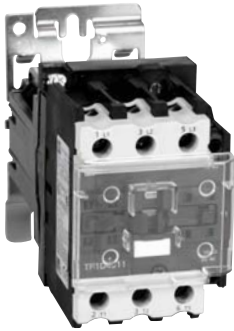


robusta (9A ~ 95A)

3 & 4 Pole Contactors with DC operating coil Specifications

B



TP1-D40●●-XX

3 Pole Contactor with DC operating coil

Maximum Current		Maximum HP						Aux. Contacts Built-in per contactor		Catalog Number
Inductive AC-3 A	Resistive AC-1 A	Single Phase		Three Phase				NO	NC	
		120V	230V	200V	230V	480V	600V			
9	25	0.5	1	2	2	5	7.5	1	0	TP1-D0910-XX
								0	1	TP1-D0901-XX
12	25	1	2	3	3	7.5	10	1	0	TP1-D1210-XX
								0	1	TP1-D1201-XX
18	32	1	3	5	5	10	15	1	0	TP1-D1810-XX
								0	1	TP1-D1801-XX
22	32	1	3	5	5	10	15	1	0	TP1-D2210-XX
								0	1	TP1-D2201-XX
25	40	2	3	5	7.5	15	20	1	0	TP1-D2510-XX
								0	1	TP1-D2501-XX
32	50	2	5	10	10	20	25	1	0	TP1-D3210-XX
								0	1	TP1-D3201-XX
38	50	2	5	10	10	20	25	1	0	TP1-D3810-XX
								0	1	TP1-D3801-XX
40	60	3	5	10	10	30	30	1	1	TP1-D4011-XX
								1	1	TP1-D5011-XX
50	80	3	7.5	15	15	40	40	1	1	TP1-D5011-XX
								1	1	TP1-D6511-XX
65	80	5	10	20	20	50	50	1	1	TP1-D6511-XX
								1	1	TP1-D8011-XX
80	125	7.5	15	20	25	60	60	1	1	TP1-D8011-XX

Note : Standard Fault Ratings UL SP High Fault Ratings UL (100kA with Fuse of class J/CC)



TP1-D2500●-XX

4 Pole Contactor with DC operating coil

Maximum Current		Maximum HP						Main Pole Configuration		Catalog Number
Inductive AC-3 A	Resistive AC-1 A	Single Phase		Three Phase				NO	NC	
		120V	230V	200V	230V	480V	600V			
9	25	0.5	1	2	2	5	7.5	4	0	TP1-D09004-XX
		0.5	1	2	2	5	7.5	0	4	TP1-D09006-XX
		0.5	1	-	-	-	-	2	2	TP1-D09008-XX
12	25	1	2	3	3	7.5	10	4	0	TP1-D12004-XX
		1	2	3	3	7.5	10	0	4	TP1-D12006-XX
		1	2	-	-	-	-	2	2	TP1-D12008-XX
25	40	2	3	5	7.5	15	20	4	0	TP1-D25004-XX
		2	3	5	7.5	15	20	0	4	TP1-D25006-XX
		2	3	-	-	-	-	2	2	TP1-D25008-XX
40	60	3	5	10	10	30	30	4	0	TP1-D40004-XX
		3	5	-	-	-	-	2	2	TP1-D40008-XX
65	80	5	10	20	20	50	50	4	0	TP1-D65004-XX
		5	10	-	-	-	-	2	2	TP1-D65008-XX
80	125	7.5	15	20	25	60	60	4	0	TP1-D80004-XX
		7.5	15	-	-	-	-	2	2	TP1-D80008-XX

Note : Standard & High Fault Ratings UL (100kA with Fuse of class J/CC)

Low Height DC Contactor : 9A ~ 25A *

Maximum Current		Maximum HP 1 Phase		Maximum HP 3 Phase				Catalog Number
Inductive AC-3 A	Resistive AC-1 A	120V	230V	200V	230V	480V	600V	
9	25	0.5	1.0	2	2	5	7.5	TP1-DC09-XX
12	25	1.0	2.0	3	3	7.5	10	TP1-DC12-XX
25	40	2.0	3.0	5	7.5	15	20	TP1-DC25-XX

