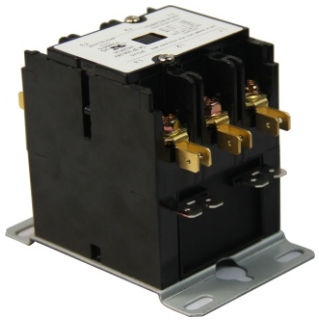
Definite Purpose Contactor

Description

Definite Purpose contactors are electrically operated switching devices specifically designed for the heating, ventilation, air conditioning, heat pump and refrigeration (HVAC) industry.



Features:
Current Range: FLA20A - FLA90A
Poles Range: 1pole, 2poles, 3poles, 4poles
Contactor: UL File Number: E246810

Part Number Scheme

DPC - 30 - F - P3 - 24

Code	Description
DPC	Definite Purpose Contactor

Code	Contact Rating
20	20FLA
25	25FLA
30	30FLA
40	40FLA
50	50FLA
60	60FLA
75	75FLA
95	95FLA
120	120FLA
150	150FLA

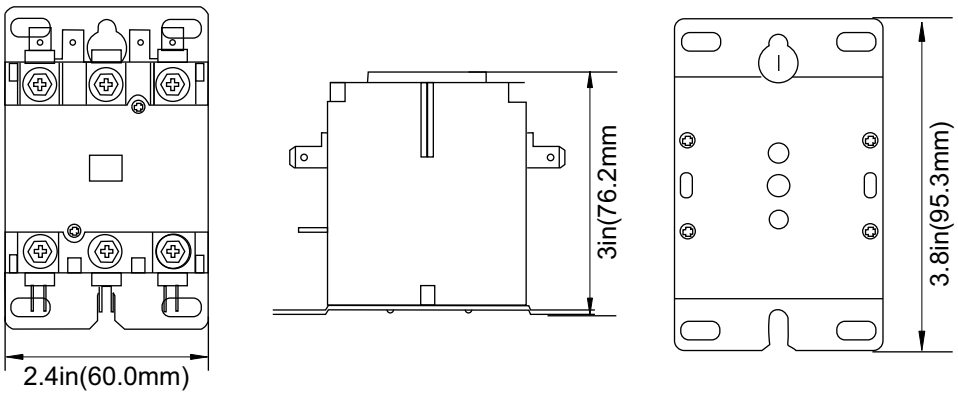
Code	Coil Voltage
24	24V
120	120V
240	208-240V
277	277V
480	480V
600	600V

Code	Poles
P1	1 Pole
P2	2 Poles
P3	3 Poles
P4	4 Poles

Code	Option
F	Form NO

Dimensions

3 Pole dimensions



Definite Purpose Contactor

Specifications

Common specifications	
Initial dilelectric strength	Between Contacts & Coils: 2,200VAC Between Poles: 2,200VAC (1-, 2- pole includes shunt) Between Open Contacts: 2,200VAC (1-, 2- pole no shunt)
Insulation system	130C Class B
Temperature range	-40C to +65C(-40F to +150F)

	1-, 2- Poles 20-40FLA	3-, 4- Poles 20-40FLA	3- Poles 50-90FLA
ARC cover	Optional on 20 - 30 FLA Standard on 40 FLA	Standard on 40 FLA	Standard
Unit weight	1 Pole 0.5 lb 2 Pole 0.6 lb	3 Pole 1 lb 4 Pole 1.25 lb	50-60FLA 2 lb 75-90FLA 4 lb
Power pole terminations	#10-32 screw or box lug	#10-32 screw or box lug	Aluminum box lug
Wire size	#10-32 screw 16-8* Box lug 14-4 *must use ring terminal	#10-32 screw 16-8* Box lug 14-4 *must use ring terminal	50-60FLA Box Lug 14-2 75-90FLA Box Lug 14-1
Recommended tightening torque	#10-32 screw 22 in. Lbs Box lug 40 in. lbs	#10-32 screw 22 in. Lbs Box lug 40 in. lbs	Box lug 50 in. lbs
Quick connects	Coil terminals Dual: 0.250'' QC Power terminals 1 Pole: Quad 0.250'' QC 2 Pole: Dual or Quad 0.250'' QC	Coil terminals Dual: 0.250" QC or # 6-32 screw/0.250" QC Power terminals Quad 0.250" QC	Coil terminals Dual: 0.250" QC or # 6-32 screw/0.250" QC Power terminals Quad 0.250" QC

