

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

D445-2DP/PN

SIMOTION D445-2 DP/PN CONTROL UNIT

Used with the applicable SIMOTION D4x5-2 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official documentation applicable to D445-2DP/PN

2.6 Representation of SIMOTION D445-2 DP/PN and D455-2 DP/PN

The following figure shows the SIMOTION D445-2 and D455-2 with its interfaces and front panel elements (fault and status displays).

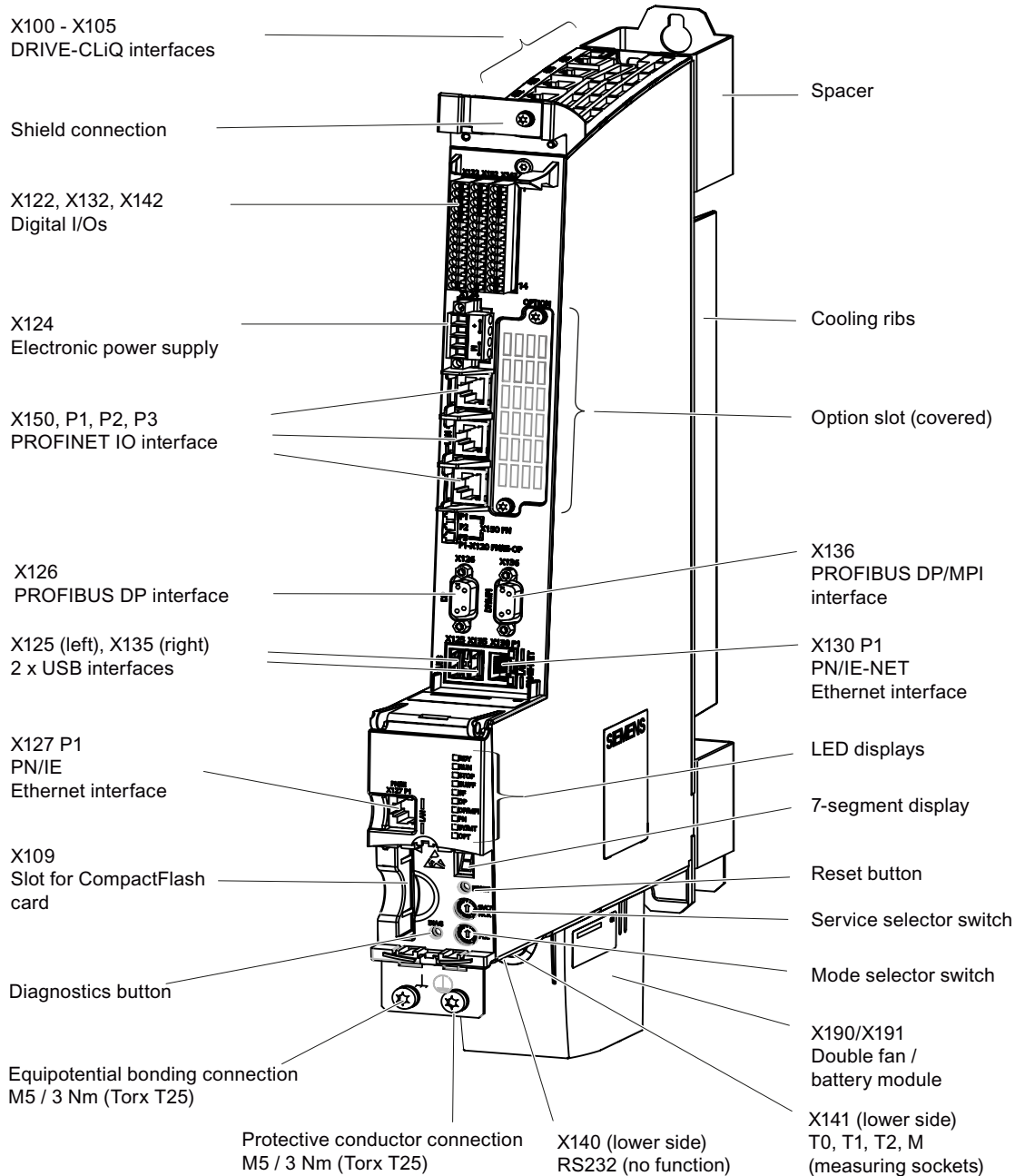


Figure 2-4 View of D445-2 DP/PN and D455-2 DP/PN

2.6 Representation of SIMOTION D445-2 DP/PN and D455-2 DP/PN

Note

SIMOTION D445-2 DP/PN and D455-2 DP/PN must be operated with a double fan / battery module for heat dissipation. Without this module, the Control Units will not start up and cannot be commissioned.

Information on how to install the double fan/battery module can be found in "Supplementary system components", in Section Installing the fan/battery module (Page 108).

Note

With the D445-2 DP/PN and D455-2 DP/PN, the spacers can only be removed with the "external air cooling" installation method. In this installation method, the cooling fins are inserted through a cutout in the rear cabinet panel.

For further details, see the *SIMOTION D4x5-2* Commissioning and Hardware Installation Manual.

5.3 Dimensions and weights

Dimensions and weights

Table 5-3 Dimensions and weight of a SIMOTION D4x5-2

Parameter	D425-2 DP D425-2 DP/PN D435-2 DP D435-2 DP/PN	D445-2 DP/PN D455-2 DP/PN
Dimensions W x H x D [mm]		
<ul style="list-style-type: none"> Without fastening using spacers, without fan/battery module 	50 x 380 x 230	50 x 380 x 230
<ul style="list-style-type: none"> With fastening using spacers, without fan/battery module 	50 x 380 x 270	50 x 380 x 270
Weight [g]		
- Without packaging	Approx. 3.7 kg	Approx. 4.3 kg
- With packaging	Approx. 4.5 kg	Approx. 5.0 kg

Note

The spacers can be removed for D425-2 and D435-2.

