

Modular distribution blocks with staggered bars

Catalogue numbers: **4 004 00 / 01 / 02 / 03**
4 004 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11

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 Make sure the power supply is disconnected before any intervention.
Strictly comply with instructions for installation and use.

1. GENERAL CHARACTERISTICS

Legrand modular distribution blocks with staggered bars enable safe and rapid two-pole or four-pole distribution. Compliant with standard EN 60947-1, they combine electrical performance and mechanical robustness, as well as ergonomic design to facilitate the use of this key component of electrical distribution systems.

Thanks to a maximized cabling space, an optimized bars orientation and an adapted sizing of screw connections, cabling and connection are facilitated. Moreover, the input and large sections outputs are staggered between each bar to avoid overlapping of large conductors.



The connection points are also sufficiently spaced to allow the use of standard ferrules without problem related to insulating part.

A transparent insulating protection equips each brass bar for maximum safety. Moreover, a system integrated to this protection brakes the accidental unscrewing of the screws of unconnected connections.

A protection also isolates the rear of the distribution block from the mounting rail.

A transparent protective cover, removable and rotating 180° (up to 125 A) makes it possible to adapt to all wiring situations.

2. RANGE

Two-pole

Cat. N°	Rated operational current 40°C	Input	Number of outputs ⁽¹⁾	Number of modules
4 004 00	40 A	Internal	12	6
4 004 01	100 A	Internal	6	4
4 004 02	100 A	Internal	10	6
4 004 03	125 A	Internal	14	8

⁽¹⁾ For each bar

Four-pole

The 100/125/160 A four-pole distribution blocks with external input offer a connection of the input separate from the outputs.

Cat. N°	Rated operational current 40°C	Input	Number of outputs ⁽¹⁾	Number of modules
4 004 04	40 A	Internal	12	6
4 004 05	100 A	Internal	6	4
4 004 06	100 A	Internal	10	6
4 004 07	100 A	External	11	8
4 004 08	125 A	Internal	10	6
4 004 09	125 A	Internal	14	8
4 004 10	125 A	External	15	10
4 004 11	160 A	External	14	10

⁽¹⁾ For each bar

Connection capacity, see page 2

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3. TECHNICAL CHARACTERISTICS

■ 3.1 Connection capacity

Two-pole range

Cat. N°	Ie 40 °C	Input		Outputs			Nb. of mod.
		RIGID copper conductor	FLEXIBLE copper conductor (W/O ferrule)	Nb. ⁽¹⁾	RIGID copper conductor	FLEXIBLE copper conductor (W/O ferrule)	
4 004 00	40 A	2.5 to 10 mm ²	1.5 to 10 mm ²	2	2.5 to 10 mm ²	1.5 to 10 mm ²	6
				10	1.5 to 6 mm ²	0.75 to 4 mm ²	
4 004 01	100 A	10 to 25 mm ²	6 to 16 mm ²	1	10 to 25 mm ²	6 to 16 mm ²	4
				5	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 02	100 A	10 to 25 mm ²	6 to 16 mm ²	2	10 to 25 mm ²	6 to 16 mm ²	6
				8	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 03	125 A	10 to 35 mm ²	6 ⁽²⁾ to 25 mm ²	3	10 to 25 mm ²	6 to 16 mm ²	8
				11	2.5 to 10 mm ²	1.5 to 10 mm ²	

