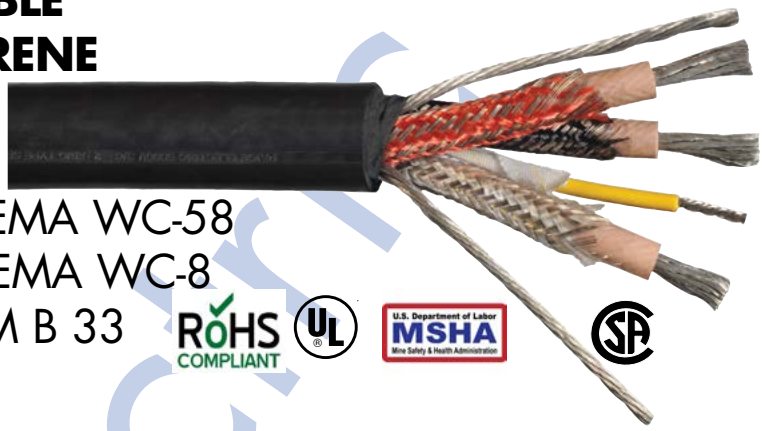
904-543-1223, 800-997-2443, Fax: 904-543-1330, www.paigeelectric.com

Paige pumpwire spec P7359-SP

WE SPECIALIZE IN SUBMERSIBLES

# SUBMERSIBLE PUMP CABLE
# HYDROFLEX EPR/NEOPRENE
# SHIELDED 8000V 90°C
# WET/DRY C(UL) MSHA

STANDARDS: ICEA S-75-381/NEMA WC-58
ICEA S-68-516/NEMA WC-8
ASTM B172, ASTM B 33



RoHS COMPLIANT

## 1.0 APPLICATIONS:

**1.1** These Cable are used for Heavy Duty Submersible Motors where shielding is required and Per NEC code for motors over 2400Volts. The cables are (Cul) Listed Submersible Pump Cable and MSHA Approved. Designed for use as heavy duty deep well fresh or salt water (suitable for continuous submersion to 984') submersible pump.

## 2.0 FEATURES:

**2.1**
- Excellent flexibility.
- Highly ozone, sun, weather, water and flame resistant.
- Rated and flexible at –40°C.
- Excellent impact and abrasion resistant.
- Oil and heat resistant.
- Indent printed for easy identification.

## 3.0 CONSTRUCTION:

**3.1** ***Conductors:***
Annealed flexible stranded tin coated copper in accordance with ASTM B-172 and ICEA S-75-381.

**3.2** ***Conductor shielding:***
Semi-conducting layer over the conductor.

**3.3** ***Insulation:***
Ethylene-propylene rubber (EPR).

**3.4** ***Insulation shield:***
Non conducting bedding tape +composite tinned copper/fiber braid.
Covering minimum 60%.

**3.5** ***Circuit identification:***
The nylon in the shielding braid is colored black, white, red in accordance with ICEA S-75-381.

**3.6** ***Grounding conductors:***
Annealed tin coated copper as per Tab. 3-24 of ICEA S-75-381.

**3.7** ***Ground check:***
Annealed tin coated copper as per Tab. 3-21 of ICEA S-75-381. Color of insulation: yellow

**3.8** ***Assembly:***
Three power, ground check and two non-insulated grounding conductors cabled together. Single faced rubber filled binder tape applied overall. Integral filled jacket for higher torsion resistance.

**3.9** ***Jacket:***
A reinforced NEOPRENE, CPE, TPU optional jacket available.
Type extra heavy duty in accordance with Par. 3.21 of ICEA S-75-381.

