

# DRIESCHER

Low-voltage distribution

- series type 81, 84 and 86
- series type D 103
- according to EN 60439-1



# 6300A

**Moosburg • Eisleben**

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**DRIESCHER - Low-voltage distribution**

according to EN 60439-1

**Content**

- 3 General description
- 4 Type 81, open design for non-accesible compact substation
- 5 Type 84, steel sheet encapsulated design, space-saving
- 6 Type 86, steel sheet encapsulated design
- 7 Type 86-3519 NZM-403, steel sheet encapsulated design
- 8 Type 86-5019 NW-403, steel sheet encapsulated design
- 9 Type D103
- 10 Auxiliary equipment with digital indicating instruments of type 81,84 and 86
- 11 Low-voltage switches, distribution systems type 202, 301 and 403
- 12 Accessories for low-voltage distributions
- 13 Accessories
- 14 Custom-made models, remarks
- 15 Check-list for planning purposes
- 16 Agents in your country

## DRIESCHER - Low-voltage distribution

### Generals

- **Typ D 103** open type for non-accessible compact substations
- **Typ 81**, open type for non-accessible compact substations
- **Typ 84**, sheet steel-enclosed type, space-saving
- **Typ 86**, sheet steel-enclosed type for accessible substations

The following standard design consisting of standard mounting systems is available:

- **closed version, type 84/86**
- **open-framework design, type 81**

In accessible electrical operating areas low voltage systems in closed version (sheet steel-enclosed), type 84/86 ,are used (protection type: IP 2X).

Distribution systems in framework design (type 81) are preferentially used in non-accessible transformer substations and in closed electrical operating areas.

#### Special performance parameter:

DRIESCHER low voltage distribution systems are in compliance with the valid VDE regulations.

- tested according to DIN EN 60439-1
- reliable DRIESCHER long service life due to galvanized steel framework
- 4 weeks delivery at maximum due to flexible screwed modular system
- can be used in any combination due to modular system
- above the outgoing circuits there is additional space for the installation of measuring instruments and control units etc.
- all panels are delivered factory-mounted, wired and ready for connection
- the low voltage distributions and switchgears are completely factory-mounted and delivered ready for connection.
- maximal width of transport unit of completely mounted switchgears: approx. 2000mm switchgears of more than 2000 mm width are delivered in parts and have to be mounted only on site at the provided points
- for special use unequipped panels with mounting plates appropriate for the closed version are available on request
- sheet steel plate covers can be varnished in 5 standard colours (RAL 7032, 5012, 3000, 2002, 2004) .

The lateral and back covers are made out of galvanized sheet steel

- the removable covers are locked by means of a double bit key
- the reliable DRIESCHER distribution system, type 403, guarantees the best possible operational safety and reliability (according to brochure of the Trade Association "Safety for working on electrical systems")



Type 81



Type 84



Type 86

## DRIESCHER - Low-voltage distribution

## Type series 81

- **Type 81** (open design) for non-accessible compact sub-stations

Measuring in input or output panels can be realized as well with analog and digital built-in measuring instruments

The output panels are factory-designed in such a way that the outer outputs can be refitted (even later) with switches 630 A and this does not depend on the width of the panel.

Instead of a 400 A / 630 A output two distributions systems of 160 A can also be mounted.

On request back covers are also available.

For a free standing version fixing angles can be mounted on option.



#### Tecnical data:

|                          |       |            |
|--------------------------|-------|------------|
| Rated voltage            | $U_e$ | 690 V AC   |
| Rated insulation voltage | $U_i$ | 2,5 kV     |
| Rated current            | $I_e$ | 1000 A     |
| Protection type          |       | IP 20      |
| Class of protection      |       | 1 grounded |

#### Possible electrical fittings:

- outgoings with Driescher-distributionssystems type 403 according brochures 843/881

| Item | Part-no.  | number of outgoing electric circuit | a    | b    | L    |
|------|-----------|-------------------------------------|------|------|------|
| 1    | 881 12104 | 4 x 400 A / 2 x 630 A + 2 x 400 A   | 475  | 385  | 825  |
| 2    | 881 12106 | 6 x 400 A / 2 x 630 A + 4 x 400 A   | 675  | 585  | 1025 |
| 3    | 881 12108 | 8 x 400 A / 2 x 630 A + 6 x 400 A   | 875  | 785  | 1225 |
| 4    | 881 12110 | 10 x 400 A / 2 x 630 A + 8 x 400 A  | 1100 | 1010 | 1450 |
| 5    | 881 12112 | 12 x 400 A / 2 x 630 A + 10 x 400 A | 1300 | 1210 | 1650 |

## DRIESCHER - Low-voltage distribution

## Type series 84

- Type 84 (steel sheet encapsulated design) space saving



## Technical data:

|                          |       |            |
|--------------------------|-------|------------|
| Rated voltage            | $U_e$ | 690 V AC   |
| Rated insulation voltage | $U_i$ | 2,5 kV     |
| Rated current            | $I_e$ | 1600 A     |
| Protection type          |       | IP 2X      |
| Protection class         |       | 1 grounded |

## Possible electrical fittings:

- supply with compact circuit breaker NZM4 A, manufacturer: Moeller (from above)  
with analog I and U measuring
- outgoings in downward direction, with Driescher distribution systems, type 403 (page 12)

## DRIESCHER - Low-voltage distribution

## type series 86

- Type 86 sheet steel encapsulated design**

It is possible to have a combination of several input and output panels and retrofitting at any time.

