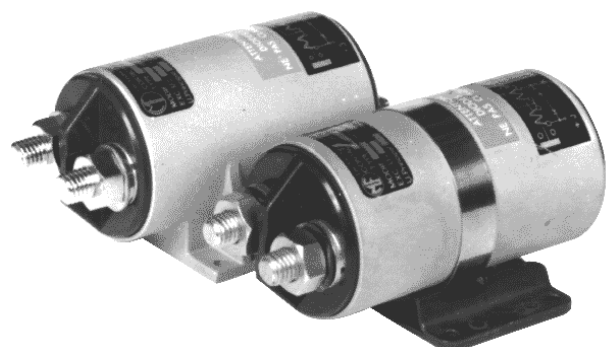


# ENGINEERING DATA SHEET

# SERIES 507

CONTACTOR

1PST-DM, 500 AMP/28 VDC



Letter 30243STPA

Permanent duty

Main contact

Coil supply

- Polarized and protected coil

Meets the requirements of

1PNO

Direct current

See schematic diagram

AIR 7304

AIR 8456B

AIR 9456

MIL 6106J

## PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at

500 A / 28 Vdc

Weight

- Ref. P/N: 507

750 g ±10%

- Ref. P/N: S507

810 g ±10%

- Ref. P/N: M507

820 g ±10%

Maximum size

121mm x 70mm x 62.5mm

Dust proof metal can.

## CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type	Load Current in Amps @28Vdc
Resistive	500 (In)
Inductive	300
Motor	500
Overload	8 In [1]
Rupture	10 In [2]
I minimum	In/10

### Notes:

[1] 4000 Amps for 50 cycles; duty cycle: .2 sec on, 20 sec off.

[2] 5000 Amps for 50 cycles; duty cycle: .2 sec on, 20 sec off.

3. Additional models:

**509** (1PST DM+Aux)

**509I** (1PST DM) intermitent duty

[4] Additional temperature ratings available.



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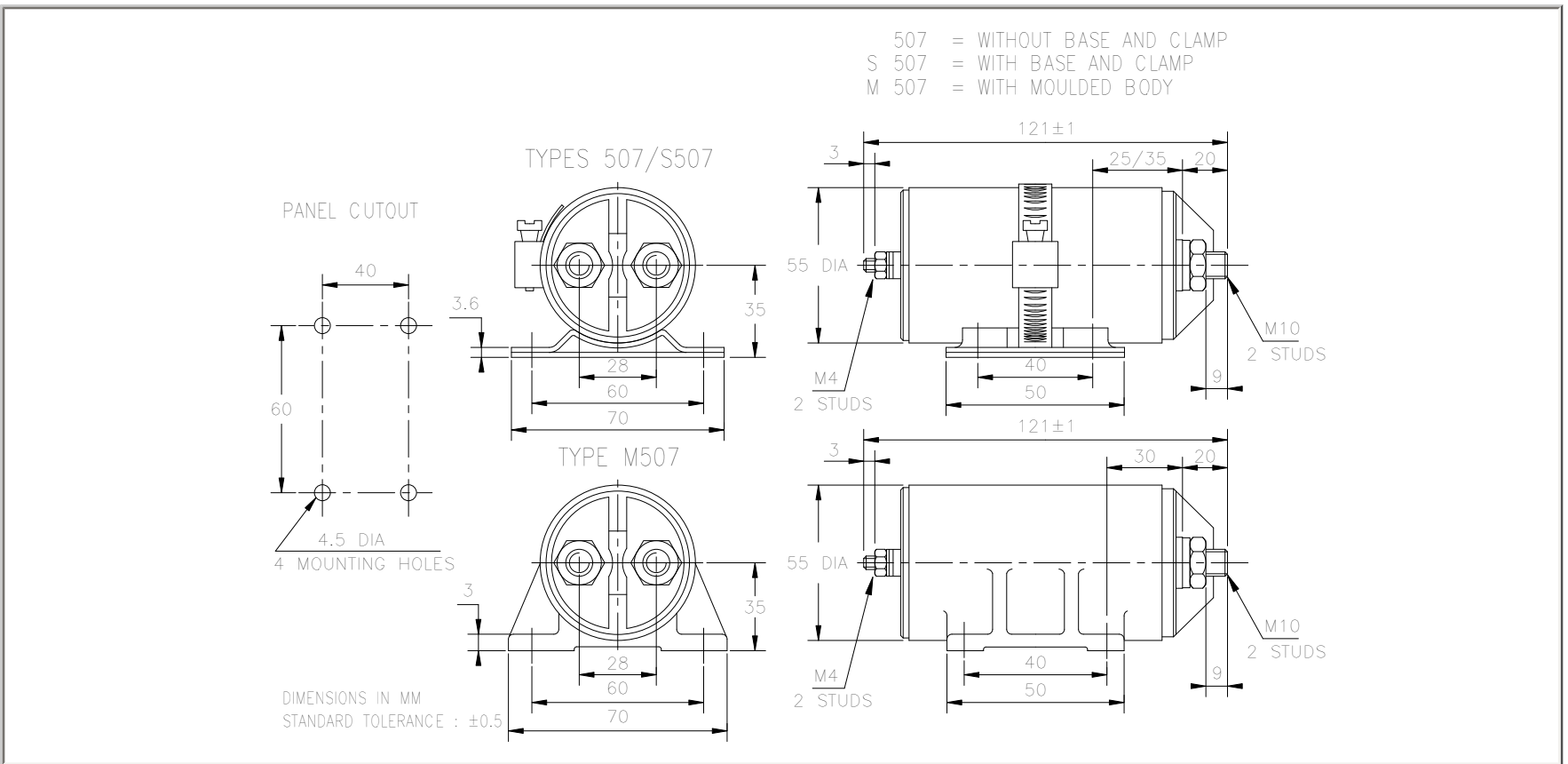
Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.

