

**ADDITIONAL NOTES:**

ⓐ A. INTERIOR POTTED WITH HENCOL#13 EPOXY TO ENCAPSULATE COIL AND COIL LEADS AGAINST VIBRATION.

ⓑ B. COIL WIRES SECURED WITH RTV.

ⓒ C. BOBBIN SECURED IN PLACE WITH EPOXY PLACED AROUND THE TOP RIM.

ⓓ D. ALL PARTS ARE SHIPPED LOOSE.

ⓔ E. PART NUMBER, DATE CODE & VOLTAGE INK STAMPED ON THIS SURFACE.

ⓕ F. COIL SURPRESSION DIODE#1N4005, MOUNTED INTERNALLY.

ⓖ G. CONTAINS IGNITION COIL RESISTOR SHORTING CIRCUIT.

ⓗ H. SILVER CONTACT SURFACES.

ⓓ J. UL & CE APPROVED.

ⓓ K. USES 081112 SPRING FOR STRONGER CONTACT RETURN FORCE. ⓓ

CONSERVATIVE ELECTRICAL RATINGS ⓓ		
A	INTERMITTENT DUTY 24-36V DC	120 AMPS MAKE, 65 AMPS BREAK 10 SECONDS ON, 30 MINUTES OFF
B	INTERMITTENT DUTY 6-12V DC	750 AMPS MAKE, 100 AMPS BREAK 10 SECONDS ON, 20 MINUTES OFF
C	CONTINUOUS DUTY 24V DC	200 AMPS CARRY ONLY. 150 AMPS MAKE & BREAK ⓓ
D	CONTINUOUS DUTY 12V DC ⓓ	200 AMPS, MAKE&BREAK. INRUSH: 600A
E	CONTINUOUS DUTY 6-36V DC	85 AMPS, 125A MAKE & BREAK ⓓ
F	UL & CE INTERMITTENT RATING:	750 AMPS@12VDC MAKE, 100 AMPS BREAK 10 SECONDS ON, 30 MINUTES OFF
G	UL & CE CONTINUOUS RATING:	65 AMPS, 12V DC
	INTERMITTENT RATING:	750 AMPS MAKE, 100 AMPS BREAK 10 SECONDS ON, 30 MINUTES OFF UL & CE
H	UL & CE CONTINUOUS RATING:	65 AMPS, 24V DC
	INTERMITTENT RATING:	120 AMPS MAKE, 65 AMPS BREAK 10 SECONDS ON, 30 MINUTES OFF UL & CE
J	UL & CE CONTINUOUS RATING:	65 AMPS, 36V DC
	INTERMITTENT RATING:	120 AMPS MAKE, 65 AMPS BREAK 10 SECONDS ON, 30 MINUTES OFF UL & CE
K	CONTINUOUS DUTY:	200 AMPS,36VDC, CARRY ONLY.

**NOTES:**

1. ALL STEEL PARTS ARE PLATED.
2. ALL DIMENSIONS ARE REFERENCE ONLY UNLESS OTHERWISE SPECIFIED.
3. NORMALLY OPEN (N.O.) CONTACTS.
4. MAX TORQUE: #10-32= 15 IN-LBS (1.69 N.m) 5/16-24= 35 IN-LBS (3.95 N.m)
5. HARDWARE MAY BE ASSEMBLED, BAGGED OR SHIPPED LOOSE, SEE CHART. IF HARDWARE IS BAGGED IT WILL BE DONE AT COLE HERSEE'S DISCRETION
- ⓓ 6. PVC COATING MUST ADHERE TO BRACKET AND ALL HEX NUTS TO SEAL SOLENOID.
- ⓓ 7. DO NOT REMOVE OR LOOSEN 5/16 KEP NUTS. THEY SECURE POWER STUD TO SOL. CASE.
- ⓓ 8. 10/32 KEP NUTS MUST NOT BE LOOSENED, TIGHTENED OR REMOVED--FACTORY TORQUED TO PROPER SPECS.

Revision Control Record				Revision Control Record			
Rev.	Description of Change	ECN No.	Date	Rev.	Description of Change	ECN No.	Date
				N	CHART CHANGE	01579	10/11/01
V	BOM REV. UPDATED	12101	03/29/12	M	ADDED 24143-03	01338	6/5/01
U	DRAWING CLARIFIED	09449	09/18/09	L	NOTE CHANGE	01045	1/25/01
P	ADDED PN24106-07	07078	3/5/07	K	PUT ON AUTOCAD	N/A	12/12/00

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 \* Metric: Refer to equivalent English Dimension Tolerance  
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Used On or Ref.: Scale: **1:1**

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Drawn By: **CF** Date Drawn: **4/1/66**

