

DSN DECONTACTOR™ is a compact and waterproof plug and socket-outlet with integrated switch for industrial applications.

DSN DECONTACTOR™ complies with the following regulations and standards<sup>(a)</sup>:

European Directives 2014/35/EU Low Voltage and 2020/95/EC RoHS (affixing of CE marking), REACH European Regulation, standards IEC/EN 60309-1, IEC/EN 60309-4, IEC/EN 60947-3 (dealing with the load break capability AC-22 and AC-23), UL 1682, UL 2682 (USA), CSA C22.2 N° 182.1-07 (Canada), MIL-S-901D (sea military specifications).

DSN DECONTACTOR™ is certified by the following certification bodies:

LCIE (France), UL (USA), SAA (Australia), VDE (Germany), TR CU (Russia), CSA (Canada), Bureau Veritas Marine, MIL-S-901D (Military)



The use of DSN DECONTACTOR™ facilitates the compliance with:

- electrical machinery to the "Machinery" European Directive 2006/42/EC on isolating device, and to standard EN 60204-1 : Safety of machinery- electrical equipment of machines

- electrical installation:

\* to the French decree of 20 december 2011 relating to removable electrical equipment and their conditions of connection and use,

\* to the French decree of 14 november 1988 relating to the workers protection against electrical risks,

\* to national regulations relating to workers protection in Italy, Spain, Belgium,

\* to installation standards : IEC 60364 (international), HD 60364 (European), NFPA 70 (USA) and NF C 15-100 (French) or other national transposition of IEC/HD 60364.

**General information**

	DSN1	DSN3	DSN6
$I_n^{(b)}$	20 A	32 A	63 A
$U_{max}$ (V AC/V DC)	500/750	690/1 000	1 000/1 500
Frequency <sup>(c)</sup>	≤ 400 Hz	≤ 400 Hz	≤ 400 Hz
Number of contacts <sup>(d)</sup>	4P + E	4P + E	4P + E
Number of keying positions <sup>(e)</sup>	23	24	24
Connection (min - max) : mm <sup>2</sup>			
	Flexible wiring : power contact	2,5 - 6	6 - 16
	Stranded wiring : power contact	1,5 - 4	10 - 25
Tightening torque :	slotted head screw		
	Power contact	0,8 Nm	1,5 Nm
Wiring lugs	option	option	option
$I_{cc}$ : rated conditional short circuit current			
	using a type gG fuse	10 kA	10 kA
	using a type RK1 NTD fuse	100 kA	100 kA

**Auxiliaries / pilots**

	DSN1	DSN3	DSN6
$I_n$	2 A	30 A	16 A
$U_{max}$ (V AC/V DC)	250	500	400
Number of auxiliaries / pilots <sup>(f)</sup>	2 pilotes	2 aux	4 aux
Connection (min - max) : mm <sup>2</sup>			
	Flexible wiring	0,8	2,5 - 6
	Stranded wiring	X	2,5 - 10
Tightening torque :	X	1,5 Nm	0,8 Nm

**Used as connector according to IEC/EN 61984 :  $I_n$**

	DSN1	DSN3	DSN6
$I_n$	20 A	32 A	63 A
$U_{max}$	500 V AC 750 V DC	690 V AC 1 kV DC	1 kV AC 1,5 kV DC

**Breaking as plug and socket-outlet according to IEC/EN 60309<sup>(g)</sup>**

$I_n$ (A) / $U_{max}$ (V AC)	DSN1	DSN3	DSN6
20 / 500	20 / 500	32 / 690	45 / 1 000 63 / 690

**Breaking as switch according to IEC/EN 61947-3<sup>(g)</sup>**

Category	DSN1	DSN3	DSN6
Category AC-22A : $I_n$ (A) / $U_{max}$ (V AC)	20 / 500	32 / 690	40 / 690
Category AC-23A : $I_n$ (A) / $U_{max}$ (V AC)	20 / 500	32 / 480	63 / 400

