

UM-C Motorized unit kit for base mounting changeover switches 3P - 3P+N

S5F Size 0 standard (125A... 200A)
CCF Sizes 1-2 standard (200A... 800A)
S5B Size 0 by-pass standard (125A... 200A)
S5B Size 1 by-pass ready to motorize (250A... 400A)



		CODE - 3P ⁴⁰¹⁾	CODE - 3P+N ⁴⁰¹⁾	CODE - 230 Vac ⁴⁰¹⁾
Size 0 S5F	125A	S5F01253P50	S5F01253N50	UM UM-C0A230Z
	160A	S5F01603P50	S5F01603N50	
	200A	S5F02003P50	S5F02003N50	
Size 1 CCF	200A	CCF02003P50	CCF02003N50	UM UM-C1A230Z
	250A	CCF02503P50	CCF02503N50	
	315A	CCF03153P50	CCF03153N50	
Size 2 CCF	400A	CCF04003P50	CCF04003N50	UM UM-C2A230Z
	500A	CCF05003P50	CCF05003N50	
	800A	CCF08003P50	CCF08003N50	
Size 0 S5B	125A	S5B01253P50	S5B01253N50	UM UM-C0A230Z
	160A	S5B01603P50	S5B01603N50	
	200A	S5B02003P50	S5B02003N50	
Size 1 S5B	250A	S5B02503PRC	S5B02503NRC	UM UM-C1A230Z
	315A	S5B03153PRC	S5B03153NRC	
	400A	S5B04003PCC	S5B04003NCC	

- UM + S5F & UM + S5B normal mounting
- UM + CCF normal mounting
- Auxiliary manual handle supplied with the UM

Technical information



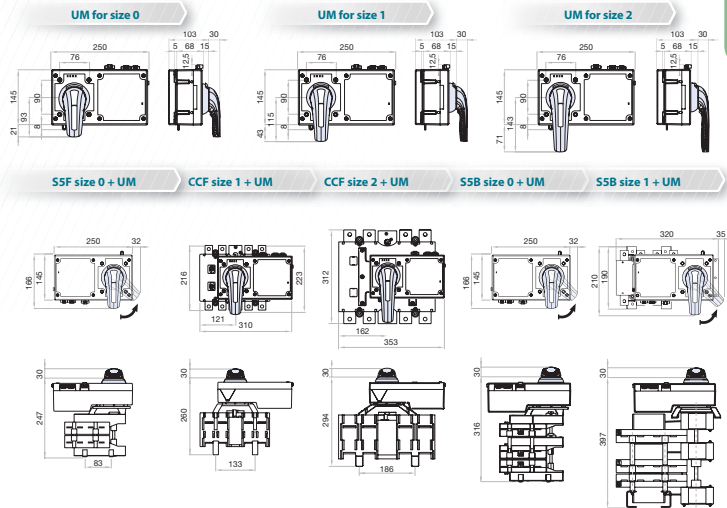
According to IEC 60947-3

		UM for sizes 0-1	UM for size 2
Operational torque	Nm	20	30
Voltage supply	V	230 Vac ⁴⁰²⁾	230 Vac ⁴⁰²⁾
Operating voltage range ⁴⁰³⁾	ΔV	0,85 V to 1,15 V	0,85 V to 1,10 V
Operating voltage range according to IEC 60947-6	ΔV	0,95 V to 1,10 V	0,95 V to 1,10 V
Cable section of voltage supply	mm ²	1,5 - 2,5	1,5 - 2,5
Cable section area Input Signals	mm ²	0,5 - 1,5	0,5 - 1,5
Cable section area Auto-Lock mode Outputs	mm ²	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	1,1	1,1
Use current (I _{ms})	mA	45	45
Use current (I _{max})	mA	137	137
Protective Fuse Reference F1AL250 V (Littelfuse)	A	1	1
Operating angle		-70°/10°/ +70° (I - 0 - II)	-70°/0°/ +70° (I - 0 - II)
Number of UM operations	Cycles	8000	5000
Operation rate (I - II - 0)	Cycles/hour	120	60
Working temperature range		-25°C ... +55°C	-25°C ... +55°C
Transportation and storage temperature		-40°C ... +70°C	-40°C ... +70°C
UM weight	Kg	1,8	1,8

Pos.	Direction	Pos.	Operating time ⁴⁰⁴⁾
0	→	I	750 ms
I	→	0	750 ms
0	→	II	750 ms
II	→	0	750 ms
I	→	II	1,5 sec
II	→	I	1,5 sec

⁴⁰¹⁾ UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting. For different type of mounting or different code of switch or UM Kit please consult.
⁴⁰²⁾ For DC values, consult please.
⁴⁰³⁾ Based in our own tests.
 There are changeover switch versions without 0 - OFF position:
 S5F (I - II) = S5D
 CCF "overlapped" (I - II - II) = CCS
 CCF "overlapped" (I - II - II) = CCT
 S5B "overlapped" (I - I - II - II) = S5S. Consult.

