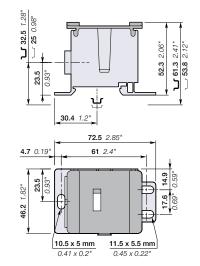


# TECHNICAL DATASHEET 1SNC166015D0201 - CATALOGUE PAGE 1SNC166015S0201

# **DBL distribution blocks** Single pole





3D CAD outline drawings available on "Control Product 3D" portal

		50 mm² 1/0 AWG
46.2 mm 1.81 in sp	acing	

- Reduce the assembly time by 80% by avoiding to use fastening and isolating components
- Mount it on Din rail or plate and save up to 50% rail space compared to conventional copper bars
- Increase the number of outputs by using the optional input and connecting two DBL together, or increase the current rating with two wires, 300 A with 50 mm<sup>2</sup> wires and 350 A with 2/0 AWG wires
- Easy identification with the reversible cover and delivered pre-printed markers L1, L2, L3, N, PE, +, –.

#### **Ordering details**

Color		•	Туре			Order code	EAN code	Pkg	Weight
								qty	(1 pce) 9
Grey			DBL175			1SNL317510R0000	3472599856561	1	200
Declara	tions and	d certifi	cates						
	IEC Ree	RoHS	97	<b>(P</b>	EAC		0		
CE	CB	RoHS	USR	CSA	EAC		BV		

Flexible without ferrule	Flexible with ferrule	Solid	Rigid stranded
(IEC V-K, UL class GK)	(IEC V-K, UL class GK)	(IEC V-U class 1, UL solid)	(IEC V-R class 2, UL class B/C)
Ø Not allowed	✓ Allowed	✔ Allowed	✔ Allowed

