

# Power distribution blocks PDB

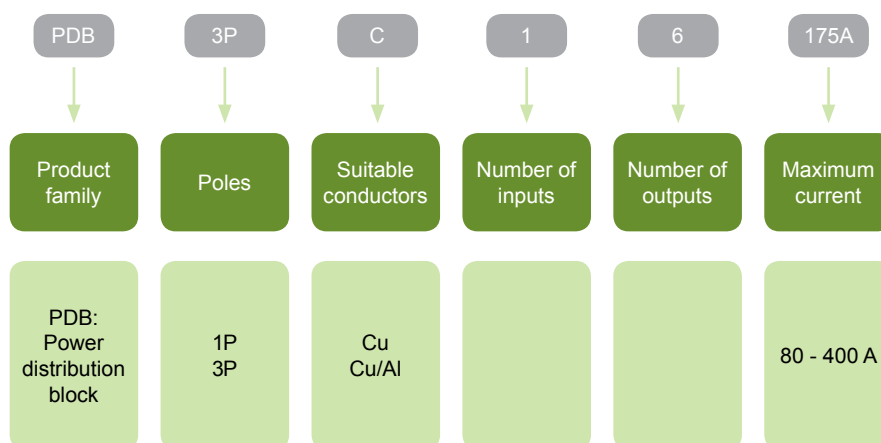


- Power distribution blocks
- Meets requirements of EN 60947-7-1
- Versions suitable for Cu or Cu/Al conductors
- Maximum current  $I_{max}$  up to 400 A
- Various combinations of outputs and inputs
- Mounting onto 35 mm DIN rail or onto panel

Power distribution blocks are used for saving time and space on distribution board wiring. You can save up to 80% of used space.

Due to modular construction it is possible to interconnect the power distribution blocks together and create multipole combinations.

## Type Key



## Certification marks

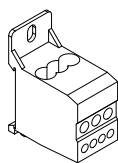


# Power distribution blocks PDB

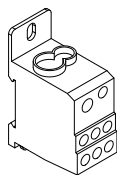
## 1-pole versions

- Suitable for copper (Cu) or copper/aluminium (Cu/Al) conductors - Al connections are not maintenance free
- Mounting onto DIN-rail or onto panel
- Rigid cables assumed for maximum currents and maximum connection cable cross sections

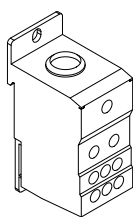
Maximum current (Cu/Al)	Inputs	Outputs	Suitable for	Article No.	Type	Packing
80 A	1x 2.5 - 16 mm <sup>2</sup>	4x 2.5 - 6 mm <sup>2</sup> 2x 2.5 - 16 mm <sup>2</sup>	Cu	103778	PDB 1P CU 1x4+2 80A	1/25
125 A	1x 10 - 35 mm <sup>2</sup> + 1x 2.5 - 16 mm <sup>2</sup>	6x 2.5 - 16 mm <sup>2</sup>	Cu	103780	PDB 1P CU 1+1x6 125A	1/25
160 A	1x 10 - 70 mm <sup>2</sup>	6x 2.5 - 16 mm <sup>2</sup>	Cu	103782	PDB 1P CU 1x6 160A	1/20
250 A	1x 35 - 120 mm <sup>2</sup>	2x 6 - 35 mm <sup>2</sup> +5x 1.5 - 16 mm <sup>2</sup> +4x 1.5 - 10 mm <sup>2</sup>	Cu	103784	PDB 1P CU 1x2+5+4 250A	1/20
400 A	1x 95 - 185 mm <sup>2</sup>	2x 6 - 35 mm <sup>2</sup> +5x 1.5 - 16 mm <sup>2</sup> +4x 1.5 - 10 mm <sup>2</sup>	Cu	103786	PDB 1P CU 1x2+5+4 400A	1/20
80/63 A	1x 2.5 - 16 mm <sup>2</sup>	4x 2.5 - 6 mm <sup>2</sup> +2x 2.5 - 16 mm <sup>2</sup>	Cu/Al	103779	PDB 1P CU/AL 1x4+2 80/63A	1/25
125/100 A	1x 10 - 35 mm <sup>2</sup> + 1x 2.5 - 16 mm <sup>2</sup>	6x 2.5 - 16 mm <sup>2</sup>	Cu/Al	103781	PDB 1P CU/AL 1+1x6 125/100A	1/25
160/125 A	1x 10 - 70 mm <sup>2</sup>	6x 2.5 - 16 mm <sup>2</sup>	Cu/Al	103783	PDB 1P CU/AL 1x6 160/125A	1/20
250/200 A	1x 35 - 120 mm <sup>2</sup>	2x 6 - 35 mm <sup>2</sup> +5x 1.5 - 16 mm <sup>2</sup> +4x 1.5 - 10 mm <sup>2</sup>	Cu/Al	103785	PDB 1P CU/AL 1x2+5+4 250/200A	1/20
400/300 A	1x 95 - 185 mm <sup>2</sup>	2x 6 - 35 mm <sup>2</sup> +5x 1.5 - 16 mm <sup>2</sup> +4x 1.5 - 10 mm <sup>2</sup>	Cu/Al	103787	PDB 1P CU/AL 1x2+5+4 400/300A	1/20



