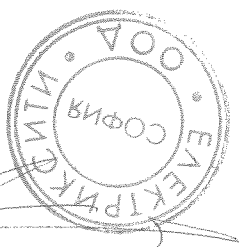
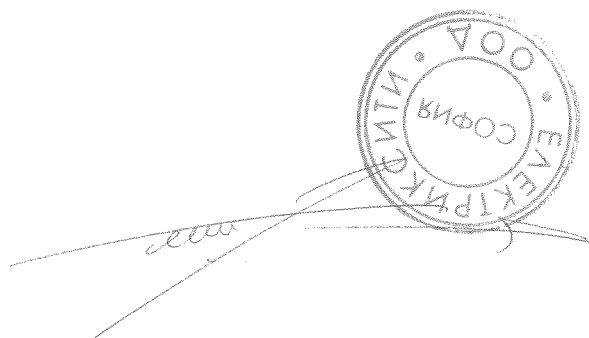
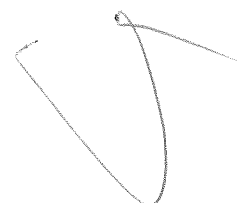
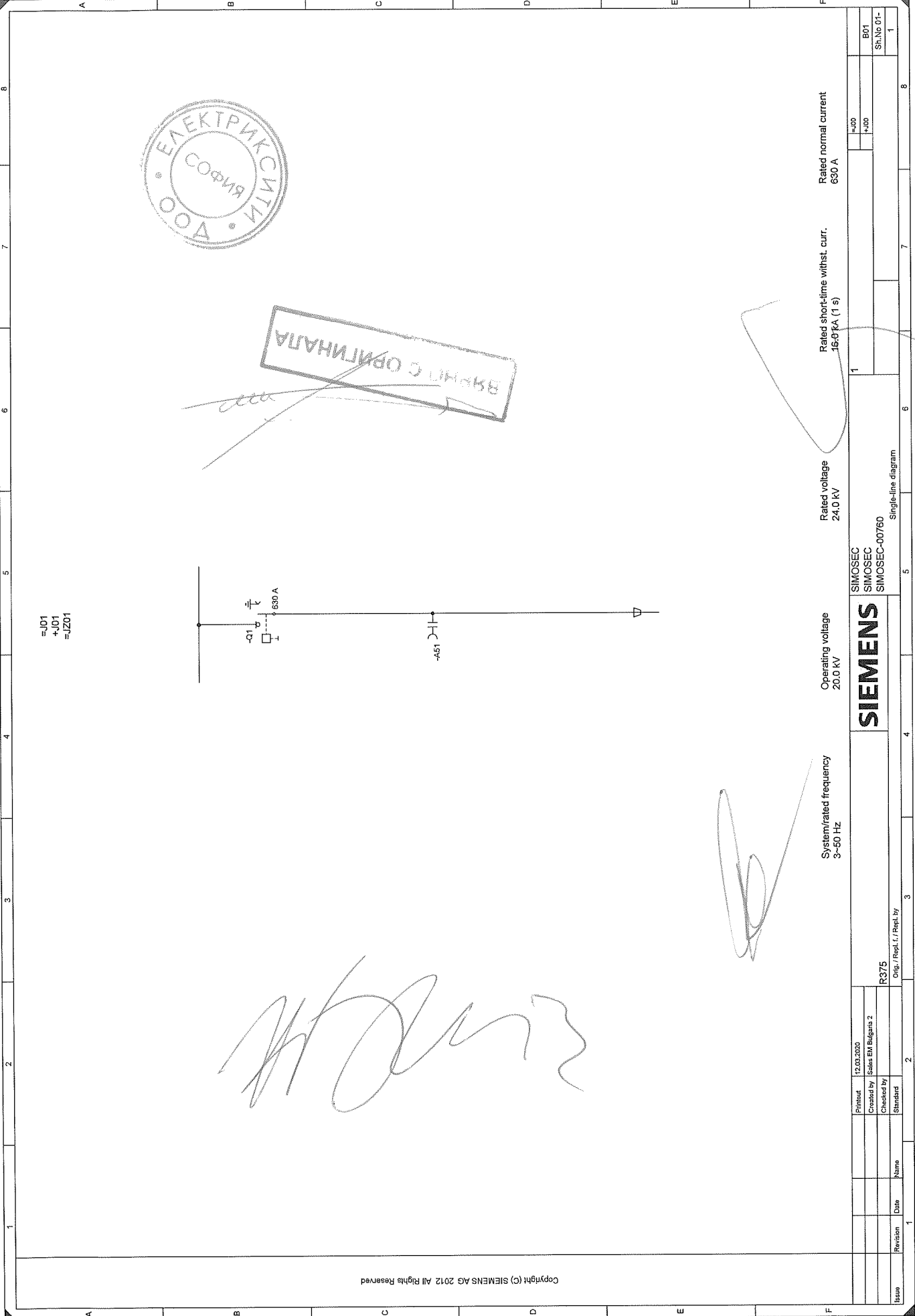


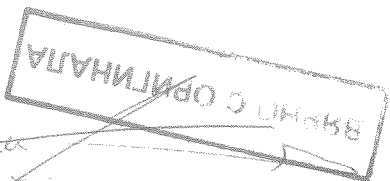
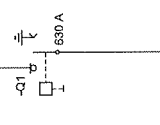
Приложение № 2.3 към Приложение 2 към техническото предложение – Еднолинейни схеми на главните и заземителните вериги, вкл. капацитивните делители на отделните видове комплектни комутационни устройства.







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Rated normal current  
630 A

Rated short-time withst. curr.  
16.0 kA (1 s)

Rated voltage  
24.0 kV

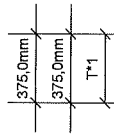
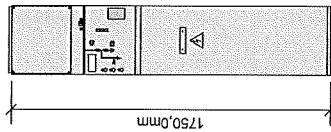
Operating voltage  
20.0 kV

System/rated frequency  
3-50 Hz

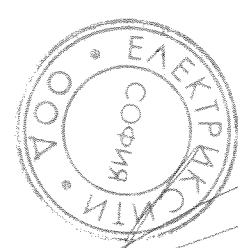
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|-------------------------------------|----------|------|------|------------|---------------------------|
| Issue                               | Revision | Date | Name | Printout   | 12.03.2020                |
|                                     |          |      |      | Created by | Sales EM Bulgaria 2       |
|                                     |          |      |      | Checked by |                           |
|                                     |          |      |      | Standard   |                           |
|                                     |          |      |      | R375       | Orig./ Repl. f./ Repl. by |
| <b>SIEMENS</b>                      |          |      |      |            |                           |
| SIMOSEC<br>SIMOSEC<br>SIMOSEC-00760 |          |      |      |            |                           |
| Single-line diagram                 |          |      |      |            |                           |
|                                     |          |      |      | 1          | 1                         |
|                                     |          |      |      | +L00       | B01                       |
|                                     |          |      |      | +L00       | Sh.No 01-                 |
|                                     |          |      |      |            | 1                         |

FRONT VIEW

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КОПИО ОРИГИНАЛА



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**LOAD DATA AND MINIMUM DISTANCES**

|   |  |
|---|--|
| <b>1. PERMANENT LOADS</b><br>VERTICAL SINGLE LOAD G <sub>v</sub><br>SWITCHGEAR HEIGHT:  | 2.0 kN<br>3.5 kN<br>5.0 kN<br>4.5 kN<br>7.5 kN<br>10.0 kN                      |
| <b>2. NON PERMANENT LOADS</b><br>LIVE LOAD q <sub>s</sub>   | 6 kN/m <sup>2</sup>  |
| <b>3. MINIMUM DISTANCES</b><br>WALL DISTANCE ON THE LEFT<br>WALL DISTANCE ON THE RIGHT<br>WALL DISTANCE FOR PANEL TYPE 'CC':<br>WALL DISTANCE LEFT<br>WALL DISTANCE RIGHT<br>*1 WALL DISTANCE REAR (with rear dust) | 1500 mm *1)<br>100 mm *2)<br>100 mm *2)<br>600 mm *2)<br>600 mm *2)<br>≥ 35 mm |
| <b>4. CEILING HEIGHT</b>  | ≥ 2400 mm  |

**5. MINIMUM DOOR OPENING:**  
Switchgear height: 1750 mm;  
Delivery gear without low-voltage compartment, without heat covers  
Delivery gear with low-voltage compartment: 1500 mm

|   |                       |
|---|-----------------------|
| HEIGHT  | 1000 / 1250 / 1500 mm |
| WIDTH   | 2000                  |
| SWITCHGEAR HEIGHT: 2100 mm;   |                       |
| Delivery gear with low-voltage compartment: 350 mm;                                 |                       |
| HEIGHT  | 2300 mm               |
| WIDTH   | 1000 / 1250 / 1500 mm |
| SWITCHGEAR HEIGHT: 2200 mm;   |                       |
| Delivery gear with low-voltage compartment: 550 mm;                                 |                       |
| HEIGHT  | ≥ 2400 mm             |
| WIDTH   | 1000 / 1250 / 1500 mm |
| 6. Depth of cable basement<br>(depends on design of delivery switchgear)<br>*3) *4) | > 600 mm<br>>1400 mm  |

Please note: Bonding radius of cable  
300... Level of installation (altitude)

**Control aisle:**  
\*1) Depending on national requirements; for extension/panel replacement, a control aisle is recommended.  
(Removable circuit-breaker requires a control aisle ≥ 1000 mm)  
\*2) For wall-standing arrangement a lateral wall distance (left or right) is recommended of at least 100 mm. For floor-standing arrangement a lateral wall distance (left or right) is necessary of at least 100 mm. For wall-standing arrangement with panel type 'CC' at end of the switchgear (arranged on the left or right side); 600 mm  
\*3) Position of cable fixing (cable bracket) under the panel; in the cable basement max. 505 mm (454/489) max. 600 mm  
\*4) Deep floor cover for cable basement, additionally for cable tray.  
\*5) Position of cable fixing (cable bracket), underneath the panel, in the cable basement  
\*6) For installation 'in-situ' (Delivery in by-pack kit)  
H<sub>cc</sub> = Additional available length for installation below the panel  
For switchgear design with IAC 21 kV: the height of the switchgear will be at least 2100 mm

