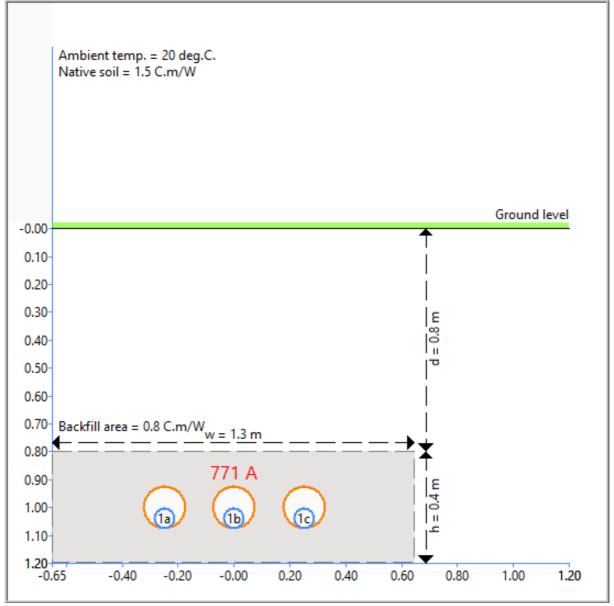
Cable HV Software complies with IEC Standards.

INSTALLATION METHOD: BURIED IN DUCTS





SUMMARY OF RESULTS FOR ALL CIRCUITS

CIRCUIT NO.	CABLE MODEL NO.	CONDUCTOR TEMPERATURE (deg. C)	CURRENT RATING (A)
1	1	90	770.51



CIRCUIT 1 DATA		
SUMMARY OF RESULTS		
CURRENT RATING OF CIRCUIT 1 (A)	770.51	
No. of iterations	3	
Cable model no.	1	
Cable model title	Case 1 Validation	
Bonding	Single point bonded	
Conductor operating temperature (deg.C.)	90	
Grouping calculation method	Equally loaded	
Native soil thermal resistivity (C.m/W)	1.5	
Ambient soil temperature (deg.C.)	20	
Sheath/Conc. neutral standing voltage (V/m)	0.046613	
CABLE COORDINATES		
X (m)	-0.25	
Y (m)	1	
X (m)	0	
Y (m)	1	
X (m)	0.25	
Y (m)	1	
BACKFILL		
Backfill thermal resistivity (C.m/W)	0.8	
X, centre of backfill (m)	0	
Y, centre of backfill (m)	1	
Height of backfill area (m)	0.4	
Width of backfill area (m)	1.3	
DUCTS	1.0	
Duct arrangement	Separate duct per phase	
-	Polyethylene	
Duct material		
Thermal resistivity (C.m/W)	3.5	
Outside diameter (m)	0.16	
Inside diameter (m)	0.15	
TOTAL LOSSES PER CABLE (W/m)	28.87	
CONDUCTOR LOSSES		
AC resistance (Ohms/m)	4.84464E-5	
DC resistance (Ohms/m)	4.66687E-5	
Skin effect factor, ys	0.0366557	
Proximity effect factor, yp	0.00143648	
Skin effect coefficient, ks	1	
Proximity effect coefficient, kp	1	
Conductor loss (W/m)	28.761946	

Insulation relative permeability, epsilon 2.5 Insulation capacitance (F/m) 1.6278E-10 Dielectric loss, Wd (W/m) 0 SHEATH LOSSES Sheath circulating current loss factor, Lamda1' 00 Sheath resistance (Ohms/m) 0.00036314 Sheath resistance (Ohms/m) 0.000120777 Sheath eddy current loss factor, Lamda1'1 (outer cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1'2 (other outer cable) 0.000522734 Concentric neutral circulating current loss factor, Lamda1 n Concentric neutral reactance (Ohms/m) 0.000121208 Concentric neutral resistance (Ohms/m) 0.000121208 Concentric neutral loss (W/m) 0 CABLE THERMAL RESISTANCES T1, between conductor and sheath (K.mW) 0 3. outer covering (K.mW) 0.0673507 T3 scaling factor 1 T4, external surroundings (K.mW) 1.80591 T4, duct filling medium (K.mW) 0.333009 T4', duct filling medium (K.mW) 0.333009 T4', duct filling medium (K.mW) 0.0359507 CABLE THERMAL RESISTANCES Conductor temperature (deg.C.) 90 Sheath/ocncentric neutral temperature (deg.C.) 74.07 Armour temperature (deg.C.) 72.13 Exterior/Duct temperature (deg.C.) 61.48	DIELECTRIC LOSSES	
Insulation loss factor, tan-delta 0.001 Insulation capacitance (F/m) 1.6278E-10 Dielectric loss, Wd (W/m) 0 SHEATH LOSSES 0 Sheath circulating current loss factor, Lamda1* 0 Sheath resistance (Ohms/m) 0.000363914 Sheath resistance (Ohms/m) 0.000120777 Sheath eractance (Ohms/m) 0.00360865 Sheath eddy current loss factor, Lamda1*1 (outer cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1*1 (middle phase) 0.00360865 Sheath eddy current loss factor, Lamda1*1 (middle phase) 0.00360865 Sheath eddy current loss factor, Lamda1*1 (middle phase) 0.00360865 Sheath loss (W/m) 0.103792 CONCENTRIC NEUTRAL/SHEILD LOSSES 0 Concentric neutral circulating current loss factor, Lamda1*n 0 Concentric neutral resistance (Ohms/m) 0.000121208 Concentric neutral resistance (Ohms/m) 0.000121208 Concentric neutral resistance (Ohms/m) 0.000522734 Concentric neutral resistance (Ohms/m) 0.000525367 T1, between conductor and sheath (K.m/W) 0.553756 T2, between sheath and armour (K.m/W) 0.65391 <td></td> <td></td>		