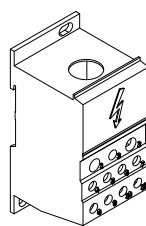
103778  
103779



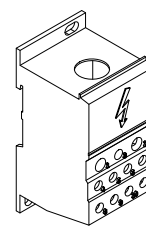
103780  
103781



103782  
103783



103784  
103785



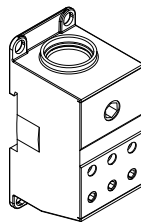
103786  
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# Power distribution blocks PDB

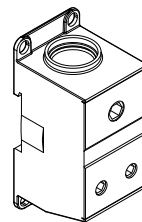
## 1-pole versions

- Suitable for copper (Cu) or copper/aluminium (Cu/Al) conductors - Al connections are not maintenance free
- Mounting onto DIN-rail or onto panel
- Rigid cables assumed for maximum currents and maximum connection cable cross sections

Maximum current (Cu/Al)	Inputs	Outputs	Suitable for	Article No.	Type	Packing
400 A	1x 95 - 240 mm <sup>2</sup>	6x 10 - 50 mm <sup>2</sup>	Cu	105509	PDB 1P CU 1x6 400A	1/10
400 A	1x 95 - 240 mm <sup>2</sup>	2x 50 - 120 mm <sup>2</sup>	Cu	105510	PDB 1P CU 1x2 400A	1/10
400/350 A	1x 95 - 240 mm <sup>2</sup>	6x 10 - 50 mm <sup>2</sup>	Cu/Al	103795	PDB 1P CU/AL 1x6 400/350A	1/10
400/350 A	1x 95 - 240 mm <sup>2</sup>	2x 50 - 120 mm <sup>2</sup>	Cu/Al	103796	PDB 1P CU/AL 1x2 400/350A	1/10



103795



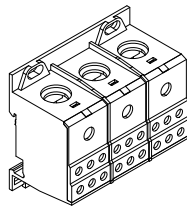
103796

# Power distribution blocks PDB

## 3-pole versions

- Suitable for copper (Cu) or copper/aluminium (Cu/Al) conductors - Al connections are not maintenance free
- Mounting onto DIN-rail or onto panel
- Rigid cables assumed for maximum currents and maximum connection cable cross sections

Maximum current (Cu/Al)	Inputs	Outputs	Suitable for	Article No.	Type	Packing
175 A	1x 16 - 70 mm <sup>2</sup>	6x 2.5 - 16 mm <sup>2</sup>	Cu	103788	PDB 3P CU 1x6 175A	1/10
175/125 A	1x 16 - 70 mm <sup>2</sup>	6x 2.5 - 16 mm <sup>2</sup>	Cu/Al	103789	PDB 3P CU/AL 1x6 175/125A	1/10



