

ZCPR Series

MOTOR START POTENTIAL RELAY

FEATURES

- 50A switching capability
- SPST-NC configurations
- .250" quick connect termination
- ISO 9001 certified
- Variety of mounting positions
- UL, CUR SA11095
- Non-position sensitive design*
- UL LZGH2/8 Certified for use with A2L refrigerants



ZCPRA6AM6

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 7.5 x 10 ⁵ 5 x 10 ⁵ at 16A 400VAC 2 x 10 ⁵ at 35A 400VAC (break only) 1 x 10 ⁵ at 50A 400VAC (break only)
Dimensions (mm)	51.2 x 46.6 x 36.5
Construction	Unsealed
Weight	approx. 110 grams
Ambient Operating Temp.	-20°C to 40°C

COIL

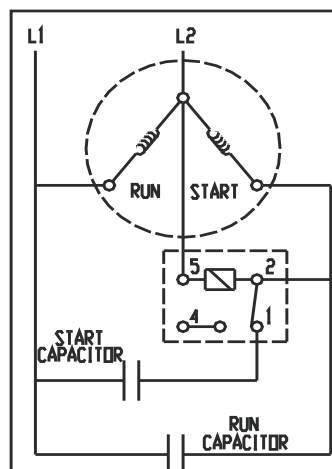
Coil Consumption	5VA
Coil Voltage	See table A & B
Coil Resistance	See table A & B
Insulation System	Class B (130°C)

CONTACTS

Arrangement	SPST-NC
Ratings	16A (make and break), 400 VAC, cos ϕ = 0.7 to 0.8 35A (break only), 400 VAC cos ϕ = 0.7 to 0.8 50A (break only), 400 VAC cos ϕ = 0.7 to 0.8
Material	Silver cadmium oxide
Resistance	< 50 milliohms at 1A 24VDC

*Except in position #3

WIRING DIAGRAM



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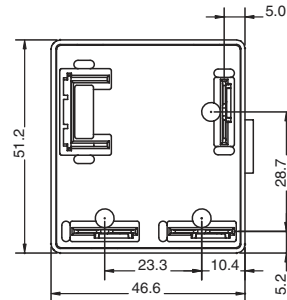
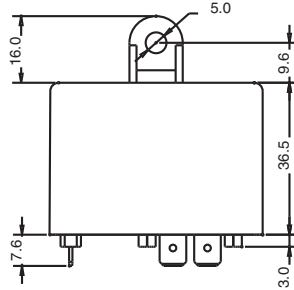
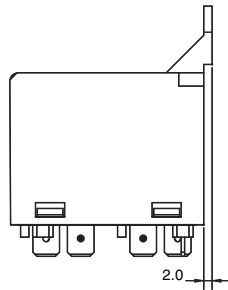
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MECHANICAL DATA

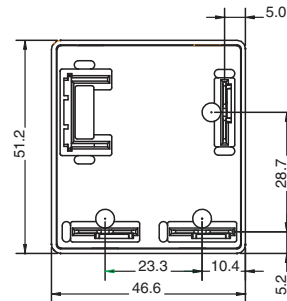
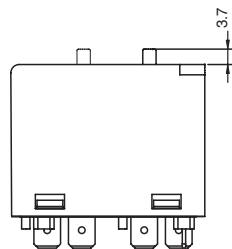
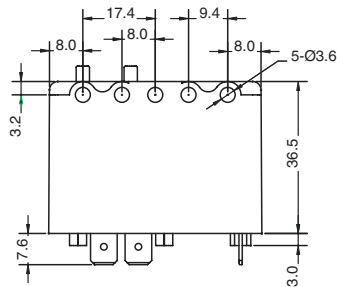
TAB MOUNT ZCPRZ6AM6 Shown

PLASTIC MOUNT (Unit: mm)

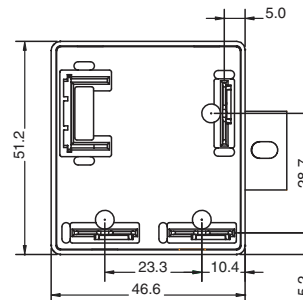
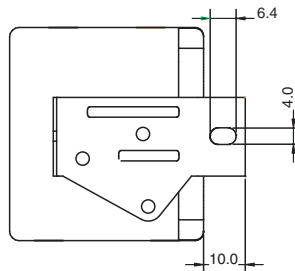
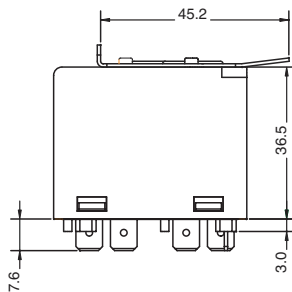
Outline Dimensions



