SIEMENS

Data sheet 3RB3036-2UB0



OVERLOAD RELAY 12.5...50 A FOR MOTOR
PROTECTION SIZE S2, CLASS 20E FOR MOUNTING
ONTO CONTACTORS MAIN CIRCUIT: SCREW
TERMINAL AUX. CIRCUIT: SCREW TERMINAL
MANUAL-AUTOMATIC-RESET

Figure similar

product brand name	SIRIUS
Product designation	solid-state overload relay

General technical data:		
Active power loss total typical	W	1.8
Insulation voltage		
 with degree of pollution 3 Rated value 	V	690
Shock resistance		
• acc. to IEC 60068-2-27		15g / 11 ms
Vibration resistance		1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles
Surge voltage resistance Rated value	kV	6
Temperature compensation	°C	6025
Recovery time		
 after overload trip with automatic reset typical 	min	3
 after overload trip with remote-reset 	min	0
 after overload trip with manual reset 	min	0
Size of contactor can be combined company-specific		S2
Type of assignment		2
Protection class IP		
• on the front		IP20
 of the terminal 		IP00
Type of protection		II (2) G [Ex e] [Ex d] [Ex px] II (2) D [Ex t] [Ex p]
Equipment marking		
• acc. to DIN EN 81346-2		F

Main circuit:	
Number of poles for main current circuit	3

for auxiliary contacts Design of the auxiliary switch Operating current of the auxiliary contacts at AC-15 at 24 V at 110 V at 125 V at 230 V Operating current of the auxiliary contacts at DC-13 at 24 V at 25 V at 20 V A Operating current of the auxiliary contacts at DC-13 at 24 V at 60 V at 110 V at 125 V at 110 V at 110 V at 20 V Operating current of the auxiliary contacts at DC-13 at 24 V at 60 V at 100 V at 110 V at 110 V at 110 V at 125 V at 110 V at 125 V at 120 V Operating current of the overload circuit breaker Response time of the ground fault protection in ms Operating current of the auxiliary contacts at DC-13 CLASS 20E	A directable assessment at the comment	^	40.5 50		
Operating voltage		А	12.5 50		
Rated value					
Departing frequency Rated value		V	690		
Departing frequency Rated value	at AC-3 Rated value maximum	V			
Operating current at AC-3 — at 400 V Rated value A 50 Soluminary circuit:		Hz	50 60		
■ at AC-3 — at 400 V Rated value A 50 South So					
— at 400 ∨ Rated value A 50 auxiliary circuit: Number of NC contacts • for auxiliary contacts — Note Number of NO contacts • for auxiliary contacts 0 Design of the auxiliary switch Operating current of the auxiliary contacts at AC-15 • at 24 ∨ • at 110 ∨ • at 125 ∨ • at 230 ∨ Operating current of the auxiliary contacts at DC-13 • at 24 ∨ • at 100 ∨ • at 25 ∨ • at 20 ∨ • at 20 ∨ • at 20 ∨ • at 125 ∨ • at 20 ∨ • at 20 ∨ • at 125 ∨ • at 20 ∨ • at 20 ∨ • at 125 ∨ • at 20 ∨ • at 125 ∨ • at 10 ∨ • at 220 ∨ • at 10 ∨ • at 125 ∨ • at 10 ∨ • at 420 ∨ • at 125 ∨ • at 20 ∨ • at 100 ∨ • at 480 ∨ Rated value • at 480 ∨ Rated value • at 600 ∨ Rated value • at 600 ∨ Rated value • at 600 ∨ Rated value A 50					
Williary circuit: Number of NC contacts • for auxiliary contacts - Note Number of NO contacts • for auxiliary contacts 0 Design of the auxiliary switch Operating current of the auxiliary contacts at AC-15 • at 24 V A 4 • at 110 V A 4 • at 120 V A 4 • at 125 V A 4 • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V A 5 • at 25 V A 7 • at 25 V A 7 • at 25 V A 8 • at 20 V A 9 • at 25 V A 9		Α	50		
Number of NC contacts		,			
• for auxiliary contacts					
Note For contactor disconnection					
Number of NO contacts					
			for contactor disconnection		
Note					
Number of CO contacts • for auxiliary contacts Design of the auxiliary switch Operating current of the auxiliary contacts at AC-15 • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 20 V • at 125 V • at 20 V • at 10 V • at 110 V • at 125 V • at 20 V • at 20 V • at 110 V • at 20 V • at 110 V • at 20 V • at 125 V • at 100 V • at 20 V • at 20 V • at 20 V CLASS 20E Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50	for auxiliary contacts				
• for auxiliary contacts Design of the auxillary switch Operating current of the auxillary contacts at AC-15 • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V Operating current of the auxillary contacts at DC-13 • at 24 V • at 25 V • at 20 V • at 20 V • at 20 V A Operating current of the auxillary contacts at DC-13 • at 24 V • at 60 V • at 110 V A • at 125 V • at 110 V A Outlier • at 110 V A Outlier • at 110 V A Outlier • at 20 V CLASS 20E Design of the overload circuit breaker Response time of the ground fault protection in settled state ■ CLASS 20E ■ In 1000 ■	— Note		for message "tripped"		
Design of the auxiliary switch Operating current of the auxiliary contacts at AC-15 • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 25 V • at 20 V A A A 2 • at 60 V • at 110 V A A A 0.35 • at 125 V • at 20 V A 0.3 • at 125 V • at 110 V A 0.3 • at 125 V • at 110 V A 0.3 • at 125 V A 0.3 • at 125 V • at 100 V • at 125 V • at 100 V • at	Number of CO contacts				
