MAXIMUM CONTINUOUS CURRENT RATINGS – in accordance with IEC 60287 Screens Solid Bonded at Both Ends

0.0			Scree	ns Solid Bo	nded at Both	Ends			
√ exans		800 mi	m² Cu 19/	/33 kV XL	PE CWS/	PVC/EC	D/HDPE		V180621
No. of cables			3			1	Туре	Copper wire/braid	
Cond	ductor	Material	Plain Copper		Core so	reen 1	No. of wires	Diameter	Lay length
		Form	Compacted cir	cular			36	0.85	537
		Area	800	mm²			Diameter	56.00	mm
		No. of wires	61 N/A		Core so	reen 2	Туре	None	•
		Wire diameter Rdc at 20°C	N/A 0.0221	mm Ohm/km					
		Diameter	34.3	mm			Diameter		mm
Conductor scr	reen	Diameter	36.5	mm	Armour bedding		Material	PVC	
lneu	lation	Material	XLPE (HV)		Armour	beaaing	Diameter	59.60	mm
IIISU	iation	Vpe	19	kV	Arm	our	Туре	None	
		Vpp	33	kV	7				
Insulation scre	aon .	Diameter Diameter	52.50 54.30	mm			Diameter	L	mm
insulation ser	<u> </u>	Diameter	54.00			. 1	Material	Ecoterm	111111
					She	ath	Diameter	59.70	mm
					Cove	ring	Material	HDPE	
						illig	Diameter	62.50	mm
			1		ANCE DATA				3
			Cables, trefoil	1	Cables, flat	Ducts, trefoil	Ducts, flat	Ducts, flat	
Conductor	resistance at 90	1 °℃	touching	touching 336	spaced 0.0315	touching	touching 0317	spaced 0.0311	Ohm/km
Inductive reac			0.0974	0.1175	0.0315	0.1353	0.1573	0.0311	Ohm/km Ohm/km
Cable pf			0.0374	0.1173	0.1897	0.1333	0.1373	0.2030	Jiiii/Kiii
3p volt drop	- maximum	(0.00	0.1784	0.2117	0.2879	0.2407	0.2779	0.3556	mV/A.m
	- at load pf		0.1477	0.1686	0.2133	0.1845	0.2073	0.2540	mV/A.m
Core screen 1	- dc resistance		0.8868	Ohm/km	Conductor to s	-	nce	0.352	μF/km
	- dc resistance		1.1308	Ohm/km	Charging current 2.10 Dielectric loss 159				A/km/phase
Core screen 2	dc resistance		0.0000	Ohm/km	Dielectric loss	W/km/phase			
Armour	 dc resistance dc resistance 		0.0000 0.0000	Ohm/km Ohm/km	Zero sequence resistance at 20°C 0.9122 Zero sequence resistance at 90°C 1.1617				Ohm/km Ohm/km
Amoul	- de resistance		0.0000	Ohm/km	Zero sequence resistance at 90°C Zero sequence reactance			0.0461	Ohm/km
		RIAL PROPE		Omn/ten	Surge impedan			14.4	Ohm
Insulation	- thermal resis		3.5	K.m/W	ou.gopoud				J
ii lo di di lo l	- relative perm	•	2.3						
	- loss factor	•	0.004						
 solar absorption coefficient 			0.4		OPERATING CONDITIONS				
	ng thermal resis	-	5.0	K.m/W	Supply frequency 50 Hz				
Sheath	- thermal resis	•	3.5	K.m/W	Load power fac			0.8	
Covering	 solar absorpt thermal resis 		0.4 3.5	K.m/W	Conductor oper Ambient air ter		ure	90 40	°C ○C
Covering		tion coefficient	0.4	IX.III/ VV	Solar radiation	•		0	W/m²
Duct in air	- thermal resis		6.0	K.m/W	Ambient ground			25	°C
	- solar absorpt	tion coefficient	0.6		Depth of burial, to cable/group axis 80				mm
Duct in ground	d thermal resisti	vity	6.0	K.m/W	Thermal resisti			1.2	K.m/W
Ducts	Type in air		PVC		Backfill	- thermal resis	•		K.m/W
	Type in ground		PVC	A -t I ID		- envelope min			mm
In air	Single cable	100 mm	Actual OD, mm 114.3	100.7		envelope maj			mm mm
iii aii	Three cables	200 mm	225.3	201.6	· · · · · · · · · · · · · · · · · · ·				mm
In ground	Single cable	100 mm	114.3	100.7			31110011 00010	Bonded at bot	
	Three cables	200 mm	225.3	201.6	Screen bond	ding			
				CURREN	RATINGS				
Thermal resist						closed			Enclosed
- Insulation	0.2559	K.m/W	(1	ka	in	air			in air
BeddingSheath	0.0496 0.0009	K.m/W K.m/W							
- Covering	0.0009	K.m/W	<u>/ 000</u>	000		// b	<i>1</i> 20	1 1 2 2	1 /(Q)
Covering	0.0200				%LP	1/2Lh			
Continuous cu	urrent rating	Α	1143	1258	1146	1198	1087	1157	844
External them		K.m/W	0.6583	0.4262	0.6520	0.4959	0.8543	0.7186	1.6230
Cable surface		°C	75	72	75	73	77	75	82
