



**JSL INDUSTRIES LTD.**

## Oil-Immersed Starters



For Cool and  
Continuous Duty operation



ISO 9001 : 2015

Now  
with **RUST PROOF**  
Enclosure

## OIL IMMERSSED STARTERS COMPLIES WITH IS / IEC 60947-4-1 : 2012

### DOL STARTERS

U3XT Upto 15 kW / 20 HP, 415V  
G3P3TS Upto 30 kW / 40 HP, 415V  
G3P1TS Upto 90 kW / 125 HP, 415 V

### STAR-DELTA STARTERS

U3DNZT Upto 37 kW / 50 HP, 415V  
P3DA Upto 45 kW / 60 HP, 415V  
P1DA Upto 150kW / 200 HP, 415V

'JSL' 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, powdery atmosphere.
- Use of oil media results in cool operation.
- Continuous lubrication results in less wear and tear.

### STANDARD FEATURES :

- Enclosures made from Engineering Plastic / Sheet Steel with Powder Coated for better corrosion resistance.
- Push button / control switch operation for ON-OFF
- Operation range - 20% to +15% of rated coil voltage
- Suitable for intermittent duty / uninterrupted duty
- Under voltage protection below 40% of rated voltage
- Adequate space and staggered termination for conductor of either copper or Aluminum
- Top / Side or bottom entry for external connections
- Easy to install and maintain
- Starter enclosure classified under IP-52
- For star delta starters - starting time in star condition adjustable between 3 secs to 12 secs.

### OPTIONAL FEATURES :

- Manual reset arrangement for thermal overload relay.
- Provision for remote control arrangement.
- For star delta starters - starting time in star condition adjustable between 5 secs to 20 secs.

### CONSTRUCTION :

The starter consists of contactor inserts (1 no for DOL starter and 3 nos for star-delta starters) assembled with suitable range thermal overload relay. The contacts and magnet system of contactor inserts are immersed in oil tank. 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.

For star-delta starter : The thermal changeover timer provided is pre-set for desired changeover operation. The timing can be adjusted between 3 to 12 seconds.

### PROTECTION :

Thermal overload relay of suitable range protects motor from overload. For DOL starters relay is to be set nearer to full load current. For star-delta starter as the relay is provided in phase circuit, it is to be set near to 0.58 times full load current. Delayed action back-up HRC fuses are recommended in selection table for short circuit protection. i.e. for current peaks more than 6 times full load current.

### SELECTION TABLE FOR OIL IMMERSSED DIRECT ON LINE STARTERS

TYPE	RATING, KW/HP	CURRENT AT 415 V, AMP	RELAY RANGE, AMP	RECOMMENDED BACK-UP HRC FUSE RATING, AMP	QUANTITY OF OIL REQUIRED, Approx. Ltr
U3XT-5	0.75 / 1	2	1.2 - 2	6	1.0
U3XT-5	1.5 / 2	3.5	2.4 - 4	10	1.0
U3XT-5	2.2 / 3	5	3.6 - 6.0	10	1.0
U3XT-5	3.7 / 5	7.5	6.0 - 10.0	16	1.0
U3XT-10	5.5 / 7.5	11	9.0 - 15.0	20	1.0
U3XT-10	7.5 / 10	14	12.0 - 20.0	25	1.0
U3XT-15	9.3 / 12.5	17	15.0 - 25.0	25	1.0
U3XT-15	11 / 15	21	15.0 - 25.0	35	1.0
U3XT-20	15 / 20	28	18.0 - 30.0	50	1.0
G3P3TS - 25	12.5 / 17.5	24	18.0 - 30.0	35	2.5
G3P3TS - 25	15 / 20	28	18.0 - 30.0	50	2.5
G3P3TS - 25	18.5 / 25	34	24 - 40* / 30 - 46	63	2.5
G3P3TS - 40	22 / 30	39	36 - 60* / 40 - 60	63	2.5
G3P3TS - 40	30 / 40	55	48 - 80*	100	2.5
G3P1TS - 75	37.5 / 50	66	48 - 80*	100	4.0
G3P1TS - 75	45 / 60	80	60 - 100	125	4.0
G3P1TS - 75	55 / 75	99	90 - 150	160	4.0
G3P1TS - 100	75 / 100	135	90 - 150	200	4.0
G3P1TS - 125	90 / 125	165	120 - 200	250	4.0

