

# SD1 Series

## General Purpose AC Variable Speed Inverter Drives



- 1 Phase 110/120V 50/60Hz **0.4~1.1kW** (0.5~1.4HP)
- 1 Phase 200/240V 50/60Hz **0.4~2.2kW** (0.5~3HP)
- 1 Phase 230V 50/60Hz **0.2~3.7kW** (0.27~5.5HP) 1 Phase Output **NEW**
- 3 Phase 200/240V 50/60Hz **0.4~7.5kW** (0.5~10HP)
- 3 Phase 380/440V 50/60Hz **0.75~110kW** (1~150HP)

- IP20
- Torque Vector Control
- STO (safe torque off)
- Up to 150% Starting Torque
- Front Mounted RJ45 Socket (<2.2kW)
- Din Rail Mountable (<2.2kW)
- Fixed Keypad with Potentiometer (<2.2kW)
- Detachable Keypad (≥4kW)
- HDI Input (pulse)
- 2 Analogue Inputs
- 1/2 Analogue Outputs
- 2 Output Relays (>2.2kW)
- Transistor Output
- 4/5 Digital Inputs
- PNP/NPN Selectable
- In Built Modbus RTU / RS485
- PID Control as standard
- Internal DC Reactor (≥18.5kW)
- DC Injection Braking
- Internal Brake Chopper (≤37kW)
- Motor Auto-tune (static & dynamic)
- Internal C3 Filter (≥4kW), C3 Filter Option (<2.2kW)
- C1 & C2 Filter Options (entire range)
- Safety Circuit (SIL2/SIL3 - model dependant)
- CE, RoHS & Reach Compliant
- TUV Approved
- UL / cUL Approval on selected models
- 3 Year Warranty



### Options & Ordering Codes

| SD1 - 2.5A - 11      |   |
|----------------------|---|
| Output Power kW (HP) | Input 110-120V Single Phase Output 230VAC Three Phase |
| 0.4kW (0.5HP)        | 2.5A  |
| 0.75kW (1HP)         | 4.2A  |
| 1.1kW (1.4HP)        | 5.8A  |

| SD1 - 2.5A - 21      |                             |
|----------------------|-----------------------------|
| Output Power kW (HP) | Input 200-240V Single Phase |
| 0.4kW (0.5HP)        | 2.5A                        |
| 0.75kW (1HP)         | 4.2A                        |
| 1.5kW (2HP)          | 7.5A                        |
| 2.2kW (3HP)          | 10A                         |

| NEW SD1 - 4.2A - 21 - 1 |                             |                          |  |
|-------------------------|-----------------------------|--------------------------|--|
| Output Power kW (HP)*   | Input 200-240V Single Phase | Output 240V Single Phase |  |
| 0.2kW (0.27HP)          | 4.2A                        |                          |  |
| 0.4kW (0.5HP)           | 7.2A                        |                          |  |
| 0.75kW (1HP)            | 10.2A                       |                          |  |
| 1.5kW (2HP)             | 14A                         |                          |  |
| 2.2kW (3HP)             | 25A                         |                          |  |
| 3.7kW (5.5HP)           | 35A                         |                          |  |

| SD1 - 2.5A - 23      |                            |
|----------------------|----------------------------|
| Output Power kW (HP) | Input 200-240V Three Phase |
| 0.4kW (0.5HP)        | 2.5A                       |
| 0.75kW (1HP)         | 4.2A                       |
| 1.5kW (2HP)          | 7.5A                       |
| 2.2kW (3HP)          | 10A                        |
| 4kW (5.5HP)          | 16A                        |
| 5.5kW (7.5HP)        | 20A                        |
| 7.5kW (10HP)         | 30A                        |

| SD1 - 2.5A - 43      |                            |
|----------------------|----------------------------|
| Output Power kW (HP) | Input 380-440V Three Phase |
| 0.75kW (1HP)         | 2.5A                       |
| 1.5kW (2HP)          | 4.2A                       |
| 2.2kW (3HP)          | 5.5A                       |
| 4kW (5.5HP)          | 9.5A                       |
| 5.5kW (7.5HP)        | 14A                        |
| 7.5kW (10HP)         | 18.5A                      |
| 11kW (15HP)          | 25A                        |
| 15kW (20HP)          | 32A                        |
| 18.5kW (25HP)        | 38A                        |
| 22kW (30HP)          | 45A                        |
| 30kW (40HP)          | 60A                        |
| 37kW (50HP)          | 75A                        |
| 45kW (60HP)          | 92A                        |
| 55kW (75HP)          | 115A                       |
| 75kW (100HP)         | 150A                       |
| 90kW (125HP)         | 180A                       |
| 110kW (150HP)        | 215A                       |

\* Please see p.3 for recommended max. motor ratings.