**COIL CHARACTERISTICS AT 20 °C****SERIES 507**

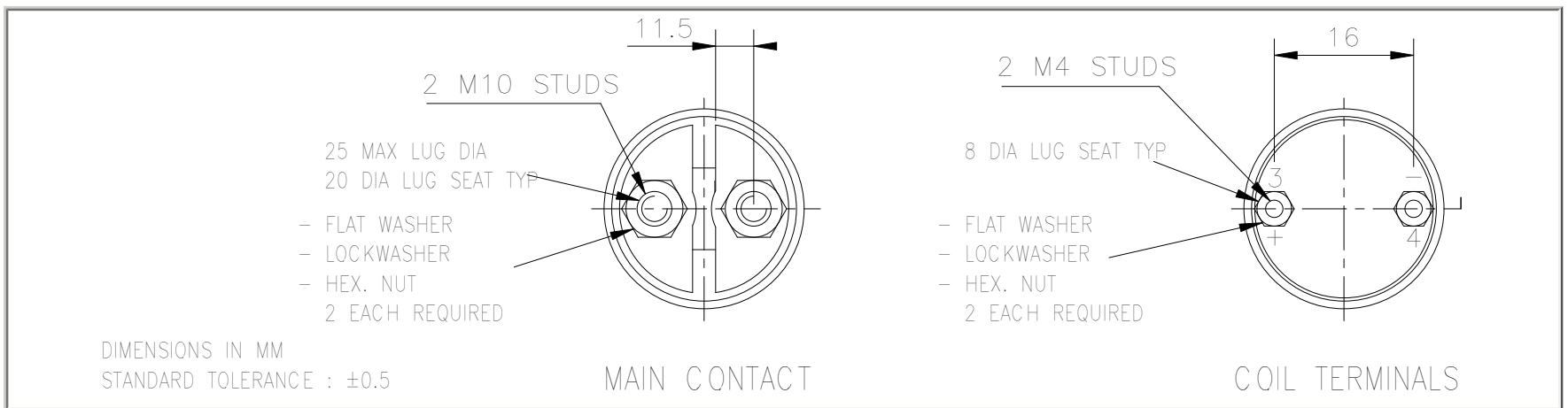
Nominal operating voltage	28 Vdc
Maximum operating voltage	32 Vdc
Maximum pickup voltage	18 Vdc
Drop-out voltage	1.5 Vdc min. 7 Vdc max.
Cut-in current	10 A at 28 Vdc
Holding current	300 mA at 28 Vdc
Coil suppression (max Vdc)	-65

**GENERAL CHARACTERISTICS**

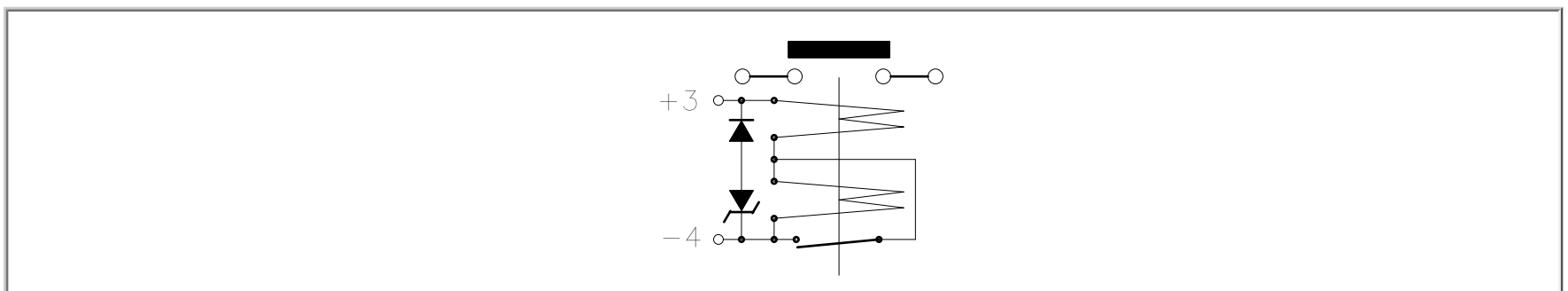
Temperature range	-55°C to +85°C [4]
Minimum operating cycles (life) at rated load	50,000 cycles
Dielectric strength at sea level	1250 Vrms
Dielectric strength at altitude 25,000 m	500 Vrms
Insulation resistance at 500 Vdc	100 M Ω
Sinusoidal vibration	10G / 5 to 2000 Hz
Shock	30G / 11 ms
Maximum contact opening time under vibration and shock	10 μs
Maximum operate time at 28 Vdc	20 ms
Maximum release time at 28 Vdc	15 ms
Main contact voltage drop	
- Initial value	120 mV
- After endurance test	180 mV
Assembly torque	
- Main contact terminals	14.7 Nm
- Coil terminals	1.2 Nm



**TERMINAL TYPES**



**SCHEMATIC DIAGRAM**



**NUMBERING SYSTEM**