**THE LOCATION AND DETAIL DIAGRAMS DO HAVE SYMBOLIC CHARACTER AND DO NOT SHOW THE ACTUAL SCOPE OF SUPPLY.**

|            |   |                     |   |   |   |   |   |   |
|------------|---|---------------------|---|---|---|---|---|---|
| Issue      | 1 | 2                   | 3 | 4 | 5 | 6 | 7 | 8 |
| Revision   |   |                     |   |   |   |   |   |   |
| Date       |   |                     |   |   |   |   |   |   |
| Name       |   |                     |   |   |   |   |   |   |
| Printout   |   | 12.03.2010          |   |   |   |   |   |   |
| Created by |   | Sales EM Bulgaria 2 |   |   |   |   |   |   |
| Checked by |   |                     |   |   |   |   |   |   |
| Standard   |   |                     |   |   |   |   |   |   |

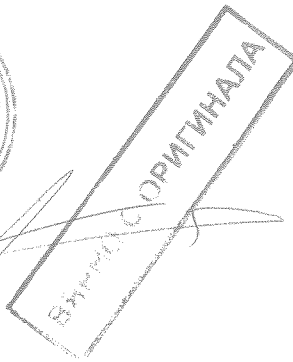
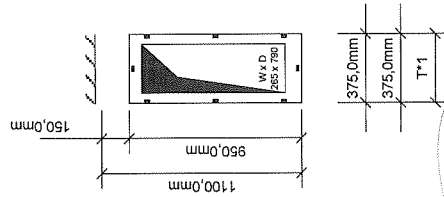
R375  
Orig./Repl./T/Repl./by

|                                |               |
|--------------------------------|---------------|
| Operating voltage              | 20.0 kV       |
| Rated voltage                  | 24.0 kV       |
| Rated short-time withst. curr. | 16.0 kA (1 s) |
| Rated normal current           | 630 A         |
| System/rated frequency         | 3-50 Hz       |
| Arrangement diagram            |               |
| SIEMENS                        |               |
| SIMOSEC                        |               |
| SIMOSEC-00760                  |               |

|           |   |
|-----------|---|
| Sh.No 01- | 1 |
| Sh.No 01- | 1 |

PLAN VIEW

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| LOAD DATA AND MINIMUM DISTANCES         |                       |
|---|-----------------------|
| 1. PERMANENT LOADS                      |                       |
| VERTICAL SINGLE LOAD Gv                 | 2.0 kN                |
| PANEL WIDTH:                            | 3.5 kN                |
| 500 mm                                  | 1000 / 1300 / 1500 mm |
| 750 mm                                  | 4.5 kN                |
| 1000 mm                                 | 5.0 kN                |
| 2. NON PERMANENT LOADS                  |                       |
| LIVE LOAD q                             | 6 kN/m²               |
| 3. MINIMUM DISTANCES                    |                       |
| WALL DISTANCE ON THE LEFT               | 1600 mm (1)           |
| WALL DISTANCE ON THE RIGHT              | 100 mm (2)            |
| WALL DISTANCE FOR PANEL TYPE "CC"       | > 600 mm              |
| WALL DISTANCE LEFT                      | 600 mm (2)            |
| WALL DISTANCE RIGHT                     | 600 mm (2)            |
| "a" WALL DISTANCE REAR (with rear duct) | ≥ 35 mm               |
| 4. CEILING HEIGHT                       | ≥ 2400 mm             |

Control cable: national requirements; for extension/panel replacement, a control cable is recommended of at least:

1) Removable circuit-breaker require a control cable ≥ 1000 mm

2) Removable circuit-breaker require a control cable ≥ 1000 mm

3) For wall-standing arrangement a panel wall distance (left or right) is necessary of at least: (irrespective on the left or right side): 900 mm

4) Position of cable fitting (cable bracket), underneath the panel, in the cable basement max. 505 mm (465-600)

5) Deep floor cover, for cable basement, additionally extensible downwards as safe max. 800 mm

6) Position of cable fitting (cable bracket), underneath the panel, in the cable basement max. 800 mm

7) For installation "on site" (Delivery in by-packet kit)

8) For switchgear design with IAC 21 kV: the height of the switchgear will be at least: Hcc = Additional available length for installation below the panel

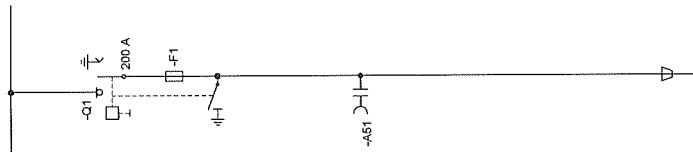
9) For switchgear design with IAC 21 kV: the height of the switchgear will be at least: Hcc = 2100 mm

FLOOR OPENING (foundation opening) in mm:  
Details see "W x D" by panel floor plan

|                        |                           |   |                                |   |               |   |                      |   |         |
|------------------------|---------------------------|---|--------------------------------|---|---------------|---|----------------------|---|---------|
| Issue                  | 1                         | 2 | 3                              | 4 | 5             | 6 | 7                    | 8 |         |
| Revision               |                           |   |                                |   |               |   |                      |   |         |
| Name                   | Ship. / Rep. / I. Rep. by |   |                                |   |               |   |                      |   |         |
| Printout               | 12.03.2020                |   |                                |   |               |   |                      |   |         |
| Created by             | R375                      |   |                                |   |               |   |                      |   |         |
| Checked by             |                           |   |                                |   |               |   |                      |   |         |
| Standard               |                           |   |                                |   |               |   |                      |   |         |
| System/rated frequency | 3-50 Hz                   |   | Operating voltage              |   | 20.0 kV       |   | Rated voltage        |   | 24.0 kV |
| Rated normal current   | 630 A                     |   | Rated short-time withst. curr. |   | 16.0 kA (1 s) |   | Rated normal current |   | 630 A   |
| SIEMENS                | SIMOSEC                   |   | SIMOSEC                        |   | SIMOSEC-00760 |   | Constructional data  |   |         |
| SI.No 01-              | 1                         |   |                                |   |               |   |                      |   |         |



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ВХОД С ОПИЛНАТА

Rated normal current  
630 A

Rated short-time withstand curr.  
16.0 kA (1 s)

Rated voltage  
24.0 kV

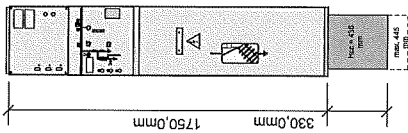
Operating voltage  
20.0 kV

System/rated frequency  
3-50 Hz

|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |
|-------|----------|------|------|------------|---------------------|------------|-----------|---------------|--|-------------------------|--|---|---|---|---|---|---|--|
| Issue | Revision | Date | Name | Printed    | Created by          | Checked by | Standards | T375          |  | Dir./ Rep./ L/ Rep./ by |  | 3 | 4 | 5 | 6 | 7 | 8 |  |
|       |          |      |      | 12.03.2020 | Sales EM Bulgaria 2 |            |           | SIEMENS       |  | SIMOSEC                 |  | 2 |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           | SIMOSEC-00761 |  | Single-line diagram     |  |   |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |
|       |          |      |      |            |                     |            |           |               |  |                         |  |   |   |   |   |   |   |  |

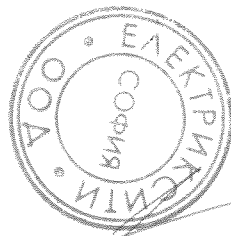
### FRONT VIEW

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WV

ВРНО С ОРИГИНАЛА



#### LOAD DATA AND MINIMUM DISTANCES

|                                     |                     |  |                       |
|-------------------------------------|---------------------|--|-----------------------|
| 1. PERMANENT LOADS                  | 2.0 kN              | MINIMUM DOOR OPENING:  | 1000 mm               |
| VERTICAL SINGLE LOAD G <sub>v</sub> | 3.5 kN              | Switchgear height: 1750 mm   |                       |
| WIDTH                               | 375 mm              | Switchgear height without door voltage compartment, without front covers | 1000 mm               |
| 500 mm                              |                     | HEIGHT   | 2000 mm               |
| 500 mm                              |                     | WIDTH  | 1000 / 1250 / 1500 mm |
| 800 mm                              |                     | Switchgear height with door voltage compartment 350 mm:                  | 2000 mm               |
| 1000 mm                             |                     | HEIGHT   | 1000 / 1250 / 1500 mm |
| 2. NSI PERMANENT LOADS              | 5.0 kN              | Switchgear height: 2500 mm   | 2400 mm               |
| LIVE LOAD q <sub>0</sub>            | 6 kN/m <sup>2</sup> | Switchgear height with door voltage compartment 550 mm:                  | 2400 mm               |
| 3. MINIMUM DISTANCES                |                     | HEIGHT   | 1000 / 1250 / 1500 mm |
| WALL DISTANCE ON THE LEFT           | 100 mm (*)          | WIDTH  | 1000 / 1250 / 1500 mm |
| WALL DISTANCE ON THE RIGHT          | 100 mm (*)          | 6. Depth of cable basement   | > 600 mm              |
| WALL DISTANCE FOR PANEL TYPE 'CC'   | 600 mm (*)          | (depends on design of delivery switchgear)                               | > 1400 mm             |
| WALL DISTANCE REAR                  | 600 mm (*)          | *) * -   |                       |
| WALL DISTANCE REAR (with rear duct) | ≥ 35 mm             | Please note: Bending radius of cable                                     |                       |
| 4. CEILING HEIGHT                   | ≥ 2400 mm           | ≥ 2400 mm  |                       |
|                                     |                     | *) Level of installation (altitude)                                      |                       |