The instrumental covers of the supply and outgoing panels are hinged up in upward direction, the front covers in front of the cable compartment are pluggable.

Measuring in input or output panels can be realized as well with analog and digital built-in measuring instruments.

single-pole and 3-pole measuring of the outgoing circuit is possible.

On request on top of the disconnector and the outgoing circuits additional mounting plates can be mounted for the assembly of low power outgoings. (i.e. street lightning)

The outgoing panels are factory-designed in the way that the outer outputs can be assembled with switches 630 A (even later) and this does not depend on the panel width.

Instead of an outgoing 400A two distribution systems of 160 A can be mounted.

On request back covers out of sheet steel for input and output panels are available.

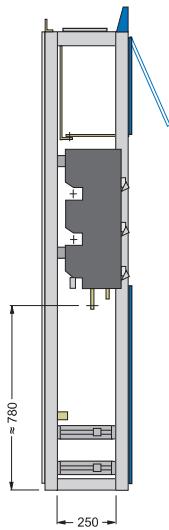
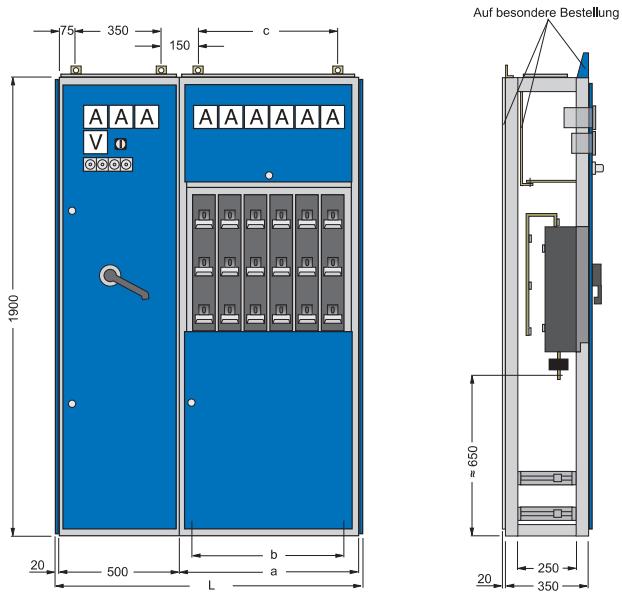
**Rated voltage**

**690 V AC**

**Rated current**

**400-1600 A**

(higher rated currents up to 6300 A, see page 9)

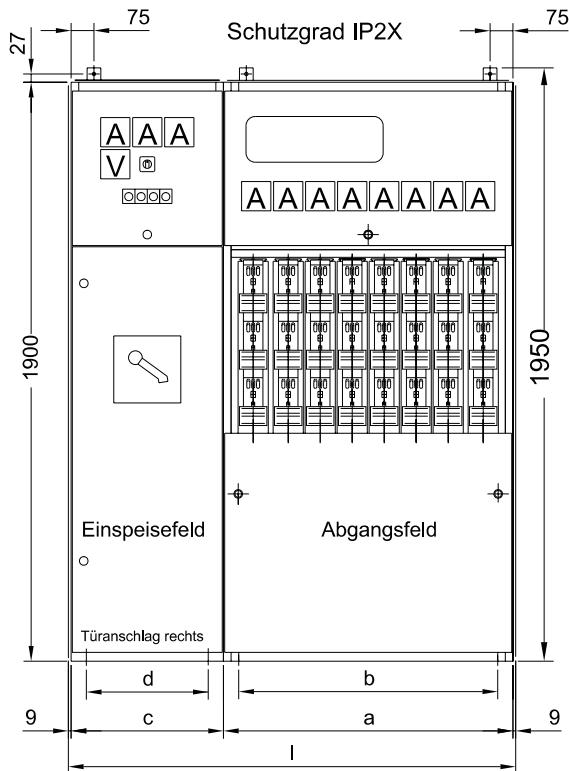


| Item | Part-No.  | number of outgoing electric circuit | a    | b    | c    | L    |
|------|-----------|-------------------------------------|------|------|------|------|
| 1    | 882 12104 | 4 x 400 A / 2 x 630 A + 2 x 400 A   | 525  | 425  | 375  | 1065 |
| 2    | 882 12106 | 6 x 400 A / 2 x 630 A + 4 x 400 A   | 725  | 625  | 575  | 1265 |
| 3    | 882 12108 | 8 x 400 A / 2 x 630 A + 6 x 400 A   | 950  | 850  | 800  | 1490 |
| 4    | 882 12110 | 10 x 400 A / 2 x 630 A + 8 x 400 A  | 1150 | 1050 | 1000 | 1690 |
| 5    | 882 12112 | 12 x 400 A / 2 x 630 A + 10 x 400 A | 1350 | 1250 | 1200 | 1890 |
| 6    | 882 12114 | 14 x 400 A / 2 x 630 A + 12 x 400 A | 1575 | 1475 | 1425 | 2115 |