Insulation capacitance (F/m) 1.6278E-10 Dielectric loss, Wd (W/m) 0 Sheath circulating current loss factor, Lamda1" 0 Sheath resistance (Ohms/m) 0.000363914 Sheath resistance (Ohms/m) 0.000120777 Sheath reactance (Ohms/m) 0.00360865 Sheath eddy current loss factor, Lamda1" (under cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1" (under cable) 0.00360865 Sheath eddy current loss factor, Lamda1" (undel phase) 0.00360865 Sheath eddy current loss factor, Lamda1" (undel phase) 0.00360865 Sheath eddy current loss factor, Lamda1" (undel phase) 0.00360865 Concentric neutral circulating current loss factor, Lamda1" 0.00360865 Concentric neutral circulating current loss factor, Lamda1" 0 Concentric neutral circulating current loss factor, Lamda1" 0 Concentric neutral reactance (Ohms/m) 0.000522734 Concentric neutral reactance (Ohms/m) 0.000121208 Concentric neutral reactance (W/m) 0 Concentric neutral surroundings (K:m/W) 0.6553756 T1, between sheath and armour (K:m/W) 0.333009 T		-
Dielectric loss, Wd (W/m) 0 Sheath circulating current loss factor, Lamda1' 0 Sheath resistance (Ohms/m) 0.000363914 Sheath resistance (Ohms/m) 0.000120777 Sheath resistance (Ohms/m) 0.00360865 Sheath reactance (Ohms/m) 0.00360865 Sheath eddy current loss factor, Lamda1'2 (other cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1'2 (other outer cable) 0.00360865 Sheath eddy current loss factor, Lamda1''2 (other outer cable) 0.00360865 Sheath eddy current loss factor, Lamda1''2 (other outer cable) 0.00360865 Concentric neutral circulating current loss factor, Lamda1'' 0.00360865 Concentric neutral circulating current loss factor, Lamda1'' 0 Concentric neutral circulating current loss factor, Lamda1 0 Concentric neutral resistance (Ohms/m) 0.000522734 Concentric neutral loss (W/m) 0 Cable THERMAL RESISTANCES 0 T1, between conductor and sheath (K.m/W) 0.553756 T2, between sheath and armour (K.m/W) 0.0673607 T3 scaling factor 1 T4, external surroundings (K.m/W) 0.333009 T4', duct filling mediu		
SHEATH LOSSES Sheath circulating current loss factor, Lamda1' 0 Sheath resistance (Ohms/m) 0.000363314 Sheath reactance (Ohms/m) 0.000120777 Sheath eddy current loss factor, Lamda1'' (outer cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1'' (outer cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1'' (middle phase) 0.00360865 Sheath loss (W/m) 0.103792 CONCENTRIC NEUTRAL/SHEILD LOSSES 0 Concentric neutral circulating current loss factor, Lamda1'n 0 Concentric neutral circulating current loss factor, Lamda1'n 0 Concentric neutral resistance (Ohms/m) 0.000622734 Concentric neutral resistance (Ohms/m) 0.0000121208 Concentric neutral loss (W/m) 0 Concentric neutral loss (W/m) 0 Chewen sheath and armour (K.m/W) 0 T3, outer covering (K.m/W) 1.80591 T4, external surroundings (K.m/W) 0.333009 T4'', duct filling medium (K.m/W) 0.333009 T4'', duct or pipe) itself (K.mW) 0.0359507 CABLE TEMPERATURES 90 Sheath/concentric neutral temperatu		
