









International Standards and approvals

Country	USA / Canada	Canada	Germany	Switzerland	Denmark	Norway	Sweden	Finland	Austria	Great Britain	IEC International electrical Commission
Authority	UL investigated according to CSA	CSA International	Verband Deutscher Elektrotechniker	Schweizerischer Elektrotechnischer Verein	Danmarks Elektriske Materielkontrol	Norges Elektriske Materielkontrol	Svenska Elektriske Materielkontroll-anstalten	Sähötär-kastukeskus	Österreichischer Verband für Elektrotechnik	British Standards Institution	IEC International electrical Commission
Mark of standard			VDE 0660 ⁽¹⁾							BS EN 60947 ⁽¹⁾	IEC 60947 ⁽²⁾
DS020	•	+	+	+	+	+	+	+	+	+	+
DS032	•	+	+	+	+	+	+	+	+	+	+
DS040	•	+	+	+	+	+	+	+	+	+	+
DS050	•	+	+	+	+	+	+	+	+	+	+
DS063	•	+	+	+	+	+	+	+	+	+	+
DS080	•	+	+	+	+	+	+	+	+	+	+
DS100	•	+	+	+	+	+	+	+	+	+	+

- Approved
- + Conforms to requirements

UL Approval File E101686

Notes:

- 1) It is not required to bear a symbol but switches must conform to requirements.
- 2) IEC does not operate an approval scheme

Technical data IEC 947-3 EN 60947-3

			DS020	DS032	DS040	DS050	DS063	DS080	DS100
Rated operating voltage	Ui	V	800	800	800	690	690	690	690
Rated insulation voltage	Ue	V	800	800	800	690	690	690	690
Rated impulse withstand voltage	Uimp	kV	8	8	8	6	6	6	6
Rated thermal current for open switch	Ith	A	25	32	40	50	63	80	100
Rated thermal current for enclosed switch	Ithe	A	25	32	40	50	63	80	80
Rated operation frequency		Hz	50/60	50/60	50/60	50	50	50	50
Power dissipation for each pole		W	0,6	1,3	2,5	4,6	3,7	5,8	7,5

Rated operating current Ie

AC-21A Switching resistive loads, including moderate overloads	690V	Ie	A	20	32	40	50	63	80	100
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads	690V	Ie	A	20	32	40	50	63	80	100

Rated operating power

AC-23A Switching of motor loads or other highly inductive loads	400V	Kw (A)	9 (18)	11 (22)	15 (28)	22 (40)	25 (47)	30 (55)	35 (63)
	690V	Kw (A)	9 (13)	11 (16)	15 (18)	18,5 (19)	18,5 (19)	25 (25)	30 (31)
AC-3 Squirrel cage motors: starting, switching off motors during running	400V	Kw (A)	5,5 (10)	7,5 (14)	11 (21)	18,5 (33)	18,5 (33)	25 (44)	30 (54)
	690V	Kw (A)	5,5 (6)	7,5 (8)	11 (12)	15 (16)	15 (16)	19 (20)	22 (23)
Rated breaking capability in category AC-23A (cos φ=0,45)	400V	A	144	176	228	320	376	440	504
	690V	A	104	128	144	-	-	-	-

Short circuit protection

Rated short time withstand current (1s)	Icw	A	300	400	500	1500	1500	1500	1500
Rated short-circuit make capacity	Icm	A	750	750	750	2000	2000	2500	2500
Rated conditional short-circuit current		kA	10	10	10	15	15	15	15
With fuses class gG	500V	A	20	32	40	63	63	100	100

Technical data UL/CSA (sec. UL508)

General use voltage	Ue	V	600	600	600	600	600	600	600	
General use current	600Vac	Ie	A	20	30	40	80	80	100	100
Rated operating power										
1 phase - 2 pole	120V	Hp/FLA	1 / -	1,5 / -	- / -	3/34	3/34	5/56	5/56	
	240V	Hp/FLA	2 / -	3 / -	- / -	3/17	5/28	7,5/40	10/50	
3 phase - 3 pole	200V	Hp/FLA	- / -	- / -	- / -	7,5/25,3	10/32	15/48	20/62	
	240V	Hp/FLA	5 / 15,2	7,5 / 22	- / -	15/42	20/54	20/54	25/68	
	480V	Hp/FLA	10 / 14	15 / 21	- / -	20/27	25/34	40/52	50/65	
	600V	Hp/FLA	15 / 17	20 / 22	10-11	30/32	30/32	50/52	50/52	
Line protection fuses (DS size 1: Class RK5, 600Vac, 200kA A.I.C.), (DS size 2: Class J, 600Vac)		A	20	30	40	225	225	225	225	
Short Circuit Rating@600Vac		kA	5	5	10	10	10	10	10	

Mechanical characteristics

Mechanical life (120 cycles/hour)	Mil.Man					2	2	2	2
Connecting capability with flexible wires	Min-Max	mm ²	1,5 - 10	1,5 - 10	1,5 - 10	6-35	6-35	6-35	6-35
Connecting capability with solid wires	Min-Max	mm ²	1,5 - 16	1,5 - 16	1,5 - 16	10-50	10-50	10-50	10-50
Connecting capability with flexible wires	Min-Max	AWG	16/08	16/08	16/08	10/01	10/01	10/01	10/01
Connecting capability with solid wires	Min-Max	AWG	16/06	16/06	16/06	08/01	08/01	08/01	08/01
Terminal screw			M4	M4	M4	M5	M5	M5	M5
Screw tightening torque		Nm	1,7	1,7	1,7	2,8	2,8	2,8	2,8
		ib.in	12	12	12	24	24	24	24

Protection degree IEC 529 EN 60529

Terminals		IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Handles		IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66

Ambient conditions

Operational ambient temperature	°C					-25 ÷ +55			
Storage ambient temperature	°C					-25 ÷ +55			
Withstand to constant humid according to IEC 60068							sec. IEC 60068-2-78		
Withstand to cycling humid according to IEC 60069							sec. IEC 60068-2-30		

Auxiliary contacts

			DSC040NOx			XC012AB XC012CB			
Rated insulation voltage	Ui	V	800	800	800	690	690	12	12
Rated thermal current for open switch	Ith	A	10	10	10	12	12	12	12
AC-15 Control of a.c electromagnetic loads	240V	A	3	3	3	6	6	6	6