

THE LOADMASTER CIRCUIT BREAKER embodies both thermal overload and magnetic short circuit tripping devices. The trip-free mechanism ensures that the contacts cannot be held closed against a fault and the thermal element prevents continuous rapid reclosing of a circuit when a fault or overload persists.

Universal fixings and reversible screw clamp cable connectors make the one standardised pattern of Loadmaster equally suitable for flush or surface mounting and for the very extensive range of listed enclosures.

A choice of 17 current ratings is available, which are divided as follows:

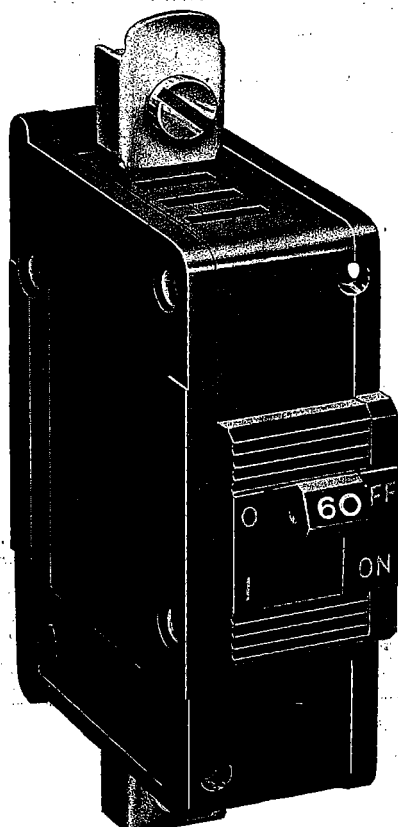
A range of twelve Loadmaster Circuit Breakers fully tested to BS.3871 category of duty M.3 will give accurate protection to all final sub-circuits S.P., S.P. & Sw.N., D.P., T.P. and T.P. & Sw.N. Multi-pole breaker phases are completely separate and a special intertripping mechanism ensures isolation of all poles in the event of an overload or short circuit in any one phase. The 5 amp. rating is available in two forms with a different breaking capacity. One consists of the basic circuit breaker which has a breaking capacity of 2,000 amps. the other is obtained by the addition of the Terminal Fault Current Limiter to either terminal of the circuit breaker which enables a breaking capacity of 3,000 amps. to be achieved. Adding the Limiter does not significantly affect the calibration.

Five ratings from 0.5 to 2.5 amps. in S.P. form only, which are a complement to the standard range detailed above, are available for the protection of any circuit in the range of currents from 0.5 amps. to 2.5 amps. but have particular application in electronic computers and laboratory circuits.

#### LOADSWITCH

The Loadswitch is a 'switch only' version of the Loadmaster designed to provide an integral 100 amp. isolator for distribution boards and domestic units. It is available in S.P. & N., D.P., T.P. and 4 pole. When installed in S.P. & N. boards, the Loadswitch occupies the space of two S.P. Loadmaster circuit breakers. Double and triple pole Loadswitches occupy two and three single pole spaces respectively.