Dimensions (mm)



EMC table (Electromagnetic compatibility)

Immunity					
Test	Standard	According to standard UNE-EN 61000	According to standard IEC 60947-6	Results achieved	Values achieved in tests
Electrostatic discharges	EN 61000-4-2	Special, B	Special, A	Special, A	±8KV air discharge
Electromagnetic H.F. field	EN 61000-4-3	Level 3, A	Level 3, A	Level 3, A	±4KV equipment discharge
Fast transients (Burst)	EN 61000-4-4	Level 3, B	Level 3, A	Level 4, A	±4KV power supply, freq. Rep. 2.5kHz ±2KV signal supply, freq. Rep. 5kHz
Fast transient (surge discharge)	EN 61000-4-5	Level 3, B	Level 3, A	Special, A	Generator impedance 2Ω (wave 1,2/50 ms)
Conducted disturbances	EN 61000-4-6	Level 3, A	Level 3, A	Level 3, A	10V supply and signal
Electromagnetic field, industrial frequency	EN 61000-4-8	Level 4, A	-	Level 4, A	Field intensity 30A/m
Voltage dips, interruptions and voltage variations	EN 61000-4-11	Criterion B	-	Criterion A	30% Un - 1000 ms
		Criterion C	-	Criterion A	60% Un - 1000 ms
		Criterion C	-	Criterion B	95% Un - 5000 ms

Emission					
Test	Standard	According to standard UNE/EN 61000	According to standard IEC 60947-6	Results achieved	Values achieved in tests
Emission of harmonic current	EN 61000-3-2	Level 3	Level 3	Level 3	0,02A total current (manual mode)
Unwanted voltage	EN 55011	Level 3	Level 3	Level 3	0,04A total current (automatic mode)
Radiated emission	EN 55011	Level 3	Level 3	Level 3	Qualified

NOTE: The installation of this device in a domestic environment can cause radiofrequency interference
 EN 61000-3 equivalent to IEC 61000 - EN 55011 is equivalent to CISPR11
 CRITERION A: Normal service behaviour in determined limits
 CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
 Test level 3: Typical industrial environment, without special installation measures
 Test level 4: Severe industrial environment
 Special level: Level of higher electromagnetic severe environment

UM-C (MODBUS) Motorized unit kit for base mounting changeover switches 3P - 3P+N

CCF Sizes 2-3 standard (500A... 1250A)
SSF Sizes 4-5 standard (1600A... 3150A)



	CODE - 3P ⁴¹⁾	CODE - 3P+N ⁴¹⁾	CODE - 120 Vac ⁴¹⁾	CODE - 230 Vac ⁴¹⁾
Size 2 CCF	500A 630A 800A CCF05003P50 CCF06303P50 CCF08003P50	CCF05003N50 CCF06303N50 CCF08003N50	UM	UM-C21120M UM-C21230M
Size 3 CCF	1000A 1250A CCF10003P50 CCF12503P50	CCF10003N50 CCF12503N50	UM	UM-C31120M UM-C31230M
Size 4 SSF	1600A 1800A 2000A SSF16003P50 SSF18003P50 SSF20003P50	SSF16003N50 SSF18003N50 SSF20003N50	UM	UM-C45120M UM-C45230M
Size 5 SSF	2000A 2500A 3150A SSF20003PP0 SSF25003PP0 SSF31503PP0	SSF20003NP0 SSF25003NP0 SSF31503NP0	UM	UM-C55230M

UM + CCF size 3 normal mounting
UM + CCF size 3 inverted mounting ⁴¹⁾
UM + SSF sizes 4 - 5 normal mounting
UM + SSF sizes 4 - 5 inverted mounting ⁴¹⁾
(please consult UM codes)

