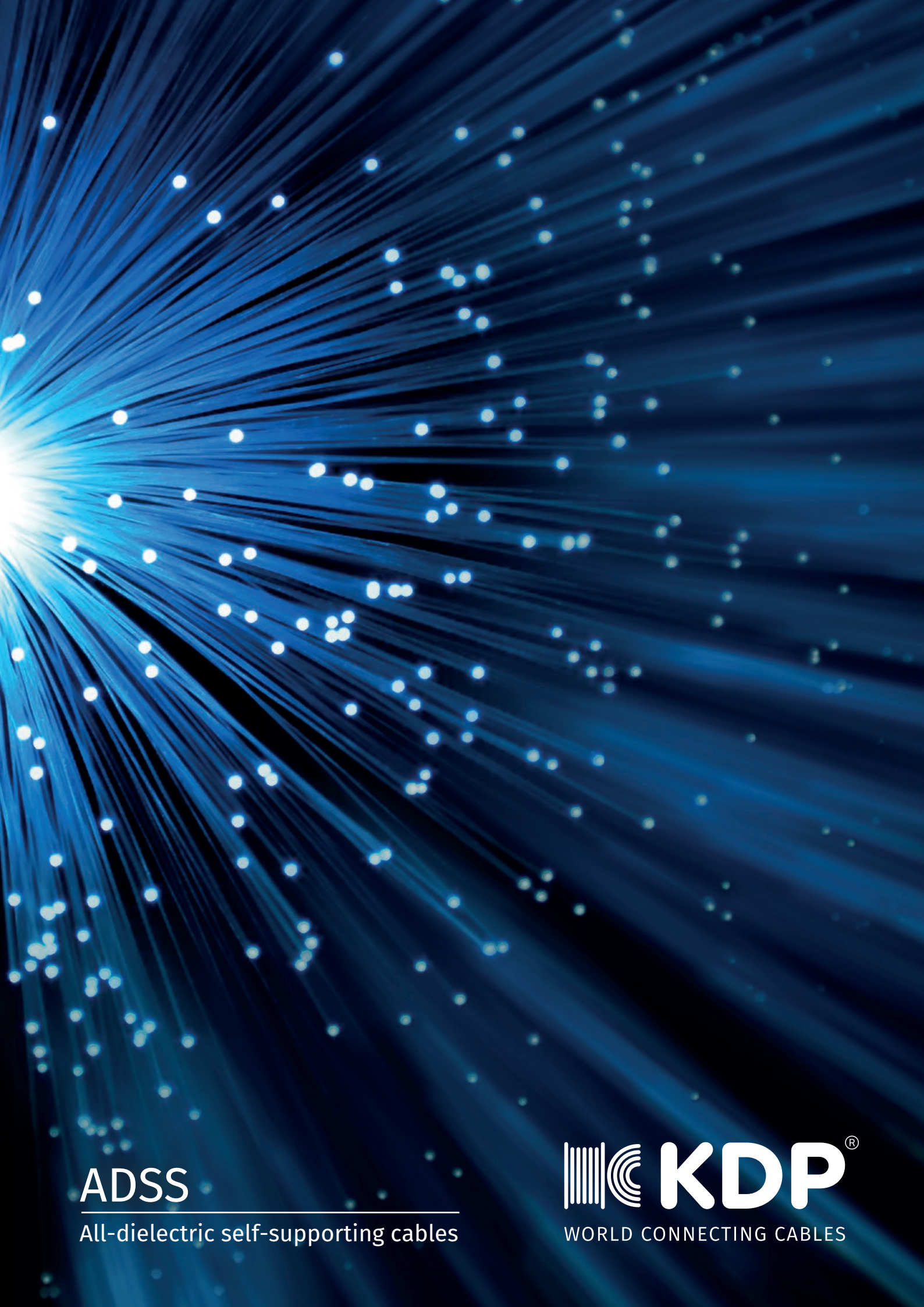

ADSS

All-dielectric self-supporting cables

KDP®

WORLD CONNECTING CABLES

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ADSS CABLES

All-dielectric self-supporting (ADSS) cable is a type of optical fiber cable that is strong enough to support itself between structures without using conductive metal elements. It is used by electrical utility companies as a communications medium, installed along existing overhead transmission lines and often sharing the same support structures as the electrical conductors.

In the design of the cable, the internal glass optical fibers are supported with no strain, to maintain low optical loss throughout the life of the cable. The cable is jacketed to prevent moisture from degrading the fibers. The jacket also protects the polymer strength elements from the effect of solar ultraviolet light.

