

Canalis KBA, 25 and 40 A





Busbar trunking for lighting and power socket distribution

IP55

U_e = 230...400 V

RAL 9003 white

Run component characteristics

Rating of trunking (A)		KBA	25	40
General characteristics				
Compliance with standards			IEC/EN 61439-6	IEC/EN 61439-6
Degree of protection:	IP		55	55
Mechanical impacts	IK		06	06
Polarity			L+N  or 3L+N 	L+N  or 3L+N 
Number of live conductors			2 or 4	2 or 4
Rated current at an ambient temperature of 35 °C	I _{nc}	A	25	40
Rated insulation voltage	U _i	V	690	690
Rated operational voltage	U _e	V	230...400	230...400
Rated impulse voltage	U _{imp}	kV	4	4
Rated frequency	f	Hz	50/60	50/60

Conductor characteristics

Phase conductors

Mean resistance at an ambient temperature of 20 °C	R ₂₀	mΩ/m	6.80	2.83
Mean resistance at I _{nc} and 35 °C	R ₁	mΩ/m	8.30	3.46
Mean reactance at I _{nc} , 35 °C and 50 Hz	X ₁	mΩ/m	0.02	0.02
Mean impedance at I _{nc} , 35 °C and 50 Hz	Z ₁	mΩ/m	8.33	3.46

Protective conductor (PE)

Mean resistance at an ambient temperature of 20 °C		mΩ/m	1.57	1.57
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Fault loop characteristics

Symmetrical components method	Ph/N at 20 °C	Mean resistance	R _{0 ph/N}	mΩ/m	27.21	19.40	
		Mean reactance	X _{0 ph/N}	mΩ/m	0.85	0.38	
		Mean impedance	Z _{0 ph/N}	mΩ/m	27.22	19.41	
	Ph/PE at 20 °C	Mean resistance	R _{0 ph/PE}	mΩ/m	19.40	13.83	
		Mean reactance	X _{0 ph/PE}	mΩ/m	0.38	0.73	
		Mean impedance	Z _{0 ph/PE}	mΩ/m	19.41	13.85	
Impedance method	At 20 °C	Mean resistance	Ph/Ph	R _{b0 ph/ph}	mΩ/m	13.61	5.68
			Ph/N	R _{b0 ph/N}	mΩ/m	13.61	5.68
			Ph/PE	R _{b0 ph/PE}	mΩ/m	11.01	7.66
	For I _{nc} at 35 °C	Mean resistance	Ph/Ph	R _{b1 ph/ph}	mΩ/m	16.60	6.91
			Ph/N	R _{b1 ph/N}	mΩ/m	16.60	6.91
			Ph/PE	R _{b1 ph/PE}	mΩ/m	12.50	8.70
	For I _{nc} at 35 °C and 50 Hz	Mean reactance	Ph/Ph	X _{b ph/ph}	mΩ/m	0.04	0.90
			Ph/N	X _{b ph/N}	mΩ/m	0.04	0.90
			Ph/PE	X _{b ph/PE}	mΩ/m	0.035	0.035

Other characteristics

Short-circuit withstand capacity

Rated peak withstand current	I _{pk}	kA	4.40	9.60
Maximum thermal limit I ² t		A²s	195 x 10 ³	900 x 10 ³
Rated short-time withstand current (t = 1 s)	I _{cw}	kA	0.44	0.94

Voltage drop

Composite voltage drop (hot state) expressed in V/100 mA (50 Hz) with the load uniformly distributed over the run. If the load is concentrated at one end of the run, the voltage drop is twice the value indicated in the table.				
For a power factor of	1	V/100 mA	0.72	0.30
	0.9	V/100 mA	0.67	0.28
	0.8	V/100 mA	0.61	0.25
	0.7	V/100 mA	0.54	0.22

This table is given for three-phases network. The single phase voltage drop is obtained by dividing the three-phase voltage drop indicated above by 0.866. For lower neutral / neutral voltage phase, we divide the voltage drop above by 1.732.

