

Reference list of **SÜDKABEL GmbH**, Mannheim, Germany
on **Extra-High Voltage XLPE Cable Systems, $U_{max} \geq 245$ kV**

Year	Location	Cross-section sqmm	Cable length metres	Terminations				Joints	
				Out-door pcs	GIS pcs	GIS Plugs pcs	Trans-former pcs	Straight through pcs	Sectionalizing pcs
$U_{max} = 245$ kV									
1988	Bayernwerk AG, Munich, Germany	800	429	6					
1992	Badenwerk AG, Karlsruhe, Germany	630	5,058	12					
1993/94	WAPDA, Lahore, Pakistan	630	11,104	12				6	
1995	RWE, Germany	630	15,138	6				18	6
1996	NOK, Baden, Switzerland	800	3,435	6				3	
1996	SCECO-East, Dammam, Saudi Arabia	800	850		9		9		
1998	Mosenergo, Moscow, Russia	1000	56,450	6	6			123	12
1998	ABB for SCECO-East, Saudi Arabia	1600	924	6	6				
1999	Kelantissa, Sri Lanka	1200	2,260	12	12				
1999	Kelantissa, Sri Lanka	630	490						
1999	Tocopilla, Chile	1200	1,500	3	3				
2000	Ibn Zahr Downstream, Saudi Arabia	800	600		3		3		
2001	VIPAL-Nova Prata, Brazil	630	180	6					
2002	Yunnan Dachaoshan Hydro P/S, China	500	2,175		12				
2002	SEWEDY, Sakr Korish, Egypt	1000		8	8				9
2002	SEWEDY, Suez Crossing, Egypt	1200		28					
2003	Lianyungang, China	400	2,100		6				
2005	SEWEDY, Egypt	1200		4					
2005	SEWEDY, Talkha, Egypt	1200		19					
2005	AREVA, Järva/Sweden	630		3		3			
2005	AREVA, Järva/Sweden	1200				6			
2005	ABB, Germany for Zawia Libya	800		12		12			
2005	LS Korea, GTC14 - Kahramaa, Qatar	2500							42
2005	LS Korea, GTC14 - Kahramaa, Qatar	800							30
2007	Reykjavik Energy, Iceland	400	8,954	9		9			
2006	Verbund Austrian Power Grid AG	1600	3,150	18		6			
2006	NCC, Saudi Arabia	100			3		3		
2007	ABB Mannheim, RasAbuFontas, Qatar	400	2,673			6	6		
2007	ABB Mannheim, RasAbuFontas, Qatar	630	3,781			9	9		
2007	RWE, Germany	630	900	9		9			
2007	S.E.O. Vianden, Luxemburg	300	6,112	12			12		
2007	SOHAR Aluminium, Oman	800	3,829	6		50			
2008	Reykjavik Energy, Iceland	400	6,468	6		12			
2008	EnergServiceProject Ltd. , Moscow, Russia	2000	7,622	13		13		2	
2008	Moscow Electrical Utility, Russia	2000	7,250						
2008	Moscow Electrical Utility, Russia	2000	10,000						
2008	Moscow Electrical Utility, Russia	1600	27,887						
2008	Moscow Electrical Utility, Russia	1200	3,220						
2008	Moscow Electrical Utility, Russia	1000	1,252						
2008	Moscow Electrical Utility, Russia	1200	25,315						
2008	Moscow Electrical Utility, Russia	1200	9,260						
2008	Moscow Electrical Utility, Russia	1600	9,000						
2008	Moscow Electrical Utility, Russia	1200	2,120						
2008	Scan Electromechanical, Ver.Arab.Emir.	800	3,600			12	12		
2008	Scan Electromechanical, Ver.Arab.Emir.	1600	7,200	12		12			

Reference list of **SÜDKABEL GmbH**, Mannheim, Germany
on **Extra-High Voltage XLPE Cable Systems, $U_{max} \geq 245$ kV**

Year	Location	Cross-section sqmm	Cable length metres	Terminations				Joints	
				Out-door pcs	GIS pcs	GIS Plugs pcs	Trans-former pcs	Straight through pcs	Sectionalizing pcs
$U_{max} = 245$ kV (continue)									
2008	Siemens AG, Germany	800	180						
2008	Setstroinvest Ltd., Russia	1200	88,980	4	10			6	6
2009	ABB for Lakdhanavi Ltd.; Sri Lanka	1000	1,812	6		6			
2009*	Iberdrola, Spain	500	2,360	27	27				
2009*	ABB Mannheim for Algeria	800	5,100	38				2	
2009*	ABB Mannheim for Qatar	1000	4,383			18	12		
2010*	Brazi Vest, Romania	1200	495	3		3			
2011*	S.E.O. Vianden, Luxemburg	300	6,295	15			15		
Total			361,891	327	105	186	81	160	105

		sqmm	metres	Terminations				Joints	
				pcs	pcs	pcs	pcs	pcs	pcs
$U_{max} = 300$ kV									
1992	TNB, Kuala Lumpur, Malaysia	800	4,030	12			12		
1996	TNB, Kuala Lumpur, Malaysia	800	1,920	12					
1997	TNB, Kuala Lumpur, Malaysia	800	800	6	6				
2001	Alstom, France for Malaysia	800	1,750	18					
2003	ABB, Sweden, for Canada (Kemano)	800		24					
2007	Brugg, for Kopswerk 2- Austria	630				4			
2008	AES Kilroot Power Ltd, UK	630	1,250	8				2	
2009	National Grid Co, UK via Western Alliance	1600	30,821	6					42
Total			40,571	86	6	4	12	2	42