## DRIESCHER - Low-voltage distribution

### type series 86

- Type 86-3519 NZM-403 sheet steel encapsulated design

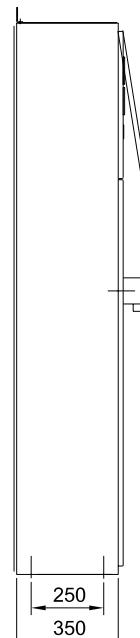


#### Tecnical data:

|                          |       |            |
|--------------------------|-------|------------|
| Rated voltage            | $U_e$ | 690 V AC   |
| Rated insulation voltage | $U_i$ | 2,5 kV     |
| Rated current            | $I_e$ | 400-1600 A |
| Protection type          |       | IP 2X      |
| Class of protection      |       | 1 grounded |

#### Possible electric fittings:

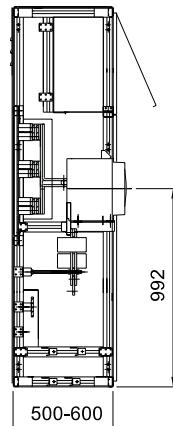
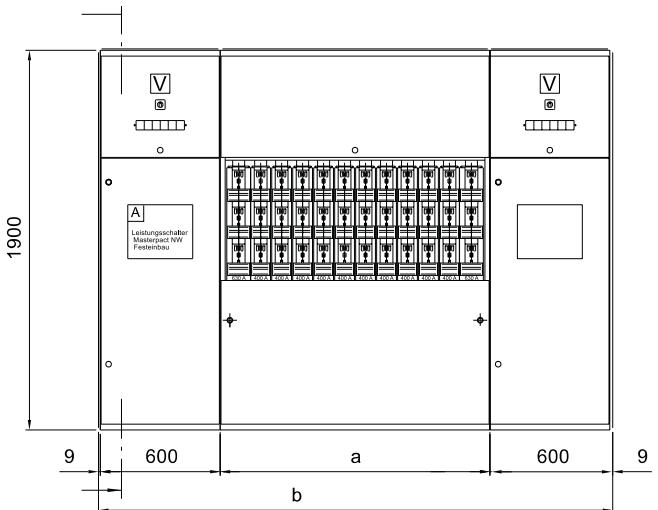
- supply with compact circuit breaker , type NZM, manufacturer: Moeller with analog current and voltage measuring (on request "multifunction unit")
- outgoing circuits with fuse switch disconnector systems, Type 403, manufacturer: Driescher (see page 12) relais space in outgoing panel with inspection window and street lightning set



## DRIESCHER - Low-voltage distribution

## type series 86

- Type 86-5019 NW-403 sheet steel encapsulated design



## Technical data:

|                          |       |            |
|--------------------------|-------|------------|
| Rated voltage            | $U_e$ | 690 V AC   |
| Rated insulation voltage | $U_i$ | 2,5 kV     |
| Rated current            | $I_e$ | bis 6300 A |
| Protection type          |       | IP 2X      |
| Class of protection      |       | 1 grounded |

## Possible electrical fittings:

- input (from top) with open circuit breaker, type NW, manufacturer: Schneider with digital current indicator system and indicator of utilisation of power system "micrologic" panel doors in input panel lockable with profile cylinder.
- outgoing circuits with fuse switch disconnector systems Type 403, manufactured by Driescher (see page 12)

