



Sample image

Datasheet

Article number: 70012158
Description: Other Component
Table de vérité: A241
Marquage face avant: F109
Type de fixation: FS2-V

Taille: S00
Type de contacts: Rigid contact bridge
Revêtement des Contacts: Silver
Types de raccordement: Screw terminal

IEC 60947-3 EN 60947-3, VDE 0660 Teil 107						
Tension assignée d'isolement Ui						
			Tension (V) AC / DC			
			440 AC / DC			
Tension assignée de tenue aux chocs Uimp						
Tension (KV)	Classe de protection surcharges	Degré de pollution	Type d'alimentation		Fonction	
4 III		3	Valable pour un réseau triphasé avec le neutre à la terre		interrupteur	
Courant ininterrompu et thermique conventionnel Iu/Ith						
Intensité (A)	Température Ambiante (°)	Température Maxi (°) Spécification complémentaire				
10	55	60 Température ambiante +55°C durant 24 heures avec point à +60°C				
Courant thermique d'emploi sous enveloppe Ithe						
Intensité (A)	Température Ambiante (°)	Température Maxi (°) Spécification complémentaire	Nb d'étage (de-à)		Fixation	Taille de la fixation
10	35	40 Température ambiante +35°C durant 24 heures avec point à +40°C	-- --			--
Courant assigné d'emploi Ie						
Catégorie d'emploi			Tension (V)	Intensité (A)		
AC-15			110 - 110	2,50		
AC-15			220 - 240	2,50		
AC-15			380 - 440	1,50		
AC-20A			440	10		
AC-21A			440	10		
AC-22A			220 - 440	10		
Puissance assignée d'emploi						
Catégorie d'emploi		Tension (V)	Nb de phases	Nb de pôles	Puissance (kW)	
AC-6b		380 - 400	3	3	--	
AC-6b		220 - 230	1	2	--	
AC-2		220 - 240	3	3	2,50	
AC-2		380 - 440	3	3	4,50	
AC-3		220 - 240	3	3	1,50	
AC-3		380 - 440	3	3	2,20	
AC-3		110 - 120	1	2	0,30	
AC-3		220 - 240	1	2	0,55	
AC-3		380 - 440	1	2	0,75	
AC-4		220 - 240	3	3	0,37	
AC-4		380 - 440	3	3	0,55	
AC-4		110 - 120	1	2	0,15	
AC-4		220 - 240	1	2	0,25	
AC-4		380 - 440	1	2	0,50	
AC-23A		220 - 240	3	3	1,80	
AC-23A		380 - 440	3	3	3	
AC-23A		110 - 120	1	2	0,37	
AC-23A		220 - 240	1	2	0,75	
AC-23A		380 - 440	1	2	1,10	
Protection par fusible (IEC)						
Caractéristique			Nombre de fusible		Intensité (A)	
gG			1		10	
Tested AC and DC values						
Utilization category / Time constant		No. of contacts in series	Off or change-over switch	Tension (V) AC / DC		Intensité (A)
DC-13		1	ON - OFF	24 DC		0,80
DC-13		1	ON - OFF	48 DC		0,50
DC-13		1	ON - OFF	60 DC		0,20
DC-13		2	ON - OFF	48 DC		0,80