# SD1 Series

## General Purpose AC Variable Speed Inverter Drives



Technical Datasheet

### Options & Ordering Codes - Filters, Reactors & Accessories

|   | Model          | C3 Filter   | Current      | C2 Filter    | Current    | Input Reactor | Output Reactor |
|---|----------------|-------------|--------------|--------------|------------|---------------|----------------|
| Single Phase<br>110V  | SD1-2.5A-11    | SD1-RFC3-10 | 10A          | SD1-RFC2-10  | 10A        | -             | -              |
|   | SD1-4.2A-11    | SD1-RFC3-10 | 10A          | SD1-RFC2-25  | 25A        | -             | -              |
|   | SD1-5.8A-11    | SD1-RFC3-10 | 10A          | SD1-RFC2-25  | 25A        | -             | -              |
| Single Phase<br>220V  | SD1-2.5A-21    | SD1-RFC3-10 | 10A          | SD1-RFC2-10  | 10A        | -             | -              |
|   | SD1-4.2A-21    | SD1-RFC3-10 | 10A          | SD1-RFC2-10  | 10A        | -             | -              |
|   | SD1-7.5A-21    | SD1-RFC3-10 | 10A          | SD1-RFC2-16  | 16A        | -             | -              |
|   | SD1-10A-21     | SD1-RFC3-10 | 10A          | SD1-RFC2-16  | 16A        | -             | -              |
| <b>NEW</b><br>Single Phase Input<br>Single Phase Output<br>230V | SD1-4.2A-21-1  | SD1-RFC3-10 | 10A          | SD1-RFC2-10  | 10A        | -             | -              |
|   | SD1-7.2A-21-1  | SD1-RFC3-10 | 10A          | SD1-RFC2-10  | 10A        | -             | -              |
|   | SD1-10.2A-21-1 | SD1-RFC3-10 | 10A          | SD1-RFC2-25  | 25A        | -             | -              |
|   | SD1-14A-21-1   | SD1-RFC3-10 | 10A          | SD1-RFC2-25  | 25A        | -             | -              |
|   | SD1-25A-21-1   | Internal    | -            | SD1-RFC2-45  | 45A        | -             | -              |
|   | SD1-35A-21-1   | Internal    | -            | SD1-RFC2-65  | 65A        | -             | -              |
| Three Phase<br>220V   | SD1-2.5A-23    | SD1-RFC3-7  | 7A           | SD1-RFC2-6   | 6A         | ACLC-1.5-4    | OCLC-1.5-4     |
|   | SD1-4.2A-23    | SD1-RFC3-7  | 7A           | SD1-RFC2-6   | 6A         | ACLC-1.5-4    | OCLC-1.5-4     |
|   | SD1-7.5A-23    | Internal    | -            | SD1-RFC2-16  | 16A        | ACLC-4.0-4    | OCLC-4.0-4     |
|   | SD1-10A-23     | Internal    | -            | SD1-RFC2-16  | 16A        | ACLC-4.0-4    | OCLC-4.0-4     |
|   | SD1-16A-23     | Internal    | -            | SD1-RFC2-32  | 32A        | ACLC-5.5-4    | OCLC-5.5-4     |
|   | SD1-20A-23     | Internal    | -            | SD1-RFC2-32  | 32A        | ACLC-7.5-4    | OCLC-7.5-4     |
|   | SD1-30A-23     | Internal    | -            | SD1-RFC2-45  | 45A        | ACLC-15-4     | OCLC-15-4      |
| Three Phase<br>380V   | SD1-2.5A-43    | SD1-RFC3-7  | 7A           | SD1-RFC2-6   | 6A         | ACLC-1.5-4    | OCLC-1.5-4     |
|   | SD1-4.2A-43    | SD1-RFC3-7  | 7A           | SD1-RFC2-6   | 6A         | ACLC-1.5-4    | OCLC-1.5-4     |
|   | SD1-5.5A-43    | SD1-RFC3-7  | 7A           | SD1-RFC2-6   | 6A         | ACLC-2.2-4    | OCLC-2.2-4     |
|   | SD1-9.5A-43    | Internal    | -            | SD1-RFC2-16  | 16A        | ACLC-4.0-4    | OCLC-4.0-4     |
|   | SD1-14A-43     | Internal    | -            | SD1-RFC2-16  | 16A        | ACLC-5.5-4    | OCLC-5.5-4     |
|   | SD1-18.5A-43   | Internal    | -            | SD1-RFC2-32  | 32A        | ACLC-7.5-4    | OCLC-7.5-4     |
|   | SD1-25A-43     | Internal    | -            | SD1-RFC2-32  | 32A        | ACLC-11-4     | OCLC-11-4      |
|   | SD1-32A-43     | Internal    | -            | SD1-RFC2-45  | 45A        | ACLC-15-4     | OCLC-15-4      |
|   | SD1-38A-43     | Internal    | -            | SD1-RFC2-45  | 45A        | ACLC-18-4     | OCLC-18-4      |
|   | SD1-45A-43     | Internal    | -            | SD1-RFC2-65  | 65A        | ACLC-22-4     | OCLC-22-4      |
|   | SD1-60A-43     | Internal    | -            | SD1-RFC2-65  | 65A        | ACLC-37-4     | OCLC-37-4      |
|   | SD1-75A-43     | Internal    | -            | SD1-RFC2-100 | 100A       | ACLC-37-4     | OCLC-37-4      |
|   | SD1-92A-43     | Internal    | -            | SD1-RF52-100 | 100A       | ACLC-45-4     | OCLC-45-4      |
|   | SD1-115A-43    | Internal    | -            | SD1-RFC2-150 | 150A       | ACLC-55-4     | OCLC-55-4      |
|   | SD1-150A-43    | Internal    | -            | SD1-RFC2-150 | 150A       | ACLC-75-4     | OCLC-75-4      |
| SD1-180A-43   | Internal       | -           | SD1-RFC2-240 | 240A         | ACLC-110-4 | OCLC-110-4    |                |
| SD1-215A-43   | Internal       | -           | SD1-RFC2-240 | 240A         | ACLC-110-4 | OCLC-110-4    |                |

