

270/275 Series



270



275



Model
275 F, P, T

270/275 Series 35 Amp Power Relay

General purpose relay that controls electrical loads

Features

- 35 Amps switching on all contacts thru a DPDT configuration (25 Amps in Europe)
- Coil Molded in Dupont Rynite® PET, providing Class F Temperature insulation
- Low cost alternative to small contactors

Typical Applications

- Electric Heat • Motor Control • HVAC • Laundry Equipment
- Welding Equipment

Models

270S: Open frame with stud and locator tab

275F: Flange Cover

275T: Top mount cover, other suffixes available

B-Bracket Provided, L-Tap and Locator, P-Printed Circuit Pins

Contact Data	
Configuration	Thru DPDT, including SPST-NO-DM, SPST-NC-DB and DMDB
Materials	All Contacts 1/4" Diameter Silver Cadmium Oxide
Contact Ratings	
Model	Pole Configuration
270/275	SPST-NO SPST-NC SPDT DPST-NO DPST-NC DPDT
	SPST-NO-DM SPST-NC-DB SPDT-DM-DB
UL Ratings	
35 Amp at 277 VAC 15 Amp at 600 VAC 25 Amp at 28 VDC 1 HP at 120 VAC 2 HP at 240/277 VAC 3 HP at 480 VAC 17 FLA, 60 LRA at 300 VAC 25 FLA, 125 LRA at 240/277 VAC 35 FLA, 100 LRA at 240/277 VAC Heavy Pilot Duty, 600 VAC 20 Amp at 277 VAC Ballast 20 Amp at 480 VAC Ballast	
35 Amp at 300 VAC 15 Amp at 600 VAC 35 Amp at 28 VDC 5 Amp at 125 VDC 1 HP at 120 VAC 2 HP at 240/277 VAC 3 HP at 480 VAC 17 FLA,60 LRA at 300 VAC 25 FLA, 125 LRA at 240/277 VAC 35 FLA, 100 LRA at 240/277 VAC Heavy Duty Pilot 20 Amp at 277 VAC Ballast 20 Amp at 480 VAC Ballast	

