SIEMENS

Data sheet 3NP1153-1DA20



SENTRON, Fuse switch disconnector 3NP1, 3-pole, NH2, 400 A, for assembly and installation on mounting plate, Box terminal, Cover level 70 mm

product brand name product designation 3NP1 fuse switch disconnector design of the product design of the product design of the safety monitoring Without design of the safety monitoring Without design of the load switch / strip form No No No Cover handle design of the load switch / strip form No No Ceneral technical data number of poles 3 type of device For assembly and installation on mounting plate size of disconnecting link 2 and 1 let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-22 B at AC-23 B with capacitive load degree of pollution 3 Voltage insulation voltage a rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of psilution 2 / at AC / rated value with degree of psilution 2 / at AC / rated value a with degree of psilution 2 / at AC / rated value a with degree of psilution 2 / at AC / rated value a with degree of psilution 2 / at AC / rated value a with degree of psilution 2 / at AC / rated value a with degree of psilution 2 / at AC / rated value a with degree of psilution 2 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 3 / at AC / rated value a with degree of psilution 4 / at AC / rated value a with degree of psilution 4 / at AC / rated value a with degree of psilution 4 / at AC / rated value a with degree of psilution 4 / at AC / rated value a with degree of psilution 4 / at AC / rated value a with degree of psilution 4 / at AC / rated value a with degree of psilution 4 / at AC / r	Model			
design of the product design of the safety monitoring Without Cover level 70 mm Without Cover level 70 mm No No Sover level 70 mm Without Cover level 70 mm No No Sover landle Geore For assembly and installation on mounting plate For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate Sover landle For assembly and installation on mounting plate For assembly and instal	product brand name	SENTRON		
design of the asfety monitoring design of the actuating element design of the load switch / strip form No No Ceneral technical data number of poles size of disconnecting link size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • with capacitive load degree of pollution Voltage insulation voltage • rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree insulator value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 4 / at AC / rated value • with degree of pollution 6 / at AC / rated value • with degree of pollution 6 / at AC / rated value • with degree of pollution 6 / at AC / rated value • with degree of pollution 7 / at AC / rated value • with degree of pollution 8 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • with degree of pollution 9 / at AC / rated value • w	product designation	3NP1 fuse switch disconnector		
design of the actuating element design of the load switch / strip form No type of the driving mechanism / motor drive No General technical data number of poles size of disconnecting link size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-23 B bwith capacitive load degree of pollution Voltage insulation voltage a rated value bwith degree of pollution 3 / at AC / rated value bwith degree of pollution 2 / at AC / rated value bwith gere of rated value bwith gere of rated value bwith degree resistance / rated value bover factor / at AC-21 B consumer factor by the capacitive load consumer factor con	design of the product			
design of the load switch / strip form type of the driving mechanism / motor drive Ceneral technical data number of poles type of device size of disconnecting link size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • at AC-22 B • with capacitive load degree of pollution Voltage insulation voltage • rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of palution 2 / at AC / rated value • with degree of palution 2 / at AC / rated value • with degree resistance / rated value operating voltage • at AC / rated value / maximum • at DC / rated value • at AC / rated value	design of the safety monitoring			
type of the driving mechanism / motor drive General technical data number of poles 3 type of device 5	design of the actuating element			
Remeral technical data number of poles type of device size of disconnecting link size of fuse link NH1, NH2 let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-23 B with capacitive load fuse system degree of pollution Voltage insulation voltage a rated value with degree of pollution 2 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution	design of the load switch / strip form			
number of poles type of device For assembly and installation on mounting plate size of disconnecting link 2 and 1 size of fuse link NH1, NH2 let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-23 B with capacitive load fuse system degree of pollution 3 Voltage insulation voltage a rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value surge voltage resistance / rated value at AC-21 B surge voltage resistance / rated value at AC / rated value / maximum at AC / rated value at AC / rated value / maximum at AC / rated value at AC / rated value / maximum at AC / rated value at AC / rated value / maximum at AC / rated value at AC / rated value / maximum at AC / rated value at AC / rated value / maximum at AC / rated value at AC / rated value / maximum at AC / rated value at AC / rated value	type of the driving mechanism / motor drive	No		
