

MECHATROLINK-II Communications Reference Type SERVOPACKs

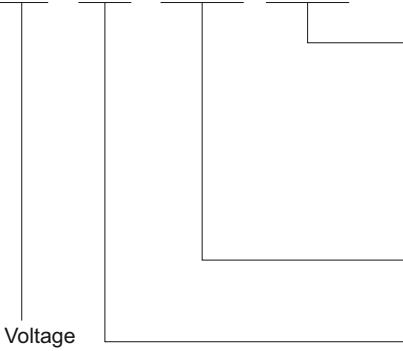
SGDV-□□□□11 (For Rotary Servomotors)

SGDV-□□□□15 (For Linear Servomotors)



Model Designations

SGDV - R70 A 11 A □



Options

| Code | Specifications |
|--------|-------------------------|
| Blank | Base-mounted (standard) |
| 001000 | Rack-mounted* |

*: SGD-470A, -550A, -590A, -780A SERVOPACKs are duct-ventilated.

Design Revision Order
A, B...

| Code | Specifications |
|------|----------------|
| F | 100 VAC |
| A | 200 VAC |
| D | 400 VAC |

| Code | Specifications |
|------|--|
| 11 | MECHATROLINK-II communications Reference Type (for rotary servomotors) |
| 15 | MECHATROLINK-II communications Reference Type (for linear servomotors) |

| Code | 100 V (Single Phase) | | Code | 200 V (Three Phase) | | Code | 400 V (Three Phase) | |
|------|--|--|------|--|--|------|--|--|
| | Applicable Servomotor Max. Capacity kW | | | Applicable Servomotor Max. Capacity kW | | | Applicable Servomotor Max. Capacity kW | |
| R70 | 0.05 | | R70* | 0.05 | | 1R9 | 0.5 | |
| R90 | 0.1 | | R90* | 0.1 | | 3R5 | 1.0 | |
| 2R1 | 0.2 | | 1R6* | 0.2 | | 5R4 | 1.5 | |
| 2R8 | 0.4 | | 2R8* | 0.4 | | 8R4 | 2.0 | |
| | | | 3R8 | 0.5 | | 120 | 3.0 | |
| | | | 5R5* | 0.75 | | 170 | 5.0 | |
| | | | 7R6 | 1.0 | | 210 | 6.0 | |
| | | | 120♣ | 1.5 | | 260 | 7.5 | |
| | | | 180 | 2.0 | | 280 | 11 | |
| | | | 200 | 3.0 | | 370 | 15 | |
| | | | 330 | 5.0 | | | | |
| | | | 470 | 6.0 | | | | |
| | | | 550 | 7.5 | | | | |
| | | | 590 | 11 | | | | |
| | | | 780 | 15 | | | | |

NOTE: Shaded items are non-stock.

* These amplifiers can be powered with single or three-phase.

♣ SGD-120A□□A008000, a special version of the 1.5kW amplifier can be used for single-phase operation.

Features

- **Real-time communications**

MECHATROLINK-II communications enable high-speed control for 30 stations at a maximum transmission speed of 10 Mbps in a transmission cycle from 250 μ s to 4 ms (user setting). Such a high transmission speed allows real-time transmission of various data required for control.

- **Cost savings**

Thirty stations can be connected to a single MECHATROLINK-II transmission line, so wiring costs and time are greatly reduced. Also, only one signal connector is required on the host controller. And, the all-digital network eliminates the need for conversion from digital to analog for speed/torque references and for a pulse generator to generate position references.

- **High-precision motion control**

The SGD V SERVOPACK when connected to the host controller in the MECHATROLINK-II network provides not only torque, position, and speed control but also synchronized phase control that requires advanced control technology. The control mode can be changed online so that the machine can move smoothly in complex motions with great efficiency.