| Model      | Description                      |
|------------|----------------------------------|
| SD1-KP     | Remote Keypad                    |
| SD1-KP-CPY | Remote Keypad with Copy Function |
| SD1-KP-MB  | Remote Keypad Mounting Bracket   |



SD1-KP & SD1-KP-MB



SD1-RFC3-10



# SD1 Series

## General Purpose AC Variable Speed Inverter Drives



### Technical Specifications

| Function Description          |                                | Specification   |
|-------------------------------|--------------------------------|---|
| Power Input                   | Input Voltage (V)              | AC 1PH 110V (-15%) to 120V (+10%)<br>AC 1PH 200V (-15%) to 240V (+10%)<br>AC 1PH 200V (-15%) to 240V (+10%) 1PH Output<br>AC 3PH 200V (-15%) to 240V (+10%)<br>AC 3PH 380V (-15%) to 460V (+10%)  |
|                               | Input Current (A)              | Refer to the rated value  |
|                               | Input Frequency (Hz)           | 50Hz/60Hz, allowable range: 47 to 63Hz  |
| Power Output                  | Output Voltage (V)             | 0 to Input voltage<br>(SD1-XXA-11 - AC 3ph 230VAC)  |
|                               | Output Current (A)             | Refer to the rated value  |
|                               | Output Power (kW)              | Refer to the rated value  |
|                               | Output Frequency (Hz)          | 0 to 400Hz  |
| Technical Control Performance | Control Mode                   | SVPWM control, SVC  |
|                               | Motor Type                     | Asynchronous motor, Permanent magnet motor (optional)   |
|                               | Speed Regulation Ratio         | Asynchronous motor 1:100 (SVC)  |
|                               | Speed Control Precision        | ±0.2% (SVC)   |
|                               | Speed Fluctuation              | ±0.3% (SVC)   |
|                               | Torque Response                | <20ms (SVC)   |
|                               | Torque Control Precision       | 10% (SVC)   |
|                               | Starting Torque                | 0.5Hz / 150% (SVC)  |
| Running Control Performance   | Overload Capacity              | 150% of rated current: 1 minute; 180% of rated current: 10 seconds; 200% of rated current: 1 second   |
|                               | Frequency Setup Mode           | Digital, analog, pulse frequency, multi-step speed running, simple PLC, PID, Modbus communication.<br>Shift between the set combination and set channel   |
|                               | Auto-Adjustment of the Voltage | Automatic voltage regulation. Compensates for supply voltage transients   |
|                               | Fault Protection Function      | Provides comprehensive fault protection functions:<br>Overcurrent; Overvoltage; Undervoltage; Overheating; Phase Loss; Overload etc.  |
| Peripheral Interface          | Speed Tracking Restart         | Provides smooth ramping during start up   |
|                               | Analog Input                   | 1 (AI2) 0-10V / 0-20mA and 1 (AI3) -10V to +10V   |
|                               | Analog Output                  | 2 (AO1, AO2) 0-10V / 0-20mA   |
|                               | Digital Input                  | 4 standard inputs (max. frequency: 1kHz)<br>1 high speed input (max. frequency: 50kHz)  |
|                               | Digital Output                 | 1 Y1 terminal output  |
| Other                         | Relay Output                   | 2 programmable relay outputs<br>RO1A NO, RO1B NC, RO1C common terminal<br>RO2A NO, RO2B NC, RO2C common terminal<br>Contact capacity: 3A/250VAC   |
|                               | Mounting Method                | Wall & DIN rail mounting  |