Replace XX with voltage code from table - 2

Table - 2: XX-DC Coil Voltages									
Volts DC	12	24	48	72	110	125	220	250	440
	JD	BD	ED	SD	FD	GD	MD	UD	RD

*Under UL approval

robusta (9A ~ 95A)

3 & 4 Pole Contactors with DC operating coil Characteristics

General Characteristics

Type		Unit	TP1-D09 ~ TP1-D80
Rated insulation voltage (Ui)	IEC 60947-4-1	V	1000
Conforming to standards			NFCEN60947, VDE0660, BSEN60947, IEC 60947 & IS 13947
Approvals			UL, CSA
Degree of Protection	Conforming to VDE 0106		Protection against direct finger contacts
Protective treatment	Standard version		"TH"
Ambient air temperature (around the device)	Storage	°C	-60 to +80
	Operation	°C	-5 to +55 (0.8 to 1.1Uc)
	Permissible	°C	-40 to +70, for operation at Uc
Maximum operating altitude	Without derating	Mtr.	3000
Operating Position	Without derating		+30° possible, in relation to normal vertical mounting plane

Pole Characteristics

Type	TP1-	Unit	D09	D12	D18	D22	D25	D32	D38	D40	D50	D65	D80
Number of poles (P0wer)			3 or 4	3 or 4	3	3	3 or 4	3	3	3 or 4	3 or 4	3 or 4	3 or 4
Power + Auxiliary			3+1	3+1	3+1	3+1	3+1	3+1	3+1	3+2	3+2	3+2	3+2
Rated current (Ie)	AC3 up to 440V @ 55°C	A	9	12	18	22	25	32	38	40	50	65	80
Rated operating Voltage (Ue)	Upto	V	690	690	690	690	690	690	690	690	690	690	690
Frequency limits	Of the operational current	Hz	25-400										
Rated thermal current (Ith)	$\theta < 40^\circ\text{C}$	A	25	25	32	32	45	50	50	60	80	80	125
Rated making capacity	Irms conforming to IEC-60947-4	A	250	250	300	300	450	550	550	800	900	1000	1100
Rated breaking capacity	Irms conforming to 220-440V	A	250	250	300	300	450	550	550	800	900	1000	1100
		A	175	175	250	250	400	450	450	800	900	1000	1000
		A	85	85	120	120	180	180	180	400	500	630	640
Average impedance per pole	At Ith and 50Hz Milli Ω	Max.	2.5	2.5	2.5	2.5	2	2	2	1.5	1.5	1	0.8
Power dissipation per pole for AC-3 the above operational currents		W	0.2	0.36	0.8	0.8	1.25	2	2	2.4	3.7	4.2	5.1

Control Circuit Characteristics

Type		Unit	TP1-D09~D22	TP1-D25~D38	TP1-D4011~D65	TP1-D80	
Rated control circuit voltage (Uc)	DC	V	12 to 660		12 to 660		
Control voltage limits ($\theta < 55^\circ\text{C}$)	Operational	Standard Coil	0.8 - 1.1 Uc		0.85 - 1.1 Uc		
		Wide Range Coil	0.7 - 1.25 Uc		0.75 - 1.25 Uc		
Average consumption DC at 20°C and at Uc	DC	Drop out	0.1 - 0.25 Uc		0.1 - 0.3 Uc		
		Inrush	W	9	11	22	22
		Sealed	W	9	11	22	22
Average operating time at Uc	Closing time "C"	msec	40-48	52-64	85-110	95-130	
	Opening time "O"	msec	6-14	8-14	20-35	20-35	
Mechanical life Uc (mechanical durability)	In millions of operating cycles		30	25	20	20	
Maximum operating rate (at ambient temp. of $\theta < 55^\circ\text{C}$)	In operating cycle/hour		3600	3600	3600	3600	