Tested AC and DC values					
Utilization category / Time constant	No. of contacts in series	Off or change-over switch	Tension (V)	AC / DC	Intensité (A)
DC-13	2	ON - OFF	96	DC	0,50
DC-13	2	ON - OFF	120	DC	0,20
DC-13	3	ON - OFF	110	DC	1
DC-21A	1	ON - OFF	24	DC	10
DC-21A	1	ON - OFF	48	DC	6
DC-21A	1	ON - OFF	60	DC	5
DC-21A	1	ON - OFF	110	DC	4
DC-21A	1	ON - OFF	220	DC	0,80
DC-21A	2	ON - OFF	48	DC	10
DC-21A	2	ON - OFF	96	DC	6
DC-21A	2	ON - OFF	120	DC	5
DC-21A	2	ON - OFF	220	DC	4
DC-21A	2	ON - OFF	440	DC	0,80
DC-21A	3	ON - OFF	72	DC	10
DC-21A	3	ON - OFF	144	DC	6
DC-21A	3	ON - OFF	180	DC	5
DC-21A	3	ON - OFF	330	DC	4
DC-21A	3	ON - OFF	660	DC	0,80
DC-21A	4	ON - OFF	96	DC	10
DC-21A	4	ON - OFF	192	DC	6
DC-21A	4	ON - OFF	240	DC	5
DC-21A	4	ON - OFF	440	DC	4
DC-21A	5	ON - OFF	120	DC	10
DC-21A	5	ON - OFF	240	DC	6
DC-21A	5	ON - OFF	300	DC	5
DC-21A	5	ON - OFF	550	DC	4
DC-21A	6	ON - OFF	144	DC	10
DC-21A	6	ON - OFF	288	DC	6
DC-21A	6	ON - OFF	360	DC	5
DC-21A	6	ON - OFF	660	DC	4
DC-21A	8	ON - OFF	192	DC	10
DC-21A	8	ON - OFF	384	DC	6
DC-21A	8	ON - OFF	480	DC	5
DC-22A	1	ON - OFF	24	DC	8
DC-22A	1	ON - OFF	48	DC	5
DC-22A	1	ON - OFF	60	DC	4
DC-22A	1	ON - OFF	110	DC	1,50
DC-22A	1	ON - OFF	220	DC	0,30
DC-22A	2	ON - OFF	48	DC	8
DC-22A	2	ON - OFF	96	DC	5
DC-22A	2	ON - OFF	120	DC	4
DC-22A	2	ON - OFF	220	DC	1,50
DC-22A	2	ON - OFF	440	DC	0,30
DC-22A	3	ON - OFF	72	DC	8
DC-22A	3	ON - OFF	144	DC	5
DC-22A	3	ON - OFF	180	DC	4
DC-22A	3	ON - OFF	330	DC	1,50
DC-22A	3	ON - OFF	660	DC	0,30
DC-22A	4	ON - OFF	96	DC	8
DC-22A	4	ON - OFF	192	DC	5
DC-22A	4	ON - OFF	240	DC	4
DC-22A	4	ON - OFF	440	DC	1,50
DC-22A	5	ON - OFF	120	DC	8
DC-22A	5	ON - OFF	240	DC	5
DC-22A	5	ON - OFF	300	DC	4
DC-22A	5	ON - OFF	550	DC	1,50
DC-22A	6	ON - OFF	144	DC	8
DC-22A	6	ON - OFF	288	DC	5
DC-22A	6	ON - OFF	360	DC	4
DC-22A	6	ON - OFF	660	DC	1,50
DC-22A	8	ON - OFF	192	DC	8
DC-22A	8	ON - OFF	384	DC	5
DC-22A	8	ON - OFF	480	DC	4
DC-23A	1	ON - OFF	24	DC	7
DC-23A	1	ON - OFF	48	DC	4
DC-23A	1	ON - OFF	60	DC	3,50
DC-23A	1	ON - OFF	110	DC	1
DC-23A	1	ON - OFF	220	DC	0,20
DC-23A	2	ON - OFF	48	DC	7
DC-23A	2	ON - OFF	96	DC	4
DC-23A	2	ON - OFF	120	DC	3,50
DC-23A	2	ON - OFF	220	DC	1
DC-23A	2	ON - OFF	440	DC	0,20
DC-23A	3	ON - OFF	72	DC	7
DC-23A	3	ON - OFF	144	DC	4
DC-23A	3	ON - OFF	180	DC	3,50