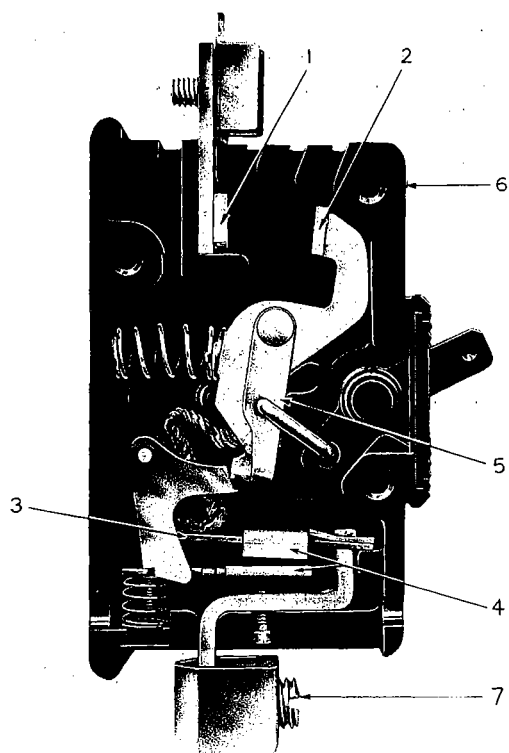
# LOADMASTER®



## MINIATURE CIRCUIT BREAKERS

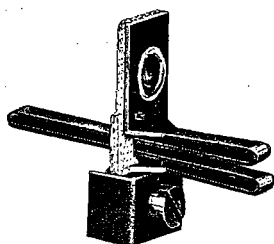
PATENT NOS. 773341, 780226, 784006, 958707  
968153, 970498, others pending.

# SPECIAL FEATURES



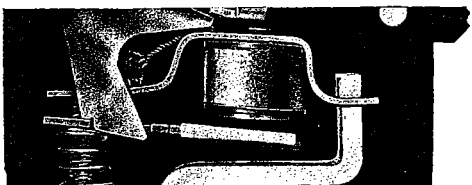
- 1 Silver Tungsten contacts for long contact life.
- 2 Wiping action keeps contacts clean.
- 3 Thermal overload tripping.
- 4 Magnetic short circuit tripping.
- 5 Quick break trip free mechanism.
- 6 Universal flush and surface fixings.
- 7 Reversible cable clamp connectors.

Fully tested and factory sealed.  
Provision for individual locking.  
Multipole units incorporate an inter-tripping mechanism ensuring complete isolation in the event of an overload or fault on any one phase.



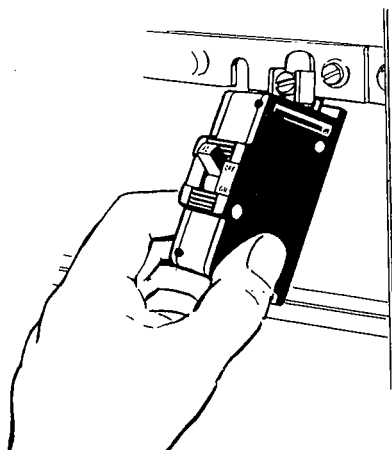
## FAULT CURRENT LIMITER

Carefully designed to enable a controlled degree of current limiting to be obtained during short circuit operation. It allows a breaking capacity of 3,000 amps. to be achieved when used with the 2,000 amp. rated 5 amp. circuit breaker.



## 0.5/2.5 AMP. LOADMASTER

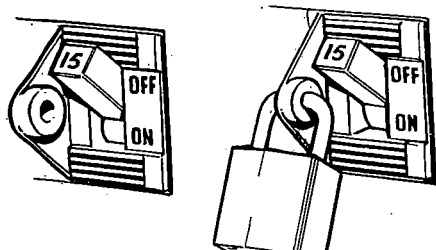
This design incorporates many of the fully proved features of the standard range of Loadmaster and the illustration shows the different overload mechanism which has been designed specifically for low current circuits.