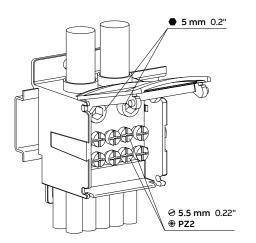
Declarations and cer					Part Numbe	1		
CE	UE			1SND225005	5U1000			
CB	СВ			1SND166005	5A0201			
RoHS RoHS	RoHS			1SND230557	7F0201			
<b>FL</b> USR	USR			1SND166006	6A0201			
SP. CSA	CSA			1SND166007	A0201			
EAC	EAC			1SND161011	A1100			
EAC								
() BV	BV			1SND166008	3A0200			
General information The following information m Protection Rail	ust be strictly adhe IEC 60947-1	ered to in order IP10 TH 35-7.5,	NEMA 1	al block electrical, mec	hanical and enviro	nmental performa	ince.	
	<u>ប</u>	TH 35-15						
lounting instructio	ns	Circ			Circu			
perating tool	Allen key	Circ	cuit 1	Posidriv - fla	<b>Circu</b> at screwdriver	nt 2		
,	$\bigcirc$	5 mm	0.20 in	(Fr)	5.5 mm	0.22 in	1	- 00
orque	Ó	6 10 Nm	53 88 lb.ii	*	2 3 Nm	18 26		
/ire stripping length		15 mm	0.708 in		11 mm	0.43 in	2	- 2222
perating tool		Cire	cuit 3		Circu	iit 4		
orque	Ó			Ó				
Vire stripping length								
instructions given for 1 pole		n each block mo	odule					
Aterial specificatio	ons					Daluara		
nsulating material						Polyam 600 V	ide	
lammability				UL94		VO		
				EN 45545		HL3 R2	2	
					LEC COCOE 11	5 Complia		-
opportor Material				Needle flame test	TEC 60695-11-	•		J
				Needle flame test	TEC 60695-11-	•	ith tin platting	
	y per circuit				TEC 60692-11-	•		
connecting capacity		Norme	IEC 60947-7-1	Circuit 1 UL1059		•	Circuit 2 UL1059	,
Connecting capacity	d conductor	Norme Value	IEC 60947-7-1 10 70 mm²	Circuit 1	IEC	Brass w	Circuit 2	
Rigid - Solid / Stranded	d conductor h ferrule	Value Norme	10 70 mm² IEC 60947-7-1	<b>Circuit 1</b> UL1059 6 2/0 AWG	IEC 2.5 IEC	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 A	AWG
Connecting capacity Rigid - Solid / Stranded	d conductor h ferrule	Value	10 70 mm²	<b>Circuit 1</b> UL1059 6 2/0 AWG 8 1/0 AWG	IEC 2.5 IEC	Brass w 60947-7-1 16 mm²	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG
onnecting capacity Rigid - Solid / Stranded COCC Flexible conductor wit	d conductor h ferrule	Value Norme	10 70 mm² IEC 60947-7-1	<b>Circuit 1</b> UL1059 6 2/0 AWG	IEC 2.5 IEC	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 A	AWG
onnecting capacity Rigid - Solid / Stranded Conception Flexible conductor wit Conception Rigid - Solid / Stranded	d conductor h ferrule d conductor	Value Norme Value	10 70 mm² IEC 60947-7-1	<b>Circuit 1</b> UL1059 6 2/0 AWG 8 1/0 AWG	IEC 2.5 IEC	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG
Rigid - Solid / Stranded Flexible conductor wit Rigid - Solid / Stranded Rigid - Solid / Stranded Flexible conductor wit	d conductor h ferrule d conductor h ferrule	Value Norme Value Norme Value Norme	10 70 mm <sup>2</sup> IEC 60947-7-1 10 50 mm <sup>2</sup> 2.5 16 mm <sup>2</sup>	Circuit 1 UL1059 6 2/0 AWG 8 1/0 AWG Circuit 3 14 6 AWG	IEC 2.5 IEC	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG
Rigid - Solid / Stranded Flexible conductor wit Rigid - Solid / Stranded Rigid - Solid / Stranded Flexible conductor wit	d conductor h ferrule d conductor h ferrule	Value Norme Value Norme Value Norme Value	10 70 mm <sup>2</sup> IEC 60947-7-1 10 50 mm <sup>2</sup> 2.5 16 mm <sup>2</sup> 2.5 16 mm <sup>2</sup>	Circuit 1 UL1059 6 2/0 AWG 8 1/0 AWG Circuit 3 14 6 AWG	IEC 2.5 IEC	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG
Rigid - Solid / Stranded Flexible conductor wit Common Rigid - Solid / Stranded Flexible conductor wit Flexible conductor wit Common errule maximum outer on sulation maximum outer of Stranded	d conductor h ferrule d conductor h ferrule diameter or con er diameter	Value Norme Value Norme Value Value ductor	10 70 mm <sup>2</sup> IEC 60947-7-1 10 50 mm <sup>2</sup> 2.5 16 mm <sup>2</sup> 2.5 16 mm <sup>2</sup>	Circuit 1 UL1059 6 2/0 AWG 8 1/0 AWG Circuit 3 14 6 AWG 14 6 AWG	IEC 2.5 IEC 2.5	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG
Connector Material Connecting capacity Rigid - Solid / Stranded Flexible conductor wit Rigid - Solid / Stranded Rigid - Solid / Stranded Flexible conductor wit Flexible conductor wit Cerrule maximum outer of nsulation maximum outer he "Connecting capacity wi	d conductor h ferrule d conductor h ferrule diameter or con er diameter	Value Norme Value Norme Value Value ductor	10 70 mm <sup>2</sup> IEC 60947-7-1 10 50 mm <sup>2</sup> 2.5 16 mm <sup>2</sup> 2.5 16 mm <sup>2</sup>	Circuit 1 UL1059 6 2/0 AWG 8 1/0 AWG Circuit 3 14 6 AWG 14 6 AWG	IEC 2.5 IEC 2.5	Brass w 60947-7-1 16 mm <sup>2</sup> 60947-7-1	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG
Rigid - Solid / Stranded Flexible conductor wit Rigid - Solid / Stranded Rigid - Solid / Stranded Flexible conductor wit Flexible conductor wit errule maximum outer of sullation maximum outer of Stranded	d conductor h ferrule d conductor h ferrule diameter or con er diameter th ferrule" data is g	Value Norme Value Value Norme Value ductor	10 70 mm <sup>2</sup> IEC 60947-7-1 10 50 mm <sup>2</sup> 2.5 16 mm <sup>2</sup> 2.5 16 mm <sup>2</sup>	Circuit 1 UL1059 6 2/0 AWG 8 1/0 AWG Circuit 3 14 6 AWG 14 6 AWG	IEC 2.5 IEC 2.5 to 10 mm²).	Brass w 60947-7-1 16 mm² 60947-7-1 16 mm²	<b>Circuit 2</b> UL1059 14 6 <i>A</i> 14 6 <i>A</i>	AWG