Operating current of the auxiliary contacts at AC-15 • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 110 V • at 125 V • at 60 V • at 110 V • at 125 V • at 110 V • at 125 V • at 100 V • at 120 V Cotective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DIJCSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 A 50	for auxiliary contacts		0		
• at 24 V • at 110 V • at 120 V • at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V • at 220 V • at 220 V Class • at 220 V Class • at 220 V Class Class 20E Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value • at 600 V Rated value A 50	Design of the auxiliary switch		integrated		
• at 110 V • at 120 V • at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 110 V • at 220 V A Output Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V • at 100 V • at 110 V • at 125 V • at 110 V • at 125 V • at 125 V • at 120 V Operating current of the auxiliary contacts at DC-13 Operating current of the auxiliary contacts at	Operating current of the auxiliary contacts at AC-15				
• at 120 V • at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 110 V • at 125 V • at 125 V • at 125 V • at 125 V • at 120 V Cotective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value • at 600 V Rated value A 4 4 4 4 4 4 4 4 4 4 4 50 A 50	● at 24 V	Α	4		
• at 125 V • at 230 V Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 125 V • at 125 V • at 220 V A O.3 • at 220 V A O.11 Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value • at 600 V Rated value A A A 4 4 4 4 4 5 A 6 A	● at 110 V	Α	4		
at 230 V Operating current of the auxiliary contacts at DC-13 at 24 V at 60 V A at 110 V at 125 V at 220 V A Outline Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DI/CSA ratings: Full-load current (FLA) for three-phase AC motor at 480 V Rated value at 600 V Rated value A A A A B A A B A B A B B	● at 120 V	Α	4		
Operating current of the auxiliary contacts at DC-13 • at 24 V • at 60 V A 0.55 • at 110 V A 0.3 • at 220 V A 0.11 Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50	● at 125 V	Α	4		
• at 24 V • at 60 V A 0.55 • at 110 V A 0.3 • at 125 V A 0.11 Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 A 0.55 A 0.3 A 0.11 CLASS 20E electronic ms 1 000	● at 230 V	Α	3		
• at 60 V • at 110 V A 0.3 • at 125 V A 0.11 Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 0.3 A 0.11 CLASS 20E electronic ms 1 000 settled state	Operating current of the auxiliary contacts at DC-13				
at 110 V at 125 V A 0.3 at 220 V Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state L/CSA ratings:	● at 24 V	Α	2		
at 125 V at 220 V A 0.3 A 0.11 Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor at 480 V Rated value at 600 V Rated value A 50 at 600 V Rated value A 50	● at 60 V	Α	0.55		
at 220 V A 0.11 Protective and monitoring functions: Trip class CLASS 20E Design of the overload circuit breaker Response time of the ground fault protection in settled state UL/CSA ratings: Full-load current (FLA) for three-phase AC motor at 480 V Rated value at 600 V Rated value A 50 at 600 V Rated value A 50	● at 110 V	Α	0.3		
at 220 V A 0.11 Protective and monitoring functions: Trip class CLASS 20E Design of the overload circuit breaker Response time of the ground fault protection in settled state UL/CSA ratings: Full-load current (FLA) for three-phase AC motor at 480 V Rated value at 600 V Rated value A 50 at 600 V Rated value A 50	● at 125 V	Α	0.3		
Protective and monitoring functions: Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state Design of the overload circuit breaker electronic ms 1 000 electronic ms 1 000 electronic elec		Α			
Trip class Design of the overload circuit breaker Response time of the ground fault protection in settled state DL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 A 50		_			
Design of the overload circuit breaker Response time of the ground fault protection in settled state ML/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 A 50			OLACC 20F		
Response time of the ground fault protection in settled state JL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value A 50 • at 600 V Rated value A 50	-				
Settled state JL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 • at 600 V Rated value		mo			
JL/CSA ratings: Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 A 50	Response time of the ground fault protection in settled state	IIIS	1 000		
Full-load current (FLA) for three-phase AC motor • at 480 V Rated value • at 600 V Rated value A 50 A 50					
 at 480 V Rated value at 600 V Rated value A 50 A 50 					
• at 600 V Rated value A 50		A	50		
Contact rating of the auxiliary contacts acc. to UL B600 / R300		Α			
	Contact rating of the auxiliary contacts acc. to UL		B600 / R300		

