

General Specifications

- Designed to MIL-R-6106
 - Type II Unsealed Continuous Duty
 - Type III Unsealed Intermittent Duty
 - Covered/Gasketed Contact Area
 - Twin-break Silver Alloy Contacts
- Meets Explosion, Humidit, Salt, Spray, Sand, and Dust requirements.
- Altitude: 50,000 feet
- Shock: 25 g's ½ Sine 6 to 9 milliseconds
 - Maximum contact opening: 2 milliseconds
- Acceleration: 10 g's
- Vibration Limits:
 - 5 to 10 Hz: 0.8 in DA
 - 10 to 55 Hz: 0.6 in DA
 - 55 to 2000 Hz: 2 g's
- Temperature Range: -55°C to 71°C
- Insulation Resistance:
 - 100 megohm minimum initially
 - 50 megohm minimum after tests
- Dielectric:
 - 1250 Vac minimum initially
 - 1000 Vac minimum after tests
- Life:
 - Electrical Operations: 50,000 cycles
 - Mechanical Operations at 25% of Rated Resistive Load: 100,000 cycles
- Minimum Current: 10% of Rated DC Resistive Load
- Intermittent Duty Ratings:
 - % of Rated Resistive
 - Time On in Minutes
 - Cooling time is required between successive over load applications.

Intermittent Duty Ratings

Minutes			
15	5	1	Inrush
130%	150%	200%	600%
Rupture Time Per MIL-R-6106			

(Coil Voltage must be maintained at rated value)

- Options:
 - Other Coil Voltage
 - Alternate Mountings
- MIL-STD-461 applies to AC operated coils.
- See drawing for additional applicable details.

Special Service Use

Mechanical Interlock/Type Service

Part Number	Reversing	Transfer	Dynamic Braking
9565H29	X	X	—
6046H39	X	—	X
6046H46	X	X	—
6046H53	X	X	—



Cat N. 6041H217

- SPST rated 400 Amp resistive and motor at 28 Vdc continuous duty with top mounting.
- MS24185-D1 - 2.6 Lbs/ 1179gm



Cat N. 6041H202

- SPST rated 200 Amp resistive and motor at 28 Vdc continuous duty with side mounting.
- MS24171-D2 - 1.25 Lbs/ 567gm



Cat N. 6041H209

- 2 PST rated 100 Amp resistive at 28 Vdc and 75 amperes 115/200 V 400 Hz intermittent duty with top mounting.
- AN-3392-1 - 1.5 Lbs/ 680 gm



Cat N. 6041H201

- SPST rated 50 Amp resistive, inductive and motor at 28 Vdc continuous duty with side mounting.
- MS24166-D2 - 0.5 Lbs/ 225 gm



Cat N. 9565H2

- 3 PST rated 25 Amp resistive, inductive and motor at 28 Vdc and 115/200 V 400 Hz continuous duty cycle with base mounting.
- MS24192-D1 - 1.1 Lbs/ 499 gm

Reversing and Dynamic Braking Relay



Cat N. 6046H39

- Control of split field series motors.
- SPST see circuit diagram 6 for details.
- Rated 28 Vdc 50 Amp N.O., 25 Amp N.C
- 2.9 Lbs./1315 gm

