

# SD1 Series

## General Purpose AC Variable Speed Drives

1 Phase 200/240V 50/60Hz **0.4~2.2kW** (0.5~3HP)  
 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
- 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 Pending
- 2 Year Warranty



\* Pending Approval. Please check with IMO for current status

### Options & Ordering Codes - SD1

<b>SD1 - 2.5A - 21</b>		
<b>Nominal Power</b>		
0.4kW / 0.5Hp	<b>2.5A</b>	Input 200-240V Single Phase
0.75kW / 1Hp	<b>4.2A</b>	
1.5kW / 2Hp	<b>7.5A</b>	
2.2kW / 3Hp	<b>10A</b>	

<b>SD1 - 2.5A - 23</b>		
<b>Nominal Power</b>		
0.4kW / 0.5Hp	<b>2.5A</b>	Input 200-240V Three Phase
0.75kW / 1Hp	<b>4.2A</b>	
1.5kW / 2Hp	<b>7.5A</b>	
2.2kW / 3Hp	<b>10A</b>	
4kW / 5.5Hp	<b>16A</b>	
5.5kW / 7.5Hp	<b>20A</b>	
7.5kW / 10Hp	<b>30A</b>	

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

# SD1 Series

## General Purpose AC Variable Speed Drives

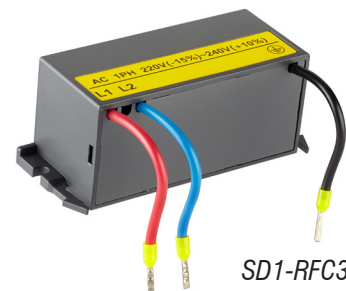
### Options & Ordering Codes - Filters & Accessories

	Model	C3 Filter	Current	C2 Filter	Current
Single Phase 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
Three Phase 220V	SD1-2.5A-23	SD1-RFC3-7	7A	SD1-RFC2-6	6A
	SD1-4.2A-23	SD1-RFC3-7	7A	SD1-RFC2-6	6A
	SD1-7.5A-23	Internal	-	SD1-RFC2-16	16A
	SD1-10A-23	Internal	-	SD1-RFC2-16	16A
	SD1-16A-23	Internal	-	SD1-RFC2-32	32A
	SD1-20A-23	Internal	-	SD1-RFC2-32	32A
	SD1-30A-23	Internal	-	SD1-RFC2-45	45A
Three Phase 400V	SD1-2.5A-43	SD1-RFC3-7	7A	SD1-RFC2-6	6A
	SD1-4.2A-43	SD1-RFC3-7	7A	SD1-RFC2-6	6A
	SD1-5.5A-43	SD1-RFC3-7	7A	SD1-RFC2-6	6A
	SD1-9.5A-43	Internal	-	SD1-RFC2-16	16A
	SD1-14A-43	Internal	-	SD1-RFC2-16	16A
	SD1-18.5A-43	Internal	-	SD1-RFC2-32	32A
	SD1-25A-43	Internal	-	SD1-RFC2-32	32A
	SD1-32A-43	Internal	-	SD1-RFC2-45	45A
	SD1-38A-43	Internal	-	SD1-RFC2-45	45A
	SD1-45A-43	Internal	-	SD1-RFC2-65	65A
	SD1-60A-43	Internal	-	SD1-RFC2-65	65A
	SD1-75A-43	Internal	-	SD1-RFC2-100	100A
	SD1-92A-43	Internal	-	SD1-RF52-100	100A
	SD1-115A-43	Internal	-	SD1-RFC2-150	150A
	SD1-150A-43	Internal	-	SD1-RFC2-150	150A
	SD1-180A-43	Internal	-	SD1-RFC2-240	240A
SD1-215A-43	Internal	-	SD1-RFC2-240	240A	