103788  
103789

# Technical Data PDB

## Power distribution blocks PDB - 1-pole versions

### General parameters

Versions suitable for Cu conductors

Mounting possible onto DIN rail or onto panel

### Electrical parameters

Type suitable for Cu conductors Cu/Al conductors	103778	103780	103782	103784	103786
Tested according to	EN 60947-7-1				
Maximum current $I_{max}$ with rigid cable of maximum cross section	80 A	125 A	160 A	250 A	400 A
Conventional thermal current $I_{th}$	80 A	125 A	160 A	250 A	400 A
Maximum operating voltage $U_{max}$	1000 V AC / 1500 V DC				
Short circuit withstand peak current $I_{pk}$ 1s current $I_{cw}$	2.7 kA 1.9 kA	30 kA 4.2 kA	30 kA 11 kA	51 kA 21 kA	51 kA 21 kA
Comparative tracking index	600 V				
Interconnection	-	possible with Cu 15x5	possible with Cu 15x5	-	-
Pollution degree	2				
Rated impulse withstand voltage $U_{imp}$	4 kV				
Other parameters	according to EN 60947-7-1				

### Mechanical parameters

Height	66 mm	74 mm	92 mm	95.5 mm	95.5 mm
Width	27 mm	27 mm	35 mm	44.5 mm	44.5 mm
Depth	47 mm	47 mm	49 mm	49 mm	49 mm
Mounting	Onto 35 mm device DIN rail or onto panel				
Rated cross section of input terminal connection conductors	16 mm <sup>2</sup>	35 mm <sup>2</sup> + 16 mm <sup>2</sup>	50 mm <sup>2</sup>	95 mm <sup>2</sup>	150 mm <sup>2</sup>
Input terminals capacity for $I_n$ (rigid cable)	1x 2.5-16 mm <sup>2</sup>	1x 10-35 mm <sup>2</sup> + 1x 2.5-16 mm <sup>2</sup>	1x 10-70 mm <sup>2</sup>	1x 35-120 mm <sup>2</sup>	1x 95-185 mm <sup>2</sup>
Fastening torque of input terminals	1.5-3 Nm	3.5-5 Nm 1.5-3 Nm	5-6 Nm	19-21 Nm	25 Nm
Rated cross section of output terminal connection conductors	16 mm <sup>2</sup> + 6 mm <sup>2</sup>	16 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup> + 16 mm <sup>2</sup> + 10 mm <sup>2</sup>	25 mm <sup>2</sup> + 16 mm <sup>2</sup> + 10 mm <sup>2</sup>
Output terminals capacity for $I_n$ (rigid cables)	2x 2.5-16 mm <sup>2</sup> + 4x 2.5-6 mm <sup>2</sup>	6x 2.5-16 mm <sup>2</sup>	6x 2.5-16 mm <sup>2</sup>	2x 6-35 mm <sup>2</sup> + 5x 1.5-16 mm <sup>2</sup> + 4x 1.5-10 mm <sup>2</sup>	2x 6-35 mm <sup>2</sup> + 5x 1.5-16 mm <sup>2</sup> + 4x 1.5-10 mm <sup>2</sup>
Fastening torque of output terminals	2x 1.5-3 Nm 4x 0.8-1.5 Nm	2-3 Nm	1.5-3 Nm	2x 3.5-7 Nm 5x 2-3 Nm 4x 2-3 Nm	2x 3.5-7 Nm 5x 2-3 Nm 4x 2-3 Nm
Heat deflection temperature	100°C (UL94-V0)				
Degree of protection	IP20				
Weight	0.062 kg	0.136 kg	0.246 kg	0.434 kg	0.410 kg

# Technical Data PDB

## Power distribution blocks PDB - 1-pole versions

### General parameters

Versions suitable for Cu or Cu/Al conductors - Al connections are not maintenance free

