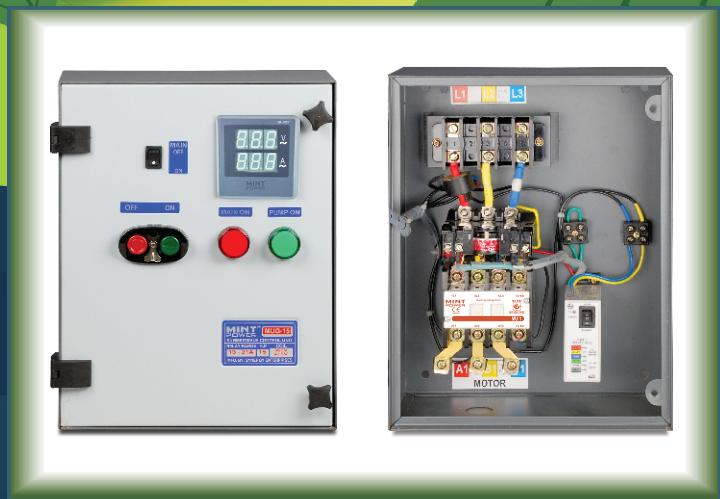


MINT[®]
POWER
ELECTRIC

MUG SERIES



MUG - 6 DOL

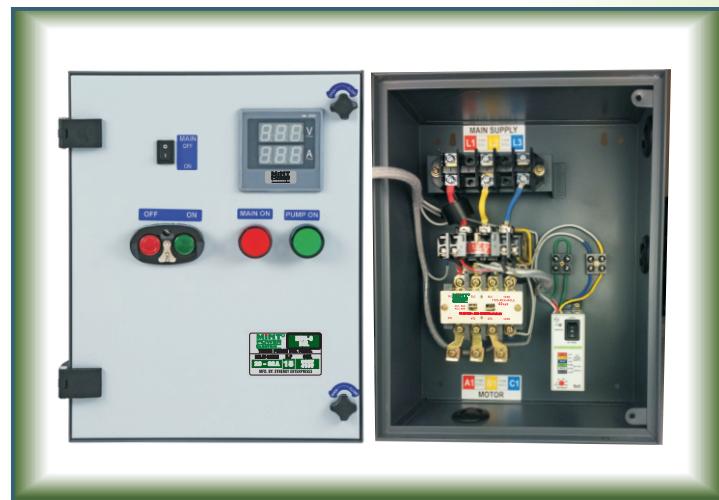


MUG - 10 DOL

**POWERING PROGRESS
WITH INNOVATION**



MUG - 6 DOL



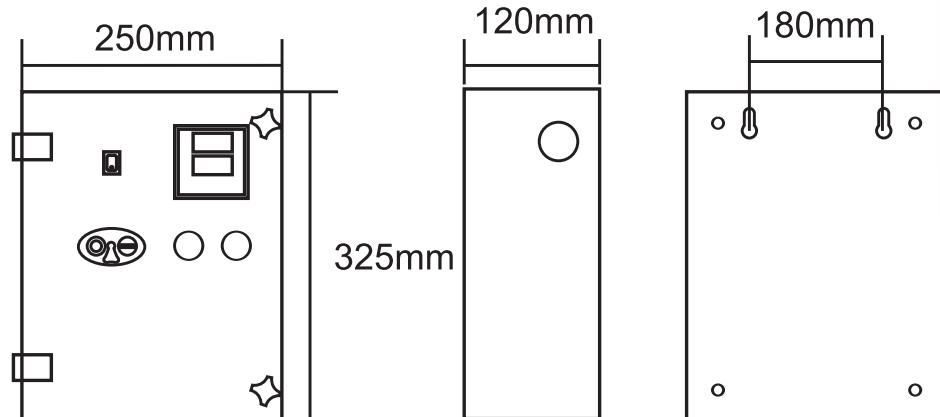
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TYPE. MUG-6 SUBMERSIBLE PUMP CONTROLLER CONTROL UNIT WITH VOLT-AMPERE METER AND SPP.