Sheath circulating current loss factor, Lamda1'0Sheath resistance (Ohms/m)0.000363914Sheath resistance (Ohms/m)0.000120777Sheath reactance (Ohms/m)0.000120777Sheath readcarce (Ohms/m)0.00360865Sheath eddy current loss factor, Lamda1'' (outer cable carrying lagging phase)0.00360865Sheath eddy current loss factor, Lamda1'' (other outer cable)0.00360865Sheath eddy current loss factor, Lamda1'' (other outer cable)0.00360865Sheath loss (W/m)0.103792 CONCENTRIC NEUTRAL/SHEILD LOSSES 0Concentric neutral circulating current loss factor, Lamda10Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral resistance (Ohms/m)0Concentric neutral resistance (Ohms/m)0Cheween conductor and sheath (f.m/W)01, between conductor and sheath (f.m/W)012, between sheath and armour (K.m/W)013 caling factor114, duct filling medium (K.m/W)0.333009T4', duct filling medium (K.m/W)0.333009T4', duct filling medium (K.m/W)90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Armour temperature (deg.C.)72.13		0
Lamda1'USheath resistance (Ohms/m)0.000363914Sheath reactance (Ohms/m)0.000120777Sheath reactance (Ohms/m)0.000120777Sheath eddy current loss factor, Lamda1'' (outer cable carrying lagging phase)0.00360865Sheath eddy current loss factor, Lamda1''' (outer outer cable)0.00360865Sheath eddy current loss factor, Lamda1''' (outer outer cable)0.00360865Sheath eddy current loss factor, Lamda1''' (outer outer cable)0.00360865Sheath eddy current loss factor, Lamda1''' (outer outer cable)0.00360865Concentric neutral circulating current loss factor, Lamda1''0Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral resistance (Ohms/m)0.000121208Concentric neutral resistance (Ohms/m)0Concentric neutral ses (W/m)0Chrese conductor and sheath (K.m/W)0.55375611, between conductor and sheath (K.m/W)013 caling factor114, external surroundings (K.m/W)1.8059114'', duct filling medium (K.m/W)0.33300914'', duct filling medium (K.m/W)0.0359507CABLE TEMPERATURES90Conductor temperature (deg.C.)74.07Armour temperature (deg.C.)72.13	SHEATH LOSSES	
Sheath reactance (Ohms/m) 0.000120777 Sheath eddy current loss factor, Lamda1"1 (outer cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1"2 (other outer cable) 0.00360865 Sheath eddy current loss factor, Lamda1"1 (middle phase) 0.00360865 Sheath loss (W/m) 0.103792 CONCENTRIC NEUTRAL/SHEILD LOSSES 0 Concentric neutral circulating current loss factor, Lamda1 m 0 Concentric neutral resistance (Ohms/m) 0.000522734 Concentric neutral resistance (Ohms/m) 0.000121208 Concentric neutral loss (W/m) 0 Caster THERMAL RESISTANCES 1 T1, between conductor and sheath (K.m/W) 0.553756 T2, between sheath and armour (K.m/W) 0 T3 scaling factor 1 T4, external surroundings (K.m/W) 0.333009 T4", duct filling medium (K.m/W) 0.0359507 CABLE TEMPERATURES 90 Sheath/concentric neutral temperature (deg.C.) 74.07 Armou	Sheath circulating current loss factor, Lamda1'	0
