

Q Series Encapsulated Control Transformer

power to perform



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Q Series

Enclosed Encapsulated Control Transformer

SINGLE PHASE ENCLOSED ENCAPSULATED CONTROL TRANSFORMER FEATURES

For applications where a cost effective approach to general purpose loads indoor or outdoor is required, consider the 'Q' series, single phase encapsulated control transformer. These units are specifically designed for the following applications:

- General purpose enclosed control applications used to adjust a supply voltage to match a load requirement
- Supplying machine tool circuits
- Actuating relays, bells, signal and alarm systems
- Operating small motors, valves and dampers
- Industrial lighting and circuit isolation



50 to 5000VA

Benefits

UL Listed	File: E50394	
CSA Certified	File: LR3902	
Frequency	60 Hertz	
Insulation System	130°C (80°C rise) up to 1 kVA 180°C (115°C rise) 1.5 kVA to 5kVA	Assures long life and reliable performance.
Standard Design	Single Phase, all welded core construction made with high quality, high permeability silicon steel laminations. Computer designed coils, accurately wound with optimum mean turns made from high quality magnetic wire with insulation film.	Rugged one-piece assembly with low noise provides optimum performance and reliability. Provides enhanced voltage regulation, excellent thermal characteristics and compliments modern winding techniques.
Encapsulation	All units from 50VA to 5kVA are encapsulated with electrical grade silica sand and resin compounds.	Completely encloses the core and coil to seal out moisture, airborne contaminants and eliminates corrosion & insulation deterioration.
Enclosure Type	Heavy Duty Type 3R (conduit knockouts on sides and rear)	Meets the heavy industrial trade requirements for indoor/outdoor enclosed transformers.
Termination	Front accessible wiring compartment with high and low voltage copper lead wires or tabs.	Ample space for transformer connection for primary and secondary terminations.
Mounting	Designed for vertical or horizontal mounting.	Facilitates any installation requirement.

Selection Table & Electrical Schematics



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SINGLE PHASE, NEMA 3R STYLE ENCLOSURE



600 Primary Volts		12/24 Secondary Volts				60 Hz		
VA Rating	Catalog Number	Case Style	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall	Wiring Diagram
			Width	Depth	Height			
50	QC05PRCB	NQ0	3.69	5.06	7.19	6	W	SCD 4
100	QC10PRCB	NQ0	3.69	5.06	7.19	7	W	SCD 4
150	QC15PRCB	NQ0	3.69	5.06	7.19	8	W	SCD 4
200	QC20PRCB	NQ1	4.31	5.56	7.19	11	W	SCD 4
250	QC25PRCB	NQ1	4.31	5.56	7.19	13	W	SCD 4
350	QC35PRCB	NQ1	4.31	5.56	7.19	14	W	SCD 4
500	QC50PRCB	NQ2	5.06	4.56	9.30	15	W	SCD 4
750	QC75PRCB	NQ2	5.06	4.56	9.30	18	W	SCD 4
1000	Q1C0PRCB	NQ3	5.88	5.19	10.56	25	W	SCD 4
1500	Q1C5PRCF	NQ4	7.06	6.25	11.75	36	W	SCD 4
2000	Q002PRCF	NQ4	7.06	6.25	11.75	46	W	SCD 4
3000	Q003PRCF	NQ4	7.06	6.25	11.75	65	W	SCD 4
5000	Q005PRCF	NQ5	10.00	7.75	17.25	105	W	SCD 4

ELECTRICAL SCHEMATICS AND CONNECTION DIAGRAM

SCD 4

SCHEMATIC	CONNECTIONS													
	Primary Volts										Connect lines to	Inter-connect		
	208	277	347	380	416	600	2400	3300	4160	4800	6600	7200	H1, H2	---
	Secondary Volts										Connect lines to	Inter-connect		
	240					24					X1, X4		X2-X3	
	120/240					12/24					X1, X2, X4		X2-X3	
	120					12					X1, X2		X2-X4, X1-X3	