D425-2 and D435-2 do not have any cooling fins.

The presence of cooling fins for D445-2 DP/PN and D455-2 DP/PN means the spacers can be removed only for the "external cooling" installation type. In this installation method, the cooling fins are inserted through a cutout in the rear cabinet panel.

For further details, see the *SIMOTION D4x5-2* Commissioning and Hardware Installation Manual.

5.4 Power supply

External 24 V power supply

The control unit is supplied by an external 24 V power supply (e.g. SITOP).

The tolerance range for the input voltage of the SIMOTION D4x5-2 is between 20.4 and 28.8 VDC.

Table 5-4 Power supply data

	D425-2 DP D435-2 DP	D425-2 DP/PN D435-2 DP/PN	D445-2 DP/PN D455-2 DP/PN
Power supply	Safety extra-low voltage DVC A (PELV)		
• Rated value	24 VDC		
• Permissible range	(20.4 ... 28.8 V)		
Current consumption, typically ¹⁾	0.7 A	1.0 A	1.9 A
Starting current, typically ¹⁾	5 A	5 A	5 A
Power loss, typically ¹⁾	17 W	24 W	46 W

¹⁾ With no load on inputs/outputs, no 24 V supply via DRIVE-CLiQ and PROFIBUS interfaces

Table 5-5 Input voltage specification

Input voltage	D4x5-2
Minimum input voltage	20.4 V
Nominal input voltage	24 V
Maximum input voltage	28.8 V

Table 5-6 Specification of the input current - typical current consumption

	Typical current consumption ¹⁾		
Device type	D425-2 DP D435-2 DP	D425-2 DP/PN D435-2 DP/PN	D445-2 DP/PN D455-2 DP/PN
Minimum input voltage	0.8 A	1.2 A	2.24 A
Nominal input voltage	0.7 A	1.0 A	1.9 A
Maximum input voltage	0.6 A	0.8 A	1.58 A

¹⁾ With no load on inputs/outputs and no 24 V supply via DRIVE-CLiQ or PROFIBUS interface

6.2 D445-2 DP/PN and D455-2 DP/PN dimension drawing

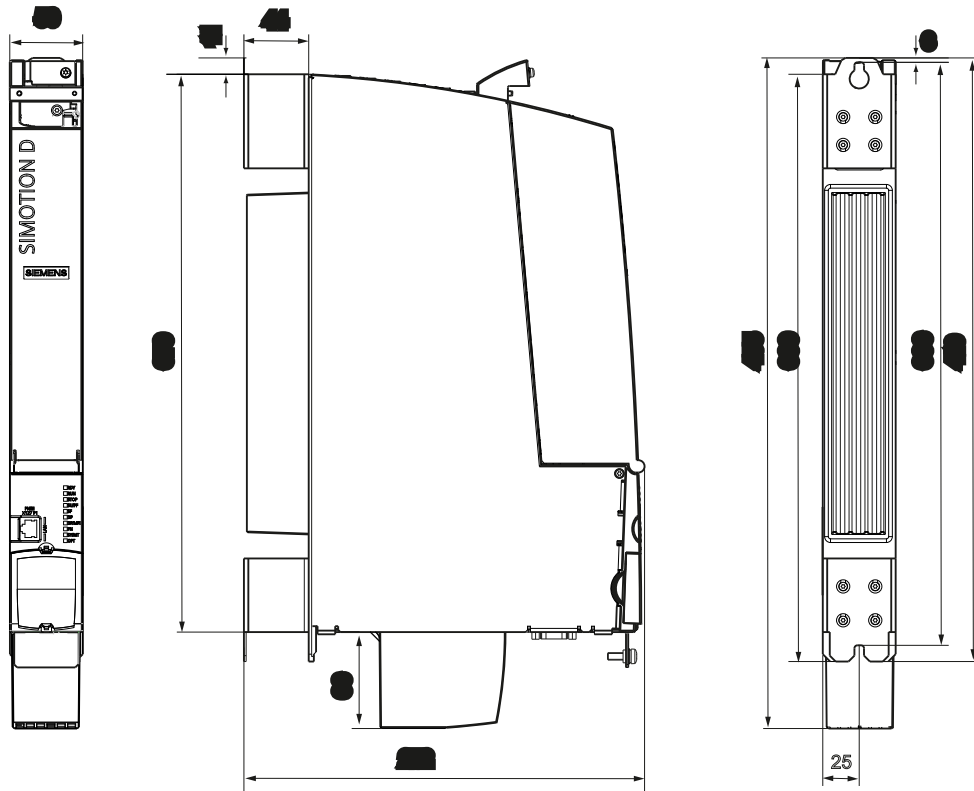


Figure 6-2 D445-2 DP/PN and D455-2 DP/PN dimension drawing

SIMOTION D445-2 DP/PN and D455-2 DP/PN must always be operated with a double fan / battery module.

NOTICE

Higher operating temperature if ventilation clearances are too small

The 80 mm clearances above and below the components must be observed.

The unit protects itself from overheating by shutting down.

The ventilation clearance is measured from the lower edge of the module, i.e. the fan/battery module is not included in the dimension.