CAT.NO.	Maximum Submersible Pump Rating at 3Ø, 415V, 50Hz	Relay Max. Range (A)	Contactor Type-MCH-4P	Coil Voltage 50Hz	Std. Pkg. Nos.
MUG-6	3HP	4-6.5A	20A	415V	4Pcs
	5HP	6-10A	20A	415V	4Pcs
	6HP/7.5HP	9-14A	20A	415V	4Pcs
	10HP	13-21A	20A	415V	4Pcs
	12.5HP	20-32A	25A	415V	4Pcs
	15HP	20-32A	32A	415V	4Pcs
	15HP(H)	20-32A	40A	415V	4Pcs

Features

- Protection from Overload Conditions
- Protection from Single Phasing
- Protection from Phase Reversal
- Protection from Phase Unbalance
- Auto Restart (with variable 30 Sec - 5 Min ON delay)
- Power ON & Pump ON indication
- Dual Voltmeter & Ammeter
- Easy replacement of Spares



MU - G6 DOL	
Rating	Up to 6HP, 415V, 3Ø
Contactor/AC3/AC1	MCH-3H 20A,16A / 25A
Contactor Electrical Life - AC3	1 Million
Mechanical Life	10 Million
Coil Voltage	415V-N(220V-460V) Wide band
Overload Relay	MK1
Relay Range	4 - 6.5A, 6 - 10A and 9 - 14A
Relay Type	Thermal Bimetallic Relay
Relay Trip Class	Class 10A
Pick-up Voltage	60% to 110% of Uc
Drop-off Voltage	20% to 50% of Uc
Measurement Offered	Ammeter (0-60A) Voltmeter (0-500 V)
Additional Protection Offered	Single Phasing, Phase Reversal, Phase unbalance (55 ± 5 V)
Protection Device (electronic)	SPPR type Sz5
Indicating Lamps	Supply ON Pump ON
Indicating Lamp Type	LED (415 V)
Rated Insulation Voltage	690 V
Rated Operational Voltage	360 V
Rated Impulse Withstand Voltage	8 kV
HV withstand capacity (for 60 Sec)	2 kV
Service Temperature	-5°C to 55°C
Terminal Capacity (Terminal Blocks)	10 sq.mm. with Lug
No.of full start	30 operations per Hour
Back-up Protection	Type 2 with HF fuses
Power Wiring	2.5 sq.mm
Control Wiring	1 sq.mm.
Degree of Protection	IP54 (Suitable for Humid Dusty and Hot Environment)
Copper Contacts Material	ETP Grade Copper 99.9% Pure
Hardware Plating	Zinc plated hardware with better corrosion resistance
Impact Capacity	IK6
Provision to connect Dry-run protection unit	Yes
Remote Operation	Possible using Mobile through externally connected M-POWER+ GSM Module



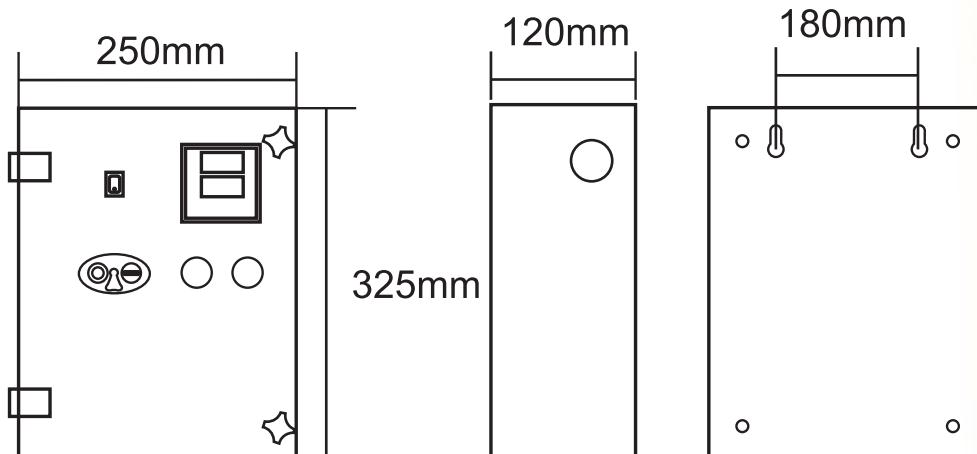
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TYPE. MUG-10 SUBMERSIBLE PUMP CONTROLLER CONTROL UNIT WITH VOLT-AMPERE METER AND SPP.

