

TP Models

TP-Contactors follow a „talking“ Part Number System to differentiate between its versions:

Main digits					Configuration digits					TP CONTACTORS PART NUMBERING SYSTEM																		
Series	Poles	Nom. Volt.	Th. Curr.	Term.	Act volt	Mtg. Pos.	Aux cts	Aux fast.	Version																			
TP	1	10	03	C	A	H	0	C	0##	<p>The P/N for TP contactors has 15 digits: 8 main digits + 7 config digits</p> <p>Identifies standard / special version "0##" = standard version, ## = revision index "XXX" = special version, dedicated docs apply</p> <p>Indicates type of aux tips (Silver/Gold) & fastening (Screw/FastOn) "C" = Silver / Screw "F" = Silver / FastOn</p> <p>Indicates number of aux contacts blocks (1NO+1NC each)</p> <p>Indicates mounting orientation H base plate horizontal V base plate vertical</p> <p>Indicates actuation voltage +25% / -30%</p> <table border="1"> <tr> <td>A</td><td>24Vdc</td><td>C</td><td>48Vdc</td><td>E</td><td>110Vdc</td> </tr> <tr> <td>B</td><td>36Vdc</td><td>D</td><td>72Vdc</td><td>F</td><td>220Vdc</td> </tr> </table> <p>Rectified AC supply to be controlled on DC side</p> <p>Indicates terminals configuration</p> <div style="text-align: center;"> </div> <p>Indicates thermal current of each pole (@ 40°C) 03= 30A</p> <p>Indicates nominal voltage of poles</p> <table border="1"> <tr> <td>10</td><td>750V nominal, 1000V max</td> <td>20</td><td>1500V nominal, 2000V max</td> <td>30</td><td>3000V nominal, 3600V max</td> </tr> </table> <p>Indicates number of main NO poles</p>	A	24Vdc	C	48Vdc	E	110Vdc	B	36Vdc	D	72Vdc	F	220Vdc	10	750V nominal, 1000V max	20	1500V nominal, 2000V max	30	3000V nominal, 3600V max
A	24Vdc	C	48Vdc	E	110Vdc																							
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	2	20		S	B	V	1	F	XXX																			
		30			C		2																					
					D																							
					E																							
					F																							

The main digits identify:

1. number of poles,
2. nominal voltage (same external dimension of arc-chutes),
3. one size thermal current, intermittent coil duty
4. connection interface (shape of busbars)

TP P/N & Docs

The configuration digit are used to define

1. Control voltage (coil model)
2. Installation orientation of the base plate
3. Auxiliary contacts number (1NO+1NC blocks)
4. Auxiliary contacts type (tip material and fastening)
5. Standard / special versions (e.g. for auxiliary harnessing, special interface arrangements, etc)

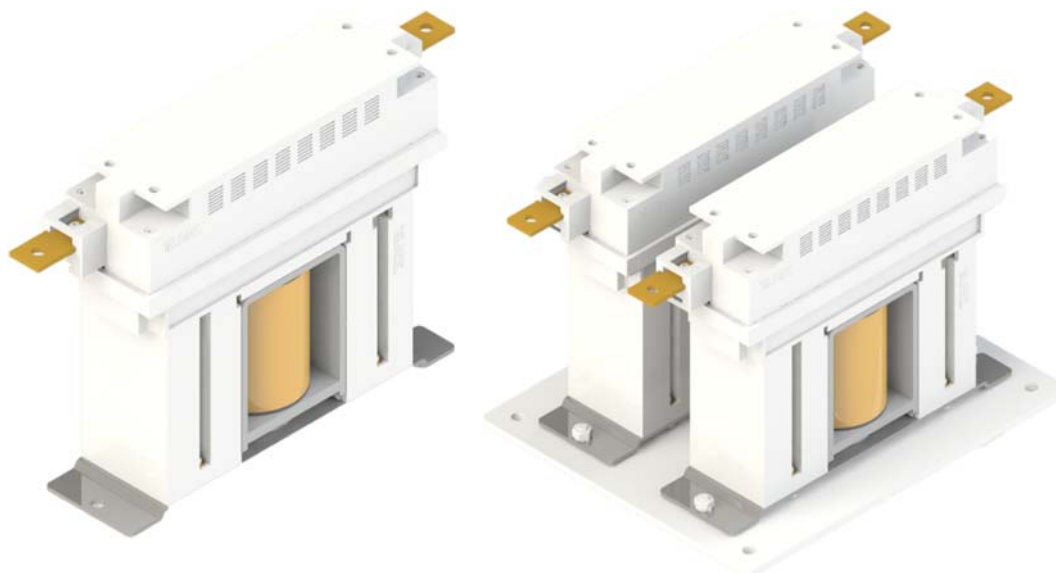
TP contactors product documentation is released and updated online at www.telarc.it and includes:

1. A Product Chart PC for every applicable combination of main digits (standard versions), including all technical details, drawings, configuration information and spares part numbers.
2. A Product Specification PS for every special version released (full part number)
3. A Validation Report VR, including all details of type tests carried out on TP range contactors
4. A Product Manual PM, with detailed installation and maintenance instructions