* Auxiliary manual handle supplied with the UM

Technical information



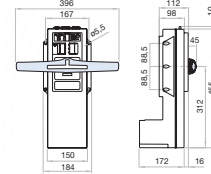
According to IEC 60947-3

		120Vac ⁴²⁾	230Vac ⁴²⁾
Voltage supply			
Operating voltage range ⁴³⁾	ΔV	0,85%V to 1,15%V	0,85%V to 1,15%V
Cable of voltage supply	mm ²	1,5 - 2,5	1,5 - 2,5
Cable section area Input & MODBUS Signals	mm ²	0,5 - 1,5	0,5 - 1,5
Cable section area Outputs	mm ²	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	11	11
Nominal Current during operation	A	7,5	3,9
Use current (I _{ms})	A	0,041	0,041
Use current (I _{msd})	A	0,275	0,275
Protection Fuse Reference F4AL250V (Littelfuse)	A	4	4
Operating time	s	0,166	0,15
Number of MU operations + CCF Size 2	Cycles	5000	5000
Operations frequency (I-O-I-II-O) ⁴⁴⁾	Cycles/hour	60	60
Number of UM operations + CCF size 3	Cycles	3000	3000
Operations frequency (I-O-I-II-O) ⁴⁴⁾	Cycles/hour	20	20
Number of UM operations + SSF size 4	Cycles	3000	3000
Operations frequency (I-O-I-II-O) ⁴⁴⁾	Cycles/hour	20	20
Number of UM operations + SSF size 5	Cycles	-	600
Operations frequency (I-O-I-II-O) ⁴⁴⁾	Cycles/hour	-	20
Working temperature range		-25°C ... +55°C	-25°C ... +55°C
		T ₁ 85%Un	T ₁ 115%Un
Transportation and storage temperature		-40°C ... +70°C	-40°C ... +70°C
UM weight	Kg	4,4	

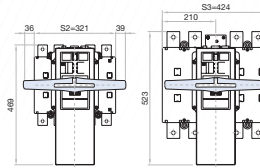
⁴¹⁾ UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting. For different type of mounting or different code of switch or UM Kit please consult.
⁴²⁾ For DC values, consult please.
⁴³⁾ Operating voltage range for the reference UM-C55230M is 0,9%V to 1,10%V.
⁴⁴⁾ According to IEC 60947-3.
⁴⁵⁾ For inverted mounting there are references for UM with inverted frontal plates. Supply under request. There are changeover switches versions without O - OFF position:
SSF (I - II) = S5D
CCF "overlapped" (I - I-II - II) = CCS
CCP "overlapped" (I - I-II - II) = CCT. Consult.

Dimensions (mm)

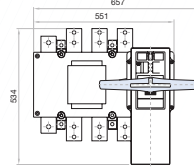
UM



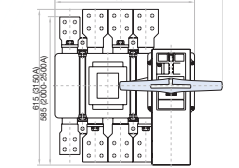
CCF size 2-3 + UM



SSF size 4 + UM



SSF size 5 + UM



EMC table (Electromagnetic compatibility)

Emission						
Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Unwanted voltage	EN 55011	150kHz-30MHz	N.A.	N.A.	N.A.	C
Radiated emission	EN 55011	30MHz-1GHz	N.A.	N.A.	N.A.	C
Emission of harmonic current	EN 61000-3-2	0,02A 0-2kHz	N.A.	N.A.	N.A.	C
Flicker	EN 61000-3-3	0-2kHz	N.A.	N.A.	N.A.	C
Immunity						
Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Electrostatic discharges	EN 61000-4-2	Special, A +/- 8kV air discharge	SPECIAL	B	A	C
Electromagnetic H.F. field	EN 61000-4-3	10V/m De 80MHz a 2,7 GHz	SPECIAL	A	A	C
Fast transients (Burst)	EN 61000-4-4	+/- 2kV power supply +/- 1kV signal supply Rep 5kHz - 2min	3	B	A	C
Fast transient (surge discharge)	EN 61000-4-5	+/- 4kV power supply Generator impedance 2Ω Wave 1,2/50µs	5	B	A	C
Conducted disturbances	EN 61000-4-6	10V supply and signal 0,15-80MHz	3	A	A	C
Electromagnetic field, industrial frequency	EN 61000-4-8	Field intensity 30A/m	4	A	A	C
Voltage dips, interruptions and voltage variations	EN 61000-4-11	N.A.	100% Un - 10ms	B	A	C
		N.A.	100% Un - 20ms	B	A	C
		N.A.	60% Un - 200ms	C	A	C
		N.A.	30% Un - 500ms	C	A	C
		N.A.	20% Un - 500ms	C	A	C
		N.A.	100% Un - 500ms	C	A	C

CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment