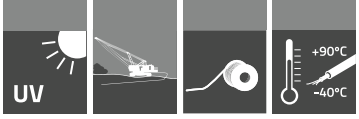

SHD-GC 25kV -EL TPE-E CPE XFSN

ICEA S-75-381:2025/NEMA WC-58

Round portable power cable

Mining grade

APPLICATIONS

- Use on AC off track equipment such as long wall miners loaders, drills, shovels, conveyors, pumps and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall
- Other industrial, mining applications

CONSTRUCTION

Conductors	Soft drawn extra flexible stranded tinned copper wires
Separator	Semi-conducting layer over the conductor
Insulation	Extra light ethylene-propylene rubber (EPR)
Insulation shield	Embossed semiconductive layer and semi-conducting tape over the insulation + composite tinned copper/polyamide braid. Covering minimum 60%
Circuit identification	Polyamide in the shielding braid is colored black, white, red
Grounding	Soft drawn flexible stranded tinned copper wires
Ground check	Yellow TPE-E insulated soft drawn extra flexible stranded tinned copper wires
Assembly	Three power, ground check and two non-insulated grounding conductors cabled together to form a round cable core. Single faced rubber filled binder tape applied over core
Separator	Polyamide open braid applied overall
Jacket	Extra heavy duty, high torsion resistant, integral-filled, reinforced chlorinated polyethylene (CPE) thermosetting jacket (two-layer)
Color of outer jacket	Black or other color
Minimum bending radius	Eight times overall diameter of the cable

SHD-GC 25kV -EL TPE-E CPE XFSN

Features

Excellent flexibility, Highly ozone, sun, weather and flame resistant, Rated and flexible at -40°C, Minimum ambient temperature for fixed installation -40°C, Minimum ambient temperature for mobile installation -25°C, Excellent impact and abrasion resistant, Oil and heat resistant, Indent printed for easy identification

Approvals

MSHA	P-7K-268101-MSHA

Standard length cable packing	1000ft on drums. Other forms of packing and delivery are available on request

Selection Data

Cond. Size	Cond. Strand	Cond. Size		Nominal Insulation Thickness*		Nominal Jacket Thickness		Approx. O.D.		Approx. Weight		Maximum Tensile Force
		GRD	GC									
AWG/ MCM	**No.**	**AWG**		**Inches**	**mm**	**Inches**	**mm**	**Inches**	**mm**	**Lbs./1kft.**	**kg/km**	**N**
1	336	6	8	0.260	6.6	0.265	6.73	2.83	71.9	4276	6364	1900
1/0	406	5	8	0.260	6.6	0.265	6.73	2.93	74.5	4685	6973	2400
2/0	513	4	8	0.260	6.6	0.280	7.11	3.08	78.2	5297	7884	3000
3/0	646	3	8	0.260	6.6	0.280	7.11	3.20	81.3	5930	8825	3800
4/0	814	2	8	0.260	6.6	0.295	7.49	3.37	85.5	6758	10058	4800
250	999	1	8	0.260	6.6	0.295	7.49	3.47	88.2	7527	11203	5800

*Reduction according to the standard ICEA S-75-381.

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SHD-GC 25kV -EL TPE-E CPE XFSN

Electrical parameters

Power-Grounding Conductor Size	Power Conductor Resistance at 25ºC	Grounding Conductor Resistance at 25ºC	Ground-check Conductor Resistance at 25ºC	Inductance per unit length	Operating Capacitance per unit length	Permissible short-circuit Current (1s) (2)	Ampacity(1) 400C Ambient Temp
MCM	**Ω/1000Ft**	**Ω/1000Ft**	**Ω/1000Ft**	**mH/1000Ft**	**µF/1000Ft**	**kA**	**A**
1 AWG	0.140	0.459	0.729	0.137	0.06	6.06	191
1/0 AWG	0.111	0.364	0.729	0.132	0.06	7.65	218
2/0 AWG	0.0885	0.289	0.729	0.125	0.07	9.64	249
3/0 AWG	0.0702	0.221	0.729	0.124	0.07	12.15	286
4/0 AWG	0.0557	0.175	0.729	0.118	0.08	15.30	327
250 MCM	0.0475	0.140	0.729	0.115	0.08	18.16	360

(1) Ampacity –Based on continuous duty at 90ºC conductor temperature.
(2) Short-circuit current (1s) – Based on conductor temperature from 90ºC up to 250ºC

Special factory options

Jacket	Other colors available
Jacket	TPU and Neoprene jacket available

Standard print legend:

TF CABLE (VOLTAGE) 3/C (SIZE) TYPE SHD-GC FT1 FT5 (-40 0C) +90 0C P-7K-268101-MSHA + meters + coded date

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