



TMEK-S and TMEK-SVM

Safety enclosures

Polycarbonate enclosures from 50 to 630 A

TİMO
TİMO ELEKTRİK VE ELEKTRONİK A.Ş.

TMEK-S and TMEK-SVM

Polycarbonate enclosure from 50 to 630 A

BUILT FOR SAFETY

Thanks to the dedicated cut-off equipment, the user can operate on the equipment quickly and safely.

RESISTANT

A secure enclosure, equipment and fittings adapted to an aggressive and harsh environment.

EASY TO INSTALL

Secure connections and commissioning with a well equipped enclosure.

Safety enclosures equipped with switches provide emergency breaking, breaking for mechanical maintenance and safety isolation in the vicinity of any low voltage final circuit.



PRODUCT SELECTION

TMEK-S(VM) 3xXXXA_B/B_P_XXXX_1NO/NC_XX_IP65

Switch type

S : Sider type switch (current ratings : 50A – 80A – 125A – 200A -400A -630A)

Handle type for S switches : Grey metallic handle for 50A and 80A, red plastic handle for higher ratings

SVM : Sirco VM type switch (Current ratings : 63A – 80A -100A – 125A -160A)

Handle type for SVM switches : Red plastic handle

B/B : Cable IN bottom / Cable OUT : bottom

P : Polycarbonate enclosure

Push button configuration

2111 : 2 pushbuttons, Ø 22 mm (1 green/1 red): Identification labels "Start" and "Stop"
2113 : 2 pushbuttons, Ø 22 mm (1 green/1 red): Identification labels "Start" and "Stop"
 1 selector with 2 positions: Identification label "Local-Remote")

2115 : 3 pushbuttons, Ø 22 mm (2 green/1 red): Identification labels "Start", "Stop" and "Reverse")

2117 : 3 pushbuttons, Ø 22 mm (2 green/1 red): Identification labels "Start", "Stop" and "Reverse" 1 selector with 2 positions: Identification label "Local-Remote")

NONE : without push buttons

Auxiliary Contacts

1NO/1NC : 1 normally open, 1 normally closed contact

Flange

FP : Standard membrane flange

GL : Cable glands

IP rating

IP rating : IP65

Example :

TMEK-S 3x50A_B/B_P_2111_1NO/NC_FP_IP65

Polycarbonate safety enclosure with Sider switch, 3x50A, bottom IN/bottom OUT, polycarbonate, 1 green+1red button, 1 auxiliary contact, membrane flange, IP65

Dimensions

TMEK-S 3x50A / w.300 x h.450 x d.170

TMEK-S 3x80A / w.300 x h.450x d.170

TMEK-S 3x125A / w.300 x h.450x d.170

TMEK-S 3x200A / w.600 x h.450x d.170

TMEK-S 3x400A / w.600 x h.450x d.170

TMEK-S 3x630A / w.600 x h.600x d.170

COMPLIANCE WITH STANDARDS

• IEC 60947-3

• VDE 0660-107 (1992)

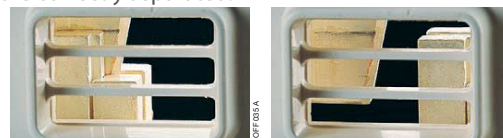
• EN 60947-3

DETECTABLE CUT-OFF

Handle indicates clearly position of contacts, guaranteeing switch operation.

VISIBLE CUT-OFF

The technology of the contacts, positioned in parallel on a movable bar, make it possible to check the contacts are correctly separated.



TRIPLE SAFETY HANDLE



It allows the installation to be locked by 3 locks when the switch is in the opened position.

STANDARD

Polycarbonate enclosure. 1pc NO/NC auxiliary contacts for pre-break , the 2nd auxiliary contact is optional. The enclosure has an IP65 degree of protection Push buttons and Emergency stop button is optional.

METAL SAFETY HANDLE



For heavy duty use, metal handles are provided which can be locked by 3 locks when the switch is in the opened position. (This option is available for TMEK-S enclosures 50A and 80A only)

DOUBLE LOCKING

This prevents the switch from being closed if the enclosure is open, but also prevents the enclosure from being opened if the switch is closed.