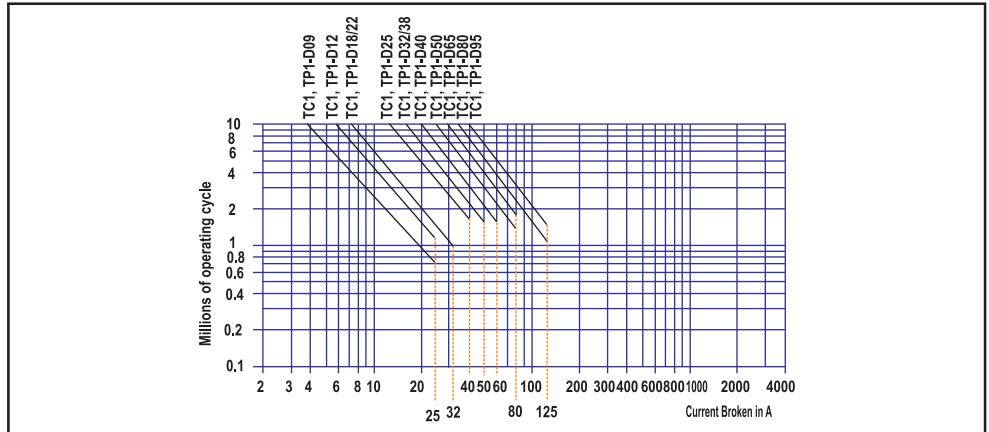
Integral Auxiliary Contact Characteristics

Type		Unit	TP1- D09 ~ TP1- D80
Rated thermal current (Ith)	$\theta < 40^\circ\text{C}$	A	10
Rated operational voltage (Ue)	Upto	V	660

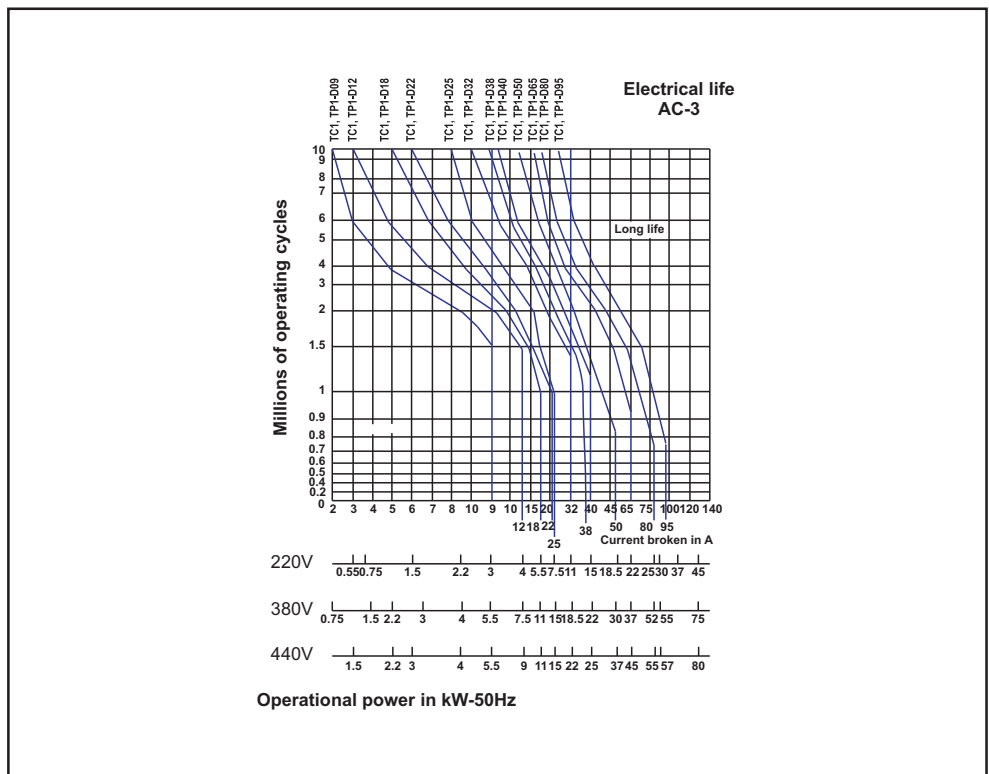
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Contactors' Selection Guide (according to the required electrical life)

