SIEMENS

Data sheet 6XV1871-2G

product type designation

product description



IE TP Ground Cable 2x2 (Type C)

Standard bus cable (4-core), for laying underground, sold by the meter, unassembled

IE ground cable 2x2 Underground cable 4-core shielded, sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.

cable designation Obstrical data attenuation factor per length • at 10 MHz / maximum • at 1 MHz 100 MHz relative symmetrical tolerance • of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length • at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent for she shield voltage of electrical cores design of the shield volter diameter • of AWG22 insulated conductor outer diameter • of mere conductor • of the inner sheath of the cable • of cable sheath • of cable sheath • of cable sheath • of cable sheath • of the wire insulation • of the wire insulation of data wires white/yellow/blue/orange	suitability for use	Standard cable with rigid cores for fast installation
attenuation factor per length at 10 MHz / maximum 0.063 dB/m impedance at 1 MHz 100 MHz relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / at 10 MHz loop resistance per length / maximum operating voltage RMS value NVP value in percent 66 % mochanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect or of AWG22 insulated conductor of the wire insulation of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the inner sheath of the cable of the wire insulation of the inner sheath of the cable of the wire insulation of the inner sheath of the cable of the wire insulation polyethylene (PE) PVC other color	cable designation	2YY(ST)CY2Y2x2x0.64/1.50-100 SF/UTP
• at 10 MHz / maximum 0.063 dB/m • at 10 MHz / maximum 0.213 dB/m impedance at 11 MHz 100 MHz • at 11 MHz 100 MHz 100 Ω relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz 5 % near-end crosstalk per length 5 % • at 1 MHz 100 MHz 0.5 dB/m transfer impedance per length / at 10 MHz 0.5 dB/m transfer impedance per length / maximum 124 m0/m operating voltage • RMS value • RNS value 100 V NVP Value in percent 65 % mechanical data 0 number of electrical cores 4 design of the shield Overtapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter • of AWG22 insulated conductor 0.64 mm outer diameter • of inner conductor 0.64 mm • of the wire insulation 1.5 mm • of the wire insulation 4 mm • of cable sheath / note Cable diameter >6.5 mm because of additional PE out	electrical data	
at 100 MHz / maximum 0.213 dB/m	attenuation factor per length	
impedance • at 1 MHz 100 MHz relative symmetrical tolerance • of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length • at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value 100 V NVP value in percent 65 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foll, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect yes core diameter • of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the wire insulation • of the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath of cable sheath polyethylene (PE) PVC color	• at 10 MHz / maximum	0.063 dB/m
e at 1 MHz 100 MHz relative symmetrical tolerance ● of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length ● at 1 MHz 100 MHz transfer impedance per length / at 10 MHz toop resistance per length / at 10 MHz loop resistance per length / maximum operating voltage ● RMS value 100 V NVP value in percent mechanical data number of electrical cores design of the shield Overtapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter ● of AVIGS2 insulated conductor outer diameter ● of inner conductor of the wire insulation ● of the wire insulation ● of cable sheath ● of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material ● of cable sheath of cable sheath of cable sheath polyettylene (PE) PVC color	• at 100 MHz / maximum	0.213 dB/m
relative symmetrical tolerance • of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length • at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent 65 % mechanical data number of electrical cores 4 design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ves core diameter • of AWG22 insulated conductor of the inner sheath of the cable • of cable sheath • of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of cable sheath / note polyethylene (PE) • of cable sheath	impedance	
of the characteristic impedance at 1 MHz 100 MHz near-end crosstalk per length at 1 MHz 100 MHz loop resistance per length / at 10 MHz loop resistance per length / maximum operating voltage RMS value 100 V NVP value in percent mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ves core diameter of AWG22 insulated conductor of the wire insulation of the wire insulation of cable sheath of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the wire insulation of the wire insulation of the wire insulation of able sheath / note polyeethylene (PE) of the wire insulation of the wire insulation polyethylene (PE) of the inner sheath of the cable polyethylene (PE) pVC pe/PVC color	● at 1 MHz 100 MHz	100 Ω
near-end crosstalk per length • at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent 65 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ves core diameter • of AWG22 insulated conductor outer diameter • of the wire insulation • of the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of cable sheath / note polyethylene (PE) PVC PE/PVC	relative symmetrical tolerance	
at 1 MHz 100 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage	• of the characteristic impedance at 1 MHz 100 MHz	5 %
transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ves core diameter • of AWG22 insulated conductor ot the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of cable sheath / note Symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the wire insulation • of the wire insulation • of the inner sheath of the cable PVC polyethylene (PE) PVC color	near-end crosstalk per length	
loop resistance per length / maximum operating voltage • RMS value 100 V NVP value in percent 65 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect ves type of electrical connection / FastConnect or ediameter • of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath / note cable diameter >6.5 mm because of additional PE outer cover. Cable can only be connected to R.J45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the inner sheath of the cable • of cable sheath PVC PE/PVC	● at 1 MHz 100 MHz	0.5 dB/m
operating voltage • RMS value 100 V NVP value in percent 65 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter • of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the wire insulation polyethylene (PE) • of cable sheath PE/PVC color	transfer impedance per length / at 10 MHz	10 mΩ/m
RMS value NVP value in percent 65 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter of AWG22 insulated conductor outer diameter of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the inner sheath of the cable polyethylene (PE) of cable sheath pel/PVC color	loop resistance per length / maximum	124 mΩ/m
NVP value in percent mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter of AWG22 insulated conductor outer diameter of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) of cable sheath PE/PVC color	operating voltage	
number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter of AWG22 insulated conductor outer diameter of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) of cable sheath PE/PVC color	RMS value	100 V
number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter of AWG22 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) of cable sheath PVC pel/PVC color	NVP value in percent	65 %
design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires type of electrical connection / FastConnect Yes core diameter of AWG22 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) of cable sheath private of tin-plated copper wires Yes 0.64 mm 0.69 mm 0.69 mm 0.60 mm	mechanical data	
type of electrical connection / FastConnect Yes core diameter of AWG22 insulated conductor outer diameter of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) of cable sheath private of cable sheath private of cable sheath polyethylene (PE) private of cable sheath privat	number of electrical cores	4
core diameter • of AWG22 insulated conductor outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath / note symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the wire insulation polyethylene (PE) • of cable sheath private insulation polyethylene (PE) private insulation in	design of the shield	
of AWG22 insulated conductor Outer diameter of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note Cable diameter > 6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the inner sheath of the cable of cable sheath PE/PVC color	type of electrical connection / FastConnect	Yes
outer diameter of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note Cable diameter > 6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the inner sheath of the cable of cable sheath PVC PVC Tolor	core diameter	
 of inner conductor of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note Cable diameter >6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath of the wire insulation of the inner sheath of the cable of cable sheath PVC PVC Octoor 	of AWG22 insulated conductor	0.64 mm
 of the wire insulation of the inner sheath of the cable of cable sheath of cable sheath / note Cable diameter >6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath of the wire insulation of the wire insulation of the inner sheath of the cable of cable sheath PVC PVC of cable sheath 	outer diameter	
 of the inner sheath of the cable of cable sheath of cable sheath / note Cable diameter >6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath of the wire insulation of the inner sheath of the cable of cable sheath PVC of cable sheath PE/PVC 	 of inner conductor 	0.64 mm
 of cable sheath of cable sheath / note Cable diameter >6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath of the wire insulation of the inner sheath of the cable of cable sheath PVC PE/PVC 	 of the wire insulation 	1.5 mm
 of cable sheath / note Cable diameter >6.5 mm because of additional PE outer cover. Cable can only be connected to RJ45/M12 connector after outer cover is removed. symmetrical tolerance of the outer diameter / of cable sheath of the wire insulation of the inner sheath of the cable of cable sheath PVC PVC color 	 of the inner sheath of the cable 	4 mm
symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the inner sheath of the cable of cable sheath PVC PVC representation be connected to RJ45/M12 connector after outer cover is removed. 0.2 mm polyethylene (PE) PVC PE/PVC	 of cable sheath 	9 mm
material o of the wire insulation of the inner sheath of the cable of cable sheath PVC PE/PVC color	of cable sheath / note	
 of the wire insulation of the inner sheath of the cable of cable sheath color PVC PE/PVC	symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
of the inner sheath of the cable of cable sheath PE/PVC color	material	
of cable sheath PE/PVC color	 of the wire insulation 	polyethylene (PE)
color	 of the inner sheath of the cable 	PVC
	of cable sheath	PE/PVC
• of the insulation of data wires white/yellow/blue/orange	color	
	 of the insulation of data wires 	white/yellow/blue/orange