Short-circuit:				
Design of the fuse link				
• for short-circuit protection of the main circuit				
— required		Fuse gG: 200 A		
 for short-circuit protection of the auxiliary switch required 		fuse gG: 6 A		

nstallation/ mounting/ dimensions:				
mounting position		any		
Mounting type		direct mounting		
Height	mm	99		
Width	mm	55		
Depth	mm	104		
Required spacing				
with side-by-side mounting				
— forwards	mm	0		
— Backwards	mm	0		
— upwards	mm	0		
— downwards	mm	10		
— at the side	mm	0		
• for grounded parts				
— forwards	mm	10		
— Backwards	mm	0		
— upwards	mm	10		
— at the side	mm	10		
— downwards	mm	10		
• for live parts				
— forwards	mm	10		
— Backwards	mm	0		
— upwards	mm	10		
— downwards	mm	10		
— at the side	mm	10		

Connections/ Terminals:			
Type of electrical connection			
for main current circuit		screw-type terminals	
 for auxiliary and control current circuit 		screw-type terminals	
Arrangement of electrical connectors for main current circuit		Top and bottom	
Product function			
 removable terminal for auxiliary and control 		Yes	
circuit			
Type of connectable conductor cross-section			

• for main contacts		
 — single or multi-stranded 		1x (1 50 mm²), 2x (1 35 mm²)
 finely stranded with core end processing 		1x (1 35 mm²), 2x (1 25 mm²)
• for AWG conductors for main contacts		2x (18 2), 1x (18 1)
• for auxiliary contacts		
— single or multi-stranded		1x (0,5 4 mm²), 2x (0,5 2,5 mm²)
 finely stranded with core end processing 		1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
 for AWG conductors for auxiliary contacts 		1x (20 14), 2x (20 14)
Tightening torque	_	
 for main contacts with screw-type terminals 	N·m	3 4.5
Design of screwdriver shaft	-	Diameter 5 to 6 mm
Design of the thread of the connection screw	-	
• for main contacts		M6
 of the auxiliary and control contacts 		M3
Safety related data:		
Proportion of dangerous failures		
• with low demand rate acc. to SN 31920	%	35
Protection against electrical shock		finger-safe when touched vertically from front acc. to IEC 60529
Mechanical data:		
Size of overload relay		S2
Communication/ Protocol:		
Protocol is supported		
IO-Link protocol		No
Type of voltage supply via input/output link master	_	No
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature	_	
 during operation 	°C	-25 +60
during storage	°C	-40 +80
during transport	°C	-40 +80
Relative humidity during operation	%	0 95
Electromagnetic compatibility:		
EMC emitted interference		
• acc. to IEC 60947-1		CISPR 11, environment B (residential area)
EMI immunity acc. to IEC 60947-1		corresponds to degree of severity 3
Conducted interference due to burst acc. to IEC		2 kV (power ports), 1 kV (signal ports)
61000-4-4		
Conducted interference due to conductor-earth surge		2 kV (line to ground)
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV (line to ground)

Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV (line to line)
Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge

Display:	
Display version	
for switching status	Slide switch

Certificates/ approvals:

General Product Approval		For use in hazardous locations	Test Certificates	other	
SP	FAL	$\langle \varepsilon_x \rangle$	Type Test Certificates/Test Report	Confirmation	Environmental Confirmations

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system) http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB30362UB0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RB30362UB0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB30362UB0&lang=en