**Key for Special Characteristics:**

ⓓ Critical Characteristic, relating to Safety and/or Regulatory Compliance

ⓓ Significant Characteristic relating to Process Control (SPC)

ⓓ Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer

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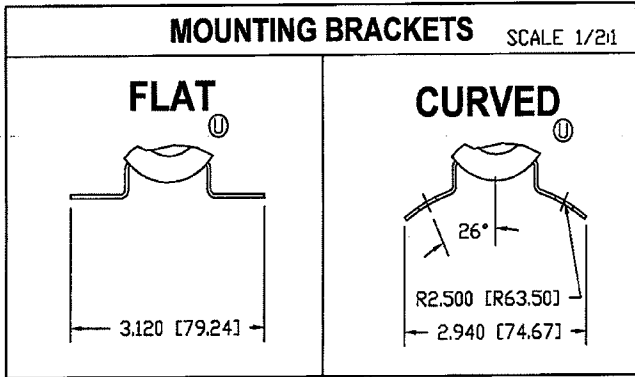
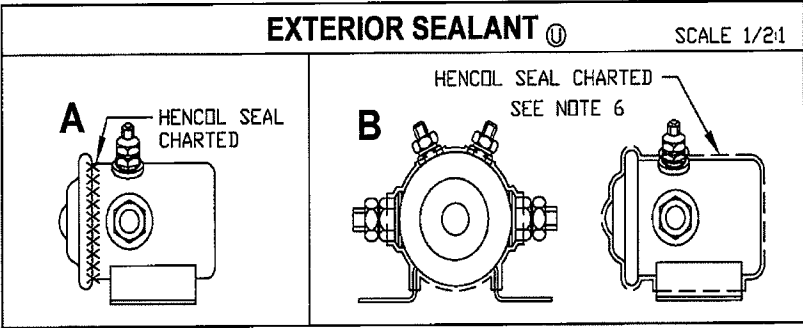
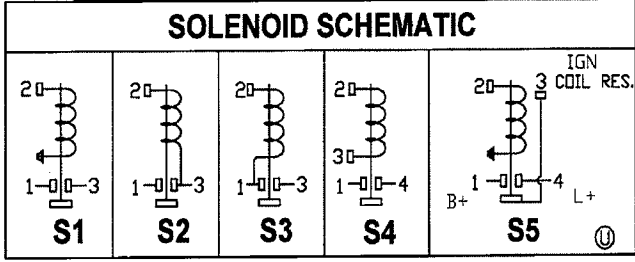
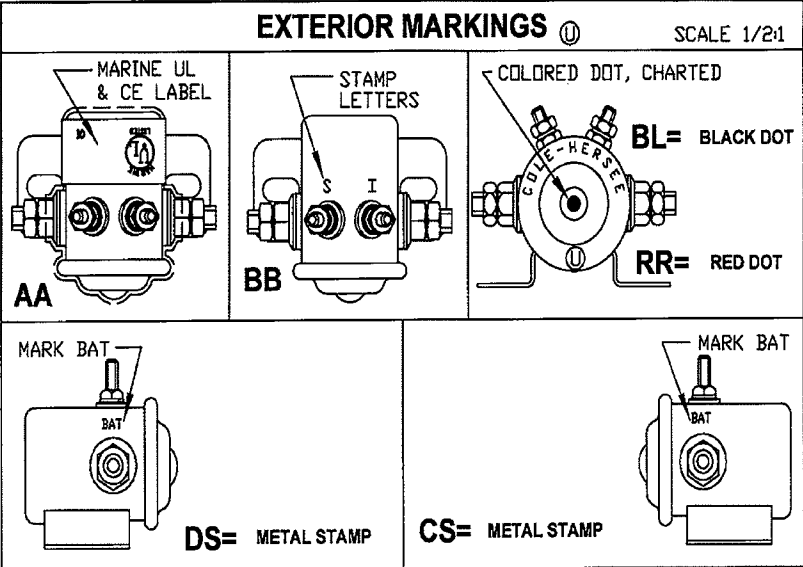
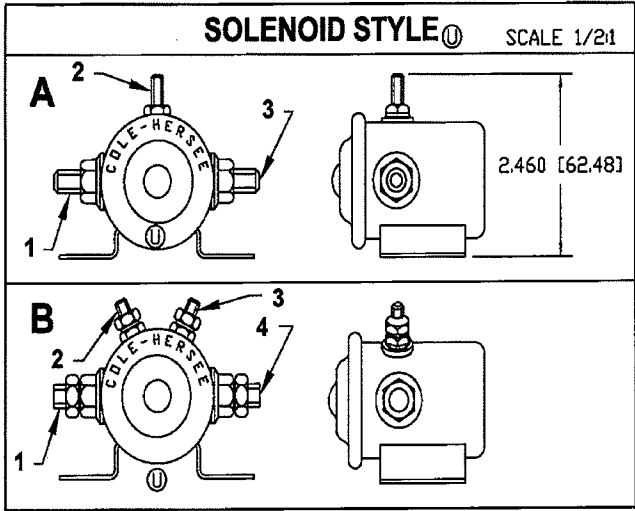
Responsible Engineer: **N/A** Pg. 1 of 5