## POSITIVE SCREW CLAMP CONNECTION AND YET REPLACEMENT IN

◀ **30 seconds**

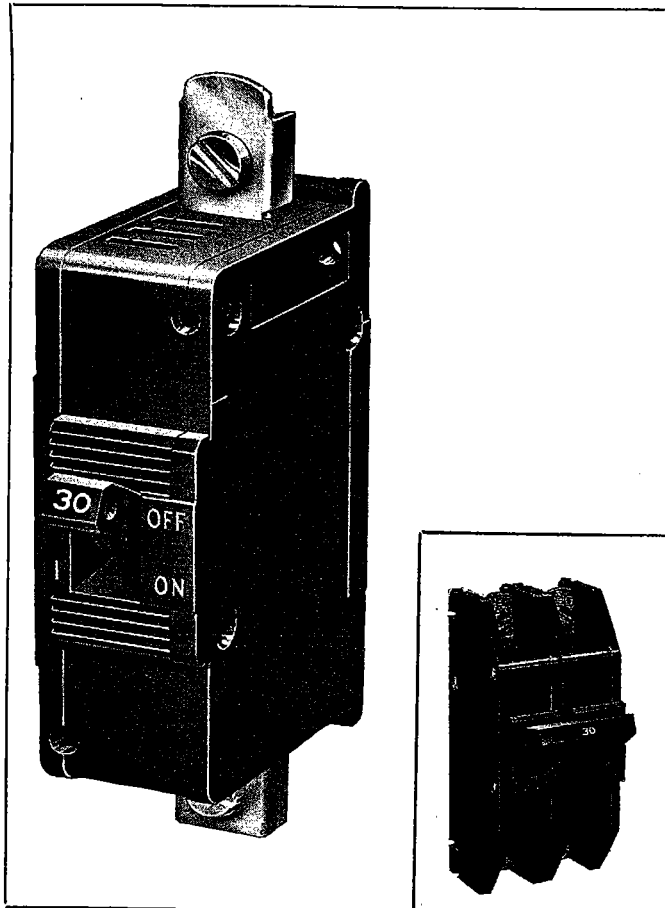
Two turns of the screw and the breaker is released. Used on all distribution units, this feature provides a positive breaker-to-busbar connection and at the same time positions and holds the breaker in place.



## INDEPENDENT DOLLY LOCKING

The bracket slots on to the breaker and a hole in the bracket enables the dolly to be padlocked in the 'ON' or 'OFF' positions. A suitable padlock can be supplied.

# SINGLE POLE and S.P. & SW.N. **LOADMASTER** TO BS.3871



## RATINGS

5, 7.5, 10, 15, 20  
25, 30, 35, 40  
50, 60 and 70 AMPS.

## PERFORMANCE

The Loadmaster Circuit Breaker has been fully tested in accordance with the test duty sequence requirements of BS.3871 Part 1. Category of Duty M3. A Dorman and Smith certificate is available, giving full details of the test results.

The 5 amp. rating is available in two forms with a different breaking capacity. One consists of the basic circuit breaker which has a breaking capacity of 2,000 amps., the other is obtained by the addition of the Terminal Fault Current Limiter which enables a breaking capacity of 3,000 amps. to be achieved. The Limiter may be attached to either terminal of the circuit breaker without significantly affecting the calibration.

The Single Pole and Switched Neutral Loadmaster takes the form of a Double Pole unit as shown in the illustrations, and dimension details are exactly as those given for the D.P. Loadmaster.

Rated Currents – 5/70 :12 steps.

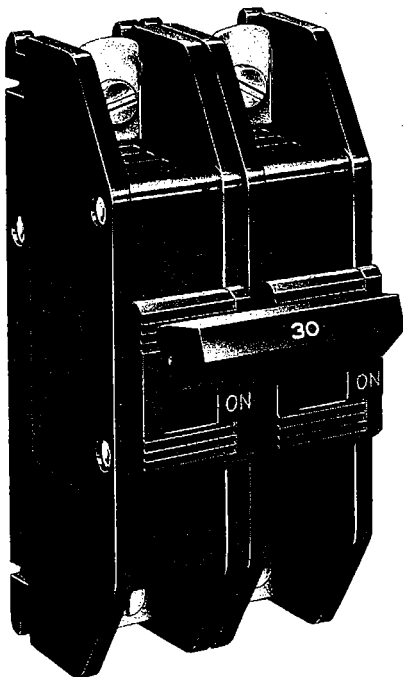
Rated Voltages – 415 volt. 3 phase A.C. 50 volt. D.C.

Breaking Capacity – M3 – 3,000 amps. A.C. at 0.75 Power Factor. (5 amp. without Limiter M2 2,000 amps. at 0.8 Power Factor) 1,000 amps. D.C. Non-inductive.