⁽¹⁾ For each bar

⁽²⁾ Flexible conductor less than 16 mm² only with ferrule

Four-pole range

Cat. N°	Ie 40 °C	Input		Outputs			Nb. of mod.
		RIGID copper conductor	FLEXIBLE copper conductor (W/O ferrule)	Nb. ⁽¹⁾	RIGID copper conductor	FLEXIBLE copper conductor (W/O ferrule)	
4 004 04	40 A	2.5 to 10 mm ²	1.5 to 10 mm ²	2	2.5 to 10 mm ²	1.5 to 10 mm ²	6
				10	1.5 to 6 mm ²	0.75 to 4 mm ²	
4 004 05	100 A	10 to 25 mm ²	6 to 16 mm ²	1	10 to 25 mm ²	6 to 16 mm ²	4
				5	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 06	100 A	10 to 25 mm ²	6 to 16 mm ²	2	10 to 25 mm ²	6 to 16 mm ²	6
				8	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 07	100 A	10 to 35 mm ² ⁽³⁾	6 ⁽²⁾ to 25 mm ² ⁽³⁾	3	10 to 25 mm ²	6 to 16 mm ²	8
				8	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 08	125 A	10 to 35 mm ²	6 ⁽²⁾ to 25 mm ²	3	10 to 25 mm ²	6 to 16 mm ²	6
				7	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 09	125 A	10 to 35 mm ²	6 ⁽²⁾ to 25 mm ²	3	10 to 25 mm ²	6 to 16 mm ²	8
				11	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 10	125 A	16 to 35 mm ² ⁽³⁾	16 to 35 mm ² ⁽³⁾ ⁽⁴⁾	2	10 to 35 mm ²	6 ⁽²⁾ to 25 mm ²	10
				1	10 to 25 mm ²	6 to 16 mm ²	
				12	2.5 to 10 mm ²	1.5 to 10 mm ²	
4 004 11	160 A	35 to 70 mm ² ⁽³⁾	35 to 70 mm ² ⁽³⁾	1	10 to 35 mm ²	10 to 25 mm ² ⁽⁵⁾	10
				1	10 to 35 mm ²	10 to 16 mm ²	
				4	10 to 25 mm ²	6 to 16 mm ²	
				8	2.5 to 10 mm ²	1.5 to 10 mm ²	

⁽¹⁾ For each bar

⁽²⁾ Flexible conductor less than 16 mm² only with ferrule

⁽³⁾ External input

⁽⁴⁾ Only flexible conductor with ferrule

⁽⁵⁾ Ferrules supplied for 25 mm² connection

3. TECHNICAL CHARACTERISTICS (continued)

■ 3.2 Connexion points dimensions

Each cylindrical hole is provided with a bevel to facilitate connection.

Cat. N°	Input (mm)	Outputs (mm)
4 004 00	Ø 5.6	Ø 5.6
		Ø 5.1
4 004 01	Ø 7.6	Ø 7.6
		Ø 5.6
4 004 02	Ø 7.6	Ø 7.6
		Ø 5.6
4 004 03	Ø 8.6	Ø 7.6
		Ø 5.6
4 004 04	Ø 5.6	Ø 5.6
		Ø 5.1
4 004 05	Ø 7.6	Ø 7.6
		Ø 5.6
4 004 06	Ø 7.6	Ø 7.6
		Ø 5.6
4 004 07	Ø 8.6 ⁽¹⁾	Ø 7.6
		Ø 5.6
4 004 08	Ø 8.6	Ø 7.6
		Ø 5.6
4 004 09	Ø 8.6	Ø 7.6
		Ø 5.6
4 004 10	 8 x 9.5 ⁽¹⁾	Ø 8.6
		Ø 7.6
		Ø 5.6
4 004 11	 13 x 11 ⁽¹⁾	Ø 9
		Ø 7.5
		Ø 5.3

⁽¹⁾ External input

■ 3.3 Tightening torques

Cat. N°	Tightening torque	Tool
4 004 00	2 Nm	Screwdriver PZ-2 / flathead 5.5 mm
4 004 01		
4 004 02		
4 004 03		
4 004 04		
4 004 05		
4 004 06		
4 004 07		
4 004 08		
4 004 09		
4 004 10	External inputs : 15 Nm	6 mm Allen spanner
	Outputs : 2 Nm	Screwdriver PZ-2 / flathead 5.5 mm

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3. TECHNICAL CHARACTERISTICS (continued)