Rynite® is a registered trademark of DuPont

All dimensions in Inches

Specifications subject to change without notice

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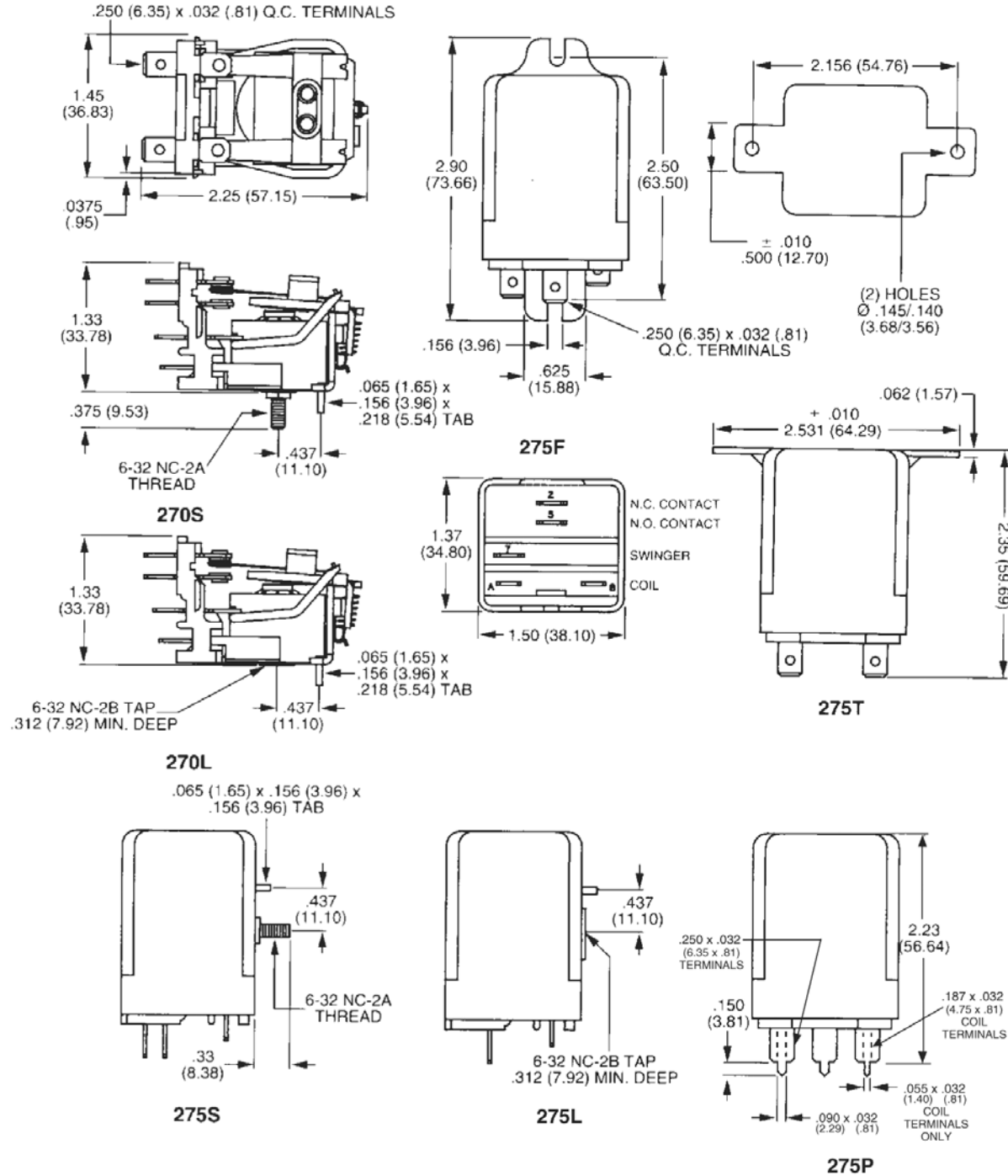
Model	Pole Configuration	Semko Ratings
275F 275P 275T	SPST-NO SPST-NC SPDT DPST-NO DPST-NC DPDT	25 Amp at 250 VAC 50 Hz AC-1 25 Amp at 28 VDC DC-1 12 Amp at 240 VAC 50 Hz AC-3
	SPST-NO-DM SPST-NC-DB SPDT-DM-DB	SPST-NO-DM SPST-NC-DB SPDT-DM-DB
Expected Life	Electrical at Rated Load (Min.) 100,000 Operations Mechanical Life 10,000,000 Operations	
Dielectric Strength	1200 VRMS, 60 Hz between contacts 2200 VRMS, 60 Hz between other elements	
Agency Approvals	UL Recognized File No. E37066 (USA and Canada Recognition) Semko Certificate No. 809807 Model 275 F, P, T	

Coil Data			
	Nominal Voltage	Resistance In Ohms ± 10%	Nominal Coil Power
AC Coils	6 VAC	3.5	2.4 VA
	12 VAC	14	
	24 VAC	56	
	48 VAC	230	
	120 VAC	1,500	
	240 VAC	6,000	
DC Coils	6 VDC	20	1.8 W
	12 VDC	80	
	24 VDC	315	
	48 VDC	1,300	
	120 VDC	6,800	
	Coil Voltages	USA/Canada - AC: Up to 277 Volts/60 Hz DC: Up to 125 Volts European - AC: Up to 250 Volts 50/60 Hz DC: Up to 125 Volts	
Coil Treatment	Molded Rynite® PET Std. Class F		
Insulation Resistance	100 Megohms Minimum		
UL Insulation System File No.	E74443 S155D 155°C Total Temperature Std. (Covers S105 Class A and S130D Class B Requirements)		
Operate Data			
Pick Up (at 25°C)	AC Volts 85% or Less of Nominal DC Volts 75% or Less of Nominal		
Operate Time	Approx. 15 Milliseconds		
Release Time	Approx. 15 Milliseconds		
Environmental Data			
Operating Ambient	60° C max. at full load continuous operations. Consult factory for more information on higher operating ambients		
Coil Temperature Rise	(25°C Ambient - Continuous Duty) AC: 45°C Approx. @ 60Hz - Use at 50 Hz will cause slight increase in Coil Rise DC: 40°C Approx.		
Mechanical Data			
Terminals	All Versions (Except P suffix) .250" x .032" Quick Connect/Solder P suffix version Printed Circuit Pins		
Cover	Clear Polycarbonate - Flammability Rating 94V2		
Weight	All Versions Approx. 3.0 oz. (85 g)		

