# **SIEMENS**

Product data sheet 3LD2165-3VB51



MAIN SWITCH 6-POLE IU=25, P/AC-23A AT 400V=9,5KW 2 N-TERMINAL MOULDED-PLASTIC ENCLOSURED, IP65

Similar to image

General technical details:			
product brand name		SENTRON	
product designation		main and EMERGENCY-OFF switches	
Type from device		fixed mounting	
Design of the operating mechanism		rotary actuator, black	
Protection class IP		IP65	
Number of poles		6	
Acceptability for application			
• switch disconnector		Yes	
• main switch		Yes	
safety cut-out switch		Yes	
emergency stop switch		No	
maintenance/repair switch		Yes	
Product equipment / interlock		Yes	
Type of the driving mechanism / motor drive		No	
Product extension / optional			
• motor drive		No	
voltage trigger		No	
Ambient temperature / during operating	°C	-25 +55	

Impulse voltage resistance / rated value  Active power loss / per conductor / typical  Mechanical operating cycles as operating time / of the main contacts / typical  Protection against electrical shock  Item designation / according to DIN EN 61346-2  Brend designation / according to DIN EN 61346-2  204-2 / according to IEC 750  Main circuit:  Continuous current / rated value  Operating current / at AC-21 / rated value  Operating requency  Operating requency  Operating roll at 50/60 Hz / for AC / rated value  • at 400 V / rated value  • at 690 V / rated value  Service power / at AC-23 A  • at 400 V / rated value  Operating cycles / maximum  Auxiliarry circuit:  Number of NC contacts / for auxiliary contacts  Number of Contacts / for auxiliary contacts  Continuous current / of the auxiliary contacts / for auxiliary contacts  Continuous current / at AC-3  • at 400 V / rated value  • at 690 V / rated value  Auxiliarry circuit:  Number of NC contacts / for auxiliary contacts  Continuous current / of the auxiliary contact / for AC / maximum  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required  * found in fuse link / for short-circuit protection of the auxiliary switch / required	Insulation voltage / rated value	V	690
Mechanical operating cycles as operating time / of the main contacts / typical Protection against electrical shock Item designation / according to DIN 40719 extendable after IEC 204-2 / according to DIN 40719 extendable after IEC 204-2 / according to IEC 730  Main circuit:  Continuous current / rated value A 25  Operating current / at AC-21 / rated value A 25  Short-time current resistance (icw) / at 690 V / limited to 1 s / rated value  Operating frequency Intervent of AC / rated value Operating requency Operating voltage / at 50/60 Hz / for AC / rated value  NW 7.5  Service power / at AC-3  - at 400 V / rated value - at 890 V / rated value - bar 690 V / rated v	Impulse voltage resistance / rated value	V	6,000
contacts / typical Protection against electrical shock Item designation / according to DIN EN 61346-2 Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750  Main circuit:  Continuous current / rated value A 25 Operating current / at AC-21 / rated value A 25 Short-time current resistance (icw) / at 690 V / limited to 1 s / rated value Operating frequency H2 50 60  Operating frequency H2 50 60  Operating voltage / at 50/60 Hz / for AC / rated value X 7.5 Service power / at AC-3 • at 400 V / rated value • at 890 V / rated value • by 5  Coperating cycles / maximum  Auxillary circuit:  Number of NC contacts / for auxillary contacts  Number of NC contacts / for auxillary contacts  Unumber of Change-over switches / for auxillary contacts  Operating voltage / of the auxillary contacts / for AC / maximum V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Type of mounting • foot mounting • foot mounting	Active power loss / per conductor / typical	W	1.1
Item designation / according to DIN EN 61346-2  Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750  Main circuit:  Continuous current / rated value  Operating current / at AC-21 / rated value  A 25  Operating current esistance (icw) / at 690 V / limited to 1 s / a 640  Poperating frequency  Operating voltage / at 50/60 Hz / for AC / rated value  Operating voltage / at 50/60 Hz / for AC / rated value  Service power / at AC-3  - at 400 V / rated value  - at 690 V / rat			100,000
Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750  Main circuit:  Continuous current / rated value  Operating current / at AC-21 / rated value  A 25  Short-time current resistance (Icw) / at 690 V / limited to 1 s / rated value  Operating frequency  Hz 50 60  Operating voltage / at 50/60 Hz / for AC / rated value  V 690  Service power / at AC-3  • at 400 V / rated value  • at 690 V / rated value  • by 5  Operating cycles / maximum  1/h 50  Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Continuous current / of the auxiliary contacts  Continuous current / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contact / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • foor mounting  • foor mounting	Protection against electrical shock		finger-safe
Main circuit:  Continuous current / rated value  A 25  Operating current / at AC-21 / rated value  A 25  Short-time current resistance (icw) / at 690 V / limited to 1 s / a 640  rated value  Operating frequency  Hz 50 60  Operating voltage / at 50/60 Hz / for AC / rated value  V 690  Service power / at AC-3  - at 400 V / rated value  - at 690 V / rated value  Service power / at AC-23 A  - at 400 V / rated value  - at 690 V / rated value  - at 690 V / rated value  NW 9.5  Service power / at AC-23 A  - at 400 V / rated value  - at 690 V / rated value  NW 9.5  Coperating cycles / maximum  1/h 50  Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NC contacts / for auxiliary contacts  Number of NC contacts / for auxiliary contacts  Operating voltage / of the auxiliary contacts  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  - front mounting  Installation/mounting/dimensions:	Item designation / according to DIN EN 61346-2		S
Continuous current / rated value  Operating current / at AC-21 / rated value  A 25  Short-time current resistance (lcw) / at 690 V / limited to 1 s / rated value  Operating frequency  Operating frequency  Operating voltage / at 50/60 Hz / for AC / rated value  V 690  Service power / at AC-3  • at 400 V / rated value  • at 690 V / rated value  Operating cycles / maximum  1/h 50  Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NC contacts / for auxiliary contacts  O 0  Number of NC contacts / for auxiliary contacts  O 0  Operating voltage / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contact / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting			S
Operating current / at AC-21 / rated value  Short-time current resistance (Icw) / at 690 V / limited to 1 s / rated value  Operating frequency  Operating requency  Operating voltage / at 50/60 Hz / for AC / rated value  V 690  Service power / at AC-3  • at 400 V / rated value • at 690 V / rated value • by 55  Operating cycles / maximum  1/h 50  Auxillary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Ocontinuous current / of the auxiliary contacts  Continuous current / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contact / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting	Main circuit:		