Control cable:  
 \*) Depending on national requirements; for extension/panel replacement, a control cable is  
 (Removable circuit-breaker require a control cable  $\geq$  1000 mm)  
 \*) For wall-standing arrangement a lateral wall distance (left or right) is recommended of at least:  
 100 mm  
 100 mm  
 For free-standing arrangement a lateral wall distance (left or right) is necessary of at least:  
 100 mm  
 (Arrangement with panel type 'CC' at end of the switchgear  
 (arranged on the left or right side);  
 \*) Position of cable fixing (cable bracket, independent of panel) in the cable basement max. 550 mm (445-60)  
 max. 500 mm  
 \*) Position of cable fixing (cable bracket), underneath the panel, in the cable basement  
 \*) \*) For installation "on cable"  
 (Delivery in by-pack RR)  
 Hz = Additional available length for installation below the panel  
 For switchgear design with IAC 21 kA, the height of the switchgear will be at least

Note for installation: Acc. to delivery version of transport units, TU groups (TU's or panels) will be assembled on site

Rated voltage 24.0 kV  
Operating voltage 20.0 kV  
Rated normal current 630 A  
Rated short-time withst. curr. 16.0 kA (1 s)

System/rated frequency 3-50 Hz

# SIEMENS

SIMOSEC  
SIMOSEC  
SIMOSEC-00761

Arrangement diagram

12.03.2020

12.03.2020

Printout

Created by: Simec EM Bulgaria 2

Checked by:

Standard

Revision

Date

Name

376

Orig./Repd./I./Repd. by

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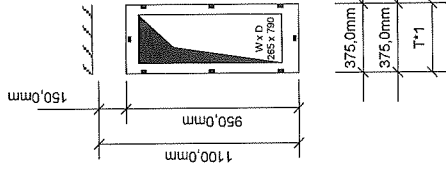
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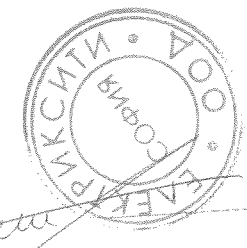


PLAN VIEW

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БЪЛГАРСКО С.ОРИГИНАЛ



LOAD DATA AND MINIMUM DISTANCES

- PERMANENT LOADS  
VERTICAL SINGLE LOAD  $G_v$   
PANEL WIDTH:  
375 mm  
750 mm  
1050 mm
- NON PERMANENT LOADS  
LIVE LOAD  $F_L$   
6 kN/m<sup>2</sup>
- MINIMUM DISTANCES  
FRONT OPERATING AISLE  
WALL DISTANCE ON THE LEFT  
WALL DISTANCE ON THE RIGHT  
WALL DISTANCE FOR PANEL TYPE "CC"  
WALL DISTANCE LEFT  
WALL DISTANCE RIGHT  
WALL DISTANCE REAR (with rear duct)
- CEILING HEIGHT

- MINIMUM DOOR OPENING:  
Switchgear height: 1750 mm;  
Switchgear without low-voltage compartment, without front covers  
HEIGHT: 1750 mm  
WIDTH: 1000 / 1250 / 1500 mm  
Switchgear height: 2100 mm;  
Switchgear with low-voltage compartment 350 mm;  
HEIGHT: 2100 mm  
WIDTH: 1000 / 1250 / 1500 mm  
Switchgear height: 2300 mm;  
Switchgear with low-voltage compartment 500 mm;  
HEIGHT: 2300 mm  
WIDTH: 1000 / 1250 / 1500 mm
- Depth of cable basement  
(depends on design of delivery switchgear)  
600 mm (\*)  
800 mm (\*\*)  
900 mm (\*\*\*)  
≥ 35 mm

Control aisle:  
\*) Depending on required requirements, for extension/panel replacement, a control aisle is recommended at least 1000 mm.  
(Removable circuit-breaker require a control aisle ≥ 1000 mm)  
\*\*) For walk-standing arrangement a lateral wall distance (left or right) is recommended of at least: 600 mm (for 24.0 kV) or 800 mm (for 20.0 kV).  
For walk-standing or freestanding arrangement with rated type "CC" at end of the switchgear (arranged on the left or right side):  
\*) Position of cable fixing (cable bracket), underneath the panel, in the cable basement max. 500 mm (600 mm max.)  
\*\*) Deep floor cover for cable basement, additionally extendable downwards at size max. 600 mm  
Position of cable fixing (cable bracket), underneath the panel, in the cable basement  
\*) \*\*) For installation "on site" (Delivery in by-pack kit)  
H<sub>cc</sub> = Additional available length for installation below the panel  
For switchgear design with HAC 21 kV, the height of the switchgear will be at least: 2100 mm

FLOOR OPENING (foundation opening) in mm:  
Width depth:  
Details see "TA 07" by panel floor plan

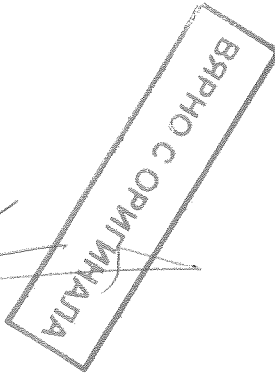
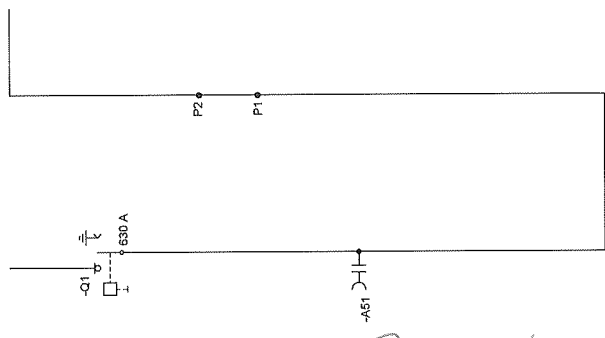
Operating voltage 20.0 kV  
Rated voltage 24.0 kV  
System/rated frequency 3-50 Hz  
Rated short-time withst. curr. 16.0 kA (1 s)  
Rated normal current 630 A

|       |          |      |      |          |            |            |          |               |                                |
|-------|----------|------|------|----------|------------|------------|----------|---------------|--------------------------------|
| Issue | Revision | Date | Name | Standard | Checked by | Created by | Printout | 12.03.2020    | Salks EM Bulgaria 2            |
|       |          |      |      |          |            |            |          |               |                                |
|       |          |      |      |          |            |            |          | T375          | Orig./Repl./I. Repl. by        |
|       |          |      |      |          |            |            |          | SIEMENS       | SIEMSEC                        |
|       |          |      |      |          |            |            |          | SIEMSEC       | SIEMSEC-00761                  |
|       |          |      |      |          |            |            |          | SIEMSEC       | SIEMSEC-00761                  |
|       |          |      |      |          |            |            |          | 2             | Constructional data            |
|       |          |      |      |          |            |            |          | 630 A         | Rated normal current           |
|       |          |      |      |          |            |            |          | 16.0 kA (1 s) | Rated short-time withst. curr. |
|       |          |      |      |          |            |            |          | B01           | Sh.No 01-                      |
|       |          |      |      |          |            |            |          | 1             |                                |



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Rated normal current  
630 A

Rated short-time withst. curr.  
16.0 kA (1 s)

Rated voltage  
24.0 kV

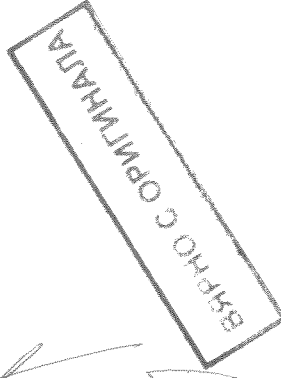
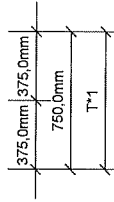
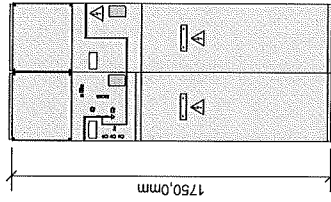
Operating voltage  
20.0 kV

System/rated frequency  
3--50 Hz

|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|-------|----------|------|------|-----------------------|--------------------|---|--|--|--|--|--|--|--|
| Issue | Revision | Date | Name |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      | Printout              | 12.03.2020         |   |  |  |  |  |  |  |  |
|       |          |      |      | Created by            | Sava EM Bulgaria 2 |   |  |  |  |  |  |  |  |
|       |          |      |      | Checked by            | Stanev             |   |  |  |  |  |  |  |  |
|       |          |      |      | RTD                   |                    |   |  |  |  |  |  |  |  |
|       |          |      |      | Chg./Repl./I/Repl. By |                    |   |  |  |  |  |  |  |  |
|       |          |      |      | SIEMENS               | SIMOSEC            | 3 |  |  |  |  |  |  |  |
|       |          |      |      |                       | SIMOSEC            |   |  |  |  |  |  |  |  |
|       |          |      |      |                       | SIMOSEC-00763      |   |  |  |  |  |  |  |  |
|       |          |      |      | Single-line diagram   |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |
|       |          |      |      |                       |                    |   |  |  |  |  |  |  |  |