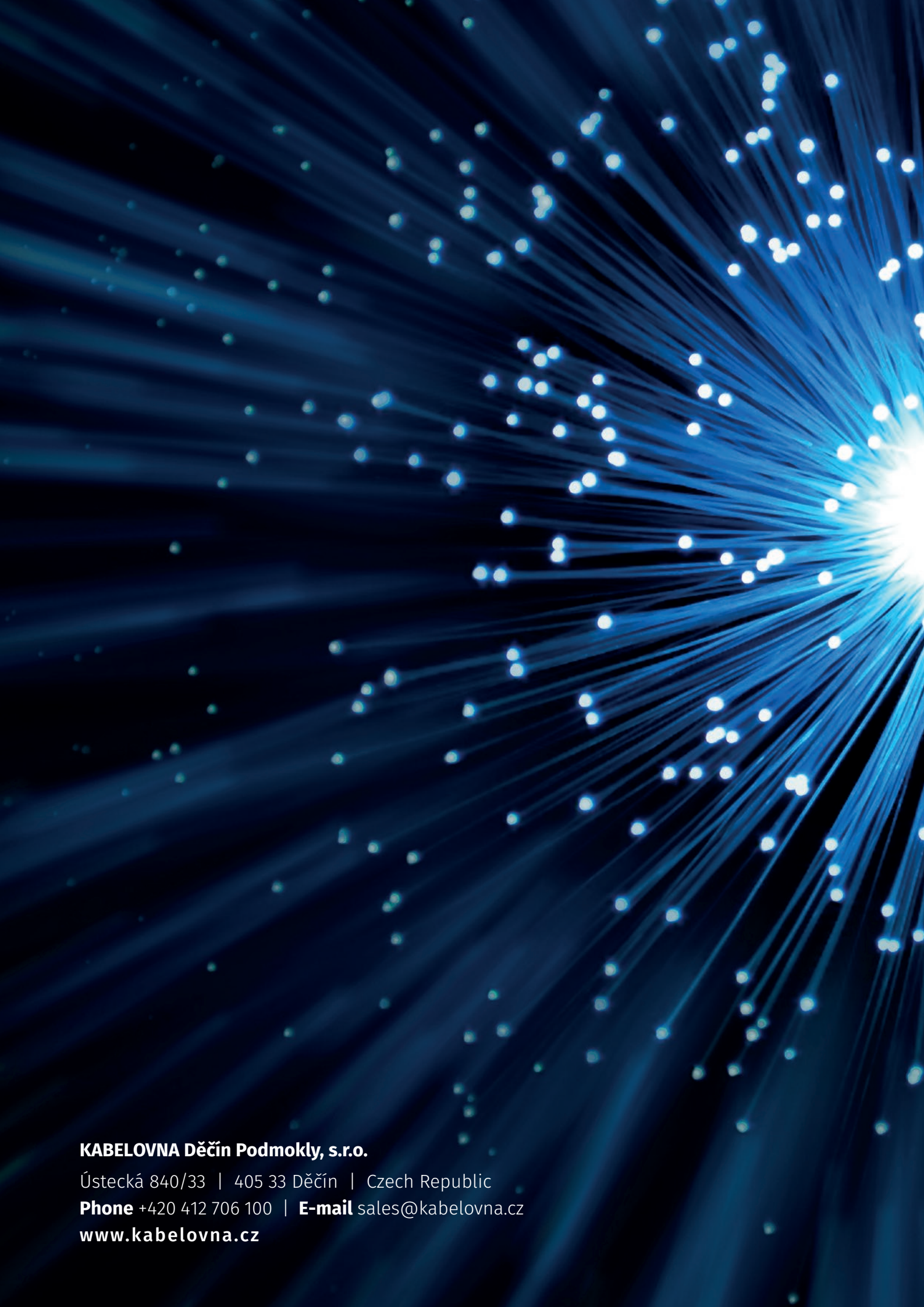
CABLE DESIGN	FIBRE COUNT	NESC LIGHT	NESC MEDIUM	NESC HEAVY
N3XI	max.48F	100	80	60
N4XI	max.72F	120	100	60
N5XI	max.96F	120	100	60
N6XI	max.144F	100	80	60
N3YI	max.48F	160	140	80
N4YI	max.72F	160	120	60
N5YI	max.96F	160	120	60
N6YI	max.144F	140	120	80
N4ZI	max.72F	260	220	140
N5ZI	max.96F	260	220	140
N6ZI	max.144F	200	160	120
N4RI	max.72F	300	300	200
N5RI	max.96F	300	300	200
N6RI	max.144F	300	240	180
N7RI	max.216	240	220	160

NESC CONDITIONS

The NESC has traditionally been an ultimate stress design method where all factors of safety are included in the loading conditions by applying applicable overload factors. Three cases for transverse loading are considered.

1. General loading due to wind on wire and pole with ice.
2. Extreme wind on all structures without conductors or ice. This provision is new in the 2002 NESC.
3. Extreme wind on conductor and pole without ice if the structure exceeds 60 ft in height.

The NESC defines three general loading areas in the United States: heavy, medium, and light. For each of these loading areas general wind and ice loads are also defined as described in Table 1. Wind load is calculated including ice on the conductor but not on the structure.



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