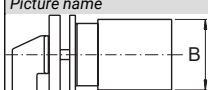
Tested AC and DC values						
Utilization category / Time constant	No. of contacts in series	Off or change-over switch	Tension (V)	AC / DC	Intensité (A)	
DC-23A	3	ON - OFF	330	DC	1	
DC-23A	3	ON - OFF	660	DC	0,20	
DC-23A	4	ON - OFF	96	DC	7	
DC-23A	4	ON - OFF	192	DC	4	
DC-23A	4	ON - OFF	240	DC	3,50	
DC-23A	4	ON - OFF	440	DC	1	
DC-23A	5	ON - OFF	120	DC	7	
DC-23A	5	ON - OFF	240	DC	4	
DC-23A	5	ON - OFF	300	DC	3,50	
DC-23A	5	ON - OFF	550	DC	1	
DC-23A	6	ON - OFF	144	DC	7	
DC-23A	6	ON - OFF	288	DC	4	
DC-23A	6	ON - OFF	360	DC	3,50	
DC-23A	6	ON - OFF	660	DC	1	
DC-23A	8	ON - OFF	192	DC	7	
DC-23A	8	ON - OFF	384	DC	4	
DC-23A	8	ON - OFF	480	DC	3,50	
Rated conditional short-circuit current						
Current (kA)	3	Text	cut-off current I _c (kA)	0,82	Durchlassenergie I ² t (kA ² s)	
Pouvoir assignee de fermeture en court-circuit I_{cm}					Intensité (A)	
					200	
UL60947-4-1 , UL508						
Nominal Voltage						
			Tension (V)	AC / DC		
			300 AC			
Tension assignée d'isolement Ui						
			Tension (V)	AC / DC		
			300 AC			
Rated thermal current						
		Intensité (A)	Température Ambiante (°)	Additional Text		
		10	0 - 40	-		
Horsepower rating						
Across-the-Line Motor Starting			Tension (V)	Nb de phases	Nb de pôles	Power (HP)
DOL			110 - 120	1	2	0,33
DOL			220 - 240	1	2	0,75
DOL			277 - 277	1	2	0,75
DOL			110 - 120	3	3	0,75
DOL			220 - 240	3	3	1
Pilot duty rating code						
Duty Code						
A300						
Temp. rating of wire						
			Temperature rating (°C)	Intensité (A) Text		
			60 - 75	-- --		
General Use						
AC / DC	Tension (V)	Intensité (A)	Nb de phases	Nb de pôles	No. of contacts in series	
AC	120	10	1	1	1	
AC	300	10	1	2	1	
AC	300	10	3	3	1	
CSA						
Nominal Voltage						
			Tension (V)	AC / DC		
			300 AC			
Tension assignée d'isolement Ui						
			Tension (V)	AC / DC		
			300 AC			
Rated thermal current						
		Intensité (A)	Température Ambiante (°)	Additional Text		
		10	0 - 40	-		
Horsepower rating						
Across-the-Line Motor Starting			Tension (V)	Nb de phases	Nb de pôles	Power (HP)
DOL			110 - 120	1	2	0,33
DOL			220 - 240	1	2	0,75
DOL			277 - 277	1	2	0,75
DOL			110 - 120	3	3	0,75
DOL			220 - 240	3	3	1
Pilot duty rating code						
Duty Code						
A300						
Temp. rating of wire						
			Temperature rating (°C)	Intensité (A) Text		
			75	-- --		
General Use						
AC / DC	Tension (V)	Intensité (A)	Nb de phases	Nb de pôles	No. of contacts in series	
AC	120	10	1	1	1	

General Use					
AC / DC	Tension (V)	Intensité (A)	Nb de phases	Nb de pôles	No. of contacts in series
AC	300	10	1	2	1
AC	300	10	3	3	1

MASTER DATA

Max. number of stages	number of stages	Modul
	8	FL

Switch Measures







Picture name	B	F	H	H1	H2	H3
	28	--	--	--	--	--



GENERAL TECHNICAL INFORMATION

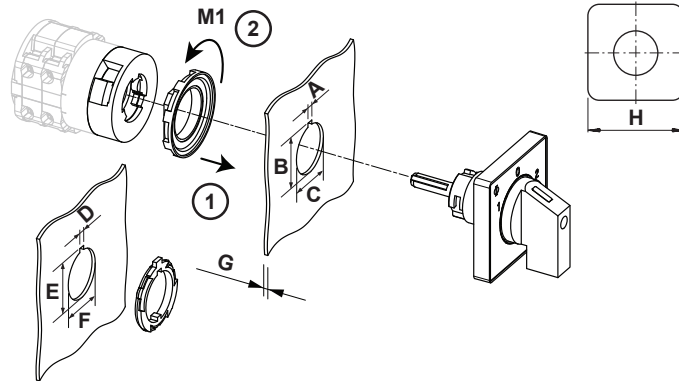
Tightening torque of screws	tightening torque (Nm)	tightening torque (lb-in)
	0,40	3,50

