

1. Summary

With advanced flush bonding MPU for the protection module EPC20 for diesel generator set, it is specially used for the protection of the failure of diesel generating set, in case cause damage to diesel engine due to misoperation from operator, and so strengthen the reliability and security of the operation of diesel generator set .When the over low oil pressure of motoroil (<0.1Mpa) , over high oil temperature (>95℃) , over high water temperature and over low water level in water tank happen, the set alarms and stop running. For the EPC20, adopt epoxide resin module structure with the whole solidifying structure, and so it is provided with many advantages, such as shockproof, dampproof, simple connection, reliable performance and so on. At present, our products have been widely used in mute and ordinary set.

Note: The shared input port is engaged by the high oil temperature protection and low water level protection, and so the user can only choose one of them.

2. Specification

Power supply: DC 8V~35V

Maximum output current in indicator light port: 300mA

Maximum output current in stop control port: 300mA

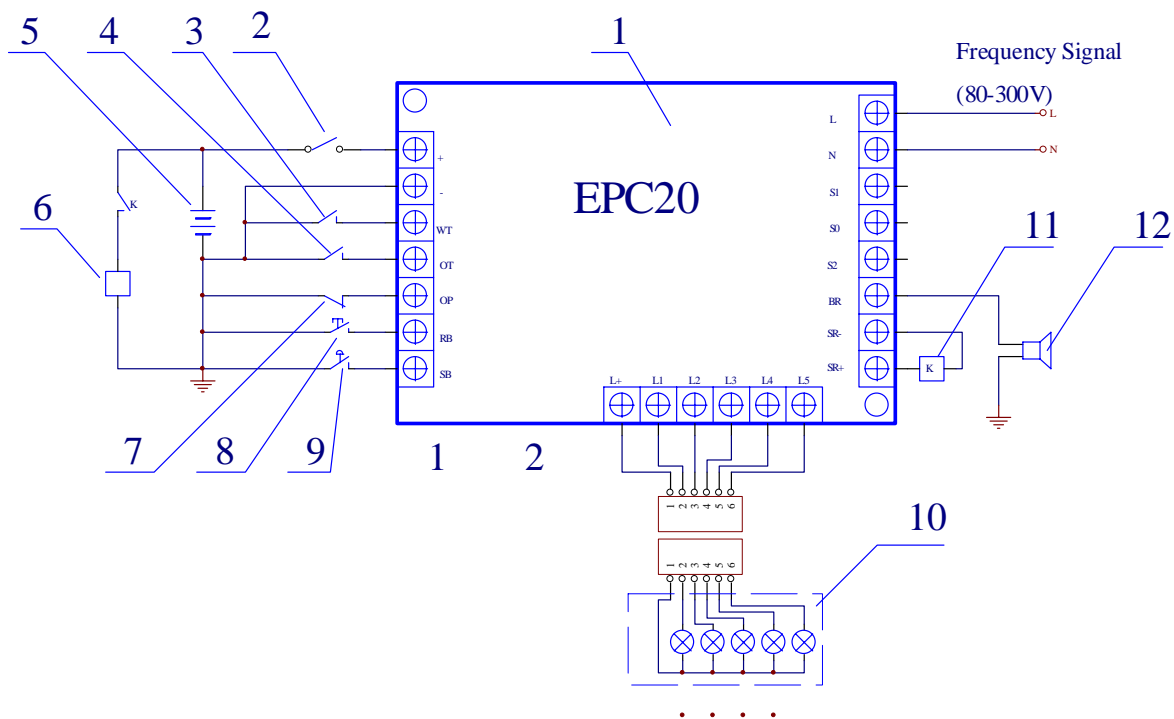
Maximum output current in alarm output port: 3A

Frequency detecting signal: 80V~300V AC

Note: the alarm port is optional, if you need it, please make it clear when order.

3. Connection

1. The EPC20 electric connection is shown in fig 1.



- | | | | |
|-----------------|------------------------|-----------------------------------|---------------------------------|
| 1- EPC20 Module | 2- Key Switch | 3- Water Temperature Alarm Sensor | 4- Oil Temperature Alarm Sensor |
| 5- Battery | 6- Stop Solenoid Valve | 7- Oil Pressure Alarm Sensor | 8- Reset Button |
| 9- Stop Button | 10- Pilot Lamp | 11- Stop Relay | 12- Alarm |

Fig 1 Diagram for EPC20

2. There is one PCB of failure indicator light attached with EPC20, it can be fixed onto control panel. The user can use the indicator light whose rated voltage is 12V or 24V and the rated current is <300mA.

3. The user may choose different frequency as following according to different sets

S1、S0 open, S2、S0 open : Disable overspeed protection

S1、S0 short, S2、S0 open : 55HZ

S1、S0 open, S2、S0 short : 66Hz

If you have other requirements, please make it clear when order.

4. Operation

1. Light test: turn-on the key switch, the mould shall lighten all the indicator lights, 2s later, except the power light, all of the lights shall go out automatically.

2. Emergency shut down: press the button of emergency shut down, the solenoid valve is pulled in, 10 s later, the solenoid valve releases and the set stops. If you need different stop modes and time, you should make it clear when order.