|                               | Ambient Operating Temperature  | -10°C to +50°C (derating 1% for every additional 1°C when above 40°C)   |
|                               | DC Reactor                     | Standard internal DC reactor for inverters (≥18.5kW)  |
|                               | Installation Mode              | Wall and rail installation of inverters (1PH/200V,3PH/380V, ≤2.2kW and 3PH/200V, ≤0.75kW)<br>Wall and flange installation of inverters (3PH/380V, ≥4kW and 3PH/200V, ≥1.5kW)  |
|                               | Braking Unit                   | Standard for inverters ≤37kW, optional for inverters of 45 to 110kW   |
|                               | Protection Level               | IP20<br>Note: Plastic cased inverter should be installed in a metal distribution cabinet, which conforms to IP20 (top surface conforms to IP3X)   |
|                               | Cooling                        | Fan cooling   |
|                               | Braking Unit                   | Built-in  |
|                               | EMC Filter                     | Internal C3 filters for inverters 3PH/380V, ≥4kW and 3PH/200V, ≥1.5kW.<br>Optional external filters to meet the requirement of IEC61800-3 C2, IEC61800-3 C3<br>For drives >4kW, if internal C3 filter is required, fit supplied jumper link to EMC/J10 observing all safety precautions |
|                               | Safety                         | All SD1 inverters comply to safety standards and are marked accordingly. STO function to SIL level 2/3  |

# SD1 Series

## General Purpose AC Variable Speed Inverter Drives



Technical Datasheet

### Technical Specifications

| Single Phase 110V Input, Three Phase Output 230V |              |       |                   |                    |          |                           |             |
|--|--------------|-------|-------------------|--------------------|----------|---------------------------|-------------|
| Model  | Output Power |       | Input Current (A) | Output Current (A) | MCCB (A) | Cables (mm <sup>2</sup> ) | UL Approval |
| SD1-2.5A-11                                      | 0.4kW        | 0.5HP | 8.1               | 2.5                | 20       | 4.0                       | YES         |
| SD1-4.2A-11                                      | 0.75kW       | 1.0HP | 15.1              | 4.2                | 20       | 4.0                       | YES         |
| SD1-5.8A-11                                      | 1.1kW        | 1.4HP | 20.0              | 5.8                | 30       | 4.0                       | YES         |

| Single Phase 230V Input, Three Phase Output 230V |              |       |                   |                    |          |                           |             |
|--|--------------|-------|-------------------|--------------------|----------|---------------------------|-------------|
| Model  | Output Power |       | Input Current (A) | Output Current (A) | MCCB (A) | Cables (mm <sup>2</sup> ) | UL Approval |
| SD1-2.5A-21                                      | 0.4kW        | 0.5HP | 6.5               | 2.5                | 10.0     | 1.5                       | YES         |
| SD1-4.2A-21                                      | 0.75kW       | 1.0HP | 9.3               | 4.2                | 16.0     | 1.5                       | YES         |
| SD1-7.5A-21                                      | 1.5kW        | 2.0HP | 15.7              | 7.5                | 25.0     | 2.5                       | YES         |
| SD1-10A-21                                       | 2.2kW        | 3.0HP | 24.0              | 10.0               | 40.0     | 2.5                       | YES         |

