

Technical Information

IP Environmental Ratings

The IP protection ratings is characterized by 2 numbers - example of protection rating IP 43: Code Letters IP

First characteristic numeral 4			Second characteristic numeral 3		
Degrees of protection for protection against contact and foreign bodies: First characteristic numeral			Degrees of protection for protection against water: Second characteristic numeral		
First Numeral	Description	Definition	Second Numeral	Description	Definition
1	Protected against solid foreign objects with a Diameter of 2.0" (50 mm) and greater	The object probe, a sphere 2.0" (50 mm) in Diameter, must not penetrate fully ¹⁾ .	1	Protected against vertically falling water drops	Vertically falling drops shall have no harmful effects.
2	Protected against solid foreign objects with a Diameter of 0.5" (12.5 mm) and greater	The object probe, a sphere 0.5" (12.5 mm) in Diameter, must not penetrate fully ¹⁾ .	2	Protected against vertically falling water drops when the enclosure is tilted up to 15°	Vertically falling drops must not have any harmful effects when the enclosure is tilted up to 15° in both directions from the vertical.
3	Protected against solid foreign objects with a Diameter of 0.1" (2.5 mm)	The object probe, a sphere 0.1" (2.5 mm) in Diameter, must not penetrate at all ¹⁾ .	3	Protected against spraying water	Water sprayed at an angle of up to 60° on either side of the vertical must have no harmful effects.
4	Protected against solid foreign objects with a Diameter of 0.04" (1.0 mm)	The object probe, a sphere 0.04" (1.0 mm) in Diameter, must not penetrate at all ¹⁾ .	4	Protected against splashing water	Water splashed on the enclosure from every direction must not have any adverse effects.
5	Dust-protected	The ingress of dust is not fully prevented, but dust will not impair satisfactory operation of the device.	5	Protected against water jets	Water splashed on the enclosure from every direction must not have any adverse effects.
6	Dust-tight	No ingress of dust at a partial vacuum of 20 mbar inside the enclosure.	6	Protected against powerful water jets	Water splashed on the enclosure from every direction in a powerful jet must not have any adverse effects.

¹⁾ The full Diameter of the object probe must not pass through an opening of the enclosure.

²⁾ This test is not regulated by EN 60 529, but by DIN EN 40 050, part 9. Extracts from BS EN 60 259: 1991 are reproduced with the permission of BSI. Complete editions of the standards can be obtained by post from BSI Customer Services, 889 Chiswick High Road, London W4 4AL.

NEMA Ratings

The National Electrical Manufacturers Association (NEMA) is a standards organization in Washington, D.C., USA, which publishes a number of technical standards but does not test or certify products itself.

The following NEMA classification outlines the protection of individuals from unintentional contact with equipment and the protection of an enclosure from external factors. Further information on protection categories may be found on the Internet at www.rittal.ca

Enclosure Rating	NEMA National Electrical Manufacturers Association (NEMA 250)
Type 1	Enclosures are intended for indoor use primarily to provide a degree of protection against the contact with the enclosed equipment.
Type 2	Enclosures are intended for indoor use primarily to provide a degree of protection against the contact with the enclosed equipment.
Type 3	Enclosures are intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust, and damage from external ice formation.
Type 3R	Enclosures are intended for outdoor use primarily to provide a degree of protection against rain, sleet, and damage from external ice formation.
Type 4	Enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against rain, sleet, and damage from external ice formation.
Type 4X	Enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water, and damage from external ice formation.
Type 6	Enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against hose-directed water, the entry of water during occasional temporary submersion at a limited depth, and damage from external ice formation.
Type 12	Enclosures are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt and non-corrosive liquids.
Type 13	Enclosures are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt and non-corrosive liquids.

