



JSL INDUSTRIES LTD

# “Jyoti” OIL IMMERSED DIRECT ON-LINE STARTERS

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**JSL INDUSTRIES LTD**

For Cool and Continuous Duty Operation

# 'Jyoti' Oil Immersed Direct On-Line Starters



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## 'JYOTI' OIL-IMMERSED DIRECT ON-LINE STARTERS

UPTO 90 kW/125 HP AT 415V.  
COMPLYING WITH IS: 13947-1993.

U3XT-Upto 11 kW/15 HP 415 V.  
G3P3T - Upto 30 kW/40 HP 415 V.  
G3P1T - Upto 90 kW/125 HP 415 V.

'Jyoti' Oil-Immersed Contactor Starters enjoy wide market acceptance and continue to grow in demand because of the following advantages :

- Provide life time assurance
- Ensure fail safe working in corrosive, Dusty, fluffy, shaggy, moist and powdery atmosphere
- Use of oil as interrupting medium results in cool operation.
- Continuous lubrication results in less wear.

Direct On-Line Starters consist of contactor insert assembled with suitable range of Thermal Overload Relay. This assembly is mounted on cast iron frame which provides rigid support. The contacts and magnet system are immersed in oil for continuous duty operation. The starters are dust and vermin proof. Adequate seals are provided at joints between cover, frame

and oil tank. Oil tank can be taken down for inspection of contacts and magnet system.

### STANDARD FEATURES :

- Push-button operation of starters upto 15 HP and control switch operation for starters above 15 HP.
- Operation range : -20% to + 15% of rated coil voltage.
- Suitable for intermittent duty Class 30.
- Under-voltage protection below 40% of rated voltage.
- Adequate space and terminal sizes for terminations of recommended cables of either copper or aluminium.
- Easy to install and maintain.
- Enamel paints for weather resistance.
- Starter enclosure classified under IP-52.

### OPTIONAL FEATURES:

- Manual-reset arrangement for Thermal Over-load Relay.
- Provision for remote control arrangement.

### PROTECTION :

Thermal Over-load Relays of suitable range protect motors from over loads. The relay knob should be set nearer to full load motor current for satisfactory protection.

Recommended delayed action cartridge fuses should be connected in line circuit prior to starter, for short circuit protection i.e.for current peaks more than 8 times full load current.

### OIL REQUIREMENT :

Starter Type	Quantity in litre
U3XT	1.00
G3P3T	2.50
G3P1T	4.00

(Transformer grade mineral oil)