Screen loss fa			0.2006	0.4813	0.2007	0.4795	0.0741	0.0744	0.0732
Armour loss fa	actor		0.0000	0.0000 Direct	0.0000	0.0000	0.0000	0.0000	0.0000
			Direct Underground in ground ducts					-	
			1/0/0	7/8/S	3/8/8			7/8/8	
			712712	7112112	712712	2112712	712212		7 / 27 / 27
			000		0	666	000		[(Q)
			000	000	00	000	0_0_0	00	
Continuous cu		A	872	840 1.7066	898	796	741	824	803
Cable surface	nal resistance	°C	1.8282 81	1.7266 82	1.8940	2.0004 83	1.8991	2.1603 82	2.4637 83
Screen loss fa			0.1977	0.4706	0.0733	0.4284	0.7913	0.2296	0.0730
Armour loss fa			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MAXIMUM CONTINUOUS CURRENT RATINGS – in accordance with IEC 60287

			Screens	Single Poin	t Bonded at	One End				
V exans Colex		800 mi	m² Cu 19/	33 kV XL	PE CWS/	PVC/ECC)/HDPE		V180621	
0	director.	No. of cables	3		0		Туре	Copper wire/br	aid	
Cond	ductor	Material	Plain Copper		Core so	creen 1	No. of wires	Diameter	Lay length	
		Form	Compacted circ	cular			36	0.85	537	
		Area	800	mm²			Diameter	56.00	mm	
		No. of wires	61		Cara		Туре	None		
Wire diameter		N/A mm		Core so	reen 2					
		Rdc at 20°C	0.0221 Ohm/km							
		Diameter	34.3 mm				Diameter		mm	
Conductor scr	reen	Diameter	36.5 mm		h a ddin a	Material	PVC			
la a co	detien	Material	XLPE (HV)		Armour bedding		Diameter	59.60	mm	
insu	ılation	Vpe	19	kV	Δ		Туре	None		
Vpp		33 kV		Armour						
Diameter		52.50	mm							
<u>Insulation screen</u> Diameter			54.30	mm			Diameter	**************************************	mm	
					Oh-	-41-	Material	Ecoterm		
					She	atn	Diameter	59.70	mm	
							Material	HDPE		
					Cove	ring	Diameter	62.50	mm	
				PERFORM	ANCE DATA					
			Cables, trefoil	Cables, flat	Cables, flat	Ducts, trefoil	Ducts, flat	Ducts, flat		
			touching	touching	spaced	touching	touching	spaced		
Conductor	resistance at 90	n°C	0.00		0.0315		317	0.0311	Ohm/km	
Inductive reac			0.0974	0.1175	0.0315	0.1353	0.1573	0.2030	Ohm/km	
	lalice		0.0974	0.1175			0.1573		Olilii/Kill	
Cable pf	- maximum				0.1897	0.2279		0.1513	m\//A m	
3p volt drop			0.1784	0.2117	0.2879	0.2407	0.2779	0.3556	mV/A.m	
Cara	- at load pf	a at 0000	0.1477	0.1686	0.2133	0.1845	0.2073	0.2540	mV/A.m	
Core screen 1	- dc resistance		0.8868	Ohm/km	Conductor to screen capacitance 0.352				μF/km	
0	- dc resistance		1.1308	Ohm/km	Charging curre	ıı		2.10	A/km/phase	
Core screen 2	2 - dc resistance		0.0000	Ohm/km	Dielectric loss 159 W/km/y					
	- dc resistance		0.0000	Ohm/km	•	resistance at 2		0.9122	Ohm/km	
Armour	- dc resistance		0.0000	Ohm/km	Zero sequence		1.1617	Ohm/km		
	- dc resistance		0.0000	Ohm/km	Zero sequence	reactance		0.0461	Ohm/km	
	MATE	RIAL PROPE	ERTIES		Surge impedan	ce		14.4	Ohm	
Insulation	- thermal resis	stivity	3.5	K.m/W	Ĭ					
	 relative perm 	ittivity	2.3							
	 loss factor 		0.004							
- solar absorption coefficient			0.4		OPERATING CONDITIONS					
Armour beddir	ng thermal resis	tivity	5.0	K.m/W	Supply frequency 50 Hz					
Sheath	- thermal resis	stivity	3.5	K.m/W	Load power fac	tor		0.8		
	- solar absorpt	tion coefficient	0.4		Conductor operating temperature 90 °C					
Covering	- thermal resis	stivity	3.5	K.m/W	Ambient air ten			40	°C	
	- solar absorpt	tion coefficient	0.4		Solar radiation intensity			0	W/m ²	
Duct in air	- thermal resis	stivity	6.0	K.m/W	Ambient ground temperature 25 °C				°C	
	- solar absorpt		0.6		Depth of burial, to cable/group axis 800 mm				mm	
Duct in ground	d thermal resisti		6.0	K.m/W	, , , , , , , , , , , , , , , , , , , ,				K.m/W	
_ ccc g. cc	Type in air	,	PVC		Backfill - thermal resistivity K				K.m/W	
Ducts	Type in ground	4	PVC		,				mm	