Enclosure Drawings

TYPE 3R ENCLOSURE DIMENSIONAL DRAWINGS

'NQ' SERIES ENCLOSURES

Figure 1

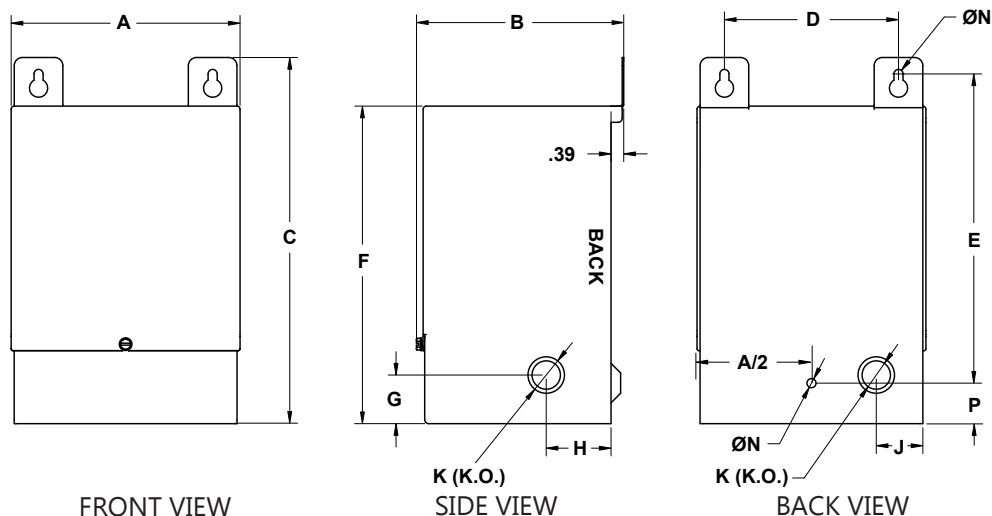
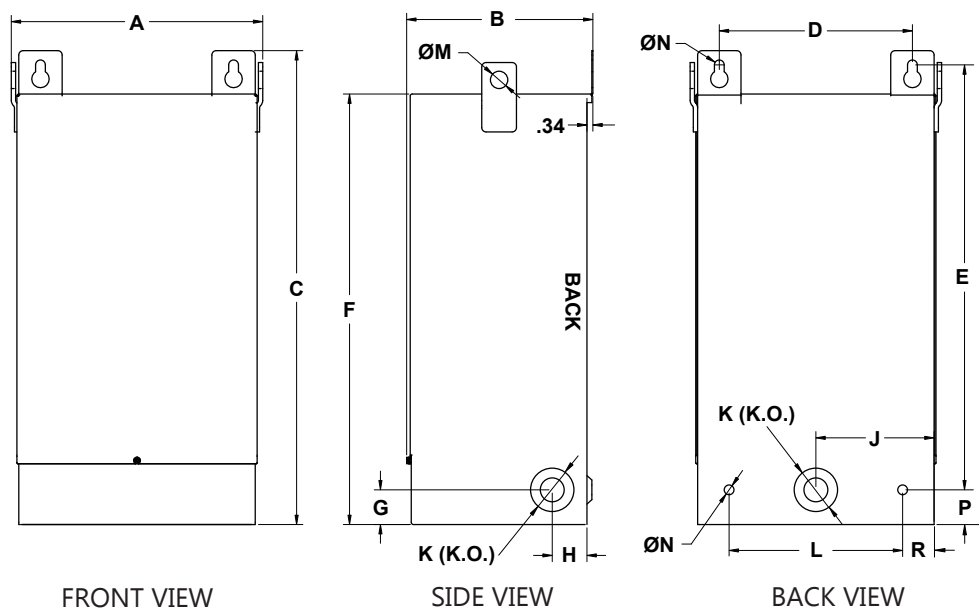