## DRIESCHER - Low-voltage distribution

### type series D 103

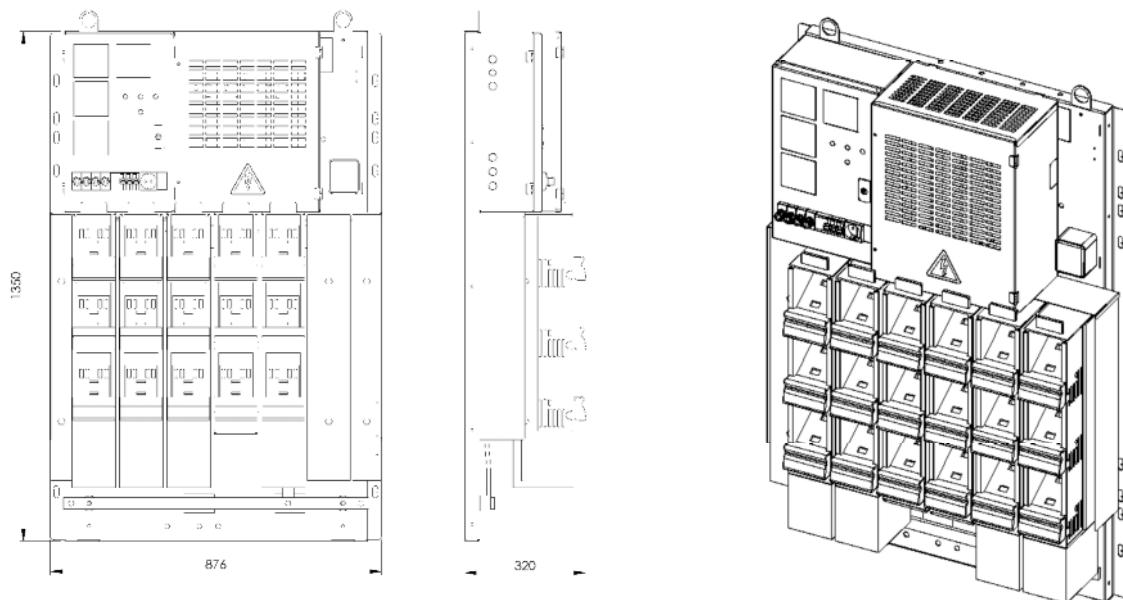
- Type D 103 open design

The low voltage system D 103 was designed within the M100 series as model especially for the application in accessible and non-accessible substations.

The basic conception of the system is a modular design consisting of a self-supporting basic plate made of sheet steel.

For the choice of material the latest state-of-the-art on leakage current according to Generic Standards (EN 50081) has been taken into consideration. For this the completely closed sheet steel rear panel offers best possibilities.

Furthermore, due to the best possible design of a moulded holding plate there is the possibility to mount an accounting cabinet directly on the distribution.



#### Tecnical data:

|                               |       |   |
|-------------------------------|-------|---|
| Rated voltage                 | $U_e$ | 400/690 V   |
| Rated insulation voltage      | $U_i$ | 2500 V  |
| Rated current                 | $I_e$ | 2500 A  |
| Rated short time current      |       | 46 kA   |
| Rated peak withstand current  |       | 80 kA   |
| Width:                        |       | 876 mm + 400 mm for additional panel on option          |
| Depth:                        |       | ~320mm, together with accounting cabinet 350mm in total |
| Hight:                        |       | 1350 mm (1565 mm with base feet)                        |
| Range of working temperature: |       | - 25°C up to + 40 °C                                    |
| Protection type: IP 10        |       |   |
| Class of protection 1 (TNC)   |       |   |

→ Brochure 883

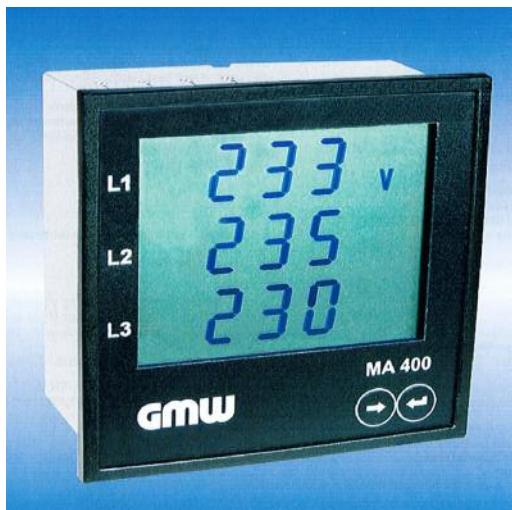
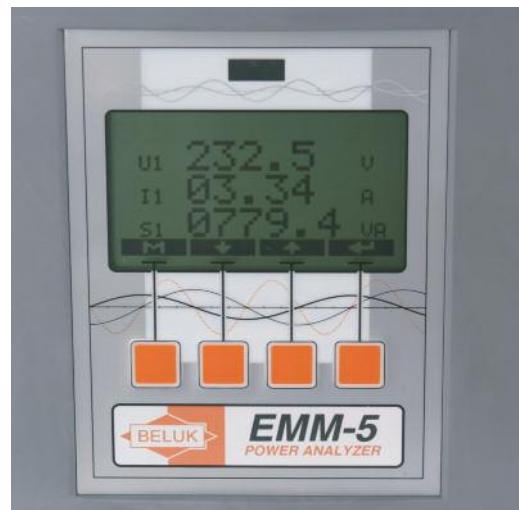
## Auxiliaries for low voltage distributions: Type 103 up to 86

### Digital multi purpose instrument, type EMM-5

- clear structure
- easy to handle
- lighted LCD-Display
- RS 485 interface Modbus (option)
- query by modem
- measuring values: U, I,  $I_{thmax}$ , f,  $\cos(\phi)$ , P,  $P_{thmax}$ , S, Q
- Counter:  $W_P$  imp,  $W_Q$  imp,  $W_P$  exp,  $W_Q$  exp
- 2 impulse outgoings for counter
- evaluating software

Selectable measuring values:

- voltage display, conductor-conductor and conductor-earth (+/- 1%)
- frequency display (+/- 0,1 Hz)
- current display L1 / L2 / L3 (+/- 1 %)
- thermic electricity load ( $I_{th}$ )
- effective power (P) and maximal power  $P_{max}$
- apparent power (S) and idle power (Q)
- power factor L1/L2/L3 (+/- 2%)
- active energy ( $W_P$ ) and reactive power demand ( $W_Q$ )
- 4-quadrants-operation



