DATASHEET - T3-4-153/E



Step switches, T3, 32 A, flush mounting, 4 contact unit(s), Contacts: 8, 45 °, maintained, Without 0 (Off) position, 1-8, design no. 153



Part no. Catalog No. T3-4-153/E 020171

Similar to illustration

Delivery program

renvery program			
roduct range			Control switches
art group reference			T3
asic function			Step switches
			with black thumb grip and front plate
ontacts			8
legree of Protection			Front IP65
lesign			flush mounting
iontact sequence			
witching angle		0	45
witching performance			maintained Without 0 (Off) position
lesign number			153
ront plate no.			$ \begin{bmatrix} 2 & 3 & 4 \\ 1 & 7 & 5 \\ 8 & 7 & 6 \end{bmatrix} $ FS 414
ront plate			1-8
Notor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	15
lated uninterrupted current	l _u	А	32
lote on rated uninterrupted current !u			Rated uninterrupted current \boldsymbol{I}_{u} is specified for max. cross-section.
		contact	

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open	°C	;	-25 - +50

Field1133				
Number pointNumber point </td <td>Enclosed</td> <td></td> <td>°C</td> <td>-25 - +40</td>	Enclosed		°C	-25 - +40
Manding partialsSSCatactionNameA sequenceField of datasteringsNameA sequenceField of datasteringsNameNameField of datasteringsNameNameField of datastering for datasteringNameNameName or nick outer rung to correctNameNameA data sequenceNameNameA data sequenceNameNameRead data time data sequenceNameNameRead d	Overvoltage category/pollution degree			111/3
Autor pointreprintContractIIEnters dataIValueIRead-summary set current,IIINow on set current	Rated impulse withstand voltage	U _{imp}	V AC	6000
ContentNoteRind up and unitary and	Mechanical shock resistance		g	15
First concentration of the sector of the s				As required
Radia decirationUnitViewReal animativa durationUnitReal animativa durationReal animativa				
Read uninarrupted current I,NoteRead uninterrupted current I, is specified for max. runss-section.Read variaby with imminated operation, class 12IIIAdd 25 UPIIIIAdd 25 UPIIIIIAdd 25 UPIIIIIAdd 25 UPIIIIIIAdd 25 UPIIIIIIIBoote-coal and operation, class 12II </td <td></td> <td></td> <td></td> <td>200</td>				200
Name and unitanguade current 1,Note and unitanguade current 1, is a pacified for max or ease acceleration,Land random up white mention operation, class 12Note 1South 1A 28 % 0 fs -Note 1South 1South 1A 28 % 0 fs -Note 1South 1South 1South circle current 1Note 1South 1South 1Read and out-since current 1South 1South 1South 1Read and south service current 1South 1 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Locality with interint operation, close 12RefA B 40 % D FX3A B 40 % D FX3She k-f-ice interintX3Relat-share's maintained current NNNRelat-share's maintained Current NNN		I _u	A	
kg 3% UFkg 4%2A 36% UFK16A 36% UFK16A 36% UFA 36%3Subscheind utingKA 36%FareKA 36%Rade doording withink durmet (1 s current)KKNote orised sincer withink durmet (1 s current)KKRade doording abs-circul current withink durmet (1 s current)KKRade doording abs-circul current withink durmet (1 s current)KKRade doording abs-circul current withink durmet (1 s current)KKSubschert abs 400 FBS9573KKSubschert				Rated uninterrupted current I_u is specified for max. cross-section.
AB 49 KP FIIAB 49 KP FIIShort-citratingIIFineAgentSRated short-time withstand current (Is current)IIRated current) (Is current)IISolt (Is c				
AD 0% 0% FAD 0% 0% FAD 0% 0% 0%AD 0%<	AB 25 % DF			2
She-riculatingInInInFieInSecondRated normal fuerrationInInRated normal market normal fuerrationInInRated normal fuerrationInIn	AB 40 % DF		x I _e	1.6
FeeInterstance <t< td=""><td>AB 60 % DF</td><td></td><td>x I_e</td><td>1.3</td></t<>	AB 60 % DF		x I _e	1.3
NetNetNetNetSelSelNet or site of the order	Short-circuit rating			
Note on retest short-ine withstand current lowIqIceCurrent for a time of 1 secondRand, constands short-incuit currentIqIAISwitching capacity as per IEC 00947-3IAII200 \IAIII200 \IAIAII200 \IAIAII200 \IAIAII200 \IAIAII200 \IAIAII200 \IAIAII200 \IAIAIII200 \IAIAIII200 \IAIAIIII200 \IAIIIIIIII200 \IAIIIIIIIII200 \IAII	Fuse		A gG/gL	35
Reted to white capacityImage: space of the Coord of the Co	Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	650
Nutling capacity as per IEC 80897.3AAret of mixing capacity as per IEC 80897.3AARet derivating capacity as per IEC 80897.3AA230VAAB230VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VAAB90VBAB90VABB90VABB90VABB90VABB90VABB90VABB90VBBB90VBBB90VBBB90VBBB90VBBB90VBBB90VBBB90VBBB90V <td< td=""><td>Note on rated short-time withstand current lcw</td><td></td><td></td><td>Current for a time of 1 second</td></td<>	Note on rated short-time withstand current lcw			Current for a time of 1 second
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Rated broking capacity cos qui DEC 80947-3AA201VA2040(415VA2040(415VA20500VA40600VA40600VA40600VA40500VA40600VA40600VA40600VA40600VA40600VA40600VA40600VA40600VA40600VA40600VA40600VA40700VPK<				
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400/15 VA80500 VA20600 VA70Sate isolation to EN 61140V70between the contactsV40Current heat loss per contact at 14V10Current heat loss per contact at 14 (AC-15/200 V)V10Current heat loss per contact at 14 (AC-15/200 V)V10Action operating frequencyAperations100Action operating frequencyAperations100Action operating frequencyP10Action operating frequencyP100Action operating frequencyP100 <td></td> <td></td> <td></td> <td></td>				
S00 \A24800 \A70Sete solation to SN 61140between the contacts-40Current heat loss per contact at I_a-70Current heat loss per contact at I_a (AC-15/230 V)-70Current heat loss per contact at I_a (AC-15/230 V)-70Maximum oper tauge frequencyOperation 870Act70Rating, motor load switchPW5220 V230 VPW5230 VStar-deltaPW5400 V MStar-deltaPW10400 V MStar-deltaPW10500 V Star-deltaPW10500 V Star-deltaPW10600 V Star-deltaPM10600 V				