**3.10** ***Color of jacket:***
Black, other colors available upon request

## 4.0 APPROVALS

**4.1** ***MSHA:***
3.1.1 P-7K-254029-1 (Neoprene)
3.1.2 P-7K-268101 (CPE)
3.1.3 P-07-KA030001 (TPU)

**4.2** ***Standard length cable packing:***
1000 ft reels. Other forms of packaging available upon request.

## 5.0

| PAIGE PART NUMBER | POWER CONDUCTOR SIZE | POWER CONDUCTOR STRANDING | GROUND CHECK COND. SIZE | GROUNDING CONDUCTOR | | NOMINAL INSULATION THICKNESS | NOMINAL JACKET THICKNESS | APPROX. O.D. | | APPROX. WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG or MCM | NO. OF WIRES | AWG | AWG | NO. OF WIRES | INCHES | INCHES | INCHES | MM | lbs/1000 ft | ft kgs/km |
| 7359SP1 | 4 AWG | 259 7x37 | 8 | 8 | 133 7x19 | 0.150 | 0.205 | 1.94 | 49.3 | 2132 | 3173 |
| 7359SP2 | 2 AWG | 259 7x37 | 8 | 6 | 133 7x19 | 0.150 | 0.220 | 2.12 | 53.8 | 2780 | 4137 |
| 7359SP3 | 1 AWG | 259 7x37 | 8 | 5 | 133 7x19 | 0.150 | 0.220 | 2.21 | 56.0 | 3300 | 4911 |
| 7359SP4 | 1/0 AWG | 266 19x14 | 8 | 4 | 259 7x37 | 0.150 | 0.220 | 2.32 | 58.9 | 3530 | 5112 |
| 7359SP5 | 2/0 AWG | 342 19x18 | 8 | 3 | 259 7x37 | 0.150 | 0.235 | 2.46 | 62.5 | 4160 | 6191 |
| 7359SP6 | 3/0 AWG | 418 19x22 | 8 | 2 | 259 7x37 | 0.150 | 0.250 | 2.62 | 66.6 | 5000 | 7440 |
| 7359SP7 | 4/0 AWG | 532 19x28 | 8 | 1 | 259 7x37 | 0.150 | 0.250 | 2.75 | 69.9 | 5590 | 8319 |
| 7359SP8 | 250 MCM | 627 19x33 | 8 | 1/0 | 266 19x14 | 0.150 | 0.250 | 2.89 | 73.4 | 6680 | 9941 |
| 7359SP9 | 350 MCM | 888 37x24 | 8 | 2/0 | 342 19x18 | 0.150 | 0.280 | 3.20 | 81.3 | 8410 | 12515 |
| 7359SP10 | 500 MCM | 1221 37x33 | 8 | 4/0 | 532 19x28 | 0.150 | 0.295 | 3.39 | 86.1 | 9909 | 14746 |

## 5.1

| POWER GROUNDING CONDUCTOR SIZE | POWER CONDUCTOR RESISTANCE AT 20°C | GROUNDING CONDUCTOR RESISTANCE AT 20°C | GROUND CHECK RESISTANCE AT 20°C | INDUCTANCE PER UNIT LENGTH | OPERATING CAPACITANCE PR UNIT LENGTH | PERMISSIBLE SHORT-CIRCUIT CURRENT[2] (1S) | AMPACITY[1] 40°C AMBIENT TEMP. | MAXIMUM PERMISSIBLE TENSILE FORCE |
|---|---|---|---|---|---|---|---|---|
| AWG or MCM | Ω /1000Ft | Ω /1000Ft | Ω /1000Ft | mH/1000Ft | µF/1000Ft | kA | A | N |
| 4 AWG – 8 AWG | 0.274 | 0.697 | 0.679 | 0.129 | 0.08 | 3.03 | 122 | 950 |
| 2 AWG – 6 AWG | 0.172 | 0.436 | 0.679 | 0.122 | 0.09 | 4.80 | 159 | 1500 |
| 1 AWG – 5 AWG | 0.137 | 0.349 | 0.679 | 0.117 | 0.09 | 6.06 | 184 | 1900 |
| 1/0 AWG – 4 AWG | 0.109 | 0.274 | 0.679 | 0.113 | 0.10 | 7.65 | 211 | 2400 |
| 2/0 AWG – 3 AWG | 0.0868 | 0.227 | 0.679 | 0.107 | 0.11 | 9.64 | 243 | 3000 |
| 3/0 AWG – 2 AWG | 0.0688 | 0.172 | 0.679 | 0.106 | 0.11 | 12.15 | 279 | 3800 |
| 4/0 AWG – 1 AWG | 0.0546 | 0.137 | 0.679 | 0.101 | 0.13 | 15.30 | 321 | 4800 |
| 250 MCM – 1/0 AWG | 0.0466 | 0.109 | 0.436 | 0.094 | 0.16 | 18.16 | 355 | 5800 |
| 350 MCM – 2/0 AWG | 0.0333 | 0.0868 | 0.436 | 0.090 | 0.18 | 25.31 | 435 | 7900 |
| 500 MCM – 4/0 AWG | 0.0233 | 0.0546 | 0.436 | 0.086 | 0.21 | 36.18 | 536 | 11400 |

## 5.2 *STANDARD PRINT LEGEND:*

Paige Electric Hydroflex Submersible Pump Cable
8000Volts Shielded 90°C (Cul) E# MSHA P7359D

(1) Ampacity- Free air measured; Based on continuous duty at 90°C conductor temperature
(2) Short-circuit current (1s) – Based on conductor temperature from 90°C up to 250°C