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Enclosure Internal Thermostat & Hygrosat



Hose-Proof Hoods



Speed Control



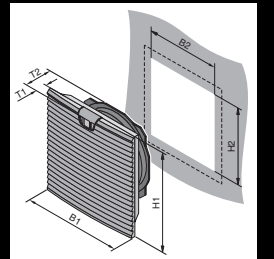
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Fan and Filter Quick Spec



B = Width
T = Depth

Air Flow m ³ /hr	Air Flow cfm	New Part No.	Old Discontinued Part No.	EMC Shielded	Voltage, Hz	Mounting Style	Exterior Dimensions mm	Cutout Dimensions mm	Install. Depth mm	Protection Category NEMA / IP	Exhaust Filter Assembly	Repl. Filter Mats (PU=5)	Fine Filter Mats (PU=5)	Hose Proof Hood N3R	Hose Proof Hood N4/4X	Blanking Cover (PU=1)	Thermostat Part No.	Hygrostat Part No.	Digital Temp. Indicator	Noise Level dB	Approvals
25	15	3237.110	3321.117	–	115V, 50/60	Side	116.5 x 116.5	92 x 92	43	N12 / IP54	3237.200	3321.700	–	3237.085	3237.080*	3237.020	3110.000	3118.000	3114.200	43	CSA, cUR, CE
25	15	3237.100	3321.107	–	230V, 50/60	Side	116.5 x 116.5	92 x 92	43	N12 / IP54	3237.200	3321.700	–	3237.085	3237.080*	3237.020	3110.000	3118.000	3114.200	43	CSA, cUR, CE
25	15	3237.610	–	EMC	115V, 50/60	Side	116.5 x 116.5	92 x 92	43	N12 / IP54	3237.060	3237.066	–	3237.085	3237.080*	–	3110.000	3118.000	3114.200	43	CSA, cUR, CE
25	15	3237.600	3321.607	EMC	230V, 50/60	Side	116.5 x 116.5	92 x 92	43	N12 / IP54	3237.060	3237.066	–	3237.085	3237.080*	–	3110.000	3118.000	3114.200	43	CSA, cUR, CE
20	12	3237.124	3321.027	–	24V DC	Side	116.5 x 116.5	92 x 92	43	N12 / IP54	3237.200	3321.700	–	3237.085	3237.080*	3237.020	3110.000	3118.000	3114.200	38	CSA, cUR, CE
66	39	3238.110	3322.117	–	115V, 50/60	Side	148.5 x 148.5	124 x 124	58.5	N12 / IP54	3238.200	3322.700	3238.055	3238.085	3238.080	3238.020	3110.000	3118.000	3114.200	49	CSA, cUR, CE
66	39	3238.100	3322.107	–	230V, 50/60	Side	148.5 x 148.5	124 x 124	58.5	N12 / IP54	3238.200	3322.700	3238.055	3238.085	3238.080	3238.020	3110.000	3118.000	3114.200	49	CSA, cUR, CE
66	39	3238.610	–	EMC	115V, 50/60	Side	148.5 x 148.5	124 x 124	58.5	N12 / IP54	3238.060	3238.066	–	3238.085	3238.080	–	3110.000	3118.000	3114.200	49	CSA, cUR, CE
66	39	3238.600	3322.607	EMC	230V, 50/60	Side	148.5 x 148.5	124 x 124	58.5	N12 / IP54	3238.060	3238.066	–	3238.085	3238.080	–	3110.000	3118.000	3114.200	49	CSA, cUR, CE
55	32	3238.124	3322.027	–	24V DC	Side	148.5 x 148.5	124 x 124	58.5	N12 / IP54	3238.200	3322.700	3238.055	3238.085	3238.080	3238.020	3110.000	3118.000	3114.200	46	CSA, cUR, CE
120	71	3239.110	3323.117	–	115V, 50/60	Side	204 x 204	177 x 177	90	N12 / IP54	3239.200	3171.100	3181.100	3239.085	3239.080	3239.020	3110.000	3118.000	3114.200	49	CSA, cUR, CE
120	71	3239.100	3323.107	–	230V, 50/60	Side	204 x 204	177 x 177	90	N12 / IP54	3239.200	3171.100	3181.100	3239.085	3239.080	3239.020	3110.000	3118.000	3114.200	49	CSA, cUR, CE
120	71	3239.610	–	EMC	115V, 50/60	Side	204 x 204	177 x 177	90	N12 / IP54	3239.060	3239.066	–	3239.085	3239.080	–	3110.000	3118.000	3114.200	49	CSA, cUR, CE