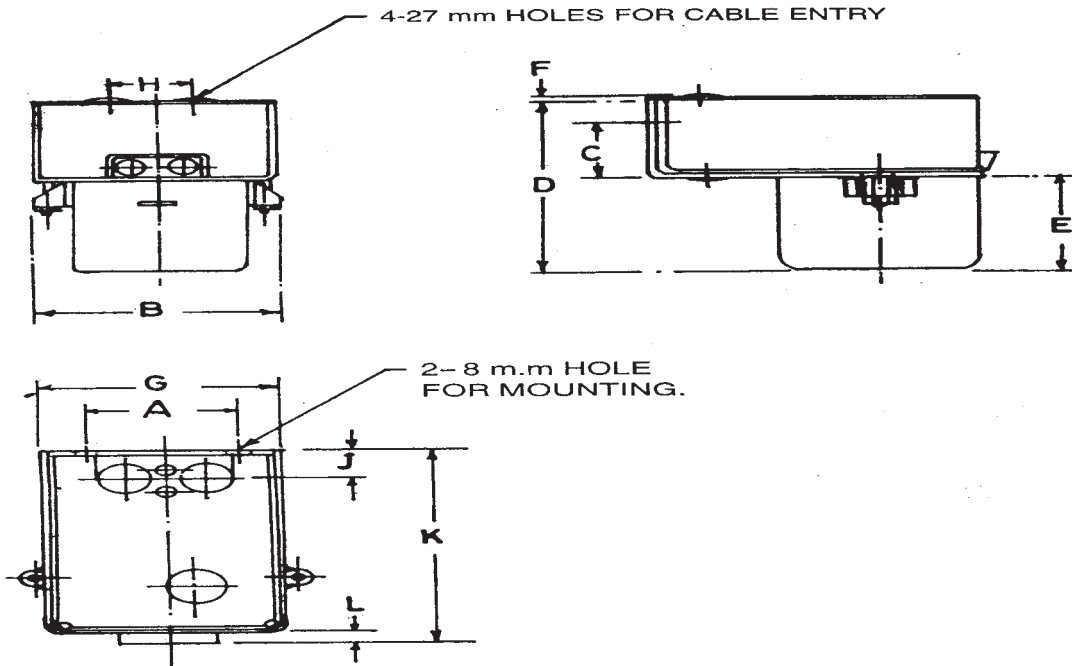
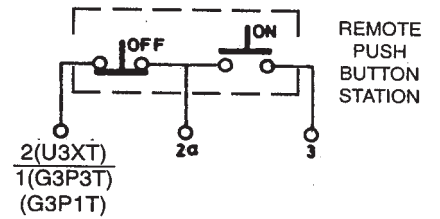
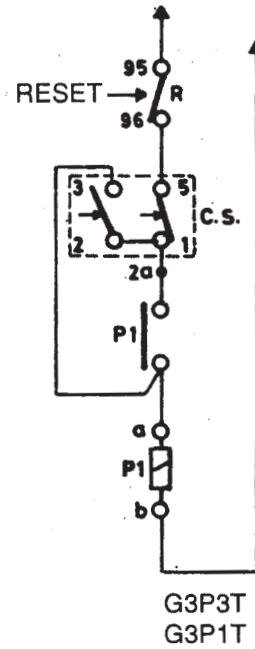
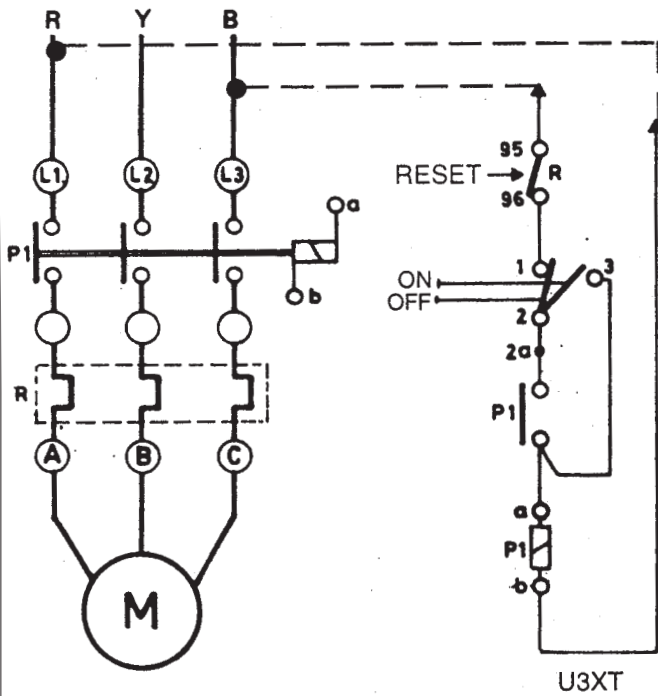
## SELECTION TABLE : OIL-IMMERSED DIRECT ON-LINE STARTERS

Type	Rating ( kW / HP)	Full - Load Current In Amps.	Relay Range In Amps.	Recommended Cable Size in mm <sup>2</sup>		Recommended Delayed Action Fuse
				Aluminium	Copper	
U3XT-5	0.75/1	2	1.2-2	1.5	1.5	6
U3XT-5	1.5/2	3.5	2.4-4	1.5	1.5	10
U3XT-5	2.2/3	5	3.6-6	2.5	1.5	10
U3XT-5	3.7/5	7.5	6-10	2.5	1.5	16
U3XT-10	5.5/7.5	11	9-15	2.5	1.5	20
U3XT-10	7.5/10	14	12-20	4	2.5	25
U3XT-15	9.3/12.5	17	15-25	4	2.5	25
U3XT-15	11/15	21	15-25	6	4	35
G3P3T-25	12.5/17.5	24	18-30	10	6	35
G3P3T-25	15/20	28	18-30	10	6	50
G3P3T-25	8.5/25	34	24-40	16	10	63
G3P3T-40	22/30	39	36-60 *	16	10	63
G3P3T-40	30/40	55	36-60 *	25	16	100
G3P1T-75	37.5/50	66	48-80 *	35	25	100
G3P1T-75	45/60	80	60-100	50	35	125
G3P1T-75	55/75	99	90-150	70	35	160
G3P1T-100	75/100	135	90-150	95	50	200
G3P1T-125	90/125	165	120-200	150	70	250