Sheath eddy current loss factor, Lamda1''' (outer cable carrying lagging phase) 0.00360865 Sheath eddy current loss factor, Lamda1''' (other outer cable) 0.00360865 Sheath eddy current loss factor, Lamda1''' (other outer cable) 0.00360865 Sheath eddy current loss factor, Lamda1''' (numidle phase) 0.00360865 Sheath loss (W/m) 0.103792 CONCENTRIC NEUTRAL/SHEILD LOSSES 0 Concentric neutral circulating current loss factor, Lamda1n 0 Concentric neutral resistance (Ohms/m) 0.000121208 Concentric neutral reactance (Ohms/m) 0 Ta, between conductor and sheath 0.553756 T1, between sheath and armour (K.m/W) 0 3, outer covering (K.m/W) 1.80591 T4, external surroundings (K.m/W) 0.0333009 T4'', duct filling medium (K.m/W) 0.0359507 CABLE THEPERATURES 90	Sheath resistance (Ohms/m)	0.000363914
Lamda1"1 (outer cable carrying lagging phase)0.00360865Sheath eddy current loss factor, Lamda1"2 (other outer cable)0.00360865Sheath eddy current loss factor, Lamda1"m (middle phase)0.00360865Sheath loss (W/m)0.103792CONCENTRIC NEUTRAL/SHEILD LOSSESConcentric neutral circulating current loss factor, Lamda1n0Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral reactance (Ohms/m)0.000121208Concentric neutral reactance (Ohms/m)0Concentric neutral loss (W/m)0Cheween conductor and sheath (K.m/W)0.55375671, between conductor and sheath (K.m/W)073, outer covering (K.m/W)073, outer covering (K.m/W)1.8059174, duct filling medium (K.m/W)0.33300974", duct of pipe) itself (K.m/W)0.033300974", duct of pipe) itself (K.m/W)90Sheath/concentric neutral temperature (deg.C.)90Sheath covering (K.n./W)74.07Armour temperature (deg.C.)72.13	Sheath reactance (Ohms/m)	0.000120777
Lamda1"2 (other outer cable)0.00360865Sheath eddy current loss factor, Lamda1"m (middle phase)0.00360865Sheath loss (W/m)0.103792CONCENTRIC NEUTRAL/SHEILD LOSSESConcentric neutral circulating current loss factor, Lamda1n0Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral resistance (Ohms/m)0.000121208Concentric neutral resistance (Ohms/m)0.000121208Concentric neutral resistance (Ohms/m)0Concentric neutral resistance (Ohms/m)0.000121208Concentric neutral loss (W/m)0Concentric neutral loss (W/m)0Chewen sheath and armour (K.m/W)013, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)0.333009T4", duct filling medium (K.m/W)0.0359507CABLE TEMPERATURES90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	Lamda1"1 (outer cable carrying lagging	0.00360865
Lamda1"m (middle phase)0.00360865Sheath loss (W/m)0.103792CONCENTRIC NEUTRAL/SHEILD LOSSESConcentric neutral circulating current loss factor, Lamda1n0Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral resistance (Ohms/m)0.000121208Concentric neutral resistance (Ohms/m)0.000121208Concentric neutral resistance (Ohms/m)0Concentric neutral resistance (Ohms/m)0Concentric neutral loss (W/m)0Concentric neutral loss (W/m)0CABLE THERMAL RESISTANCEST1. between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3. outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4", duct filling medium (K.m/W)0.333009T4", duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURES90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13		0.00360865
CONCENTRIC NEUTRAL/SHEILD LOSSESConcentric neutral circulating current loss factor, Lamda1n0Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral reactance (Ohms/m)0.000121208Concentric neutral loss (W/m)0Concentric neutral loss (W/m)0CABLE THERMAL RESISTANCEST1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct (or pipe) itself (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)90Sheath/concentric neutral temperature (deg.C.)90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	Sheath eddy current loss factor, Lamda1"m (middle phase)	0.00360865