C-Terminals
S-Terminals



1, 2 poles



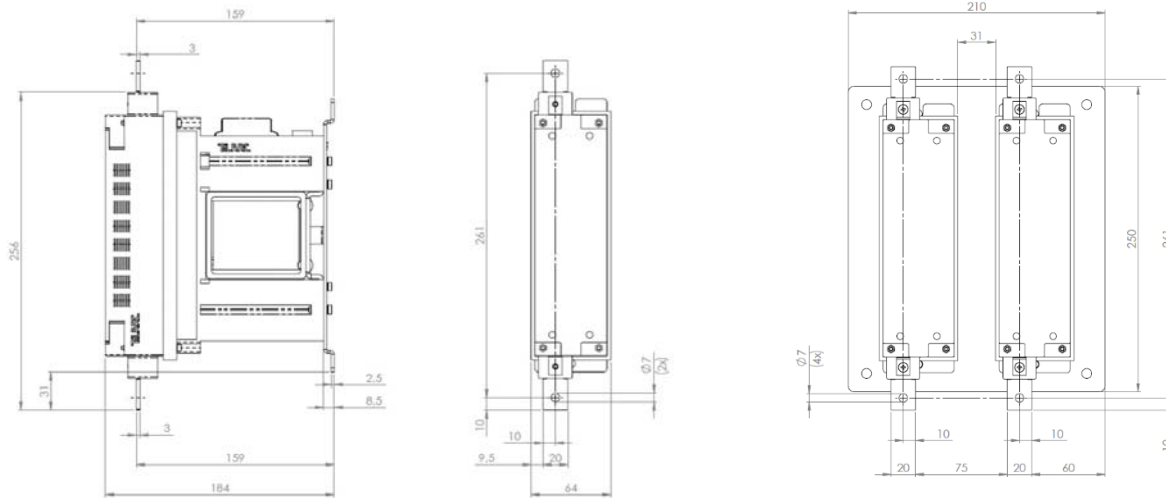
TP Data Sheet

TP technical data are listed according to series-parallel combinations of voltage and current versions

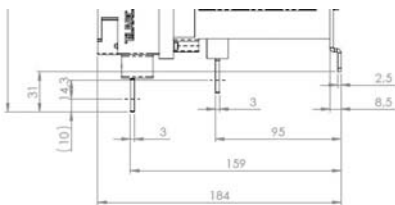
TP TECHNICAL DATA CHART				TP-1-10	TP-1-20	TP-1-30	TP-2-10	TP-2-20	TP-2-30		
	pole size	pole connection									
Main electrical characteristics of each main pole or combination of poles	Rated Operational Voltage		Ue	900	1800	3600	900	1800	3600	V	
	Rated insulation voltage		Ui	4000						V	
	Rated impulse withstand voltage		Uimp	25			25			kV	
	Free air thermal current @40°C	-03	none or	Ith	30			30			A
		-03	parallel	Ith	-			60			A
	Rated operational current		none / series	Ie	100	85	20	180	150	35	A
			parallel	Ie	-			100	85	20	A
	Rated short-time withstand current		none / series	Icw/ 20ms	7						kA
			parallel	Icw/ 20ms	-			10			kA
	Maximum breaking capacity DC T=15ms		none / series	Ibc	200	170	35	330	250	55	A
			parallel	Ibc	-			200	170	35	A
	Maximum breaking capacity AC cosφ=0,8		none / series	Iba	390	300	80	700	550	145	A
			parallel	Iba	-			390	300	80	A
	Maximum making capacity DC T=15ms		none / series	I _{mc}	2200						A
			parallel	I _{mc}	-			4000			A
Maximum making capacity AC cosφ=0,8		none / series	I _{ma}	2200						A	
		parallel	I _{ma}	-			4000			A	
Electrical endurance @Ue / Ie				8000						cycles	
Critical current reversing polarization				<1						A	
Other mechanical and control characteristics	Overvoltage category EN50124-1			PD3/OV3							
	Component category/ Operational frequency			A2/C3							
	Shock and vibration			EN 61373 cat.1B							
	Mechanical endurance			2mio						cycles	
	Closing Power consumption			70			140			W	
	Mechanical operation time [open -close]			50-70						msec	
	Weight			2,5	2,5	2,5	5,5	5,5	5,5	kg	
	Operational Temperature (IEC50125-1)			-40°C +75°C						°C	
	Storage Temperature			-50°C + 85°C						°C	
	Operational altitude			<2000						m	
Routine testing	Operation tolerance @20°C ambient			70%-125% U _c							
	Assembly verification			100%							
	Hi Pot test main poles to ground & grounded aux [50Hz 1min]			7000						V	
	Hi Pot test between open poles [50Hz, 1min]			7000						V	
	Hi Pot test coil and aux to ground [50Hz, 1min]			1500						V	

TP Sizes

Overall dimension drawing 1P and 2P:

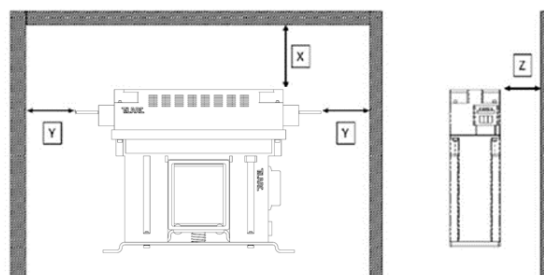


S-Terminals



C-Terminals

Installation insulating distances:



mm	Nominal voltage					
	To metal (grounded) parts			To insulated parts		
	1000V	2000V	3000V	1000V	2000V	3000V
X	50	50	50	50	50	50
Y	50	50	50	30	30	30
Z	50	50	50	20	20	20

Fixing plate insulation shall be adopted to safeguard creepage to ground when needed, depending on connection polarity adopted.

All information contained in the present document is subject to change without notice

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