**Cole Hersee Co.**  
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**SOLENOID**

Part No.: **24008** Current Rev.: **V**

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Revision Control Record				Revision Control Record			
Rev.	Description of Change	ECN No.	Date	Rev.	Description of Change	ECN No.	Date
SEE PAGE 1 FOR REVISION NOTES							

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Drawn: **CF**      Date: **4/1/66**

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Responsible Engineer: **N/A**      Pg. 2 of 5

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**SOLENOID**

Drawing / Part No.: **24008**      Current Rev. **SEE PAGE 1**



24119-01	24	29	INTERMITTENT	3	A	A	GROUNDED	CURVED					S1	ASSEMBLED	K	
24119	24	29	INTERMITTENT	3	A	A	GROUNDED	FLAT					S1	ASSEMBLED	K	
24117-03	12	17.5	CONTINUOUS	4	B	G	INSULATED	FLAT	B	20		AA	S4	ASSEMBLED	J	
24117-01	12	17.5	CONTINUOUS	4	B	G	INSULATED	FLAT	B	20		AA	S4	BAGGED	J	
24117	12	17.5	CONTINUOUS	4	B	E	INSULATED	FLAT	B	20			S4	ASSEMBLED	E	
24115-01	12	17.5	CONTINUOUS	3	A	E	INSULATED	CURVED	B	12		CW	S2	ASSEMBLED		
24115	12	17.5	CONTINUOUS	3	A	E	INSULATED	FLAT				CS	S2	BAGGED		
24107	24	71	CONTINUOUS	3	A	E	INSULATED	FLAT				CS	S2	ASSEMBLED		
24106-07	12	17.5	CONTINUOUS	3	A	E	GROUNDED	FLAT	B	12			S1	BAGGED	E	
24106-04	12	17.5	CONTINUOUS	3	A	E	GROUNDED	FLAT			YES SEE NOTE A		S1	ASSEMBLED	A	
24106	12	17.5	CONTINUOUS	3	A	E	GROUNDED	FLAT					S1	BAGGED		
24105	6	4.2	CONTINUOUS	3	A	E	GROUNDED	FLAT					S1	ASSEMBLED		
24104	24	29	INTERMITTENT	3	A	A	INSULATED	FLAT				CS	S2	ASSEMBLED	K	
24103	12	4.4	INTERMITTENT	4	B	B	INSULATED	FLAT				BB	S5	ASSEMBLED	G,K	
24097	6	4.2	CONTINUOUS	4	B	E	INSULATED	FLAT					S4	ASSEMBLED		
24082	12	17.5	CONTINUOUS	3	A	E	GROUNDED	CURVED					S1	BAGGED		
24080-01	36	130	CONTINUOUS	4	B	J	INSULATED	FLAT				AA	S4	ASSEMBLED	J	
24080	36	130	CONTINUOUS	4	B	E	INSULATED	FLAT					S4	ASSEMBLED		
24077	12	4.4	INTERMITTENT	3	A	B	INSULATED	FLAT	B	19		DS	S3	ASSEMBLED	K	
24076	12	4.4	INTERMITTENT	4	B	B	INSULATED	FLAT	B	19			S4	ASSEMBLED	K	
24075	6	1.6	INTERMITTENT	4	B	B	INSULATED	FLAT	B	19			S4	ASSEMBLED	K	
24071-02	12	4.4	INTERMITTENT	3	A	B	GROUNDED	CURVED	B	19			S1	ASSEMBLED	K	
24071-01	12	4.4	INTERMITTENT	3	A	B	GROUNDED	FLAT	B	12			S1	ASSEMBLED	E,K	
24071	12	4.4	INTERMITTENT	3	A	B	GROUNDED	FLAT	B	19			S1	ASSEMBLED	K	
PART NO	V DC	OHMS	DUTY CYCLE	#	STUDS	SOL. STYLE	CONTACT RATINGS	COIL TYPE	BRACKET STYLE	LOC. EXTR.	TYPE SEALANT	INTR. SEALANT	EXTR. MARKINGS	SLNOID SCHEM.	HARDWARE NOTE 5	ADDITIONAL NOTES