SUITABLE FOR LOTO

In conformity with LOTO (Lock out / Tag out) safety rules

TMEK - SVM SAFETY ENCLOSURES

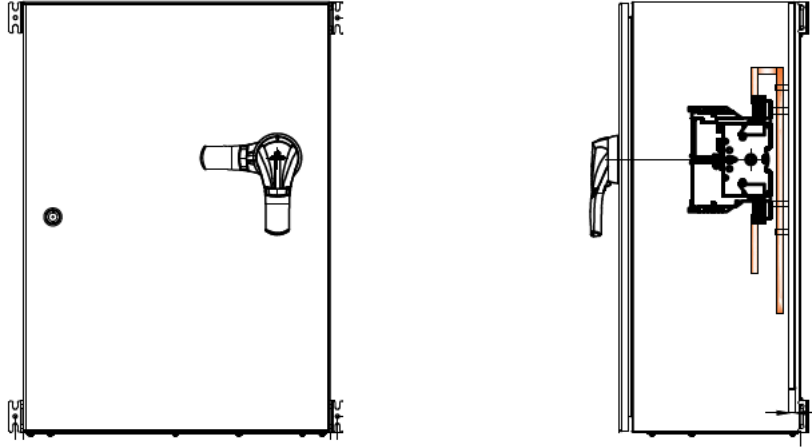
Rated operating current Ie (A)	63 A	80 A	100 A	125 A	160 A
3 pole	TMEK-SVM 3x63A	TMEK-SVM 3x80A	TMEK-SVM 3x100A	TMEK-SVM 3x125A	TMEK-SVM 3x160A
Associated fuse rating (A)					
Rated insulation voltage Ui (V)	800	800	800	800	800
Rated impulse withstand voltage Uimp (kV)	8	8	8	8	8
Rated operational currents Ie (A)					
400 V AC AC 21 A	63	80	100	125	160
AC 22 A	63	80	100	125	160
AC 23 A	63	63	63	63	160
Operational power in AC-23 A (kW)					
At 400 VAC without pre-break in AC-23 (kW)	30	30	30	30	80
At 500 VAC without pre-break in AC-23 (kW)	33	33	33	33	110
At 690 VAC without pre-break in AC-23 (kW)	22	22	22	22	55
At 400 VAC with pre-break in AC-23 (kW)	30	40	51	63	80
At 500 VAC with pre-break in AC-23 (kW)	40	55	63	63	110
At 690 VAC with pre-break in AC-23 (kW)	33	33	33	33	150
Short-circuit capacity					
Rated short-time withstand current 1s. ICW (kA rms)	2,5	2,5	2,5	2,5	4
Fuse protected short-circuit withstand (kA rms prospective)(415VAC)	100	100	100	50	50
Rated peak withstand current (kA peak)(415VAC)	12	12	12	12	16
Mechanical characteristics					
Durability (number of operating cycles)	20000	20000	20000	20000	10000
Operating effort (Nm)	6	6	6	6	9

TMEK - S SAFETY ENCLOSURES

Rated operating current Ie (A)	50 A	80 A	125 A	200 A	400 A	500 A	630 A
3 pole	TMEK-S 3x50A	TMEK-S 3x80A	TMEK-S 3x125A	TMEK-S 3x200A	TMEK-S 3x400A	TMEK-S 3x500A	TMEK-S 3x630A
6 pole (Y - Δ)	TMEK-S 6x50A	TMEK-S 6x80A	TMEK-S 6x125A	TMEK-S 6x200A	TMEK-S 6x400A	TMEK-S 6x500A	TMEK-S 6x630A
Associated fuse rating (A)	40	63	100	160	315	400	500
Rated insulation voltage Ui (V)	690	690	750	750	1000	1000	1000
Rated impulse withstand voltage Uimp (kV)	6	6	8	8	12	12	12
Rated operational currents Ie (A)							
400 V AC AC 21 A	50	80	125	200	400	500	630
AC 22 A	50	63	125	200	400	400	630
AC 23 A	50	63	125	200	400	400	630
Operational power in AC-23 A (kW)							
At 400 VAC without pre-break in AC-23 (kW)	25	30	63	100	220	220	355
At 500 VAC without pre-break in AC-23 (kW)	11	25	63	63	140	140	355
At 690 VAC without pre-break in AC-23 (kW)	-	7,5	11	-	75	75	90
At 400 VAC with pre-break in AC-23 (kW)	25	30	63	100	220	220	355
At 500 VAC with pre-break in AC-23 (kW)	18,5	33	63	80	220	220	450
At 690 VAC with pre-break in AC-23 (kW)	22	33	55	90	185	185	295
Short-circuit capacity							
Rated short-time withstand current 1s. ICW (kA rms)	2,5	2,5	7	9	13	13	26
Fuse protected short-circuit withstand (kA rms prospective)(415VAC)	12	12	20	30	45	45	55
Rated peak withstand current (kA peak)(415VAC)	4,5	4,5	12	17	30	30	50
Mechanical characteristics							
Durability (number of operating cycles)	10000	10000	10000	10000	5000	5000	5000
Operating effort (Nm)	2	2	10	13	21	21	45