Tested AC and DC values

Utilization category / Time constant	No. of contacts in series	Off or change-over switch	Tension (V)	AC / DC	Intensité (A)
T≤1ms	1	ON - OFF	24	DC	10
T≤1ms	1	ON - OFF	48	DC	6
T≤1ms	1	ON - OFF	60	DC	2,50
T≤1ms	1	ON - OFF	110	DC	0,70
T≤1ms	1	ON - OFF	220	DC	0,30
T≤1ms	1	ON - OFF	440	DC	0,20
T≤1ms	2	ON - OFF	48	DC	10
T≤1ms	2	ON - OFF	95	DC	6
T≤1ms	2	ON - OFF	120	DC	2,50
T≤1ms	2	ON - OFF	220	DC	0,70
T≤1ms	2	ON - OFF	440	DC	0,30
T≤1ms	2	ON - OFF	660	DC	0,20
T≤1ms	3	ON - OFF	70	DC	10
T≤1ms	3	ON - OFF	140	DC	6
T≤1ms	3	ON - OFF	180	DC	2,50
T≤1ms	3	ON - OFF	330	DC	0,70
T≤1ms	3	ON - OFF	660	DC	0,30
T≤1ms	4	ON - OFF	95	DC	10
T≤1ms	4	ON - OFF	190	DC	6
T≤1ms	4	ON - OFF	240	DC	2,50
T≤1ms	4	ON - OFF	440	DC	0,70
T≤1ms	5	ON - OFF	120	DC	10
T≤1ms	5	ON - OFF	240	DC	6
T≤1ms	5	ON - OFF	300	DC	2,50
T≤1ms	5	ON - OFF	550	DC	0,70
T≤1ms	6	ON - OFF	145	DC	10
T≤1ms	6	ON - OFF	290	DC	6
T≤1ms	6	ON - OFF	360	DC	2,50
T≤1ms	6	ON - OFF	660	DC	0,70
T≤1ms	8	ON - OFF	190	DC	10
T≤1ms	8	ON - OFF	350	DC	6
T≤1ms	8	ON - OFF	450	DC	2,50
T=50ms	1	ON - OFF	24	DC	6
T=50ms	1	ON - OFF	30	DC	3
T=50ms	1	ON - OFF	48	DC	1
T=50ms	1	ON - OFF	60	DC	0,70
T=50ms	1	ON - OFF	110	DC	0,30
T=50ms	2	ON - OFF	48	DC	6
T=50ms	2	ON - OFF	60	DC	3
T=50ms	2	ON - OFF	95	DC	1
T=50ms	2	ON - OFF	120	DC	0,70
T=50ms	2	ON - OFF	220	DC	0,30
T=50ms	3	ON - OFF	70	DC	6
T=50ms	3	ON - OFF	90	DC	3
T=50ms	3	ON - OFF	140	DC	1
T=50ms	3	ON - OFF	180	DC	0,70
T=50ms	3	ON - OFF	330	DC	0,30
T=50ms	4	ON - OFF	95	DC	6
T=50ms	4	ON - OFF	120	DC	3
T=50ms	4	ON - OFF	190	DC	1
T=50ms	4	ON - OFF	240	DC	0,70
T=50ms	4	ON - OFF	440	DC	0,30
T=50ms	5	ON - OFF	120	DC	6
T=50ms	5	ON - OFF	150	DC	3
T=50ms	5	ON - OFF	240	DC	1
T=50ms	5	ON - OFF	300	DC	0,70
T=50ms	5	ON - OFF	550	DC	0,30
T=50ms	6	ON - OFF	145	DC	6