CAT.NO.	Maximum Submersible Pump Rating at 3Ø,415V,50Hz	Relay Max. Range (A)	KW	Cont. Type	Coil Voltage 50Hz	Std. Pkg. Nos.
MUG-10	3HP	4 - 6.5 A	2.2	MU1	415V	4Pcs
	5HP	6 - 10 A	3.7	MU1	415V	4Pcs
	6HP/7.5HP	9 - 14 A	5.5	MU1	415V	4Pcs
	10HP	13-21A	7.5	MU1	415V	4Pcs
	10HP(H)	13-21A	7.5	MU2	415V	4Pcs
	15HP	20-32A	11	MU2	415V	4Pcs
	15HP(H)	20-32A	11	MU3	415V	4Pcs
	20HP	28-42A	15	MU4	415V	4Pcs

Features

- Protection from Overload Conditions
- Protection from Single Phasing
- Protection from Phase Reversal
- Protection from Phase Unbalance
- Easy replacement of Spares
- Wide band coil operates from 50% to 110% of rated coil voltage
- Auto Restart (with variable 30 Sec - 5 Min ON delay)
- Power ON & Pump ON indication
- Dual Voltmeter & Ammeter



MUG - 10 DOL

	MU - G10	MU - G10H
Rating	3HP to 10HP, 415V, 3Ø	10HP(H) to 15HP, 15HP(H),20HP
Contactor/AC3/AC1	MU1/16A/55A	MU2/25A/63A,MU3/32A/63A,MU4/40A/70A
Contactor Electrical Life - AC3	1 Million operations	1 Million operations
Mechanical Life	10 Million operations	10 Million operations
Coil Voltage	415 V, 360 V	415 V, 360 V
Overload Relay	TYPE-MU	TYPE-MU
Relay Range	4-6.5A, 6-10A, 9-14A and 13-21A	13 - 21A, 20 - 32A and 28 - 42A
Relay Type	Thermal Bimetallic Relay	Thermal Bimetallic Relay
Relay Trip Class	Class 10A	Class 10A
Pick-up Voltage	50% to 110% of Uc	50% to 110% of Uc
Drop-off Voltage	25% to 35% of Uc	25% to 35% of Uc
Measurement Offered	Ammeter (0-60A) Voltmeter (0-500 V)	Ammeter (0-60A) Voltmeter (0-500 V)
Additional Protection Offered	Single Phasing, Phase Reversal, Phase unbalance (55 ± 5 V)	Single Phasing, Phase Reversal, Phase unbalance (55 ± 5 V)
Protection Device (electronic)	SPPR type Sz5	SPPR type Sz5
Indicating Lamps	Supply ON Pump ON	Supply ON Pump ON
Indicating Lamp Type	LED (415 V)	LED (415 V)
Rated Insulation Voltage	690 V	690 V
Rated Operational Voltage	360 V	415 V
Rated Impulse Withstand Voltage	8 kV	8 kV
HV withstand capacity (for 60 Sec)	2 kV	2 kV
Service Temperature	-5°C to 55°C	-5°C to 55°C
Terminal Capacity (Terminal Blocks)	16 sq.mm. with Lug	16 sq.mm. with Lug
No.of full start	30 operations per Hour	30 operations per Hour
Back-up Protection	Type 2 with HF fuses	Type 2 with HF fuses
Power Wiring	4 sq.mm.	10 sq.mm.
Control Wiring	1 sq.mm.	1 sq.mm.
Degree of Protection	IP54 (Suitable for Humid Dusty and Hot Environment)	IP54 (Suitable for Humid Dusty and Hot Environment)
Copper Contacts Material	ETP Grade Copper 99.9% Pure	ETP Grade Copper 99.9% Pure
Hardware confirms to	Salt-spray test (144 hrs.)	Salt-spray test (144 hrs.)
Hardware Plating	Zinc plated hardware with better corrosion resistance	Zinc plated hardware with better corrosion resistance
Impact Test	IK6	IK6
Provision to connect dry run protection unit	Yes	Yes
Remote Operation	Possible using Mobile through externally connected M-POWER+ GSM Module	Possible using Mobile through externally connected M-POWER+ GSM Module