**FRONT VIEW**

=J01  
=J02  
+J01  
+J02  
=JZD1  
=JZD2



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| LOAD DATA AND MINIMUM DISTANCES         |                     |
|---|---------------------|
| 1. PERMANENT LOADS                      |                     |
| VERTICAL SINGLE LOAD G <sub>v</sub>     |                     |
| HEIGHT                                  | 2.0 kN              |
| WIDTH                                   | 3.5 kN              |
| SWITCHGEAR HEIGHT                       | 4.5 kN              |
| HEIGHT WITH LOW-VOLTAGE COMPARTMENT     | 5.0 kN              |
| WIDTH                                   | 5.0 kN              |
| HEIGHT                                  | 5.0 kN              |
| SWITCHGEAR HEIGHT                       | 6 kN/m <sup>2</sup> |
| HEIGHT WITH LOW-VOLTAGE COMPARTMENT     |                     |
| WIDTH                                   |                     |
| HEIGHT                                  |                     |
| WIDTH                                   |                     |
| 2. USER PERMANENT LOADS                 |                     |
| LOAD G <sub>u</sub>                     |                     |
| 3. MINIMUM DISTANCES                    |                     |
| WALL DISTANCE ON THE LEFT               | 1000 mm (1)         |
| WALL DISTANCE ON THE RIGHT              | 100 mm (2)          |
| WALL DISTANCE FOR PANEL TYPE "CC"       | 100 mm (2)          |
| WALL DISTANCE LEFT                      | 600 mm (2)          |
| WALL DISTANCE RIGHT                     | 600 mm (2)          |
| "s" WALL DISTANCE REAR (with rear duct) | ≥ 35 mm             |
| 4. CEILING HEIGHT                       | ≥ 2400 mm           |

**Control cable:**

- \*1) depending on national requirements; for extension-panel replacement, a control cable is 1000 mm
- (Removable circuit-breaker requires a control cable ≥ 1000 mm)
- \*2) For wall-standing arrangement a lateral wall distance (left or right) is recommended of at least: 100 mm
- For free-standing arrangement a lateral wall distance (left or right) is necessary of at least: 100 mm
- For wall-standing arrangement with panel type JZC at ends of the switchgear (arranged on the left or right side): 600 mm
- \*3) Position of cable fixing brackets, underneath the panel, in the cable basement: min. 505 mm (450-600) max. 600 mm
- \*4) Base floor cover for cable tray: underneath the panel, in the cable basement: min. 505 mm (450-600) max. 600 mm
- \*3) \*4) For free-standing "top-down" (Delivery in by-pack kit) Hcc = Additional available length for installation below the panel

For switchgear design with IAC 21 kit: the height of the switchgear will be at least: Hcc + 2100 mm

| THE LOCATION AND DETAIL DIAGRAMS DO HAVE SYMBOLIC CHARACTER AND DO NOT SHOW THE ACTUAL SCOPE OF SUPPLY. |               |
|---|---------------|
| Operating voltage   | 20.0 kV       |
| Rated voltage   | 24.0 kV       |
| Rated short-time withst. curr.  | 18.0 kA (1 s) |
| Rated normal current  | 630 A         |

|                        |                                     |
|------------------------|-------------------------------------|
| System/rated frequency | 3-50 Hz                             |
| SIEMENS                | SIMOSEC<br>SIMOSEC<br>SIMOSEC-00763 |
| Arrangement diagram    | 3                                   |

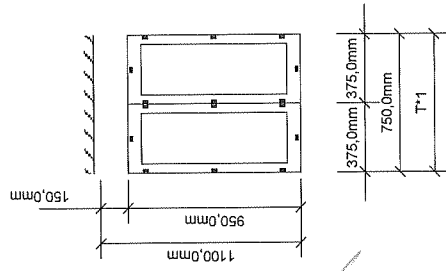
| Issue | Revision | Date | Name | Checked by | Estimated | Printout            |
|-------|----------|------|------|------------|-----------|---------------------|
| 1     |          |      |      |            |           | 12.03.2020          |
|       |          |      |      |            |           | Stake EM Bulgaria 2 |

|                           |     |
|---------------------------|-----|
| Orig. / Repal. / Repl. by |     |
| Arrangement diagram       |     |
| Sh.No 01-                 | B01 |
|                           | 1   |

140

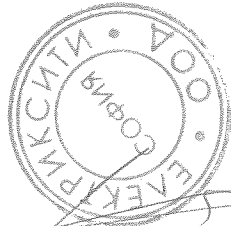
**PLAN VIEW**

=J01 =J02  
 =J01 =J02  
 =JZ01 =JZ02



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ВАЖНО С ОРИГИНАЛА



| LOAD DATA AND MINIMUM DISTANCES  | System/rated frequency<br>3-50 Hz   | Operating voltage<br>20.0 kV  | Rated voltage<br>24.0 kV  | Rated normal current<br>630 A                         |
|--|---|---|---|---|
| <b>1. PERMANENT LOADS</b><br>VERTICAL SINGLE LOAD $G_k$<br>PANEL WIDTH:<br>575 mm 2.0 kN<br>750 mm 3.5 kN<br>875 mm 4.5 kN<br>1000 mm 5.0 kN<br>1200 mm 5.3 kN<br><br><b>2. NON PERMANENT LOADS</b><br>LIVE LOAD $q_k$<br><br><b>3. MINIMUM DISTANCES</b><br>FRONT OPERATING AISLE<br>WALL DISTANCE ON THE LEFT<br>WALL DISTANCE ON THE RIGHT<br>WALL DISTANCE FOR PANEL TYPE "OC";<br>WALL DISTANCE LEFT<br>WALL DISTANCE RIGHT<br>*2) WALL DISTANCE REAR (with rear dist)<br>4. CEILING HEIGHT<br>$\geq 2400$ mm | <b>5. MINIMUM DOOR OPENING:</b><br>Switchgear height: 1750 mm:<br>Low-voltage compartment: without front covers<br>1000 / 1250 / 1500 mm<br>Switchgear height: 2100 mm:<br>Low-voltage compartment 950 mm:<br>1000 / 1250 / 1500 mm<br>Switchgear height: 2300 mm:<br>Low-voltage compartment 950 mm:<br>1000 / 1250 / 1500 mm<br>HEIGHT<br>Switchgear with low-voltage compartment<br>2490 mm<br>WIDTH<br>Depth of cable basement<br>(depends on design of delivery switchgear)<br>*3) *4)<br>Please note: Bending radius of cable<br>$\geq 25$ mm | Details see "V4-D" by panel floor plan<br>FLOOR OPENING (foundation opening) in mm:<br>Width x Depth:<br>Details see "V4-D" by panel floor plan | For switchgear design with IAC 21 kV; the height of the switchgear will be at least:<br>H <sub>sw</sub> = Additional available length for installation below the panel<br>H <sub>cc</sub> = Installation "see else"<br>(Delivery in by-pack kit)<br>H <sub>cc</sub> = 2100 mm<br>For extension/panel replacement, a central aisle is<br>(Removable circuit-breaker require a central aisle $\geq 1000$ mm)<br>For the standing arrangement + lateral wall distance (left or right) is recommended at least:<br>For the standing arrangement with panel type "CC" at end of the switchgear<br>(arranged on the left or right side):<br>*1) Depth of cable fitting (cable bracket), underneath the panel, in the cable basement<br>max. 505 mm (45-480)<br>*2) Base floor cover for cable basement, additionally extensible downwards at site<br>max. 600 mm<br>Position of cable firing (cable bracket), underneath the panel, in the cable basement | H <sub>sw</sub><br>H <sub>cc</sub><br>H <sub>cc</sub> |

THESE CONSTRUCTIONAL DATA OF SIEMENS AG ARE NOT BINDING FOR CONSTRUCTION. THEY ARE ONLY VALID IN THE AREA OF SIEMENS PRODUCT DESIGNATION, ACCORDING TO THE ORIGINAL INSTRUCTION MANUAL.  
 CONSTRUCTIONAL DATA CAN BE FOUND IN THE RELATED OPERATING AND INSTRUCTION MANUAL.

| Revision | Date | Name | Issue |
|----------|------|------|-------|
|          |      |      | 1     |
|          |      |      | 2     |
|          |      |      | 3     |
|          |      |      | 4     |
|          |      |      | 5     |
|          |      |      | 6     |
|          |      |      | 7     |
|          |      |      | 8     |

Printed: 12.03.2020  
 Created by: Sibus EM Reijnders 2  
 Checked by:  
 Standard

R(D)H  
 Orig./Repl./Pl. by

SIEMENS  
 SIMOSEC  
 SIMOSEC-00763

Operating voltage  
20.0 kV

Rated voltage  
24.0 kV

Rated normal current  
630 A

Rated short-time withstand current  
16.0 kA (1 s)