Sid0 VAPSale isolation to EN 61140VAC400between the contactsVAC400Current heat less per outact at l ₀ (AC-15/230 V)V1Current heat less per outact at l ₀ (AC-15/230 V)V3Diamongerating frequencyOperation χ_10^0 AciaPXAciaPKVRating, motor load switchPKV220 V 230 VPKV220 V 230 VPKV320 V Star-detaPKV500 V Star-detaPKV600 V Star-detaPKV600 V Star-detaPKV600 V Star-detaPKV600 V Star-detaPKV720 V Star-detaPKV600 V Star-detaPKV720				
Sate isolation to EN 61140 Image: Provide the contacts VAC 40 batween the contacts VAC 40 Current heat loss per contact at I ₀ VAC 1 Current heat loss per auxiliary circuit at I ₀ (AC-15/230 V) Poerations VMC 100 Maximum operating frequency Operations NMC 100 AC- VMC 100 100 AC-3 VMC 100 100 Rating, motor load switch PMC 100 AC-3 VMC 100 220 V 230 V PMC 100 AC-3 VMC 50 220 V 230 V PMC 100 400 V Star-delta PMC 100 400 V Star-delta PMC 100 680 V PMC 100 680 V Star-delta PMC 100 680 V Star-delta PMC 100 680 V Star-delta PMC 100 230 V star-delta PMC 100 1200 V star-delta PMC 100 <				
between the contactsVAC40Current heat loss per contact at logVACVAC10Current heat loss per auxiliary circuit at log (AC-15/230 V)CO10Lifespan, mechanicalOperationsA10 ⁸ 50Maximum operating frequencyOperationsMaximum operating frequencyCO100AC-3Failing, motor load switchPWU50Rating, motor load switchPWU50100200 V 200 V Star-deltaPWU50200 V Star-deltaPWU1004000 V Star-deltaPWU100600 V Star-deltaPWU100720 V Star-deltaPWU100600 V Star-deltaPWU100720 V Star-deltaPWU100 <td></td> <td></td> <td>A</td> <td>170</td>			A	170
Current heat loss per curxitient quarter la Marcel Segre auxiliary circuit at la MAC-15/230 ViVertical1Lisspan, mechanicalOperationsApartors>5Maximum operating frequencyPoreMarcel>5AC-3PoreMarcel73Rating, motor load switchPoreMarcel5200 / 200 /				
Current heat loss per auxiliary circuit at le (AC-15/230 V)Constanto				
Lifespan, mechanicalOperationsN Maximum perating frequencyOperationsN Maximum perating frequencyOperationsSolACA				
Maximum operating frequency Operations/ Image: Construction of the second of the seco		0		
AC Image: Mathematic Section (Construction (Co			x 10 ⁶	
Rating, motor load switch P KW 220 V 230 V P KW 55 230 V Star-detta P KW 75 400 V 415 V P KW 11 400 V Star-detta P KW 50 500 V Soot V P KW 50 500 V Star-detta P KW 50 500 V Star-detta P KW 16 600 V Star-detta P KW 10 720 V P KW 10 720 V Star-detta P KW 20 720 V Star-detta I 9 20 720 V Star-detta I 9 9 720 V Star-detta I 9 3 700 V star-detta I 9 3 700 V star-detta		Operations/h		1200
220 V 230 V P KW 5 230 V Star-delta P KW 75 400 V 415 V P KW 1 400 V Star-delta P KW 50 500 V P KW 50 500 V Star-delta P KW 10 600 V Star-delta P KW 15 690 V Star-delta P KW 10 730 V P KW 10 730 V P KW 20 730 V P KW 21 730 V P KW 21 730 V P A 23 7400 V star-delta P A 21 7400 V star-delta P A 21 7500 V P A 21 7500 V star-delta P A 21 7500 V star-delta	AC-3			
230 V Star-delta P kW 7.5 400 V 415 V P kW 11 400 V Star-delta P kW 5 500 V P kW 15 500 V Star-delta P kW 16 690 V Star-delta P kW 16 690 V Star-delta P kW 11 690 V Star-delta P kW 12 690 V Star-delta P kW 13 690 V Star-delta P kW 14 690 V Star-delta P kW 12 730 V Star-delta P kW 22 730 V Ie A 23 730 V Star-delta Ie A 24 400 V 415 V Ie A 23 400 V 415 V Ie A 24 400 V 415 V Ie A 24 500 V Ie A 24 500 V star-delta Ie A	Rating, motor load switch	Р	kW	
400 V 415 V P kW 1 400 V Star-delta P kW 50 500 V P kW 50 500 V Star-delta P kW 15 690 V Star-delta P kW 16 690 V Star-delta P kW 11 690 V Star-delta P kW 22 Rated operational current motor load switch V 230 V 230 V star-delta Ie A 237 400V 415 V Ie A 237 400V star-delta Ie A 24 400V 415 V Ie A 24 400V star-delta Ie A 24 400 V star-delta Ie A 24 500 V Ie A 24 500 V star-delta Ie A 24	220 V 230 V	Ρ	kW	5.5
400 V Star-delta P kW 50 500 V P kW 15 500 V Star-delta P kW 18.5 690 V Star-delta P kW 11 690 V Star-delta P kW 22 Rated operational current motor load switch V V 14 230 V Ia A 237 400V 415 V Ia A 37 400 V star-delta Ia A 32 500 V star-delta Ia A 32 600 V star-delta Ia <td>230 V Star-delta</td> <td>Р</td> <td>kW</td> <td>7.5</td>	230 V Star-delta	Р	kW	7.5
500 V FN KW 500 V 500 V Star-delta P KW 18.5 690 V FN KW 11 690 V Star-delta P KW 22 Rated operational current motor load switch F F 230 V Iage A 23.7 230 V star-delta Iage A 32.7 400 V 415 V Iage A 32.7 500 V star-delta Iage A 32.7 500 V star-delta Iage A 32.7 600 V star-delta Iage A 32.7	400 V 415 V	Р	kW	11
500 V Star-delta P kW 185 690 V P kW 1 690 V Star-delta P kW 24 690 V Star-delta P kW 24 230 V I I I 230 V star-delta Ie A 237 400 V star-delta Ie A 24 400 V star-delta Ie A 25 500 V star-delta Ie A 26 500 V star-delta Ie A 26 500 V star-delta Ie A 27	400 V Star-delta	Ρ	kW	15
690 VPkW1690 V Star-deltaPkW2Rated operational current motor load switch230 VleA37230 V star-deltaleA32400 V 415 VleA37400 V star-deltaleA32500 VleA32500 V star-deltaleA32500 V star-deltaleA32 <td< td=""><td>500 V</td><td>Ρ</td><td>kW</td><td>15</td></td<>	500 V	Ρ	kW	15
690 V Star-delta P kW 2 Rated operational current motor load switch N N 230 V Ie A 3.7 230 V star-delta Ie A 3.7 400 V 415 V Ie A 3.7 400 V star-delta Ie A 3.7 500 V star-delta Ie A 3.7	500 V Star-delta	Р	kW	18.5
Rated operational current motor load switch Image: Marcine State 230 V Ie A 3.7 230 V star-delta Ie A 3.2 400V 415 V Ie A 3.7 400 V star-delta Ie A 3.7 500 V star-delta Ie A 3.7 500 V star-delta Ie A 3.7	690 V	Р	kW	11
230 VIeA23.7230 V star-deltaIeA32400 V 415 VIeA23.7400 V star-deltaIeA32500 VIeA32500 V star-deltaIeA32.7		Ρ	kW	22
230 V star-deltaIeA32400V 415 VIeA37400 V star-deltaIeA32500 V star-deltaIeA32500 V star-deltaIeA32				
400V 415 VIeA23.7400 V star-deltaIeA32500 VIeA23.7500 V star-deltaIeA23.7		le	А	
400 V star-deltaIeA32500 VIeA23.7500 V star-deltaIeA32	230 V star-delta	l _e	A	32
500 V Ie A 23.7 500 V star-delta Ie A 32	400V 415 V	l _e	А	23.7
500 V star-delta I _e A 32	400 V star-delta	l _e	А	32
	500 V	le	А	23.7
690 V I _e A 14.7	500 V star-delta	l _e	А	32
	690 V	le	А	14.7
690 V star-delta Ie A 25.5	690 V star-delta	le	А	25.5
AC-23A	AC-23A			
Motor rating AC-23A, 50 - 60 Hz P kW	Motor rating AC-23A, 50 - 60 Hz	Р	kW	