**Breaking as plug and socket-outlet according to UL 2682**

Power : HP	DSN1	DSN3	DSN6
7,5	7,5	15	20

**Increase of DC load-break capacity (contacts in series)**

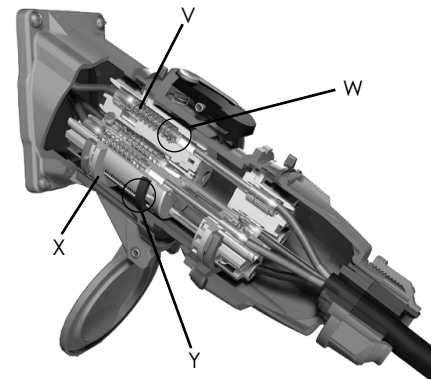
	DSN1	DSN3	DSN6
	option	option	option

**Number of operations**

According to IEC/EN 60309-1 : Cos. $\Phi$ 0,6	DSN1	DSN3	DSN6
5 000	5 000	2 000	2 000
According to UL 2682 : Cos. $\Phi$ 0,75	6 000	6 000	6 000

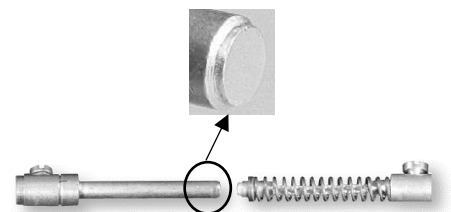
**Isolating distance**

	DSN1	DSN3	DSN6
	10 mm	10 mm	14 mm



V : Contact spring  
X : Ejection spring

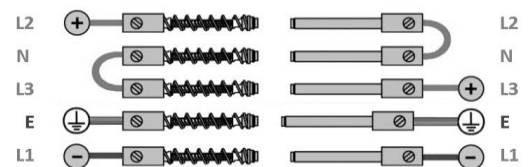
W : Arc chamber  
Y : Ejection ring



Contacts on silver nickel alloy tips (AgNi)



Elastic tightening terminal :  
Stainless steel ring



Contacts in series

**Thermal features**

	DSN1	DSN3	DSN6
Temperature of use	←----- - 40 °C / + 60 °C ----->		
Storage temperature	←----- - 40 °C / + 80 °C ----->		
Maximal temperature rise (K <sub>max</sub> ): new product	36 K	38 K	47 K
Time constant (to reach 63% of K <sub>max</sub> )	17 mn	21 mn	22 mn

**Mechanical features**

	DSN1	DSN3	DSN6
IP <sup>(h)</sup> : connected product	←----- IP66/IP67/IP69 ----->		
IP : cover/cap closed	←----- IP66/IP67/IP69 ----->		
IP : socket-outlet opened with cover (safety shutter)	←----- IP4X ----->		
IK <sup>(i)</sup>	←----- IK08 ----->		
Unlocking / opening	Red release button		
Enclosure	Glass Reinforced Poly (GRP)		
	MARECHAL® Blue		
	Other colors ←----- On request ----->		
Vibrations resistance	✓	✓	✓
Resistance of chemical agents	GRP enclosure (contact us)		
Protection against UV according to UL 746C	←----- f1 ----->		
Salt mists resistance	←----- > 50 000 h ----->		
Screws and bolts	←----- Stainless steel ----->		
Weight of inlet without accessories: (approx)	0,10 kg	0,15 kg	0,23 kg
Weight of outlet without accessories: (approx)	0,18 kg	0,26 kg	0,38 kg