Mounting possible onto DIN rail or onto panel

### Electrical parameters

Type suitable for Cu conductors Cu/Al conductors	- <b>103779</b>	- <b>103781</b>	- <b>103783</b>	- <b>103785</b>	- <b>103787</b>
Tested according to	EN 60947-7-1				
Maximum current $I_{max}$ (Cu/Al) with rigid cable of maximum cross section	80 / 63 A	125 / 100 A	160 / 125 A	250 / 200 A	400 / 300 A
Conventional thermal current $I_{th}$ (Cu/Al)	80 / 63 A	125 / 100 A	160 / 125 A	250 / 200 A	400 / 300 A
Maximum operating voltage $U_{max}$	1000 V AC / 1500 V DC				
Short circuit withstand peak current $I_{pk}$ 1s current $I_{cw}$	2.7 kA 1.9 kA	30 kA 4.2 kA	30 kA 11 kA	51 kA 21 kA	51 kA 21 kA
Comparative tracking index	600 V				
Interconnection	-	possible with Cu 15x5	possible with Cu 15x5	-	-
Pollution degree	2				
Rated impulse withstand voltage $U_{imp}$	4 kV				
Other parameters	according to EN 60947-7-1				

### Mechanical parameters

Height	66 mm	74 mm	92 mm	95.5 mm	95.5 mm
Width	27 mm	27 mm	35 mm	44.5 mm	44.5 mm
Depth	47 mm	47 mm	49 mm	49 mm	49 mm
Mounting	Onto 35 mm device DIN rail or onto panel				
Rated cross section of input terminal connection conductors	16 mm <sup>2</sup>	35 mm <sup>2</sup> + 16 mm <sup>2</sup>	50 mm <sup>2</sup>	95 mm <sup>2</sup>	150 mm <sup>2</sup>
Input terminals capacity for $I_n$ (rigid cable)	1x 2.5-16 mm <sup>2</sup>	1x 10-35 mm <sup>2</sup> + 1x 2.5-16 mm <sup>2</sup>	1x 10-70 mm <sup>2</sup>	1x 35-120 mm <sup>2</sup>	1x 95-185 mm <sup>2</sup>
Fastening torque of input terminals	1.5-3 Nm	3.5-5 Nm 1.5-3 Nm	5-6 Nm	19-21 Nm	25 Nm
Rated cross section of output terminal connection conductors	16 mm <sup>2</sup> + 6 mm <sup>2</sup>	16 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup> + 16 mm <sup>2</sup> + 10 mm <sup>2</sup>	25 mm <sup>2</sup> + 16 mm <sup>2</sup> + 10 mm <sup>2</sup>
Output terminals capacity for $I_n$ (rigid cables)	2x 2.5-16 mm <sup>2</sup> + 4x 2.5-6 mm <sup>2</sup>	6x 2.5-16 mm <sup>2</sup>	6x 2.5-16 mm <sup>2</sup>	2x 6-35 mm <sup>2</sup> + 5x 1.5-16 mm <sup>2</sup> + 4x 1.5-10 mm <sup>2</sup>	2x 6-35 mm <sup>2</sup> + 5x 1.5-16 mm <sup>2</sup> + 4x 1.5-10 mm <sup>2</sup>
Fastening torque of output terminals	2x 1.5-3 Nm 4x 0.8-1.5 Nm	2-3 Nm	1.5-3 Nm	2x 3.5-7 Nm 5x 2-3 Nm 4x 2-3 Nm	2x 3.5-7 Nm 5x 2-3 Nm 4x 2-3 Nm
Heat deflection temperature	100°C (UL94-V0)				
Degree of protection	IP20				
Weight	0.062 kg	0.136 kg	0.246 kg	0.434 kg	0.410 kg

# Technical Data PDB

## Power distribution blocks PDB - 1-pole versions

### General parameters

Versions suitable for Cu or Cu/Al conductors - Al connections are not maintenance free