| Three Phase 230V Input, Three Phase Output 230V |              |       |                   |                    |          |                           |             |
|---|--------------|-------|-------------------|--------------------|----------|---------------------------|-------------|
| Model   | Output Power |       | Input Current (A) | Output Current (A) | MCCB (A) | Cables (mm <sup>2</sup> ) | UL Approval |
| SD1-2.5A-23                                     | 0.4kW        | 0.5HP | 3.7               | 2.5                | 6.0      | 1.5                       | YES         |
| SD1-4.2A-23                                     | 0.75kW       | 1.0HP | 5.0               | 4.2                | 10.0     | 1.5                       | YES         |
| SD1-7.5A-23                                     | 1.5kW        | 2.0HP | 7.7               | 7.5                | 16.0     | 2.5                       | YES         |
| SD1-10A-23                                      | 2.2kW        | 3.0HP | 11.0              | 10.0               | 25.0     | 2.5                       | YES         |
| SD1-16A-23                                      | 4kW          | 5.5HP | 17.0              | 16.0               | 32.0     | 2.5                       | -           |
| SD1-20A-23                                      | 5.5kW        | 7.5HP | 21.0              | 20.0               | 32.0     | 4                         | -           |
| SD1-30A-23                                      | 7.5kW        | 10HP  | 31.0              | 30.0               | 63.0     | 6                         | -           |