<b>Revision Control Record</b>			<b>Revision Control Record</b>			<p><small>Tolerances - Unless otherwise specifically noted, the following are default tolerances:</small></p> <ul style="list-style-type: none"> <li>* 2-place Decimal Dimensions +/- .02"</li> <li>* 3-place Decimal Dimensions +/- .005"</li> <li>* Angular Dimensions +/- 1.0 Deg.</li> <li>* Metric - Refer to equivalent English Dimension Tolerance</li> <li>&gt;&gt;&gt; NOTE: All tolerances are Non-Cumulative. &lt;&lt;&lt;</li> </ul> <p><small>Dimensional Units - All dimensions are expressed in inches except those shown in brackets [mm] are expressed in millimeters</small></p> <p><small>*REF. or an Asterisk (*) - Non-Tolerance Reference Dimension, shown for clarification purposes only.</small></p>		<p><small>PROPRIETARY INFORMATION - This Engineering Drawing, and the information contained herein, is proprietary to Cole Hersee Company and may not be disclosed, re-produced, or in any other way transferred or communicated to any other party without the express written consent of an authorized representative of Cole Hersee Company.</small></p> <p><small>DESIGN CONTROL - It is the responsibility of the individual using / reviewing this drawing to ensure that the noted design revision level agrees with the revision level of the Controlled Document (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.</small></p> <p><small>DO NOT SCALE - Dimensional variation may occur during printing / reproduction.</small></p>		<p><small>Key for Special Characteristics:</small></p> <ul style="list-style-type: none"> <li> Critical Characteristic, relating to Safety and/or Regulatory Compliance</li> <li> Significant Characteristic relating to Process Control (SPC)</li> <li> Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or its Customer</li> </ul> <p><small>(Note that the Identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions &amp; tolerances must be met.)</small></p>		<p><b>Cole Hersee Co.</b> 20 Old Colony Ave., South Boston, MA, 02127 Phn: 617-268-2100 Web: www.colehersee.com</p> <p>Description: <b>SOLENOID</b></p>		<p>Drawing / Part No.: <b>24008</b></p> <p>Current Rev. <b>SEE PAGE 1</b></p>	
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<b>SEE PAGE 1 FOR REVISION NOTES</b>															

PART NO	V	DC	OHMS	DUTY CYCLE	#	STUDS	SOL. STYLE	CONTACT RATINGS	COIL TYPE	BRACKET STYLE	LOC.	TYPE	INTR. SEALANT	EXTR. SEALANT	EXTR. MARKINGS	SLNOID SCHEM.	HARDWARE NOTE 5	ADDITIONAL NOTES
M 202	12	4.4		INTERMITTENT	3	A	B		GROUND	FLAT						S1	ASSEMBLED	K
M 200-01	12	4.4		INTERMITTENT	4	B	F		INSULATED	FLAT				AA	S4	ASSEMBLED	J,K	
M 200	12	4.4		INTERMITTENT	4	B	B		INSULATED	FLAT					S4	ASSEMBLED	K	
24144	24	71		CONTINUOUS	4	B	C		INSULATED	FLAT					S4	ASSEMBLED	E,H	
24143-03	12	17.5		CONTINUOUS	4	B	D		INSULATED	FLAT	B	12			S4	BAGGED	E,H	
24143-02	36	130		CONTINUOUS	4	B	K		INSULATED	FLAT					S4	ASSEMBLED	E,H	
24143-01	12	17.5		CONTINUOUS	4	B	D		INSULATED	FLAT	A	13	YES SEE NOTE A		S4	ASSEMBLED	A,E,H	
24143	12	17.5		CONTINUOUS	4	B	D		INSULATED	FLAT					S4	BAGGED	E,H	
24141	24	29		INTERMITTENT	4	B	A		INSULATED	FLAT	A	13	YES SEE NOTE A	BL	S4	ASSEMBLED	A,K	
24140	12	17.5		CONTINUOUS	4	B	E		INSULATED	FLAT				BB	S5	ASSEMBLED	G	
24135-01	36	130		CONTINUOUS	4	B	J		INSULATED	FLAT	B	20		AA	S4	ASSEMBLED	J	
24135	36	130		CONTINUOUS	4	B	E		INSULATED	FLAT	B	20			S4	ASSEMBLED		
24129	12	4.4		INTERMITTENT	4	B	B		INSULATED	FLAT	B	12	YES SEE NOTE B		S4	ASSEMBLED	B,K	
24124	24	71		CONTINUOUS	3	A	E		GROUND	FLAT					S1	BAGGED	E	

**SEE PAGE 1 FOR REVISION NOTES**

**Revision Control Record**

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Drawn By: **CF** Date: **4/1/66**

Responsible Engineer: **N/A** Pg. 5 of 5