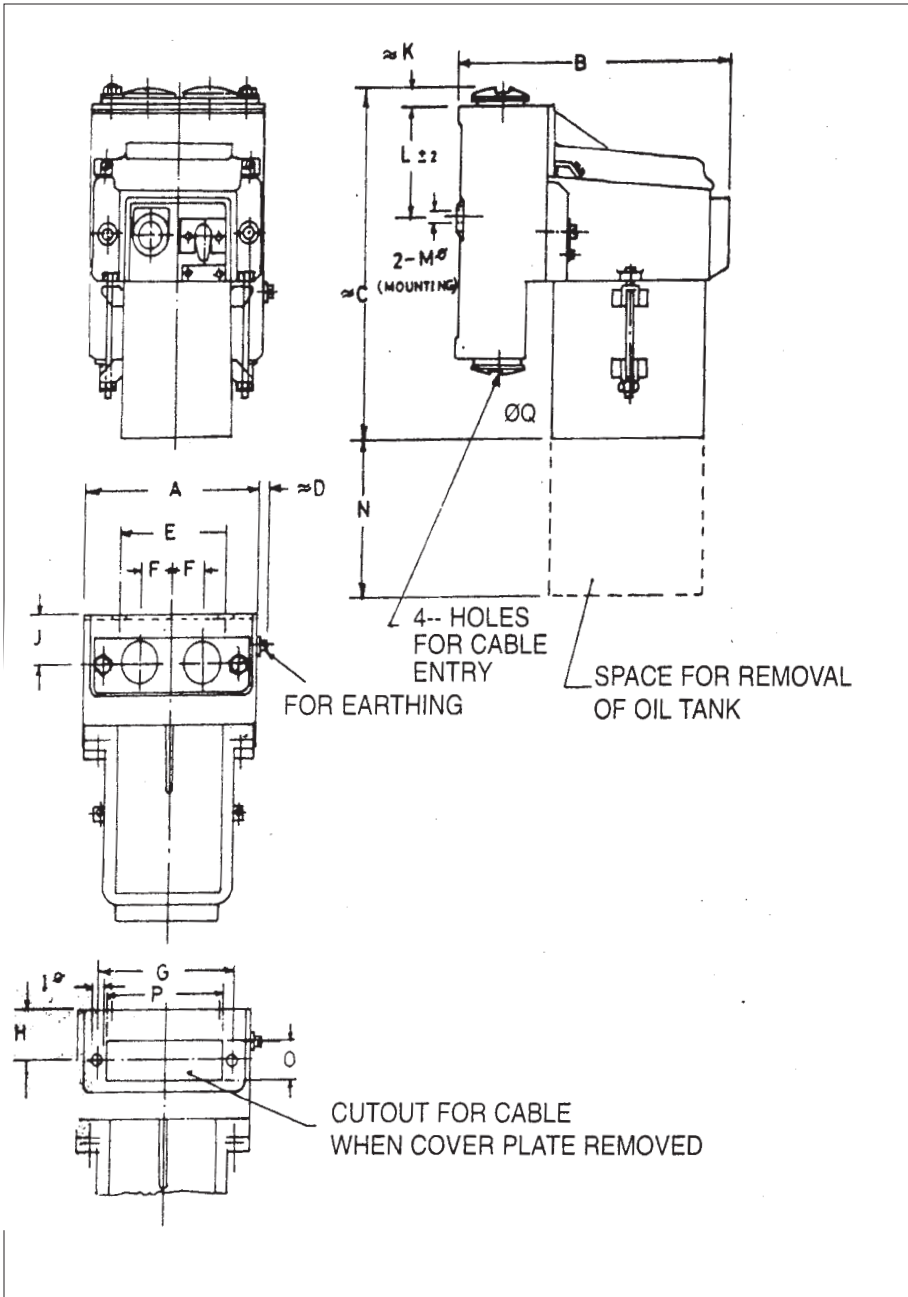
\* Manual Reset only.

**Note :**

1. Connect 95 ( R ) & b (P1) to the supply voltage as shown by dotted lines if the coil voltage is the same as supply voltage.
2. For remote control by separate push button station :  
Remove the connection between 2 & 2a (U3XT) or 1 & 2a for (G3P3T, G3P1T) and connect remote push button station as below.



TYPE	HP	DIMENSIONS IN mm.										
		A	B	C	D	E	F	G	H	I	J	K
U3XT-10	Upto 10	70	153	55	201	107	5	131	50	53	209	12
U3XT-15	Upto 15	90	153	70	201	107	3	150	50	33	222	12



**ORDERING CODE :**

Type of starter should be suffixed as follows to complete specifications.

- TYPE**
- Specify as per Selection Table
  - Specify maximum Relay Range.
  - Specify Coil Voltage Code
    - A - 110 V AC Coil
    - B - 230 V AC Coil
    - C - 380 V AC Coil
    - D - 415 V AC Coil
  - No Code Standard Auto-Reset relay
  - M-Manual Reset Relay
  - No Code-Standard Local Control
  - R-Remote Control facility.

For Illustration :  
Ordering Code : U3XT-5-10-D-R

Indicates : • D.O.L. Starter of 3.7 kW / 5 HP with Relay range 6-10 AMP having Coil Voltage, 415 Volts A.C. 50 Hz with Remote Control facility.

TYPE	HP		DIMENSIONS IN mm.																
	FROM	TO	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
G3P3T	17.5	40	193	310	348	7	120	35	155	50	11.2	50	12	112	14	160	40	135	42
G3P1T	50	125	312	444	400	..	280	60	225	100	11.2	75	17	180	11	200	100	200	48