Constructional data

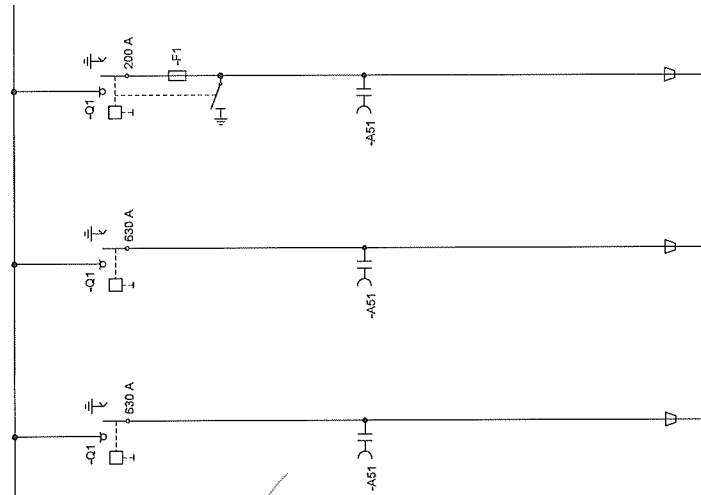
Sh.No 01-  
1



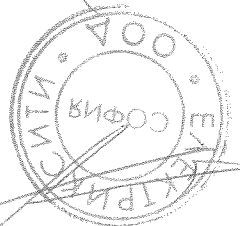
=J01  
+J01  
=JZ01

=J02  
+J02  
=JZ01

=J03  
+J03  
=JZ02



ВЯРНО С ОРИГИНАЛА



System/rated frequency  
3-50 Hz

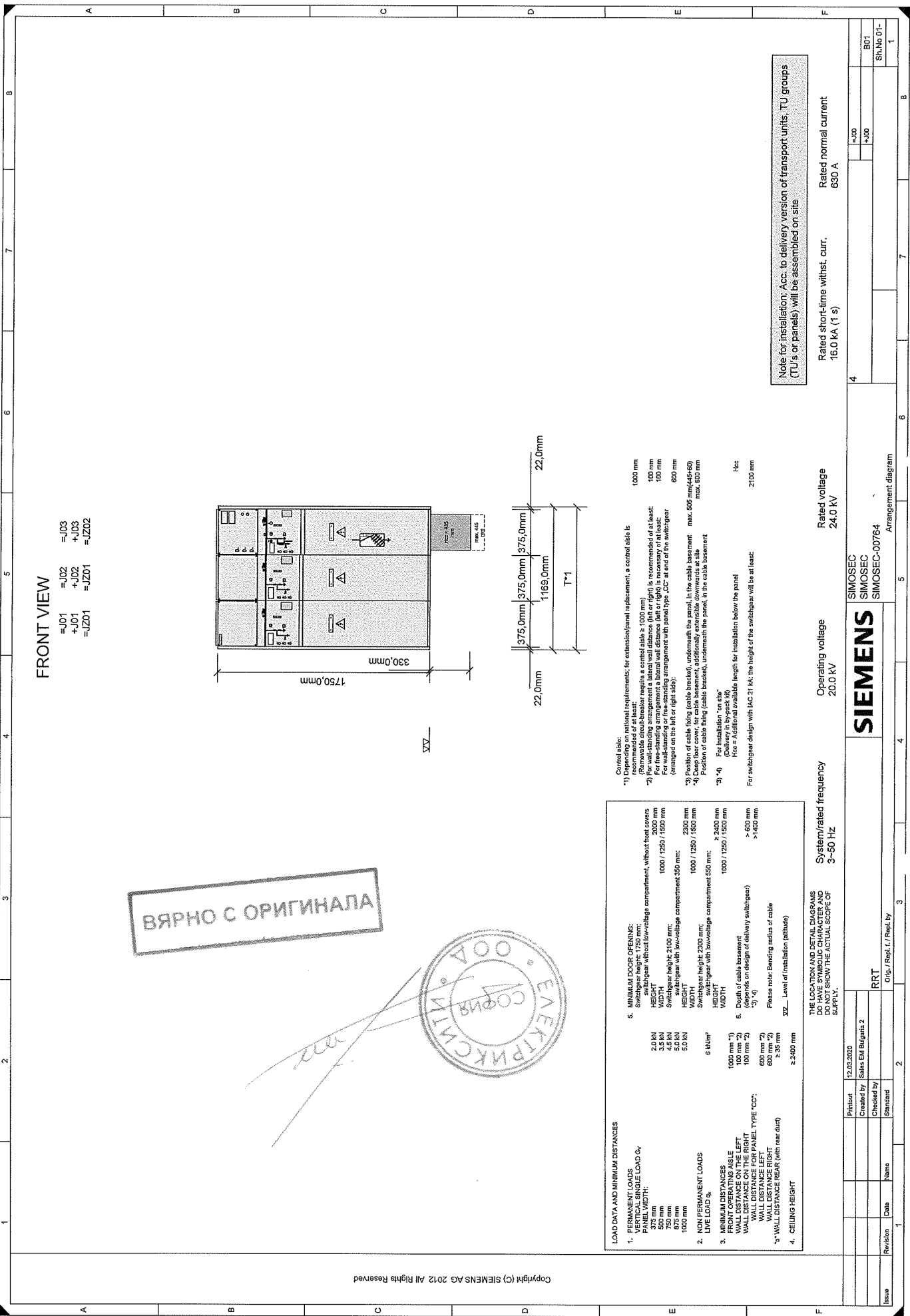
Operating voltage  
20.0 kV

Rated voltage  
24.0 kV

Rated short-time withst. curr.  
16.0 kA (1 s)

Rated normal current  
630 A

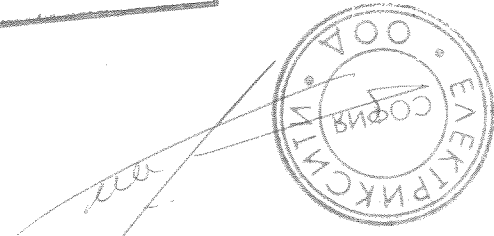
| Issue | Revision | Date | Name | Printed    | Created by          | Checked by | Standard | Origin / Repl./L./ Print. by | SIEMENS                             | Operating voltage | Rated voltage | Rated short-time withst. curr. | Rated normal current | Sheet No | Total |
|-------|----------|------|------|------------|---------------------|------------|----------|------------------------------|-------------------------------------|-------------------|---------------|--------------------------------|----------------------|----------|-------|
|       |          |      |      | 12.03.2020 | Sales EM Bulgaria 2 |            |          | RRT                          | SIEMENS<br>SIEMSEC<br>SIEMSEC-00764 | 20.0 kV           | 24.0 kV       | 16.0 kA (1 s)                  | 630 A                | B01      | 1     |



**FRONT VIEW**

- =L01 =J03
- =L02 =J04
- =L03 =J05
- =L04 =J06
- =L05 =J07

ВЯРНО С ОРИГИНАЛА



**LOAD DATA AND MINIMUM DISTANCES**

- PERMANENT LOADS**  
 VERTICAL SINGLE LOAD  $G_v$   
 WIDTH  $b$   
 HEIGHT  $h$   
 WIDTH  $b$   
 HEIGHT  $h$   
 WIDTH  $b$   
 HEIGHT  $h$
- NON PERMANENT LOADS**  
 LIVE LOAD  $q$   
 WIDTH  $b$   
 HEIGHT  $h$
- MINIMUM DISTANCES**  
 WALL DISTANCE ON THE LEFT  
 WALL DISTANCE ON THE RIGHT  
 WALL DISTANCE FOR PANEL TYPE "CC"  
 WALL DISTANCE REAR (with ear duct)  
 CEILING HEIGHT

|                     |             |         |         |
|---------------------|-------------|---------|---------|
| 2.0 kN              | 1000 mm (*) | 2400 mm | 1000 mm |
| 3.5 kN              | 100 mm (*)  | 2400 mm | 1000 mm |
| 5.0 kN              | 100 mm (*)  | 2400 mm | 1000 mm |
| 4.5 kN              | 100 mm (*)  | 2400 mm | 1000 mm |
| 5.0 kN              | 100 mm (*)  | 2400 mm | 1000 mm |
| 6.0 kN              | 100 mm (*)  | 2400 mm | 1000 mm |
| 5.0 kN              | 100 mm (*)  | 2400 mm | 1000 mm |
| 6 kN/m <sup>2</sup> | 1000 mm (*) | 2400 mm | 1000 mm |
|                     | 100 mm (*)  | 2400 mm | 1000 mm |
|                     | 100 mm (*)  | 2400 mm | 1000 mm |
|                     | 100 mm (*)  | 2400 mm | 1000 mm |
|                     | 100 mm (*)  | 2400 mm | 1000 mm |
|                     | 100 mm (*)  | 2400 mm | 1000 mm |

**Control aisle:**

\*) Depending on national requirements; for extension/panel replacement, a control aisle is recommended of at least 1000 mm (Removable circuit-breaker require a control aisle  $\geq 1000$  mm)

\*) For walk-standing arrangement a lateral wall distance (left or right) is recommended of at least 100 mm (Removable circuit-breaker require a lateral wall distance (left or right) is recommended of at least 100 mm)

\*) For walk-standing arrangement a lateral wall distance (left or right) is recommended of at least 100 mm (Removable circuit-breaker require a lateral wall distance (left or right) is recommended of at least 100 mm)

\*) Position of cable trays (cable brackets) underneath the panel in the cable basement max. 505 mm (405 mm min. 400 mm)

\*) Position of cable trays (cable brackets) underneath the panel in the cable basement max. 505 mm (405 mm min. 400 mm)

\*) For installation "on site" (Delivery in bypass kit)

Hicc = Additional available length for installation below the panel

For switchgear design with IAC 21 kV the height of the switchgear will be at least: 2100 mm

|   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
|---|--|---------|--|---------------|--|---------|--|--------------------------------|--|---------------|--|----------------------|--|-------|--|
| Operating voltage   |  | 20.0 kV |  | Rated voltage |  | 24.0 kV |  | Rated short-time withst. curr. |  | 16.0 kA (1 s) |  | Rated normal current |  | 630 A |  |
| System/rated frequency  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 3-50 Hz   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| THE LOCATION AND DETAIL DIAGRAMS DO HAVE SYMBOLIC CHARACTER AND DO NOT SHOW THE ACTUAL SCOPE OF SUPPLY. |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Revision  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Date  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Name  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Checked by  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Standard  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Printout  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Created by  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Sivas EM Bulgaria 2   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| RRT   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Dir./Rep./L./Rev. by  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| SIEMENS   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| SIMOSEC   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| SIMOSEC-00764   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| Arrangement diagram   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 4   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| B01   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| S.No 01-  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 1   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 8   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 7   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 6   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 5   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 4   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 3   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 2   |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |
| 12.03.2020  |  |         |  |               |  |         |  |                                |  |               |  |                      |  |       |  |

