BRUMIL Cable Reel Switch

The BRUMIL Cable Reel Switch (CRS) is a mobile IP54 hand reel. A communication cable combined with an integrated ethernet switch and 4 external RJ-45 ports. It combines the advantages of the Solifos' hand reels for fiber optic cable deployment with the ruggedized ethernet cable and switch.

It can be optionally installed with an ethernet cable or fiber optic cable.

Applications:

Easy field deployment of an ruggedized, military grade switch with an fix attached ethernet cable for outdoor usage in mobile applications.
Integrated power distribution with 2 Binder sockets for 230V AC 16A input and output.

Functionality

The cable reel switch enables the user to easily deploy a ruggedized field cable with a fixed attached switch for direct usage.

The CRS is equipped to cover FO/electrical-media-converter function for TCP/IP protocols. The function is used to extend the data transmission of an Ethernet channel by fiber optical lines. The CRS is especially designed for the use in harsh environmental conditions. At the front panel there are MIL-grade connectors available to interface with tactical optical-fiber-cable, copper-data-cable, and power connections (AC or DC or both).

Each socket of the reel switch is protected with an IP 54 screwable cap additionally to the military grade socket types.

The reel itself camouflaged with its matt black body color. All connectors and caps are also kept matt black. The status LED of each socket can be switched on with a LED test switch just for this purpose. No light is emitted during normal operation.

The system can easily grounded with the Solifos grounding equipment known from the metallic BRUmil field cable. The grounding flex connector can be attached to the grounding screw and the galvanized grounding pole.

Crucial advantages in the deployment

- High economically solution, due to smaller initial and operation costs
- Rapid availability of the current supply owing to simplest installation by personnel
- High mobility since its small dimensions and limited weight Cable is directly attached to the switch inside the reel
- Plug-and-Play switch system
- An output socket enables installing further electrical equipment
- High reliability due to very durable and harsh-environment-suited design (high mechanical firmness, weather-proof, simple maintenance)

Interfaces:

Power input	1x 230 VAC
Power output	1x 230 VAC
Network	4x RJ-45 socket in reel
	1x RJ-45 plug or FO plug on cable
Grouding	1x grounding screw

Type Variants:

BRUMIL 453 KRS ETH – Ethernet cable with RJ-45 plug
BRUMIL 454 KRS FO – Fiber optic cable with FO plug
BRUMIL 455 KRS HYB - Hybrid FO-Cu cable with Hyb HMA plug

Supported Communication Standards:

IEEE 802.3 for 10BaseT

IEEE 802.3u for 100BaseT(X) and 100 BaseFX

IEEE 802.3ab for 1000BaseT(X)

IEEE 802.3z for 1000BaseSX/LX/LHX/ZX/EZX

IEEE 802.3x for Flow control

Technical data:
Variant BRUMIL 453 – Ethernet cable

Mechanical data		User Interface	
Size (WxHxD)/mm	380x491x291	Electrical data	10/100/1000BaseT
Weight approx.	9.5kg	Status indication	LEDs for: • Ethernet: data and link • 230VAC: voltage
Power supply	230 VAC	**External I/O**	
Input voltage	100 .. 230VAC / 16A / 50Hz ± 10%	Cat7 ethernet cable	Up to 100m
Output voltage	230VAC / 50Hz ± 3% (regulated)	Cable connector	RJ 45
Power consumption	Approx. 10W	Electrical Ethernet	10/100/1000BaseT M38999
Max. output power	2.3 kVA permanent	230VAC In	Binder plug, series 693, 4pol pin
Environment		230VAC In	Binder plug, series 693, 4pol pin
Operation temperature	-40..+50°C		
Storage temperature	-40..+70°C	**Options**	
Relative humidity (closed interfaces)	5 .. 95%, non-condensing	• Adapter cable Binder to country specific power supply	
Protection grade	IP54 (standard) IP67 (optional)	• IP67 outdoor protection for cable plug • BRUmil 220/230 Lightning and EMP protection (LEMP and NEMP)	

Variant BRUMIL 454 – Fiberoptic cable

Mechanical data		User Interface	
Size (WxHxD)/mm	380x491x291	Electrical data	10/100/1000BaseT
Weight approx.	9.5kg	Status indication	LEDs for: • Ethernet: data and link • 230VAC: voltage
Power supply	230 VAC	**External I/O**	
Input voltage	100 .. 230VAC / 16A / 50Hz ± 10%	BRUtough 2 SMF	Up to 300m
Output voltage	230VAC/50Hz ± 3% (regulated)	Cable connector	HMA, CTOS or others
Power consumption	Approx. 10W	Electrical Ethernet	10/100/1000BaseT M38999
Max. output power	2.3 kVA permanent	230VAC In	Binder plug, series 693, 4pol pin
Environment		230VAC In	Binder plug, series 693, 4pol pin
Operation temperature	-40..+50°C		
Storage temperature	-40..+70°C	**Options**	
Relative humidity (closed interfaces)	95%	• Adapter cable Binder to country specific power supply	
Protection grade	IP67	• IP67 outdoor protection for cable plug • BRUmil 220/230 Lightning and EMP protection (LEMP and NEMP)	

Subject to changes without notice

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Variant BRUMIL 454 – Hybrid FO-Cu cable

Mechanical data		User Interface	
Size (WxHxD)/mm	380x491x291	Electrical data	10/100/1000BaseT
Weight approx.	11kg	Status indication	LEDs for: • Ethernet: data and link • 230VAC: voltage
Power supply	230 VAC	**External I/O**	
Input voltage	100 .. 230VAC / 16A / 50Hz ± 10%	BRUpowerfield 2 SMF	Up to 300m
Output voltage	230VAC/50Hz ± 3% (regulated)	Cable connector	Hybrid HMA
Power consumption	Approx. 10W	Electrical Ethernet	10/100/1000BaseT M38999
Max. output power	2.3 kVA permanent	230VAC In	Binder plug, series 693, 4pol pin
Environment		230VAC In	Binder plug, series 693, 4pol pin
Operation temperature	-40..+50°C	Hybrid cable	I_{Max}: 10A U_{Max} 1500VAC/1000VDC
Storage temperature	-40..+70°C	**Options**	
Relative humidity (closed interfaces)	95%	• Adapter cable Binder to country specific power supply	
Protection grade	IP67	• IP67 outdoor protection for cable plug	
		• BRUmil 220/230 Lightning and EMP protection (LEMP and NEMP)	
		• Connection box at far end, with Ethernet plugs and power sockets, supplied by hybrid cable	

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