### Multi-function Power Meter, type MA 400, according to EN 61010-1:2001

- applicable for three and four conductor power systems
- measuring of :  $U_{PH-N}$  /  $U_{PH-PH}$ , / I,  $I_{Mittel}$  / S,  $S_{ges}$  / P,  $P_{ges}$  / Q,  $Q_{ges}$  /  $\cos(\phi)$  / power frequency  $f_{Netz}$
- two reconnectable measuring ranges for U & I  
U: 2V...100V...120V or 10V...500V...600V  
max. measuring range = 0...999 Volt  
I: 0,01A...1A...1,2A or 0,05A...5A...6A
- minimum and maximum storage for all measuring values
- continuous counter for active energy
- phase-sequence indicator
- universal AC power adapter for 85....265 V AC/DC
- Profibus DP or RS232
- elapsed hour meter

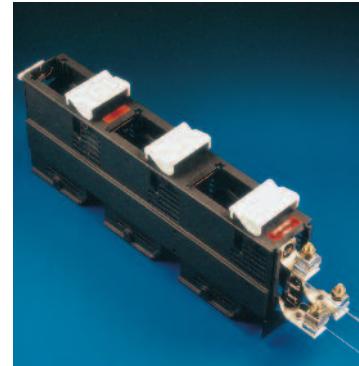
## DRIESCHER - Low-voltage distribution

### low-voltage distribution system 403 • protection against contact according VBG 4

#### Technical data • single-pole and 3-pole switchable, according to DIN VDE 0660

|   |                     |                     |
|---|---------------------|---------------------|
| Rated current   | 400 A               | 630 A               |
| Rated voltage VDE 0660                                  | 690 V AC            | 690 V AC            |
| Standard frequency ratings                              | 45 - 65 Hz          | 45 - 65 Hz          |
| Nominal insulation                                      | 2,5 kV              | 2,5 kV              |
| Impulse strength ( $U_{imp}$ )                          | 8,0 kV              | 8,0 kV              |
| 50 on/off switching operations with 500 V / cos phi 0,7 | 400 A               | 630 A               |
| 50 on/off switching operations with 500 V / cos phi 0,2 | 400 A               | 630 A               |
| Short circuit making operation with l.v.h.b.c. fuses    | 45 kA               | 67 kA               |
| Admissible ambient temperature                          | -20 °C up to +50 °C | -20 °C up to +50 °C |
| Protection type   | IP 2X               | IP 2X               |
| Leaking current   | 0,2 mA              | 0,2 mA              |
| Mechanical operating cycles                             | 5000                | 5000                |
| Electrical operating cycles                             | 500                 | 500                 |

For more detailed specifications refer to brochure 843.



Brochure 843

### low-voltage distribution system 301 • protection against contact according VBG 4

#### Technical data • single-pole and 3-pole switchable, according to DIN VDE 0660

|                                |                     |  |
|--------------------------------|---------------------|--|
| Rated current                  | 160 A               |  |
| Rated voltage VDE 0660         | 690 V AC            |  |
| Standard frequency ratings     | 45 - 65 Hz          |  |
| Admissible ambient temperature | -40 °C up to +50 °C |  |
| Protection type                | IP 2X               |  |
| Mechanical operating cycles    | 5000                |  |
| Electrical operating cycles    | 500                 |  |

For more detailed specifications refer to brochure 831.

Brochure 822



### low-voltage distribution system 202 • DIN 43623 form B

#### Technical data • open fuse strip according to IEC 60269 – DIN VDE 0636 part 21

|                                |            |            |
|--------------------------------|------------|------------|
| Rated current                  | 400 A      | 630 A      |
| Rated voltage VDE 0660         | 690 V AC   | 690 V AC   |
| Standard frequency ratings     | 45 - 65 Hz | 45 - 65 Hz |
| Nominal insulation             | 2,5 kV     | 2,5 kV     |
| Impulse strength ( $U_{imp}$ ) | 20 kV      | 20 kV      |

Admissible ambient temperature      -40 °C up to +55 °C      -40 °C up to +55 °C

Cable connection at the bottom/top by turning the strip by 180 degrees.

For more detailed specifications refer to brochure 822.

Brochure 822



## DRIESCHER - Low-voltage distribution

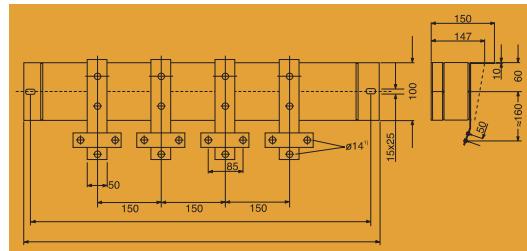
### Accessories for low-voltage distributions

#### Low voltage terminal block for transformer substations

Connection screws M12 x 40 with nut and spring washer and washer are part of the delivery