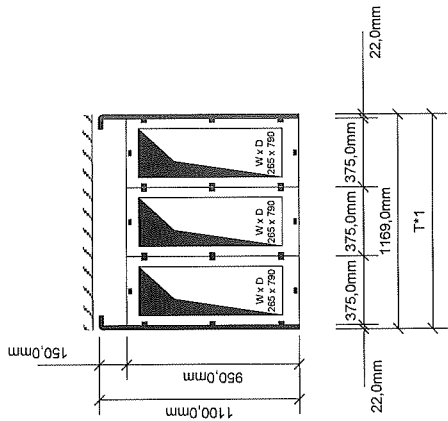
149



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**PLAN VIEW**

- J01 =J02
- J01 +J02
- =JZ01 =JZ01
- =J03 +J03
- =JZ02



**LOAD DATA AND MINIMUM DISTANCES**

- 1. PERMANENT LOADS**  
 VERTICAL SINGLE LOAD G<sub>v</sub>  
 PANEL WIDTH:  
 2.0 kN  
 3.5 kN  
 4.5 kN  
 500 mm  
 750 mm  
 1000 mm
- 2. NON PERMANENT LOADS**  
 LIVE LOAD q<sub>l</sub>  
 6 kN/m²
- 3. MINIMUM DISTANCES**  
 WALL DISTANCE ON THE LEFT  
 100 mm (1)  
 100 mm (2)  
 WALL DISTANCE ON THE RIGHT  
 300 mm (1)  
 600 mm (2)  
 WALL DISTANCE REAR (with rear duct)  
 ≥ 35 mm  
 ≥ 2400 mm
- 4. CEILING HEIGHT**  
 2400 mm
- 5. MINIMUM DOOR OPENING:**  
 Switchgear height 1750 mm:  
 Height without towerage compartment, without feet covers  
 HEIGHT 1000 / 1250 / 1500 mm  
 WIDTH 2000 mm  
 Switchgear height 2100 mm:  
 Height without towerage compartment 350 mm:  
 HEIGHT 1000 / 1250 / 1500 mm  
 WIDTH 2300 mm  
 Switchgear height 2350 mm:  
 Height without towerage compartment 550 mm:  
 HEIGHT 1000 / 1250 / 1500 mm  
 WIDTH 2400 mm  
 Switchgear height 2600 mm:  
 Height without towerage compartment 750 mm:  
 HEIGHT 1000 / 1250 / 1500 mm  
 WIDTH 2400 mm
- 6. Depth of cable basement**  
 (depends on design of delivery switchgear)  
 ≥ 600 mm  
 ≥ 1400 mm

Plasma note: Bending radius of cable  
 ≥ 2000 mm  
 ≥ 2400 mm  
 ≥ 35 mm

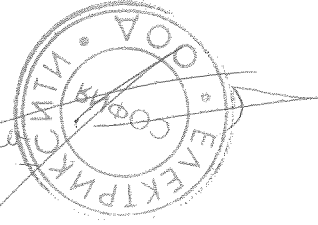
Level of installation (altitude)

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- Control cable:**  
 \*1) Additional requirements: for extension/panel replacement, a control cable is recommended of at least:  
 (Removable circuit-breaker require a control cable ≥ 1000 mm)  
 \*2) For cable tray arrangement:  
 For walk-standing or free-standing arrangement with panel type „CC“ at end of the switchgear (arranged on the left or right side): max. 600 mm  
 \*3) Position of cable fixing (cable bracket), underrun the panel, in the cable basement max. 505 mm (445-60)  
 \*4) Deep floor curve, for cable basement, additionally extendable downwards at site max. 600 mm  
 Position of cable fixing (cable bracket), underrun the panel, in the cable basement  
 \*3) \*4)  
 For installation "on site" (Delivery in by-pack kit)  
 Hcc = Additional available length for installation below the panel  
 For switchgear design with IAC 21 kA, the height of the switchgear will be at least:
- 1000 mm  
 100 mm  
 100 mm  
 600 mm  
 max. 505 mm (445-60)  
 max. 600 mm  
 Hcc  
 ≥ 100 mm

FLOOR OPENING (foundation opening) in mm:  
 Details see 'W x D' by panel floor plan

ВАРНО С ОРИГИНАЛА



|   |          |      |      |          |            |            |          |
|---|----------|------|------|----------|------------|------------|----------|
| 1   | 2        | 3    | 4    | 5        | 6          | 7          | 8        |
| <p><b>SIEMENS</b><br/>                 SIMOSEC<br/>                 SIMOSEC-00764</p> <p>System/rated frequency<br/>                 3-50 Hz</p> <p>Operating voltage<br/>                 20.0 kV</p> <p>Rated voltage<br/>                 24.0 kV</p> <p>Rated normal current<br/>                 630 A</p> <p>Rated short-time withst. curr.<br/>                 16.0 kA (1 s)</p> <p>Constructional data</p> |          |      |      |          |            |            |          |
| Issue   | Revision | Date | Name | Standard | Checked by | Created by | Printout |
|   |          |      |      |          |            |            |          |
|   |          |      |      |          |            |            |          |
|   |          |      |      |          |            |            |          |
|   |          |      |      |          |            |            |          |



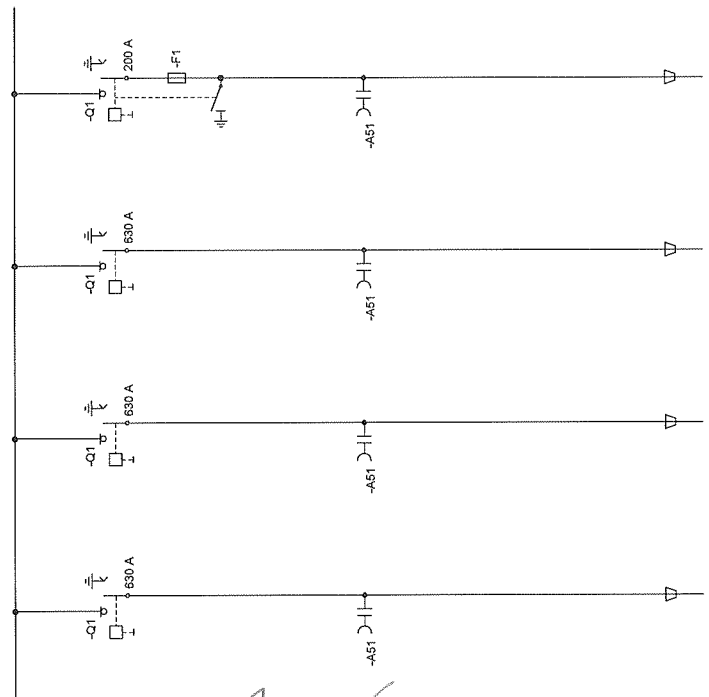


=J01  
+J01  
=JZ01

=J02  
+J02  
=JZ01

=J03  
+J03  
=JZ01

=J04  
+J04  
=JZ02



**ВИДИЛИВАНА**

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Rated normal current  
630 A

Rated voltage  
24.0 kV

Operating voltage  
20.0 kV

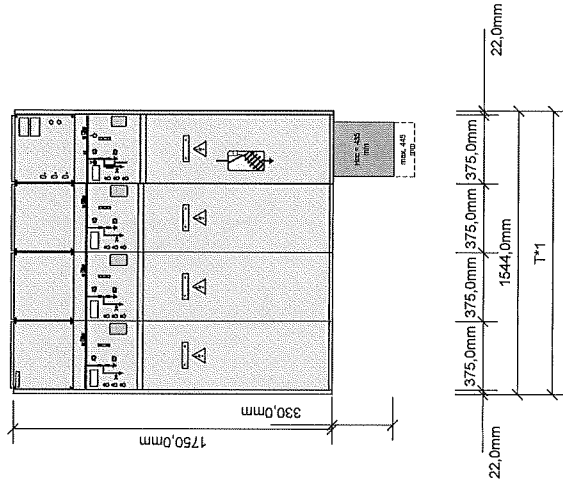
System/rated frequency  
3-50 Hz

Rated short-time withst. curr.  
16.0 kA (1 s)

|   |          |      |      |          |            |            |                     |            |      |                         |           |     |   |
|---|----------|------|------|----------|------------|------------|---------------------|------------|------|-------------------------|-----------|-----|---|
| Issue   | Revision | Date | Name | Printout | 12.05.2020 | Created by | Sarka EIM Bulgars 2 | Checked by | RRRT | Orig./Repl./I./Repl. by | 5         | 7   | 8 |
|   |          |      |      |          |            |            |                     |            |      |                         |           |     |   |
| <p><b>SIEMENS</b></p> <p>SIMOSEC<br/>SIMOSEC<br/>SIMOSEC-00765</p> <p>Single-line diagram</p> |          |      |      |          |            |            |                     |            |      |                         |           |     |   |
|   |          |      |      |          |            |            |                     |            |      |                         | 400       | 400 |   |
|   |          |      |      |          |            |            |                     |            |      |                         | B01       |     | 1 |
|   |          |      |      |          |            |            |                     |            |      |                         | SH.No 01- |     |   |

FRONT VIEW

- =J01      =J03      =J04
- +J01      +J03      +J04
- =JZ01    =JZ01    =JZ02



ВРЯНО С ОРИГИНАЛА

**LOAD DATA AND MINIMUM DISTANCES**

|   |                       |
|---|-----------------------|
| <b>1. PERMANENT LOADS</b>                                   |                       |
| VERTICAL SINGLE LOAD G <sub>v</sub>                         | 2.0 kN                |
| WIDTH   | 3.5 kN                |
| HEIGHT  | 4.5 kN                |
| SWITCHGEAR HEIGHT   | 5.0 kN                |
| SWITCHGEAR WITH LOW-VOLTAGE COMPARTMENT                     | 6 kN/m <sup>2</sup>   |
| <b>2. NON-PERMANENT LOADS</b>                               |                       |
| LIVE LOAD G <sub>n</sub>                                    | 1000 / 1250 / 1500 mm |
| <b>3. MINIMUM DISTANCES</b>                                 |                       |
| MINIMUM DISTANCE TO THE WALL DISTANCE ON THE LEFT           | ≥ 2400 mm             |
| MINIMUM DISTANCE TO THE WALL DISTANCE ON THE RIGHT          | 1000 / 1250 / 1500 mm |
| MINIMUM DISTANCE TO THE WALL DISTANCE REAR                  | ≥ 600 mm              |
| MINIMUM DISTANCE TO THE WALL DISTANCE REAR (with rear duct) | ≥ 35 mm               |
| CEILING HEIGHT  | ≥ 2400 mm             |