Short-time current resistance (lcw) / at 690 V / limited to 1 s / rated value  Operating frequency  Operating requency  Operating voltage / at 50/60 Hz / for AC / rated value  V 690  Service power / at AC-3  • at 400 V / rated value • at 690 V / rated value • by 55  Operating cycles / maximum  1 //h 50  Auxillary circuit:  Number of NC contacts / for auxillary contacts  Number of NO contacts / for auxillary contacts  Ocontinuous current / of the auxillary contacts  Continuous current / of the auxillary contact / rated value  Operating voltage / of the auxillary contact / rated value  Operating voltage / of the auxillary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxillary switch / required  Installation/mounting/dimensions:  Type of mounting • front mounting	Continuous current / rated value	А	25
Operating frequency Operating voltage / at 50/60 Hz / for AC / rated value V 690 Service power / at AC-3 • at 400 V / rated value • at 690 V / rated value • bkW 9.5  Operating cycles / maximum  1/h 50  Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Ocontinuous current / of the auxiliary contact / rated value A 10 Operating voltage / of the auxiliary contact / for AC / maximum V 500 Insulation voltage / of the auxiliary switch / rated value V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting • front mounting	Operating current / at AC-21 / rated value	Α	25
Operating voltage / at 50/60 Hz / for AC / rated value  Service power / at AC-3  • at 400 V / rated value  • at 690 V / rated value  • at 690 V / rated value  • at 690 V / rated value  • at 400 V / rated value  • at 400 V / rated value  • at 690 V / rated value  • Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Number of NO contacts / for auxiliary contacts  0  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contact / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  • floor mounting  No		А	640
Service power / at AC-3  • at 400 V / rated value  • at 690 V / rated value  • by 9.5   Operating cycles / maximum  1/h 50   Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Number of change-over switches / for auxiliary contacts  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Installation/mounting/dimensions:  Type of mounting  • front mounting  • floor mounting  No	Operating frequency	Hz	50 60
• at 400 V / rated value • at 690 V / rated value  Service power / at AC-23 A • at 400 V / rated value • at 690 V / rated value  Number of NC contacts / for auxiliary contacts  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Continuous current / of the auxiliary contacts / auxiliary contacts  Operating voltage / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contacts / for AC / maximum  V  So  Short-circuit:  Design of the fuse link / for short-circuit protection of the auxiliary switch / rated value  Installation/mounting/dimensions:  Type of mounting • front mounting  If loor mounting	Operating voltage / at 50/60 Hz / for AC / rated value	V	690
* at 690 V / rated value	Service power / at AC-3		
Service power / at AC-23 A  • at 400 V / rated value • at 690 V / rated value  • at 690 V / rated value  Number of NC contacts / for auxiliary contacts  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Number of NO contacts / for auxiliary contacts  O  Continuous current / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contact / rated value  Operating voltage / of the auxiliary switch / rated value  V  Soo  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  floor mounting  No	• at 400 V / rated value	kW	7.5
* at 400 V / rated value  * at 690 V / rated value  * at 690 V / rated value  * by 9.5  Operating cycles / maximum  1/h 50  Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Number of change-over switches / for auxiliary contacts  0  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  floor mounting  No	• at 690 V / rated value	kW	7.5
* at 690 V / rated value	Service power / at AC-23 A		
Operating cycles / maximum  1/h 50  Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Number of change-over switches / for auxiliary contacts  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  • foor mounting  No	• at 400 V / rated value	kW	9.5
Auxiliary circuit:  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Number of change-over switches / for auxiliary contacts  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting	• at 690 V / rated value	kW	9.5
Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Number of change-over switches / for auxiliary contacts  Continuous current / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  Installation/mounting/dimensions:	Operating cycles / maximum	1/h	50
Number of NO contacts / for auxiliary contacts  Number of change-over switches / for auxiliary contacts  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  No	Auxiliary circuit:		
Number of change-over switches / for auxiliary contacts  Continuous current / of the auxiliary contact / rated value  A 10  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  floor mounting  No	Number of NC contacts / for auxiliary contacts		0
Continuous current / of the auxiliary contact / rated value  Operating voltage / of the auxiliary contacts / for AC / maximum  V 500  Insulation voltage / of the auxiliary switch / rated value  V 500  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  No	Number of NO contacts / for auxiliary contacts		0
Operating voltage / of the auxiliary contacts / for AC / maximum  Insulation voltage / of the auxiliary switch / rated value  Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  No	Number of change-over switches / for auxiliary contacts		0
Insulation voltage / of the auxiliary switch / rated value    Short-circuit:	Continuous current / of the auxiliary contact / rated value	Α	10
Short-circuit:  Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  No	Operating voltage / of the auxiliary contacts / for AC / maximum	V	500
Design of the fuse link / for short-circuit protection of the main circuit / necessary  Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  No	Insulation voltage / of the auxiliary switch / rated value	V	500
Design of the fuse link / for short-circuit protection of the auxiliary switch / required  Installation/mounting/dimensions:  Type of mounting  • front mounting  No	Short-circuit:		
Installation/mounting/dimensions:  Type of mounting  • front mounting  No			fuse gL/gG: 25 A
Type of mounting  • front mounting  No			fuse gL/gG: 10 A
• front mounting No	Installation/mounting/dimensions:		
	Type of mounting		floor mounting
• front mounting with central fixation No	• front mounting		No
	front mounting with central fixation		No