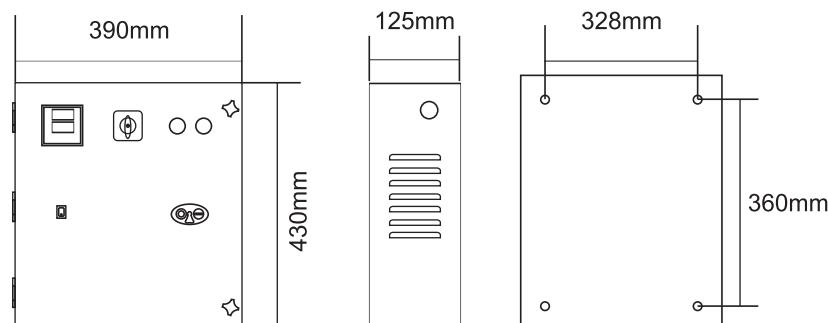


Type-MUG-20 SPP Fully Automatic Star Delta Submersible Control Unit with Volt-Ampere Meter, Timer and SPP.

CAT.NO.	Maximum Submersible Pump Rating at 3Ø,415V,50Hz	Relay Max. Range (A)	KW	Coil Voltage 50Hz/60Hz	Std. Pkg. Nos.
MUG-15 SPP	15HP	13-21	11	360V/415V	1Pcs
MUG-20 SPP	20HP	13-21	15	360V/415V	1Pcs
MUG-20H SPP	20HP(H)	20-32	15	360V/415V	1Pcs
MUG-25 SPP	25HP	20-32	18.5	360V/415V	1Pcs

Features

- Protection from Overload Conditions
- Protection from Single Phasing
- Protection from Phase Reversal
- Protection from Phase Unbalance
- Wide band coil operates from 50% to 110% of rated coil voltage
- Selector switch to view voltage of three phases
- Auto Restart (with variable 30 Sec - 5 Min ON delay)
- Power ON & Pump ON indication
- Dual Voltmeter & Ammeter
- Easy replacement of Spares



