

ELECTRICAL PANEL – DIESEL ENGINE STARTER

Product Overview: The Diesel Engine Starter Panel is a reliable and heavy-duty control panel designed to start and protect engine-driven systems. It is widely used in diesel generator sets, firefighting pumps, and emergency backup systems.

Engineered with advanced safety, control, and monitoring features, the panel ensures smooth starting, overload protection, and efficient operation of diesel-driven applications. Built from 16 SWG CRCA Steel and finished with powder coating, the panel is robust, corrosion-resistant, and suitable for industrial environments.

1. GENERAL DATA :-

Manufacturer	Palladium Safety Solutions Pvt. Ltd.
Trade Mark/Brand	“PALEX”
Type	Electrical Panel – Diesel Engine Starter
Model No.	PSS-DES



2. TECHNICAL SPECIFICATIONS :-

Operating Voltage Range	DC 12V & DC 24V (engine starter battery supply)
AC input (control supply)	440V AC, 50Hz, 3-phase
Motor/Engine Compatibility	Diesel engine-driven systems (pumps, DG sets, compressors)
Protection Devices	- Thermal overload relay - MCB/MCCB short-circuit protection - Fuse protection
Switchgear Components	- Heavy-duty contactors - Timer relays (if required) - Push buttons (start, stop, reset)
Indications	Phase R, Y, B lamps and ON lamp
Enclosure Construction	16 SWG CRCA steel with epoxy/polyester powder coating
Dimensions (H x W x D)	450 x 450 x 250 mm
Weight	20kg (approx.)
Cooling Method	Natural air cooled
Ingress Protection (IP)	IP 42 standard
Colour	Standard Red
Mounting	Wall-mounted with robust bracket support

3. ELECTRICAL & FUNCTIONAL CHARACTERISTICS :-

- **DC Starting Voltage :** 12V or 24V
- **Control Circuit Voltage :** 230V AC
- **Dielectric Strength :** 2.5kV for 1 min between live parts and earth
- **Insulation Resistance :** >100 MΩ at 500 V DC
- **Short-Circuit Withstand Capacity :** Up to 10kV (with MCCB/MCB)
- **Switching Life of Contactors :** >1 million mechanical operations
- **Timer Functions :** Optional automatic start/stop sequence with time delay

4. MECHANICAL CHARACTERISTICS :-

- **Enclosure Type** : Wall-mounted, box-type enclosure
- **Material** : Cold Rolled Close Annealed (CRCA) sheet steel
- **Sheet thickness** : 16 SWG (1.6mm)
- **Surface Treatment** : Seven-tank process with epoxy powder coating
- **Operating Temperature Range** : -10°C to +55°C
- **Storage Temperature Range** : -20°C to +70°C
- **Relative Humidity** : Up to 95% RH (non-condensing)

5. FEATURES :-

- Compatible with 12V DC and 24V DC starting systems
- Phase Indications : R, Y, B indicators with ON lamp
- Short-circuit and overload protection with MCB/MCCB and thermal overload relays
- Automatic and manual operating modes for flexible use
- Push-button interface : Start, Stop, Reset for easy operation
- High performance with long service life and low maintenance
- Easy installation and wiring connections
- Wall-mounted with rugged design for industrial use
- Complies with IS/IEC electrical standards

6. SAFETY & PROTECTION :-

- **Overload Protection** : Adjustable overload relay
- **Short-Circuit Protection** : MCB/MCCB (as per load rating)
- **Phase Protection** : R, Y, B indication lamps for phase presence monitoring
- **Earth Leakage Protection** : Optional RCB/ELCB integration
- **Emergency Stop** : Push-button optional for critical applications

7. APPLICATIONS :-

- Diesel Generator (DG) starter panels
- Fire Fighting Pumps Starter Panels
- Industrial Diesel Engines
- Marine and Transport Engines
- Backup Power and Emergency Systems

8. WARRANTY :-

12 months from date of supply against manufacturing defects.

PALLADIUM SAFETY SOLUTIONS PVT. LTD.

An ISO 9001 : 2015 Certified Company

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