Concentric neutral circulating current loss factor, Lamda1n0Concentric neutral resistance (Ohms/m)0.000522734Concentric neutral reactance (Ohms/m)0.000121208Concentric neutral reactance (Ohms/m)0Concentric neutral loss (W/m)0CABLE THERMAL RESISTANCEST1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct (or pipe) itself (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)90Sheath/concentric neutral temperature (deg.C.)90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	Sheath loss (W/m)	0.103792
factor, Lamda1nUConcentric neutral resistance (Ohms/m)0.000522734Concentric neutral reactance (Ohms/m)0.000121208Concentric neutral loss (W/m)0CABLE THERMAL RESISTANCEST1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)0.333009T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURES90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	CONCENTRIC NEUTRAL/SHEILD LOSS	ES
Concentric neutral reactance (Ohms/m)0.000121208Concentric neutral loss (W/m)0CABLE THERMAL RESISTANCEST1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct filling medium (K.m/W)0.30359507CABLE TEMPERATURES90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	Concentric neutral circulating current loss factor, Lamda1n	0
Concentric neutral loss (W/m)0CABLE THERMAL RESISTANCEST1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURESConductor temperature (deg.C.)Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	Concentric neutral resistance (Ohms/m)	0.000522734
CABLE THERMAL RESISTANCEST1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507Conductor temperature (deg.C.)90Sheath/concentric neutral temperature (deg.C.)74.0774.07Jacket/serving temperature (deg.C.)72.13	Concentric neutral reactance (Ohms/m)	0.000121208
T1, between conductor and sheath (K.m/W)0.553756T2, between sheath and armour (K.m/W)0T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURESConductor temperature (deg.C.)Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)72.13	Concentric neutral loss (W/m)	0
(K.m/W) 0.553756 T2, between sheath and armour (K.m/W) 0 T3, outer covering (K.m/W) 0.0673507 T3 scaling factor 1 T4, external surroundings (K.m/W) 1.80591 T4', duct filling medium (K.m/W) 0.333009 T4'', duct (or pipe) itself (K.m/W) 0.0359507 CABLE TEMPERATURES 90 Sheath/concentric neutral temperature (deg.C.) 90 Sheath/concentric neutral temperature (deg.C.) 74.07 Armour temperature (deg.C.) 74.07 Jacket/serving temperature (deg.C.) 72.13	CABLE THERMAL RESISTANCES	
T3, outer covering (K.m/W)0.0673507T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURESConductor temperature (deg.C.)Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13		0.553756
T3 scaling factor1T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURESConductor temperature (deg.C.)Sheath/concentric neutral temperature (deg.C.)90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	T2, between sheath and armour (K.m/W)	0
T4, external surroundings (K.m/W)1.80591T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURESConductor temperature (deg.C.)Sheath/concentric neutral temperature (deg.C.)90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	T3, outer covering (K.m/W)	0.0673507