3. Reset: when the failure alarm、automatic stop happens to set, you can press the reset key or close down the key switch, 2 s later, turn on the key switch, the protector is reset and the failure indicator light is off, the solenoid valves releases and the warner stops alarm. After reset of protector, if the failure has not been eliminated, the protection mould shall send out stop and alarm signal again. If there is no reset when the set alarms and stops, the warner alarms by 25s, then stop alarm automatically, but the failure indicator light still flickers.

4. Fault indication: The meaning of indicator lights are shown in Fig 2.

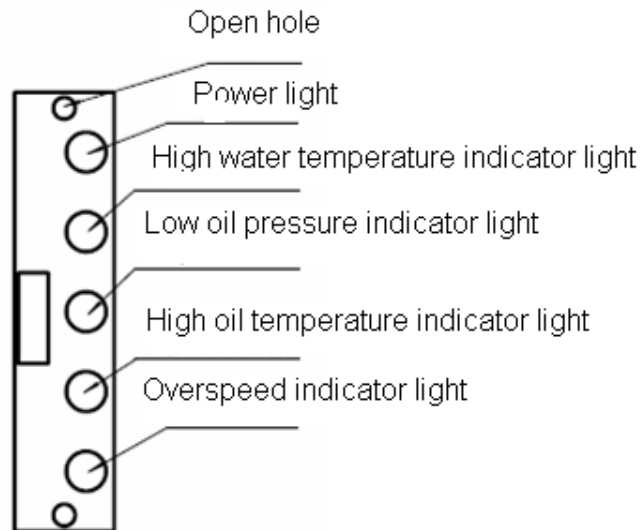


Fig2. PCB of indicator light

5. Installation

The dimension of indicator PCB and module are shown in Fig 3. and Fig 4.

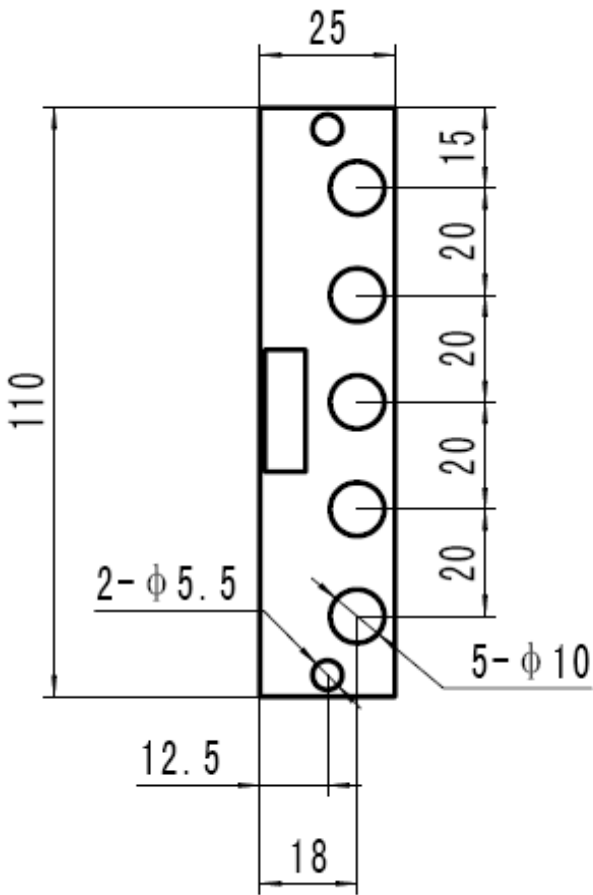


Fig3. Outside measurement of indicator light

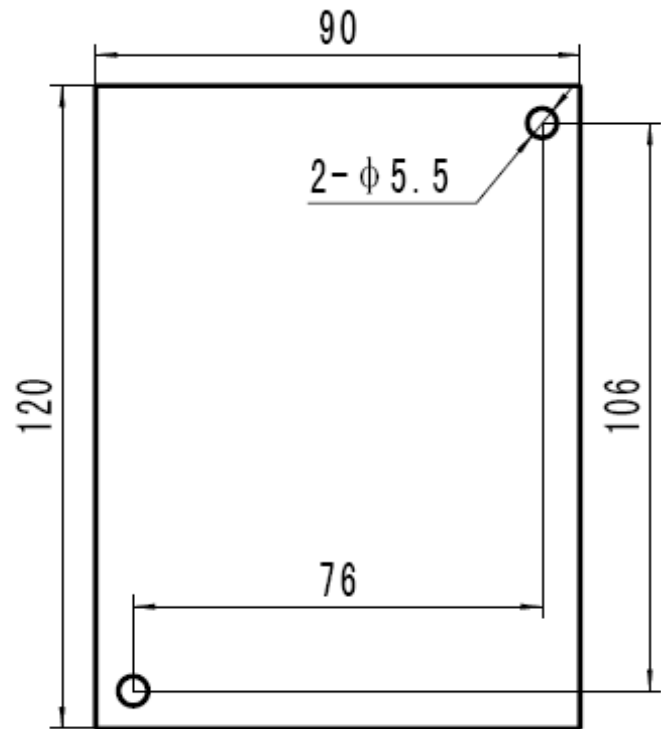


Fig4. Outside measurement of protection mould



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