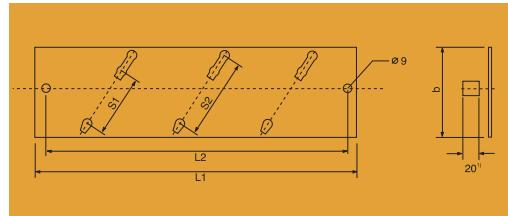
- for rated voltage 800 V

| Part-Nr.  | Weight in kg | for transformator max. | drawing-no. |
|-----------|--------------|------------------------|-------------|
| 773 90300 | 14,9         | 630 kVA                | HA4-21725   |
| 773 90230 | 23,5         | 1250 kVA               | HA4-69771/1 |
| 773 90232 | 34,0         | 2000 kVA               | HA4-69771/2 |



#### Supports for low voltage high-breaking-capacity fuses

- size 00 - 3 • b=90 mm, L2=305 mm, L1=330 mm, s1=65 mm, s2=47 mm  
part-no. 819 01002 weight 0,47 kg drawing-no. NH4-43631
- size 4 - 4a • b=110 mm, L2=410 mm, L1=440 mm, s1=87 mm, s2=65 mm  
part-no. 819 01004 weight 0,76 kg drawing-no. NH4-43632



#### Insulated wrench with articulated joint 1/2“ and inserts with wrench size SW 13 and SW 19 including a support for washer, washer spring and nut.

suitable for working on low voltage switchgears being under voltage, tested according to VDE/GS up to 1000 V

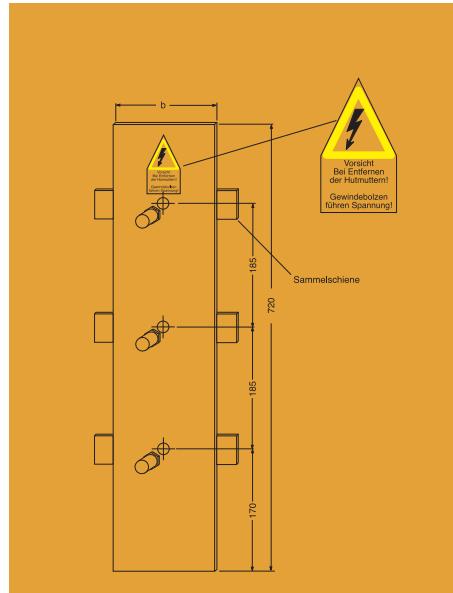
- Length 300 mm  
part-no. 840 31005 weight 1,50 kg drawing-no. NN4-97429



#### Busbar plate for distribution system 301 and 403

out of FRP • 2,5 mm , colour grey with cap nuts out of plastic

- for system 401      b=49 mm  
Teile-Nr. 840 30005 weight 0,10kg Drawing-no. NN4-36540
- for system 403/400 A      b=105 mm  
Teile-Nr. 840 30001 weight 0,29 kg Drawing-no. NN4-36540
- for system 403/630 A      b=125 mm  
Teile-Nr. 840 30002 weight 0,34 kg Drawing-no. NN4-36540
- for coupling circuits      b=45 mm  
Teile-Nr. 840 30003 weight 0,13 kg Drawing-no. NN4-36540



## DRIESCHER - Low-voltage distribution

### Accessories for low-voltage distributions

#### Earthing slide for distribution systems type 403

(without earthing unit) for commercial earthing units with 35 mm<sup>2</sup> and 50mm<sup>2</sup>

- for rated current 400 A

Part-no. 840 31031      Weight 0,42 kg      Drawing-no. NN4-29360

- for rated current 630 A

Part-no. 840 31032      Weight 0,50 kg      Drawing-no. NN4-29360



#### Earthing and short circuit set in steel plate case

consisting of:

- fully insulated earthing set 35mm<sup>2</sup>
  - 3 earthing slides 403
  - 3 earthing cartridges size OO
  - 3 earthing cartridges size 1 to 3
  - handle and earthing connector clamp
- Part No. 840 00000

[Brochure 843](#)

suitable for earthing and short-circuiting of distribution systems type 403 and fuse strips  
size 00 to 3



#### Working and protective covers for distribution systems Type 403

according to BGV A3 •

according to drawing NN4-39041 and NN 4-41231

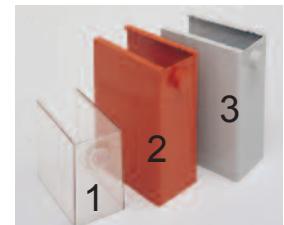


Fig. Application

|   |   | Color       | Rated current | Part-no.   | Hight | width | depth |
|---|---|-------------|---------------|------------|-------|-------|-------|
| 1 | Protective cover for systems with normal connection   | transparent | 400 A         | 453 21724  | 150   | 92    | 166   |
| 1 | Protective cover for systems with normal connection   | transparent | 630 A         | 453 35345  | 150   | 112   | 166   |
| 2 | Working cover for all connection types                | red         | 400 A         | 453 20703  | 253   | 101   | 167   |
| 2 | Working cover for all connection types                | red         | 630 A         | 453 35415  | 253   | 121   | 167   |
| 2 | Working cover for all connection types                | red         | 1000 A        | 453 35416  | 253   | 246   | 167   |
| 3 | Protective cover for systems with mounted transformer | grey        | 400 A         | 453 35525  | 253   | 101   | 167   |
| 3 | Protective cover for systems with mounted transformer | grey        | 630 A         | 453 35526  | 253   | 121   | 167   |
| 3 | Protective cover for systems with mounted transformer | grey        | 1000 A        | 453 35527  | 253   | 246   | 167   |
| 3 | Protective cover for systems with mounted transformer | grey        | 630 A         | 453 35945  | 350   | 121   | 167   |
| 3 | Protective cover for systems with mounted transformer | grey        | 1000 A        | 453 35597  | 350   | 246   | 167   |
| 1 | Protective cover for systems with mounted transformer | transparent | 1000 A        | 453 41231  | 350   | 247   | 217   |
| 1 | Protective cover for systems with mounted transformer | transparent | 800 A         | 453 65 417 | 350   | 207   | 217   |