	No
	No
	No
mm	146
mm	188
mm	149
	mm

Connection type:	
Design of the electrical connection / for main current circuit	connection terminals
Design of the electrical connection / for auxiliary contact	connection terminals
Type of the connectable conductor cross-section / for main contacts	
• solid	1.5 16 mm2
finely stranded / with conductor end processing	10 mm²
• stranded	1.5 16 mm2
Type of connectable conductor cross section / for auxiliary contacts	
• solid	2x (0.75 to 2.5 mm2), 1x 4 mm2
• stranded	2x (0.75 2.5 mm2), 1x 4 mm2

Certificates/approvals:		
Verification of suitability		CSA / UL / CCC / GL / LRS / DNV / PRS
Conductor cross section that can be connected / for main contacts / solid / minimum	mm²	1.5
Conductor cross section that can be connected / for main contacts / solid / maximum	mm²	16
Conductor cross section that can be connected / for main contacts / stranded / minimum	mm²	1.5
Conductor cross section that can be connected / for main contacts / stranded / maximum	mm²	16
Conductor cross-section that can be connected / for main contacts / stranded wire / with conductor end processing / maximum	mm²	10
Conductor cross section that can be connected / for auxiliary contacts / solid / minimum	mm²	0.75
Conductor cross section that can be connected / for auxiliary contacts / solid / maximum	mm²	4
Conductor cross-section that can be connected / for auxiliary contact / stranded wire / with conductor end processing / minimum	mm²	0.75
Conductor cross-section that can be connected / for auxiliary contact / stranded wire / with conductor end processing / maximum	mm²	2.5
Conductor cross section that can be connected / for auxiliary contacts / stranded / min.	mm²	0.75

Conductor cross section that can be connected / for auxiliary contacts / stranded / max.

 $\,\mathrm{mm^2}$ 

4

### Certificates/approvals:

#### **General Product Approval**









other

#### **Shipping Approval**





GL



Declaration of Conformity



## Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/lowvoltage/mall

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

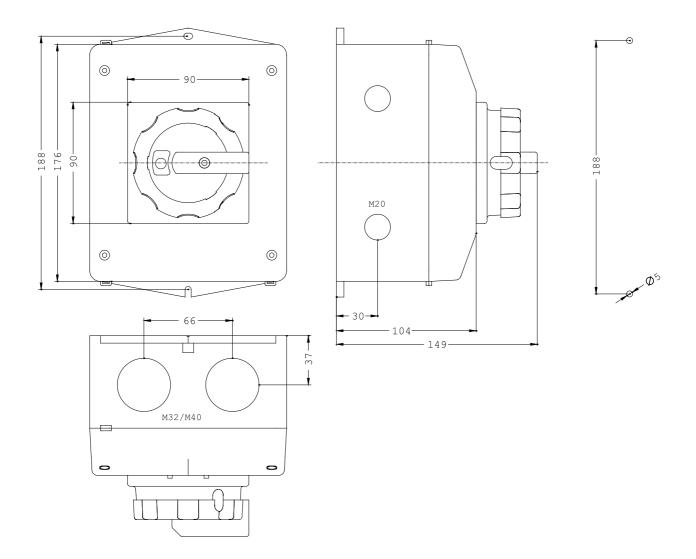
http://support.automation.siemens.com/WW/view/en/3LD2165-3VB51/all

 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2165-3VB51

**CAx-Online-Generator** 

http://www.siemens.com/cax



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