120	71	3239.600	3323.607	EMC	230V, 50/60	Side	204 x 204	177 x 177	90	N12 / IP54	3239.060	3239.066	–	3239.085	3239.080	–	3110.000	3118.000	3114.200	49	CSA, cUR, CE
105	62	3239.124	3323.027	–	24V DC	Side	204 x 204	177 x 177	90	N12 / IP54	3239.200	3171.100	3181.100	3239.085	3239.080	3239.020	3110.000	3118.000	3114.200	46	CSA, cUR, CE
160	94	3240.110	3324.117	–	115V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.200	3172.100	3182.100	3240.085	3240.080	3240.020	3110.000	3118.000	3114.200	46	CSA, cUR, CE
160	94	3240.100	3324.107	–	230V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.200	3172.100	3182.100	3240.085	3240.080	3240.020	3110.000	3118.000	3114.200	46	CSA, cUR, CE
160	94	3240.610	–	EMC	115V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.060	3240.066	–	3240.085	3240.080	–	3110.000	3118.000	3114.200	46	CSA, cUR, CE
160	94	3240.600	3324.607	EMC	230V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.060	3240.066	–	3240.085	3240.080	–	3110.000	3118.000	3114.200	46	CSA, cUR, CE
180	106	3240.124	3324.027	–	24V DC	Side	255 x 255	224 x 224	107	N12 / IP54	3240.200	3172.100	3182.100	3240.085	3240.080	3240.020	3110.000	3118.000	3114.200	51	CSA, cUR, CE
250	147	3241.110	3325.117	–	115V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.200	3172.100	3182.100	3240.085	3240.080	3240.020	3110.000	3118.000	3114.200	56	CSA, cUR, CE
250	147	3241.100	3325.107	–	230V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.200	3172.100	3182.100	3240.085	3240.080	3240.020	3110.000	3118.000	3114.200	56	CSA, cUR, CE
250	147	3241.610	–	EMC	115V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.060	3240.066	–	3240.085	3240.080	–	3110.000	3118.000	3114.200	56	CSA, cUR, CE
250	147	3241.600	3325.607	EMC	230V, 50/60	Side	255 x 255	224 x 224	107	N12 / IP54	3240.060	3240.066	–	3240.085	3240.080	–	3110.000	3118.000	3114.200	56	CSA, cUR, CE
230	135	3241.124	3325.027	–	24V DC	Side	255 x 255	224 x 224	107	N12 / IP54	3240.200	3172.100	3182.100	3240.085	3240.080	3240.020	3110.000	3118.000	3114.200	54	CSA, cUR, CE
600	353	3243.110	3326.117	–	115V, 50/60	Side	323 x 323	292 x 292	118.5	N12 / IP54	3243.200	3173.100	3183.100	3243.085	3243.080	3243.020	3110.000	3118.000	3114.200	61	CSA, cUR, CE
600	353	3243.100	3326.107	–	230V, 50/60	Side	323 x 323	292 x 292	118.5	N12 / IP54	3243.200	3173.100	3183.100	3243.085	3243.080	3243.020	3110.000	3118.000	3114.200	61	CSA, cUR, CE
600	353	3243.610	–	EMC	115V, 50/60	Side	323 x 323	292 x 292	118.5	N12 / IP54	3243.060	3243.066	–	3243.085	3243.080	–	3110.000	3118.000	3114.200	61	CSA, cUR, CE
600	353	3243.600	3326.607	EMC	230V, 50/60	Side	323 x 323	292 x 292	118.5	N12 / IP54	3243.060	3243.066	–	3243.085	3243.080	–	3110.000	3118.000	3114.200	61	CSA, cUR, CE
770	424	3244.110	3327.117	–	115V, 50/60	Side	323 x 323	292 x 292	130.5	N12 / IP54	3243.200	3173.100	3183.100	3243.085	3243.080	3243.020	3110.000	3118.000	3114.200	66	CSA, cUR, CE