## DRIESCHER - Low-voltage distribution

## Generals

- Custom remarks:



- Remarks

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## **Check list for planning of low voltage switchgears**

- (please cut off or copy and send it by fax to Elektrotechnische Werke Fritz Driescher & Söhne GmbH  
85366 Moosburg- Tel. 08761- 681-0, Fax 08762-681-137) •



## Adresser

Customer \_\_\_\_\_

Name \_\_\_\_\_ Name \_\_\_\_\_

Division \_\_\_\_\_

Streer \_\_\_\_\_

City Code \_\_\_\_\_ City \_\_\_\_\_

Tel. \_\_\_\_\_ Fax \_\_\_\_\_

Type of power system \_\_\_\_\_ Rated voltage \_\_\_\_\_ V

Transformer nominal power \_\_\_\_\_ kVA      Rated current busbar \_\_\_\_\_ A

|       |                              |  |                               |                               |
|-------|------------------------------|--|-------------------------------|-------------------------------|
| Type  | <input type="checkbox"/> G80 | <input type="checkbox"/> M100            | <input type="checkbox"/> S403 | standard door hingeing: right |
| Model | <input type="checkbox"/> D81 | <input type="checkbox"/> D103            | <input type="checkbox"/> D84  | standard color: RAL 7032      |
|       | <input type="checkbox"/> D86 | <input type="checkbox"/> with rear panel |                               |                               |

**Supply from**  above  below  
 Switch fuse combination \_\_\_\_\_ A, manufacturer: \_\_\_\_\_  3 poles  
 single pole

- Circuit breaker incl. standard adjustable tripping protection
- Rated current \_\_\_\_\_ A
- Fixed installation  withdrawable type
- hand-operated  motor-operated
- with open-circuit shunt release \_\_\_\_\_ V  with under voltage tripping \_\_\_\_\_ V
- with normal auxiliary switch  with tripping indication
- with leading auxiliary switch  with current/voltage measuring
- with analog indicator  with multi-purpose instruments,  
manufact.: \_\_\_\_\_

**Outgoing feeder:** towards:  above  below  door in front of the outgoing circuits

with inspection window in cover

with mounting plate in the instrumental compartment (above the outgoing circuits)

switch fuse  distribution systems NH3  403, manuf.: Driescher  strip/manuf.

switch fuse  distribution systems NH2  403, manuf.: Driescher  strip/manuf.

switch fuse  distribution systems NH1  403, manuf.: Driescher  strip/manuf.

switch fuse □ distribution systems NH00 □ 403 manuf : Driescher □ strip/manuf

spare places NH3      spare places NH2      spare places NH00

outgoing circuits, single pole or  3-pole switchable

outgoing circuit with connection screws M12x35mm

- outgoing circuit with connection screws M12x0.5mm
- outgoing circuit with V connection clamps from 50 to

outgoing circuit with direct connection clamps from 50 to 185 mm - sc(150mm - sm)

- outgoing circuit with direct connection clamps from 50 to 165 mm<sub>se</sub>(150mm<sub>sh</sub>)
- outgoing measuring, single pole or  3 pole

outgoing measuring, single pole or  5-pole

[Further options](#) 