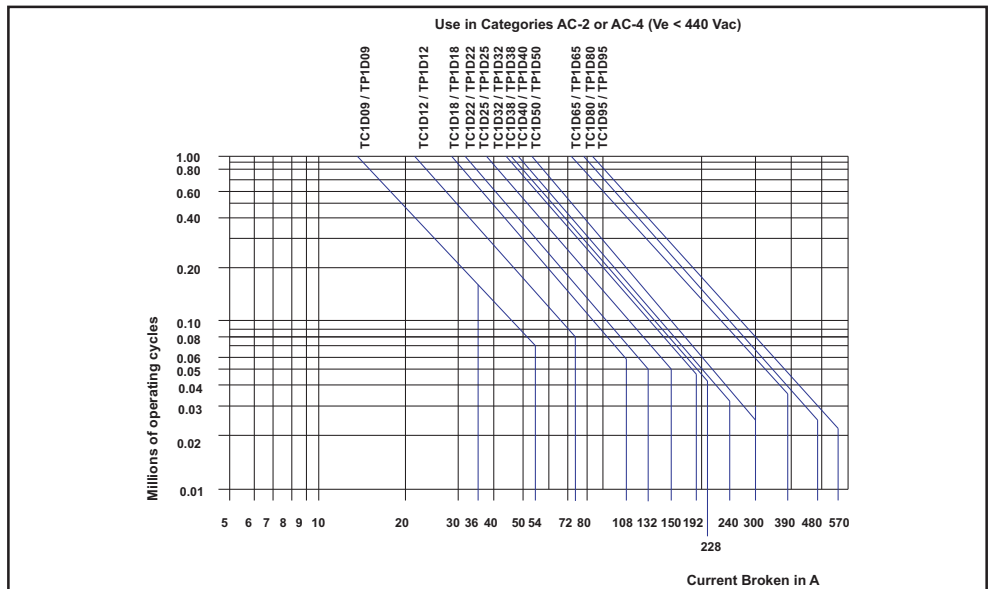
Use in Category AC-1 ($U_e < 440V$). Control of resistive circuits ($\cos \phi > 0.95$). The current broken (I_c) in category AC-1 is equal to the current (I_e) normally drawn by the load.



Use in Category AC-3 ($U_e < 440V$). Control of 3-phase asynchronous squirrel cage motors with breaking whilst motor running. The current broken (I_c) in category AC-3 is equal to the current (I_e) normally drawn by the load.



Use in Categories AC-2, AC-4 ($U_e < 440V$). Control of 3-phase asynchronous squirrel cage (AC-4) or slip ring (AC-2) motors with breaking whilst motor stalled. The current broken in category AC-4 is equal to $6I_e$. (I_e =rated operational current of the motor).