T4', duct filling medium (K.m/W)0.333009T4'', duct (or pipe) itself (K.m/W)0.0359507CABLE TEMPERATURESConductor temperature (deg.C.)Sheath/concentric neutral temperature (deg.C.)90Sheath/concentric neutral temperature (deg.C.)74.07Armour temperature (deg.C.)74.07Jacket/serving temperature (deg.C.)72.13	T3 scaling factor	1
T4", duct (or pipe) itself (K.m/W) 0.0359507 CABLE TEMPERATURES 000000000000000000000000000000000000	T4, external surroundings (K.m/W)	1.80591
CABLE TEMPERATURES Conductor temperature (deg.C.) Sheath/concentric neutral temperature (deg.C.) Armour temperature (deg.C.) Jacket/serving temperature (deg.C.)	T4', duct filling medium (K.m/W)	0.333009
Conductor temperature (deg.C.) 90 Sheath/concentric neutral temperature (deg.C.) 74.07 Armour temperature (deg.C.) 74.07 Jacket/serving temperature (deg.C.) 72.13	T4", duct (or pipe) itself (K.m/W)	0.0359507
Sheath/concentric neutral temperature (deg.C.) 74.07 Armour temperature (deg.C.) 74.07 Jacket/serving temperature (deg.C.) 72.13	CABLE TEMPERATURES	
Sheath/concentric neutral temperature (deg.C.) 74.07 Armour temperature (deg.C.) 74.07 Jacket/serving temperature (deg.C.) 72.13	Conductor temperature (deg.C.)	90
Jacket/serving temperature (deg.C.) 72.13	Sheath/concentric neutral temperature	
	Armour temperature (deg.C.)	74.07
	Jacket/serving temperature (deg.C.)	72.13
	Exterior/Duct temperature (deg.C.)	61.48



CABLE MODEL 1 DATA GENERAL		
Title Description	Case 1 Validation	
Description	C:\Users\jpatr\OneDrive\Desktop\Cable HV\Validation\CYMCAP and	
Path	Cableizer/Case 1/Cable model files/Case 1 cable file.xml	
Frequency (Hz)	50	
Phases	Three phase	
Cores	Single core	
Voltage, phase-to-phase (V)	110000	
CONDUCTOR		
Cross-sectional area (mm2)	500	
Class	Class 2 stranded conductors for single or multicore cables	
Material	Copper, plain wires	
Туре	Copper_Round, stranded_Dried & impregnated	
Resistivity (Ohm.m at 20 deg.C.)	3.66E-5	
Electrical temp. coeff. of metal (per K at 20 deg.C.)	0.00393	
Nominal conductor diameter (mm)	26.2	
CONDUCTOR SHIELD	20.2	
Nominal thickness (mm)	1.3	
Nominal diameter (mm)		
INSULATION	28.8	
	VLDE Unfilled greater than 19/20 (26) b)/	
Type of insulation	XLPE_Unfilled_greater than 18/30 (36) kV	
Thermal resistivity (C.m/W)	3.5	
Insulation relative permeability, epsilon	2.5	
Insulation loss factor, tan-delta Maximum operating temperature (deg.C.)	0.001	
Nominal thickness (mm)	90	
Nominal diameter (mm)	19.4	
INSULATION SCREEN	67.6	
Material Nominal thickness (mm)	Semi-conductor screen	
Nominal diameter (mm)	1.6	
CONCENTRIC NEUTRAL/SCREEN	70.8	
	Connor	
Material	Copper	
Construction Resistivity (Ohm.m at 20 deg.C.)	Round wires	
Electrical temp. coeff. of metal (per K at	1.7241E-8	
20 deg.C.)	0.00393	
Nominal thickness (mm)	0.92	
Nominal diameter (mm)	72.64	
Length of lay (mm)	1000	
No. of wires	74	

SHEATH		
Type of sheath	Copper	
Resistivity (Ohm.m at 20 deg.C.)	1.7241E-8	
Electrical temp. coeff. of metal (per K at 20 deg.C.)	0.00393	
Construction	Non-corrugated	
Nominal thickness (mm)	0.25	
Nominal diameter (mm)	73.14	
JACKET/SERVING		
Material	Polyethylene	
Thermal resistivity (C.m/W)	3.5	
Nominal thickness (mm)	4.7	



CABLE MODEL 1 IMAGE