of cable sheath	Black
bending radius	
with single bend / minimum permissible	80 mm
with multiple bends / minimum permissible	80 mm
tensile load / maximum	150 N
weight per length	97 kg/km
ambient conditions	
ambient temperature	
 during operation 	-40 +70 °C
 during storage 	-40 +70 °C
during transport	-40 +70 °C
 during installation 	-5 +50 °C
• note	Electrical properties measured at 20 °C, tests according to EN50288-2-1
fire behavior	inflammable
class of burning behaviour / according to EN 13501-6	Fca
chemical resistance	
• to mineral oil	conditional resistance
• to grease	Conditional resistance
• to water	Resistant
radiological resistance / to UV radiation	resistant
product features, product functions, product components / gen	eral
product feature	
• halogen-free	No
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
certificate of suitability	
EAC approval	Yes
CE marking	Yes
RoHS conformity	Yes
standard for structured cabling	Cat5e
Marine classification association	
American Bureau of Shipping Europe Ltd. (ABS)	No
French marine classification society (BV)	No
Det Norske Veritas (DNV)	No
Germanische Lloyd (GL)	No
Lloyds Register of Shipping (LRS)	No
Nippon Kaiji Kyokai (NK)	No
Polski Rejestr Statkow (PRS)	No
reference code	
according to IEC 81346-2	WG
 according to IEC 81346-2:2019 	WGB
further information / internet links	
internet link	
to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
to website: Industrial communication	http://www.siemens.com/simatic-net
to website: Industrial communication to website: Industry Mall	https://mall.industry.siemens.com
to website: Industry Mail to website: Information and Download Center	http://www.siemens.com/industry/infocenter
to website: Information and bowindad center to website: Selection guide for cables and connectors	
-	https://sia.ag/20dlycP
• to website: Image database	https://sie.ag/2QdlxcP
to website: Image database to website: CAx-Download-Manager	http://automation.siemens.com/bilddb
 to website: Image database to website: CAx-Download-Manager to website: Industry Online Support 	

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