	Type in ground		Actual OD, mm	Actual ID mm	·					
In air	Single cable	100 mm	L		· · · · · · · · · · · · · · · · · · ·				mm	
	omigio odolo		114.3	100.7					mm mm	
			114.3 225.3	100.7 201.6	Non standard a	ixial spacing be	tween cables		mm	
	Three cables	200 mm	225.3	201.6		ixial spacing be	tween cables	Single point ho	mm mm	
In ground	Three cables Single cable	200 mm 100 mm	225.3 114.3	201.6 100.7	Non standard a	axial spacing be	tween cables	Single point bo	mm mm	
	Three cables	200 mm	225.3	201.6 100.7 201.6	Non standard a Non standard a Screen bond	axial spacing be	tween cables	Single point bo	mm mm	
In ground	Three cables Single cable Three cables	200 mm 100 mm	225.3 114.3	201.6 100.7 201.6	Non standard a Non standard a Screen bond	uxial spacing be uxial spacing be	tween cables	Single point bo	mm mm nded	
In ground Thermal resist	Three cables Single cable Three cables tances	200 mm 100 mm 200 mm	225.3 114.3	201.6 100.7 201.6	Non standard a Non standard a Screen bond FRATINGS Unend	ixial spacing be ixial spacing be divided by the spacing by the sp	tween cables	Single point bo	mm mm onded	
In ground Thermal resist - Insulation	Three cables Single cable Three cables tances 0.2559	200 mm 100 mm 200 mm	225.3 114.3	201.6 100.7 201.6	Non standard a Non standard a Screen bond FRATINGS Unend	uxial spacing be uxial spacing be	tween cables	Single point bo	mm mm nded	
In ground Thermal resist - Insulation - Bedding	Three cables Single cable Three cables tances 0.2559 0.0496	200 mm 100 mm 200 mm K.m/W K.m/W	225.3 114.3	201.6 100.7 201.6	Non standard a Non standard a Screen bond FRATINGS Unend	ixial spacing be ixial spacing be divided by the spacing by the sp	tween cables		mm mm onded	
In ground Thermal resist - Insulation - Bedding - Sheath	Three cables Single cable Three cables Three cables tances 0.2559 0.0496 0.0009	200 mm 100 mm 200 mm K.m/W K.m/W	225.3 114.3 225.3	201.6 100.7 201.6	Non standard a Non standard a Screen bond FRATINGS Unend	ixial spacing be ixial spacing be divided by the spacing by the sp	tween cables		mm mm onded	
In ground Thermal resist - Insulation - Bedding	Three cables Single cable Three cables tances 0.2559 0.0496	200 mm 100 mm 200 mm K.m/W K.m/W	225.3 114.3	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond FRATINGS Unend	ixial spacing be ixial spacing be divided by the spacing by the sp	tween cables	Single point bo	mm mm onded	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W	225.3 114.3 225.3	201.6 100.7 201.6 CURREN	Non standard a Non standard a Screen bond FRATINGS	ixial spacing be ixial spaced by ixial spacing be ixial spacing be ixial spacing by ixial spacing be ixial spaced by ixial	etween cables etween ducts	8	Enclosed in air	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3	201.6 100.7 201.6 CURREN	Non standard a Non standard a Screen bond I RATINGS	closed air	etween cables etween ducts	1180	Enclosed in air	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond I RATINGS Unen in 1211 0.6576	closed air 1369 0.5078	etween cables etween ducts 1110 0.8566	1180 0.7208	Enclosed in air 864 1.6250	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating nal resistance temperature	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73	closed air 1369 0.5078 70	etween cables etween ducts 1110 0.8566 76	1180 0.7208 74	Enclosed in air 864 1.6250 82	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73 0.0307	closed air 1369 0.5078 70 0.0082	1110 0.8566 76 0.0165	1180 0.7208 74 0.0166	Enclosed in air 864 1.6250 82 0.0163	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73	closed air 