**Control aisle:**

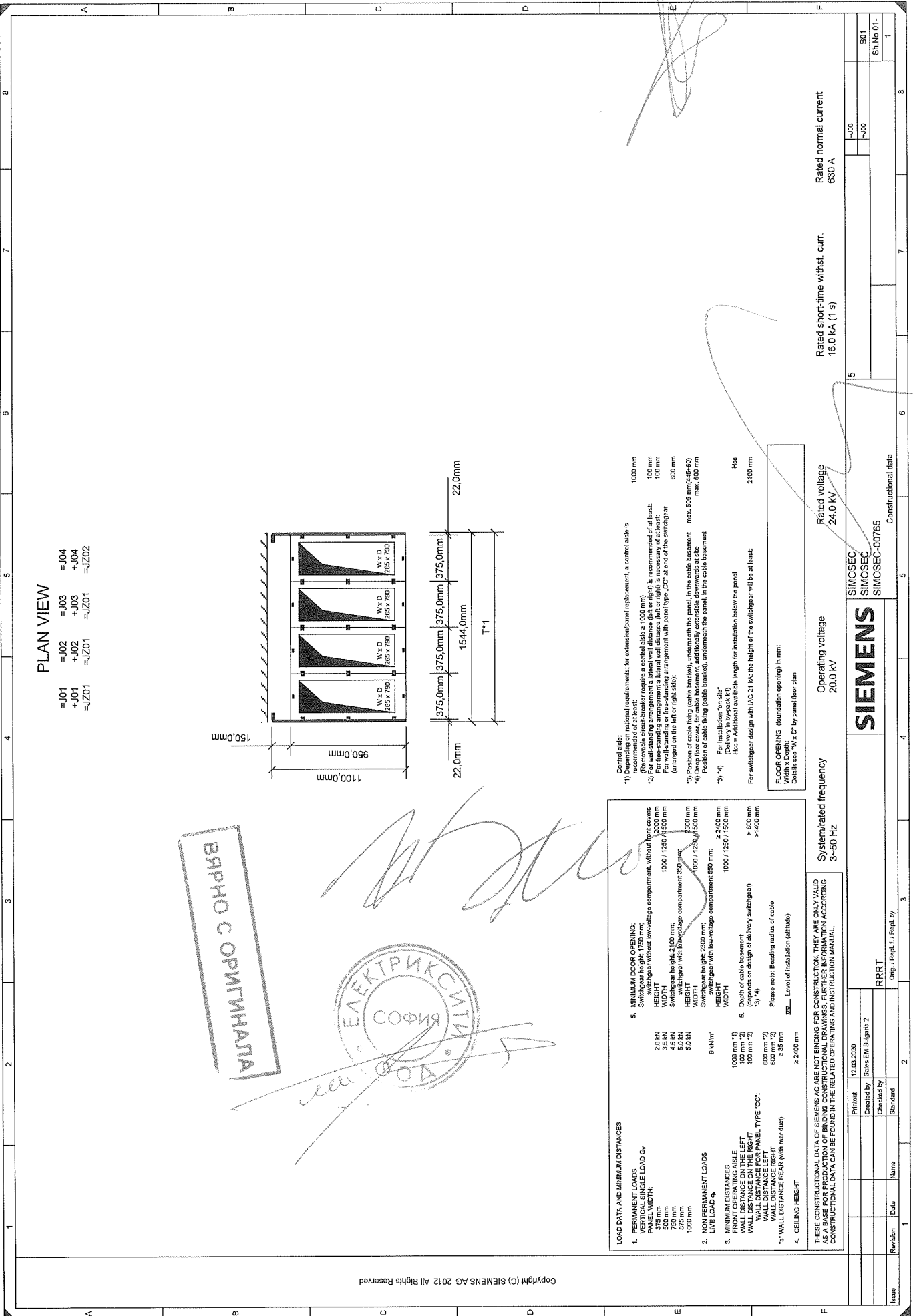
- \*1) Depending on national requirements, for extension/panel replacement, a control aisle is recommended.
- \*2) For wall-standing arrangement, a lateral wall distance (left or right) is recommended of at least 100 mm.
- \*3) For wall-standing arrangement, a lateral wall distance (left or right) is necessary of at least 100 mm.
- \*4) For wall-standing arrangement with panel type JZC at end of the switchgear (arranged on the left or right side): 600 mm.
- \*5) Position of cable fixing (cable bracket) underneath the panel, in the cable basement: max. 505 mm (455-60) min. 500 mm.
- \*6) Position of cable fixing (cable bracket), underneath the panel, in the cable basement (Delivery in by-pouch kit): H<sub>cab</sub>.
- \*7) For switchgear design with IAC 21 kV, the height of the switchgear will be at least: H<sub>cab</sub> + 2100 mm.

**THE LOCATION AND DETAIL DIAGRAMS DO HAVE SYMBOLIC CHARACTER AND DO NOT SHOW THE ACTUAL SCOPE OF SUPPLY.**

|       |          |      |      |                         |                     |
|-------|----------|------|------|-------------------------|---------------------|
| Issue | Revision | Date | Name | Printout                | 12.03.2020          |
|       |          |      |      | Created by              | Sales EM Bulgaria 2 |
|       |          |      |      | Checked by              |                     |
|       |          |      |      | Standard                |                     |
|       |          |      |      | RRRT                    |                     |
|       |          |      |      | Orig./Repl./L./Repl. by |                     |

|                        |         |                                |               |                      |       |
|------------------------|---------|--------------------------------|---------------|----------------------|-------|
| Operating voltage      | 20.0 kV | Rated voltage                  | 24.0 kV       | Rated normal current | 630 A |
| System/rated frequency | 3~50 Hz | Rated short-time withst. curr. | 16.0 kA (1 s) |                      |       |
| SIEMENS                |         | SIMOSEC                        |               | Arrangement diagram  |       |
|                        |         | SIMOSEC-0076S                  |               | 5                    |       |
|                        |         |                                |               | J00                  |       |
|                        |         |                                |               | +J00                 |       |
|                        |         |                                |               | B01                  |       |
|                        |         |                                |               | Sh.No 01-            |       |
|                        |         |                                |               | 1                    |       |

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**PLAN VIEW**

- =J01     =J02     =J03     =J04
- +J01    +J02    +J03    +J04
- =JZ01   =JZ01   =JZ01   =JZ02

ВАРНО С ОПИГНАЛА



| LOAD DATA AND MINIMUM DISTANCES  |  |
|--|--|
| 1. PERMANENT LOADS<br>VERTICAL SINGLE LOAD $G_v$<br>WALL DISTANCE FROM THE LEFT:<br>500 mm<br>750 mm<br>1000 mm  | 2.0 kN<br>3.5 kN<br>5.0 kN<br>5.0 kN<br>5.0 kN                       |
| 2. NON PERMANENT LOADS<br>WALL DISTANCE FROM THE LEFT:<br>500 mm<br>750 mm<br>1000 mm  | 6 kNm*   |
| 3. MINIMUM DISTANCES<br>WALL DISTANCE FROM THE LEFT:<br>WALL DISTANCE FROM THE RIGHT:<br>WALL DISTANCE FOR PANEL TYPE 'CC':<br>WALL DISTANCE REAR (with rear duct) | 1000 min (1)<br>100 min (2)<br>600 min (2)<br>600 min (2)<br>≥ 35 mm |
| 4. CEILING HEIGHT  | ≥ 2400 mm  |

|  |   |
|--|---|
| 5. MINIMUM FLOOR OPENINGS:<br>Switchgear height 1750 mm:<br>HEIGHT<br>WIDTH<br>Switchgear height 2400 mm:<br>HEIGHT<br>WIDTH<br>Switchgear height 2400 mm:<br>HEIGHT<br>WIDTH<br>Switchgear height 2400 mm:<br>HEIGHT<br>WIDTH | ≥ 2000 mm<br>1000 / 1250 / 1500 mm<br>≥ 400 mm<br>1000 / 1250 / 1500 mm<br>≥ 2400 mm<br>1000 / 1250 / 1500 mm<br>≥ 600 mm<br>≥ 400 mm |
| 6. Depth of cable basement<br>(depends on design of delivery switchgear)<br>Please note: Bending radius of cable<br>XBL... Level of insulation (altitude)  | ≥ 600 mm<br>≥ 400 mm  |

THESE CONSTRUCTIONAL DATA OF SIEMENS AG ARE NOT BINDING FOR CONSTRUCTION. THEY ARE ONLY VALID AS A BASE FOR PRODUCTION OF BINDING CONSTRUCTIONAL DRAWINGS. FURTHER INFORMATION ACCORDING CONSTRUCTIONAL DATA CAN BE FOUND IN THE RELATED OPERATING AND INSTRUCTION MANUAL.