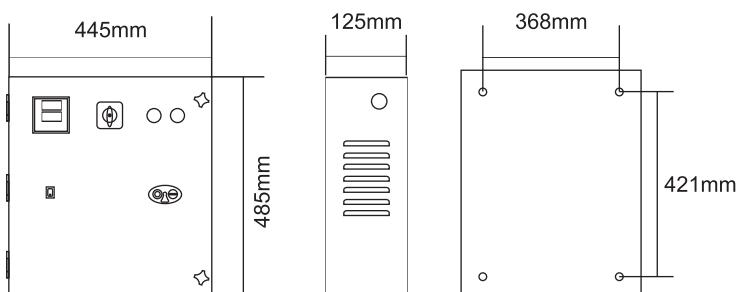


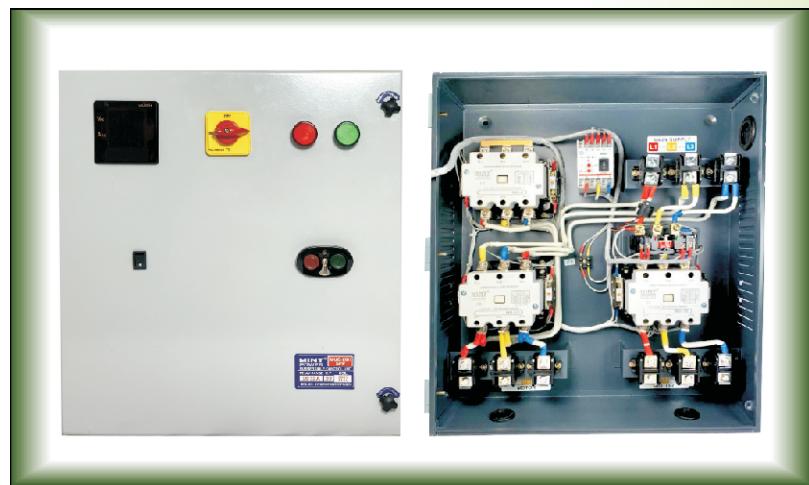
Type-MUG-30 SPP Fully Automatic Star Delta Submersible Control Unit with Volt-Ampere Meter, Timer and SPP.

CAT.NO.	Maximum Submersible Pump Rating at 3Ø,415V,50Hz	Relay Max. Range (A)	KW	Coil Voltage 50Hz/60Hz	Std. Pkg. Nos.
MUG-30 SPP	30HP	20-32A	22.5	360V/415V	1Pcs
MUG-40 SPP	40HP	28-42A	30	360V/415V	1Pcs

Features

- Protection from Overload Conditions
- Protection from Single Phasing
- Protection from Phase Reversal
- Protection from Phase Unbalance
- Wide band coil operates from 50% to 110% of rated coil voltage
- Selector switch to view voltage of three phases
- Auto Restart (with variable 30 Sec - 5 Min ON delay)
- Power ON & Pump ON indication
- Dual Voltmeter & Ammeter
- Easy replacement of Spares



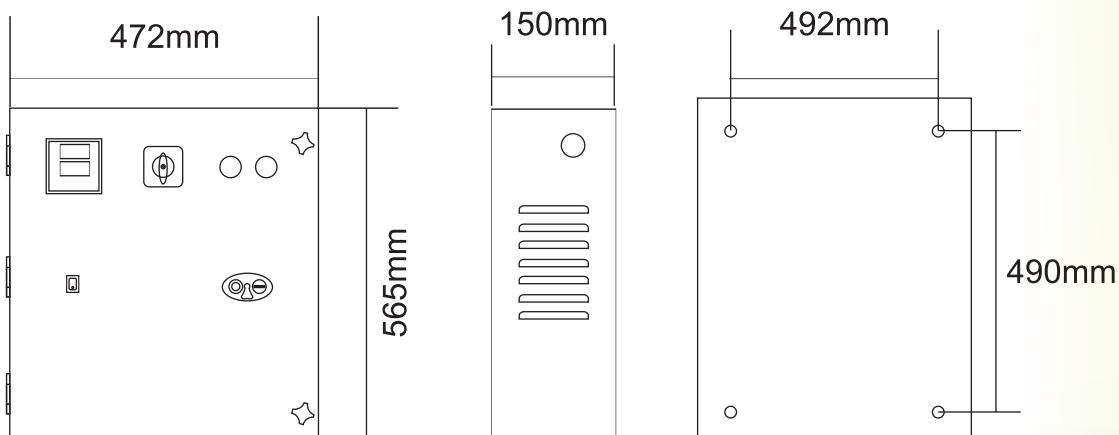


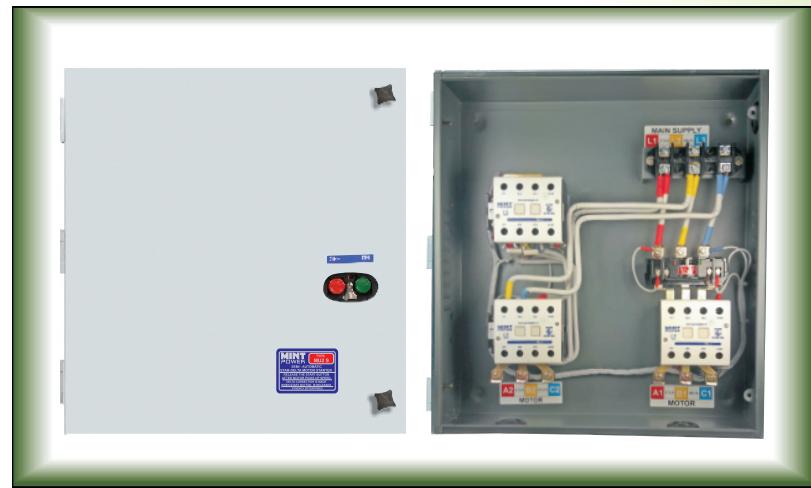
Type-MUG-50 SPP Fully Automatic Star Delta Submersible Control Unit with Volt-Ampere Meter, Timer and SPP.