Please consult us for other current ratings (800A - 1250A - 1600A)

Fuse switch enclosures : Stainless Steel enclosures up to 400 A



GENERAL CHARACTERISTICS

Stainless steel enclosure 304L adapted to mechanical risks

1pc NO/NC auxiliary contacts for pre-break , the 2nd auxiliary contact is optional.

The enclosure has an IP65 degree of protection

Wall mounting with mounting pieces

Solid door with hinges on the left

Lock : 5mm Double bit insert (key supplied)

Cable in and out : Bottom/Bottom

Equipped with cable glands

COMPLIANCE WITH STANDARDS

The fuse switches comply with the following standards :

- IEC 60947-3
- EN 60947-3
- VDE 0660-107

BUILT FOR SAFETY

Thanks to the front operation handle, the user can operate on the equipment quickly and safely. The door handle is locked and the door cannot be opened when the switch is in "ON" position. The door can be opened when the switch is in "OFF" position.

RESISTANT

A secure enclosure, equipment and fittings adapted to an aggressive environment.



Material

- Stainless Steel 304L (EN 10088 1.4307)
- Body : 1.2 mm
- Door : 1.2 mm
- Galvanized Steel mounting plate : 2 mm

Surface Finishing

- Scotch-brite brushed

Others

- Fully welded construction
- Solid / glazed door
- Foamed-in door PU sealing gasket
- 135° concealed hinges
- 5mm Double-bit insert chrome coated zamak lock
- Bottom gland plate
- One piece PE gasket for gland plate

EASY TO INSTALL

Secure connections and commissioning with a well equipped enclosure.

TRIPLE SAFETY HANDLE

It allows the installation to be locked by 3 locks when the switch is in the opened position.



DIMENSIONS

Type	TMEK-F 4x250A	TMEK-S 4x400A
Dimensions (mm)	W500xH700xD300	W500xH700xD300

PRODUCT SELECTION

TMEK-F 4xXXXA_B/B_SS_XXXX_1NO/NC_GL_IP65

Switch type

F : Fuse switch (current ratings : 250A -400)

Handle type for F switches : Black and blue plastic handle

B/B : Cable IN bottom / Cable OUT : bottom

SS : Stainless steel enclosure

Push button configuration

2111 : 2 pushbuttons, Ø 22 mm (1 green/1 red): Identification labels “Start” and “Stop”

2113: 2 pushbuttons, Ø 22 mm (1 green/1 red): Identification labels "Start" and "Stop" 1 selector with 2 positions: Identification label "Local-Remote")

2115: 3 pushbuttons, Ø 22 mm (2 green/1 red): Identification labels "Start", "Stop" and "Reverse")

2117: 3 pushbuttons, Ø 22 mm (2 green/1 red): Identification labels "Start", "Stop" and "Reverse" 1 selector with 2 positions: Identification label "Local-Remote")

NONE : Without push buttons

Auxiliary Contacts

1NO/1NC : 1 normally open, 1 normally closed contact

Flange

GL : Cable glands

IP rating

IP rating : IP65

Example :

TMEK-F 4x250A_B/B_SS_NONE_1NO/NC_GL_IP65

Stainless Steel safety enclosure with Fuse switch, 4x250A, bottom IN/bottom OUT, stainless steel, no pushbuttons, 1 auxiliary contact, equipped with cable glands, IP65