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



SD1-KP



SD1-RFC3-10

# SD1 Series

## General Purpose AC Variable Speed Drives

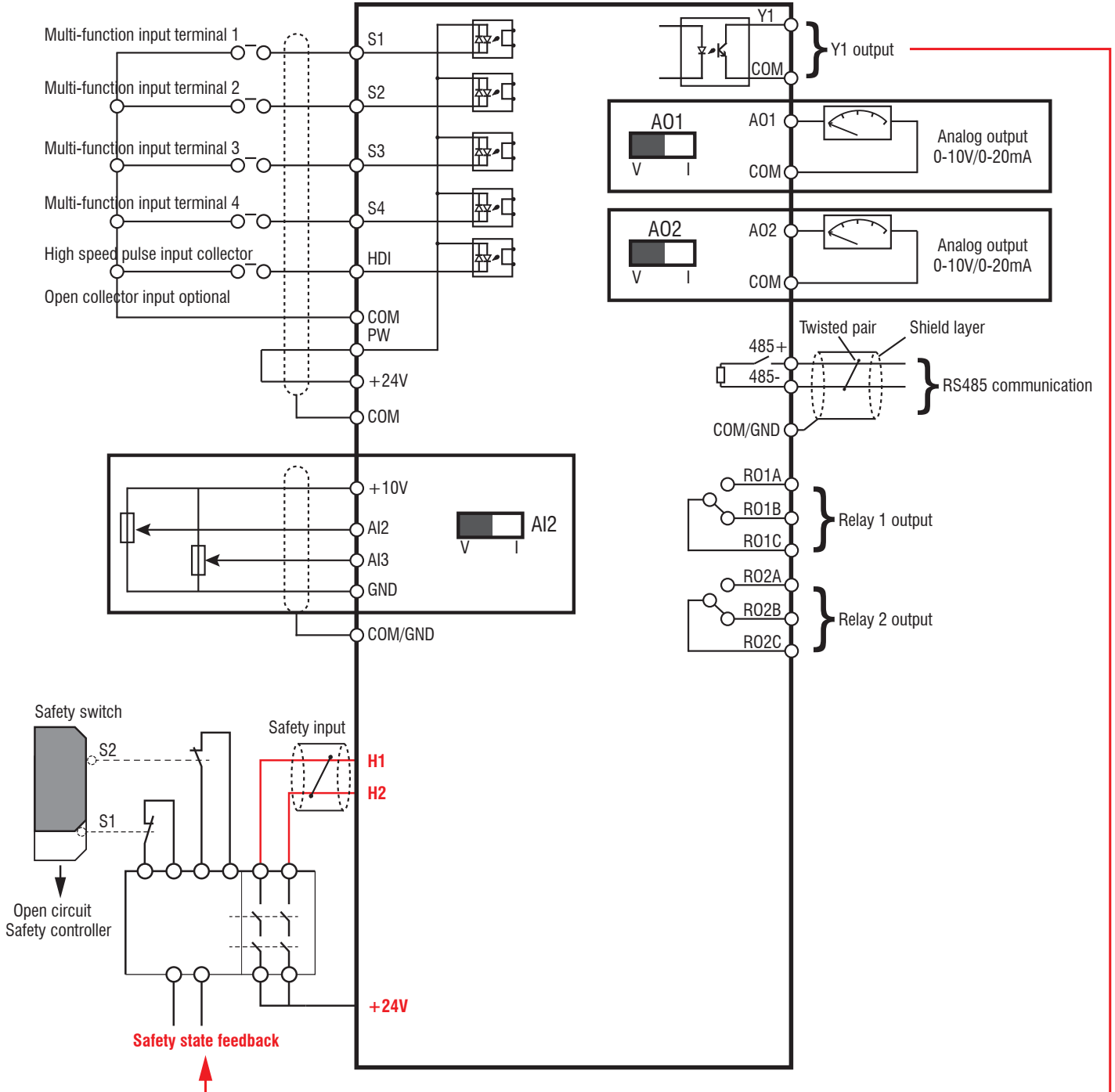
### Specifications

	Model	Output Power		Input Current (A)	Output Current (A)	MCCB (A)	Cables (mm <sup>2</sup> )
Single-phase 220V	SD1-2.5A-21	0.4kW	0.5Hp	6.5	2.5	10	1.5
	SD1-4.2A-21	0.75kW	1.0Hp	9.3	4.2	16	1.5
	SD1-7.5A-21	1.5kW	2.0Hp	15.7	7.5	25	2.5
	SD1-10A-21	2.2kW	3.0Hp	24	10	40	2.5
Three-phase 220V	SD1-2.5A-23	0.4kW	0.5Hp	3.7	2.5	6	1.5
	SD1-4.2A-23	0.75kW	1.0Hp	5	4.2	10	1.5
	SD1-7.5A-23	1.5kW	2.0Hp	7.7	7.5	16	2.5
	SD1-10A-23	2.2kW	3.0Hp	11	10	25	2.5
	SD1-16A-23	4kW	4.5Hp	17	16	32	2.5
	SD1-20A-23	5.5kW	7.5Hp	21	20	32	4
	SD1-30A-23	7.5kW	10Hp	31	30	63	6
Three-phase 380V	SD1-2.5A-43	0.75kW	1.0Hp	3.4	2.5	6	1.5
	SD1-4.2A-43	1.5kW	2.0Hp	5	4.2	10	1.5
	SD1-5.5A-43	2.2kW	3.0Hp	5.8	5.5	10	1.5
	SD1-9.5A-43	4kW	5.5Hp	13.5	9.5	25	2.5
	SD1-14A-43	5.5kW	7.5Hp	19.5	14	32	2.5
	SD1-18.5A-43	7.5kW	10Hp	25	18.5	40	4
	SD1-25A-43	11kW	15Hp	32	25	63	6
	SD1-32A-43	15kW	20Hp	40	32	63	6
	SD1-38A-43	18.5kW	25Hp	47	38	100	10
	SD1-45A-43	22kW	30Hp	51	45	100	16
	SD1-60A-43	30kW	40Hp	70	60	125	25
	SD1-75A-43	37kW	50Hp	80	75	160	25
	SD1-92A-43	45kW	60Hp	98	92	200	35
	SD1-115A-43	55kW	75Hp	128	115	200	50
	SD1-150A-43	75kW	100Hp	139	150	250	70
SD1-180A-43	90kW	125Hp	168	180	315	95	
SD1-215A-43	110kW	150Hp	201	215	350	120	

