

Presentation

An easy solution for OEM's, panel builders, contractors and system integrators who have a need for motor control, resistive load switching, and isolation applications. For use on conveyors, packaging, pumps, compressors, HVAC, refrigeration, furnace applications, and more!

Easy TeSys contactors are ideal for these types of applications with power ratings and an operational life of approximately 1 million electrical operations.

UL/CSA approved rated current up to 65 amps, 40 HP/600 VAC.

They are suitable for the utilisation categories specified in standard IEC 60947:

- **AC-1:** non inductive loads or slightly inductive loads, resistance furnaces
- **AC-3:** squirrel cage motors. Motor starting and breaking while running.
Example: standard squirrel cage motors, pumps and fans.
- **AC-4:** squirrel cage or slip ring motors. Applications with reverse current braking and inching.
- **AC-8a:** control of sealed refrigeration compressor motors with manual reset of overload trips.
- **AC-8b:** control of sealed refrigeration compressor motors with automatic reset of overload trips.

3-pole Contactors for Connection by Screw Clamp Terminals

Utilisation category AC-3 Standard Power Ratings of 3-phase Motors 50/60 Hz ($\theta \leq 60^\circ\text{C}$)							Rated Operational Current 440 V up to	Instantan- eous Auxiliary Contact	Basic Reference To be Completed by Adding the Voltage Code	Weight
220 V	380 V	415 V	440 V	500 V	660 V	690 V				
230 V	400 V									
kW	kW	kW	kW	kW	kW	kW	A			Lb
2.2	4	4	4	5.5	5.5	9	9	1	DPE 09●●	0.705 (0.320 kg)
3	5.5	5.5	5.5	7.5	7.5	12	12	1	DPE 12●●	0.717 (0.325 kg)
4	7.5	9	9	10	10	18	18	1	DPE 18●●	0.728 (0.330 kg)
5.5	11	11	11	15	15	25	25	1	DPE 25●●	0.816 (0.370 kg)
7.5	15	15	15	18.5	18.5	32	32	1	DPE 32●●	0.827 (0.375 kg)
9	18.5	18.5	18.5	18.5	18.5	38	38	1	DPE 38●●	0.838 (0.380 kg)
11	18.5	22.0	22.0	22.0	30.0	40	40	1	DPE 40●●	1.89 (0.850 kg)
15	22.0	25.0	30.0	30.0	33.0	50	50	1	DPE 50●●	1.89 (0.850 kg)
19	30.0	30.0	30.0	37.0	37.0	65	65	1	DPE 65●●	1.90 (0.855 kg)

3-pole Contactors Conforming to UL and CSA Standards (North American Market)

Standard Power Ratings of Motors 50/60 Hz $\theta < 140^\circ\text{F}$ (60°C)							Associated Cable Type 75°C-Cu	Continuous Current	Basic Reference To be Completed by Adding the Voltage Code	Weight
Single- phase 1 Ø	3-phase 3 Ø									
115 V	230 V	200 V	230 V	460 V	575 V					
240 V	208 V	240 V	480 V	600 V						
HP	HP	HP	HP	HP	HP	AWG	A			Lb
1/3	1	2	2	3	7.5	18...10	20		DPE 09●●	0.705 (0.320 kg)
1/3	1	2	2	5	7.5	18...10	25		DPE 12●●	0.717 (0.325 kg)
1/2	2	3	3	7.5	10	18...10	25		DPE 18●●	0.728 (0.330 kg)
1	3	5	5	10	15	18...8	32		DPE 25●●	0.816 (0.370 kg)
2	3	7.5	7.5	15	20	14...6	40		DPE 32●●	0.827 (0.375 kg)
2	5	10	10	20	25	14...6	52		DPE 38●●	0.838 (0.380 kg)
3	5	7.5	7.5	30	25	14...6	60		DPE 40●●	1.89 (0.850 kg)
3	5	10.0	10.0	30	30	14...6	70		DPE 50●●	1.89 (0.850 kg)
3	8	15.0	15.0	40	40	14...6	80		DPE 65●●	1.90 (0.855 kg)

Utilisation Category AC-1

Non Inductive Loads Maximum Current ($\theta \leq 60^\circ\text{C}$)	Instantan- eous Auxiliary Contact	Basic Reference To be Completed by Adding the Voltage Code (1)(2)	Weight
A			Lb
20	1	DPE 09●●	0.705 (0.320 kg)
25	1	DPE 12●●	0.717 (0.325 kg)
32	1	DPE 18●●	0.728 (0.330 kg)
40	1	DPE 25●●	0.816 (0.370 kg)
50	1	DPE 32●●	0.827 (0.375 kg)
	or	DPE 38●●	0.838 (0.380 kg)
60	1	DPE 40●●	1.89 (0.850 kg)
80	1	DPE 50●●	1.89 (0.850 kg)
80	1	DPE 65●●	1.90 (0.855 kg)

Control Circuit Voltages

AC Supply			
Volts	24	120	230
50/60 Hz	B7	G7(4)	P7
DC Supply (3)			
Volts	24	24	
	BL	BD	

(1) The weight indicated are for contactors with AC control circuit. For DC or low consumption control circuit, space add 0.160 kg from DPE09 to DPE38, 0.075 kg from DPE40 to DPE65.