770	424	3244.100	3327.107	–	230V, 50/60	Side	323 x 323	292 x 292	130.5	N12 / IP54	3243.200	3173.100	3183.100	3243.085	3243.080	3243.020	3110.000	3118.000	3114.200	66	CSA, cUR, CE
770	424	3244.610	–	EMC	115V, 50/60	Side	323 x 323	292 x 292	130.5	N12 / IP54	3243.060	3243.066	–	3243.085	3243.080	–	3110.000	3118.000	3114.200	66	CSA, cUR, CE
770	424	3244.600	3327.607	EMC	230V, 50/60	Side	323 x 323	292 x 292	130.5	N12 / IP54	3243.060	3243.066	–	3243.085	3243.080	–	3110.000	3118.000	3114.200	66	CSA, cUR, CE
770	424	3244.140	3327.147	–	400/460 3~	Side	323 x 323	292 x 292	130.5	N12 / IP54	3243.200	3173.100	3183.100	3243.085	3243.080	3243.020	3110.000	3118.000	3114.200	66	CSA, cUR, CE
360	212	3149.007	–	–	230V, 50/60	Top	420 x 340 x 50	345 x 265	44	N12 / IP44	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	53	CE
360	212	3169.007	–	–	115V, 50/60	Top	420 x 340 x 50	345 x 265	44	N12 / IP44	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	53	CSA, CE
Vent Only		3148.007	–	–	–	Top	420 x 340 x 50	345 x 265	44	N12 / IP44	As Required	3175.000	–	–	–	–	3110.000	3118.000	3114.200	0	CSA, CE
400	235	3149.410	–	–	115V, 50/60	Top	550 x 370 x 125	475 x 260	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	69	CSA, CE
400	235	3149.420	–	–	230V, 50/60	Top	550 x 370 x 125	475 x 260	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	69	CSA, CE
400	235	3149.440	–	–	400/460 3~	Top	550 x 370 x 125	475 x 260	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	69	CE
800	471	3149.810	–	–	115V, 50/60	Top	550 x 370 x 125	475 x 260	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	70	CSA, CE
800	471	3149.820	–	–	230V, 50/60	Top	550 x 370 x 125	475 x 260	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	70	CSA, CE
800	471	3149.840	–	–	400/460 3~	Top	550 x 370 x 125	475 x 260	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	70	CE
Vent Only		8801.380	–	–	–	Top	595 x 495 x 37	490 x 390	0	N12 / IP43	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	0	CSA, CE
1500	883	3164.115	–	–	115V, 50/60	Top	511 x 511 x 227	410 x 410~	0	N1	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	40	CE
1500	883	3164.230	–	–	230V, 50/60	Top	511 x 511 x 227	410 x 410~	0	N1	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	40	CE
1500	883	3164.610	–	–	115V, 50/60	Top	800 x 800 x 240	–	0	N1	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	40	CE
1500	883	3164.620	–	–	230V, 50/60	Top	800 x 800 x 240	–	0	N1	As Required	–	–	–	–	–	3110.000	3118.000	3114.200	40	CE
EC (Electronically Commutated) Fans and Filters																					
55	32	3238.500	–	–	230V, 50/60	Side	148.5 x 148.5	124 x 124	58.5	N12 / IP54	3238.200	3322.700	3238.055	3238.085	3238.080	3238.020	3110.000	3118.000	3114.200	49	Pending
105	62	3239.500	–	–	230V, 50/60	Side	204 x 204	177 x 177	86	N12 / IP54	3239.200	3171.100	3181.100	3239.085	3239.080	3239.020	3110.000	3118.000	3114.200	53	Pending
180	106	3240.500	–	–	230V, 50/60	Side	255 x 255														