Tested AC and DC values									
<i>Utilization category / Time constant</i>		<i>No. of contacts in series</i>	<i>Off or change-over switch</i>		<i>Tension (V) AC / DC</i>		<i>Intensité (A)</i>		
T=50ms		6	ON - OFF		180 DC		3		
T=50ms		6	ON - OFF		290 DC		1		
T=50ms		6	ON - OFF		360 DC		0,70		
T=50ms		6	ON - OFF		660 DC		0,30		
T=50ms		8	ON - OFF		190 DC		6		
T=50ms		8	ON - OFF		240 DC		3		
T=50ms		8	ON - OFF		350 DC		1		
T=50ms		8	ON - OFF		450 DC		0,70		
Stripping length									
<i>Length (mm) --</i>									
6 STRIPPINGLENGTH									
Minimal ratings (voltage/current)									
<i>Tension (V)</i>		<i>Current (mA)</i>		<i>Environment conditions</i>		<i>Environment conditions 2</i>		<i>Environment conditions 3</i>	
20		5		Ambient air must be free of particular contamination with sulfur and/or sulfurous components such as H2S etc.		In case extraordinary contamination with dust is expected an adequate dust protection is required.		--	
Rated short-time withstand current Icw									
<i>Time (s)</i>									
1									
<i>Intensité (A)</i>									
90									
Size of conductor									
<i>composition of conductor</i>		<i>Min. / Max. value</i>		<i>No. of conductor per terminal</i>		<i>Cross section (mm²) or (AWG/kcmil)</i>		<i>Material of the wire</i>	
solid wire		Min.		1		0,5mm ²		Copper	
solid wire		Min.		2		0,5mm ²		Copper	
flexible wire		Min.		1		0,75mm ²		Copper	
flexible wire		Min.		2		0,75mm ²		Copper	
flexible wire		Max.		2		AWG 16		Copper	
flexible wire		Max.		2		1,5mm ²		Copper	
Single-core or stranded wire		Max.		2		AWG 14		Copper	
Single-core or stranded wire		Max.		2		1,5mm ²		Copper	
flexible wire with ferrule according to DIN 46228		Max.		2		1mm ²		Copper	
flexible wire with ferrule according to DIN 46228		Min.		1		0,5mm ²		Copper	
flexible wire with ferrule according to DIN 46228		Min.		2		0,5mm ²		Copper	
Approbations									
<i>Specification</i>								<i>Marking</i>	
EAC									
CE marking									
UK Directives									
IEC 60947-3; EN 60947-3; VDE 0660 Teil107								IEC 60947-3 EN 60947-3	
UL 60947-4-1; CSA C22.2 No. 60947-4-1									
CSA C.22.2 No.14									
GB/T14048.3									
Power loss per pole									
<i>Power (W)</i>									
0,40									
Mechanical life									
<i>No. of operations</i>		<i>Température Ambiante (°)</i>			<i>Number of stages</i>		<i>Limitations</i>		
1000000		-5 - 55			--		Valid for manual operation. Valid for switches without optional extras. The value refers to the mechanics of the device, for lifetime of the electrical contacts please refer to "electrical life values".		
150000		-25 - 55			8		Valid for manual operation. Valid for switches without optional extras. The value refers to the mechanics of the device, for lifetime of the electrical contacts please refer to "electrical life values".		
Electrical life (B10-Value)									
<i>Catégorie d'emploi</i>	<i>cos(φ)</i>	<i>Time constant (ms)</i>	<i>Tension (V)</i>	<i>Intensité (A)</i>	<i>No. of operations</i>	<i>number of series contacts AC/DC</i>		<i>Nb de phases</i>	<i>Nb de pôles</i>
--	0,59	--	122	10	50000	1 AC		1	1
--	0,59	--	220	5	150000	1 AC		1	1
--	0,59	--	220	10	25000	1 AC		1	1
--	0,95	--	220	10	25000	1 AC		1	1
--	0,65	--	380	5	100000	1 AC		1	1
AC-3	--	--	440	7	150000	1 AC		3	3


Electrical life (B10-Value)									
Catégorie d'emploi	cos(ϕ)	Time constant (ms)	Tension (V)	Intensité (A)	No. of operations	number of series contacts	AC/DC	Nb de phases	Nb de pôles
AC-23	--	--	440	10	25000	1	AC	3	3
--	--	1	24	10	140000	1	DC	1	1
--	--	1	48	6	50000	1	DC	1	1
--	--	1	60	2,50	200000	1	DC	1	1
--	--	1	110	0,70	100000	1	DC	1	1
--	--	1	220	0,30	200000	1	DC	1	1
--	--	48	24	0,25	400000	1	DC	1	1
--	--	50	24	0,50	100000	1	DC	1	1
--	--	50	24	1	50000	1	DC	1	1
--	--	50	24	6	10000	1	DC	1	1
--	--	50	30	3	20000	1	DC	1	1
--	--	50	48	1	50000	1	DC	1	1
--	--	50	110	0,30	75000	1	DC	1	1
--	--	50	110	0,50	50000	1	DC	1	1
--	--	53	110	0,10	200000	1	DC	1	1
--	--	55	110	1	25000	1	DC	1	1
Recommandations concernant le tournevis									
Type	Value								
Tournevis cruciforme	PH1								
Flat blade	0,6x3,5								
Degree of protection									
IP - Code switch terminal	IP20								
Conditions during transport and storing									
Minimum temperature (°C)			Maximum temperature (°C)			Spécification complémentaire			
-40			85			In case of temperatures below -5°C no shock load permissible			
Shock / Vibration									
Type of oscillation	Values								
Resistance to shock	min. 5g, 30ms								
General Information									
Text									
- Ne jamais lubrifier ou traiter les contacts.									
- Les commutateurs ne peuvent être montés, branchés et mis en service que par une personne qualifiée selon les règles techniques en vigueur.									
- Use copper wire only. Do not coat the wire end with tin.									
- Les bornes qui ne sont pas supposées être utilisées pour le raccordement de l'appareil sont livrées serrées et ne doivent pas être desserrées. Si toutefois ces bornes sont malgré tout ouvertes accidentellement, vérifier qu'aucun shunt n'est manquant. Le câblage terminé, s'assurer que toutes les bornes sont serrées.									
- Après mise en place des les commutateurs l'espace entre bor nes doit être suffisant pour répondre aux exigences des normes en vigueur.									
Creepage distance									
									Distance (mm)
									6,35
Clearance									
									Distance (mm)
									6,35
Distance of stages									
									Distance (mm)
									12
Operating temperature									
			Min. Temperature [°C]			Max. Temperature [°C]			
			-25			60			
Waste Electrical & Electronic Equipment (WEEE)									
Picture name	Description								
	Do not throw in the trash as care must be taken to ensure environmentally sound disposal and recycling. Please either use an environmentally friendly waste disposal company; return to the supplier for disposal; or return direct to the manufacturer, Kraus & Naimer. You can find local Kraus & Naimer offices at www.krausnaimer.com								
Proposition 65									
Picture name	Description								
	WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov .								

