Cable Requirements

1 cable with a nominal length of 500'

Cable specification: 600 V FR XLPE (600 V, fire resistant, cross-linked polyethylene) – Unarmored, Multi-conductor, Overall AL/Mylar Shield, 16 AWG, 60 conductors, 19 strand tinned copper, black jacket color, Jacket – 90 °C PVC, standard IEEE 1580 construction

Conductor Stranding:	19 strand Tinned Copper
Insulation:	90°C Flame Retardant Cross Linked Polyethylene XLPE (IEEE 45)
	85°C Flame Retardant XLPE (IEC 92-3)
Insulation Color Code:	per IEEE 45
Cable Assembly:	per IEEE 45
Jacket:	90°C Flame Retardant PVC
	FT4 Flame Test: CSA C22.2 No. 0.3
	IEEE 1202 Flame Test
	IEC 332-3 Category A Flame Test
Shield:	Overall aluminum / mylar
Jacket Color:	Black with white identification markings as per IEEE 45
Rated Voltage:	600V
Rated Temperature:	IEEE 45: -45°C to 90°C
	IEC 92-3 -45°C to 85°C
Specification Reference:	IEEE 45, IEC 92-3,IEC 92-350
	CSA C22.2-0.3 for -35°C Cold Temperature Impact &
	-40°C Cold Bend Requirements
Application:	Control
Environment:	Fresh/Brackish water dock on canal (mostly stationary)
	Direct sunlight exposure
Conductors:	60 – 16 AWG 19 strand tinned copper

Cable Requirements

1 cable with a nominal length of 250'

Cable specification: 600 V FR XLPE (600 V, fire resistant, cross-linked polyethylene) – Unarmored, paired conductors, Overall AL/Mylar, 16 AWG, 16 shielded pairs, 19 strand tinned copper, black jacket color, Jacket – 90 °C PVC, standard IEEE 1580 construction

Conductor Stranding:	19 strand Tinned Copper
Insulation:	90°C Flame Retardant Cross Linked Polyethylene XLPE (IEEE 45)
	85°C Flame Retardant XLPE (IEC 92-3)
Insulation Color Code:	per IEEE 45
Cable Assembly:	per IEEE 45
Jacket:	90°-40°C Flame Retardant PVC
	FT4 Flame Test: CSA C22.2 No. 0.3
	IEEE 1202 Flame Test
	IEC 332-3 Category A Flame Test
Jacket Color:	Black with white identification markings as per IEEE 45
Rated Voltage:	600V
Rated Temperature:	IEEE 45: -45°C to 90°C
	IEC 92-3 -45°C to 85°C
Specification Reference:	IEEE 45, IEC 92-3,
	CSA C22.2-0.3 for -35°C Cold Temperature Impact &
	-40°C Cold Bend Requirements
Application:	Sensing/Instrumentation and Control
Environment:	Fresh/Brackish water dock on canal (mostly stationary)
	Direct sunlight exposure
Conductors:	16 AWG, 16 shielded pairs, 19 strand tinned copper

Cable Requirements

1 cable with a nominal length of 400'

Cable specification: 600 V FR XLPE (600 V, fire resistant, cross-linked polyethylene) – Armored – copper braid, Multi-conductor, Unshielded, 3C 313 /777T MCM + 1C 4/0/532T +1PR 14/41T OS XLPE tinned copper Braid PVC 600V /1000V, black jacket color, Jacket – 90 °C PVC, standard IEEE 1580 construction

Insulation:	90°C Flame Retardant Cross Linked Polyethylene XLPE (IEEE 45)
	85°C Flame Retardant XLPE (IEC 92-3)
Insulation Color Code:	per IEEE 45
Cable Assembly:	per IEEE 45
Jacket:	90° Flame Retardant PVC
	FT4 Flame Test: CSA C22.2 No. 0.3
	IEEE 1202 Flame Test
	IEC 332-3 Category A Flame Test
Jacket Color:	Black with white identification markings as per IEEE 45
Rated Voltage:	600V
Rated Temperature:	IEEE 45: -45°C to 90°C
	IEC 92-3 -45°C to 85°C
Armor:	Tinned Copper Braid
Specification Reference:	IEEE 45, IEC 92-3,
	CSA C22.2-0.3 for -35°C Cold Temperature Impact &
	-40°C Cold Bend Requirements
Application:	VFD Motor Power
Environment:	Fresh/Brackish water dock on canal (mostly stationary)
	Direct sunlight exposure
Conductors:	**3** – 313 MCM for VFD 3-Phase motor power supply
	1 – 4/0 AWG for VFD 3-Phase motor ground
	2 – 14 AWG for interconnect interlock relay

Cable Requirements

1 cable with a nominal length of 800'

Cable specification: 600 V FR XLPE (600 V, fire resistant, cross-linked polyethylene) – Unarmored – multi-conductor, Unshielded, 37 components of 16 AWG, 19 Strand Tinned Copper, black jacket color, Jacket – 90 °C PVC, standard IEEE 1580 construction

Insulation:	90°C Flame Retardant Cross Linked Polyethylene XLPE (IEEE 45)
	85°C Flame Retardant XLPE (IEC 92-3)
Insulation Color Code:	per IEEE 45
Cable Assembly:	per IEEE 45
Jacket:	90° Flame Retardant PVC
	FT4 Flame Test: CSA C22.2 No. 0.3
	IEEE 1202 Flame Test
	IEC 332-3 Category A Flame Test
Jacket Color:	Black with white identification markings as per IEEE 45
Rated Voltage:	600V
Rated Temperature:	IEEE 45: -45°C to 90°C
	IEC 92-3 -45°C to 85°C
Armor:	Tinned Copper Braid
Specification Reference:	IEEE 45, IEC 92-3,
	CSA C22.2-0.3 for -35°C Cold Temperature Impact &
	-40°C Cold Bend Requirements
Application:	Instrumentation
Environment:	Fresh/Brackish water dock on canal (mostly stationary)
	Direct sunlight exposure
Conductors:	37 – 16 AWG Tinned Copper Wire