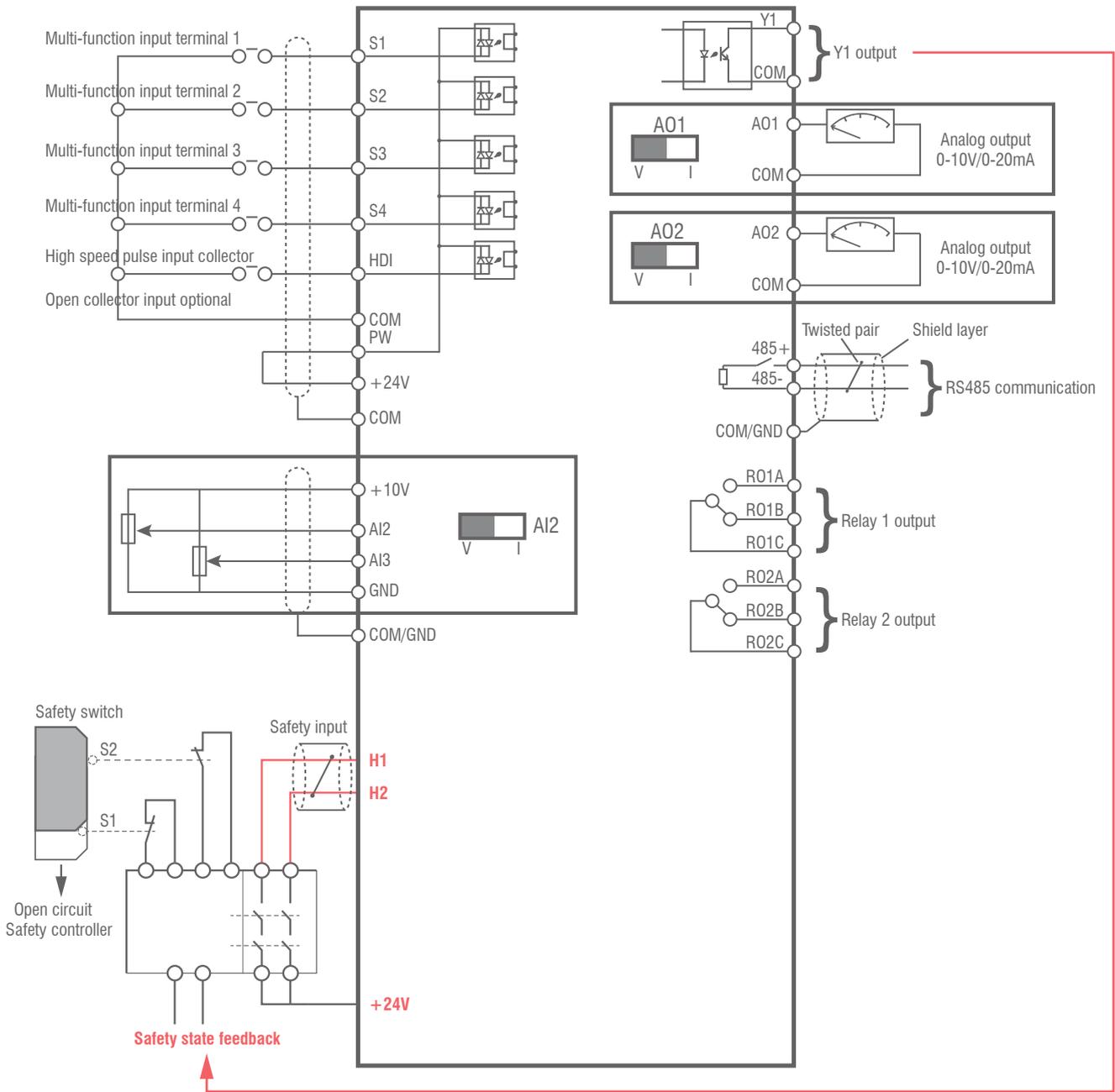
| Three Phase 380V Input, Three Phase Output 380V |              |       |                   |                    |          |                           |             |
|---|--------------|-------|-------------------|--------------------|----------|---------------------------|-------------|
| Model   | Output Power |       | Input Current (A) | Output Current (A) | MCCB (A) | Cables (mm <sup>2</sup> ) | UL Approval |
| SD1-2.5A-43                                     | 0.75kW       | 1.0HP | 3.4               | 2.5                | 6.0      | 1.5                       | YES         |
| SD1-4.2A-43                                     | 1.5kW        | 2.0HP | 5.0               | 4.2                | 10.0     | 1.5                       | YES         |
| SD1-5.5A-43                                     | 2.2kW        | 3.0HP | 5.8               | 5.5                | 10.0     | 1.5                       | YES         |
| SD1-9.5A-43                                     | 4kW          | 5.5HP | 13.5              | 9.5                | 25.0     | 2.5                       | YES         |
| SD1-14A-43                                      | 5.5kW        | 7.5HP | 19.5              | 14.0               | 32.0     | 2.5                       | YES         |
| SD1-18.5A-43                                    | 7.5kW        | 10HP  | 25.0              | 18.5               | 40.0     | 4                         | YES         |
| SD1-25A-43                                      | 11kW         | 15HP  | 32.0              | 25.0               | 63.0     | 6                         | YES         |
| SD1-32A-43                                      | 15kW         | 20HP  | 40.0              | 32.0               | 63.0     | 6                         | -           |
| SD1-38A-43                                      | 18.5kW       | 25HP  | 47.0              | 38.0               | 100.0    | 10                        | -           |
| SD1-45A-43                                      | 22kW         | 30HP  | 51.0              | 45.0               | 100.0    | 16                        | -           |
| SD1-60A-43                                      | 30kW         | 40HP  | 70.0              | 60.0               | 125.0    | 25                        | -           |
| SD1-75A-43                                      | 37kW         | 50HP  | 80.0              | 75.0               | 160.0    | 25                        | -           |
| SD1-92A-43                                      | 45kW         | 60HP  | 98.0              | 92.0               | 200.0    | 35                        | -           |
| SD1-115A-43                                     | 55kW         | 75HP  | 128.0             | 115.0              | 200.0    | 50                        | -           |
| SD1-150A-43                                     | 75kW         | 100HP | 139.0             | 150.0              | 250.0    | 70                        | -           |
| SD1-180A-43                                     | 90kW         | 125HP | 168.0             | 180.0              | 315.0    | 95                        | -           |
| SD1-215A-43                                     | 110kW        | 150HP | 201.0             | 215.0              | 350.0    | 120                       | -           |