■ 3.4 Connection with Starfix ferrule

Cat. N°	Sections of flexible Copper conductor	Starfix cat. N°
4 004 00	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
	0.75 to 4 mm ²	0 376 62/63/64/66/67 0 377 62/63/64/66/67
4 004 01	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 02	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 03	6 to 25 mm ²	0 376 68/69/70/72/71 0 377 68
	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 04	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
	0.75 to 4 mm ²	0 376 62/63/64/66/67 0 377 62/63/64/66/67
4 004 05	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 06	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 07	6 to 25 mm ²	0 376 68/69/70/72/71 0 377 68
	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 08	6 to 25 mm ²	0 376 68/69/70/72/71 0 377 68
	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 09	6 to 25 mm ²	0 376 68/69/70/72/71 0 377 68
	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 10	16 to 35 mm ²	0 376 70/72/71/77
	6 to 25 mm ²	0 376 68/69/70/72/71 0 377 68
	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68
4 004 11	35 to 70 mm ²	0 376 77/78
	10 to 16/25 mm ² ⁽¹⁾	0 376 69/70/72
	6 to 16 mm ²	0 376 68/69/70/72 0 377 68
	1.5 to 10 mm ²	0 376 64/66/67/68/69 0 377 64/66/67/68

⁽¹⁾ 4 ferrules 25 mm² supplied with the distribution block

3. TECHNICAL CHARACTERISTICS (continued)

■ 3.5 Electrical characteristics

Compliant with standard EN 60947-1
Pollution degree 3 - Overvoltage Category III
Rated operational current I_e at 40°C
Rated insulation voltage U_i : 500 V
Rated impulse withstand voltage U_{imp} : 8 kV

Rated peak withstand current I_{pk} ⁽¹⁾ :

Cat. N°	I _{pk} (60 ms)
4 004 00 to 4 004 09	26 kA
4 004 10	20 kA
4 004 11	27 kA

⁽¹⁾ Peak short-circuit current I_{cc}

Rated short-time withstand current:

Cat. N°	I _{cw} (1 s)
4 004 00 to 4 004 10	4.5 kA
4 004 11	8.4 kA

Dissipated power:

Cat. N°	Power dissipated at rated operational current I _e
4 004 00	1 W
4 004 01	6 W
4 004 02	7 W
4 004 03	12 W
4 004 04	2 W
4 004 05	11 W
4 004 06	14 W
4 004 07	15 W
4 004 08	23 W
4 004 09	24 W
4 004 10	33 W
4 004 11	48 W

Derating:

Coefficient to be applied to the rated operational current I_e for operation at ambient temperature above 40°C

Ambient temperature	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C
Derating coefficient	1	0.92	0.86	0.8	0.73	0.65	0.56	0.45

■ 3.6 Other characteristics

Fixing on symmetrical / DIN rail by clipping
Cover opening with flathead screwdriver
Operating temperature at rated operational current I_e : - 25 ° to + 40 ° C (derating for higher temperatures)
Installation altitude : 2000 m maximum (beyond : contact us)
Self-extinguishing 960 ° C - UL94 V-0 for supports of active parts
Transport and storage temperature: - 25 ° C to + 55 ° C
RoHS compliance

■ 3.7 Materials

Side parts: RAL 7035 gray polyamide
Bars: solid brass
Internal bar protection: Clear colorless polycarbonate
External bar protection: RAL 7035 gray polyamide
Screws: zinc-plated steel
Cover: Transparent blue polycarbonate
Protection / rail : translucent PVC

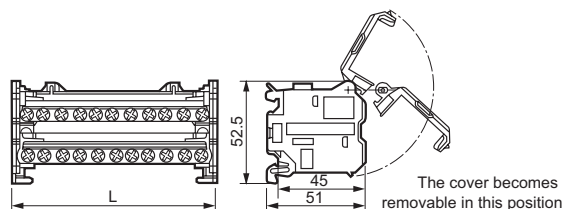
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4. DIMENSIONS - WEIGHT