(2) Built-in suppression device, by bi-directional peak limiting diode.

(3) BL is for DPE09...38 only, and BD is for DPE40...65 only.

(4) DPE40, DPE50, DPE65 for this coil voltage use is only on 60Hz.



DPE 09●●



DPE 38●●



DPE 65●●

Environment Characteristics									
Contactor Type			DPE 09...25	DPE 32...38	DPE 40...65				
Rated insulation voltage (Ui)	Conforming to IEC 60947-4-1, overvoltage category III, degree of pollution: 3	V	690						
	Conforming to UL, CSA	V	600						
Rated impulse withstand voltage (Uimp)	Conforming to IEC 60947	kV	6						
Conforming to standards			IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1						
Product certifications			UL, CSA						
Degree of protection (1) (front face only)	Power connection		Protection against direct finger contact IP 2X						
	Coil connection		Protection against direct finger contact IP 2X						
Protective treatment	Conforming to IEC 60068		“TH”						
Ambient air temperature around the device	Storage	°F	-76...176 (-60...80°C)						
	Operation	°F	23...140 (-5...60°C)						
	Permissible	°F	140...158 (60...70°C), for operation at Uc						
Maximum operating altitude	Without derating	ft	6561.68 (2000 m)						
Operating positions	Without derating		± 30° occasional, in relation to normal vertical mounting plane						
Flame resistance	Conforming to UL 94		V1						
	Conforming to IEC 60695-2-1	°F	850°C						
Shock resistance (2) 1/2 sine wave = 11 ms	Contactor open		8 gn	6.4 gn	10 gn				
	Contactor closed		12 gn	12 gn	15 gn				
Vibration resistance (2) 5...300 Hz	Contactor open		1.6 gn	1.6 gn	2 gn				
	Contactor closed		3.2 gn	3.2 gn	4 gn				
Power Circuit Connection Characteristics									
Connection by Cable									
Contactor Type		DPE 09...18	DPE 25	DPE 32	DPE 38	DPE 40	DPE 50	DPE 65	
Tightening torque			Screw terminals						
Flexible cable without cable end	1 conductor	mm²	1...4	1.5...6	1.5...10	2.5...10	2.5...25	2.5...25	2.5...25
	2 conductors	mm²	1...4	1.5...6	1.5...6	2.5...10	2.5...16	2.5...16	2.5...16
Flexible cable with cable end	1 conductor	mm²	1...4	1...6	1...6	1...10	2.5...25	2.5...25	2.5...25
	2 conductors	mm²	1...2.5	1...4	1...4	1.5...6	2.5...10	2.5...10	2.5...10
Solid cable without cable end	1 conductor	mm²	1...4	1.5...6	1.5...6	1.5...10	2.5...25	2.5...25	2.5...25
	2 conductors	mm²	1...4	1.5...6	1.5...6	2.5...10	2.5...16	2.5...16	2.5...16
Screwdriver	Philips		N°2	N°2	N°2	-	-	-	
	Flat screwdriver Ø		Ø 6	Ø 6	Ø 6	Ø 6	-	-	-
Hexagonal key		mm	-	-	-	-	4	4	4
Tightening torque		Lbf.in	15.05 (1.7 N.m)	15.05 (1.7 N.m)	15.05 (1.7 N.m)	15.05 (1.7 N.m)	62 (7 N.m): 16-25 mm² 45 (5 N.m): 2.5-16 mm²	62 (7 N.m): 16-25 mm² 45 (5 N.m): 2.5-16 mm²	62 (7 N.m): 16-25 mm² 45 (5 N.m): 2.5-16 mm²
AWG			14...6	14...6	14...6	14...6	14...4	14...4	14...4

(1) Protection provided for the cabling c.s.a.'s indicated below and for connection by cable.

(2) Without modifying the contact states, in the most unfavourable direction (coil energised at Ue).