\* Only manual reset is available

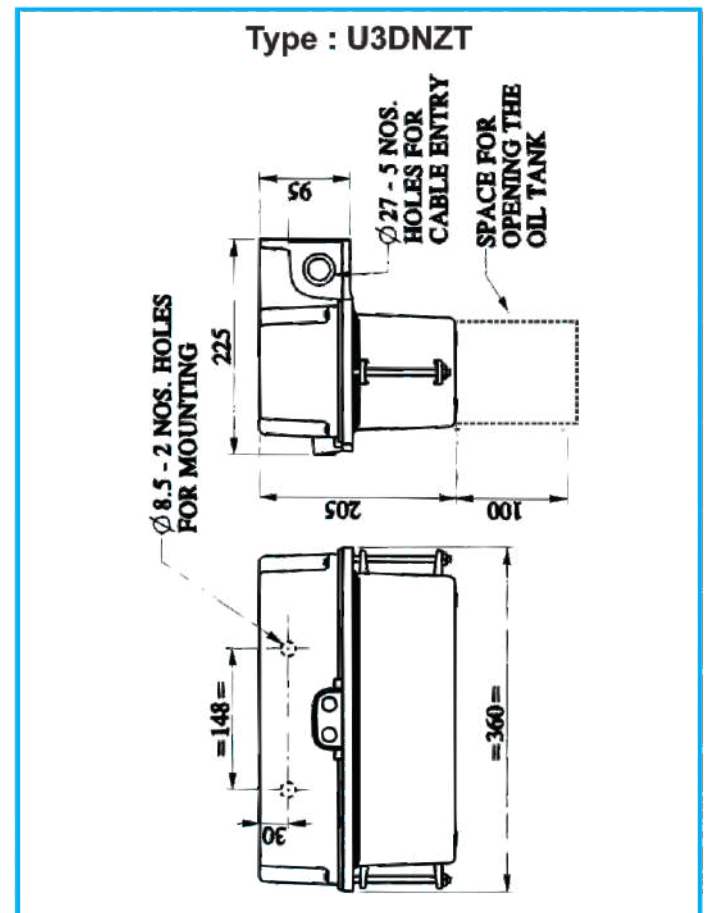
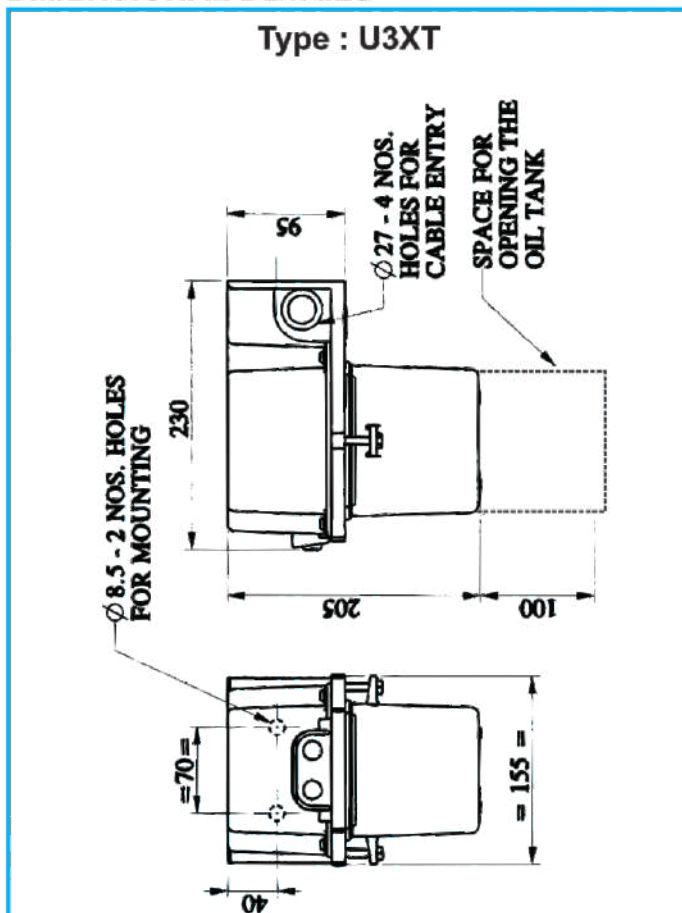