POWER RELAYS — CONTINUOUS DUTY, TYPE II, UNSEALED INTERMITTENT DUTY, TYPE III, UNSEALED

Labinal Power Systems Part Number	Government Part Number	Continuous Power Contacts, Ratings						Contacts Operate Milliseconds, Maximum			Poles & Throw ^③	Weight Lbs./GMS	Coil Data					Mounting	Coil Voltage Nominal
		28VDC			115/200 VAC 400 Hz.			OP TIME	REL TIME	Contact Bounce			Circuit Dia./ Dim. Figure	Resistance (OHMS)± 10% Pickup/ Sealed	Volts Pickup ^⑤	Volts Drop-out ^⑥	Duty Cycle		
		RES.	IND.	MOTOR	RES.	IND.	MOTOR												
9565H2	MS24192-D2	25	25	25	25	25	25	20	15	6	3PST	1.1/498	10 / 11	/ 60	18	1.5 to 7	CONT	BASE	28 dc
9565H29	MS24152-D1	25	25	25	25	25	25	20	15	6	3PDT	2/909.09	16 / 11	22 / 92	18	1.5 to 7	CONT	BASE	28 dc
9565H95	—	25	25	25	25	25	25	20	15	6	3PST	1.06/482.95	10 / 11	/ 1160	70	8 to 38	CONT	BASE	120 dc
6041H53 ^②	—	50/25	50/25	50/25	25/25	—	—	20	15	5 N.O./10 N.C.	SPDT	.54/245.45	4 / 2	16.9	8.2	0.8 to 4.8	CONT	TOP	12 dc
6041H220 ^②	MS24187-D1	50/25	50/25	50/25	25/25	—	—	20	15	5 N.O./10 N.C.	SPDT	.54/245.45	4 / 2	94.2	18	1.5 to 9	CONT	TOP	28 dc
6041H230	MS24187-D2	50/25	50/25	50/25	25/25	—	—	20	15	5 N.O./10 N.C.	SPDT	.54/245.45	4 / 2	94.2	18	1.5 to 9	CONT	TOP	29 dc
6046H39 ^②	—	50/25	50/25	50/25	—	—	—	20	—	—	SPDT	2.9/1318.18	6 / 7	26	18	7	—	TOP	28 dc
6041H201	MS24166-D2	50	50	50	—	—	—	20	10	5	SPST	.50/225	1 / 4	94.2	18	1.5 to 7	CONT	SIDE	28 dc
6041H149	—	50	50	50	—	—	—	20	15	5	SPST	.56/254.55	1 / 4	16.9	8.2	0.8 to 4.8	CONT	SIDE	12 dc
6041H200	MS24166-D1	50	50	50	—	—	—	20	10	5	SPST	.50/225	1 / 4	94.2	18	1.5 to 7	CONT	TOP	28 dc
9565H94	MS24193-D1	50	50	50	50	50	50	20	15	4	3PST	1.51/685	10 / 11	13.5 / 71.5	18	1.5 to 7	CONT	BASE	28 dc
6041H219	MS24178-D1	55	40	40	55	—	35	—	—	—	DPST	.75/340.91	2 / 2	66	18	1.5 to 7	Note ^④	TOP	28 dc
6041H80	—	100	80	80	—	—	—	—	—	—	SPST	1.4/636.36	1 / 3	66.3	18	1.5 to 7	CONT	SIDE	28 dc
6041H144	—	100	80	80	—	—	—	—	—	—	SPST	1.4/636.36	1 / 3	66.3	18	1.5 to 7	CONT	SIDE	28 dc
6041H11	—	100	80	80	—	—	—	—	—	—	SPST	1.4/636.36	1 / 1	66.3	18	1.5 to 7	CONT	TOP	28 dc
6041H209	AN3362-1	100	80	80	75	—	65	35	10	3.5	DPST	1.5/685	2 / 2	43	20	1.5 to 7	Note ^④	TOP	28 dc
6046H53	MS25031-D1B	100	80	80	75	—	65	—	—	—	DPDT	3.5/1590.91	9 / 7	43	18	1.5 to 7	CONT	TOP	28 dc
9565H13	—	100	75	75	100	—	75	22	15	4	3PST	2.5/1136.36	12 / 11	9 / 53	18	1.5 to 7	CONT	BASE	28 dc
6041H202	MS24171-D2	200	100	200	—	—	—	25	10	50	SPST	1.25/568.18	1 / 5	66	18	1.5 to 7	CONT	SIDE	28 dc
6041H105	—	200	100	200	—	—	—	—	—	—	SPST	1.25/868.18	1 / 5	10 (+15/-10)	9	3.5	CONT	SIDE	12 dc
6041H123	—	200	100	200	—	—	—	40	15	5	SPST	1.3/590.91	1 / 5	66	18	1.5 to 7	CONT	SIDE	28 dc
6041H203	MS24172-D2	200	100	200	—	—	—	25	18	5	SPST	1.23/560	1 / 5	10 (+15/-10)	7.5	0.5 to 3.0	INTER ^④	SIDE	28 dc
6041H212	—	200	100	200	—	—	—	40	15	5	SPST	1.3/590.91	1 / 5	66	18	1.5 to 7	CONT	SIDE	28 dc
6041H215	MS24171-D1	200	100	200	—	—	—	25	10	5	SPST	1.33/604.55	1 / 1	66	18	1.5 to 7	CONT	TOP	28 dc
6041H216	MS24172-D1	200	100	200	—	—	—	25	10	5	SPST	1.33/604.55	1 / 1	10(+15/-10)	7.5	0.5 to 3.0	INTER ^④	TOP	28 dc
6046H46	MS25032-D1	200	100	150	150	—	100	40	15	5	DPDT	5.5/2500.00	8 / 7	41	18	1.5 to 7	CONT	TOP	28 dc
6041H205	MS24185-D2	400	100	400	—	—	—	40	15	5	SPST	2.6/1181.82	1 / 5	60	18	1.5 to 7	CONT	SIDE	28 dc
6041H217	MS24185-D1	400	100	400	—	—	—	40	15	5	SPST	2.6/1181.82	1 / 1	60	18	1.5 to 7	CONT	TOP	28 dc
6041H218	MS24179-D1	400	100	400	—	—	—	20	15	5	SPST	2.6/1181.82	1 / 1	10	7	0.5 to 3.0	INTER ^④	TOP	28 dc
6041H206	MS24179-D2	400	100	400	—	—	—	20	15	5	SPST	2.6/1181.82	1 / 5	10	7	0.5 to 3.0	INTER ^④	SIDE	28 dc