| NEW Single Phase Input, Single Phase Output 230V |              |        |                   |                    |          |                           |             |
|--|--------------|--------|-------------------|--------------------|----------|---------------------------|-------------|
| Model  | Output Power |        | Input Current (A) | Output Current (A) | MCCB (A) | Cables (mm <sup>2</sup> ) | UL Approval |
| SD1-4.2A-21-1                                    | 0.2kW        | 0.27HP | 6.5               | 4.2                | 10.0     | 1.5                       | -           |
| SD1-7.2A-21-1                                    | 0.4kW        | 0.5HP  | 9.3               | 7.2                | 16.0     | 1.5                       | -           |
| SD1-10.2A-21-1                                   | 0.75kW       | 1.0HP  | 15.7              | 10.2               | 25.0     | 2.5                       | -           |
| SD1-14A-21-1                                     | 1.5kW        | 2.0HP  | 24.0              | 14.0               | 40.0     | 2.5                       | -           |
| SD1-25A-21-1                                     | 2.2kW        | 3HP    | 38.0              | 25.0               | 63.0     | 6.0                       | -           |
| SD1-35A-21-1                                     | 3.7kW        | 5.5HP  | 52.0              | 35.0               | 100.0    | 16.0                      | -           |

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## General Purpose AC Variable Speed Inverter Drives

### Power & Control Connections



NOTE: This is a typical circuit which, depending on the rating is subject to change. Please check the user manual for more details.

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Technical Datasheet

### Dimensions (mm)

|                      | Model       | W1 | W2 | H1  | H2  | D1    | D2    |
|----------------------|-------------|----|----|-----|-----|-------|-------|
| Single Phase<br>110V | SD1-2.5A-11 | 80 | 60 | 185 | 175 | 140.5 | 137.3 |
|                      | SD1-4.2A-11 | 80 | 60 | 185 | 175 | 140.5 | 137.3 |
|                      | SD1-5.8A-11 | 80 | 60 | 185 | 175 | 140.5 | 137.3 |

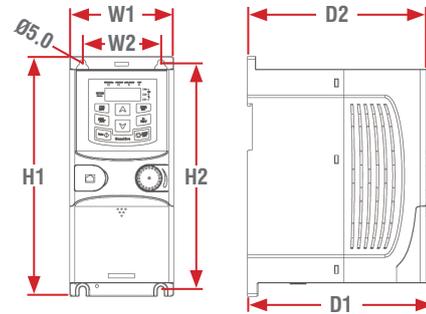
|                      |             |    |    |     |     |       |       |
|----------------------|-------------|----|----|-----|-----|-------|-------|
| Single Phase<br>230V | SD1-2.5A-21 | 80 | 60 | 160 | 150 | 123.5 | 120.3 |
|                      | SD1-4.2A-21 | 80 | 60 | 160 | 150 | 123.5 | 120.3 |
|                      | SD1-7.5A-21 | 80 | 60 | 185 | 175 | 140.5 | 137.3 |
|                      | SD1-10A-21  | 80 | 60 | 185 | 175 | 140.5 | 137.3 |

**NEW**

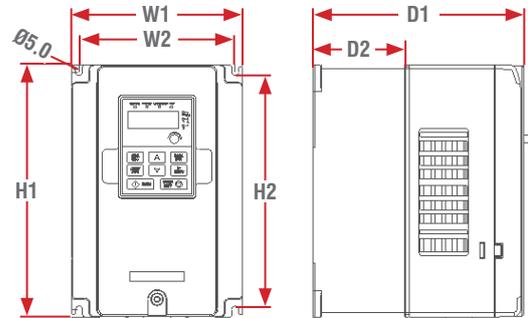
|   |                |     |     |       |       |       |       |
|---|----------------|-----|-----|-------|-------|-------|-------|
| Single Phase Input<br>Single Phase Output<br>230V | SD1-4.2A-21-1  | 80  | 60  | 160   | 150   | 123.5 | 120.3 |
|   | SD1-7.2A-21-1  | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|   | SD1-10.2A-21-1 | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|   | SD1-14A-21-1   | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|   | SD1-25A-21-1   | 170 | 151 | 320   | 303.5 | 196.3 | 113   |
|   | SD1-35A-21-1   | 200 | 185 | 340.6 | 328.6 | 184.3 | 104.5 |

|                     |             |     |     |       |       |       |       |
|---------------------|-------------|-----|-----|-------|-------|-------|-------|
| Three Phase<br>220V | SD1-2.5A-23 | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|                     | SD1-4.2A-23 | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|                     | SD1-7.5A-23 | 146 | 131 | 256   | 243.5 | 167   | 84.5  |
|                     | SD1-10A-23  | 146 | 131 | 256   | 243.5 | 167   | 84.5  |
|                     | SD1-16A-23  | 146 | 131 | 256   | 243.5 | 167   | 84.5  |
|                     | SD1-20A-23  | 170 | 151 | 320   | 303.5 | 196.3 | 113   |
| SD1-30A-23          | 170         | 151 | 320 | 303.5 | 196.3 | 113   |       |