1369 0.5078 70	1110 0.8566 76 0.0165 0.0000	1180 0.7208 74 0.0166 0.0000	Enclosed in air 864 1.6250 82	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct	RATINGS Unencin 1211 0.6576 73 0.0307	closed air 1369 0.5078 70 0.0082	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000 ground	Enclosed in air 864 1.6250 82 0.0163	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct in ground	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000	Enclosed in air 864 1.6250 82 0.0163	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct in ground	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct in ground	Non standard a Non standard a Screen bond TRATINGS Unend in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000 ground	Enclosed in air 864 1.6250 82 0.0163	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163 0.0000	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables tances 0.2559 0.0496 0.0009 0.0255 urrent rating mal resistance temperature actor	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct in ground	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa	Three cables Single cable Three cables 1	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond I RATINGS Unend in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000 Under	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163 0.0000	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa Armour loss fa	Three cables Single cable Three cables 1	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W A K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT	Non standard a Non standard a Screen bond in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163 0.0000	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa Armour loss fa	Three cables Single cable Three cables Three cables 1.2559 0.0496 0.0009 0.0255 1.2559 1.25	200 mm 100 mm 200 mm K.m/W K.m/W K.m/W A K.m/W	225.3 114.3 225.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct in ground	Non standard a Non standard a Screen bond I RATINGS Unent in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000 Under du	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163 0.0000	
In ground Thermal resist - Insulation - Bedding - Sheath - Covering Continuous cu External them Cable surface Screen loss fa Armour loss fa	Three cables Single cable Three cables Three cables 1.2559 0.0496 0.0009 0.0255 1.2559 1.25	Z00 mm 100 mm 200 mm K.m/W K.m/W K.m/W K.m/W A K.m/W C	225.3 114.3 225.3 1208 0.6639 74 0.0307 0.0000	201.6 100.7 201.6 CURRENT 1430 0.4373 69 0.0083 0.0000 Direct in ground	Non standard a Non standard a Screen bond I RATINGS Unent in 1211 0.6576 73 0.0307 0.0000	closed air 1369 0.5078 70 0.0082 0.0000	1110 0.8566 76 0.0165 0.0000 Under du	1180 0.7208 74 0.0166 0.0000 ground cts	Enclosed in air 864 1.6250 82 0.0163 0.0000	

MAXIMUM CONTINUOUS CURRENT RATINGS – in accordance with IEC 60287

_				Screens Cr	oss Bonded					
N exans Cole x		800 mı	m² Cu 19/	33 kV XL	PE CWS	PVC/ECC	D/HDPE		V180621	
		No. of cables	3				Туре	Copper wire/bi	aid	
Conductor Material		Plain Copper		Core screen 1		No. of wires	Diameter	Lay length		
		Form	Compacted circ	cular			36	0.85	537	
		Area	800	mm²			Diameter	56.00	mm	
		No. of wires	61		- 1	Туре	None			
		Wire diameter	N/A	Core screen 2		creen 2				
		Rdc at 20°C	0.0221 Ohm/km				•		1	
		Diameter	34.3 mm				Diameter		mm	
Conductor scr	een	Diameter	36.5 mm		Material	PVC				
	Material		XLPE (HV)		Armour bedding		Diameter	59.60	mm	
Insul	Insulation Vpe		19	kV			Туре	None		
Vpp		33	kV	Armour			I	1		
Diameter		52.50	mm							