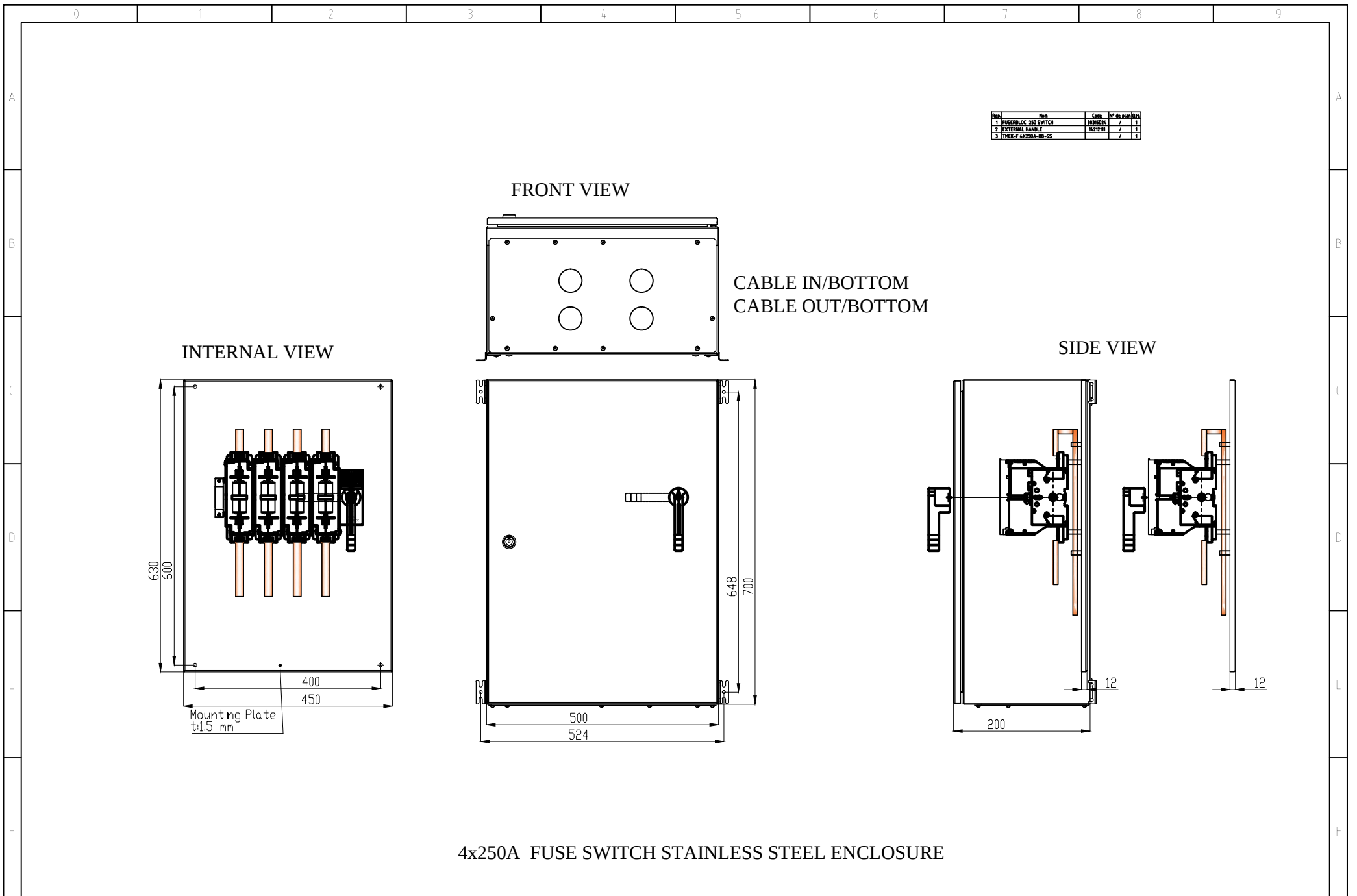
TMEK - F SAFETY ENCLOSURES

Thermal Current I _{th} (40 deg. C)		250A	400A
4 poles		TMEK_F 4x250A	TMEK_F 4x400A
Rated Insulation Voltage U _i (V)		750	800
Rated Impulse Withstand Voltage U _{imp} (kV)		8	8
Rated Operational Currents I _e (A)			
Rated Voltage	Utilization Category	A/B(1)	A/B(1)
400VAC	AC22A/AC22B	250/250	400/400
400VAC	AC23A/AC23B	250/250	400/400
690VAC	AC22A/AC22B	250(2)/250(2)	400/400
690VAC	AC23A/AC23B	250(2)/250(2)	400/400
220VDC	DC20A/DC20B	250/250	315/315
220VDC	DC21A/DC21B	250/250	200/315
440VDC	DC22A/DC22B	250(3)/250(3)	315(3)/315(3)
440VDC	DC23A/DC23B	200(4)/200(3)	250(3)/315(3)