Figure 2



Case Style	Fig #	Dimensions in Inches														
		A	B	C	D	E	F	G	H	J	K ¹	L	M	N	P	R
NQ0	1	3.69	5.06	7.19	2.50	5.63	6.19	1.50	2.00	--	0.88	--	--	0.22	1.25	--
NQ1	1	4.31	5.56	7.19	3.13	5.63	6.13	1.50	2.00	0.81	0.88	--	--	0.22	1.25	--
NQ2	1	5.06	4.56	9.30	3.88	7.75	8.30	1.50	2.00	1.00	0.88 X 1.13 X 1.38	--	--	0.22	1.25	--
NQ3	1	5.88	5.19	10.56	4.13	8.31	9.06	1.50	2.00	1.25	0.88 X 1.13 X 1.38	--	--	0.28	1.25	--
NQ4	1	7.06	6.25	11.75	5.38	10.00	10.30	1.75	2.00	1.50	0.88 X 1.13 X 1.38	--	--	0.28	1.25	--
NQ5	2	10.00	7.75	17.25	7.38	15.38	15.25	2.375	2.00	4.00	1.13 X 1.38	6.00	0.75	0.44	1.25	1.68

¹ Knockout (K) sizes are actual diameters of knockout, not conduit sizes. Refer to the table on page for conduit sizes.

OPTIONAL STAINLESS STEEL ENCLOSURES ARE AVAILABLE.

Conduit Size vs. Actual Knockout Size



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Reference Table

Standard Conduit Size	Actual Knockout Diameter
1/2"	7/8"
3/4"	1 1/8"
1"	1 3/8"
1 1/4"	1 3/4"
1 1/2"	2"
2"	2 1/2"
2 1/2"	3"
3"	3 5/8"
3 1/2"	4 1/8"

Please note the above table is not applicable for Stainless Steel enclosures.

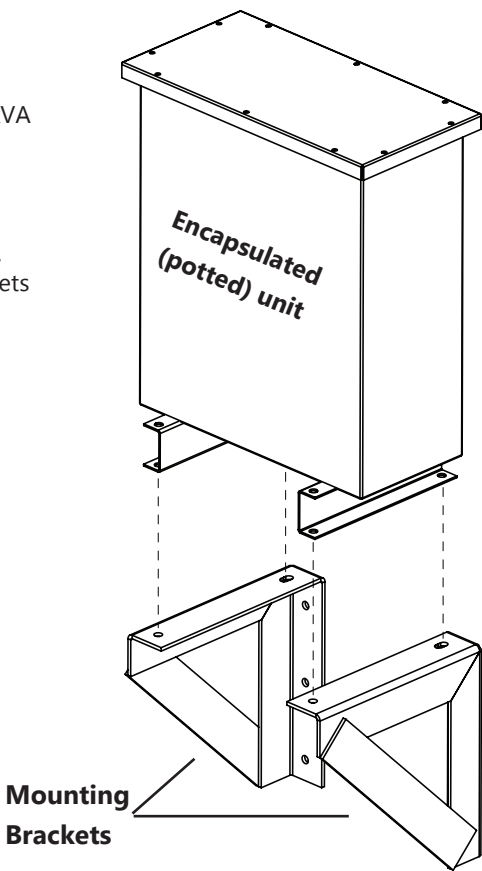
Accessories

Wall Mounting Kits

Wall mounting kits are specifically designed for HPS commercial or industrial encapsulated (potted) distribution transformer units up to a maximum of 45kVA or 800 pounds (363 kg). These mounting kits are designed for encapsulated (potted) units only, no drip plate is included/required. Please contact HPS customer service if you have any questions.

Note: Always measure and secure mounting brackets to the wall surface first, then lift the transformer (using appropriate lifting equipment) onto the brackets and attach using minimum Grade 8 hardware.

Enclosure Case Style	Mounting Type	Wall Mounting Kit Part Number
NQ0-NQ5	Wall	Included



Notes



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