Control Circuit Connection Characteristics

Connection by Cable (Screw Clamp Connections)

Contactor Type			DPE 09...18	DPE 25	DPE 32	DPE 38	DPE 40	DPE 50	DPE 65
Flexible cable	1 conductor	mm ²	1...4	1...4	1...4	1...4	1...4	1...4	1...4
	2 conductors	mm ²	1...4	1...4	1...4	1...4	1...4	1...4	1...4
Flexible cable with cable end	1 conductor	mm ²	1...4	1...4	1...4	1...4	1...4	1...4	1...4
	2 conductors	mm ²	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5
Solid cable	1 conductor	mm ²	1...4	1...4	1...4	1...4	1...4	1...4	1...4
	2 conductors	mm ²	1...4	1...4	1...4	1...4	1...4	1...4	1...4
Screwdriver	Philips		N°2	N°2	N°2	N°2	N°2	N°2	N°2
	Flat screwdriver Ø		Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6
Tightening torque			N.m	1.7	1.7	2.5	2.5	1.7	1.7
AWG				10...18	10...18	10...18	10...18	16...12	16...12

Pole Characteristics

Contactor Type			DPE 09	DPE 12	DPE 18	DPE 25	DPE 32	DPE 38	DPE 40	DPE 50	DPE 65
Rated operational current (I _e)	In AC-3, θ ≤ 140°F (60°C)	A	9	12	18	25	32	38	40	50	65
	(U _e ≤ 440 V)										
Electrical durability at rated operational current	In AC-1, θ ≤ 140°F (60°C)	A	20	25	32	40	50	50	60	80	80
	@600 V										
			1M								0.8M
Rated operational voltage (U _e)			V	690	690	690	690	690	690	690	690
Frequency limits			Hz	25...400	25...400	25...400	25...400	25...400	25...400	25...400	25...400
Conventional thermal current (I _{th})			A	25	25	32	40	50	60	60	60
Rated making capacity (440 V)				250	250	300	450	550	550	800	900
Rated breaking capacity (440 V)				250	250	300	450	550	550	800	900
Permissible short time rating			A	210	210	240	380	430	430	720	810
No current flowing for preceding 15 minutes with θ ≤ 104°F (40°C)	For 1 s	A	105	105	145	240	260	310	320	320	400
	For 10 s	A	61	61	84	120	138	150	165	165	208
	For 1 min	A	30	30	40	50	60	60	72	72	84
	For 10 min	A	25	40	50	63	63	63	80	100	125
Protection by fuses											
Short-circuit protection (U ≤ 690 V)	Without thermal overload relay, Type 1	A	20	25	35	40	63	63	80	100	125
	gG fuse, Type 2	A									
Average impedance per pole			mΩ	2.5	2.5	2.5	2	2	1.5	1.5	1.5
Power dissipated per pole			W	0.20	0.36	0.8	1.25	2	3	2.4	3.7
for the above operational currents			W	1.56	1.56	2.5	3.2	5	5	5.4	9.6

Applications with High-Fault Short-Circuit Current ratings

High fault short-circuit current rating with fuses

Cat. Nos.	Max Current	Max Voltage	Maximum Class J Fuse Size
DPE09	100 kA	600 VAC	25 A
DPE12	100 kA	600 VAC	25 A
DPE18	100 kA	600 VAC	30 A
DPE25	100 kA	600 VAC	40 A
DPE32	100 kA	600 VAC	60 A
DPE38	100 kA	600 VAC	80 A
DPE40	100 kA	600 VAC	90 A
DPE50	100 kA	600 VAC	110 A
DPE65	100 kA	600 VAC	125 A

High fault short-circuit current rating with circuit breakers

Cat. Nos.	Max Current	Max Voltage	Maximum Listed Circuit Breaker Size
DPE09	35 kA	480 VAC	35 A
DPE12	35 kA	480 VAC	35 A
DPE18	35 kA	480 VAC	35 A
DPE25	35 kA	480 VAC	60 A
DPE32	35 kA	480 VAC	60 A
DPE38	35 kA	480 VAC	60 A
DPE40	35 kA	480 VAC	110 A
DPE50	35 kA	480 VAC	110 A
DPE65	35 kA	480 VAC	110 A

High fault short-circuit current rating with circuit breakers

Cat. Nos.	Max Current	Max Voltage	Maximum Listed Circuit Breaker Size
DPE09	18 kA	600 VAC	35 A
DPE12	18 kA	600 VAC	35 A
DPE18	18 kA	600 VAC	35 A
DPE25	18 kA	600 VAC	35 A
DPE32	18 kA	600 VAC	60 A
DPE38	18 kA	600 VAC	60 A
DPE40	18 kA	600 VAC	110 A
DPE50	18 kA	600 VAC	110 A
DPE65	18 kA	600 VAC	110 A