Definite Purpose Contactor

1-, 2- Poles 20-40FLA

Contact Data

Arrangements: 1 Form X (SPST-NO) with or without shunt ; 2 Form X (DPST-NO).
Material: (1)AgCdO ; (2) AgSnO2In2O3
Contact Ratings:

Full Load Amps (FLA)	Poles	Line Voltage	Locked Rotor Amperes (LRA)	Resistive Amps	Max.HP	
					Voltage	1 Phase
20	2	240/277 480 600	120 100 80	30 30 30	120 240	2 3
25	1	240/277 480 600	150 50 40	30 30 30	120 240	1 2
25	2	240/277 480 600	150 125 100	35 35 35	120 240	2 3
30	1	240/277 480 600	150 75 50	40 40 40	120 240	1 2
30	2	240/277 480 600	150 125 100	40 40 40	120 240	2 3
40	1	240/277 480 600	240 200 160	50 50 50	120 240	2 3
40	2	240/277 480 600	240 200 160	50 50 50	120 240	2 3

Coil Data

Voltage: 24 - 480 VAC, 50/60 Hz. See Coil Data Table below(480V un-listed)
Insulation Class: UL Class B (130 C)
Coil Data:

	1 Pole Contactors				2 Pole Contactors			
Nominal Coil Voltage	24	120	208/240	277	24	120	208/240	277
Nominal Coil Resistance Ohms	18	420	1800	2500	18	420	1800	2500
Maximum Pick Up Voltage	18	88	177	221	18	88	177	221
Minimum Drop Out Voltage	6-15	20-70	40-140	50-165	6-15	20-70	40-140	50-165
Minimum Inrush VA@50Hz	31	31	31	31	31	31	31	31
Minimum Inrush VA@60Hz	28	28	28	28	28	28	28	28
Nominal Sealed VA @ 50 Hz	6	6	6	6	6	6	6	6
Nominal Sealed VA @ 60 Hz	5	5	5	5	5	5	5	5
Nominal Coil Voltage	30	132	264	300	30	132	264	300

Definite Purpose Contactor

3-, 4- Poles — 20-40FLA

Contact Data

Arrangement: 3 Form X (3PST-NO); 4 Form X (4PST-NO).
Material: 1) AgCdO; 2) AgSnO2In2O3
Contact Ratings:

Full Load Amps (FLA)	Poles	Line Voltage	Locked Rotor Amperes (LRA)	Resistive Amps	Max.Horsepower		
					Voltage	1 Phase	3 Phase
20	3	240/277 480 600	120 100 80	30 30 30	110/120 200/240 480/600	1.5 3 –	– 7.5 7.5
25	3 4	240/277 480 600	150 125 100	35 35 35	110/120 200/208 240/277 480 600	2 – 5 – –	– 7.5 10 15 20
30	3 4	240/277 480 600	180 150 120	40 40 40	110/120 200/208 240/277 480 600	2 – 5 – –	– 10 10 15 20
40	3 4	240/277 480 600	240 200 160	50 50 50	110/120 200/208 240/277 480 600	3 – 7.5 – –	– 10 10 20 25

Coil Data

Voltage: 24 - 480 VAC, 50/60 Hz. See Coil Data Table below(480V un-listed)
Insulation Class: UL Class B (130 C)
Coil Data:

	3 Pole Contactors				4 Pole Contactors			
Nominal Coil Voltage	24	120	208/240	277	24	120	208/240	277
Nominal Coil Resistance Ohms	7	180	720	900	6	150	600	750
Maximum Pick Up Voltage	18	88	177	221	18	88	177	221
Minimum Drop Out Voltage	6-15	20-70	40-140	50-165	6-15	20-70	40-140	50-175
Minimum Inrush VA@50Hz	65	65	65	65	60	60	60	60
Minimum Inrush VA@60Hz	60	60	60	60	55	55	55	55
Nominal Sealed VA @ 50 Hz	7.5	7.5	7.5	7.5	9	9	9	9
Nominal Sealed VA @ 60 Hz	6	6	6	6	7	7	6	7
Nominal Coil Voltage	30	132	264	300	30	132	264	300

Auxiliary Switches

Available auxiliary switches for 3- and 4-pole contactors (20-40FLA)

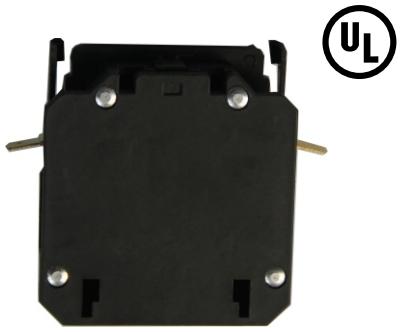
Description	Contact arrangement	Termination
Single unit interlock configuration. One on each side - max set up two switches	1NO/1NC break before make	250" quick connects
Single unit interlock configuration. One on each side - max set up two switches	1NO/1NC break before make	#6-32screw terminals
SPDT circuit One switch on each side	SPDT	250" quick connects
SPDT circuit One switch on each side	(2) SPDT	250" quick connects

Contact Rating

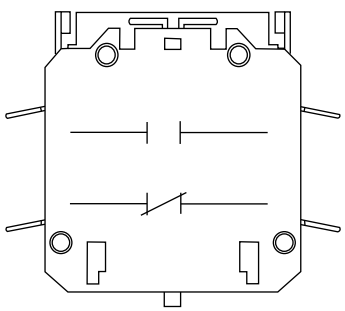
Single circuit 1 NO/1NC

Voltage rating	120VAC	240VAC	480VAC	600VAC
Amperes-Break	3.0	1.5	0.75	0.6
Amperes-Make	30	15	75	6
Amperes-Continuous	10	10	10	10

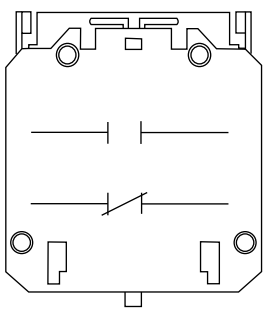
SPDT
10A, 1/3 HP, 125 or 250VAC
1/2A, 125VDC
1/4A, 250VDC



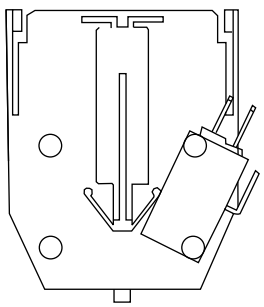
1 NO/1NC
quick connects



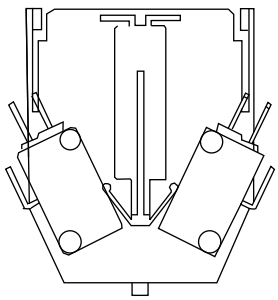
1 NO/1NC
screw terminals



One SPDT
switch per side



Two SPDT
switches per side



Definite Purpose Contactor

3- Poles 50-90 FLA

Contact Data

Arrangements: 3 Form X (SPST-NO)
Material: (1)AgCdO ; (2) AgSnO2In2O3
Contact Ratings:

Full Load Amps (FLA)	Poles	Line Voltage	Locked Rotor Amperes (LRA)	Resistive Amps	Max.Horsepower		
					Voltage	1 Phase	3 Phase
50	3	115 240 480 600	300 300 250 200	65 65 65 65	110/120 200/208 240/277 480 600	3 7.5 10 – –	– 15 15 30 30
60	3	115 240 480 600	360 360 300 240	75 75 75 75	110/120 200/208 240/277 480 600	5 7.5 10 – –	– 20 20 40 40
75	3	115 240 480 600	450 450 375 300	93 93 93 93	110/120 200/208 240/277 480 600	7.5 15 20 – –	– 20 25 40 40
90	3	115 240 480 600	540 540 450 360	120 120 120 120	110/120 200/208 240/277 480 600	5 7.5 10 – –	– 20 30 50 50

Coil Data

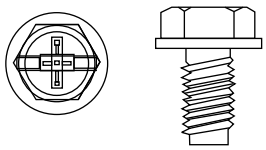
Voltage: 24 - 480 VAC, 50/60 Hz. See Coil Data Table below(480V un-listed)
Insulation Class: UL Class B (130 C)O
Coil Data:

	50-60FLA Contactors				75-90FLA Contactors			
Nominal Coil Voltage	24	120	208/240	277	24	120	208/240	277
Nominal Coil Resistance Ohms	7	180	720	900	0.65	16	64	85
Maximum Pick Up Voltage	18	88	177	235	18	88	177	221
Minimum Drop Out Voltage	6-15	20-70	40-140	50-165	6-15	20-70	40-110	65-180
Minimum Inrush VA@50Hz	140	140	140	140	285	285	285	285
Minimum Inrush VA@60Hz	132	132	132	132	240	240	240	240
Nominal Sealed VA @ 50 Hz	20	20	20	20	42	42	42	42
Nominal Sealed VA @ 60 Hz	14	14	14	14	27	27	27	27
Nominal Coil Voltage	30	132	264	300	30	132	264	300

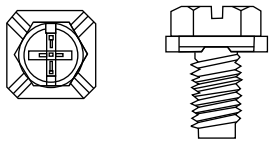
Definite Purpose Contactor

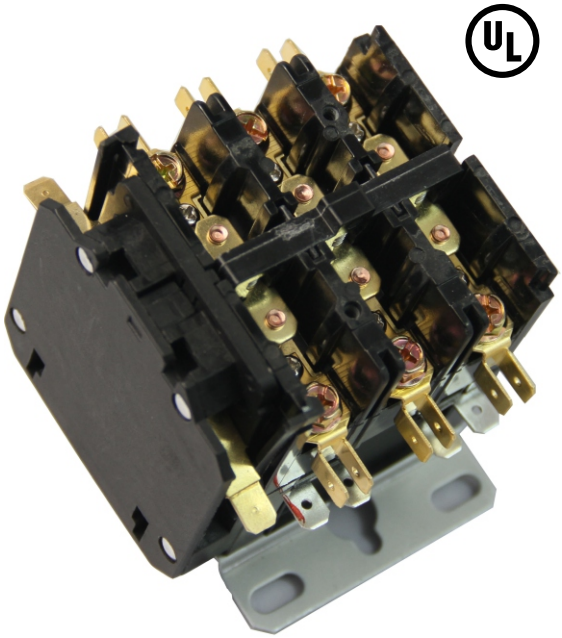
Terminations

Standard on 20-30FLA
#10-32 commination phillips, slotted and 5/16 hex head with #12 washer

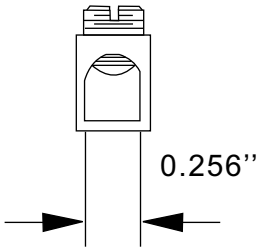


Optional on 20-40FLA
#10-32 sems screw with pressure plate

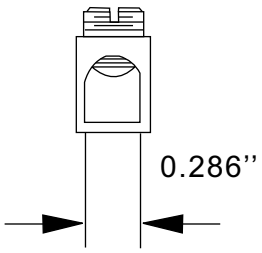




40FLA Box Lug
14-4 AWG Cu/Al



50-60FLA Box Lug
14-2 AWG Cu/Al



75-90FLA Box Lug
14-1 AWG Cu/Al