Ratings

Single-phase 100 V

| SERVOPACK Model | SGDV-□□□□ | R70F | R90F | 2R1F | 2R8F |
|-------------------------------------|------------------|--|------|------|------|
| Applicable Servomotor Max. Capacity | kW | 0.05 | 0.1 | 0.2 | 0.4 |
| Continuous Output Current | A _{rms} | 0.66 | 0.91 | 2.1 | 2.8 |
| Max. Output Current | A _{rms} | 2.1 | 2.9 | 6.5 | 9.3 |
| Main Circuit | | Single-phase 100 to 115 VAC+10% to -15% 50/60 Hz | | | |
| Control Circuit | | Single-phase 100 to 115 VAC+10% to -15% 50/60 Hz | | | |

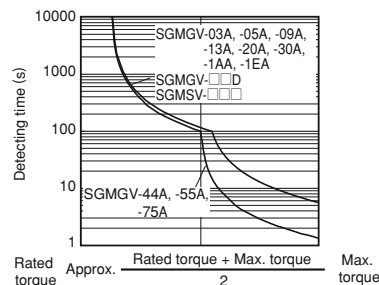
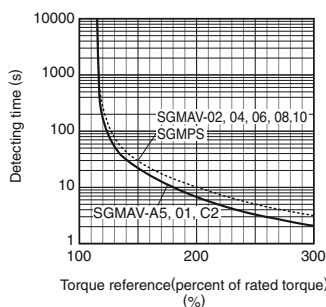
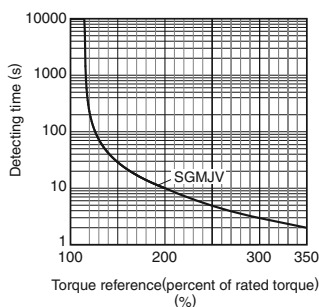
Three-phase 200 V

| SERVOPACK Model | SGDV-□□□□ | R70A | R90A | 1R6A | 2R8A | 3R8A | 5R5A | 7R6A | 120A | 180A | 200A | 330A | 470A | 550A | 590A | 780A |
|-------------------------------------|------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Applicable Servomotor Max. Capacity | kW | 0.05 | 0.1 | 0.2 | 0.4 | 0.5 | 0.75 | 1.0 | 1.5 | 2.0 | 3.0 | 5.0 | 6 | 7.5 | 11 | 15 |
| Continuous Output Current | A _{rms} | 0.66 | 0.91 | 1.6 | 2.8 | 3.8 | 5.5 | 7.6 | 11.6 | 18.5 | 19.6 | 32.9 | 46.9 | 54.7 | 58.6 | 78 |
| Max. Output Current | A _{rms} | 2.1 | 2.9 | 6.5 | 9.3 | 11 | 16.9 | 17 | 28 | 42 | 56 | 84 | 110 | 130 | 140 | 170 |
| Main Circuit | | Three-phase 200 to 230 VAC+10% to -15% 50/60 Hz | | | | | | | | | | | | | | |
| Control Circuit | | Single-phase 200 to 230 VAC+10% to -15% 50/60 Hz | | | | | | | | | | | | | | |

Three-phase 400 V

| SERVOPACK Model | SGDV-□□□□ | 1R9D | 3R5D | 5R4D | 8R4D | 120D | 170D | 210D | 260D | 280D | 370D |
|-------------------------------------|-----------|---|------|------|------|------|------|------|------|------|------|
| Applicable Servomotor Max. Capacity | kW | 0.5 | 1.0 | 1.5 | 2.0 | 3.0 | 5.0 | 6 | 7.5 | 11 | 15 |
| Continuous Output Current | Arms | 1.9 | 3.5 | 5.4 | 8.4 | 11.9 | 16.5 | 20.8 | 25.4 | 28.1 | 37.2 |
| Max. Output Current | Arms | 5.5 | 8.5 | 14 | 20 | 28 | 42 | 55 | 65 | 70 | 85 |
| Main Circuit | | Three-phase 380 to 480 VAC+10% to -15% 50/60 Hz | | | | | | | | | |
| Control Circuit | | 24 VDC \pm 15% | | | | | | | | | |

- **SERVOPACK Overload Characteristics**



Note: Overload characteristics shown above do not guarantee continuous duty of 100% or more output. Use a servomotor with effective torque within the continuous duty zone of Torque-Motor Speed Characteristics.