Radiated magnetic field

Radiated magnetic field strength 1 metre from the trunking	B	μT	< 2 x 10 ⁻³	< 2 x 10 ⁻³
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Product selection when harmonics are present (for details, see the "Special Applications" section)

Operational current as a function of 3rd harmonic content	THD ≤ 15 %	25	40
	15 % < THD ≤ 33 %	20	32
	THD > 33 %	16	28

Permissible current as a function of ambient temperature

Ambient temperature	°C	< 35	35	40	45	50	55
Coefficient K1	%	n/a	1	0.96	0.93	0.89	0.85

Tap-off unit characteristics



















See KBC tap-off unit characteristics on page 49.

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Run component characteristics

Rating of trunking (A)		KBB	25	40				
General characteristics								
Compliance with standards			IEC/EN 61439-6	IEC/EN 61439-6				
Degree of protection:	IP		55	55				
Mechanical impacts	IK		06	06				
Polarity			L+N  3L+N  3L+N  L+N  3L+N  3(L+N)  or  and  or  and  or  and  3L+N  L+N  3L+N  L+N  3(L+N) 					
		If polarity	L1 N1 L2 N 	Consult us.				
Number of circuits			1	2	2	1	2	2
Rated current at an ambient temperature of 35 °C	I _{nc}	A	25	23	23	40	38	38
Rated insulation voltage	U _i	V	690			690		
Rated operational voltage	U _e	V	230...400			230...400		
Rated impulse voltage	U _{imp}	kV	4			4		
Rated frequency	f	Hz	50/60			50/60		

Conductor characteristics

Phase conductors

Mean resistance at an ambient temperature of 20 °C	R ₂₀	mΩ/m	6.80		2.83
Mean resistance at I _{nc} and 35 °C	R ₁	mΩ/m	8.30		3.46
Mean reactance at I _{nc} , 35 °C and 50 Hz	X ₁	mΩ/m	0.02		0.02
Mean impedance at I _{nc} , 35 °C and 50 Hz	Z ₁	mΩ/m	8.33		3.46

Protective conductor (PE)

Mean resistance at an ambient temperature of 20 °C		mΩ/m	0.80		0.80
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Fault loop characteristics

Symmetrical components method	Ph/N at 20 °C	Mean resistance	R _{0 ph/N}	mΩ/m	27.21	17.28	
		Mean reactance	X _{0 ph/N}	mΩ/m	0.85	5.25	
		Mean impedance	Z _{0 ph/N}	mΩ/m	27.22	18.06	
	Ph/PE at 20 °C	Mean resistance	R _{0 ph/PE}	mΩ/m	17.28	13.83	
		Mean reactance	X _{0 ph/PE}	mΩ/m	5.25	0.73	
		Mean impedance	Z _{0 ph/PE}	mΩ/m	18.06	13.85	
Impedance method	At 20 °C	Mean resistance	Ph/Ph	R _{b0 ph/ph}	mΩ/m	13.61	5.68
			Ph/N	R _{b0 ph/N}	mΩ/m	13.61	5.68
			Ph/PE	R _{b0 ph/PE}	mΩ/m	10.26	6.92
	For I _{nc} at 35 °C	Mean resistance	Ph/Ph	R _{b1 ph/ph}	mΩ/m	16.59	6.92
			Ph/N	R _{b1 ph/N}	mΩ/m	16.59	6.92
			Ph/PE	R _{b1 ph/PE}	mΩ/m	11.77	7.14
	For I _{nc} at 35 °C and 50 Hz	Mean reactance	Ph/Ph	X _{b ph/ph}	mΩ/m	0.35	0.90
			Ph/N	X _{b ph/N}	mΩ/m	0.35	0.90
			Ph/PE	X _{b ph/PE}	mΩ/m	0.07	1.85

Other characteristics

Short-circuit withstand capacity

Rated peak withstand current	I _{pk}	kA	4.40	9.60
Maximum thermal limit I ² t		A ² s	195 x 10 ³	900 x 10 ³
Rated short-time withstand current (t = 1 s)	I _{cw}	kA	0.44	0.94

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