230 V	Р	kW	7.5
400 V 415 V	Р	kW	15
500 V	Р	kW	15
690 V	Р	kW	15
Rated operational current motor load switch			
230 V	le	A	32
400 V 415 V		A	32
	l _e		
500 V	l _e	A	26.4
690 V	Ι _e	A	17
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	l _e	A	25
Voltage per contact pair in series		V	60
DC-21A	l _e	A	
Rated operational current	l _e	A	1
	'e		
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	le	A	25
Contacts		Quantity	1
48 V			
Rated operational current	le	A	25
Contacts		Quantity	2
60 V			
Rated operational current	le	A	25
Contacts	C	Quantity	
120 V		Quantity	
Rated operational current		A	12
·	l _e		
Contacts		Quantity	3
240 V			
Rated operational current	l _e	A	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	le	А	20
Voltage per contact pair in series		٧	24
Control circuit reliability at 24 V DC, 10 mA	Fault	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
	probability		· · · · / · · · · · · · · · · · · · · ·
Terminal capacities		0	1(1 C)
Solid or stranded		mm ²	1 x (1 - 6) 2 x (1 - 6)
Flexible with ferrules to DIN 46228		mm ²	1 x (0.75 - 4)
			2 x (0.75 - 4)
Terminal screw			M4
Tightening torque for terminal screw		Nm	1.6
Technical safety parameters:			
Notes			B10 _d values as per EN ISO 13849-1, table C1
Rating data for approved types			
Contacts			
Rated operational voltage	U _e	V AC	600
Rated uninterrupted current max.			
Main conducting paths			
General use		А	25
Auxiliary contacts			
General Use	lu	A	10
Pilot Duty			A 600
Switching capacity			
criticianity outputity			