		sqmm	metres	Terminations				Joints	
				pcs	pcs	pcs	pcs	pcs	pcs
$U_{max} = 362$ kV									
2002	Taiwan Power Company, Taipeh	2500	31,030	12	12			12	48
2003	Taiwan Power Company, Taipeh	2500	31,030	12	12			12	48
2008	Systec, Moscau, Russia	800	53,960	12					90
2008	Taiwan Power Company, Taipeh	1600	28,800			85			
2010*	Dneprstal, Systec LLC, Ukraine	800	82,648	6				76	12
Total			227,468	42	24	85		100	198

		sqmm	metres	Terminations				Joints	
				pcs	pcs	pcs	pcs	pcs	pcs
$U_{max} = 420$ kV									
1993	CESI, Milan, Italy	1600	130	1	1				1
1996	Neckarwerke Stuttgart, Germany	800	1,571	4	4				
1998	Bewag, Berlin, Germany	1600	20,500		6				24
2000	Bewag, Berlin, Germany	1600	17,050		6				15
2001	Babcock, Germany for Abu Dhabi	1000	10,329		6		6	6	
2002	Babcock, Germany for Abu Dhabi	800	15,543		9		9	9	

Reference list of **SÜDKABEL GmbH**, Mannheim, Germany
on **Extra-High Voltage XLPE Cable Systems, $U_{max} \geq 245$ kV**

Year	Location	Cross-section sqmm	Cable length metres	Terminations				Joints	
				Out-door pcs	GIS pcs	GIS Plugs pcs	Trans-former pcs	Straight through pcs	Sectionalizing pcs
$U_{max} = 420$ kV (continue)									
2003	CEPS, Czech Republic	2500	1,420	6					
2004	Red Electrica, Madrid, Spain	2500	40,160	6					48
2005	Thessaloniki Power, Greece	800	18,000	9				18	
2005	National Grid Company, London, UK	2500	61,685		6				60
2005	National Grid Company, London, UK	2500	16,313	12					12
2005	Rodax Corporation Athen, Greece	800	2,150	4		4		2	
2006	Tala Hydroelectric, Bhutan	1200	8,920	12	12				
2007	Verbund Austrian Hydro Power AG	800	600			3	3		
2006	RWE, Germany	800	300	3		3			
2007	Voith Siemens Hydro for Baglihar India	800	2,995	7		7		2	
2008	ABB Mannheim for Qatar	2000	3,840			6			3
2008	ABB for UB-JV, Iraq	630	2,205	12					
2008	Ermenek, Turkey via Alstom Power	800	1,200	6			6		
2008	Wienstrom GmbH, Austria	1200	2,291			6	6		
2010	Maritza East Power Station, Bulgaria	630	3,200	12					
2010	Rodax Corporation Athen, Greece	800	200	3		3			
2010	Rodax Corporation Athen, Greece	800	1,200	4		4			
2010*	ABB for SWCC, Saudi Arabia	630	6,210			9	12		3
2010*	Brazi Vest, Romania	630	495	6		6			
2011*	Karcham-Wangtoo, India	2500	5,060	14		14			
2011*	Karcham-Wangtoo, India	630	2,400	8		8			
2011*	Svartisen Power Plant, Statkraft, Norway	630	3,000			6			
2011*	Teesta III H. E. P., Andritz Hydro, India	630	900			18	18		
2011*	Teesta III H. E. P., Andritz Hydro, India	1600	8,000	6		6			7
2012*	Rendalen 2, Eidsiva, Norway	630	1,950	3			3		
Total			259,817	138	50	103	63	37	173

	Location	Cross-section sqmm	Cable length metres	Terminations				Joints	
				pcs	pcs	pcs	pcs	pcs	pcs
$U_{max} = 550$ kV									
2001	Dachaoshan HPP, Yunnan, China	800	2,535		12				
2004	OAo, Moscow for Bureya HPP, Russia	800	2,650		7			2	
2007	OAo, Moscow for Bureya HPP, Russia	800	2,850			6		1	
2007	ManWan HPP, China	800	950			8			
2009	ETS Solutions GB, for Russia	800	600	6					
2009	GouPiTan HPP, China	800	10,050			32			
2009	Alstom Power France for Merowe, Sudan	1,200	3,900	9		9			
2009	Alstom Power France for Merowe, Sudan	800	3,000			21	15		
2010*	Subgerencia Projectos Generacion, Colombia	800	5,410	8		8			
2010*	Boguchan HPS, Russia	800	8,000			36			
2010*	Boguchan HPS, Russia	2,500	4,000			18			
2010*	Boguchanskaya HPS, Russia	2,500	3,600			18			
Total			47,545	23	19	156	15	3	

* = under construction (scheduled year of commissioning)

**Total length of XLPE cables from 245 kV up to 550 kV,
delivered resp. under construction by
SÜDKABEL GmbH, Mannheim**

937 kilometres