### Agents in Germany (00 49) :

|                                   |   |
|-----------------------------------|---|
| Berlin                            | Büro Dresden<br>Michael Böhm<br>Hallstätter Straße 12a<br>01279 Dresden<br>Tel. (03 51) 2 50 24 29<br>Fax (03 51) 2 50 24 38<br>Mobil (01 60) 96 00 62 96<br>michael.boehm@driescher.de                     |
| Eisleben                          | DRIESCHER GMBH EISLEBEN<br>Hallesche Straße 94<br>06295 Eisleben<br>Tel. (0 34 75) 7 25 50<br>Fax (0 34 75) 72 55-1 09<br>infoservice@driescher-eisleben.de   |
| Schkeuditz                        | Büro Schkeuditz<br>Norbert Essmann<br>Am Storchennest 10<br>04435 Schkeuditz<br>Tel. (03 42 04) 38 96 08<br>Fax (03 42 04) 3 75 94<br>Mobil (01 71) 4 53 43 26<br>norbert.essmann@driescher.de              |
| Dohren                            | Büro Dohren<br>Horst Häring<br>Waldstr. 14<br>49770 Dohren<br>Tel. (0 59 62) 80 98-35<br>Fax. (0 59 62) 80 98-36<br>Mobil (01 72) 7 81 48 52<br>horst.haering@driescher.de                                  |
| Frankfurt                         | Ingenieur-Büro<br>Pfeffer GmbH<br>Industrievertrittungen<br>Carl-Benz-Straße 13<br>63322 Rödermark<br>Tel. (0 60 74) 8 75 90<br>Fax (0 60 74) 8 75 96 9<br>webmaster@ipi-online.de                          |
| Altenstadt<br>(Bayern-Nord)       | Büro Altenstadt<br>Bernhard Scheucher<br>Hohenfurcher Str. 19a<br>86972 Altenstadt<br>Tel. (0 88 61) 9 33 62 90<br>Fax (0 88 61) 9 33 62 89<br>Mobil (01 51) 14 13 07 73<br>bernhard.scheucher@driescher.de |
| München<br>(Bayern-Süd)           | Ingenieurbüro<br>S. Biebl<br>Rosenheimer Straße 14<br>85653 Aying-Großhelfendorf<br>Tel. (0 80 95) 87 24 0<br>Fax (0 80 95) 87 24 24<br>info@ib-biebl.de  |
| Bernbeuren<br>(Baden-Württemberg) | Büro Lechbrück<br>Ernst Weindl<br>Schornfeld 2<br>86975 Bernbeuren<br>Tel. (0 88 60) 9 22 94 69<br>Fax (0 88 60) 9 22 72 45<br>Mobil (01 72) 9 99 98 76<br>ernst.weindl@driescher.de                        |

### Agents in Austria (0043) :

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| Maria Enzersdorf | Büro Maria Enzersdorf<br>Peter Havlicek<br>Kaiserin-Elisabeth-Str. 5/RH2<br>A-2344 Maria Enzersdorf<br>Mobil 664 1 342 524<br>peter.havlicek@driescher.de |
| Ansfelden        | TRASTEC GmbH<br>Karl Kührer<br>Gschaidstr. 17<br>A-4052 Ansfelden<br>Tel. 72 29 8 31 71<br>Fax 72 29 7 83 40<br>karl.kührer@kührer.at                     |

### Agents in Switzerland (0041) :

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| Villmergen | Cellpack Power Systems AG<br>Schützenhausstraße 2<br>CH-5612 Villmergen<br>Tel. (0 56) 6 18 18 18<br>Fax (0 56) 6 19 88 04<br>power.systems@cellpack.ch |
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### Agents in Turkey (0090) :

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| Istanbul | Inter-Teknik<br>Elektrik Ticaret ve Sanayi LTD. STI. IST.<br>Rihtim Caddesi Fatih Ishani 33/10<br>34425 Karaköy-Istanbul<br>Tel. (212) 2 49 84 58<br>Fax (212) 2 51 61 45<br>www.inter-teknik.com.tr |
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### Agents in China (0086) :

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| Xi'an | Xi'an Driescher Energy Solutions Co. Ltd.<br>Room 10301 on the Third Floor of the<br>2 <sup>nd</sup> Building<br>No.12, Block A, Pioneering Park,<br>No. 69, Jinye Road,<br>Industries Development Zone,<br>710077 Xi'an, P.R. China<br>Tel. (00 86) 29 68 59 05 30<br>Fax (00 86) 29 68 59 05 29<br>info@xadriescher.com<br>www.xadriescher.com |
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### Agents in the Czech Republic (0042) :

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| Zichovice | DRIESCHER S.R.O.<br>CZ-34162 Zichovice 198<br>Tel. (03 76) 59 63 22<br>Fax (03 76) 59 65 42<br>drizich@ipnet.cz        |
| Brno      | DRIBO SPOL. S.R.O.<br>Prazakova 36<br>CZ-61900 Brno<br>Tel. (05) 43 32 11 11<br>Fax (05) 43 21 66 19<br>dribo@dribo.cz |

### Agents in the Slovak Republic (00421) :

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| Stara Tura | DRIBO STARA TURA S.R.O.<br>Husitska 2<br>SK-11601 Stara Tura<br>Tel. (08 34) 76 37 22<br>Fax (08 34) 76 24 59 |
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### Agents in the USA (001) :

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| Detroit | Park Power Distribution System<br>19197 Sherwood Ave.<br>Detroit, Michigan 48234-2880<br>Tel. (3 13) 3 66 22 00<br>Fax (3 13) 3 66 15 40<br>park.det@ix.netcom.com |
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### Agents in Sweden (0046) :

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| Norrköping | AB GEVEA<br>Box 12043<br>60012 Norrköping<br>Tel. +46 11 18 48 00<br>Fax +46 11 18 23 50<br>info@gevea.se<br>www.gevea.se |
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### Agents in Romania (0040) :

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| Sibiu | GENERAL MANAGEMENT<br>srl SIBIU<br>Mircea Opincariu<br>Fratii Grachi 5,<br>550282 Sibiu<br>Tel. +40 2 69 21 13 51<br>Fax +40 2 69 23 22 25<br>www.general-management.ro |
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### Agents in Australia (0061) :

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