type of device size of disconnecting link size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-23 B with capacitive load fuse system degree of pollution voltage insulation voltage with degree of pollution 3 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated value with degree of pollution 3 / at AC / rated	General technical data			
size of disconnecting link size of fuse link NH1, NH2 let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-23 B with capacitive load current / with closed switch / maximum at AC-25 B with capacitive load turent / with closed current / with closed / with closed / with closed current / with closed / with closed / with closed / with closed current / with closed / with	number of poles	3		
size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • at AC-23 B • with capacitive load fuse system degree of pollution Voltage insulation voltage • rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value power factor / at AC-21 B surge voltage resistance / rated value • at AC / rated value / maximum • at AC / rated value • at AC / rated value / maximum • at DC / rated value • at AC / rated value	type of device	For assembly and installation on mounting plate		
let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-23 B with capacitive load current / with closed switch / maximum at AC-20 B with capacitive load current / with capacitive load cu	size of disconnecting link	2 and 1		
permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • at AC-23 B • with capacitive load • with capacitive load degree of pollution voltage insulation voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value operating voltage resistance / rated value • at AC / rated value / maximum • at AC / rated value / maximum • at AC / rated value • at AC / rated value / maximum • at DC / rated value 440 V	size of fuse link	NH1, NH2		
power factor • at AC-22 B • at AC-23 B • with capacitive load -0.25 fuse system degree of pollution 2 Voltage insulation voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value 1 000 V power factor / at AC-21 B surge voltage resistance / rated value • at AC / rated value / maximum • at DC / rated value • at AC / rated value • at DC / rated value		40 kA		
at AC-22 B at AC-23 B birth capacitive load colors with capacitive load colors tuse system colors tuse	mechanical service life (switching cycles) / typical	1 000		
 at AC-23 B with capacitive load fuse system degree of pollution 3 Voltage insulation voltage rated value with degree of pollution 3 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value power factor / at AC-21 B surge voltage resistance / rated value operating voltage at AC / rated value / maximum at AC / rated value 440 V 	power factor			
 with capacitive load fuse system degree of pollution 3 Voltage insulation voltage rated value with degree of pollution 3 / at AC / rated value with degree of pollution 2 / at AC / rated value 1 000 V power factor / at AC-21 B surge voltage resistance / rated value operating voltage at AC / rated value / maximum at AC / rated value 440 V 	• at AC-22 B	0.65		
fuse system degree of pollution 3 Voltage insulation voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value power factor / at AC-21 B surge voltage resistance / rated value • at AC / rated value / maximum • at DC / rated value 440 V	• at AC-23 B	0.35		
degree of pollution Voltage insulation voltage	with capacitive load	-0.25		
insulation voltage	fuse system	LV HRC fuse		
insulation voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value 1 000 V power factor / at AC-21 B surge voltage resistance / rated value • at AC / rated value / maximum • at DC / rated value 440 V	degree of pollution	3		
 rated value with degree of pollution 3 / at AC / rated value with degree of pollution 2 / at AC / rated value 1 000 V power factor / at AC-21 B surge voltage resistance / rated value 8 kV operating voltage at AC / rated value / maximum at DC / rated value 440 V 	Voltage			
 with degree of pollution 3 / at AC / rated value with degree of pollution 2 / at AC / rated value 1 000 V power factor / at AC-21 B surge voltage resistance / rated value operating voltage at AC / rated value / maximum at DC / rated value 440 V 	insulation voltage			
 with degree of pollution 2 / at AC / rated value power factor / at AC-21 B surge voltage resistance / rated value operating voltage at AC / rated value / maximum at DC / rated value 440 V 	rated value	690 V		
power factor / at AC-21 B surge voltage resistance / rated value operating voltage o at AC / rated value / maximum at DC / rated value 0.95 8 kV 690 V 440 V	 with degree of pollution 3 / at AC / rated value 	690 V		
surge voltage resistance / rated value 8 kV operating voltage • at AC / rated value / maximum 690 V • at DC / rated value 440 V	with degree of pollution 2 / at AC / rated value	1 000 V		
operating voltage • at AC / rated value / maximum • at DC / rated value 690 V 440 V	power factor / at AC-21 B	0.95		
 at AC / rated value / maximum at DC / rated value 440 V 	surge voltage resistance / rated value	8 kV		
• at DC / rated value 440 V	operating voltage			
	at AC / rated value / maximum	690 V		
at DC / rated value / maximum 440 V	at DC / rated value	440 V		
	at DC / rated value / maximum	440 V		
Protection class	Protection class			
protection class IP	protection class IP			
with closed switch / with cover or cable lug cover IP40	 with closed switch / with cover or cable lug cover 	IP40		
• with closed switch / without cover or cable lug cover IP30	 with closed switch / without cover or cable lug cover 	IP30		
• on the front IP40	• on the front	IP40		

