

Switch Disconnectors

In-Line Fuse Switch Disconnectors

3NJ4 and 3NJ5

Technical data

Standards

IEC 60 947-1, IEC 60 947-3, VDE 0660 Part 107

Type		3NJ41 0 and 3NJ50	3NJ41 2	3NJ41 3	3NJ41 4	3NJ41 8	3NJ41 5	3NJ56	
Conventional thermal current free air $I_{th}^{(1)}$ enclosed $I_{th}^{(2)}$	A	160	250	400	630	910	1000	1250	
	A	160	225	360	567	–	–	–	
Rated insulation voltage U_i	V	750	1000	1000	1000	500	1000	1000	
Rated operational voltage U_o	AC 40 - 60 Hz V	690	690	690	690	400	690	690	
Rated conditional short-circuit current with fuses									
At AC 40 to 60 Hz 690 V Max. rated current I_n of fuses	kA (rms value)	50	50	50	50	50	–	50	
	A	160	250	400	630	910	–	1250	
Permissible let-through current of fuses	kA (peak value)	15	28	39	52	53	–	80	
For fuse links acc. to IEC 60 269-2-1 or isolating links	Size/A	00/160	1/250	1 and 2/250 and 400	2 and 3/400 and 630	3/910	–	4a/1250	
Rated operational current I_o									
at AC 400 V	AC-22B	A	160	250	315	500	910	1000	
AC 500 V	AC-22B	A	160	250	400	630	–	1000	
AC 690 V	AC-21B	A	160	250	400	630	–	1000	
AC 690 V	AC-22B	A	100	200	400	630	–	600	
DC 220 V	DC-21B	A	160	250	400	630	–	–	
Rated breaking capacity									
at AC 500 V	p.f. = 0.65	A	480	750	1200	1890	–	2400	3750
		A	380	600	945	1500	–	–	–
		A	240	375	600	945	–	–	–
AC 690 V	p.f. = 0.65	A	380	600	945	–	–	–	
DC 220 V	L/R = 1 ms	A	240	375	600	945	–	–	
Capacitive breaking capacity	kvar	50–60	105–115	155–185	250–300	–	–	–	
Rated short-time current (1 s current)	kA (rms value)	15	20	22	22	22	22	34	
Permissible ambient temperature	°C	–25 to +55							
Mechanical endurance	Operating cycles	1400	1400	800	800	800	800	800	
Electrical endurance	Operating cycles	200	200	200	200	100	100	100	
Degree of protection									
With closed fuse carrier and with terminal and peripheral covering		IP 30	IP 30	IP 30	IP 30	IP 30	IP 30	IP 10	
With open fuse carrier		IP 10	IP 10	IP 10	IP 10	IP 10	IP 10	IP 10	
Power loss of the main conducting paths at I_{th}	W	18	23	49	110	260	300	300	
Main conductor connection									
Terminal screws									
Flat busbars	mm	M 8	M 10	M 12	M 12	2 × M 12	2 × M 12	M 16	
Cable lug, max. conductor cross-section (stranded)	mm ²	24	42	42	42	80	80	80	
Tightening torque	Nm	95	240	240	240 ³⁾	2 × 240	2 × 240	2 × 300	
		10–15	30–35	30–35	30–35	30–35	30–35	50–60	
Clamp connection/V terminals	mm ²	1.5–70	25–300	25–300	25–300	–	–	–	
Fixing screws									
for fitting on busbars		M 8	M 12	M 12	M 12	M 12	M 12	M 16	
Required torque	Nm	16–18	35–40	35–40	35–40	35–40	35–40	50–60	

1) When several units are used next to each other the load factor acc. to EN 60 439 Part 1/DIN VDE 0660 Part 500, Table 1 must be observed.

2) Required cabinet volume is at least 0.185 m³.

3) A special kit is required for connection of 2 × 240 mm²; please inquire about delivery.