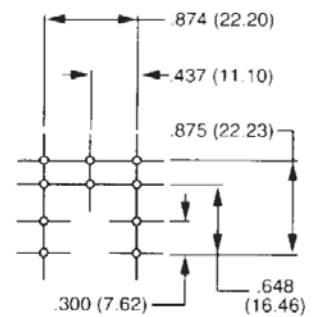
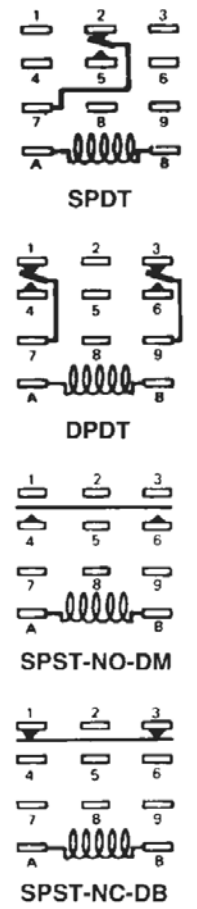
270/275 Series

Dimensional View

Units: Inches [mm]



Schematics



PC BOARD LAYOUT - ALL PINS SHOWN. SELECT THOSE REQUIRED BASED ON SCHEMATIC FOR POLE CONFIGURATION UTILIZED. RECOMMENDED HOLE SIZES .078 (1.98) FOR COIL (A&B) .109 (2.77) FOR OTHERS (1-9)

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Ordering Information

35 Amp Part Numbers

		AC Coils			DC Coils		
Model	Pole Config.	24 VAC	120 VAC	240 VAC	12 VDC	24 VDC	110 VDC
275F	SPST-NO	20837-82	20837-84	20837-85	20845-81	20845-82	20845-84
	SPST-NC	20838-82	20838-84	20838-85	20846-81	20846-82	20846-84
	SPDT	20839-82	20839-84	20839-85	20847-81	20847-82	20847-84
	DPST-NO	20842-82	20842-84	20842-85	20850-81	20850-82	20850-84
	DPST-NC	20843-82	20843-84	20843-85	20851-81	20851-82	20851-84
	DPDT	20844-82*	20844-84*	20844-85*	20852-81*	20852-82*	20852-84
275P	SPST-NO	20973-82	20973-84	20973-85	20970-81	20970-82	20970-84
	SPST-NC	21058-82	21058-84	21058-85	21059-81	21059-82	21059-84
	SPDT	21057-82	21057-84	21057-85	21016-81	21016-82	21016-84
	DPST-NO	21044-82	21044-84	21044-85	21023-81	21023-82	21023-84
	DPST-NC	20976-82	20976-84	20976-85	20934-81	20934-82	20934-84
	DPDT	20931-82	20931-84	20931-85	20930-81	20930-82	20930-84
275T	SPST-NO	20993-82	20993-84	20993-85	21001-81	21001-82	21001-84
	SPST-NC	20994-82	20994-84	20994-85	21002-81	21002-82	21002-84
	SPDT	20995-82	20995-84	20995-85	21003-81	21003-82	21003-84
	DPST-NO	20998-82	20998-84	20998-85	21006-81	21006-82	21006-84
	DPST-NC	20999-82	20999-84	20999-85	21007-81	21007-82	21007-84
	DPDT	21000-82	21000-84	21000-85	21008-81	21008-82	21008-84

35 Amp Part Numbers

275F	SPST-NO-DM	20840-82	20840-84	20840-85	20848-81	20848-82*	20848-84
	SPST-NC-DB	20841-82	20841-84	20841-85	20849-81	20849-82	20849-84
275T	SPST-NO-DM	20996-82	20996-84	20996-85	21004-81	21004-82	21004-84
	SPST-NC-DB	20997-82	20997-84	20997-85	21005-81	21005-82	21005-84

(*) Normally Stocked

Non stocked items require a minimum order