## SELECTION TABLE FOR FULLY AUTOMATIC OIL IMMERSED STAR DELTA STARTERS

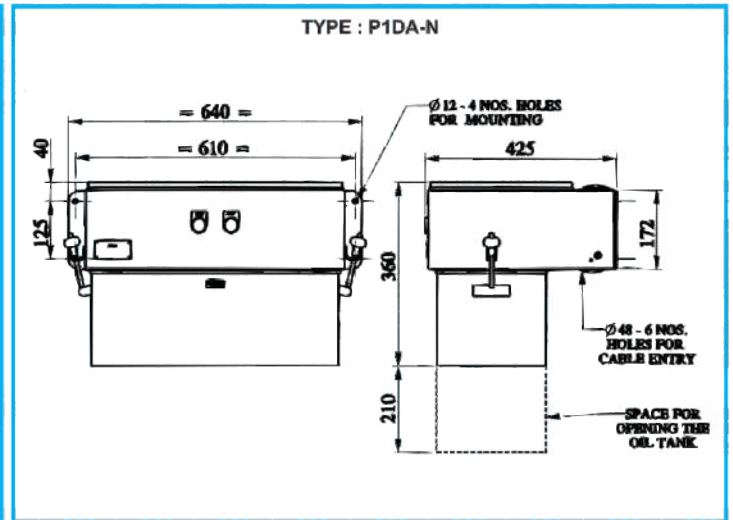
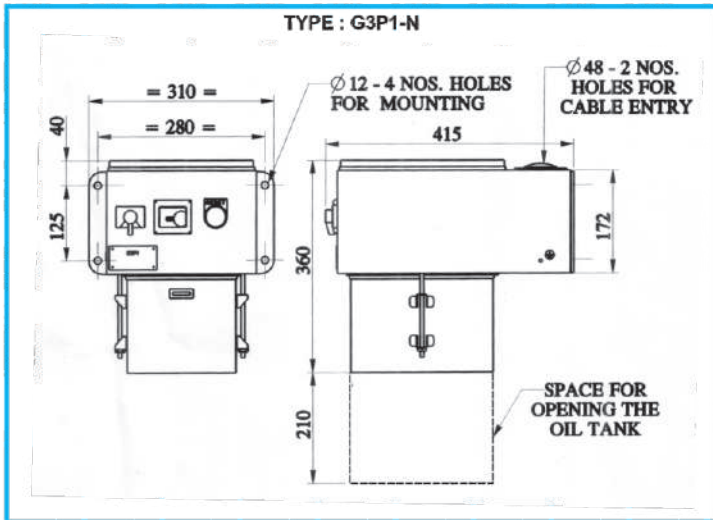
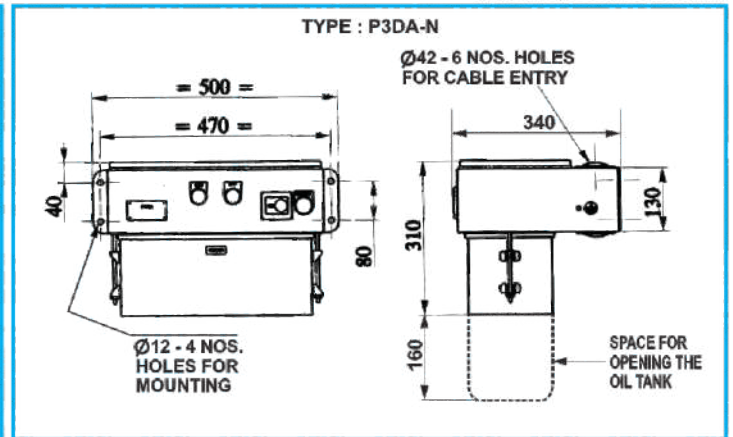
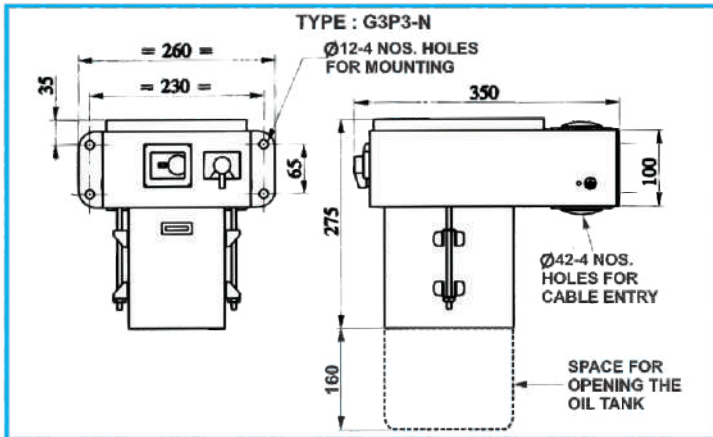
TYPE	RATING, KW/HHP	CURRENT AT 415 V, AMP	RELAY RANGE, AMP	RECOMMENDED BACK-UP HRC FUSE RATING, AMP	QUANTITY OF OIL REQUIRED, Ltr
U3DNZT-10	3.7 / 5	7.5	3.6 - 6.0	16	3
U3DNZT-10	5.5 / 7.5	11	6.0 - 10	20	3
U3DNZT-10	7.5 / 10	14	6.0 - 10	25	3
U3DNZT-15	11 / 15	21	12 - 20	35	3
U3DNZT-20	15 / 20	28	12 - 20	35	3
U3DNZT-25	18.5 / 25	34	15 - 25	50	3
U3DNZT-30	22 / 30	39	18 - 30	63	3
U3DNZT-35	26 / 35	48	24 - 40	63	3
U3DNZT-40	30 / 40	55	30 - 46	63	3
U3DNZT-50	37 / 50	66	40 - 60	80	3
P3DA-30	15 / 20	28	12 - 20	35	8.5
P3DA-30	18.5 / 25	34	15 - 25	50	8.5
P3DA-30	22 / 30	39	18 - 30	50	8.5
P3DA-40	30 / 40	55	24 - 40 / 30 - 46	63	8.5
P3DA-50	37 / 50	66	24 - 40 * / 40 - 60	80	8.5
P3DA-60	45 / 60	80	36 - 60 * / 40 - 60	100	8.5
P1DA-75	55 / 75	99	48 - 80*	125	16.5
P1DA-100	75 / 100	135	60 - 100	160	16.5
P1DA-125	90 / 125	165	60 - 100	200	16.5
P1DA-150	110 / 150	200	90 - 150	250	16.5
P1DA-175	130 / 175	230	90 - 150	315	16.5
P1DA-200	150 / 200	260	120 - 200	315	16.5

\* Only manual reset is available

### DIMENSIONAL DETAILS



ALL DIMENSION ARE IN MM.



**ORDERING CODE**

Order for Starter should be suffixed as following to complete the specifications.

TYPE - HP - RR - CV - R

TYPE : Specify type as per selection table (U3XT / G3P3TS / G3P1TS / U3DNZT / P3DA / P1DA)

HP : Specify HP Rating

RR : Specify Maximum relay range

CV : Specify coil voltage code

A - 110 V AC Coil

B - 230 V AC Coil

C - 380 V AC Coil

D - 415 V AC Coil

E - Wide band Coil (270V to 440V) only for U3XT & U3DNZT starters

R : No code - Standard local control, R - Remote control facility

**For Illustration :**

U3XT-5-10-D-R : U3XT - DOL starter of 5 HP with relay range 6-10A having coil voltage 415V AC with remote control facility

U3DNZT-20-20-C : U3DNZT - Star delta starter of 20 HP with relay range 12-20A having coil voltage 380V AC with standard



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*In Keeping with the technological strides the world is making in the engineering field, we introduce changes in the design of our products. Hence, the products as actually supplied might have features varying herefrom.*