



TECSUN(S)



Technical Data

	Producer	PRYSMIAN Kabel und Systeme GmbH: Cable plant Neustadt near Coburg / DE
	Trademark	TECSUN (S)
	Type designation	Basis standard: S05ZZ-F
	Approvals	DIN VDE 0100 part 520. Based on HD 22. 13 and TECSUN (PV)..
	Application	PRYSMIAN Solar Cables TECSUN (S) are intended for the use in photovoltaic power supply systems. Outdoor and indoor usage as fixed or free installation is permitted. They can be installed in cable trays, conduits, on- and in-wall, and in equipments. They are suitable for applications in/ at equipment with protective insulation (protecting class II).
Electrical parameters	Rated voltage	300 / 500 KV
	Maximum permissible operating voltage in AC systems	360 / 600 KV
	Maximum permissible operating voltage in DC systems	540 / 900 KV
	test voltage	AC 2 kV
	Ampacity	According to DIN VDE 0298, Part 4
Thermal parameters	Ambient temperature	-40 °C to + 120 °C
	Permissible temperature of the conductor	+ 120 °C
	Short-circuit temperature	+ 250 °C (at the conductor max. 5 sec.)
	Resistance to low temperature	Bending test at low temperature according to EN 60811-1-4. impact test by order of EN 50305
Mechanical parameters	Tensile load	15 N/mm ² on operation, 50 N/mm ² on installation
	Bending radii	4 x D (D = cable diameter)
	Abrasion	According to DIN 53516: against abrasive paper, Internal tests: sheath against sheath
	Shore-hardness	According to DIN 53505: 85

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Chemical parameters	Mineral oil resistance	According to EN 60811-2-1
	Acid and alkaline resistance	According to EN 60811-2-1
	Ammonia resistance	Internal test
	Weather resistance	Ozone resistance according to HD 22.2 test type B UV-resistance according to UL 1581 (Xeno-Test) Absorption of water(gravimetric) according to EN 60811-1-3
	Behaviour in case of fire	Flame propagation according to EN 50265-2-1 and EN 50266-2-4 Smoke emission according to EN 50268 (light transmittance > 70%) Corrosivity according to EN 50264-1 Toxicity, index (ITC) < 3
	Environmental harmless	Given because of recycling, disposal and energy-saving production. (free of pollutants and halogens)



Design features

Type	TECSUN (S)
Conductor	Electrolytic copper, tinned, Class 5 according to IEC 60228 (DIN VDE 0295)
Insulation	HEPR 120 °C by order of IEC 60502-1
Core identification	black - imprint of digits
Sheath	EVA 120 °C based on HD 22. 1 (compound type EM4 / EMS)
Sheath colour	black
Marking	(rhombus) PRYSMIAN TECSUN (S) S05ZZ-F (number of cores and cross-section) 0.6/1 KV (VDE-REG./ TÜV)

Selection and ordering data

Nominal cross-section and colour	Cu-figure	Order No.	Conductor diameter (mm)	Overall diameter of cable	Overall diameter of cable	Approx. net weight for 1000 m [kg/km]	Minimum bending radius (mm)	Maximum permissible tensile force [N]	Current carrying capacity at 30 °C [A]
				Min. value [mm]	Max. value [mm]				
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2 x 0,75 black	15	5DH9 320	1,1	5,3	6,1	45	24	23	12
2 x 1,0 black	20	5DH9 321	1,3	5,7	6,4	55	25	30	15
4 x 0,75 black	29	5DH9 322	1,1	6,3	7,0	70	28	45	12