• open	IP20
Dissipation	
power loss [W]	
with conventional rated thermal current / without fuse / per pole	14 W
with conventional rated thermal current / without fuse / per device	42 W
 for rated value of the current / at AC / in hot operating state / per pole 	48 W
of the fuse / per fuse / maximum	34 W
Current	
operational current	
at 35 °C / rated value	400 A
at 40 °C / rated value	400 A
at 45 °C / rated value	392 A
at 50 °C / rated value	372 A
at 55 °C / rated value	356 A
at AC / rated value	400 A
at AC-23 B / at 690 V / rated value	125 A
at AC-23 B / at 500 V / rated value	315 A
• at AC-23 B / at 400 V / rated value	400 A
• at AC-23 B / at 240 V / rated value	400 A
• at AC-22 B / at 690 V / rated value	400 A
at AC-22 B / at 500 V / rated value	400 A
• at AC-22 B / at 400 V / rated value	400 A
at AC-22 B / at 240 V / rated value	400 A
at AC-21 B / at 690 V / rated value	400 A
at AC-21 B / at 500 V / rated value	400 A
at AC-21 B / at 400 V / rated value	400 A
at AC-21 B / at 240 V / rated value	400 A
at DC-23 B / at 440 V / rated value	160 A
at DC-23 B / at 240 V / rated value	250 A
at DC-23 B / at 120 V / rated value	250 A
at DC-22 B / at 440 V / rated value	315 A
at DC-22 B / at 240 V / rated value	400 A
 at DC-22 B / at 120 V / rated value 	400 A
 at DC-21 B / at 440 V / rated value 	400 A
at DC-21 B / at 240 V / rated value	400 A
at DC-21 B / at 120 V / rated value	400 A
let-through current / with high-speed activation / maximum permissible	40 kA
Main circuit	
operational current	
rated value	400 A
 with capacitive load / at 400 V / rated value 	72 A
 with capacitive load / at 500 V / rated value 	55 A
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	0
number of NO contacts / for auxiliary contacts	0
Suitability	
suitability for use	
main switch	No
 switch disconnector 	Yes
 EMERGENCY OFF switch 	No
 safety switch 	Yes
 maintenance/repair switch 	Yes
Product details	

product feature / interlock	Yes
 product component / trip indicator 	No
 product function / phase failure monitoring 	No
 product component / undervoltage release 	No
 product component / undervoltage release with leading contact 	No
product feature / sealable	Yes
product extension / auxiliary switch	Yes
product extension / optional	
 locking capability 	Yes
 motor drive 	No
 phase failure monitoring 	Yes
fuse monitoring	Yes
 voltage trigger 	No
 overvoltage protection monitoring 	Yes
Product function	
product function	
fuse monitoring	No
 overvoltage protection monitoring 	No
Short circuit	
conditional short-circuit current (Iq)	
rated value	80 kA
 at AC / at 240 V / with high-speed activation / rated value 	80 kA
 at AC / at 500 V / with high-speed activation / rated value 	80 kA
 at AC / at 690 V / with high-speed activation / rated value 	50 kA
 with closed switch / at AC / at 240 V / rated value 	100 kA
 with closed switch / at AC / at 500 V / rated value 	100 kA
with closed switch / at AC / at 690 V / rated value	100 kA
Connections	
arrangement of electrical connectors / for main current circuit	other
connectable conductor cross-section / for main contacts	
 solid or stranded / minimum 	120 mm ²
 solid or stranded / maximum 	300 mm ²
 finely stranded / with core end processing / minimum 	120 mm²
 finely stranded / with core end processing / maximum 	240 mm²
• stranded / minimum	120 mm²
stranded / maximum	300 mm²
tightening torque / with screw-type terminals	
• minimum	25 N·m
maximum	25 N·m
type of connectable conductor cross-sections / of the laminated conductors / maximum	32 x 10 mm
type of connection technology	Box terminal
type of electrical connection / for main current circuit	box terminal
Mechanical Design	
height	306 mm
width	209.4 mm
depth	130 mm
fastening method	mounting plate
fastening method	
nactoring metrica	
• floor mounting	Yes
_	Yes No

• rail mounting	No		
mounting position	horizontal/vertical		
net weight	4.21 kg		
Environmental conditions			
ambient temperature / during operation			
• minimum	-25 °C		
maximum	55 °C		
ambient temperature / during storage			
• minimum	-50 °C		
maximum	80 °C		
General Product Approval		Declaration of Conformity	Test Certificates





Miscellaneous





Special Test Certificate

Test Certificates

Marine / Shipping

other

Type Test Certificates/Test Report





Miscellaneous

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1153-1DA20

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3NP1153-1DA20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1153-1DA20

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications