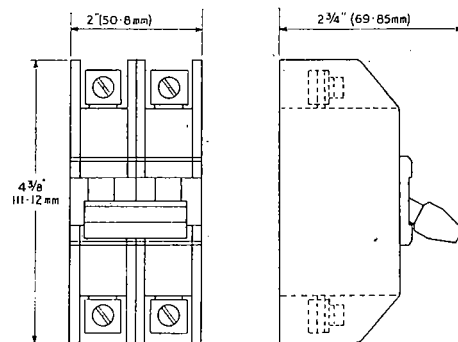
**TERMINALS:** Two types of terminal are available as follows. (1) A Busbar Washer Clamp recommended for cables up to, and including 7/·052. (2) A Shell Type Clamp recommended for cables up to, and including 19/·064.

RATINGS	CAT. NO.	RATINGS	CAT. NO.	
			S.P.	S.P. & SW.N.
0.5	LM 0.5	5	LM 5	LMN 5
0.75	LM 0.75	5 (with limiter)	LM5CL	LMN5CL
1	LM 1	7.5	LM 7.5	LMN 7.5
2	LM 2	10	LM 10	LMN 10
2.5	LM 2.5	15	LM 15	LMN 15
		20	LM 20	LMN 20
		25	LM 25	LMN 25
		30	LM 30	LMN 30
		35	LM 35	LMN 35
		40	LM 40	LMN 40
		50	LM 50	LMN 50
		60	LM 60	LMN 60
		70	LM 70	LMN 70
Approx. Wt. of breaker	4½ oz. 127.58 gms.		4½ oz. 127.58 gms.	14 oz. 396.9 gms.
Fault Current Limiter			LM LIM	

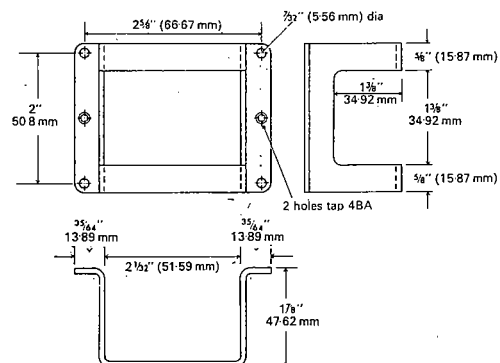
# DOUBLE POLE AND TRIPLE POLE **LOADMASTER** TO BS.3871



RATINGS: 5, 7.5, 10, 15, 20, 25, 30, 35, 40, 50, 60 and 70 AMPS.

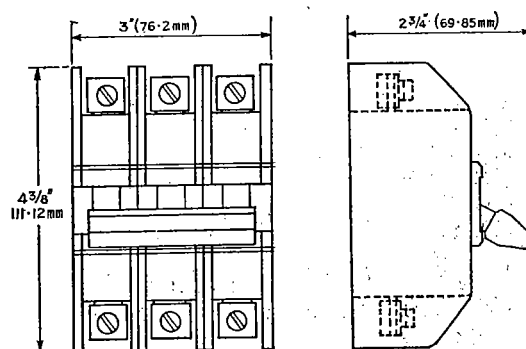
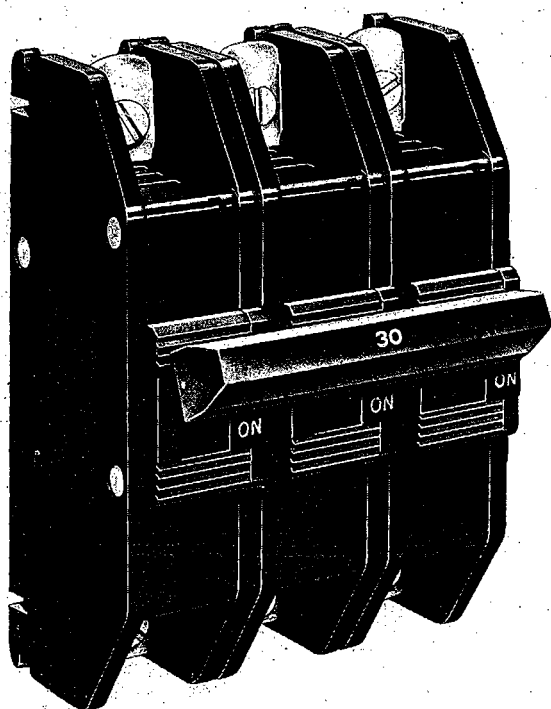