Multi connecting capacity per cla	amp			
2 Rigid - Solid / Stranded	Norme			
conductors	Value			
2 Flexible conductors	Norme			
	Value			
2 Flexible conductors with twin ferrule	Norme			
	Value			
	tors <b>in the same clamp.</b> ors of different sizes <b>in the same clamp.</b> ule" data is guaranteed with ABB crimping to	ool PS-3 (crimping capacity	up to 10 mm²).	
Cross section				
Rated cross section	<b>IEC60947-7-1</b> 50 mm <sup>2</sup>	UL1059	1/0 AWG	
Maximum cross section	Manufacturer data 2 x 70 mm²	Manufacturer data	2 x 2/0 AWG	
Rated current		IEC60947-7-1		
Rated current		IEC60947-7-1	175 A	
	Field and factory wiring Cat.2	UL 1059	175 A	
	Factory wiring Cat.1	UL 1059		
		CSA-C-22.2 n° 158	175/350 A	
Maximum Exe current		IEC/EN 60079-7		
Rated short-time withstand current 1 s	(Icw)	IEC60947-7-1	6000 A	
Short-time withstand current	0.5 s	Manufacturer data		
	5 s	Manufacturer data		
	10 s	Manufacturer data		
	10 s 30 s	Manufacturer data Manufacturer data		
Rated short-circuit withstand current	30 s	Manufacturer data		
Rated short-circuit withstand current Max. current (45° temperature increase	30 s 1 mn	Manufacturer data Manufacturer data	350 A	2 x 70 mm²

# Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR		<b>UL 1059</b> 100 kA		
With the following configurations:				
	Suitable conductor wire range		2 x (6 2/0) AWG	
	Maximum voltage		600 V	
	Fuse class / Max. amp. Rating	J	600 A	
		т	450 A	
		RK1	400 A	
		RK5	200 A	
		G	60 A	
		cc	30 A	

# **Mounting instructions**



Flexible without ferrule	Flexible with ferrule	Solid	Rigid stranded
(IEC V-K, UL class GK)	(IEC V-K, UL class GK)	(IEC V-U class 1, UL solid)	(IEC V-R class 2, UL class B/C)
O Not allowed	✓ Allowed	✔ Allowed	✓ Allowed

Rated voltage	IEC 60947-1	1500 V DC	1000 V AC
Rated voltage	UL 1059	1000 V AC	
Use Group	UL 1059	E	
Rated voltage	CSA-C-22.2 nº 158	1000 V AC	
Rated voltage Ex e	IEC/EN 60079-7		
Rated impulse withstand voltage	IEC 60947-1	8000 V	
Dielectric test voltage	IEC 60947-1	2200 V	
Pollution degree	IEC 60947-1	3	
Overvoltage category	IEC 60947-1	III	

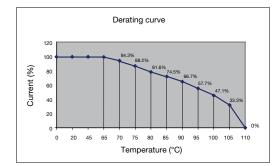
# Temperature range

Voltage

Ambient temperature min/max

<b>Storage</b> -55 +110 °C	-67 +230 °F
Installing -5 +40 °C	+23 +104 °F
Service -55 +110 °C	-67 +230 °F

# Current Derating curve for continuous service temperature



### **Dissipated power**

Maximum dissipated power at rated current	IEC 60947-7-1 5.6 W
Maximum dissipated power at maximum Exe current	IEC 60079-7

### DBL terminal block accessories compatibility

Some accessories may modify the terminal block's rating. See complete information in the accessories "Technical Datasheet".

### Environmental characteristics

Additional climatic tests

	IEC 60068-2-30	Compliant
Conditions	Temperature	55 °C
	Relative humidity	95 %
	Number of cycles (1 cycle = 24h)	2
	IEC 60068-2-78	Compliant
Conditions	Temperature	40 °C
	Relative humidity	93 %
	Duration of test	96 h
		Relative humidity Number of cycles (1 cycle = 24h) IEC 60068-2-78

## DBL terminal block accessories compatibility

Description			Color	Туре	Order code	Pkg Weigh
						qty (1 pce)
End stops	10 mm	0.394 in	Dark	BAM4	1SNK900001R0000	50 14.0
	5.2 mm	0.205 in	grey	BAZ1	1SNK900002R0000	50 5.3
	10 mm	0.394 in		BAZH1	1SNK900102R0000	20 24.0
Terminal block	Blank ma		White 🗌	MG-CPM 13 41790	1SNB041790R0512	1960 0.23
markers	Blank car	d		MC512PA	1SNK149999R0000	20 10.0
			Green	MC512PA-GN	1SNK149997R0000	20 10.0
			Blue	MC512PA-BL	1SNK149998R0000	20 10.0

Flexible without ferrule	Flexible with ferrule	Solid	Rigid stranded
(IEC V-K, UL class GK)	(IEC V-K, UL class GK)	(IEC V-U class 1, UL solid)	(IEC V-R class 2, UL class B/C)
🖉 Not allowed	✓ Allowed	✔ Allowed	✔ Allowed

(IEC V-K, UL class GK)	Flexible with ferrule	Solid	Rigid stranded
	(IEC V-K, UL class GK)	(IEC V-U class 1, UL solid)	(IEC V-R class 2, UL class B/C)
🖉 Not allowed	✓ Allowed	✔ Allowed	✔ Allowed



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