



HMQ991LR

### Moulded Case Circuit Breaker h3+ PW1600 LSIG 4P4D 1600A 50kA FTC

#### Technical Features

##### Electric current

Rated current	1600 A
Rated ultimate short-circuit breaking capacity Icu under 230 V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity Icu under 240 V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity Icu under 400 V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity Icu under 415 V AC IEC 60947-2	50 kA
Breaking capacity on 1-pole for AC 230 V IEC 60947-2	19.2 kA
Breaking capacity on 1-pole for AC 400 V IEC 60947-2	19.2 kA

##### Architecture

Number of poles	4
Control/operation element	Toggle
Device construction type	Fixed built-in
Neutral position	Left

##### Tripping

Response time when opening	12 ms
----------------------------	-------

##### Electric current

Rated ultimate short-circuit breaking capacity Icu under 690 V AC IEC 60947-2	30 kA
Rated service breaking capacity Ics under 220 V AC according to IEC 60947-2	50 kA
Rated service breaking capacity Ics under 230 V AC according to IEC 60947-2	50 kA
Rated service breaking capacity Ics under 240 V AC according to IEC 60947-2	50 kA
Rated service breaking capacity Ics under 380 V AC according to IEC 60947-2	50 kA
Rated service breaking capacity Ics under 400 V AC according to IEC 60947-2	50 kA
Rated service breaking capacity Ics under 415 V AC according to IEC 60947-2	50 kA
Rated service breaking capacity Ics under 690 V AC according to IEC 60947-2	30 kA
Rated current 10°C according to IEC 60947	1600 A
Rated current 15°C according to IEC 60947	1600 A
Rated current 20°C according to IEC 60947	1600 A
Rated current 25°C according to IEC 60947	1600 A
Rated current 30°C according to IEC 60947	1600 A
Rated current at 35°C according to IEC 60947	1600 A
Rated current at 40°C according to IEC 60947	1600 A
Rated current 45°C according to IEC 60947	1600 A
Rated current 50°C according to IEC 60947	1590 A
Rated current 55°C according to IEC 60947	1540 A
Rated current at 60°C according to IEC 60947	1490 A
Rated current 70°C according to IEC 60947	1430 A
Rated current 65°C according to IEC 60947	1430 A

##### Frequency

Frequency	50 - 60 Hz
-----------	------------

##### Installation, mounting

Nominal tightening torque	50-50 Nm
Mounting-/Connection Position	Front

##### Voltage

Rated impulse withstand voltage Uimp	8 kV
Rated insulation voltage Ui	1000 V
Rated operational voltage Ue	220 - 690 V

##### Functions

Trip unit	Sentinel LSIG
-----------	---------------

##### Power

Total power loss under I <sub>N</sub>	129.6 W
Power loss per pole at I <sub>N</sub>	1.8 W

# Product Datasheet

## HMQ991LR

### Endurance

Electric endurance in number of cycles	4000
Number of mechanical operations	20000

### Equipment

Number of auxiliary contacts as change-over contact	0
Number of auxiliary contacts as normally closed contact	0
Number of auxiliary contacts as normally open contact	0

### Safety

Ingress Protection (IP) class	IP20
-------------------------------	------

### Use conditions

Operating temperature	-25-70 °C
Degree of pollution according to IEC 60664 / IEC 60947-2	3

### Cover, door

Interlockable	Yes
---------------	-----

### Cable

Cable material	Copper Aluminium
----------------	---------------------

### Dimensions

Height	330 mm
Depth	198 mm

### Controls and indicators

Motor drive integrated	No
------------------------	----

### Compatibility

Suitable for DIN Rail	No
Compatible with RDC AOB	No

### Power supply

Position power supply	Bidirectional
-----------------------	---------------

### Electrical protection

Long-time overload protection (ltd): delay (tr)	0.5 s
	1 s
	2 s
	4 s
	5 s
	8 s
	10 s
	15 s
	20 s
	25 s
Short-time protection (std): delay (tsd)	50 ms
	100 ms
	200 ms
	400 ms
	600 ms
Instantaneous protection (li): dial setting coefficient	1.5
	2
	3
	4
	6
	8
	10
	12
	15

### Sustainability

RoHS conform	Yes
--------------	-----