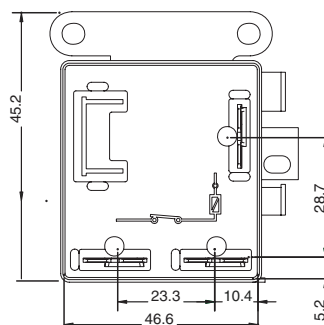
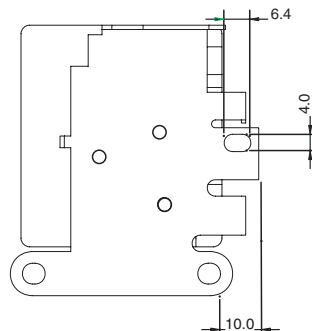
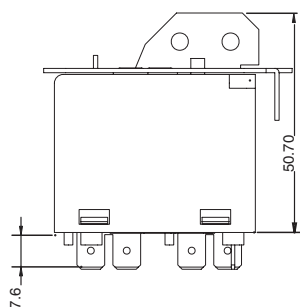
PANEL MOUNT (Unit: mm)



METAL TAB MOUNT (Unit: mm)



UNIVERSAL BRACKET MOUNT (Unit: mm)



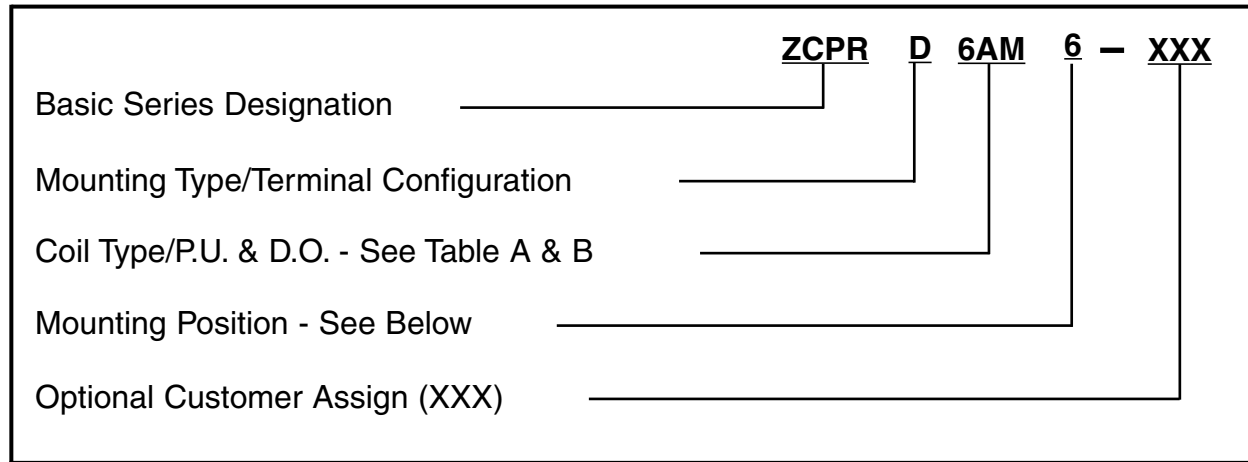
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PART NUMBERING SYSTEM



Part number ordering information.

MOUNTING TYPE/TERMINAL CONFIGURATION

B	Plastic Tab and Panel Mount, 5 dual QD (2 on #4)
D	Plastic Tab and Panel Mount, 3 dual QD (#1, 2, and 5)
M	Panel Mount, 5 dual QD (2 on #4)
P	Panel Mount, 3 dual QD (#1, 2, and 5)
U	Universal Metal Bracket Mount, 5 dual QD (2 on #4)
X	Metal Tab Mount, 5 dual QD (2 on #4)
Z	Metal Tab Mount, 3 dual QD (#1, 2, and 5)

*Universal Metal Bracket Mount not available in position 3

MOUNTING POSITION

	1	2	3 *	4	5	6
METAL TAB MOUNT						
PANEL MOUNT						
PLASTIC TAB & PANEL MOUNT						

Note: Custom mounting positions available upon request.