Control cables:  
\*) Cable tray installation requirements; for extension/panel replacement, a control cable is recommended of at least:  
\*) (Removable circuit-breaker require a control cable ≥ 1000 mm)  
\*) For installation "on site"  
\*) For installation "in-by-pull kit"  
\*) For switchgear design with IAC 21 kV, the height of the switchgear will be at least:  
\*) For switchgear design with IAC 21 kV, the height of the switchgear will be at least:  
\*) For additional available length for installation below the panel  
\*) For additional available length for installation below the panel

Rated voltage  
24.0 kV

Rated short-time withstand curr.  
16.0 kA (1 s)

Rated normal current  
550 A

| Revision | Date | Name | Date       | Name | Printed    | Created by          | Checked by | Standard |
|----------|------|------|------------|------|------------|---------------------|------------|----------|
|          |      |      | 12.03.2020 | RRRT | Created by | Sabir EM Bulgaria 2 | Checked by |          |
|          |      |      |            |      | Standard   |                     |            |          |
|          |      |      |            |      |            |                     |            |          |

Orig.: Prapl. / / Prapl. by

|                                     |                     |   |   |   |   |
|-------------------------------------|---------------------|---|---|---|---|
| SIEMENS<br>SIEMSEC<br>SIEMSEC-00765 | Constructional data | 5 | 6 | 7 | 8 |
|-------------------------------------|---------------------|---|---|---|---|

Rated voltage  
20.0 kV

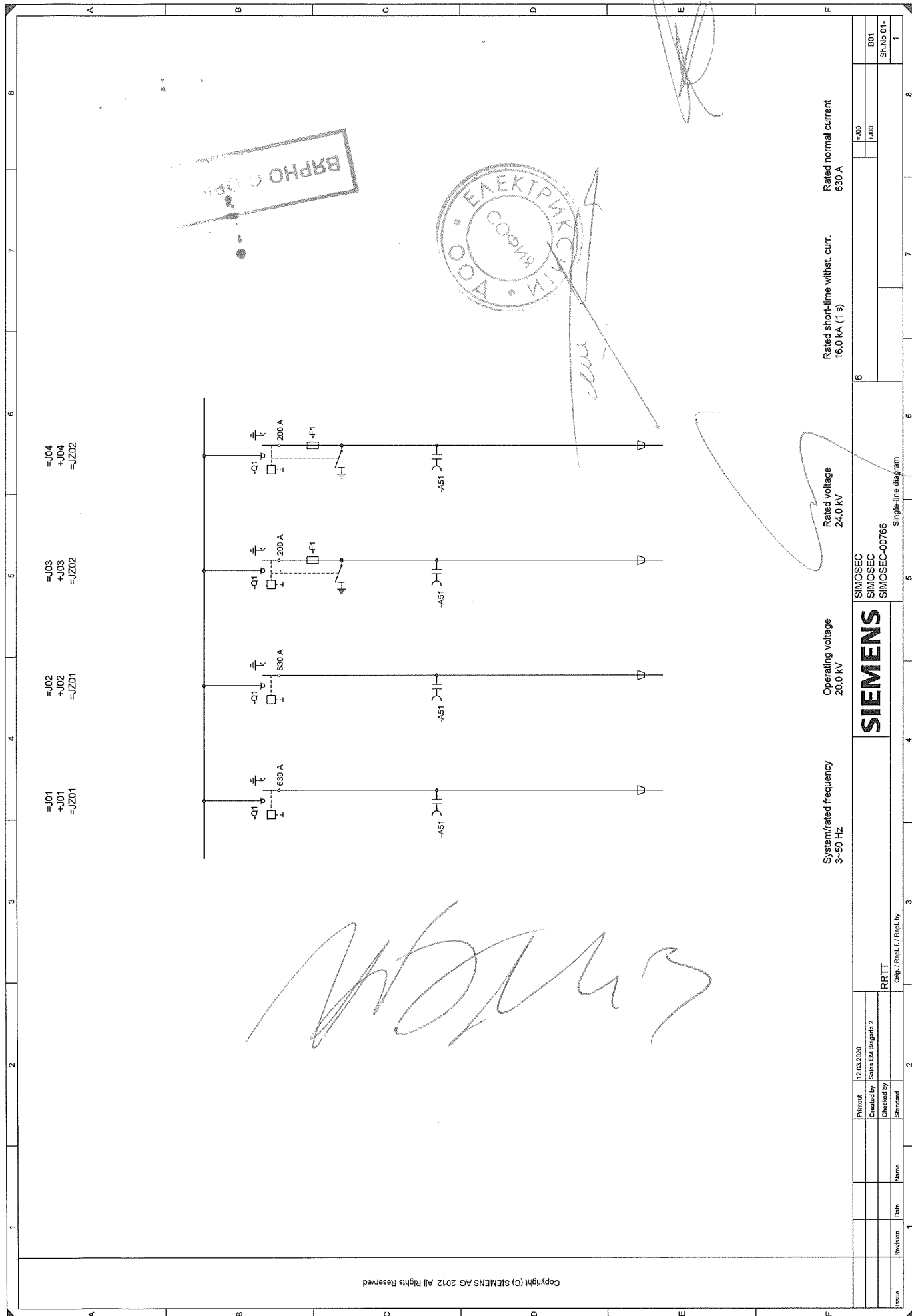
Operating voltage  
24.0 kV

Rated short-time withstand curr.  
16.0 kA (1 s)

Rated normal current  
550 A

System/ rated frequency  
3-50 Hz





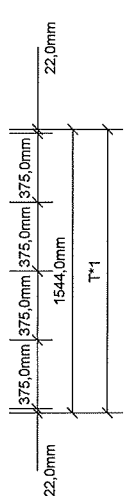
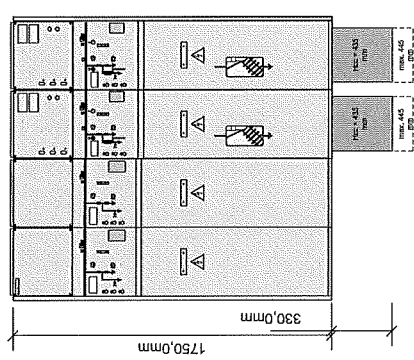
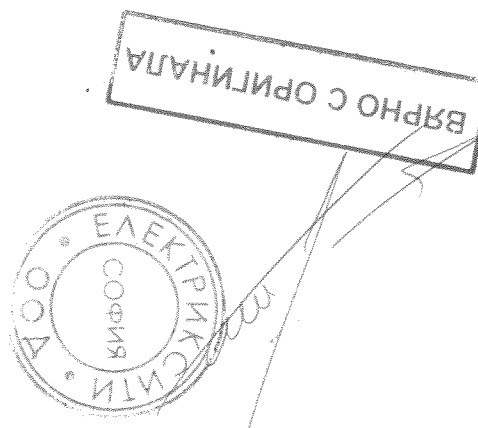
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System/rated frequency 3-50 HZ  
 Operating voltage 20.0 KV  
 Rated voltage 24.0 KV  
 Rated short-time withst. curr. 16.0 kA (1 s)  
 Rated normal current 630 A

|                                     |  |                     |           |
|-------------------------------------|--|---------------------|-----------|
| Printed 12.03.2020                  |  | Revision            |           |
| Created by Sabar EM Bulgars 2       |  | Date                | Name      |
| Checked by RRTT                     |  | Standard            |           |
| Orig./Repl./I./Repl. by             |  | Single-line diagram |           |
| SIEMENS<br>SIMOSEC<br>SIMOSEC-00766 |  | 6                   |           |
|                                     |  | 8                   |           |
|                                     |  | -F00                | BD1       |
|                                     |  | -F00                | SH.No 01- |
|                                     |  |                     | 1         |

**FRONT VIEW**

- =J01    =J02    =J03    =J04
- +J01    +J02    +J03    +J04
- =JZ01   =JZ01   =JZ02   =JZ02



**LOAD DATA AND MINIMUM DISTANCES**

- PERMANENT LOADS**  
VERTICAL SINGLE LOAD G<sub>v</sub>  
PANEL WIDTH:  
500 mm    2,5 kN  
750 mm    3,5 kN  
875 mm    4,5 kN  
1000 mm    5,0 kN
- NON PERMANENT LOADS**  
LIVE LOAD G<sub>l</sub>  
6 kN/m<sup>2</sup>
- MINIMUM DISTANCES**  
FRONT OPERATING AISLE  
1000 mm <sup>1)</sup>  
1200 mm <sup>2)</sup>  
100 mm <sup>3)</sup>  
WALL DISTANCE ON THE RIGHT  
WALL DISTANCE FOR PANEL TYPE 'CC'  
600 mm <sup>2)</sup>  
WALL DISTANCE LEFT  
600 mm <sup>2)</sup>  
<sup>2)</sup> WALL DISTANCE REAR (with rear duct)  
≥ 2400 mm
- CEILING HEIGHT**  
≥ 2400 mm

**Control aisle:**  
 1) Depending on national requirements; for extension/panel replacement, a control aisle is recommended or at least:  
 For front-side access to a control aisle ≥ 1000 mm  
 For rear-side access to a control aisle ≥ 1000 mm  
 2) For wall-standing arrangement a lateral wall distance (left or right) is recommended of at least:  
 For front-side arrangement a lateral wall distance (left or right) is necessary of at least:  
 For rear-side arrangement with panel type 'CC' at end of the switchgear (arranged on the left or right side):  
 max. 505 mm (465+40)  
 max. 600 mm  
 3) Position of cable firing (cable bracket), underneath the panel, in the cable basement  
 4) Position of cable firing (cable bracket), underneath the panel, in the cable basement  
 5) For installation 'in aisle'  
 For switchgear design with IAC 21 (k), the height of the switchgear will be at least:  
 max. 2100 mm  
 For switchgear design with IAC 21 (k), the height of the switchgear will be at least:  
 max. 2100 mm

Note for installation: Acc. to delivery version of transport units, TU groups (TU's or panels) will be assembled on site

Operating voltage    20,0 kV  
 Rated voltage        24,0 kV  
 Rated short-time withst. curr.    16,0 kA (1 s)  
 Rated normal current    630 A

|       |          |      |      |                                |                     |
|-------|----------|------|------|--------------------------------|---------------------|
| Issue | Revision | Date | Name | Printed                        | 12.03.2020          |
|       |          |      |      | Created by                     | Sales EM Bulgaria 2 |
|       |          |      |      | Checked by                     |                     |
|       |          |      |      | Standard                       |                     |
|       |          |      |      | RRTT                           |                     |
|       |          |      |      | Orig./Repl./L/Repl.y           |                     |
|       |          |      |      | SIEMENS                        |                     |
|       |          |      |      | SIMOSEC                        |                     |
|       |          |      |      | SIMOSEC-00766                  |                     |
|       |          |      |      | Arrangement diagram            |                     |
|       |          |      |      | 6                              |                     |
|       |          |      |      | Rated normal current           | 630 A               |
|       |          |      |      | Rated short-time withst. curr. | 16,0 kA (1 s)       |
|       |          |      |      | Operating voltage              | 20,0 kV             |
|       |          |      |      | Rated voltage                  | 24,0 kV             |
|       |          |      |      | Sh.No 01-                      | 1                   |
|       |          |      |      | B01                            |                     |

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