FIXING BRACKET

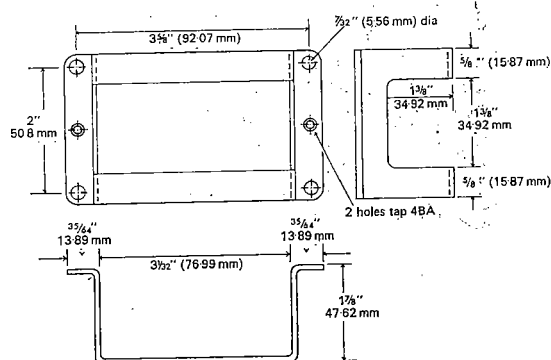


## CATALOGUE NUMBERS

RATING (AMPS.)	DOUBLE POLE	TRIPLE POLE
5	LM 2P 5	LM 3P 5
5 (with limiter)	LM 2P 5CL	LM 3P 5CL
7.5	LM 2P 7.5	LM 3P 7.5
10	LM 2P 10	LM 3P 10
15	LM 2P 15	LM 3P 15
20	LM 2P 20	LM 3P 20
25	LM 2P 25	LM 3P 25
30	LM 2P 30	LM 3P 30
35	LM 2P 35	LM 3P 35
40	LM 2P 40	LM 3P 40
50	LM 2P 50	LM 3P 50
60	LM 2P 60	LM 3P 60
70	LM 2P 70	LM 3P 70
Approx. Wt. of Breaker	14 oz. 396.9 gms.	1 lb. 5 oz. 595.35 gms.
Approx. Wt. of Bracket	2 oz. 56.7 gms.	3 oz. 85.05 gms.
Fault Current Limiter	LM LIM	



#### FIXING BRACKET



## D.P. and T.P. PERFORMANCE

The Loadmaster has been fully tested in accordance with the test duty sequence requirements of BS.3871 Part 1. Category of Duty M3.

A Dorman Smith certificate is available giving full details of the test results.

Multi-pole breaker phases are completely separate and a special intertripping mechanism ensures isolation of all poles in the event of an overload or short circuit on any one phase.

#### FIXING BRACKET

For added convenience a universal fixing bracket can be supplied upon request. This is reversible and allows the breaker to be flush or surface mounted.

**TERMINALS:** Two types of terminal are available as follows. (1) A Busbar Washer Clamp recommended for cables up to, and including 7/·052. (2) A Shell Type Clamp recommended for cables up to, and including 19/·064.

CIRCUIT BREAKER DATA	=	LOADMASTER
TYPE OF DEVICE	=	MINIATURE CIRCUIT BREAKER (MCB)
TYPE NUMBER	=	4
RATED VOLTAGE	=	415 Volts a.c.
FREQUENCY	=	50/60 Hertz
SHORT CIRCUIT CATEGORY	=	M3 (3 kA) (415 Volts)

Max Earth Fault Loop Impedance Zs (Ohms)

In (A)	Socket Outlet Circuits	Fixed Appliance Circuits
5	1.77	6.00
7.5	1.60	4.80
10	1.50	4.29
15	1.41	4.00
20	0.92	3.00
25	0.83	2.40
30	0.66	2.00
40	0.48	1.50
50	0.40	1.20
60	0.33	0.96
70	0.30	0.83

Disconnection Time/Current Data

Disconnection Time (s)	60	10	5	1	0.4	0.1	0.02
In (A)	Disconnection Currents (A)						
5	13	28	40	85	135	260	260
7.5	20	35	50	98	150	290	290
10	28	41	56	120	160	300	300
15	24	46	60	125	170	325	325
20	37	62	80	165	260	470	470
25	43	75	100	190	290	560	560
30	52	90	120	230	360	700	700
40	74	125	160	300	500	800	800
50	90	155	200	390	600	800	800
60	120	190	250	480	720	800	800
70	140	210	290	550	800	800	800

Maximum Let Through Energy

Psc (kA)	1	2	3
In (A)	I Squared t (A Squared s)		
5A - 70A	10000	40000	90000