CAT.NO.	Maximum Submersible Pump Rating at 30,415V,50Hz	Relay Max. Range (A)	KW	Coil Voltage 50Hz/60Hz	Std. Pkg. Nos.	Price Per Unit
MUG-50 SPP	50HP	40 - 63	37	360V/415V	1Pcs	21525.00
MUG-50H SPP	50HP(H)	40 - 63	37	360V/415V	1Pcs	23120.00
MUG-60 SPP	60HP	45 - 75	45	360V/415V	1Pcs	23560.00
MUG-60H SPP	60HP(H)	45 - 75	45	360V/415V	1Pcs	25161.00
MUG-80 SPP	80HP	60 - 90	60	360V/415V	1Pcs	30508.00

Features

- Protection from Overload Conditions
- Protection from Single Phasing
- Protection from Phase Reversal
- Protection from Phase Unbalance
- Wide band coil operates from 50% to 110% of rated coil voltage
- Selector switch to view voltage of three phases
- Auto Restart (with variable 30 Sec - 5 Min ON delay)
- Power ON & Pump ON indication
- Dual Voltmeter & Ammeter
- Easy replacement of Spares



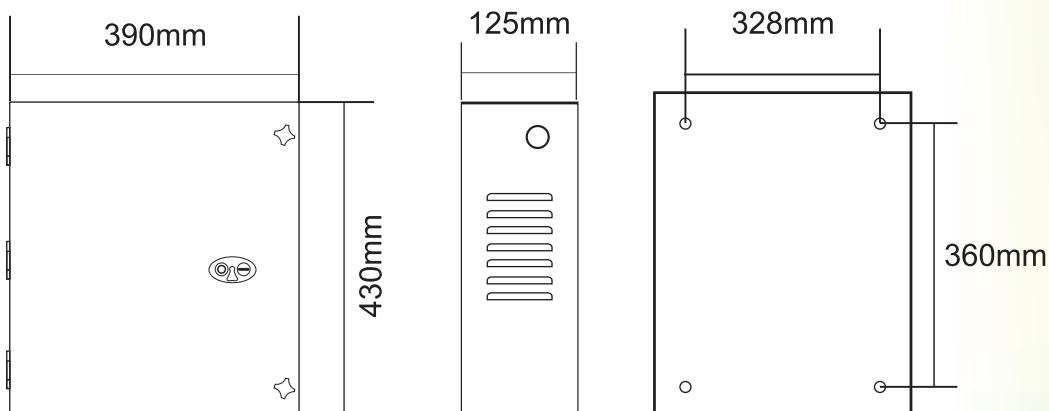


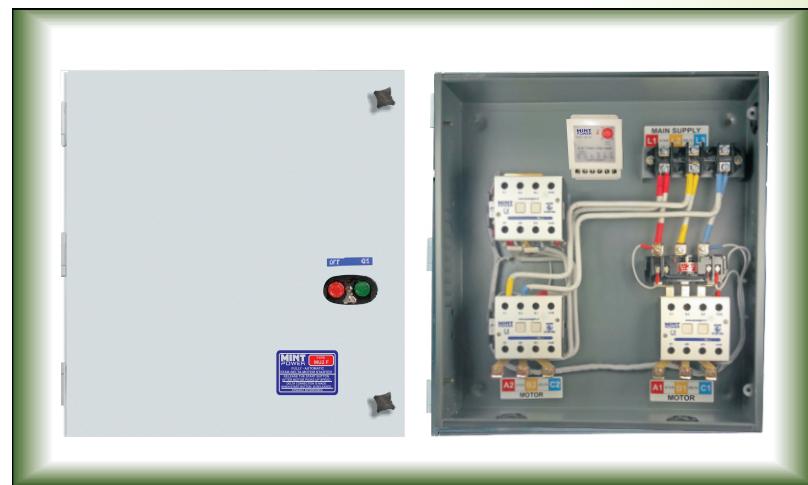
Type.MU-SASD Semi-Automatic Star-Delta Starters

CAT.NO.	Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Coil Voltage 50Hz/60Hz	Std. Pkg. Nos.
	HP	KW			
MU1 SASD 15	15 HP	11	13 - 21	360V/415V	1Pcs
MU2 SASD 20	20 HP	15	13 - 21	360V/415V	1Pcs
MU2 SASD 20(H)	20 HP(H)	15	20 - 32	360V/415V	1Pcs
