

Specification Sheet Data

3M Composite Conductor Properties

Commercial Name		ACCR 270-T35
Conductor Physical Properties		
Designation		ACCR 270-T35
Actual kcmils		270
Stranding		9/7
Diameter		
indiv Core	in	0.116
indiv Al	in	0.173
Core	in	0.347
Total Diameter	in	0.693
Area		
Al	in^2	0.212
Total Area	in^2	0.286
Weight		
Core	lbs/ft	0.110
Aluminum	lbs/ft	0.254
Total Weight	lbs/ft	0.364
Strength	lbs	18,100
Thermal Elongation		
Core	10^-6/C	6.3
Aluminum	10^-6/C	23.0
Complete Cable	10^-6/C	13.6
Heat Capacity		
Core	W-sec/ft-C	42.9
Aluminum	W-sec/ft-C	110.1

Conductor Electrical Properties

Resistance		
DC @ 20C	ohms/mile	0.3002
AC @ 25C	ohms/mile	0.3066
AC @ 50C	ohms/mile	0.3369
AC @ 75C	ohms/mile	0.3672
AC @ 100C	ohms/mile	0.3975
AC @ 210C	ohms/mile	0.5309
AC @ 240C	ohms/mile	0.5673
Geometric Mean Radius	ft	0.0238
Reactance (1 ft Spacing, 60hz)		
Inductive X _a	ohms/mile	0.454
Capacitive X' _a	Mohmsxmile	0.1051
Ampacity		
Continuous @ 210 °C	amps	861
Emergency @ 240 °C	amps	923