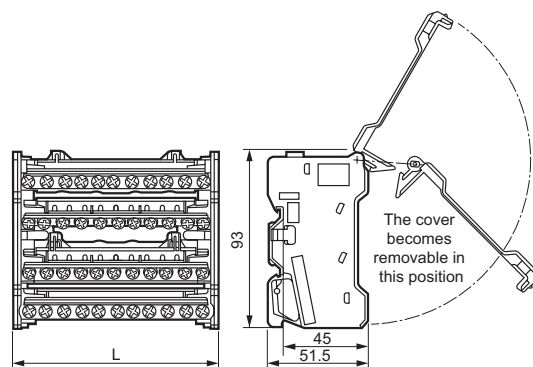
Two-pole 40/100/125 A

Cat. N°	L (mm)
4 004 00	106
4 004 01	70.5
4 004 02	106
4 004 03	143



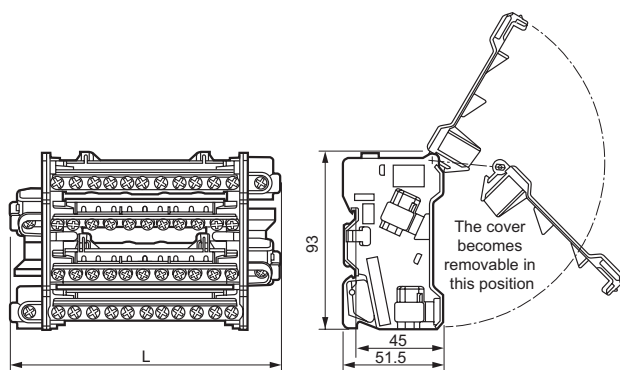
Four-pole 40/100/125 A

Cat. N°	L (mm)
4 004 04	106
4 004 05	70.5
4 004 06	106
4 004 08	106
4 004 09	143

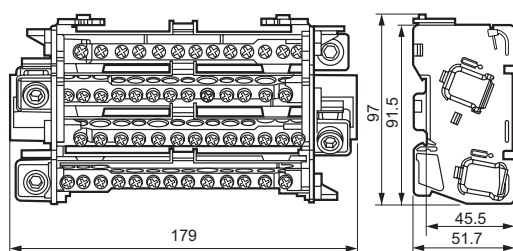


Four-pole 100/125 A (with external inputs)

Cat. N°	L (mm)
4 004 07	139
4 004 10	176

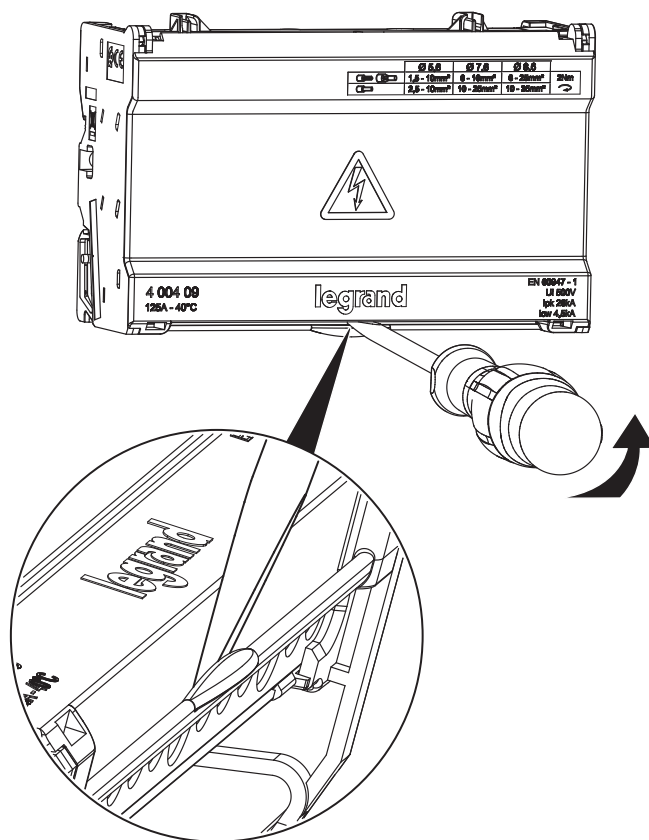


Four-pole 160 A (with external inputs) – Cat. N° 4 004 11



4. DIMENSIONS - WEIGHT (continued)

Cover opening:



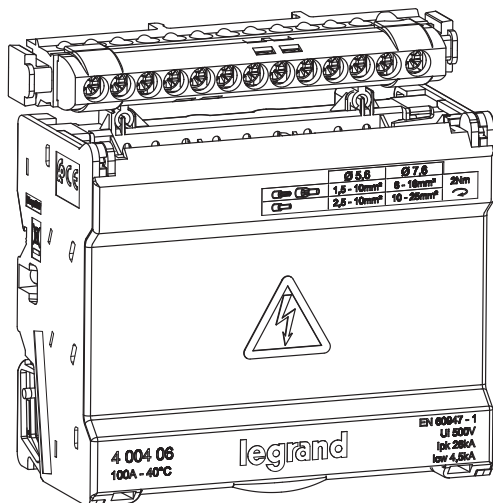
Cat. N°	Weight (kg)
4 004 00	0.193
4 004 01	0.124
4 004 02	0.192
4 004 03	0.240
4 004 04	0.370
4 004 05	0.238
4 004 06	0.350
4 004 07	0.407
4 004 08	0.342
4 004 09	0.466
4 004 10	0.526
4 004 11	0.706

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5. IP 2X TERMINAL BLOCKS

IP 2X terminal blocks increase the number of earth or neutral outputs. They fix directly to the distributor.



Cat. N°	IP 2X terminal block	Derating	
		Voltage	Current
4 004 00	0 048 34 ⁽¹⁾	400 V	40 A
4 004 01	0 048 32 ⁽¹⁾		80 A
4 004 02	0 048 34 ⁽¹⁾		80 A
4 004 03	0 048 35 ⁽¹⁾		100 A
4 004 04	0 048 44 ⁽²⁾		40 A
4 004 05	0 048 42 ⁽²⁾		80 A
4 004 06	0 048 44 ⁽²⁾		80 A
4 004 07	0 048 45 ⁽²⁾		80 A
4 004 08	0 048 44 ⁽²⁾		100 A
4 004 09	0 048 45 ⁽²⁾		100 A
4 004 10	0 048 45 ⁽²⁾		100 A
4 004 11	0 048 45 ⁽²⁾		100 A

⁽¹⁾ $\perp$ - ⁽²⁾ Neutral

6. PHOTOVOLTAIC APPLICATION

ELECTRICAL CHARACTERISTICS IN PHOTOVOLTAIC APPLICATION

Cat. N°	Operational current 60°C	U _i ⁽¹⁾
4 004 00	32 A	800 V $\equiv$
4 004 01	80 A	
4 004 02	80 A	
4 004 03	100 A	

⁽¹⁾ Pollution degree 2

CONNECTION CAPACITY IN PHOTOVOLTAIC APPLICATION

Cat. N°	INPUT	OUTPUTS	
	« Solar » copper conductor	Number of outputs ⁽¹⁾	« Solar » copper conductor
4 004 00	4 to 10 mm ²	2	4 to 10 mm ²
		10	1.5 to 4 mm ²
4 004 01	6 to 16 mm ²	1	6 to 16 mm ²
		5	1.5 to 6 mm ²
4 004 02	6 to 16 mm ²	2	6 to 16 mm ²
		8	1.5 to 6 mm ²
4 004 03	10 to 25 mm ²	3	6 to 16 mm ²
		11	1.5 to 6 mm ²

⁽¹⁾ For each bar