Mounting possible onto DIN rail or onto panel

### Electrical parameters

Type suitable for	105509	105510	-	-
Cu conductors	-	-	-	-
Cu/Al conductors	-	-	<b>103795</b>	<b>103796</b>
Tested according to	EN 60947-7-1			
Maximum current $I_{max}$ (Cu/Al) with rigid cable/bar of max. cross section	400 A / -	400 A / -	400 / 350 A	400 / 350 A
Conventional thermal current $I_{th}$ (Cu/Al)	400 A / -	400 A / -	400 / 350 A	400 / 350 A
Maximum operating voltage $U_{max}$	1000 V AC / 1500 V DC			
Short circuit withstand peak current $I_{pk}$ 1s current $I_{cw}$	50 kA 21 kA	50 kA 21 kA	50 kA 21 kA	50 kA 21 kA
Comparative tracking index	600 V			
Interconnection	-	-	-	-
Pollution degree	2			
Rated impulse withstand voltage $U_{imp}$	4 kV			
Other parameters	according to EN 60947-7-1			

### Mechanical parameters

Height	103 mm	103 mm	103 mm	103 mm
Width	45 mm	45 mm	45 mm	45 mm
Depth	50.2 mm	50.2 mm	50.2 mm	50.2 mm
Mounting	Onto 35 mm device DIN rail or onto panel			
Rated cross section of input terminal connection conductors	185 mm <sup>2</sup>	185 mm <sup>2</sup>	185 mm <sup>2</sup>	185 mm <sup>2</sup>
Input terminals capacity for $I_n$ (rigid cable)	1x single/multi wire 95 - 240 mm <sup>2</sup>	1x single/multi wire 95 - 240 mm <sup>2</sup>	1x single/multi wire 95 - 240 mm <sup>2</sup>	1x single/multi wire 95 - 240 mm <sup>2</sup>
Other input connection possibilities with reduced current with respect to actual cable cross section	fine wire (with sleeve) 70 - 185 mm <sup>2</sup>	fine wire (with sleeve) 70 - 185 mm <sup>2</sup>	fine wire (with sleeve) 70 - 185 mm <sup>2</sup>	fine wire (with sleeve) 70 - 185 mm <sup>2</sup>
Fastening torque of input terminals	25 Nm	25 Nm	25 Nm	25 Nm
Rated cross section of output terminal connection conductors	35 mm <sup>2</sup>	95 mm <sup>2</sup>	35 mm <sup>2</sup>	95 mm <sup>2</sup>
Output terminals capacity for $I_n$ (rigid cables)	6x single/multi wire 10-50 mm <sup>2</sup>	2x single/multi wire 50-120 mm <sup>2</sup>	6x single/multi wire 10-50 mm <sup>2</sup>	2x single/multi wire 50-120 mm <sup>2</sup>
Other output connection possibilities with reduced current with respect to actual cable cross section	fine wire (with sleeve) 6-35 mm <sup>2</sup>	fine wire (with sleeve) 35-95 mm <sup>2</sup>	fine wire (with sleeve) 6-35 mm <sup>2</sup>	fine wire (with sleeve) 35-95 mm <sup>2</sup>
Fastening torque of output terminals	3.5-7 Nm	19 Nm	3.5-7 Nm	19 Nm
Heat deflection temperature	100°C (UL94-V0)			
Degree of protection	IP20			
Weight	0.516 kg	0.581 kg	0.516 kg	0.581 kg

# Technical Data PDB

## Power distribution blocks PDB - 3-pole versions

### General parameters

Versions suitable for Cu or Cu/Al conductors - Al connections are not maintenance free

Mounting possible onto DIN rail or onto panel

### Electrical parameters

Type suitable for Cu conductors	<b>103788</b>	-
Cu/Al conductors	-	<b>103789</b>
Tested according to	EN 60947-7-1	
Maximum current $I_{max}$ (Cu/Al) with rigid cable of maximum cross section	175 A / -	175 / 125 A
Conventional thermal current $I_{th}$ (Cu/Al)	175 A / -	175 / 125 A
Maximum operating voltage $U_{max}$	1000 V AC / 1500 V DC	
Short circuit withstand peak current $I_{pk}$ 1s current $I_{cw}$	30 kA 11 kA	30 kA 11 kA
Comparative tracking index	600 V	
Poles	3	3
Interconnection	-	-
Pollution degree	2	
Rated impulse withstand voltage $U_{imp}$	4 kV	
Other parameters	according to EN 60947-7-1	

