00 9 |
| nale | |

| ENCCG-(4)-GU-BT | | | | | | |
|-----------------|----------------|--------------|------------------|--------|--------------|--|
| SC-06F | Cable color | Black HSG | External wire | Signal | 15PIN DB | |
| PIN1 | Red | | | +5V | PIN1 | |
| PIN2 | Black | | / | GND | PIN9 | |
| PIN3 | Brown | PIN1 | Red | BAT+ | \backslash | |
| PIN4 | Blue | PIN2 | Black | BAT- | \square | |
| PIN5 | Yellow | / | | SD | PIN7 | |
| PIN6 | Green | / | / | /SD | PIN15 | |
| Shell | Shield | | | Shield | Shell | |

| ENCDG-LL-GU | | | | | |
|-------------|---|--|--|--|--|
| Signal | SC-06 | | | | |
| +5V | PIN1 | | | | |
| GND | PIN2 | | | | |
| BAT+ | PIN3 | | | | |
| BAT- | PIN4 | | | | |
| SD | PIN5 | | | | |
| /SD | PIN6 | | | | |
| Shield | Shell | | | | |
| | Signal +5V GND BAT+ BAT- SD /SD | | | | |



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