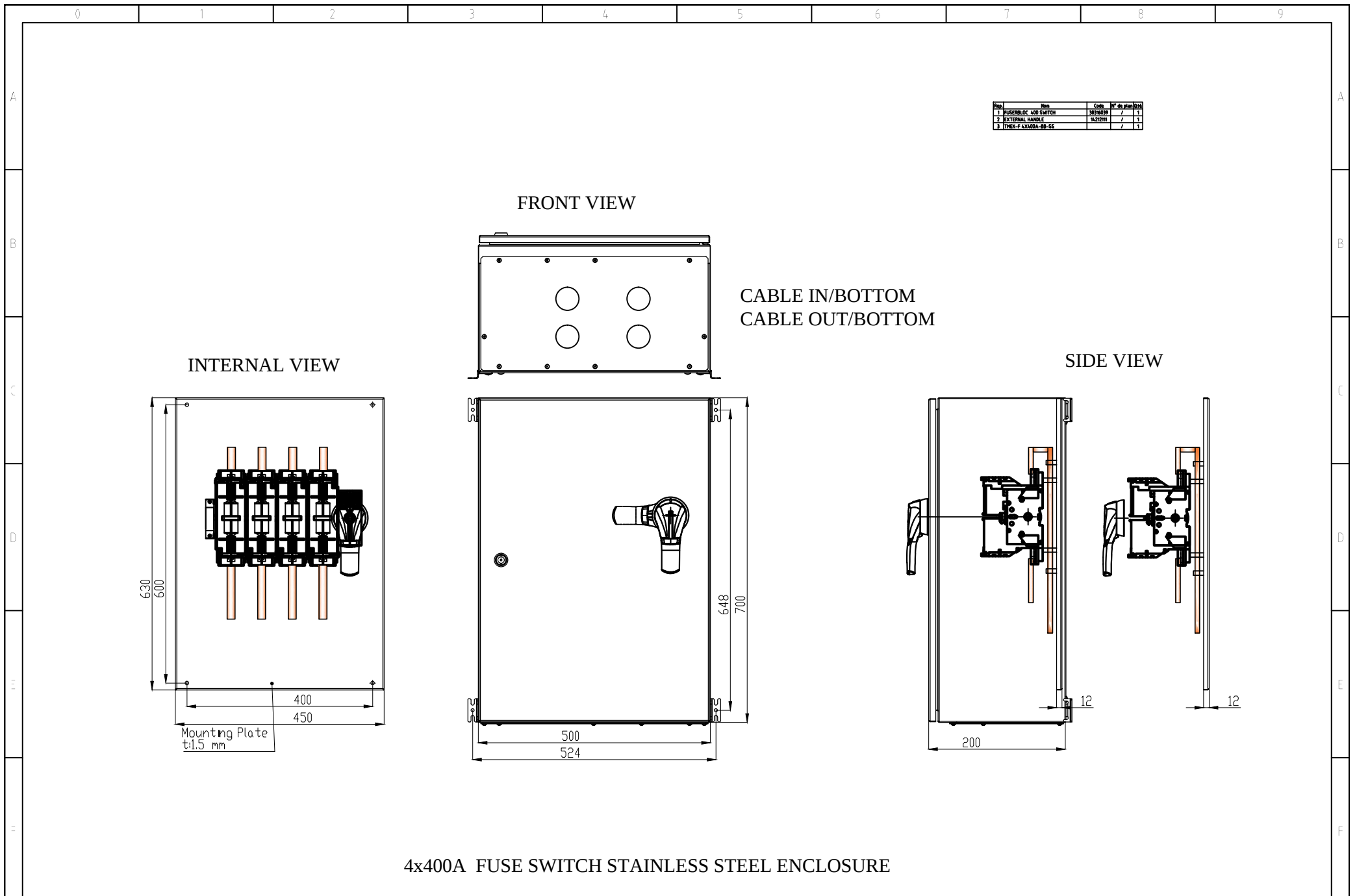
(1) A: Frequent operation B: Infrequent operation