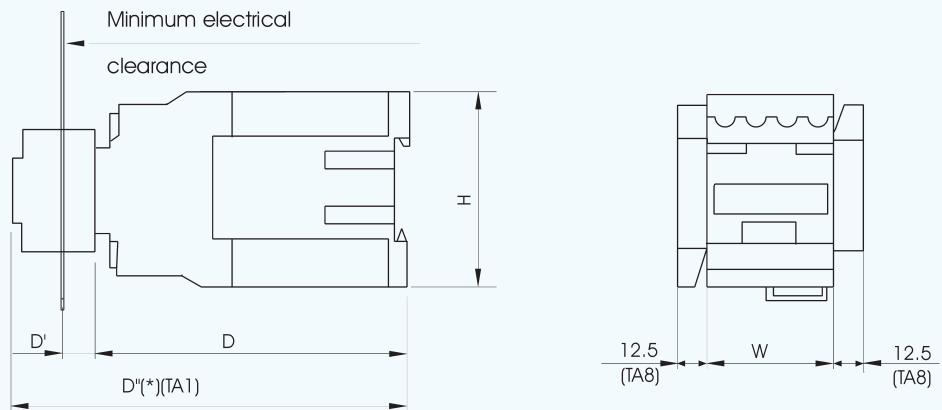


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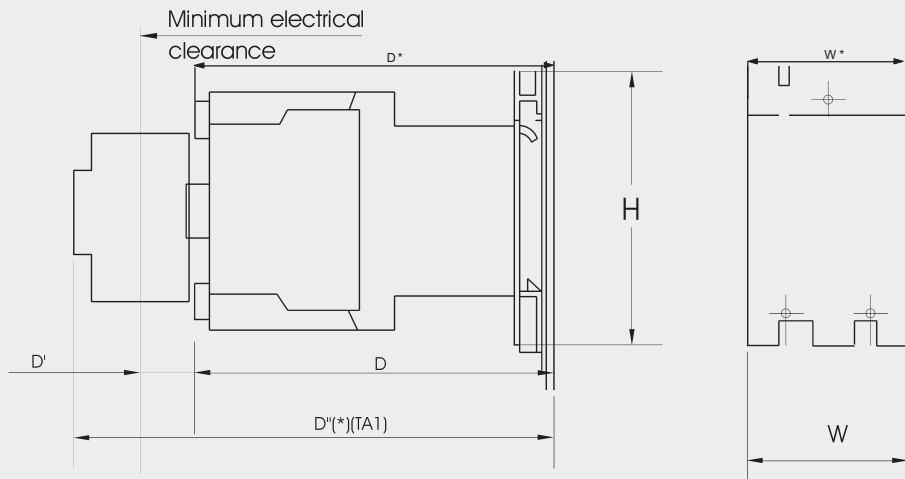
Contactors' Dimensions with DC operating coil

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Product Dimensions TP1-D09~D3810



TP1-D4011~D80



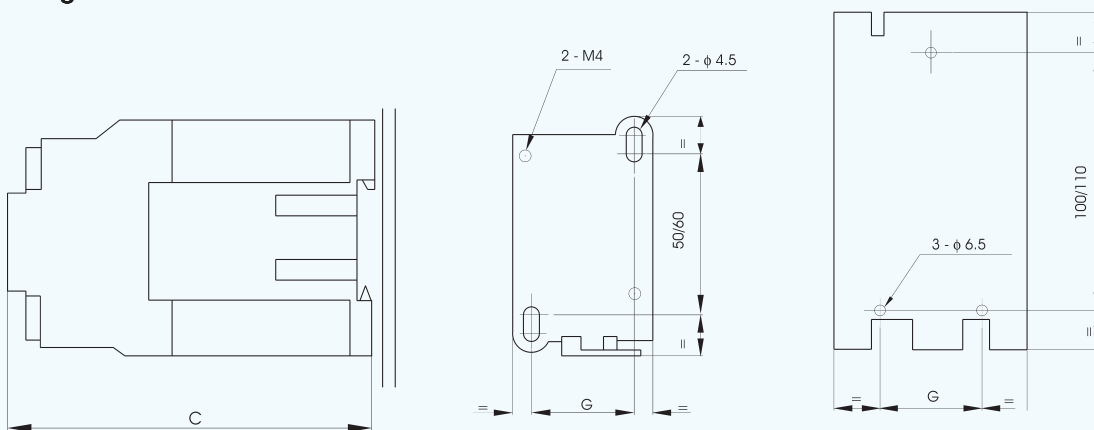
TP1-	D09	D12	D18	D22	D25	D32	D38	D40	D50	D65	D80
W (3 Pole)	45	45	45	45	56	56	56	75	75	75	85
W* (4 Pole)	45	45	-	-	56	-	-	85	85	85	96
H (3/4 Pole)	74	74	74	74	84	84	84	127	127	127	127
D (3/4 Pole)	115	115	120	120	130	135	135	171	171	171	181
D' (3/4 Pole)	10	10	10	10	10	10	10	12	12	12	12
D'' (3/4 Pole)	148	148	153	153	163	168	168	202	202	202	210
D*(008)	-	-	-	-	-	-	-	181	181	181	191

Panel Mounting Reference

TP1-D09~D38

TP1-D40~D80

Mounting



TP1-	D09	D12	D18	D22	D25	D32	D38	D40	D50	D65	D80
C	115	115	120	120	130	135	135	171	171	171	181
G	35	35	35	35	40	40	40	40	40	40	40