# SD1 Series

## General Purpose AC Variable Speed Drives

### Power and Control Connections

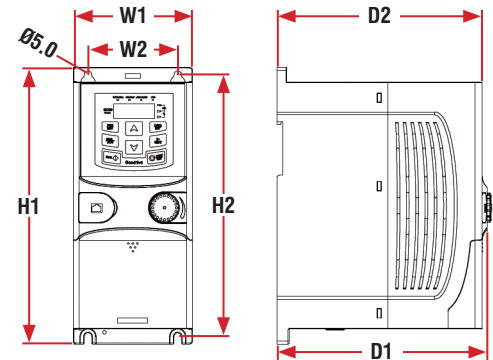


# SD1 Series

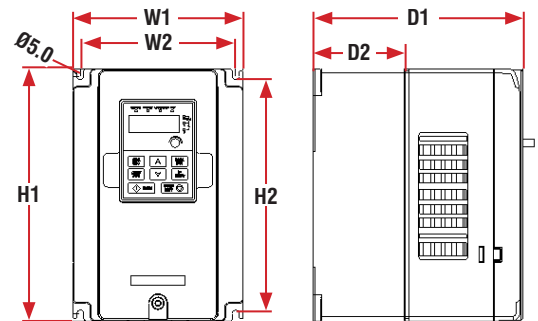
## General Purpose AC Variable Speed Drives

### Dimensions (mm)

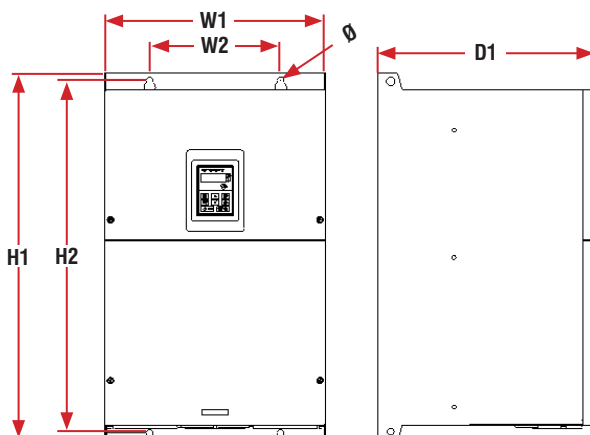
	Model	W1	W2	H1	H2	D1	D2
Single-phase 220V	SD1-2.5A-21	80	60	160	150	123.5	120.3
	SD1-4.2A-21	80	60	160	150	123.5	120.3
	SD1-7.5A-21	80	60	185	175	140.5	137.3
	SD1-10A-21	80	60	185	175	140.5	137.3
Three-phase 220V	SD1-2.5A-23	80	60	185	175	140.5	137.3
	SD1-4.2A-23	80	60	185	175	140.5	137.3
	SD1-7.5A-23	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 400V	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	—



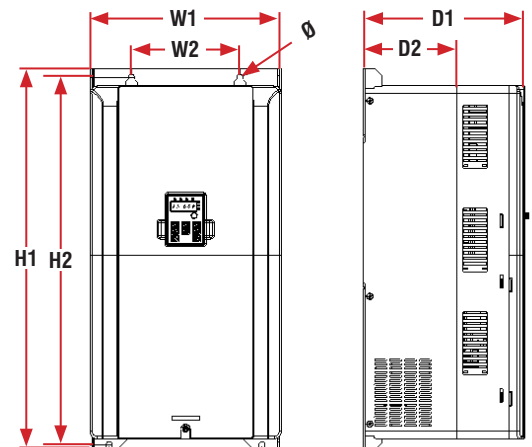
Wall mounting dimensions of 0.75 to 2.2kW SD1 Inverter (unit: mm)



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 380V 90 to 110kW SD1 Inverter (unit: mm)



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