- ① Coil will exceed 95° C temperature rise when left on continuously in 25° ambient, but will not be damaged. At maximum ambient temperature of 71°C, the duty cycle should be limited to 15 minutes "on" time per half hour to obtain maximum coil life.
- ② Continuous and intermittent duty ratings shown are for N.O. pole rated at 1/2 the listed continuous DC duty ratings. N.C. pole on 6041H53 and H220 limited to 15 g's shock.
- ③ Time on 1 1/2 minutes at 29 Vdc. Minimum time off is 3 minutes.
- ④ All continuous duty resistive and motor load ratings and all intermittent duty ratings for all 3 pole relays listed under 28 Vdc apply for 120 Vdc systems with all 3 poles of the relay connected in the series.
- ⑤ Pick-up voltage below values shown may cause relay to rapidly cycle on and off (chatter).
- ⑥ Relay must drop-out at voltage value or less and may drop-out at any voltage below the higher voltage noted.

MS Part Number Summary			
AN3362-1*	6041H209	MS24179-D1	6041H218
MS24152-D1*	9565H29*	MS24185-D2	6041H205
MS24166-D1	6041H200	MS24187-D1	6041H220
MS24166-D2	6041H201	MS24187-D2	6041H230
MS24171-D1	6041H215	MS24192-D1	9565H2
MS24171-D2	6041H202	MS24193-D1	9565H94
MS24172-D1	6041H216	MS25031-D1B	6046H53
MS24172-D2	6041H203	MS24185-D1	6041H217
MS24178-D1	6041H219	MS25032-1	6046H46

*Inactive for new design

Conversion Part Number		
AN Part Number	Use MS Part Number	Labinal Power Systems Part Number
3343-1	—	9565H13
3350-1	MS24166-D2	6041H201
3362-1	—	6041H209
3370-1	MS24171-D2	6041H202
3371-1	MS24172-D2	6041H203
3380-1	MS24185-D2	6041H205
—	MS25030-D1B	6041H51
3381-2	MS24179-D1	6041H218