

Umbilical - Full load

Values to be changed.

Current	I	14.8 A	Temperature	
Length	L	5000 m	Correction	T = 1.0747
Resistance	R	4.9 DegC		
Op Temp	Op T	39 DegC (Ave)		
Volt Drop	$\frac{(\sqrt{3} \times I \times L \times R \times T)}{1000}$		Total Power HVTF =	57720 W
	= 674.9 v		Current at LV	= 120.3 A
Voltage at Top	= 3900 v		side of transformer	
Voltage at Bottom	= 3225.1 v			

Umbilical - No load

Current	I	7.5 A	Temperature	
Length	L	5000 m	Correction	T = 1.0747
Resistance	R	4.9 DegC		
Op Temp	Op T	39 DegC (Ave)		
Volt Drop	$\frac{(\sqrt{3} \times I \times L \times R \times T)}{1000}$		Total Power HVTF =	29250 W
	= 342.0 v		Current at LV	= 60.9 A
Voltage at Top	= 3900 v		side of transformer	
Voltage at Bottom	= 3558.0 v			

Deck Cable - Full load

Current	I	14.8 A	Temperature	
Length	L	30 m	Correction	T = 1.0747
Resistance	R	4.9 DegC		
Op Temp	Op T	39 DegC (Ave)		
Volt Drop	$\frac{(\sqrt{3} \times I \times L \times R \times T)}{1000}$		Total Power HVTF =	48840 W
	= 4.0 v		Current at LV	= 101.8 A
Voltage at Top	= 3300 v		side of transformer	
Voltage at Bottom	= 3296.0 v			

Deck Cable - No load

Current	I	7.5 A	Temperature		
Length	L	30 m	Correction	T =	1.0747
Resistance	R	4.9 DegC			
Op Temp	Op T	39 DegC (Ave)			
Volt Drop		$\frac{(\sqrt{3} \times I \times L \times R \times T)}{1000}$	Total Power HVTF	=	24750 W
	=	<u>2.1</u> v	Current at LV	=	<u>51.6</u> A
			side of transformer		
Voltage at Top	=	3300 v			
Voltage at Bottom	=	<u>3297.9</u> v			

Umbilical - Start up

Current at HV	I	59.2 A
side of transformer		
Total Power HVTF	=	230880 W
Current at LV	=	<u>481.0</u> A
side of transformer		

Deck Cable - Start up

Current at HV	I	59.2 A
side of transformer		
Total Power HVTF	=	195360 W
Current at LV	=	<u>407.0</u> A
side of transformer		