Insulation screen Diameter			54.30	mm			Diameter	l	mm	
<u> </u>			0 1.00				Material	Ecoterm		
					She	ath	Diameter	59.70	mm	
						Material	HDPE			
					Cove	ering	Diameter	62.50	mm	
				DEDECRIA	ANOF DATA		Diameter	02.50	111111	
					ANCE DATA				1	
			Cables, trefoil	Cables, flat	Cables, flat	Ducts, trefoil	Ducts, flat	Ducts, flat		
			touching	touching	spaced	touching	touching	spaced		
	resistance at 9	0°C		336	0.0315		317	0.0311	Ohm/km	
Inductive react	ance		0.0974	0.1175	0.1632	0.1353	0.1573	0.2030	Ohm/km	
Cable pf			0.3259	0.2747	0.1897	0.2279	0.1974	0.1513		
3p volt drop	- maximum		0.1784	0.2117	0.2879	0.2407	0.2779	0.3556	mV/A.m	
	- at load pf		0.1477	0.1686	0.2133	0.1845	0.2073	0.2540	mV/A.m	
Core screen 1	- dc resistanc	e at 20°C	0.8868	Ohm/km		creen capacita		0.352	μF/km	
	- dc resistanc	e at 90°C	1.1308	Ohm/km	·				A/km/phase	
Core screen 2	- dc resistanc	e at 20°C	0.0000	Ohm/km					W/km/phase	
	- dc resistanc		0.0000	Ohm/km	Zero sequence	0.9122	Ohm/km			
Armour	- dc resistanc		0.0000	Ohm/km		resistance at 9	1.1617	Ohm/km		
	- dc resistanc		0.0000	Ohm/km	Zero sequence		0.0461	Ohm/km		
		RIAL PROPE			Surge impedar	Ohm				
langual ation				K.m/W	Surge impedar	100		14.4	Olilli	
Insulation	- thermal resis	•	3.5	N.111/ VV						
	- relative perm	пшиц	2.3							
	- loss factor		0.004			0050				
		tion coefficient	0.4				ATING CONE			
	ng thermal resis	-	5.0	K.m/W	Supply frequen	•		50	Hz	
Sheath	- thermal resi	•	3.5	K.m/W	Load power fac			0.8		
_	•	tion coefficient	0.4			rating temperat	ure	90	°C	
Covering	- thermal resi	•	3.5	K.m/W	Ambient air ter	•		40	°C	
	•	tion coefficient	0.4		Solar radiation	•	0	W/m²		
Duct in air	- thermal resis	•	6.0	K.m/W	Ambient ground temperature			25	°C	
		tion coefficient	0.6		Depth of burial, to cable/group axis			800	mm	
Duct in ground	thermal resist	ivity	6.0	K.m/W	Thermal resistivity of ground 1.2				K.m/W	
Ducts	Type in air		PVC		,				K.m/W	
Ducts	Type in groun		PVC			 envelope min 	or dimension		mm	
			Actual OD, mm	<u> </u>					mm	
In air	Single cable	100 mm	114.3	100.7	Non standard axial spacing between cables				mm	
	Three cables	200 mm	225.3	201.6	Non standard a	axial spacing be	etween ducts		mm	
In ground	Single cable	100 mm	114.3	100.7	Company Is a	ding		Cross bonded		
	Three cables	200 mm	225.3	201.6	Screen bond	ang				
		<u></u>	<u></u>	CURREN	RATINGS	<u></u>	<u></u>		<u></u>	
Thermal resist	ances					closed			Enclosed	
- Insulation	0.2559	K.m/W				air			in air	
- Bedding	0.2333	K.m/W	11	M	<u>'// .</u>		1/1	1/1	1/1	
- Sheath	0.0009	K.m/W	1/2		//tb		1 2/2	1/4 ~		
- Covering	0.0009	K.m/W	<u>/ 000</u>	<u> </u>	/	/ b	<i>/</i> }	1200	1 /(Q)	
Covering	0.0233	13.111/ VV				1 / A h				
Continuous	rront ratios	۸	1207	/ J 1429	1011	1260	//	1180	//	
Continuous cu		A K m/M			1211	1368	1110	1	1 6250	
External therm		K.m/W	0.6639	0.4373	0.6576	0.5077	0.8566	0.7208	1.6250	
Cable surface		°C	74	69	73	70	76	74	82	
Screen loss factor		0.0315	0.0102	0.0315	0.0102	0.0168	0.0169	0.0166		
Armour loss factor			0.0000	0.0000	0.0000				0.0000	
				Direct		Underground				
				in ground	ducts					
			77 <i>8</i> 7 <i>8</i>	8/ <i>8</i> 76	7/ <i>8</i> / <i>6</i>	8/ <i>876</i>				
			000	000	Q	666	000			
			000	000		000	$\bigcirc \bigcirc \bigcirc$			
Continuous cu	rrent rating	A	932	994	920	930	962	902	823	
External therm	nal resistance	K.m/W	1.8282	1.7266	1.8940	2.0037	1.9043	2.1622	2.4645	
Cable surface	temperature	°C	80	80	80	81	80	81	82	
Screen loss fa			0.0310	0.0100	0.0166	0.0113	0.0056	0.0058	0.0166	
Armour loss fa			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
									*	