Digital Motor Protection Relay
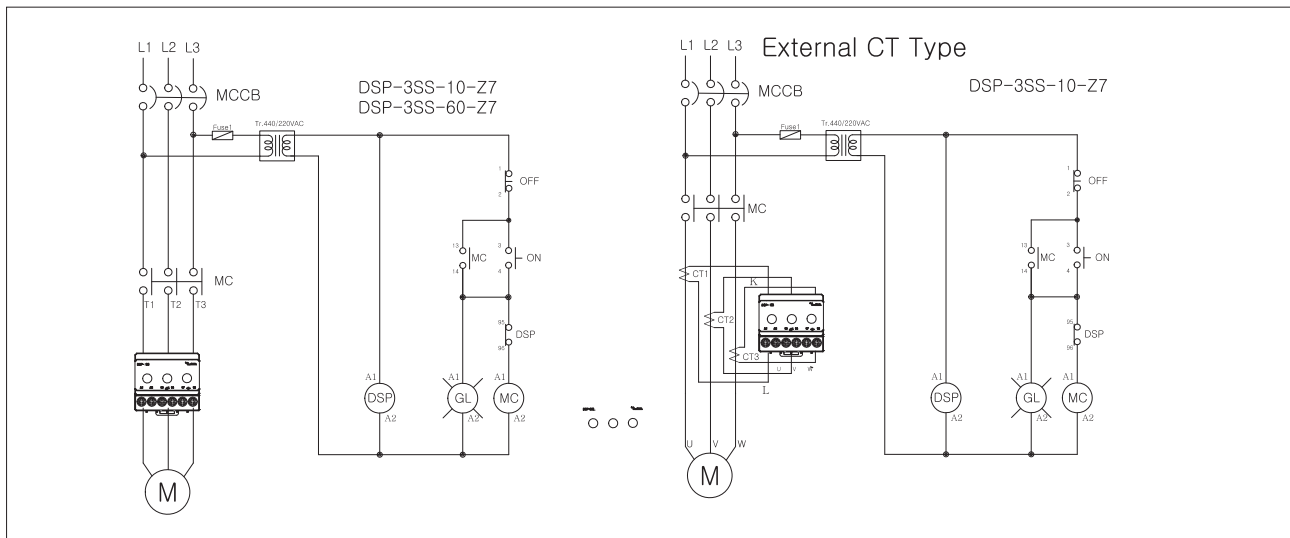
DSP-3SS

Panel Mounting Type

DSP-3SS

Main Features

■ MCU based digital control : optimized protection

■ Compact size, Practical simple application

  • Protection : Over current, Reverse phase, Phase loss, Locked rotor

  • Possible to check actual current and trip state based on LED indication

■ 3 phase load protection through 3 CT

■ To cover wide and precise current range for the protection

  • 10 Type : − Definite T−I : 0.3A~12A(0.3~6A for external CT)

          − Matched with external CT : 1~600A, secondary rating of external CT is 5A

  • 60 Type : Definite T−I : 2A~60A

■ LED Indication

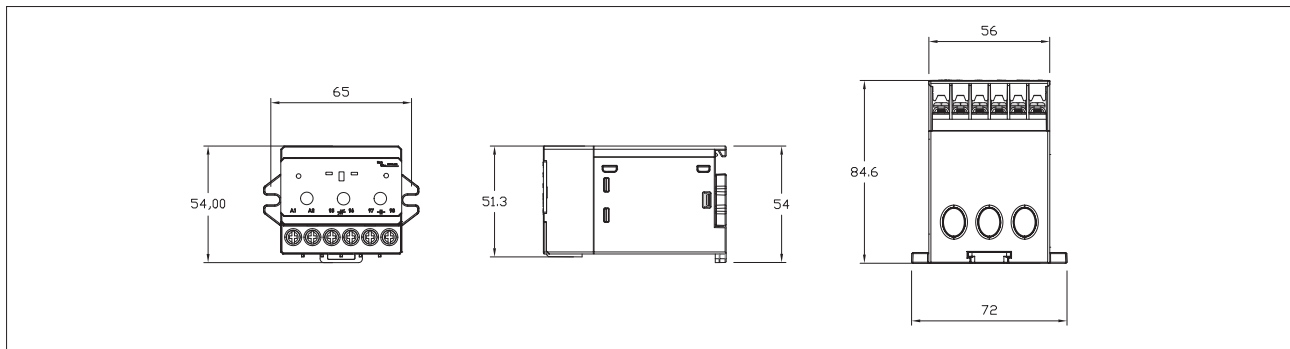| DIV		LED Indication	Description	
Control Power		POWER/RUN	Green LED is turned on	
Motor Starting State			Red LED is flickerd with 1sec interval during d−time	
Motor operation			Red LED is turned on	
Over current protection		POWER/RUN	Red LED is flickerd with 1sec interval during o−time	
		TRIP	Yellow LED is turned on	
Trip Cause Indication				
Cause		POWER(Green)/RUN(Red)		
Reverse Phase		Red LED and Green LED is turned on with 1sec interval alternatively		
Phase Loss	L1	Red LED is turned on continuously by the pattern with 1sec(on)−1sec(off)−1sec(on)		
	L2	Red LED is turned on continuously by the pattern with 1sec(on)−0.5sec(off)−0.5sec(on)		
	L3	Red LED is turned on continuously by the pattern with 1sec(on)−0.5sec(off)−0.5sec(on)−0.5sec(off)−0.5sec(on)		
Locked Rotor		Trip Yellow LED is flickered by the pattern with 1sec(on)−1sec(off)−1sec(on)		

■ Convenient functional selection by DIP SW

  • N type : trip output(95−96,97−98) is energized in case control power is loaded

  • R type : trip output(95−96,97−98) is not energized in case control power is loaded

    − trip output is not responsed for selection of DIP SW in case normal operation is processed

■ Reset after tripped

  • Manual : press "RESET" SW

  • Electrical : control power(A1−A2) off

    → possible to make remote control by power switch with remote distance

■ Self−diagnostic function : "TEST" SW

Application Sequence Diagram

Note : It is required that external auxiliary power relay shall be matched with trip output of DSP in order to meet large capacity of contactor

Dimension

Order Form

No.	Feature	Description
1	Type	DSP-3SS
2	Rating Current	10 : 0.3~12A 60 : 2~60A Combined with external 3CT C1:100/5 3CT CC:150/5 3CT C2:200/5 3CT C3:300/5 3CT C4:400/5 3CT
3	Control Power	Z7 : 24~240VAC
4	P	NIL: Standard Type P: Customized Type
e.g	DSP-3SS-10Z7	Panel Mounting Type 0.3~12A, 24~240VAC, 50/60Hz Able to use external CT
	DSP-3SS-60Z7	Panel Mounting Type 2~60A, 24~240VAC, 50/60Hz Not available for external CT

Digital Motor Protection Relay
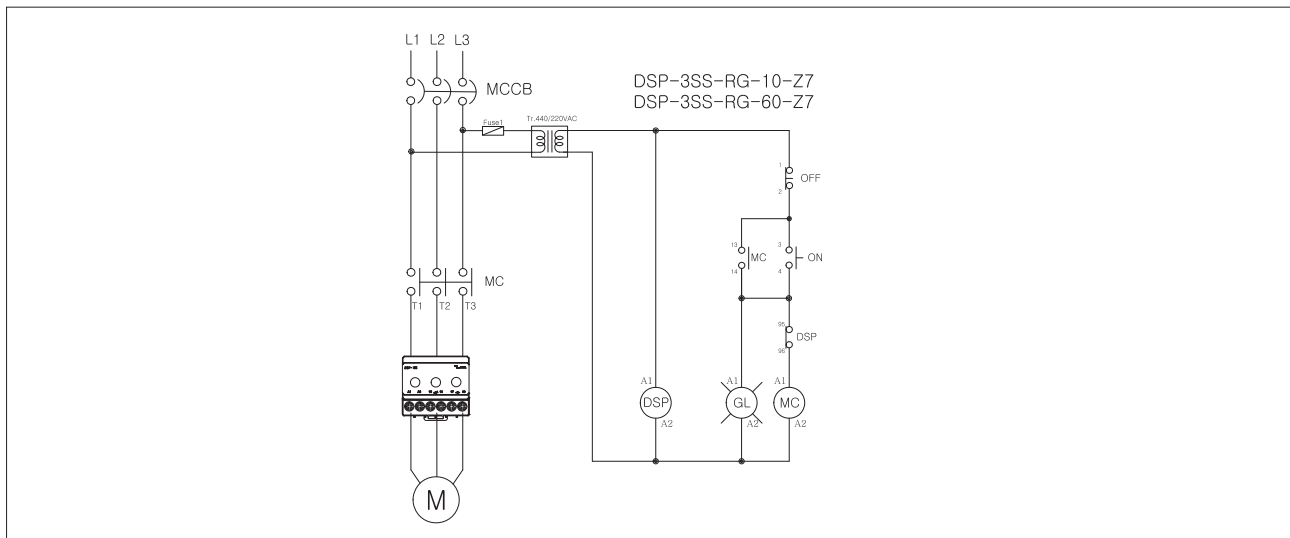
DSP-3SS-RG

Panel Mounting Type

DSP-3SS-RG

Main Features

■ MCU based digital control : optimized protection

■ Compact size, Practical simple application
- Protection : Over current, Reverse phase, Phase loss, Locked rotor, Ground fault
- Possible to check actual current and trip state based on LED indication

■ 3 phase load protection through 3 CT

■ To cover wide and precise current range for the protection
- 10 Type : − Definite T−I : 0.3A∼12A(0.3∼6A for external CT)
   − Matched with external CT :1∼600A, secondary rating of external CT is 5A
- 60 Type : Definite T−I : 2A∼60A

■ Ground fault protection based on residual current : 0.5A∼10A

■ LED Indication

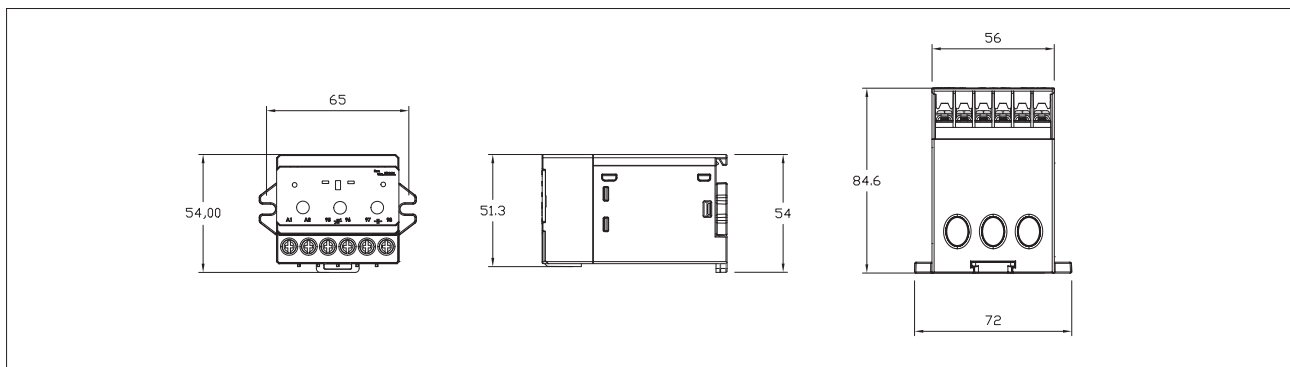| DIV		LED Indication	Description	
Control Power		POWER/RUN	Green LED is turned on	
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Motor operation			Red LED is turned on	
Over current protection		POWER/RUN	Red LED is flickerd with 1sec interval during o−time	
		TRIP	Yellow LED is turned on	
Trip Cause Indication				
Cause		POWER(Green)/RUN(Red)		
Reverse Phase		Red LED and Green LED is turned on with 1sec interval alternatively		
Phase Loss	L1	Red LED is turned on continuously by the pattern with 1sec(on)−1sec(off)−1sec(on)		
	L2	Red LED is turned on continuously by the pattern with 1sec(on)−0.5sec(off)−0.5sec(on)		
	L3	Red LED is turned on continuously by the pattern with 1sec(on)−0.5sec(off)−0.5sec(on)−0.5sec(off)−0.5sec(on)		
Locked Rotor		Trip Yellow LED is flickered by the pattern with 1sec(on)−1sec(off)−1sec(on)		

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Application Sequence Diagram

Note : It is required that external auxiliary power relay shall be matched with trip output of DSP in order to meet large capacity of contactor

Dimension

Order Form

No.	Feature	Description
1	Type	DSP−3SS−RG
2	Rating Current	10 : 0.3∼12A 60 : 2∼60A Not available for externa CT
3	Control Power	Z7 : 24∼240VAC
4	P	NIL: Standard Type P: Customized Type
e.g	DSP−3SS−RG−10Z7	Panel Mounting Type 0.3∼12A, 24∼240VAC, 50/60Hz
	DSP−3SS−RG−60Z7	Panel Mounting Type 2∼60A, 24∼240VAC, 50/60Hz