Maximum motor rating		
Single-phase		
120 V AC	HP	1.5
200 V AC	HP	3
240 V AC	HP	3
Three-phase		
200 V AC	ΗР	3
240 V AC	HP	3
480 V AC	HP	7.5
600 V AC	HP	10
Short Circuit Current Rating	SCCR	
Basic Rating	kA	5
max. Fuse	A	40
High fault rating	kA	10
max. Fuse	A	40, Class J
Terminal capacity		
Solid or flexible conductor with ferrule	AWG	14 - 10
Terminal screw		M4
Tightening torque	lb-in	17.7

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	32
Heat dissipation per pole, current-dependent	P _{vid}	W	1.1
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			UV resistance only in connection with protective shield.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Control switch (EC002611)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss10.0.1-27-37-14-14 [ACN998011])

Type of switch		Level switch
Number of poles		1
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	А	32
Number of switch positions		8
With 0 (off) position		No
With retraction in 0-position		No
Device construction		Built-in device
Width in number of modular spacings		0
Suitable for ground mounting		No
Suitable for front mounting 4-hole		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Complete device in housing		No
Type of control element		Toggle
Front shield size		48x48 mm
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		12

Approvals

Product Standards	UL 60947-4-1;CSA - C22.2 No. 60947-4-1-14; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.	E36332
UL Category Control No.	NLRV
CSA File No.	12528
CSA Class No.	3211-05
North America Certification	UL listed, CSA certified
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

Dimensions