MU3 SASD 25	25 HP	18.5	20 - 32	360V/415V	1Pcs
MU3 SASD 30	30 HP	22.5	20 - 32	360V/415V	1Pcs
MU4 SASD 40	40 HP	30	28 - 42	360V/415V	1Pcs

Features

- Enclosure is dust, moisture and vermin proof with cord packing in the cover
- Latch to prevent accidental starting
- Tested for millions of operations without failure
- Robust silver tipped contacts
- Reliable protection against overload



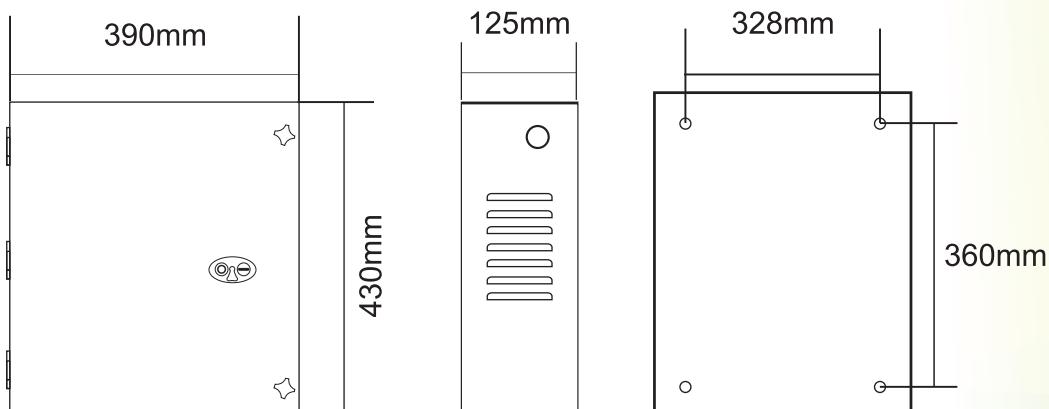


Type.MU-FASD Fully-Automatic Star-Delta Starters

CAT.NO.	Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Coil Voltage 50Hz/60Hz	Std. Pkg. Nos.
	HP	KW			
MU1 FASD 15	15 HP	11	13 - 21	360V/415V	1Pcs
MU2 FASD 20	20 HP	15	13 - 21	360V/415V	1Pcs
MU2 FASD 20(H)	20 HP(H)	15	20 - 32	360V/415V	1Pcs
MU3 FASD 25	25 HP	18.5	20 - 32	360V/415V	1Pcs
MU3 FASD 30	30 HP	22.5	20 - 32	360V/415V	1Pcs
MU4 FASD 40	40 HP	30	28 - 42	360V/415V	1Pcs

Features

- Enclosure is dust, moisture and vermin proof with cord packing in the cover
- Latch to prevent accidental starting
- Tested for millions of operations without failure
- Robust silver tipped contacts
- Reliable protection against overload





Synergy Enterprises

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