### Mechanical parameters

Height	80 mm	80 mm
Width	71.5 mm	71.5 mm
Depth	42.5 mm	42.5 mm
Mounting	Onto 35 mm device DIN rail or onto panel	
Rated cross section of input terminal connection conductors	50 mm <sup>2</sup>	50 mm <sup>2</sup>
Input terminals capacity for $I_n$ per pole (rigid cable)	1x 16-70 mm <sup>2</sup>	1x 16-70 mm <sup>2</sup>
Fastening torque of input terminals	6-10 Nm	6-10 Nm
Rated cross section of output terminal connection conductors	16 mm <sup>2</sup>	16 mm <sup>2</sup>
Output terminals capacity for $I_n$ per pole (rigid cables)	6x 2.5-16 mm <sup>2</sup>	6x 2.5-16 mm <sup>2</sup>
Fastening torque of output terminals	3-4 Nm	3-4 Nm
Heat deflection temperature	100°C (UL94-V0)	
Degree of protection	IP20	
Weight	0.385 kg	0.375 kg

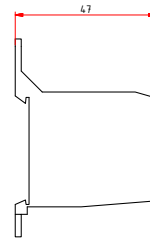
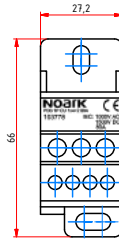


# Technical Data PDB

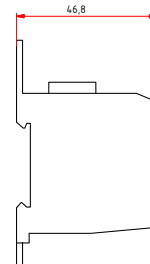
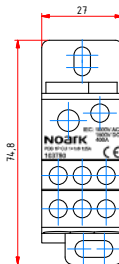
## Power distribution blocks PDB

### Dimensional drawings

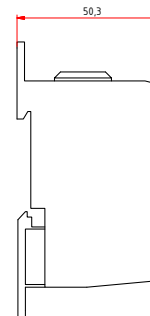
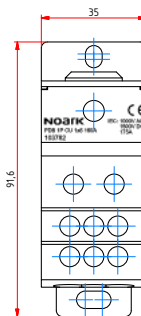
103778 - PDB 1P CU 1x4+2 80A  
 103779 - PDB 1P CU/AL 1x4+2 80/63A



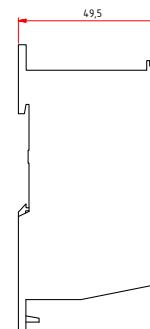
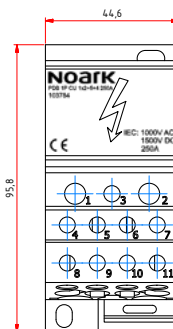
103780 - PDB 1P CU 1+1x6 125A  
 103781 - PDB 1P CU/AL 1+1x6 125/100A



103782 - PDB 1P CU 1x6 160A  
 103783 - PDB 1P CU/AL 1x6 160/125A



103784 - PDB 1P CU 1x2+5+4 250A  
 103786 - PDB 1P CU 1x2+5+4 400A  
 103785 - PDB 1P CU/AL 1x2+5+4 250/200A  
 103787 - PDB 1P CU/AL 1x2+5+4 400/300A

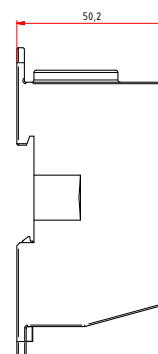
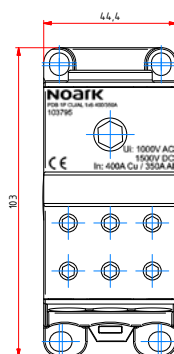


# Technical Data PDB

## Power distribution blocks PDB

### Dimensions

- 105509 - PDB 1P CU 1x6 400A
- 105510 - PDB 1P CU 1x2 400A
- 103795 - PDB 1P CU/AL 1x6 400/350A
- 103796 - PDB 1P CU/AL 1x2 400/350A



- 103788 - PDB 3P CU 1x6 175A
- 103789 - PDB 3P CU/AL 1x6 175/125A