**Main options available**

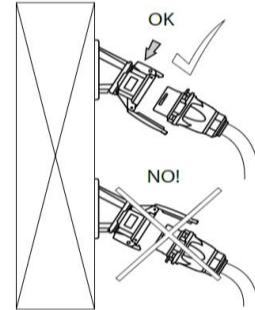
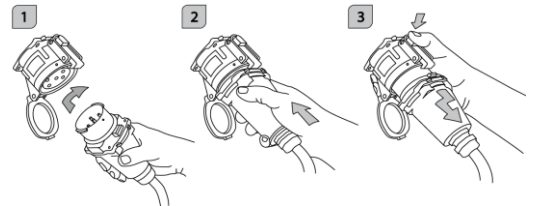
	DSN1	DSN3	DSN6
Socket-outlet opening up to 180°	✓	✓	✓
Self-returning lid	✓ (IP40)	✓ (IP40)	✓ (IP40)
Inlet cap (IP66/IP67)	✓	✓	✓
Self-closing lid for inlet with full closure (IP55)	✗	✓	✓
Locking / padlocking	✓	✓	✓
Automatic self-ejecting	✓	✓	✓
Larger release button ( "STOP" )	✓	✓	✓
Finger draw plates	✓	✓	✓
Industrial-domestic adapter	✓	✓	✗

**Mounting accessories**

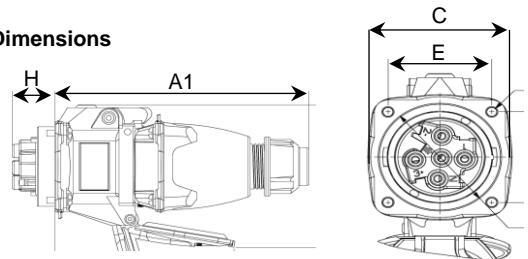
	DSN1	DSN3	DSN6
Poly sleeve (angle)	←----- 30° / 70° ----->		
Metal sleeve (angle)	←----- Straight / 30° / 70° ----->		
Poly or metal box (angle)	←----- Straight / 20° / 30° / 70° ----->		
Poly straight handle with integrated cable gland: clamping range	5/21 mm	5/21 mm	10/30 mm
Poly 60° handle with integrated cable gland: clamping range	9/18 mm	✗	✗
Threaded poly straight handle	M20 - M32	M20 - M40	M20 - M40
Threaded metal straight handle	✗	M20 - M32	M20 - M40

**Spare parts available**

	DSN1	DSN3	DSN6
Inlet or socket-outlet internal isolating element	✓	✓	✓
Inlet or socket-outlet contacts	✓	✓	✓
Inlet or socket-outlet colored gasket	✓	✓	✓
Inlet or socket-outlet casing	✓	✓	✓
Socket-outlet casing gasket	✓	✓	✓



**Dimensions**



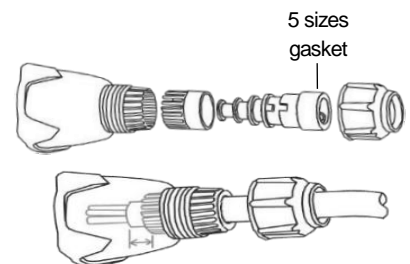
mm	DSN1	DSN3	DSN6
H	25	14	16
A1	147	171	184
E	42	48	55
C	58	74	84

**Finger draw plates**



Locking pin for 2 padlocks

**Poly straight handle with integrated cable gland**



- (a) European Regulation REACH: registration, evaluation, authorisation and restriction of chemicals  
IEC/EN 60309-1 : "Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements"  
IEC/EN 60309-4 : "Plugs, socket-outlets and couplers for industrial purposes – Part 4: Switched socket-outlets and connectors with or without interlock"  
IEC/EN 60947-3 : "Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units"  
IEC/EN 61984 : "Connectors – Safety requirements and tests"  
UL 1682 : "Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type"  
UL 2682 : "Outline of Investigation for Switch-Rated Plugs and Receptacles"  
CSA C22,2 No 182,1-07 : "Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type"  
MIL-S-901D : Military specifications critical mechanical impacts resistance for equipments mounted on ships
- (b)  $I_n$  : Rated current, current value defined by the manufacturer
- (c) Other frequency: contact us
- (d) Silver contacts on silver-nickel alloy tips (AgNi)
- (e) Number of voltage / frequency / grid, keying positions
- (f) Auxiliaries contacts are located on the plug and socket-outlet sides. Pilot contacts are only located on the socket-outlet side.
- (g) For direct current applications : contact us
- (h) IP : Degrees of protection provided by enclosures according to IEC/EN 60529 standard
- (i) IK : Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts according to IEC/EN 62262 standard