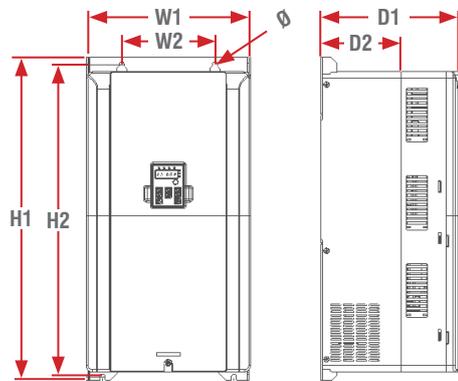
|                     |              |     |     |       |       |       |       |
|---------------------|--------------|-----|-----|-------|-------|-------|-------|
| Three Phase<br>380V | SD1-2.5A-43  | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|                     | SD1-4.2A-43  | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|                     | SD1-5.5A-43  | 80  | 60  | 185   | 175   | 140.5 | 137.3 |
|                     | SD1-9.5A-43  | 146 | 131 | 256   | 243.5 | 167   | 84.5  |
|                     | SD1-14A-43   | 146 | 131 | 256   | 243.5 | 167   | 84.5  |
|                     | SD1-18.5A-43 | 170 | 151 | 320   | 303.5 | 196.3 | 113   |
|                     | SD1-25A-43   | 170 | 151 | 320   | 303.5 | 196.3 | 113   |
|                     | SD1-32A-43   | 170 | 151 | 320   | 303.5 | 196.3 | 113   |
|                     | SD1-38A-43   | 200 | 185 | 340.6 | 328.6 | 184.3 | 104.5 |
|                     | SD1-45A-43   | 200 | 185 | 340.6 | 328.6 | 184.3 | 104.5 |
|                     | SD1-60A-43   | 250 | 230 | 400   | 380   | 202   | 123.5 |
|                     | SD1-75A-43   | 250 | 230 | 400   | 380   | 202   | 123.5 |
|                     | SD1-92A-43   | 282 | 160 | 560   | 542   | 238   | 138   |
|                     | SD1-115A-43  | 282 | 160 | 560   | 542   | 238   | 138   |
|                     | SD1-150A-43  | 282 | 160 | 560   | 542   | 238   | 138   |
|                     | SD1-180A-43  | 338 | 200 | 554   | 535   | 329.2 | —     |
|                     | SD1-215A-43  | 338 | 200 | 554   | 535   | 329.2 | —     |



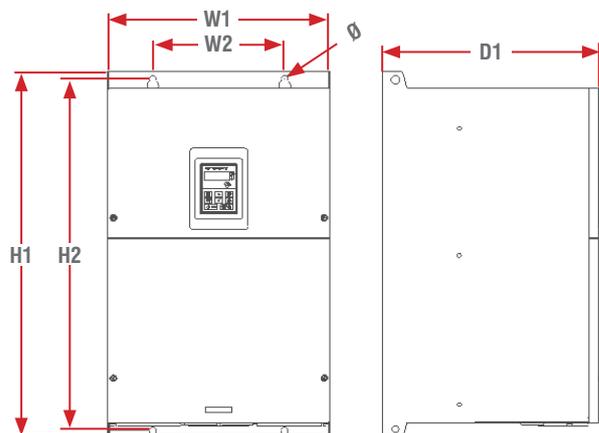
Wall mounting dimensions of 1PH 110V & 230V 0.4 to 2.2kW SD1 Inverter (unit: mm)



Wall mounting dimensions of 3PH 380V 0.4 to 37kW & 3PH 220V 1.5 to 7.5kW SD1 Inverter (unit: mm)



Wall mounting dimensions of 3PH 45 to 75kW SD1 Inverter (unit: mm)



Wall mounting dimensions of 3PH 380V 90 to 110kW SD1 Inverter (unit: mm)