* Position sensitive

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TABLE A - OPERATING CHARACTERISTICS AT 50 Hz

Coil number	2			3		4		5		6		7		8		9	
V _{max} at 40° C (V)	299			338		378		356		452		151		530		228	
Resistance ±10% at 25°C (Ω)	5600			7500		10700		10000		13800		1500		19500		3900	
	H.P.U.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.
A 120-130												111-124	20-45			111-124	35-77
B 130-140												120-134	20-45			120-134	35-77
C 150-160	140-153	40-90										130-144	20-45			130-144	35-77
D 160-170	150-163	40-90		150-163	40-90							140-153	20-45			140-153	35-77
E 170-180	162-175	40-90		162-175	40-90											149-163	35-77
F 180-190	171-184	40-90		171-184	40-90			180-195	40-105							157-172	35-77
G 190-200	180-193	40-90		180-195	40-105	180-195	40-105	189-205	40-105							168-182	35-77
H 200-220	186-215	40-90		190-215	40-105	195-224	50-110	186-214	60-133							178-192	35-77
I 220-240	205-234	40-105		208-239	50-110	204-233	50-110	204-233	60-133							183-213	35-77
L 240-260	224-252	40-105		224-252	50-110	223-259	50-110	223-252	60-133	223-252	60-130					203-231	35-77
M 260-280	243-271	40-105		239-270	50-110	242-272	50-110	242-272	60-133	239-268	60-135			239-268	75-170		
N 280-300				260-289	50-110	262-290	60-121	262-290	60-133	258-287	60-135			258-287	75-170		
O 300-320						280-310	60-121	280-310	60-133	277-305	60-135			277-305	75-170		
P 320-340						300-328	60-121	300-328	60-154	295-324	60-135			295-324	75-170		
Q 340-360						318-347	60-121			314-342	60-135			314-342	75-180		
R 350-370														323-352	75-180		
S 360-380														332-361	75-180		

H.P.U. = Approximate pick up at 90° C, P.U. and D.O. values at 25° C.

TABLE B - OPERATING CHARACTERISTICS AT 60 Hz

Coil number	2			3		4		5		6		7		8		9	
V _{max} at 40° C (V)	332			375		420		395		502		168		588		253	
Resistance +10% at 25°C (Ω)	5600			7500		10700		10000		13800		1500		19500		3900	
	H.P.U.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.	P.U.	D.O.
AA 120-130												111-124	20-45			111-124	35-77
AB 130-140												120-134	20-45			120-134	35-77
AC 150-160												130-144	20-45			130-144	35-77
AD 160-170	150-163	40-90										140-153	20-45			140-153	35-77
AE 170-180	162-175	40-90										149-163	20-45			149-163	35-77
AF 180-190	171-184	40-90						180-195	40-105							157-172	35-77
AG 190-200	180-193	40-90		180-195	40-105			189-205	40-105							168-182	35-77
AH 200-220	186-215	40-90		190-215	40-105	195-224	60-121	186-214	60-130							178-192	35-77
AI 220-240	205-234	40-90		208-239	50-110	204-233	60-121	204-233	60-130							183-213	35-77
AL 240-260	224-252	40-105		224-252	50-110	223-259	60-121	223-252	60-130							203-231	35-77
AM 260-280	243-271	40-105		239-270	50-110	242-272	60-121	242-272	60-140	239-268	60-135					221-250	35-77
AN 280-300				260-289	50-110	262-290	60-121	262-290	60-140	258-287	60-135			258-287	75-170		
AO 300-320						280-310	60-121	280-310	60-140	277-305	60-135			277-305	75-170		
AP 320-340						300-328	60-121	300-328	60-140	295-324	60-135			295-324	75-170		
AQ 340-360						318-347	60-121			314-342	60-135			314-342	75-180		
AR 350-370														323-352	75-180		
AS 360-380														332-361	75-180		

H.P.U. = Approximate pick up at 90° C, P.U. and D.O. values at 25° C.

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.