(2) With terminal shrouds

(3) 4 pole device with 2 poles in series per polarity



4x250A FUSE SWITCH STAINLESS STEEL ENCLOSURE



4x400A FUSE SWITCH STAINLESS STEEL ENCLOSURE

UTILIZACIÓN DE LOS FUSIBLES DF CLASE gG EN CORRIENTE CONTINUA	DC APPLICATIONS FOR DF gG FUSE-LINKS
Предохранители подходят для работы как с переменным током , так и с постоянным током. Номинальные значения предохранителей, предназначенных для работы с переменным током, недопустимы для применения с устройствами постоянного тока. Не существует простого правила для преобразования номинальных значений переменного тока в значения для постоянного тока. По этой причине необходимо учитывать множество факторов, чтобы точно определить значение для постоянного тока. В плавких предохранителя DF необходимо учитывать следующее: - Рассеиваемая мощность одинакова для переменного (среднеквадратичного значения) и постоянного тока. - Временные характеристики такие же, как в переменном токе (при постоянном режиме). - Номинальное напряжение постоянного тока и максимальная отключающая способность ниже соответствующих значений переменного тока (см. Таблицы).	<i>Fuses are generally suitable for both AC and DC applications. The DC performance of fuse-links is different and AC ratings cannot be used for DC applications.</i> <i>There is no simple rule that safely converts an AC voltage rating of a fuse-link to DC voltage rating. For this reason is necessary to take into account a lot of aspects in order to determine the DC applications.</i> <i>In the DF fuse-links it is necessary to take into account the following considerations:</i> • <i>The power dissipations are the same in AC (RMS values) and the DC values.</i> • <i>The time current characteristics are the same for DC applications under steady-state conditions.</i> • <i>The DC rated voltage and the maximum breaking capacity are lower than the AC values (see the tables).</i>

CILÍNDRICOS gG			
Размер	Номинальный ток	Максимальное напряжение DC	Отключающая способность DC
SIZE	RATED CURRENT	MAX. DC VOLTAGE	DC BREAKING CAPACITY
8,5x31,5	0,5A...10A 12A...20A	150 V DC 60 V DC	5 kA
10x38	0,5A...16A 20A... 32A	250 V DC 80 V DC	15 kA
14x51	1A... 25A 32A y 40A 50A	440 V DC 150 V DC 48 V DC	15 kA
22x58	2A...63A 80A y 100A 125A	440 V DC 150 V DC 48 V DC	15 kA

NH gG 500V			
Размер	Номинальный ток	Максимальное напряжение DC	Отключающая способность DC
SIZE	RATED CURRENT	MAX. DC VOLTAGE	DC BREAKING CAPACITY
000/00	2A...160A	125 V DC	25 kA
0	6A...160A	250 V DC	25 kA
0S	200A...250A	125 V DC	25 kA
1	50A...250A 315A...355A	250 V DC 80 V DC	25 kA
2	63A...400A 425A...500A	250 V DC 80 V DC	25 kA
3	250A...630A 800A	250 V DC 80 V DC	25 kA
4	315A...1000A 1250A	250 V DC 80 V DC	25 kA

NH gG 690V			
Размер	Номинальный ток	Максимальное напряжение DC	Отключающая способность DC
SIZE	RATED CURRENT	MAX. DC VOLTAGE	DC BREAKING CAPACITY
000/00	2A...100A	250 V DC	25 kA
0	6A...100A	440 V DC	25 kA
1	50A...200A	440 V DC	25 kA
2	63A...315A	440 V DC	25 kA
3	250A...500A	440 V DC	25 kA
4	400A...800A	440 V DC	25 kA

Внимание	NOTES
Указанные значения относятся к постоянной времени $L / R = 15$ мс. Для более высоких значений постоянной времени, максимальная нагрузка напряжения должна быть уменьшена (обратитесь к нам). Стандартные временные константы: - Цепи управления DC ≈ 10 ms - ИБП батареи ≈ 10 ms - Двигатели DC 20÷40 ms • Для цепей с индуктивным режимом работы, мы рекомендуем ставить последовательно 2 предохранителя.	• These values are referred to a time constant $L/R = 15$ ms. For higher values of time constant, the maximum utilization voltage must be reduced (consult us). Typical time constants: - DC control circuits ≈ 10 ms - UPS batteries ≈ 10 ms - DC motors 20÷40 ms • For circuits with behaviour very inductive, we recommend to connect in series two fuses.



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