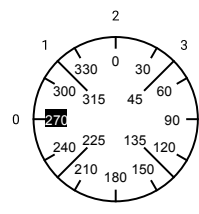
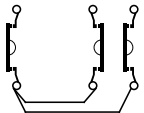
Fixation-FS2-V


IP - Code front side		IP66, IP67, IP69k
Stages		1,00 - 8,00
A	H	1,70 mm
A+_tol.	H	0,20 mm
A-_tol.	H	0,00 mm
B	H	17,90 mm
B+_tol.	H	0,20 mm
B-_tol.	H	0,00 mm
C	Ø	16,20 mm
C+_tol.	Ø	0,20 mm
C-_tol.	Ø	0,00 mm
D	H	3,20 mm
D+_tol.	H	0,20 mm
D-_tol.	H	0,00 mm
E	H	24,10 mm
E+_tol.	H	0,40 mm
E-_tol.	H	0,00 mm
F	Ø	22,30 mm
F+_tol.	Ø	0,40 mm
F-_tol.	Ø	0,00 mm
G	H	<= 5,00 mm
H	H	30,00 mm
M1	M̄	0,70 Nm

Wiring diagram

CG4.A241.FS2-V

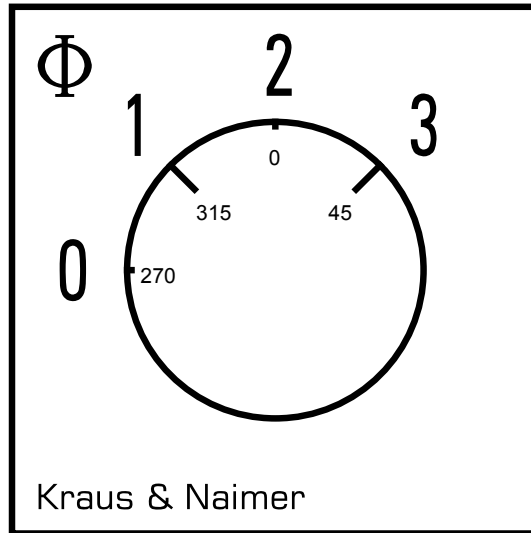
 Kraus & Naimer

		CG4		A241		Page 1 of 1							
Face Plate													
		1	3	5	7	9	11	13	15	17	19	21	23
													
Switching Angle <input type="text" value="45"/> Total switching Angle <input type="text" value="135"/>		2	4	6	8	10	12	14	16	18	20	22	24
0	270												
	285												
	300												
1	315												
	330												
	345												
2	0												
	15												
	30												
3	45												
	60												
	75												
	90												
	105												
	120												
	135												
	150												
	165												
	180												
	195												
	210												
	225												
	240												
	255												

Version: 69

Face plate

S00.F109/A10.E1



HANDLES

Designation: S00.G251
Handle colour: "1" black

